

Network Administration Library Services Maintenance Guide

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The content of this book is based on the Services 11.0 Release.

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Purpose The *Services Maintenance Guide* describes all that you need to know to maintain your network services. This book explains all the service maintenance commands and shows how these commands are used to perform service-related tasks.

Intended audience This publication is intended for System Administrators who are responsible for maintaining their network services.

Before you read this book Read the *Guide to System Administration Activities* for an understanding of your duties as System Administrator and the background information about your services and the maintenance procedures.

The *Services Maintenance Guide* contains step-by-step procedures for all maintenance operations you may need to perform for the services running on your Xerox network.

Services maintenance

After you install your services and set them up, you perform certain maintenance procedures regularly or from time to time. These procedures include:

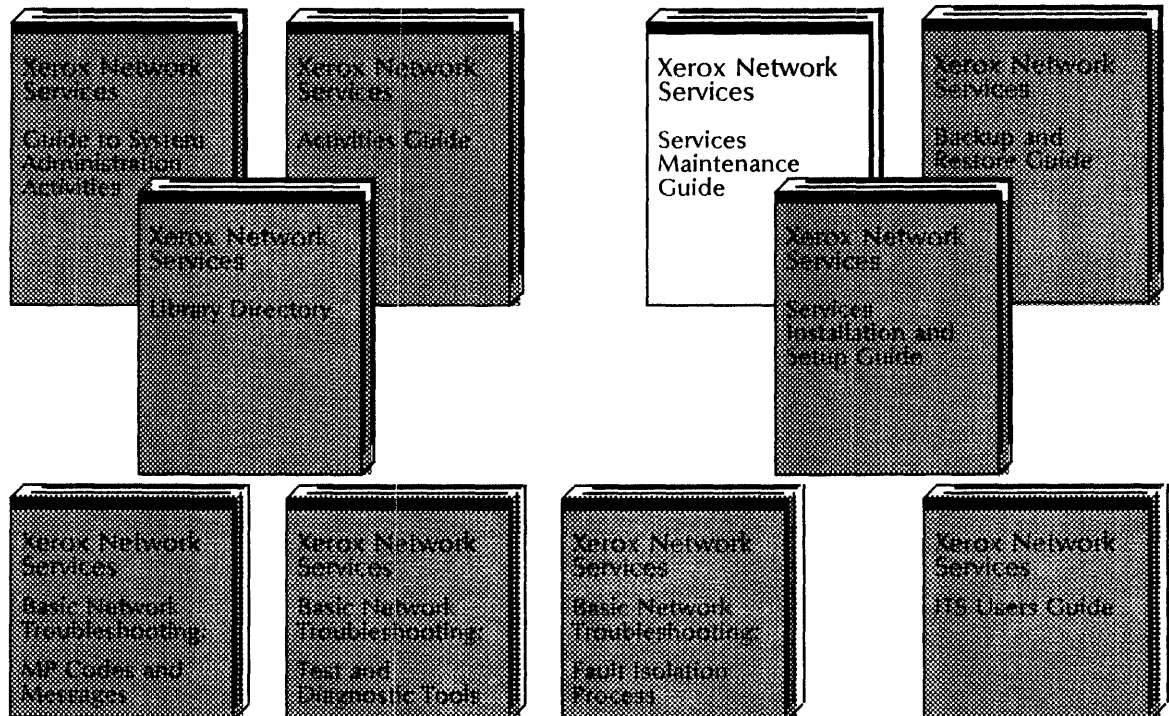
- Gathering and interpreting statistics for your services
- Renaming your services
- Deleting (expunging) services
- Updating the configuration information for your services as your network grows and changes

For a discussion of the planning and other considerations that precede maintenance of each service, see the *Guide to System Administration Activities*.

Network Administration Library organization

The *Services Maintenance Guide* is one of the books that make up the Network Administration Library (Figure 1-1).

Figure 1-1. Network Administration Library organization



The *Guide to System Administration Activities* contains background and task-related information for daily network operations. Store completed worksheets, activity logs, and other server or service-related information in the *Activities Guide*.

The *Services Installation and Setup Guide*, *Services Maintenance Guide*, *Backup and Restore Guide*, and *Basic Network Troubleshooting* contain step-by-step procedures for your duties as System Administrator.

How to use this book

Each chapter in this book covers the step-by-step maintenance procedures for a particular service.

Contents

Each chapter is organized for ease of use. Before you begin to use the procedures in this book, familiarize yourself with the contents of a typical service chapter.

Prerequisites

The "Prerequisites" section lists anything you may need--equipment, software, or completed worksheets--before you can perform the maintenance procedures in the chapter.

Commands

The “Commands” section lists all the commands you may need to use to maintain the service. An illustration shows you at a glance which commands are available to you when you are logged off, logged on, or enabled, and when the service is stopped or started. The command descriptions also identify the procedures that use each command.

Procedures

The “Procedures” section begins with a list of the procedures described in the section, along with the purpose of each. The individual procedures in this section have these components:

- An overview of the purpose of the procedure, which may include a flowchart of the major steps.
- A list of specific prerequisites you need before beginning the procedure, when applicable.
- The step-by-step procedure, with screen prompts and graphic aids where needed.
- A wrap-up summarizing what you have just accomplished and recommending administrative tasks you should perform to keep your records up-to-date. The wrap-up refers you to required procedures in other services, when applicable.
- An example screen showing a hypothetical application of the procedure.

Documentation conventions

The books in the Network Administration Library use these conventions to help you recognize information.



This symbol means “press RETURN.” When you see it after a procedural step, press the RETURN key on the terminal keyboard.

BREAK

Words appearing in all capital letters represent the keys or switches on your equipment.

< service name >

Words appearing in angled brackets represent system-supplied information.



WARNING: Warnings appear immediately before any action that may cause physical harm to you or your equipment. Make sure you understand the warning before you perform the action.



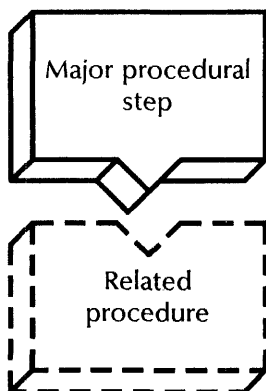
CAUTION: Cautions appear immediately before any action that may destroy the data stored on your network. Make sure you understand the potential impact of the action before you perform it.



Notes are helpful hints that help you perform a task or understand the text.



This symbol means that you can perform the procedure from a workstation using Remote System Administration (RSA). If you need to record any information while performing the procedure, you can use the RSA Make Document (or Make Screen) feature.



This symbol represents a major step in a procedure. Flowchart boxes outlined with a solid rule represent major steps in the current procedure.

Flowchart boxes outlined with a dashed rule represent other procedures you need to perform before or after the current procedure.

The flowcharts are not a substitute for the step-by-step instructions. The flowcharts do not include details that may be crucial to the success of a procedure.

Logging on and enabling in a service context

Many procedures require you to have logged-on and enabled status, be in the context of the service, or both. To perform these procedures, you must know how to use the server commands **Logon** and **Enable**, and how to enter the context of a service. The **Logon** and **Enable** commands are common to all services.

See the *Guide to System Administration Activities* in the Services System Software chapter for more information about commands and contexts.

Logged-on and enabled status

	Your status determines which commands you can use.
Any user	A user who has not logged on.
Logged-on user	A user who has issued the Logon command and has been successfully authenticated as a member of any Clearinghouse domain.
Enabled user	A logged-on user who has successfully issued the Enable command as a result of having administrative access to the server's domain.

Service context

- You must be in the context of a particular service to use the commands.
- You do not need to be logged on or enabled to type in and enter the context of a service.

Step-by-step

1. Type **Logon** \leftarrow .

User name:

2. Type your registered name at the "User name" prompt \leftarrow .

Password:

3. Type your registered password at the "Password" prompt \leftarrow .

>

You are now logged on.

4. Type **Enable** if you need and have permission to access a System Administration command \leftarrow .

!

You are now logged on and enabled.

5. Type the service name \leftarrow .

You are now logged on and enabled in the context of the service. You can use any of the service commands.

Example

The following example shows what you see when you log on and enable in the Interactive Terminal Service context. Note that when you type your password, asterisks are displayed to protect your password. Note also that when you enter **Enable**, the prompt changes from > to ! to show that you are enabled.

```
> Logon
   User name: Ginny Martin
   Password: *****
> Enable
! Interactive Terminal Service
ITS!
```

Using Remote System Administration

To use Remote System Administration, follow the steps below.

Prerequisites

- If you will be using RSA from a remote personal computer, ensure that the Asynchronous Communication Protocol software is loaded and running in the loader icon.
- Ensure that the Remote System Administration software is loaded and running in the loader icon.
- Ensure that a port icon and a TTY icon are on your desktop.
- Ensure that the Remote Executive option in your server profile is greater than zero. See the "Changing the server profile" section in the *Services System Software* chapter of the *Guide to System Administration Activities* for information about the server profile.

Step-by-step

1. Copy the Network Management Terminal Emulator TTY icon to your desktop.
2. Open the Network Management Terminal Emulator TTY icon, and then the port icon.
3. Copy the port icon representing the server you want to your desktop.
4. Open the port icon.
5. Select [Start] on the TTY options sheet to begin communication with the server and open a remote administration (emulation) window.
6. Select a location inside the window and begin your session.
7. Perform the System Administration functions just as you would at the server.
8. If the VP Document Editor is running, you can make a copy of all or some of your session. Select [Make Document] or [Make Screen] from the emulation window.



If you use the Make Screen feature, you capture only what is displayed on the screen.

9. When the session is complete, log off the server.
10. Type **Quit** and press RETURN.
11. Select [Close] from the emulation window header.

References

For complete information on Remote System Administration, see the Workstation Administration chapter in the *Workstation Administration and System Resources* volume of the VP Series Reference and Procedures Library.

For information about loading workstation applications software, see the *ViewPoint* volume of the VP Series Reference and Procedures Library.

For information about TTY emulation, see the VP Terminal Emulations chapter in the *Host Interfaces* volume of the VP Series Reference and Procedures Library.

2. Services System Software

This chapter contains the procedures you perform to maintain the Services System Software. These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Services System Software maintenance procedures:

- Installed all required software as described in the Services System Software chapter of the *Services Installation and Setup Guide*.
- Perform all setup procedures as described in the Services System Software chapter of the *Services Installation and Setup Guide*.

Commands

This section lists the Services System Software commands. These commands are available for all services. They are used in conjunction with specific service commands to maintain that service.

Table 2-1 shows all Services System Software commands, along with the logged on status and the server state (started or stopped) for accessing them.

Table 2-1. **Services System Software commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Activate Service					•	•
Change Profile					•	•
Change Volume					•	•
Close Volume					•	•
Create Volume					•	•
Deactivate Service					•	•
Delete Files					•	•
Delete Remote Files					•	•
Disable					•	•
Enable			•	•		
Expunge Service					•	•
Install Service					•	•
List All RS232C Ports			•	•	•	•
List Executives	•	•	•	•	•	•
List Files					•	•
List Remote Files					•	•
List Services	•	•	•	•	•	•
List Software Options					•	•
List Volumes	•	•	•	•	•	•
Logon	•	•				
Logoff			•	•	•	•
Offline Volume (FS)					•	•
Online Volume (FS)					•	•
Open Volume (FS)					•	•
Proceed (Genesis)						
Quit Connection (remote)			•	•	•	•
Register Server					•	•

Table 2-1. Services System Software commands continued

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Reset Context	•	•	•	•	•	•
Retrieve Files					•	•
Run Files					•	•
Run Service					•	
Set Remote Directory					•	•
Set Software Options					•	•
Show Files					•	•
Show Logged On User	•	•	•	•	•	•
Show Profile					•	•
Show Time	•	•	•	•	•	•
Start Service						•
Store Files					•	•
Stop Service					•	

Activate Service Available to the enabled user at the third interrupt point and after initialization is complete. Adds a service to the active service list. Run the service. The next time you boot the server, the service is run automatically.

The system prompts you to select from a list of the services that are not currently activated. You can activate more than one service at a time.

Related procedure: Activating or deactivating services

Change Profile Available to the enabled user at the second and third interrupt points and after initialization is complete. Allows you to change your server name, description, number of remote executives, or service-specific values. Boot the server for the changes to take effect.

Related procedure: Changing the server profile

Change Volume Available to the enabled user. Changes the name of an existing volume. The volume you want to change must be open. If the volume is registered as a File Service, the volume must be offline. After you use the command, you may bring the volume back online.

Related procedure: Changing the volume name

- Close Volume** Available to the enabled user on multiple-drive servers with auxiliary volumes. Terminates all system use of an open volume. Allows the pack on which the volume is located to be spun down or removed. Closing the volume makes it unavailable to local access, such as the server executive. Use this command before using the **Copy Volume** command or before removing a disk pack from a drive. You cannot use this command on a primary volume.
- Related procedure:** Replacing a disk pack
- Create Volume** Available to the enabled user on multiple-drive servers. Initializes a new services volume. The volume must be available, but not open, on the drive you specify. The system erases all information on the volume. This command is also available at the first interrupt point for creating a new primary volume.
- The system prompts for a fully qualified name, which is registered with the Clearinghouse Service when the volume is brought online.
- Related procedure:** Creating a services volume on a secondary drive
- Deactivate Service** Available to the enabled user at the third interrupt point and after initialization is complete. Stops a service from being run automatically when the server is booted and run normally.
- Related procedure:** Activating or deactivating services
- Delete Remote Files** Available to the enabled user. Deletes the files in the remote directory. You must set the remote directory first. The system prompts for the file list. The server defaults to the wildcard symbol (*).
- Related procedure:** Working with remote files
- Disable** Available to the enabled user. Disables any exceptional privileges you enable with the **Enable** command and restores the prompt character (>). This command is useful for server security. See the *Guide to System Administration Activities* for information about disabled status.
- Related procedure:** Logging on and logging off
- Enable** Available to the logged-on user. Enables any exceptional privileges associated with the logged-on user, if the user's access privileges specify the user as a System Administrator, the server administration privileges are enabled. The user's commands do not succeed unless the user qualifies as a Domain Administrator for the server being addressed. To indicate that the logged-on user is enabled, the Executive prompt character (>) changes to an exclamation point (!).
- Related procedure:** Logging on and logging off
- Expunge Service** Available to the enabled user at the third interrupt point. Permanently removes from a server the service you specify. The system deletes all server profile entries for that service, and cancels its registration with the Clearinghouse Service.
- Related procedures:** Expunging a service, Moving a service to another server

- Install Service** Available to the enabled user. Copies the files the system needs to run a service from an external source (floppy disk, cartridge tape) to the local rigid disk.
- Related procedures:** Installing additional services, Moving a service to another server
- List All RS232C Ports** Available to the logged-on user. Displays configuration information for all RS232C ports configured on your server.
- Related procedures:** Listing all RS232C port information, Moving a service to another server
- List Executives** Available to any user. Lists the following information about each Executive currently in use on the server: the name and System Administrator status (System Administrator, non-System Administrator) of the user logged on to the Executive, the host address, the time the Executive was created (server boot time), and the last activity that occurred on the Executive.
- Related procedure:** Listing executives
- List Files** Available to the enabled user. Displays the name and creation date of each file in the working directory. The system prompts for the file list. The server defaults to the wildcard symbol (*).
- Related procedure:** Listing files
- List Remote Files** Available to the enabled user. You must set the remote directory first. Displays the name and creation date of each file in the remote directory. The system prompts for the file list. The server defaults to the wildcard symbol (*).
- Related procedure:** Working with remote files
- List Services** Available to any user. Lets you list the services currently installed on the server. Also displays the software version running, the network number, the processor number, the server name, and the currently activated and started services.
- Related procedure:** Listing services
- List Software Options** Available to the enabled user. Displays the software options enabled on the server. Also lists the three Software Serial Numbers for the Services groups and printer fonts, the date when the software was locked, and the processor number. Options that depend on another option being set are indented under that option.
- Related procedures:** Installing additional services, Moving a service to another server
- List Volumes** Available to any user when at least one volume is open. Displays the volume status (open, closed, online), name, drive and number. For open and online volumes, this command also displays the number of used and available pages, and the percent of the volume used.
- Related procedure:** Monitoring your services volume

- Logoff** Available to the logged-on user. Removes command access you obtain with the **Logon** command. System Administrators should always log off after a session so that their administrative privileges are not available to other users.
- Related procedure:** Logging on and logging off
- Logon** Available to the logged-off user. Identifies and authenticates users. If you are registered in a currently accessible Clearinghouse domain, and if your password matches the one registered with your name in that Clearinghouse database, the log-on succeeds. Once logged on, you have access to several commands that are not available when you are logged off.
- Related procedure:** Logging on and logging off
- Offline Volume** Available to the enabled user when the File Service is started or stopped. This File Service command makes an online volume inaccessible to remote clients.
- Related procedures:** Changing the volume name, Replacing a disk pack
- Online Volume** Available to the enabled user when the File Service is started or stopped. This File Service command makes a volume accessible to remote clients. The system displays a list of open volumes, from which the System Administrator chooses one. If the desktop validation is set to true, the system examines the desktop directory each time the service is brought online.
- Related procedures:** Changing the volume name, Creating a services volume on a secondary drive, Replacing a disk pack
- Open Volume** Available to the enabled user when at least one secondary drive is present. Opens a volume, making it available for local access. Use the command only for a drive where the volume is not already open or in use.
- Related procedure:** Replacing a disk pack
- Proceed** Available at all initialization interrupt points. Leaves an interrupt point and continues server initialization. The system runs all activated services during server initialization. You can select one or more interrupt points (once the server is booted) and select a non-normal startup. If you select multiple interrupts, server initialization proceeds to the next interrupt point you selected. If there are no interrupt points remaining, the system completes server initialization.
- Related procedures:** Expunging a service, Installing additional services, Moving a service to another server, Running a service manually
- Quit Connection** Available to the logged-on user connected to the remote Executive. Terminates the connection with the Executive and performs a log-off, if necessary. If you are dialing in through an External Communication Service port, the command returns you to the Greeter. See the *Guide to System Administration Activities* for information about Remote System Administration.
- Related procedure:** Logging on and logging off

- Register Server** Available to the enabled user. Updates or verifies the Clearinghouse entry for the server. Because the server performs these operations automatically, use this command only when you suspect that registration or verification did not succeed. The system prompts you to alter the server name or description if it finds a conflict.
- Related procedure:** Registering a server
- Reset Context** Available to any user when more than one context is available, and the user is in a service context. Resets the context to the server context. For example, type **Reset Context** when you are in the Mail Service context (MS>) to get back to the server prompt (>).
- Related procedure:** Resetting the server context
- Retrieve Files** Available to the enabled user. You must first set the remote directory. Copies files from the remote directory to the working directory.
- Related procedure:** Working with remote files
- Run Service** Available to the enabled user. Runs the software files for a service not currently running, bringing the service to a fully-operational state. This command is useful when you want to invoke a non-normal service startup to access a service's non-normal options, or to configure a service before you run other coresident services.
- Related procedures:** Installing additional services, Moving a service to another server, Powering a server down or up, Running a service manually
- Set Remote Directory** Available to the enabled user. Sets the directory to a remote one you specify that is on a coresident or remote File Service. Use this command before listing, deleting, retrieving, or storing remote working directory files.
- Related procedure:** Working with remote files
- Set Software Options** Available to the enabled user. Allows you to set or reset software options for a particular machine. If you use this command before the server proceeds from the third interrupt point, the system applies the options to the current boot. If you use the command after the third interrupt point, the system applies it only after a subsequent boot.
- Related procedures:** Installing additional services, Moving a service to another server
- Show Files** Available to the enabled user. Displays the names and contents of all files in the working directory. The system prompts you for a file list. The server defaults to the wildcard symbol (*).
- Show Logged On User** Available to any user. Displays the name of the currently logged-on user and indicates whether or not the user is a System Administrator.
- Related procedure:** Showing a logged-on user

- Show Profile** Available to the enabled user after initialization is complete, and at the second and third interrupt points. Select the server section of the profile, or a profile for a service. The server section shows the current server version and network numbers, the server name and description, the currently active services, the number of remote executives, and the local and remote terminal types.
- Related procedure:** Showing the server profile
- Show Time** Available to any user. Displays the current time and date.
- Start Service** Available to the enabled user when the service is stopped. Cancels the effects of a **Stop Service** command or explicitly starts a service after a service-specific failure.
- Related procedure:** Starting and stopping services
- Stop Service** Available to the enabled user when the service is started. Stops the currently loaded and started services you select. This command reverses the effects of a **Start** command to enable you to change certain parameters. The service continues to run, but does not respond to external requests for service.
- Related procedures:** Booting the server, Installing additional services, Expunging a service, Moving a service to another server, Powering the server down or up, Running a service manually, Starting and stopping services
- Store Files** Available to the enabled user. You must first set the remote directory. Copies files from the working directory to the remote directory.
- Related procedure:** Working with remote files

Procedures

This section contains these procedures for maintaining the Services System Software:

Activating or deactivating services

Use this procedure to add a service or remove a service from the Active Services list. The system does not automatically run a deactivated service after server initialization.

Booting the server

Use this procedure to boot the server and select a normal or non-normal startup.

Changing the server profile

Use this procedure to change your server name, description, network number, or other service-specific values.

Changing the volume name

Use this procedure to change the name of an open volume.

Creating a services volume on a secondary drive

Use this procedure to create a new volume on a multiple-drive server.

Expunging a service

Use this procedure to remove a service from a server.

Installing additional services

Use this procedure to install new services on your server.

Listing executives

Use this procedure to display information associated with the Executives, such as the host address and the last activity.

Listing files

Use this procedure to display a list of files in the working directory.

Listing all RS232C port information

Use this procedure to display port statistics for your server.

Listing services

Use this procedure to display a list of the services on your server.

Logging off and logging on

Use this procedure to log on and off the server or a remote Executive.

Moving a service to another server

Use this procedure to move a service between servers.

Powering the server up or down

Use this procedure to turn your server on or off.

Registering a server

Use this procedure to update or check the Clearinghouse entry for your server.

Replacing a disk pack

Use this procedure to replace a disk pack on a multiple-drive server.

Resetting the server context

Use this procedure to reset the server context to the Services System Software.

Running a service manually

Use this procedure to run a service in a situation other than a normal startup.

Setting time

Use this procedure to set the server time to current time.

Showing a logged-on user

Use this procedure to display the name and status of the users logged-on to a server.

Showing the server profile

Use this procedure to display the server name, description, active services, and other information in the server profile.

Starting and stopping services

Use this procedure to start or stop a service running on your server.

Working with remote files

Use this procedure to list, delete, store, and retrieve files on a remote File Service.

Activating and deactivating services

Use this procedure to add a service to or remove a service from the Active Services list. Deactivated services do not run automatically after server initialization.

If you use either of these commands before the server has proceeded from the third interrupt point, the system applies the changes to the current boot. If you use the commands after the server has completed initialization, the system applies the changes after a subsequent boot.

Perform this procedure after a non-normal startup using the third interrupt point or after initialization is complete. You can also use the **Run Service** command to run a deactivated service after initialization completes. Do not use the **Run Service** command to run the Print Service.



CAUTION: If you deactivate your Clearinghouse Service or Mail Service and then reboot, do not leave either service stopped for an extended period of time.

Prerequisites

- Use the **List Services** command to see which services are installed on the server, which services are active, and which are deactivated.
- If you are deactivating a service, notify users.

Step-by-step

1. Log on and enable.
2. Type **Activate Service** or **Deactivate Service** .

```
Select choices
1 <Service name >
2 <Service name >
Enter one or more choices:
```

3. Type the number for the service(s) that you want to activate or deactivate (example **1-3**, or **1,3**) .

```
<Service name > <activated/deactivated > .
!
```

4. Log off.

Wrap-up

When you see the "!" prompt, you have successfully activated or deactivated the service.

Example

This example shows the Mail Service and the External Communication Service being deactivated.

!Deactivate Service

Select choices

- 1 Mail Service
- 2 External Communication Service
- 3 Interactive Terminal Service

Enter one or more choices: **1-2**

Mail Service deactivated.

External Communication Service deactivated.

!

This example shows the Mail Service and the Clearinghouse Service being activated.

!Activate Service

Select choices

- 1 Mail Service
- 2 Clearinghouse Service
- 3 File Service

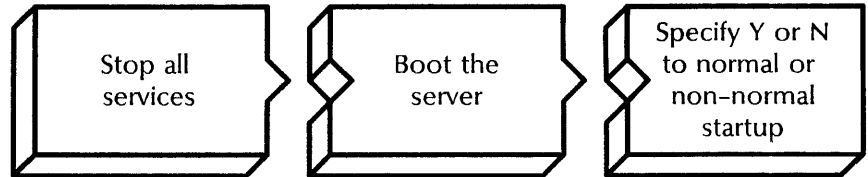
Enter one or more choices: **1-2**

Mail Service activated.

Clearinghouse Service activated.

!

Booting the server

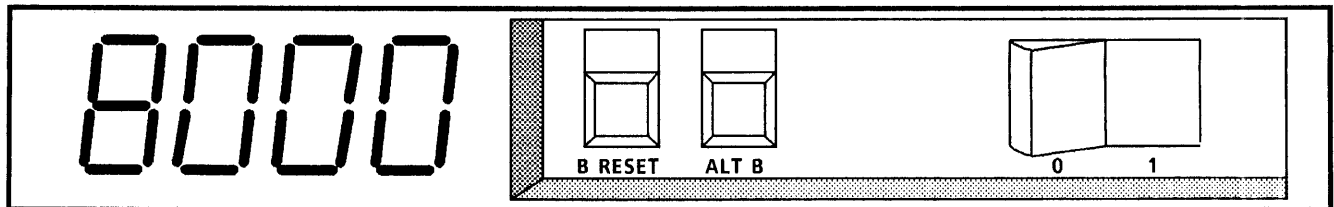


Use this procedure to boot the server. You boot the server from a floppy disk or cartridge tape when you need to run a utility program not located on your server's primary volume.

Booting from the primary volume runs the Services System Software and prompts you to select a normal or non-normal startup of your server. Non-normal server startup lets you access commands that affect your server's configuration.

Figure 2-1 shows the 8000 server maintenance panel that displays the numbers that determine when you release the boot buttons. The maintenance panel for the 8090 server is slightly different.

Figure 2-1. 8000 maintenance panel



Step-by-step

1. Log on and enable.
2. Type **Stop Service**

```

Select choices:
1 <Service name>
2 <Service name>
Enter one or more choices:
  
```

3. Type the numbers for all services (for example 1-2, or 1,2) .

```
<Service name>: Stop immediately? (Y/N):
```

4. Type **Y** or **N** at each "Stop immediately" prompt .
 - Y** Stops the service immediately; all service functions are unavailable to the network.
 - N** Stops the service after all current activity has been terminated.

```
Stopping <Service name> .
<Service name> is stopped.
!
```

NOTE

You can use the **List Services** command to make sure that all the services are stopped before you continue with step 5.

5. Boot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate B (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. Still pressing the Alternate B (ALT B) button, watch the numbers on the maintenance panel.
 - If you are booting from the primary drive (rigid disk number 1), release the Alternate B (ALT B) button when the maintenance panel displays 0001.
 - If you are booting from a floppy disk or cartridge tape, release the Alternate B (ALT B) button when the maintenance panel displays 0002.
 - If you are booting from a diagnostic floppy disk or cartridge tape, release the Alternate B (ALT B) button when the maintenance panel displays 0005.

NOTE

See the "Boot switches section in the *Guide to System Administration Activities* for more information.

```
Normal startup? (Y/N):
```

6. If you are booting from the rigid disk, type **Y** or **N** at the "Normal startup" prompt \Leftarrow .
 - Y** Normally starts and runs each service on the server.
 - N** Starts the services, but requires user interaction for the non-normal startup options for each service on the server. See "Running a service manually" later in this chapter.

```
< startup messages >
>
```

Wrap-up

When you see the ">" prompt, you have successfully booted your server.

Example

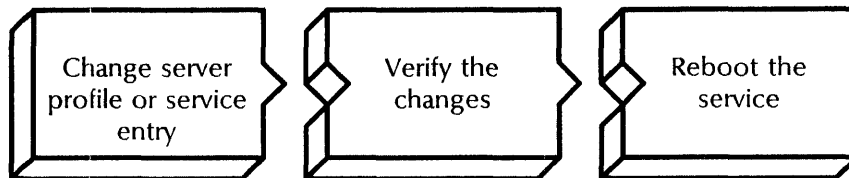
This example shows a Clearinghouse Service being stopped before booting the server.

```
!Stop Service
Select choices
1 Clearinghouse Service
Enter one or more choices: 1
CHS: Stop immediately? (Y/N): Y
Stopping the Clearinghouse Service.
Clearinghouse Service functions are now unavailable to the
network.
!
```

After you boot the server, you choose a normal or non-normal startup. The following example shows a normal startup for a server with a Mail Service. For an example of a non-normal startup, see "Running a service manually" later in this chapter

```
Normal startup? (Y/N): Y
Opening volume...done
Server is attached to network number 0-105
Server Name: RumRunner:OurDomain:OurOrg
Server Description: MS server
Validating server registration...Server entry validated
Running Mail Service.
Opening Mail Service database.
Mail Service name is SlyCat:OurDomain:OurOrg
  Validating Clearinghouse entry for: SlyCat:OurDomain:
  OurOrg
  Done
Mail Service started.
Mail Service run.
>
```

Changing the server profile



Use this procedure to change your server name, description, number of remote Executives, or service-specific values.

You can perform this procedure after anon-normal startup using the second or third interrupt point (“Interrupt before processing profile” or “Interrupt before running services”). The new values are applied when the server is initialized. If you perform this procedure after initialization, the new values do not take effect until the next time you boot the server.



CAUTION: Changing the domain name of the server affects your ability to gain access to the System Administrator commands at that server. Do not change the domain name of the server until you have created a Clearinghouse domain that matches the new domain name and have given yourself domain administration privileges for it. Otherwise, you will be unable to log on and enable at the server with the new domain name.

Changing the profile follows the above general steps.



The services section of the profile display services profile values. These values are filled in automatically by the services software during initialization. There is no particular advantage to be gained by changing them manually.

Step-by-step

1. Log on and enable.
2. Type **Change Profile** \Leftarrow .

Section to be changed

1 Server

2 <service name>

Enter choice number:

3. Type the number for the service or the server you want to change \Leftarrow .

Entry to be changed

1 <entry>

2 <entry>

Enter choice number:

4. Type the number for the entry you want to change \Leftarrow .

<Entry value>

5. Type the entry \leftarrow .
6. Press RETURN again to display the list of services and servers.

Section to be changed

1 Server
2 <service name >
Enter choice number:

7. Respond to the "Enter choice number" prompt:
 - Type the number for the service you want to change and press RETURN. Repeat steps 4 and 5.
 - Press RETURN to exit from the command if you have no other options to change. Skip to step 8.
 - Type the number for the "Server" option and press RETURN. Repeat steps 4 and 5.
8. Type **Show Profile** \leftarrow .

Section to be shown

1 <Service name >
2 Server
Enter choice number:

9. Verify that you have entered the new values correctly.
10. Reboot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate B (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate B (ALT B) button.

Normal startup? (Y/N):

11. Type **Y** at the "Normal Startup" prompt \leftarrow .
 - Y** Normally starts and runs each service on the server.
 - N** Starts the services, but requires user interaction for the non-normal startup options for each service on the server. See "Running a service manually" later in this chapter.

< Startup messages >
>

Wrap-up

When you see the ">" prompt, you have successfully changed the profile.

Example

This example shows changing to three the number of remote Executives in the server portion of the server profile.

```
!Change Profile
Section to be changed
1 Clearinghouse Service
2 Server
Enter choice number: 2
Entry to be changed
1 Server Version
2 Network Number
3 Server Name
4 Server Description
5 Active Service
6 Number of Remote Execs
7 Local Terminal Type
8 Remote Terminal Type
Enter choice number: 6
Number of Remote Execs: 3
Entry to be changed
1 Server Version
2 Network Number
3 Server Name
4 Server Description
5 Active Service
6 Number of Remote Execs
7 Local Terminal Type
8 Remote Terminal Type
Enter choice number:
Section to be changed
1 Clearinghouse Service
2 Server
Enter choice number:
!
```

This example shows the **Show Profile** command used to check the profile changes that were made.

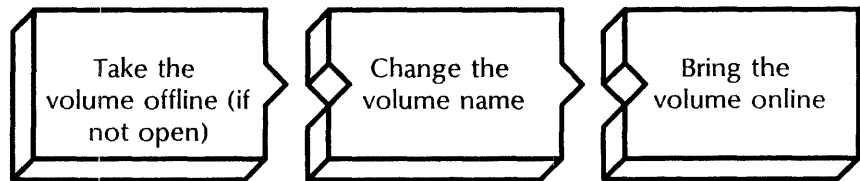
```
!Show Profile
Section to be shown
1 Clearinghouse Service
2 Server
Enter choice number: 2
[Server]
Server Version: 100
Network Number: 8-056
Server Name: Cancun:Los Angeles:GemSysCo
Server Description: CHS/ECS/ITS/MS-40mb
Active Service: Clearinghouse Service
Active Service: Mail Service
Active Service: External Communication Service
Number of Remote Execs: 3
Local Terminal Type: ASCII
Remote Terminal Type: ASCII

Section to be shown
1 Clearinghouse Service
2 Server
Enter choice number:
!
```

This example shows changing the File Service section of the server profile.

```
!Change Profile
Section to be changed
1 Clearinghouse Service
2 File Service
3 Server
Enter choice number: 2
Entry to be changed
1 Validate Desktops
Enter choice number: 1
Validate desktops
1 TRUE
2 FALSE
Enter choice number: 2
!
```

Changing the volume name



Use this procedure to change the name of an online existing volume.



Do not use these characters in the File Service volume name: comma, left and right parentheses, asterisk, and pound sign (#).

Step-by-step

1. Log on and enable.
2. If the volume is not open, type **Offline Volume** ↵.
If the volume is open, **skip to step 4.**

```

Select Volume
1 <volume name >
2 <volume name >
3 <volume name >
Enter choice number:
  
```

3. Type the number for the volume you are taking offline ↵.

```

Done
!
  
```

4. Type **Change Volume** ↵.
 - If you have a single-drive server, **skip to step 6.**
 - If you have a multiple-drive server, **continue with step 5.**

```

Select Volume
1 <volume name >
Enter choice number:
  
```

5. Type the number for the volume whose name you are changing ↵.

```

Name: <volume name >
  
```

6. Type the new fully qualified volume name ↵.

```

Done
!
  
```

7. Type **Online Volume** to bring the File Service up with the new name \leftarrow .

```
Select Volume
1 <volume name >
Enter choice number:
```

8. Type the number of the volume you are bringing online and press RETURN. The File Service registers the new name and deletes the old name from the Clearinghouse database.

```
Bringing drive <number> online...
Validating Clearinghouse entry for: <volume name >
Done
Validating User Desktops...
<user name:Domain:Organization> ...ok
<number> desktops validated.
Volume online.
!
```

9. Notify the users of the change. All 6085/8010 ViewPoint workstation users must retrieve new File Service icons.

Wrap-up

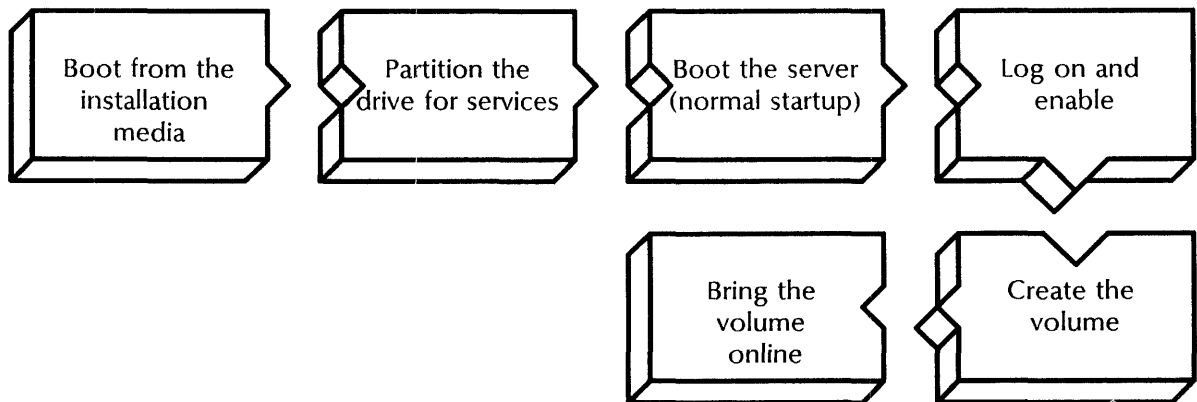
When you see the "Volume online" message, you have successfully changed the volume name.

Example

This example shows changing the volume name from Hawaii to "Maui."

```
!Offline Volume
  Select Volume
  1 Hawaii
  2 Alaska
  3 PTFS Backup
  Enter choice number: 1
  No active users.
  Done
!Change Volume
  Select Volume
  1 Hawaii
  2 Oahu
  Enter choice number: 1
  Name: Maui:OurDomain:Our Org
  Done
!Online Volume
  Select Volume
  1 Maui
  2 Oahu
  Enter choice number: 1
  Bringing drive 1 online....
  Validating Clearinghouse entry for:
  Maui:OurDomain:OurOrg
  Done
  Validating User Desktops...
  DaveSmith:OurDomain:OurOrg...ok
  Wilson:OurDomain:OurOrg...ok
  2 desktops validated.
  Volume online.
!
```

Creating a services volume on a secondary drive



Use this procedure to create a new volume on a multiple-drive server. You can configure the disk packs you register as File Services for use by your co-workers and dependent services as remote storage areas. You can also use these disk packs exclusively as backup packs.



Do not use these characters in the File Service volume name: comma, left and right parentheses, asterisk, and pound sign (#).

Prerequisites

- Install software on your primary drive. See the *Services Installation and Setup Guide*.
- Obtain the correct installation media. For an 8000 server, obtain the utility floppy disk labeled "Services System Software # 1 (Removable Disk)." For an 8090 server, obtain the "XC 80 Services System Software and Network Services for the 8090 Server" cartridge tape.
- Install the disk pack on the 8000 server. See "Replacing a disk pack" procedure later in this chapter.

Step-by-step

1. Insert the installation medium into the server.
 - For an 8000 server, the "Services System Software # 1 (Removable Disk)" utility floppy disk.
 - For an 8090 server, the "XC80 Services System Software and Network Services for the 8090 Server" cartridge tape.
2. Boot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate B (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0002, release the Alternate B (ALT B) button.

Drive <number>

3. Type the drive number .
4. Type the number for the "Partition for Services" option .



CAUTION: The partitioning operation destroys the data on the disk. Perform this step only if you are preparing a formatted, blank, removable, or fixed AMS 315 disk for first-time use.

Confirm? (Y/N):

5. Type **Y** to confirm the partitioning operation and press RETURN. Partitioning takes about 10–15 minutes.
 - Y** Partitions the server disk.
 - N** Cancels the operation.

>

6. Boot the server, by selecting the "Start System" option from the utility menu, or by booting when the maintenance panel displays 0001 (see step 2).

Normal Startup (Y/N):

7. Type **Y** at the "Normal Startup" prompt and press RETURN. The server completes its initialization process and displays the Executive (>) prompt.
 - Y** Starts and runs each service loaded on the server normally.
 - N** Starts the services, but requires user interaction for the non-normal startup options for each service loaded on the server.

>

8. Log on and enable in the File Service context.
9. Type **Create Volume** ↵.

Drive < number >

10. Type the drive number ↵.



WARNING: This operation will destroy all previous contents.
Volume name:

11. Type the fully qualified volume name ↵.

Creating volume...
Done
FS!

12. Type **Online Volume** and press RETURN. A list of the currently open volumes appears, including the newly-created volume. (The list displays only the first part of their fully qualified names.)

Select Volume
1 < volume name >
Enter choice number:

13. Type the number for the volume you want to bring online ↵.

Bringing drive < number > online....
Validating Clearinghouse entry for: < volume name >
Done
Validating User Desktops...
0 desktops validated.
Volume online.
FS!

14. Log off.

Wrap-up

When you see the "FS!" prompt, the volume is registered with the Clearinghouse Service as a separate File Service and is online. Network clients can now access this File Service. However, you must create file drawers before it can be useful to your co-workers. See the "File Service" chapter in the *Services Installation and Setup Guide* for details.

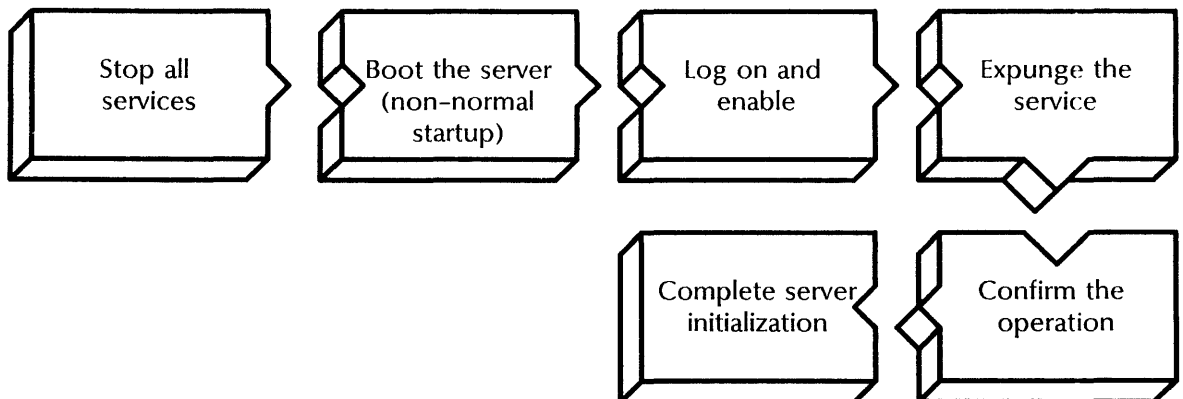
Example

This example shows a new volume named "Arkansas" being created and brought online.

```

FS!Create Volume
  Drive (1..4): 2
  WARNING: This operation will destroy all previous
  contents.
  Volume name: Arkansas:OurDomain:OurOrg
  Creating volume...
  Done
FS!Online Volume
  Select Volume
  1 Arkansas
  Enter choice number: 1
  Bringing drive 2 online...
  Validating Clearinghouse entry for
  Arkansas:OurDomain:OurOrg
  Done
  Validating User Desktops...
  0 desktops validated.
  Volume online.
FS!
  
```

Expunging a service



Use this procedure to remove a service from a server. Be certain that you want to expunge the service, because this operation deletes all the data associated with the service.

Prerequisites



CAUTION: The following services have special procedures you must perform either before expunging the service, or instead of this procedure. See the service-specific chapters later in this book for the procedures.

- Mail Service
- File Service
- External Mail Gateway
- External Communication Service
- Internetwork Routing Service
- 850/860 Gateway Service

Step-by-step

1. Log on and enable.
2. Type **Stop Service** .

```
Select choices:
1 <Service name >
2 <Service name >
Enter one or more choices:
```

3. Type the numbers for all services (for example, **1-3**) .

```
<Service name >: Stop immediately? (Y/N):
```

4. Type **Y** or **N** at each "Stop immediately" prompt .
 - Y** Stops the service immediately; all services functions are unavailable to the network.
 - N** Stops the service after all current activity has been terminated.

```
Stopping <Service name > .
<Service name > is stopped.
```

5. Boot the server.
 - a. Hold down the Boot Reset (B RESET) and the Alternate B (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate B (ALT B) button.

```
Normal startup? (Y/N):
```

6. Type **N** at the "Normal startup" prompt .
- Y** Starts and runs each service loaded on the server normally.
 - N** Starts the services, but requires user interaction for the non-normal startup options for each service loaded on the server. Refer to the "Manually running a service" procedure.

```
Enter interrupt point
1 Interrupt before opening primary volume
2 Interrupt before processing profile
3 Interrupt before running services
Enter one or more choices:
```

7. Type **3**, "Interrupt before running services" .
- If you have a single Clearinghouse internetwork and the Clearinghouse resides on this server, **skip to step 9**. The server is in Genesis Mode; the **Expunge Service** command is available to you even though you are not logged on.

```
Opening volume...done
Server is attached to network number: <number>
Server Name: <name:Domain:Organization>
Server Description: <description>
Validating server registration...Server entry validated.
>
```

8. Log on and enable.

```
!
```

9. Type **Expunge Service** .

```
Select choices
1 <service name>
2 <service name>
Enter one or more choices:
```

10. Type the number for the service you want to expunge .

```
Confirm? (Y/N):
```

11. Type **Y** at the "Confirm" prompt .

- If you are expunging a Print Service, you see this prompt:

```
Ready to delete all Print Service data, INCLUDING font files?
(Y/N):
```

Type **Y** at the prompt .

- If you are expunging a Clearinghouse Service that is not replicated, you see this prompt:

```
Verify: DESTROY the domains known only to this server?
(Y/N):
```

Type **Y** to confirm **↵**.

```
< Service name > expunged.
!
```

12. Type **Proceed** to complete server initialization **↵**.

Wrap-up

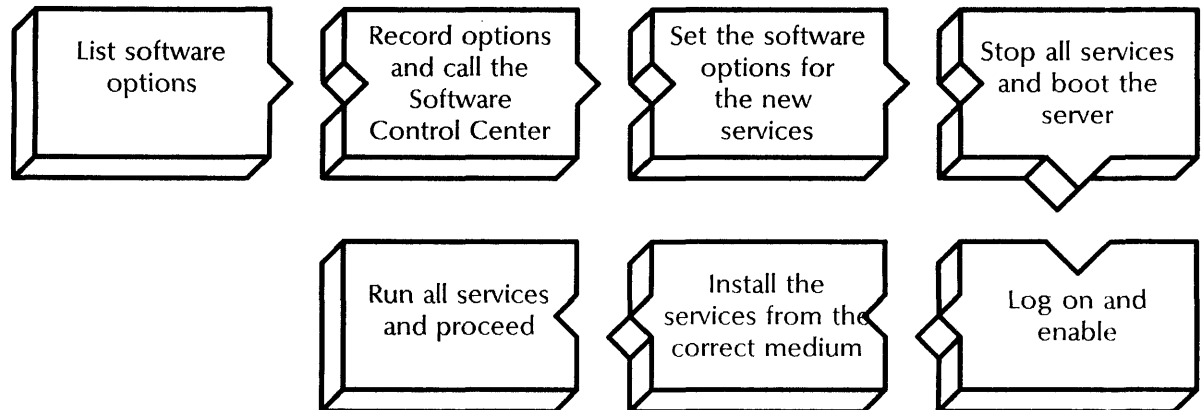
When you see the “!” prompt, you have successfully expunged the service. Server initialization is complete, and all remaining services are running as specified.

Example

This example shows expunging a Clearinghouse Service.

```
!Expunge Service
  Select choices
  1 Mail Service
  2 Clearinghouse Service
  3 Communications Monitoring Service
  Enter one or more choices: 2
Expunging Clearinghouse Service.
Expunging database for Clearinghouse server CHS1.
  Verify: DESTROY the domains known only to this server? (Y/N):
  Y
Expunging database . . .
Clearinghouse Service expunged
!
```

Installing additional services



Use this procedure to install additional services on your server.

Prerequisites

- Obtain the correct installation media: for an 8000 server, the appropriate service floppy disk, for an 8090 server, the "XC 80 Services System Software and Network Services for the 8090 Server" cartridge tape.
- Because installing a service takes time, consider installing the service during off-peak hours.

Step-by-step for listing software options

1. At the server where you are installing the service, log on if necessary and type **List Software Options** `↵`.

!List Software Options

Standard Services Software

Mail Service

External Mail Gateway

Communication Monitoring Service

The Software Serial Numbers for this machine are:

Services Group I : G 56BN HJIQ DYMO

Services Group II: K 361J YMJ7 W32J

Printer Fonts: T 134F 7HJN 5GCV

Software locked on 19-Mar-86 7:43:21

The processor number is 1-252-149-871

2. If the service you are installing:
 - Is not listed with the current software options, write down the Software Serial Numbers, the date the software options were last set (locked), the processor number for the server, and **continue with step 3**.
 - Is listed with the current software options, **skip to step 9**.

Step-by-step for setting software options

3. Call the Software Control Center to obtain passwords for the product group you are configuring. Identify the software options you want to add, and provide the information you recorded in step 2.
4. Type **Set Software Options** .

Confirm (Y/N):

5. Type **Y** at the "Confirm" prompt .
 - Y** Confirms the options you added.
 - N** Allows you to re-select any software options.

Product groups to be configured
 1 Services Group I
 2 Services Group II
 3 Printer Fonts
 Enter one or more choices:

6. Enter the numbers for the product groups you are configuring and press RETURN. If you are configuring more than one, enter the numbers (example **1-3**).

< number > passwords are required to configure options in those product groups.
 Enter password for <product group>:

7. Type in the passwords you received from the Software Control Center for the product groups .

< Enabled option >
 < Enabled option >
 Okay to lock this software now? (Y/N):

8. Type **Y** or **N** to lock the software.
- Y** Enables the options listed. Skip to "Wrap-up."
 - N** Does not enable the options. Returns you to the context you were in before you invoked the **Set Software Options** command. Call the Software Control Center and verify your passwords, then enter the **Set Software Options** command again.

Example

This example shows using the **Set Software Options** command to set the server to run Services System Software and the File Service. These options are all in Services Group I.

!Set Software Options

Standard Services Software

Mail Service

External Mail Gateway

Communications Monitoring Service

The Software Serial Numbers for this machine are:

Services Group I : G 56BN HJIQ DYMO

Services Group II: K 361J YMJ7 W32J

Printer Fonts: T 234F 7HJN 5GCV

Software locked on 19-Mar-86 7:43:21

The Processor Number is 1-252-149-871

The software to be configured on this machine is provided under a prearranged agreement with Xerox. Attempts to configure any software not authorized by Xerox will be in violation of the agreement.

Confirm? (Y/N): **Y**

Product groups to be configured

1 Services Group I

2 Services Group II

3 Printer Fonts

Enter one or more choices: **1**

One password is required to configure options in this product group.

Enter password for Services Group I : **H 7PLQ WK38 2RFA**

Standard Services Software

File Service

Okay to lock this software now? (Y/N): **Y**

Locking...

The Software Serial Number for this machine are:

Services Group I : K 48IJ LO90 897Y

Services Group II: P K398 MNUP 23WD

Printer Fonts: J U43O NJER 7M78

Software locked on 12-April-86

The Processor Number is 1-252-149-871

Configuration completed.

!

Step-by-step for installing the service



This part of the procedure interrupts the server for about 15 minutes. You may want to perform these steps after work hours and warn users in advance about the services interruption.

10. Type **Stop Service** .

Select choices:

1 <Service name >

2 <Service name >

Enter one or more choices:

11. Type the numbers for all services (for example, **1-2**) .

<Service name >: Stop immediately? (Y/N):

12. Type **Y** or **N** at each "Stop immediately" prompt .

Y Stops the service immediately; all service functions are unavailable to the network.

N Stops the service after all current activity has been terminated.

Stopping <Service name > .

<Service name > is stopped.

13. Boot the server.

a. Hold down the Boot Reset (B RESET) and Alternate B (ALT B) buttons at the same time.

b. Release the Boot Reset (B RESET) button.

c. When the Maintenance panel displays 0001, release the Alternate B (ALT B) button.

Normal startup? (Y/N):

14. Type **N** at the "Normal startup" prompt .

Y Normally starts and runs each service loaded on the server.

N Starts the services, but requires user interaction for the non-normal startup options for each service loaded on the server. Refer to the "Running a service manually" procedure.

Enter interrupt point

1 Interrupt before opening primary volume

2 Interrupt before processing profile

3 Interrupt before running services

Enter one or more choices:

15. Type **3**, "Interrupt before running services" at the "Enter one or more choices" prompt **↵**.

If you have a single Clearinghouse internetwork, or if you use a remote Clearinghouse by means of an Internetwork Routing Service on this server, the server enters Genesis Mode. You will not be able to log on; **skip to step 17**.

```
Opening volume...done
Server is attached to network number: <number>
Server Name: <name:Domain:Organization>
Server Description: <description>
Validating server registration...Server entry validated.
>
```

16. Log on and enable.

```
!
```

17. Insert the installation medium:

- For an 8000 server, insert into the floppy disk drive the floppy disk for the service you are installing.
- For an 8090 server, insert into the cartridge tape drive the cartridge tape called "XC80 Services System Software and Network Services for the 8090 server."

18. Type **Install Service** **↵**.

```
Installation choices:
1 <service name>
Enter one or more choices:
```

19. Type the number for the service you are installing **↵**.

```
Installing <service> ...done.
<service name>: Activate? (Y/N):
```

20. Type **Y** to have the service run automatically each time the server completes initialization **↵**.

If your server is in Genesis Mode, perform the following steps:

- a. Type **Run Service** **↵**.

```
Select choices:
1 <Service name>
2 <Service name>
Enter one or more choices:
```

- b. For a single-Clearinghouse internetwork, type the number for the Clearinghouse Service at the "Enter one or more choices" prompt **↵**.

For a remote Clearinghouse Internetwork, type the number for the Internetwork Routing Service **↵**.

For a remote Clearinghouse internetwork using a CIU port, type the number for the External Communication Service \Leftarrow .

Normal startup? (Y/N):

- c. Type **Y** at the "Normal startup?" prompt \Leftarrow .

If you are running the Internetwork Routing Service, type **Start Circuit** and press RETURN. If the circuit is autodialed, then select the correct phone number.

Y Normally starts and runs each service loaded on the server.

N Starts the services, but requires user interaction for the non-normal startup options for each service loaded on the server.

- d. Log on, enable, and **continue with step 21**.

!

21. Type **Proceed** \Leftarrow .

Wrap-up

When you see the "!" prompt, you have successfully installed additional services. All currently installed and activated services are run in priority order using the **Proceed** command. Now you must initialize the service you installed. See the service-specific chapters in the *Services Installation and Setup Guide* for more information.

Example

This example shows installing a File Service.

```

Series 8000 Network Services Executive. Version 11.0 of (date) (time)
Copyright (C) 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988 by Xerox
Corporation.
All rights reserved. Restart reason: User Restart.
  Normal startup? (Y/N): N
  Enter interrupt point
    1  Interrupt before opening primary volume
    2  Interrupt before processing profile
    3  Interrupt before running services
  Enter one or more choices: 3
Opening volume . . . done
Server is attached to network number 8-025
Server Name: Mecca:Los Angeles:GemSysCo
Server Description: MS, EMG, CMS
Validating server registration . . . Server entry validated.
> Logon
      User name: Scott Miller
      Password: ****
> Enable
!Install Service
      Installation choices:
        1  File Service
      Enter one or more choices: 1
Installing File Service . . . done.
      File Service: Activate? (Y/N): Y
!Proceed

```

Listing all RS232C port information



Use this procedure to display statistics for all the ports configured on your server. The **List All RS232C Ports** command is available only on a server that is running services that use RS232C ports. The statistics include configuration, port names and descriptions, types of ports, and line speeds.

Step-by-step

1. Log on.
2. Type **List All RS232C Ports** and press RETURN. The port statistics appear.
3. Log off.

Example

This example shows the information listed for two RS232C ports.

> List All RS232C Ports

Name: A2, Description: Call 232-3188

Local port: A2, Port use: Asynchronous Dial-in, Preemption: forbidden.

Line speed: 300 bps, Synchronous capability: asynchronous.

Data bits/character: eight, Parity: none, Stop bits: one.

Access control: World.

Port Type: Terminal (DTE), Port duplex: full duplex, Echoing: application.

Autodialer: none, Flow control: none.

Name: B1, Description: Call 232-3122

Local port: B1, Port use: Asynchronous Terminal Emulation, Preemption: forbidden.

Line Speed: 1200 bps, Synchronous capability: asynchronous.

Data bits/character: eight, Parity: none, Stop bits: one.

Access control: World.

Port Type: Terminal (DTE), Port duplex: full duplex, Echoing: application.

Autodialer: none, Flow control: none.

>

Listing executives



Use this procedure to show the host address, the time the Executive was created (last reboot), and the last activity that occurred on the Executive. This procedure also shows the logged-on user name and status.

Step-by-step

1. Log on.
2. Type **List Executives** and press RETURN. The Executive information appears.
3. Log off.

Example

This example shows a typical display of Executive information. Note that when you invoke the **List Executives** command, you appear as one of the logged-on users.

```

> List Executives

User: Tom Sawyer:Los Angeles:GemSysCo
Status: System Administrator
Host address: 0-035.2-822-111-286.0-015
Executive created: 1-Apr-87 10:59:12
Last activity: 6-Apr-87 14:01:51

User: Scott Miller:Los Angeles:GemSysCo
Status: System Administrator
Host address: 0-035.2-822-111-286.0-015
Executive created: 6-Apr-87 14:00:01
Last activity: 6-Apr-87 14:01:51
>

```

Listing files



Use this procedure to display a list of the files in the working directory, along with the dates and times they were created.

Step-by-step

1. Log on and enable.
2. Type **List Files** \Leftarrow .

```
File List: *
```

3. Type a pattern for the file list and press RETURN, or press RETURN to list all files (the default pattern). The file list information appears.
4. Log off.

Example

This example shows a list of files in a server's working directory.

!List Files

```

File List: *
FilesSDF.bcd                25-May-86  11:24:08
FileService.messages        25-May-86  11:30:09
ProductFactoring.cache      12-Aug-86  15:44:44
Server profile               22-Aug-86  15:50:14
!
```

Listing services



Use this procedure when you want to know which services are installed and started on the Active Services list. Listing services also displays the server name and the network and processor numbers.

Step-by-step

1. Log on.
2. Type **List Services** and press RETURN. The services information appears.
3. Log off.

Example

This example shows that the Mail Service, External Communication Service, and the Interactive Terminal Service are loaded on the server. All services are activated and started.

> List Services

```

Series 8000 Network Services. Version 11.0
Network: 0-105, Processor: 2-852-132-141
Server Name: Mecca:Los Angeles:GemSysCo
Installed services: Mail Service, External Communication Service, Interactive Terminal Service
Activated services: Interactive Terminal Service, External Communication Service, Mail Service

Interactive Terminal Service: Mercedes:Los Angeles:GemSysCo Status: Started
External Communication Service: Pantera:Los Angeles:GemSysCo Status: Started
Mail Service: Alfa:Los Angeles:GemSysCo Status: Started
>
```

Logging on and logging off



Use this procedure to log on and off the server or a remote Executive. Logging on provides an additional layer of server commands. Logging off is a routine procedure you perform when you finish working on a server. You can also use the **Quit Connection** command to log off if you are connected to a remote Executive.

Step-by-step for logging on

1. Type **Logon** \leftarrow .

User name:

2. Type your registered name \leftarrow .

Password:

3. Type your registered password \leftarrow .

>

4. Type **Enable** if you want to enable System Administrator privileges \leftarrow .

NOTE

Use the **Disable** command to disable your System Administrator privileges.

!

5. Proceed to the appropriate procedure.

Example

The following example shows a user logging on and enabling.

```
> Logon
  User name: Tom Sawyer
  Password: *****
> Enable
!
```

Step-by-step for logging off

1. If you are logging off at:
 - A server terminal, type **Logoff** \leftarrow .
 - A remote connection, type **Quit Connection** \leftarrow .

Example

This example shows a user logging off from the server terminal.

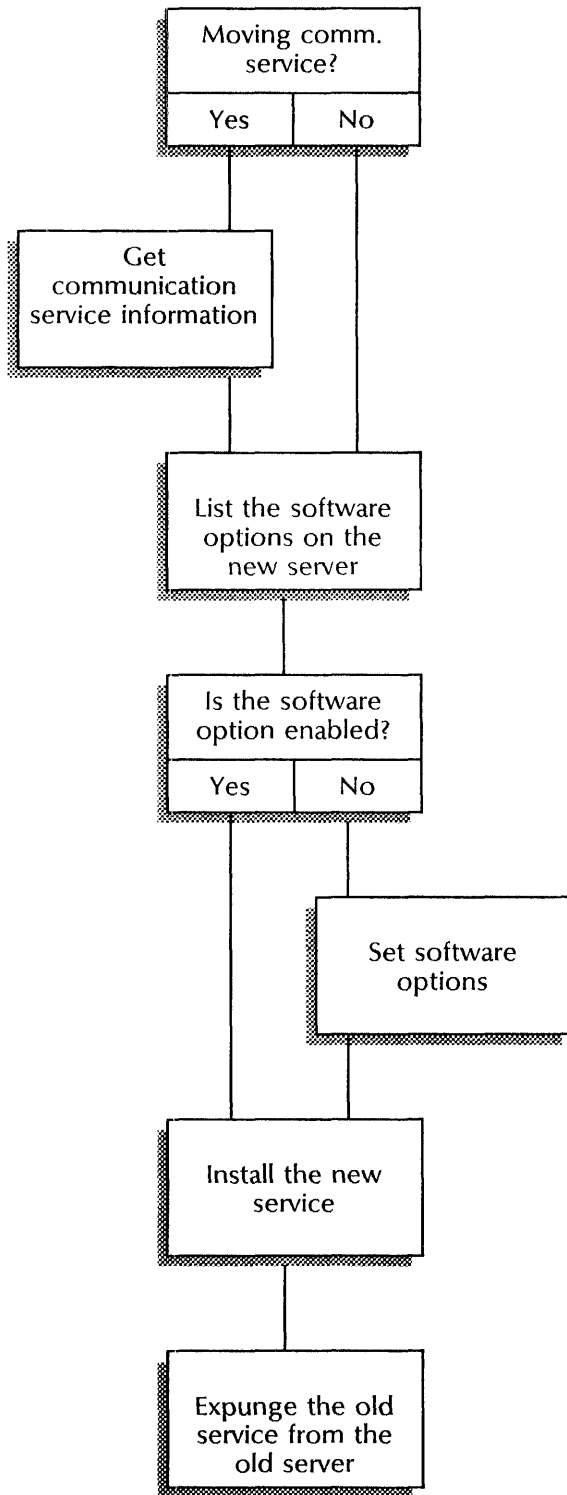
```
!Logoff
  Tom Sawyer:OurDomain:OurOrg logged off
>
```

This example shows a user logging off from a remote connection. The connection is terminated, and the user is logged off.

```
!Quit Connection
  Executive connection disconnected.
```

Moving a service to another server

Use this procedure to move a service from one server to another if your services volume becomes too full. If your File Service is full and you have another File Service on your network, you can move file drawers to another File Service. This flowchart shows the general steps involved in moving a service:





CAUTION: Do not use this procedure to move the Mail Service. Use the special procedure "Moving a Mail Service" in the Mail Service chapter later in this book.



If you are moving a service that uses ports, use Remote System Administration to record all the port, CIU, and host information before you expunge the service.

Prerequisites

- Obtain the correct installation media: for an 8000 server, the appropriate service floppy disk; for an 8090 server, the "XC 80 Services System Software and Network Services for the 8090 Server" cartridge tape.
- If you are moving an External Communication Service, Interactive Terminal Service, Internetwork Routing Service, or Gateway Service, use Remote System Administration (RSA) for step 1. If you do not have RSA, be prepared to record the listed information.
- Because installing a service takes time, consider installing the service during off-peak hours.

Step-by-step for communication service information

1. Log on at your workstation using Remote System Administration, or log on directly at your server.
2. If you are:
 - Moving a communication service, continue with this step.
 - Not moving a communication service, **skip to step 3.**

If you are moving an External Communication Service, perform the following steps that pertain to your configuration:

- a. Type **List Communication Interface Units** ↵.
- b. Type **List IBM 3270 Hosts** ↵.
- c. Type **List All RS232C Ports** ↵.
- d. Record all information manually, or use the RSA Make Document (or Make Screen) option.

If you are moving an Internetwork Routing Service, perform the following steps that pertain to your configuration:

- a. Type **List Circuits** ↵.
- b. Type **List X25 Network** ↵.
- c. Type **List All RS232C Ports** ↵.
- d. Record all information manually, or use the RSA Make Document (or Make Screen) option.

If you are moving an Interactive Terminal Service, perform the following steps that pertain to your configuration:

- a. Type **List All RS232C Ports** ↵.
- b. Record all information manually, or use the RSA Make Document (or Make Screen) option.

If you are moving a Gateway Service, perform the following steps that pertain to your configuration:

- a. Type **List All RS232C Ports** \leftarrow .
- b. Record all information manually, or use the RSA Make Document (or Make Screen) option.

Example

This example shows the information needed when moving an External Communication Service.

```
ECS!List Communication Interface Units
UB873X Net 0-105, Processor 94--18--941-376, CIU controlled by
RumRunner-ITS ports.

ECS!List IBM 3270 Hosts
None

ECS!List All RS232C Ports
Name: ITSp4, Description: Port A4, 300 bps, 8-1-N, 333-1307.
Local port: A4, Port use: Asynchronous dial-in, Preemption: forbidden.
Line speed: 300 bps, Synchronous capability: asynchronous.
Data bits/character: eight, Parity: none, Stop bits: one.
Access control: World.
Port type: terminal (DTE), Port duplex: full duplex, Echoing: application.
Autodialer: none, Flow control: none.
ECS!
```

Step-by-step for listing software options

3. At the server where you are moving the service, log on if necessary and type **List Software Options** and press RETURN. (See the following screen.)
4. If the service you are moving:
 - Is not listed with the current software options, write down the Software Serial Numbers, the date the software options were last set (locked), the processor number for the server, and **continue with step 5**.
 - Is listed with the current software options, **skip to step 11**.

!List Software Options

Standard Services Software

Mail Service

External Mail Gateway

Communication Monitoring Service

The Software Serial Numbers for this machine are:

Services Group I : G 56BN HJIQ DYMO

Services Group II: K 361J YMJ7 W32J

Printer Fonts: T 134F 7HJN 5GCV

Software locked on 19-Mar-86 7:43:21

The processor number is 1-252-149-871

Step-by-step for setting software options

5. Call the Software Control Center to obtain passwords for the product group you are configuring. Identify the software options you want to add, and provide the information you recorded in step 4.
6. Type **Set Software Options** .

Confirm (Y/N):

7. Type **Y** at the "Confirm" prompt .
 - Y** Confirms the options you added.
 - N** Allows you to re-select any software options.

Product groups to be configured

1 Services Group I

2 Services Group II

3 Printer Fonts

Enter one or more choices:

8. Enter the numbers for the product groups you are configuring and press RETURN. If you are configuring more than one, enter the numbers (example, **1-3**).

< number > passwords are required to configure options in those product groups.

Enter password for Services Group I :

9. Type in the passwords you received from the Software Control Center for the product groups .

```

<Enabled option >
<Enabled option >
Okay to lock this software now? (Y/N):

```

10. Type **Y** or **N** to lock the software \Leftarrow .

- Y** Enables the options listed. Skip to the "Wrap-up."
- N** Returns you to the context you were in before you invoked the **Set Software Options** command. Call the *Software Control Center* and verify your passwords, then enter the **Set Software Options** command again.

Example

This example shows using the **Set Software Options** command to set the server to run Services System Software and Mail Service. These options are all in Services Group I.

!Set Software Options

```

Standard Services Software
Mail Service
  External Mail Gateway
Communications Monitoring Service

```

The Software Serial Numbers for this machine are:

```

Services Group I : G 56BN HJIQ DYMO
Services Group II: K 361J YMJ7 W32J
Printer Fonts: T 234F 7HJN 5GCV

```

Software locked on 19-Mar-86 7:43:21

The Processor Number is 1-252-149-871

The software to be configured on this machine is provided under a prearranged agreement with Xerox. Attempts to configure any software not authorized by Xerox will be in violation of the agreement.

Confirm? (Y/N): **Y**

Product groups to be configured

- 1 Services Group I
- 2 Services Group II
- 3 Printer Fonts

Enter one or more choices: **1**

Screen continued

One password is required to configure options in this product group.
 Enter password for Services Group I : **H 7PLQ WK38 2RFA**

Standard Services Software

Mail Service

External Mail Gateway

Okay to lock this software now? (Y/N): **Y**

Locking...

The Software Serial Number for this machine are:

Services Group I : K 48IJ LO90 897Y

Services Group II: P K398 MNUP 23WD

Printer Fonts: J U43O NJER 7M78

Software locked on 12-April-86

The Processor Number is 1-252-149-871

Configuration completed.

!

Step-by-step for installing the service

NOTE

This part of the procedure interrupts the server for about 15 minutes. You may want to perform these steps after work hours and warn users in advance about the services interruption.

11. Type **Stop Service** .

Select choices:

1 <Service name >

2 <Service name >

Enter one or more choices:

12. Type the numbers for all services (for example, **1-2**) .

<Service name >: Stop immediately? (Y/N):

13. Type **Y** or **N** at each "Stop immediately" prompt .

Y Stops the service immediately; all service functions are unavailable to the network.

N Stops the service after all current activity has been terminated.

Stopping <Service name > .

<Service name > is stopped.

14. Boot the server.

- a. Hold down the Boot Reset (B RESET) and Alternate B (ALT B) buttons at the same time.
- b. Release the Boot Reset (B RESET) button.
- c. When the maintenance panel displays 0001, release the Alternate B (ALT B) button.

Normal startup? (Y/N):

15. Type **N** at the "Normal startup" prompt \Leftarrow .
- Y** Normally starts and runs each service loaded on the server.
 - N** Starts the services, but requires user interaction for the non-normal startup options for each service loaded on the server. Refer to the "Running a service manually" procedure.

Enter interrupt point

- 1 Interrupt before opening primary volume
- 2 Interrupt before processing profile
- 3 Interrupt before running services

Enter one or more choices:

16. Type **3**, "Interrupt before running services" \Leftarrow .
- If you have a single Clearinghouse internetwork, or if you use a remote Clearinghouse by means of an Internetwork Routing Service on this server, the server enters Genesis Mode. You will not be able to log on; **skip to step 18**.

Opening volume...done
 Server is attached to network number: < number >
 Server Name: < name:Domain:Organization >
 Server Description: < description >
 Validating server registration...Server entry validated.
 >

17. Log on and enable.

!

18. Insert the installation medium:
- For an 8000 server, insert into the floppy disk drive the floppy disk for the service you are installing.
 - For an 8090 server, insert into the cartridge tape drive the cartridge tape labeled "XC80 Services System Software and Network Services for the 8090 Server."
19. Type **Install Service** \Leftarrow .

Installation choices:
 1 < service name >
 Enter one or more choices:

20. Type the number for the service you are installing .

```
Installing <service> ...done.
<service name>: Activate? (Y/N):
```

21. Type **Y** to activate .

If your server is in Genesis Mode, perform the following steps:

- a. Type **Run Service** .

```
Select choices:
1 <Service name>
2 <Service name>
Enter one or more choices:
```

- b. Type the number for the Clearinghouse Service if you have a single Clearinghouse internetwork, or the Internetwork Routing Service if you use a remote Clearinghouse by means of an Internetwork Routing Service .

```
Normal startup? (Y/N):
```

- c. Type **Y** at the "Normal startup?" prompt .

If you are running the Clearinghouse Service, **continue with step d**. If you are running the Internetwork Routing Service, type **Start Circuit** and press RETURN. If the circuit is autodialed, then select the correct phone number.

Y Normally starts and runs each service loaded on the server.

N Starts the services, but requires user interaction for the non-normal startup options for each service loaded on the server.

- d. Log on and enable, **continue with step 22**.

22. Type **Proceed** .

Wrap-up

When you see the "!" prompt, you have installed and run the service at the new location. Your next step is to initialize the service you installed. See the service-specific chapter in the *Services Installation and Setup Guide* for more information.

If you are setting up a communication service, use the information you gathered in step 1 to configure your communication equipment. Then expunge the old service from the server on which it resides. Start with step 2 of the procedure "Expunging a service" earlier in this chapter.

Example

This example shows installing a File Service.

```

Series 8000 Network Services Executive. Version 11.0 of (date) (time)
Copyright (C) 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988 by Xerox
Corporation.
All rights reserved. Restart reason: User Restart.
Normal startup? (Y/N): N
Enter interrupt point
 1 Interrupt before opening primary volume
 2 Interrupt before processing profile
 3 Interrupt before running services
Enter one or more choices: 3
Opening volume . . . done
Server is attached to network number 8-025
Server Name: Mecca:Los Angeles:GemSysCo
Server Description: MS, EMG, CMS
Validating server registration . . . Server entry validated.
> Logon
    User name: Scott Miller
    Password: ****
> Enable
!Install Service
    Installation choices:
    1 File Service
    Enter one or more choices: 1
Installing File Service . . . done.
    File Service: Activate? (Y/N): Y
!Proceed

```

Powering the server down or up

Use this procedure to power down or power up your server. If you power up your server and immediately boot it, the boot takes longer. The disk drive must warm up, and diagnostics must be run.

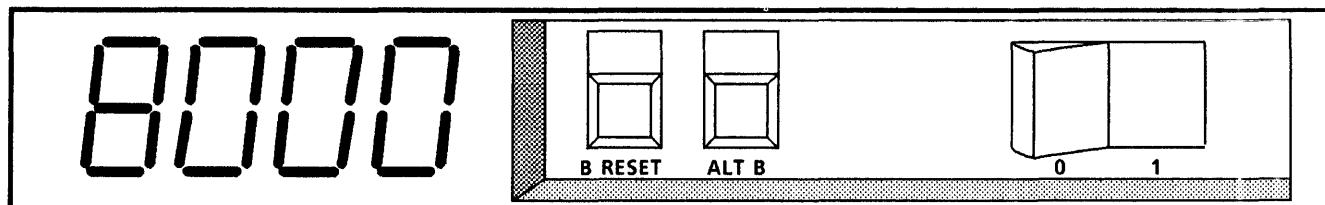
The services on an 8000/8090 internetwork or networks with one Clearinghouse Service are more effective if servers remain powered up through the night.



CAUTION: Stop all services before you power down your server. See the Services System Software chapter in the *Guide to System Administration Activities* for information on the consequences of stopping your services.

Figure 2-2 shows the maintenance panel referred to in the procedure.

Figure 2-2. 8000 maintenance panel



Step-by-step for powering the server down

1. Log on and enable.
2. Type **Stop Service** .

```
Select choices:
1 <Service name >
2 <Service name >
Enter one or more choices:
```

3. Type the numbers for all services (for example, **1-2**) .

```
<Service name > : Stop immediately? (Y/N):
```

4. Type **Y** or **N** at each "Stop immediately" prompt .
 - Y** Stops the service immediately; all service functions are unavailable to the network.
 - N** Stops the service after all current activity has been terminated.

```
Stopping <Service name > .
<Service name > is stopped.
```

5. Flip the power switch to the off position. (When the server is on, the portion of the switch marked "1" is depressed. When the server is off, the portion of the switch marked "0" is depressed.)

Example

This example shows stopping a service before you power down the server.

```

!Stop Service
Select choices:
1 File Service
Enter one or more choices: 1
File Service: Stop immediately? (Y/N): Y
Stopping File Service.
File Service is stopped.
!

```

Step-by-step for powering the server up

1. Flip the power switch to the on position. (When the server is on, the portion of the switch marked "1" is depressed. When the server is off, the portion of the switch marked "0" is depressed.)
2. Boot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate B (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0000, release the Alternate B (ALT B) button.
3. Wait for diagnostics to complete.

```

Normal startup? (Y/N):

```

4. Type **Y** at the "Normal startup" prompt .
 - Y** Normally starts and runs each service loaded on the server. **Skip to the Wrap-up.**
 - N** Starts the services, but requires user interaction for the non-normal startup options for each service loaded on the server. Refer to the "Running a service manually" procedure.

```

Opening volume...done
Server is attached to network number: <number >
Server Name: <name:Domain:Organization >
Server Description: <description >
Validating server registration...Server entry validated.
>

```

5. Log on and enable.

```

!

```

6. Type **Run Service** and press RETURN. A list of services that can be run appears.

Select choice:
1 <service name>
2 <service name>
Enter one or more choices:

7. Type the numbers for the services you want to run (for example, 1-2) .

NOTE

If the service you want to run is not listed, the service is either not installed on your server, or has already been run.

Normal startup? (Y/N):

8. Type **Y** or **N** at the "Normal startup" prompt for each service that you have specified .
- Y** Normally starts and runs each service loaded on the server.
- N** Starts the services, but requires user interaction for the non-normal startup options for each service loaded on the server. Refer to the "Manually running a service" procedure.

Wrap-up

When you see the "!" prompt (non-normal startup) or the ">" prompt (normal startup), you have powered up the server successfully.

The services are run in priority order, each using the normal or non-normal startup mode, as you have specified. The services present their non-normal initialization prompts or menus if you have specified for a non-normal startup.

Example

This example shows starting a service after you power up the server. The File Service is the only service installed on the server. It has not been activated.

```

Normal startup? (Y/N): Y
Opening volume...done
Server is attached to network number: 1-915
Server Name: RumRunner:OurDomain:OurOrg
Server Description: File Service server
Validating server registration...Server entry validated.
> Logon
    Name: Granny Goose
    Password: ***
> Enable
!Run Service
Select choices:
1 File Service
Enter one or more choices: 1
File Service: Normal Startup? (Y/N): Y
Running File Service.
Validating File Service entry...
File Service is running.
!
```

Registering a server



Use this procedure to update or verify the Clearinghouse entry for the server.

Step-by-step

1. Log on and enable.
2. Type **Register Server** and press RETURN. Server information is displayed.
3. Log off.

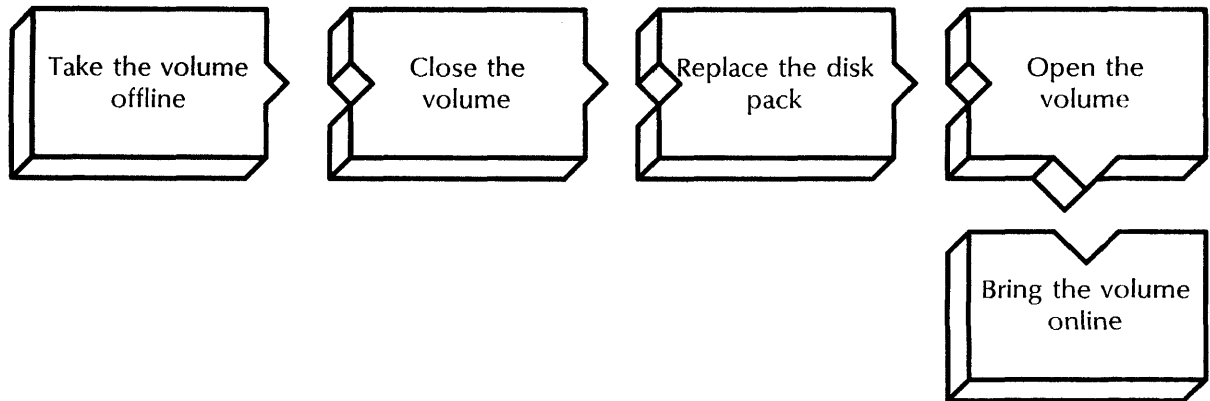
Example

This example shows registering a server.

```

!Register Server
Server Name: PTFS:OurDomain:OurOrg
Server Description: Product Test File Service
Validating server registration...Server registration validated
!
```

Replacing a disk pack



Use this procedure to replace a disk pack on a multiple-drive 8000 server.

If the replacement pack is already registered as a File Service, perform the entire procedure. If the replacement pack is not registered as a File Service, perform steps 1-6, and then perform the "Creating a services volume on a secondary drive" procedure earlier in this chapter.

Prerequisite

- Know the volume name of the disk pack you are replacing.
- Have a replacement pack ready.

Step-by-step

1. Log on and enable in the File Service context.
2. Type **Offline Volume** and press RETURN. A list of all volumes currently online appears.

```

Select Volume
1 <volume name >
2 <volume name >
Enter choice number:
  
```

3. Type the number for the secondary volume you want to take offline and press RETURN. The volume is no longer accessible to remote clients.

```

Done
FS!
  
```

4. Type **Close Volume** and press RETURN. A list of all volumes currently open appears.



You can only close secondary volumes.

```
Select Volume
1 <volume name>
Enter choice number:
```

5. Type the number for the secondary volume you want to close **↵**.

```
Done
FS!
```

6. Spin down the disk pack, remove it, and replace it with a different one.
 - If this pack already has a services volume and is registered as a File Service, you can bring it online using step 7.
 - If this pack is not registered as a File Service, turn to the procedure "Creating a services volume on a secondary drive" earlier in this chapter.

7. Type **Open Volume** **↵**.

```
Drive (2..4):
```

8. Type the number for the volume you want to open **↵**.

```
Opening volume...
Done
```

9. Type **Online Volume** **↵**.

```
Select Volume
1 <volume name>
Enter choice number:
```

10. Type the number for the volume you want to bring online **↵**.

```
Bringing drive <number> online....
Validating Clearinghouse entry for
<name:Domain:Organization>
Done
Validating User Desktops...
<User name:Domain:Organization> ...ok
<number> desktops validated.
Volume online
FS!
```


Wrap-up

When you see the "FS!" prompt, you have successfully replaced the disk pack. The system verifies the volume's Clearinghouse Service registration, then brings the volume (File Service) online for use by network clients.

Example

This is an example of the replacement procedure.

```
FS!Offline Volume
  Select Volume
  1 Hawaii
  2 Alaska
  3 PTFS Backup
  Enter choice number: 1
  No active users.
  Done
FS!Close Volume
  Select Volume
  1 Hawaii
  Enter choice number: 1
  Closing volume...
  Done
  (Spin down, remove, and replace disk pack)
FS!Open Volume
  Drive (1..4): 2
  Opening Volume...
  Done
FS!Online Volume
  Select Volume
  1 Hawaii
  Enter choice number: 1
  Bringing drive 2 online...
  Validating Clearinghouse entry for
  Hawaii:OurDomain:OurOrg
  Done
  Validating User Desktops...
  WSmith:OurDomain:OurOrg...ok
  Roberti:OurDomain:OurOrg...ok
  2 desktops validated.
  Volume online.
  FS!
```

Resetting the server context



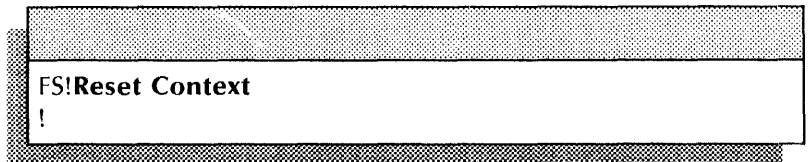
Use this procedure to reset the server context.

Step-by-step

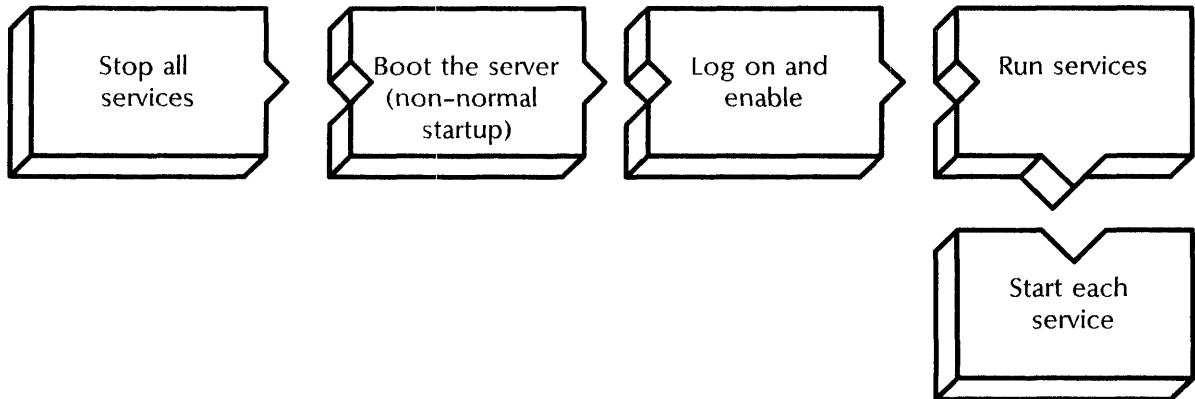
1. Finish the last step in a service context.
2. Type **Reset Context** \leftarrow .
3. Go to the appropriate services common procedure.

Example

This example shows changing the File Service context back to the server context.



Running a service manually



Use this procedure when you need to run one or more services manually. Running a service “manually” means running a service in other than a normal startup.



You can also use the **Run Service** command to run one of the deactivated services after initialization completes. Use this command to run the Print Service after the server completes initialization.

Step-by-step

- To access the non-normal startup mode for a service, or to run a service before the server completes initialization and runs the services on the Active Services list, **start with step 1.**

- To run a service that is not on the Active Services list on an initialized server, **start with step 5.**

1. Log on and enable.
2. Type **Stop Service** .

```
Select choices:
1 <Service name>
2 <Service name>
Enter one or more choices:
```

3. Type the numbers for all services (for example, **1-3**) .

```
<Service name>: Stop immediately? (Y/N):
```

4. Type **Y** or **N** at each "Stop immediately" prompt .
 - Y** Stops the service immediately; all services functions are unavailable to the network.
 - N** Stops the service after all current activity has been terminated.

```
Stopping <Service name> .
<Service name> is stopped.
```

5. Boot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate B (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate B (ALT B) button

```
Normal startup? (Y/N):
```

6. Type **N** at the "Normal startup" prompt .
 - Y** Normally starts and runs each service loaded on the server.
 - N** Starts the services, but requires user interaction for the non-normal startup options for each service loaded on the server.

```
Enter interrupt point
1 Interrupt before opening primary volume
2 Interrupt before processing profile
3 Interrupt before running services
Enter one or more choices:
```

7. Type **3**, "Interrupt before running services" .

```
Opening volume...done
Server is attached to network number: < number >
Server Name: < name:Domain:Organization >
Server Description: < description >
Validating server registration...Server entry validated.
>
```

8. Log on and enable.

```
!
```

9. Type **Run Service** and press RETURN. A list of services that can be run appears.

```
Select choice:
1 < service name >
2 < service name >
Enter one or more choices:
```

NOTE

If the service you want to run is not listed, the service is either not installed on your server or is currently running. Refer to the "Installing additional additional services" procedure.

10. Type the numbers for the services you want to run (for example **1-3**, or **1,3**) **↵**.

```
Normal startup? (Y/N):
```

11. Type **Y** or **N** at the "Normal startup" prompt for each service that you specified you want to run **↵**.

Y Normally starts and runs each service on the server.

N Starts the services, but requires user interaction for the non-normal startup options for each service on the server.

12. Type **Proceed** **↵**.

Wrap-up

When you see the "!" prompt, you have successfully started the services. The services are run in priority order, each using the normal or non-normal startup mode, as you have specified. The services present their non-normal initialization prompts or menus if you have specified a non-normal startup.

Example

This example shows using the **Run Service** command to access the Mail Service non-normal startup options.

```

!Run Service
  Select choice:
    1  Clearinghouse Service
    2  Mail Service
  Enter one or more choices: 2
  MS: Normal startup? (Y/N)?: N
  Specify Mail Service startup option:
    1  Initialize new database
    2  Restore old database
    3  Repair existing database
    4  Expand existing database
  Enter choice: 4
  Current database size is 4002 pages (23% of the disk).
  Number of additional pages for database (0..3890): 2000
  Database size will be 6000 pages.
  Confirm (Y/N): Y
  Restarting and expanding Mail Service database.
  Mail Service name is Alfa:Los Angeles:GemSysCo
  Validating Clearinghouse entry for Alfa:Los
  Angeles:GemSysCo
  Done
  Mail Service started.
  Mail Service run.
  !

```

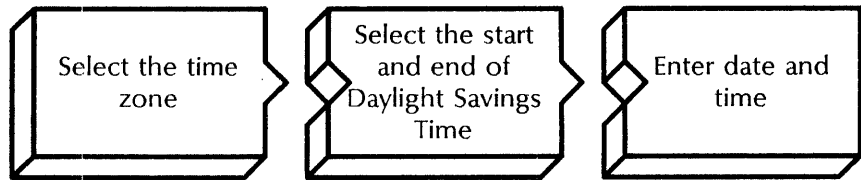
This example shows using the **Run Service** command for a normal startup to run a previously deactivated External Communication Service.

```

!Run Service
  Select choice:
    1  External Communication Service
    2  Internetwork Routing Service
  Enter one or more choices: 1
  ECS: Normal startup? (Y/N): Y
  Running External Communication Service
  Attempting to determine the name of this External
  Communication Service.
  Validating Clearinghouse entry for Pantera:Los Angeles:
  GemSysCo
  Done
  ECS: External Communication Service is started
  External Communications Service run.
  !

```

Setting time



Use this procedure to set or confirm the current time and date for server.

Prerequisites

- Know the correct time and date.
- Have the floppy diagnostic disk (8000 server) or diagnostics cartridge tape (8090 server) ready.
- If you are re-initializing the local server time, stop all services and power down all servers except one. Do this procedure at the one server that is running.

Step-by-step

1. Insert the diagnostic medium into the drive.
2. Boot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate B (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0002, release the Alternate B (ALT B) button.

```

THIS IS THE BOOT DIAGNOSTICS VERSION <number>
THIS CONFIRMS THAT THE NETWORK DISPLAY IS
OPERATIONAL
Locating Time Server...
  
```

3. The diagnostics program begins by setting the time of day.
 - If a time service is not available, and the server contains a valid time, the server displays the time. Type **Y** to confirm and press RETURN. **Skip to step 9.**

```

Time zone offset from Greenwich (-12...12):
  
```

- If the server does not have the time, or you do not confirm it, type the offset for your Standard Time (even if you are currently observing Daylight Savings Time) at the "Time zone offset from Greenwich (-12...12)" prompt and press RETURN. Select the number for the geographical area where you are installing the server:
 - 5 Eastern Standard Time
 - 6 Central Standard Time

- 7 Mountain Standard Time
- 8 Pacific Standard Time
- +0 United Kingdom
- +1 Western Europe (excluding the United Kingdom)

The default time zone is -8.

Minute offset (0-59):

4. Type **0** at the "Minute offset" prompt \Leftarrow .

First day of Daylight Savings Time (0...366):

5. Type the appropriate number at the "First day of Daylight Savings Time (0...366)" prompt \Leftarrow .
- The default value is 98 for states in the United States and Canada using Daylight Savings Time. If the default value is correct, press RETURN.
 - To change the default value, select the number for the geographical area where you are installing the server:
 - 0** Parts of the United States not using Daylight Savings Time (parts of Illinois and Arizona)
 - 91** United Kingdom
 - 91** Western Europe (excluding the United Kingdom)

Last day of Daylight Savings Time (0...366):

6. Type the appropriate number at the "Last day of Daylight Savings Time (0...366)" prompt \Leftarrow .
- The default value is 305 for states in the United States and Canada using Daylight Savings Time. If the default value is correct, press RETURN.
 - To change the default value, select the number for the geographical area where you are installing the server:
 - 0** Parts of the United States not using Daylight Savings Time (parts of Illinois and Arizona)
 - 303** United Kingdom
 - 274** Western Europe (excluding the United Kingdom)

Current time: < date > < time >

Accept (Y/N)?:

7. Type **Y** or **N** at the "Current time" prompt \Leftarrow .
- Y** Keeps the default date and time shown on the screen. **Skip to step 10.**
 - N** Allows you to set the date and time. **Continue with step 8.**

Please Enter the date and 24 hour time in form MM/DD/YY
HH:MM:SS
Time:

8. Type the current date and time at the "Time" prompt and press RETURN. You may use the following format:
- MM/DD/YY HH:MM:SS; for example, 07/01/84 16:02:30 (24-hour clock).

```
Set time to <date> <time>
Okay? (Y/N):
```

9. Type **Y** at the "Okay" prompt .
- Y** Confirms the date and time you entered.
- N** Cancels the date and time you entered. Return to step 3.
10. Press BREAK to stop diagnostics, or wait until the diagnostics are complete.
11. Boot the server.
- Hold down the Boot Reset (B RESET) and Alternate B (ALT B) buttons at the same time.
 - Release the Boot Reset (B RESET) button.
 - When the maintenance panel displays 0000, release the Alternate B (ALT B) button.

Wrap-up

The time is set when you see the "Normal startup?" prompt. Confirm the startup, power up all additional servers, and run services.

Example

This example shows setting the time and date for Pacific Standard Time.

```
Locating Time Server...Time is not set.
  Time zone offset from Greenwich (-12...12): -8
  Minute offset (0-59): 0
  First day of Daylight Savings Time (0...366): 98
  Last day of Daylight Savings Time (0...366): 305
Current time: 04/01/87 12:00:00
Accept? (Y/N): N
  Please Enter the date and 24 hour time in form
  MM/DD/YY HH:MM:SS
  Time: 05/12/87 17:06:38
  Set time to 12-May-87 17:06:38
  Okay? (Y/N): Y
```


Showing a logged on user



Use this procedure to display the name and status of the current logged-on user.

Step-by-step

1. Log on.
2. Type **Show Logged On User** \leftarrow .
3. Log off.

Example

This example shows the logged-on user, domain, and organization.

```
> Show Logged On User
   User: Scott Miller:GemSysCo:Xerox
>
```

Showing the server profile



Use this procedure to display the contents of the server and service-specific sections of the server profile.

Step-by-step

1. Log on and enable.
2. Type **Show Profile** \leftarrow .

```
Section to be shown
1 <service name>
2 Server
Enter choice number:
```

3. Type the number for the first section you want to show \leftarrow .
4. Type the number of the next section you want to show, or press RETURN to return to the command level.
5. Log off.

Wrap-up

When you see the “!” prompt, you have displayed the contents of the server profile.

Example

This example shows the server section of the server profile.

```
!Show Profile
  Section to be shown
  1 File Service
  2 Server
  Enter choice number: 2
[Server]
Server Version: 100
Network Number: 65
Server Name: PTFS:OurDomain:OurOrg
Server Description: Product Test File Service
Active Service: File Service
Number of Remote Execs: 2
Local Terminal Type: ASCII
Remote Terminal Type: ASCII
  Section to be shown
  1 File Service
  2 Server
  Enter choice number:
!
```

Stopping and starting services

Use this procedure to stop or start one or more services. You use the **Start Service** command to reverse the effects of a **Stop Service** command, or to start a service manually after a service-specific failure.



The Mail Service cannot stop completely while processing its pending queue. You may notice a long delay (an hour or more) between the time the Mail Service indicates it is stopping, and the time the Mail Service reports it actually has stopped. Do not interrupt the server. Wait until the "Mail Service is stopped" message appears.



CAUTION: Stopping the Mail Service makes most Mail Service operations unavailable to network clients. Mail cannot be posted or forwarded, and users cannot retrieve mail. Mail backs up on other Mail Services which have increased responsibility for accepting posted messages. Forwarding attempts, and returned messages increase.



CAUTION: You cannot properly stop the Server Monitor Service with the **Stop Service** command. The Server Monitor Service has its own **Stop** command.

A Clearinghouse Service co-resident with a Mail Service relies on the Mail system to keep its database consistent. If you stop the co-resident Mail Service for a time, the Clearinghouse becomes inconsistent with the rest of the Clearinghouse system.

If the server is rebooted after the Mail Service has been deactivated, a co-resident Clearinghouse creates its own "invisible" Mail Service that uses the same database as the previous Mail Service. If you then scavenge the previous database, you will lose the database.

Prerequisite

Notify the users that you are stopping a service.

Step-by-step for stopping one or more services

1. Log on and enable.
2. Type **Stop Service** \Leftarrow .

```
Select choices:
1 < Service name >
2 < Service name >
Enter one or more choices:
```

3. Type the numbers for the services you want to stop (for example **1-3**, or **1,3**) \Leftarrow .

```
< Service name > : Stop immediately? (Y/N):
```

4. Type **Y** or **N** at each "Stop immediately" prompt **↵**.
 - Y** Stops the service immediately, regardless of user sessions; all service functions are unavailable to the network.
 - N** Stops the service after all current activity has been terminated.

```
Stopping < Service name > .
< Service name > is stopped.
```

5. Log off.

Example

This example shows the messages that appear when you stop a Mail Service with a coresident Clearinghouse Service.

!Stop Service

Select choices

- 1 Clearinghouse Service
- 2 Mail Service
- 3 Communication Monitoring Service
- 4 Print Service

Enter one or more choices: **2**

MS: Stop Immediately? (Y/N): **Y**

Stopping Mail Service.

Warning: The local Clearinghouse will suffer if the Mail Service is stopped for any length of time.

Continue? (Y/N): **Y**

Stopping the Mail Service processes

Stopping the Mail Gateway

Mail Service has stopped.

!

Step-by-step for starting one or more services

1. Log on and enable.
2. Type **Start Service** **↵**.

```
Select choices:
1 < service name >
2 < service name >
Enter one or more choices:
```

3. Type the number for the service you want to start (for example **1-3**, or **1,3**) **↵**.

```
Starting < service name > .
.
.
< Service name > is started.
```

4. Log off.

Wrap-up

When you see the "<Service name> is started" message, you have successfully started the service. If you started a Mail Service co-resident with a Clearinghouse, you may need to compare databases among Clearinghouses for consistency. See "Comparing databases" in the Clearinghouse Service chapter later in this book.

Example

This example shows the messages that appear when you start a Mail Service coresident with an External Communication Service.

```

!Start Service
  Select choices
    1  Mail Service
    2  External Communication Service
  Enter one or more choices: 1,2
Starting Mail Service.
Mail Service name is Speedy:Los Angeles:GemSysCo.
  Validating Clearinghouse entry for: Speedy:Los Angeles:GemSysCo
  Done
Mail Service started.
Starting External Communication Service.
ECS: External Communication Service is started.
!

```

Working with remote files

Use this procedure to list and delete remote files; and to store and retrieve them to or from a co-resident or remote File Service.

Prerequisite

Know the pathname of the remote directory.

Step-by-step for listing remote files

1. Log on and enable.
2. Type **Set Remote Directory** \leftarrow .

Remote Directory:

3. Type the full pathname for the remote directory **↵**.
4. Type **List Remote Files** **↵**.

File List:*

5. Type a pattern for the file list and press RETURN, or simply press RETURN to list all the files (the default pattern). The file list information appears.
6. Log off.

Example

This example shows a list of files in the remote directory.

```
!Set Remote Directory
  Remote Directory: (Foxdale:OurDomain:OurOrg)SASStats/Cambridge
Stats/July 87
!List Files
  File List: *
Files.bcd          25-May-87  11:24:22
Files.msg          25-May-87  11:32:33
!
```

Step-by-step for deleting remote files

1. Log on and enable.
2. Type **Set Remote Directory** **↵**.

Remote Directory:

3. Type the full pathname for the remote directory **↵**.
4. Type **Delete Remote Files** **↵**.

File Name:

5. Type a file name **↵**.
6. Log off.

Wrap-up

When you see the message "<file name> deleted," you have deleted the file.

Example

This example shows deleting a file in the remote directory.

```
!Set Remote Directory
  Remote Directory: (Foxdale:OurDomain:OurOrg)SAStats/Cambridge
Stats/July 87
!Delete Files
  File Name: File.bcd
Done
!
```

Step-by-step for retrieving or storing remote files

1. Log on and enable.
2. Type **Set Remote Directory** \Leftarrow .

```
Remote Directory:
```

3. Type the full pathname for the remote directory \Leftarrow .
4. Type **Retrieve Files** or **Store Files** \Leftarrow .

```
File List: *
```

5. Type a pattern for the file list and press RETURN, or simply press RETURN to retrieve or store all files (the default pattern).
6. Log off.

Wrap-up

When you see the message "<file name> ...retrieved," or "<file name> ...stored," you have retrieved or stored the files.

Example

This example shows retrieving a file from the remote directory.

```
!Set Remote Directory
  Remote Directory: (Foxdale:OurDomain:OurOrg)SAStats/Cambridge
Stats/July 87
!Retrieve Files
  File List: Server.Profile
Server.Profile...retrieved
!
```

3.

Clearinghouse Service

This chapter contains the procedures you perform to maintain the Clearinghouse Service (CHS). These procedures are available using an 8000 or 8090 server.

Prerequisites

Complete these tasks before you perform any Clearinghouse Service maintenance procedures:

- Install all required software as described in the Server Software Installation chapter of the *Services Installation and Setup Guide*.
- Perform all set up procedures as described in the Clearinghouse Service chapter of the *Services Installation and Setup Guide*.


Commands

This section lists the Clearinghouse Service commands you use to maintain the service. You must be in the Clearinghouse Service context to access the commands.

Table 3-1 shows all the commands along with the logged on status, and the service state (started or stopped) for accessing them.

Table 3-1. Clearinghouse Service maintenance commands

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Alias					•	•
Add Domain						•
Add Group					•	•
Add Member					•	•
Add Print Service					•	•
Add User					•	•
Change Default			•	•	•	•
Change Domain Access					•	•
Change Group Access			•	•	•	•
Change Organization Access					•	•
Change Password			•	•	•	•
Change Print Service					•	•
Change User					•	•
Compare Databases					•	•
Delete					•	•
Delete Alias					•	•
Delete Domain						•
Delete Member			•	•	•	•
Enable Manual Registration					•	•
Expunge Service						•
List < object >			•	•	•	•
List Routes (IRS)	•		•		•	
Run Service					•	•
Show Default			•	•	•	•
Show Domain			•	•	•	•
Show Group Access			•	•	•	•
Show < object >			•	•	•	•
Show Status	•	•	•	•	•	•
Show User			•	•	•	•
Start Service						•

- Add Alias** Available to the enabled user when the Clearinghouse Service is started or stopped. Assigns an alias for a specific object registered in the Clearinghouse database. For example, users typically have at least one alias.
Related procedure: Changing a user's alias
- Add Domain** Available to the enabled user when the Clearinghouse Service is stopped. Creates a new domain, or replicates an existing domain, and adds it to the local database.
-  **NOTE** When you add a new domain to an internetwork, you must have access to the organization that is to contain the domain. If you create a domain in a new organization, you must provide an organization-specific password. This password is issued to you by Xerox for each organization you create.
Related procedures: Adding a copy of a domain (replicating), Creating domains
- Add Group** Available to the enabled user when the Clearinghouse Service is started or stopped. Creates user groups.
Related procedure: Adding user groups and members
- Add Member** Available to the enabled user when the Clearinghouse Service is started or stopped. Adds members to user groups. You can use explicit names, aliases, or patterns to add members. This command requires administrative access to the group. The user with self access may add himself to any open group.
Related procedure: Adding user groups and members
- Add Print Service** Available to the enabled user when the Clearinghouse Service is started or stopped. Manually registers a printing device that cannot register itself, such as a 9700 Electronic Printing System. You must first use the **Enable Manual Registration** command.
Related procedure: Enabling manual registration
- Add User** Available to the enabled user when the Clearinghouse Service is started or stopped. Creates user entries. You use this command to register a user by a fully qualified name, description, password, home File Service and aliases.
Related procedures: Adding users, Changing a user's registered name, Creating domains
- Change Default** Available to the logged on user when the Clearinghouse Service is started or stopped. Changes the domain and organization names used as default values for Clearinghouse Service commands. You can specify as default values any domain and organization on the internetwork. You can then perform operations on any domain without connecting to the corresponding Clearinghouse Service.

The default domain is initially the domain of the server housing the Clearinghouse Service. The **Change Default** command does *not* change the domain or organization names of the server; it changes the defaults only for Clearinghouse Service commands. Before you modify any data in a domain, use the **Show Default** command to ensure that you will perform the operation on the domain you want.



You cannot use Clearinghouse Service commands requiring System Administrator access unless you are a logged-on and enabled user with administrative access to the server's domain. If the enable operation fails, you are probably logging on and enabling at a server registered in a domain to which you do not have administrative access.

Related procedure: Changing and showing the default domain, Creating domains

Change Domain Access

Available to the enabled user when the Clearinghouse Service is started or stopped. Adds, deletes, or changes access privileges for a specific domain. You need administrative access to the domain to use this command.

Related procedure: Changing domain access, Creating domains

Change Group Access

Available to the logged on user when the Clearinghouse Service is started or stopped. Grants or revokes administrative or self access to a user group. Any user with administrative access to a group can change the access privileges of other users, including Domain Administrators.



The changes you make with this command take effect immediately, before you end the command. As a Domain Administrator, when you grant explicit administrative access to a new group, the Clearinghouse immediately revokes your implicit administrative access. Note that the Domain Administrator can delete any user group, whether or not the Domain Administrator has administrative access to it.

Related procedures: Adding user groups and members, Changing group access

Change Organization Access

Available to the enabled user when the Clearinghouse Service is started or stopped. Changes the access controls on an organization. An Organization Administrator can create new domains within the organization and designate other Organization Administrators. You need administrative access to the organization to use this command.

Related procedures: Changing organization access, Creating domains

Change Password

Available to the logged on user when the Clearinghouse Service is started or stopped. Allows users to change their own passwords, or Domain Administrators to change user passwords.



No command enables System Administrators to show user passwords.

Related procedure: Changing a user's password

Change Print Service

Available to the enabled user when the Clearinghouse Service is started or stopped. Manually modifies information for a printing option that cannot register itself, such as a 9700 Electronic Printing System. You must first use the **Enable Manual Registration** command.

Related procedure: Enabling manual registration for Print Services

Change User

Available to the enabled user when the Clearinghouse Service is started or stopped. Changes a user's description and/or home File Service.

Related procedure: Changing user information

Compare Databases

Available to the enabled user when the source Clearinghouse Service is started or stopped. The destination Clearinghouse must be started. Compares two Clearinghouse databases after you establish an Internetwork Routing Service link between their respective internetworks, and reconciles any differences between the databases. You can use this command to correct inconsistencies in a domain.

You can also use the **Compare Database** command for single internetworks with more than one Clearinghouse Service. The command updates information when the Clearinghouse Services are unable to perform an automatic anti-entropy operation during the night.



This command does not change the configuration of domain replication among involved Clearinghouses.

Related procedures: Correcting domain inconsistency, Manually updating Clearinghouses connected by dial-up links, Merging internetworks

Delete

Available to the enabled user when the Clearinghouse Service is started or stopped. Deletes any specific object from the Clearinghouse database, but is used primarily to delete manually registered objects, such as users and groups.



CAUTION: Do not use the generic **Delete** command if you can use an object-specific **Delete** command to remove an unwanted entry. The normal reconfiguration and decommissioning procedures associated with the various services remove unnecessary entries from the Clearinghouse database.

Related procedures: Changing a user's registered name, Deleting a group, Deleting a registered object

Delete Alias

Available to the enabled user when the Clearinghouse Service is started or stopped. Deletes an alias for a specific object registered in the Clearinghouse database.

Related procedure: Changing a user's alias

Delete Domain

Available to the enabled user when the Clearinghouse Service is stopped. Removes all copies of the specified domain from the local Clearinghouse Service.



CAUTION: Before the Clearinghouse deletes the last copy of a domain, the Clearinghouse issues a warning and requests a confirmation. The domain ceases to exist when you confirm the deletion. If the domain was the last one in its organization, the Clearinghouse also deletes the organization. You need administrative access to the domain and organization to delete the last copy of the domain or the organization.

Related procedures: Adding a copy of a domain (replicating), Deleting a domain

Delete Member Available to the logged on user when the Clearinghouse Service is started or stopped. Deletes a member of a group. The command requires administrative access to the group. The user with self access may delete himself from a group.

Related procedure: Deleting a member from a group

Enable Manual Registration Available to the enabled user when the Clearinghouse Service is started or stopped. Enables use of a single manual registration command, such as **Add Print Service** or **Change Print Service**. You must repeat this command before each manual registration command you issue.

Related procedure: Enabling manual registration for Print Services

Expunge Service Available to the enabled user at the third interrupt point. Permanently removes a service and its associated files, logs, or databases from a server.

Related procedure: Removing the Clearinghouse Service from a server

List <object> Available to the logged on user when the Clearinghouse Service is started or stopped. Displays a list of the objects of the specified type registered in the Clearinghouse Service domain. The list matches a pattern you specify.

The pattern for the **List Domains** command is a domain and an organization name. You can use the wildcard symbol (*) only to represent the domain name. If you supply an organization name, it must be a literal name (for example, "*: Acme").

The pattern for the **List Groups** and **List Users** command is a fully qualified name. You can use the wildcard symbol (*) only to represent the local name. If you supply domain and organization names, they must be literal names (for example, "*:Boston:Acme").

The pattern for the **List Organizations** command is an organization name. You can use the wildcard symbol (*) as the pattern.

The element **<object>** may be one of the following:

<p>Aliases Boot Services Communication Interface Units Communication Monitoring Services Domains External Communication Services File Services Gateway Services IBM 3270 Hosts Interactive Terminal Services Internetwork Routing Services</p>	<p>Mail Services Members Print Services Organizations Remote Batch Services RS232C Ports Servers Users User Groups Workstations</p>
---	--

Related procedures: Deleting a group, Deleting a member from a group, Listing objects registered in a domain

- List Routes** Available to any user when the Internetwork Routing Service is started. Displays a list of networks interconnected to your network through the Internetwork Routing Service.
- Related procedure:** Manually updating Clearinghouses connected by dial-up links
- Proceed** Available at all initialization interrupt points. Leaves an interrupt point and continues server initialization. The system runs all activated services during server initialization.
- Related procedure:** Expanding the Clearinghouse Service, Removing the Clearinghouse Service from a server
- Run Service** Available to the enabled user. Runs the software files for a service not currently running, bringing the service to a fully-operational state. This command is useful when you want to invoke a non-normal service startup to access a service's non-normal options, or to configure a service before you run other coresident services.
- Related procedure:** Expanding the Clearinghouse database
- Show <object>** Available to the logged on user when the Clearinghouse Service is started or stopped. Displays the properties of an entry in the Clearinghouse database.
- The element **<object>** may be one of the following:

Boot Service	Internetwork Routing Service
Communication Interface Unit	Mail Service
Communication Monitoring Service	Print Service
Default Domain	Organization
External Communication Service	Remote Batch Service
File Service	RS232C Port
Gateway Service	Server
Group Access	Status
IBM 3270 Host	User
Interactive Terminal Service	Workstation

Related procedure: Showing objects registered in a domain

- Show Default** Available to the logged on user when the Clearinghouse Service is started or stopped. Displays the default domain and organization names for a specified Clearinghouse Service.

Related procedure: Changing and showing the default domain

- Show Domain** Available to the logged on user when the Clearinghouse Service is started or stopped. Displays in disk pages the size of the domain, its replication status, and its access control settings.



Do not use asterisks to specify a domain (for example: “*:Los Angeles”). The server may search for 15 minutes to 3 hours before displaying information. The information may be for a domain whose name matches the pattern, but which may not be the domain you want.

- Related procedures:** Adding a copy of a domain (replicating), Showing domains
- Show Group Access** Available to the logged on user when the Clearinghouse Service is started or stopped. Displays the access control list of a specified group.
Related procedure: Showing group access
- Show Status** Available to any user when the Clearinghouse Service is started or stopped. Displays the status of the Clearinghouse Service and its local database, including the space used in the database and the time since the service was last restarted.
Related procedure: Showing the Clearinghouse status
- Show User** Available to the logged on user when the Clearinghouse Service is started or stopped. Displays complete user information for a specified user.
Related procedures: Changing a user's alias, Showing user information
- Start Service** Available to the enabled user when the Clearinghouse Service is stopped. Starts the currently loaded and stopped services you select. This command cancels a **Stop Service** command or explicitly starts a service after a service-specific failure.
Related procedures: Adding a copy of a domain (replicating), Creating domains, Deleting a domain, Removing the Clearinghouse Service from a server
- Stop Service** Available to the enabled user when the Clearinghouse Service is started. Stops the currently loaded and started services you select. This command reverses the effects of a **Start Service** command. The service continues to run, but does not respond to external requests.
Related procedures: Adding a copy of a domain (replicating), Creating domains, Deleting a domain, Expanding the Clearinghouse database, Removing the Clearinghouse Service from a server

Procedures

This section contains these procedures for maintaining the Clearinghouse Service:

Adding a copy of a domain (replicating)

Use this procedure to make a copy of a Clearinghouse domain. You can add a copy of a domain from another network, or add a copy of a domain within the same network.

Adding users

Use this procedure to add users to the Clearinghouse database.

Adding user groups and members

Use this procedure to add user groups and group members and to change group access in the Clearinghouse database.

Changing and showing the default domain

Use this procedure to change the default domain for the Clearinghouse Service.

Changing a user's alias

Use this procedure to add or change aliases for a user.

Changing a user's password

Use this procedure to change a user's password.

Changing a user's registered name

Use this procedure to change a user's registered name in the Clearinghouse database.

Changing domain access

Use this procedure to add, change, or remove domain access controls for a user or group.

Changing group access

Use this procedure to grant or revoke access privileges for the members of a user group.

Changing organization access

Use this procedure to change access privileges for an organization.

Changing user information

Use this procedure to change a user's description and home File Service information.

Correcting domain inconsistency

Use this procedure to correct inconsistencies between domains.

Creating domains

Use this procedure to add a new domain or allow a new network to share a domain with your network.

Deleting a domain

Use this procedure to delete the last or next-to-last copy of a domain from the Clearinghouse database.

Deleting a group

Use this procedure to delete user groups from a domain.

Deleting a member from a group

Use this procedure to delete a member from a group.

Deleting a registered object

Use this procedure to delete a user or object registered in the Clearinghouse database.

Enabling manual registration for Print Services

Use this procedure to register a printing option in the Clearinghouse database.

Expanding the Clearinghouse database

Use this procedure to increase the number of disk pages in the Clearinghouse database.

Listing objects registered in a domain

Use this procedure to list the different types of objects registered in a domain.

Manually updating Clearinghouses connected by dial-up links

Use this procedure to ensure the consistency among distributed Clearinghouses that are not continuously interconnected.

Merging internetworks

Use this procedure to set up a link between two Internetwork Routing Services and merge the two Clearinghouses on the networks.

Removing the Clearinghouse Service from a server

Use this procedure to remove the Clearinghouse Service from a server.

Showing the Clearinghouse status

Use this procedure to show the status of the Clearinghouse.

Showing domains

Use this procedure to show the replication status and access control settings for a domain.

Showing group access

Use this procedure to show the access control settings for a group.

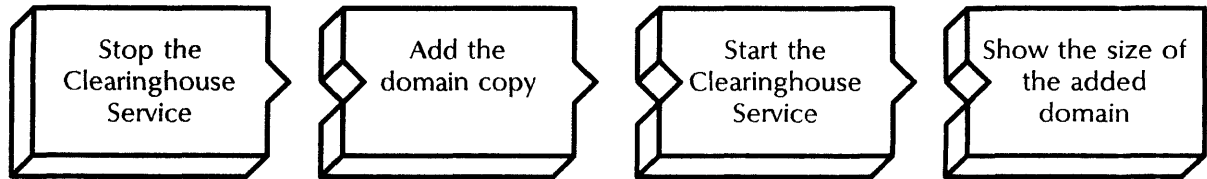
Showing user information

Use this procedure to show a description of a user.

Showing objects registered in a domain

Use this procedure to show a description of the objects that can be registered in a domain.

Adding a copy of a domain (replicating)



Use this procedure to replicate your domain to one or more Clearinghouse Services.

See the *Guide to System Administration Activities* for more information about domain replication and how it increases the reliability, availability, and efficiency of your Clearinghouse system. Perform this procedure during off-peak hours to minimize service interruptions.

Prerequisites

If you are adding a copy of a Clearinghouse from another network:

- Contact the System Administrator of the other network to ensure your access privileges.
- Use the **Show Domain** command to check the size of the domain you want to copy and your Clearinghouse database. Verify that the destination Clearinghouse database has adequate space for the domain.
- Initialize the Internetwork Routing Service.
- Contact the Domain Administrator of the source network to obtain temporary Domain Administrator access to that domain. If the other network is in a different organization, you will need temporary Organization Administrator access as well.
- Know the name of the domain you are copying (see your Clearinghouse Service Worksheet in your *Activities Guide*).

If you are adding a copy of the Clearinghouse in the same network:

- Use the **Show Domain** command to check the size of your Clearinghouse database and verify that adequate space is available.
- Know the name of the domain you are copying (see your Clearinghouse Service Worksheet in your *Activities Guide*).
- Ensure that you have Domain Administrator access to the domain.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Stop Service** ⇐.

Select choices
1 Clearinghouse Service
2 <service name >
Enter one or more choices:

3. Type the number for the Clearinghouse Service .

CHS:Stop immediately? (Y/N):

4. Type **Y** at the "Stop immediately?" prompt .
- Y** Stops the Clearinghouse immediately; all Clearinghouse Service functions are unavailable to the network.
- N** Stops the Clearinghouse after all current activity ends.

Stopping Clearinghouse Service.
Clearinghouse Service functions are now unavailable to the network.
CHS!

5. Type **Add Domain** .

Domain:

6. Type the name of the domain you want to copy .

Size = <number> pages
Copying <organization> to this CHS. Confirm? (Y/N):

7. Type **Y** or **N** at the "Confirm" prompt .
- Y** Confirms the copying of the organization.
- N** Return to step 6.

Size = <number> pages
Copying <domain:organization> to this CHS. Confirm? (Y/N):

8. Type **Y** or **N** at the "Confirm" prompt .
- Y** Confirms the copying of the domain.
- N** Return to step 6.

Done.
CHS!

9. Type **Start Service** .

Select choices
 1 Clearinghouse Service
 Enter one or more choices:

10. Type the number for the Clearinghouse Service .

Starting Clearinghouse Service.
 Clearinghouse Service functions are now available to the network.
 CHS!

11. Type **Show Domain** .

Name:

12. Type the name of the domain you just copied .

Size = < number > pages.
 Administered by:
 < administrator's name:domain:organization >
 Served by CHSs:
 < CHS name >
 CHS!

13. If the domain you copied contains entries, and if the resulting copy is 10 pages or smaller, **continue with step 14.**

If the copy is larger than 10 pages, you are done.

14. Type **Stop Service** .

Select choices
 1 Clearinghouse Service
 2 < service name >
 Enter one or more choices:

15. Type the number for the Clearinghouse Service .

CHS:Stop immediately? (Y/N):

16. Type **Y** or **N** at the "Stop immediately?" prompt .

Y Stops the Clearinghouse immediately; all Clearinghouse Service functions are unavailable to the network.

N Stops the Clearinghouse after all current activity ends.

Stopping Clearinghouse Service.
 Clearinghouse Service functions are now unavailable to the network.
 CHS!

17. Type **Delete Domain** .

Domain:

18. Type the name of the domain you just copied .

Deleting < domain:organization > from this CHS.
Confirm? (Y/N):

19. Type **Y** or **N** at the "Confirm" prompt .

Y Confirms the deletion.

N Return to step 18.

Warning: This is the only copy of < domain
name:organization name >
Confirm destruction of this domain? (Y/N):

20. Type **Y** or **N** at the prompt for reconfirmation .



CAUTION: If you type **Y**, you delete the domain permanently. Make sure that the domain is replicated, or that you are deleting the correct domain.

Y Deletes the domain copy.

N Return to step 18.

Done.
CHS!

21. Repeat steps 5 through 13 to recopy the domain.
22. Log off.

Wrap-up

When the size of the domain copy matches that of the original domain, you have successfully replicated the domain.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

If your network has only one Clearinghouse, perform the "Backing up a single Clearinghouse Service" procedure in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

Example

This example screen shows replicating a domain named "Detroit." The **Show Domain** command indicates that the domain was copied in its entirety.

CHS! Stop Service

Select choices

- 1 Clearinghouse Service
- 2 Internetwork Routing Service

Enter one or more choices: **1**CHS: Stop immediately? (Y/N): **Y**

Stopping Clearinghouse Service.

Clearinghouse Service functions are now unavailable to the network.

CHS!Add DomainDomain: **Detroit**

Size = 302 pages.

Copying Organization Acme to this CHS. Confirm? (Y/N): **Y**

Size = 300 pages.

Copying Domain Detroit:Acme to this CHS. Confirm? (Y/N): **Y**

Done.

CHS!Start Service

Select choices

- 1 Clearinghouse Service

Enter one or more choices: **1**

Starting Clearinghouse Service

Clearinghouse Service functions are now available to the network.

CHS!Show DomainName: **Detroit**

Size = 302 pages.

Administered by:

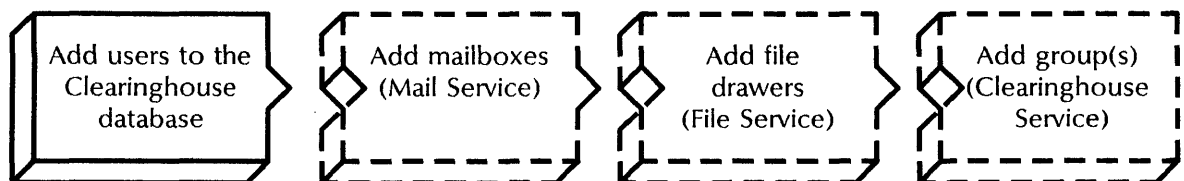
System Administrators:Detroit:Acme

Served by CHSs:

Songbird (UP)

Tonto (UP)

CHS!

Adding users

Use this procedure to add users to the Clearinghouse database. You can include at least one short alias for each user. Make sure that no two users have the same user name or alias. The Clearinghouse Service does not allow duplicate names or aliases.

Each name, alias, or password may be up to 40 characters long. Use only characters on the default keyboard. Do not use the neutral double quotation mark ("), apostrophe ('), back slash (\), circumflex, accent grave, vertical bar (|), or tilde (~).

Prerequisite

Update the User Directory Worksheet with any changes you are making to the user name, password, description, home File Service and aliases.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Add User**

First name (and Middle Name, if desired):

3. Type the user's first name and middle name .

Last Name:

4. Type the user's last name .

Password:

5. Type the user's password .

Description:

6. Type a description of the user .

"Home" File Service:

7. Type the name of the user's home File Service .

Alias:

8. Type an alias for the user .

Alias:

9. Type another alias and press RETURN. This prompt repeats until you press RETURN.

Confirm this User information? (Y/N):

10. Type **Y** or **N** to confirm the information \Leftarrow .

Y Adds the user.

N Return to step 3.

```
Done. <user name:domain:organization> (User) added.  
Add another User? (Y/N):
```

11. Type **Y** or **N** to add another user \Leftarrow .

Y Return to step 3.

N Ends the process.

```
CHS!
```

12. Log off.

Wrap-up

When you see the "CHS!" prompt, you have added the new users to the Clearinghouse database.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Your next steps should be:

- "Adding mailboxes" (see the Mail Service chapter of this book)
- "Creating public file drawers for users" and "Creating private file drawers for users" (see the File Service chapter of this book)
- "Adding user groups and members" (next)

If your network has only one Clearinghouse, perform the "Backing up a single Clearinghouse Service" procedure in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

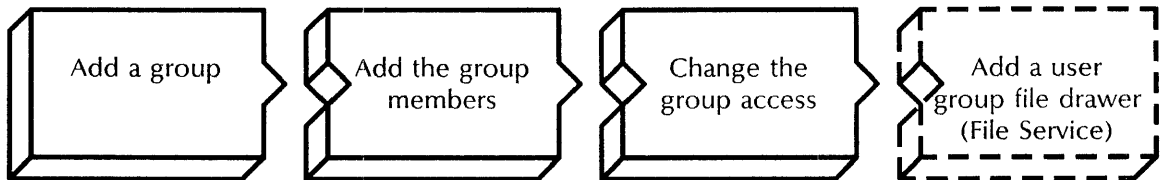
Example

This example shows adding a user named Joyce M Smith. The user has two aliases: her first initial and last name, and her initials.

```

CHS!Add User
First Name (and Middle Name, if desired): Joyce M
Last Name: Smith
Password: *****
Description: Extension 2082
"Home" File Service: Foxdale
Alias: JSmith
Alias: JMS
Alias:
Confirm this User information? (Y/N): Y
Done. Joyce M. Smith:Unit1:GemSysCo (User) added.
Add another User? (Y/N): N
CHS!
    
```

Adding user groups and members



This procedure lets you add a user group to the Clearinghouse database.

Prerequisites

- If you are a Group Administrator trying to add yourself to the group, have self access as well as administrative access privileges.
- Update the Group Member Directory Worksheet with any changes you are making to the group name, description, member names and access privileges.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Add Group** ↵.

Name:

3. Type the name of the group you want to add ↵.

Description:

4. Type a description of the group .

Done. <group name:domain:organization> (Group) added.
CHS!

5. Type **Add Member** .

Group:

6. Type the name of the group you just added .

Member:

7. Type the name of the first member you want to add to the group .

NOTE

If you use a pattern to add a member to the group (for example, *:Boston:Acme), any user whose name matches the pattern becomes a member of the group. If you later add a user whose name also matches the pattern, that user automatically becomes a group member.

Done. <member name:domain:organization> added to
<group name:domain:organization>.
Add another Member? (Y/N):

8. Type **Y** or **N** to add another member .

Y Return to step 7.

N Ends the process.

9. Type **Change Group Access** .

Group:

10. Type the name of the group you just added .

Access by:

11. Type the name of the first member you added to the group .

NOTE

If you used a pattern to add a member to the group (for example, *:Boston:Acme), you can type the pattern here to give all group members whose names match the pattern the same access privileges. When a System Administrator grants explicit access to a new group, the Clearinghouse immediately revokes the implicit administrative access of the System Administrator.

Admin Access? (Y/N):

12. Type **Y** or **N** to give this member administrative access .
- Y** Gives the member administrative access.
 - N** Does not give the member administrative access.

Self Access? (Y/N):

13. Type **Y** or **N** to give this member self access .
- Y** Gives the member self access.
 - N** Does not give the member self access.

Change another Access List entry? (Y/N):

14. Type **Y** or **N** to change another access list entry .
- Y** Return to step 11.
 - N** Ends the process.

Done. Access List Changed

15. Repeat steps 2 through 14 for each user group you want to add.

CHS!

16. Log off.

Wrap-up

When you see the message "Access List Changed," you have added the new user groups to the Clearinghouse database.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Next, perform the "Creating public file drawers for users" and "Creating private file drawers for users" procedures (see the File Service chapter of this book).

If your network has only one Clearinghouse, perform the procedure "Backing up a single Clearinghouse Service" in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

Example

This example shows adding a user group named SysAdmin in the domain Boston. One member named Citizen is added to the group and given self access.

```

CHS!Add Group
  Name: SysAdmin:Boston
  Description: Boston SAs
Done. SysAdmin:Boston:Acme (Group) added.
CHS!Add Member
  Group: SysAdmin:Boston
  Member: Citizen
Done. John Q Citizen:Boston:Acme added to
SysAdmin:Boston:Acme.
  Add another Member? (Y/N): N
CHS!Change Group Access
  Group: SysAdmin:Boston
  Access by: Citizen
  Admin Access? (Y/N): N
  Self Access? (Y/N): Y
  Change another Access List entry? (Y/N): N
Done. Access List Changed
CHS!

```

Changing and showing the default domain



Use this procedure to change the default domain for the Clearinghouse Service commands and then show the current default domain for the Clearinghouse.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Change Default**

```
Default Domain:
```

3. Type the name of the domain you want to use as the default and press RETURN. Include the organization name only if it is different from the default organization.

```
Done.
CHS!
```

4. Type **Show Default** .

```
< default domain:organization >
CHS!
```

5. Note the default domain name.
6. Log off.

Wrap-up

When you see the "CHS!" prompt, you have successfully changed the default domain in the Clearinghouse database.

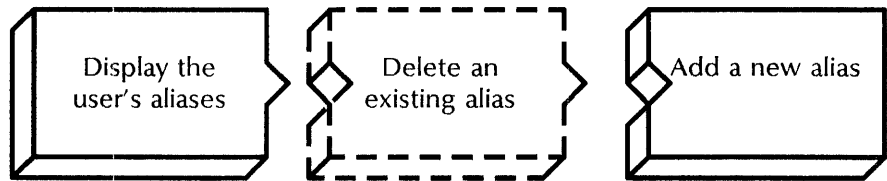
If your network has only one Clearinghouse, perform the "Backing up a single Clearinghouse Service" procedure in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

Example

This example shows changing the default domain and organization to Detroit:Acme. The **Show Default** command verifies the change.

```
CHS!Change Default
    Default domain: Detroit:Acme
Done.
CHS!Show Default
Detroit:Acme
CHS!
```

Changing a user's alias



Use this procedure to delete and then add a new alias for a user. If the user has only one alias and wants a new one, you simply add the new alias..



it may take up to a week for a new alias to take effect throughout a large internetwork.

Prerequisite

- Update the User Directory Worksheet with any changes you are making.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Show User** \Leftarrow .

Name:

3. Type the name of the user whose alias you want to change .

```
Full name: <user name:domain:organization >
Description: <description >
Home File Service: <home File Service
name:domain:organization >
Alias: <alias:domain:organization >
Alias: <alias:domain:organization >
CHS!
```

4. If you want to delete the old alias for the user, type **Delete Alias** and press RETURN. Otherwise, **skip to step 7**.

```
Alias:
```

5. Type the alias .

```
Deleting alias <alias >, which stands for <user
name:domain:organization >.
Confirm? (Y/N):
```

6. Type **Y** or **N** to confirm the deletion .

```
Y   Deletes the alias.
N   Cancels the process.
```

```
Done.
CHS!
```

7. Type **Add Alias** .

```
Add alias for name:
```

8. Type the user's name .

```
Adding alias for <name >
Existing aliases are: <alias:domain:organization >,
<alias:domain:organization >
New alias to be added:
```

9. Type the new alias .

```
Done. <alias:domain:organization > now stands for <user
name:domain:organization >.
Add another Alias? (Y/N):
```

10. Type **Y** or **N** to add another alias for this user .

```
Y   Return to step 9.
N   Ends the process.
```

```
CHS!
```

11. Log off.

Wrap-up

When you see the "CHS!" prompt, you have successfully added a new alias to the Clearinghouse database.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows deleting an old alias before adding the new alias.

```
CHS!Show User
Name: Trevor M. Moorehead
Full name: Trevor M. Moorehead:Boston:Acme
Description: Qualified user
Home File Service: File Service one:Boston:Acme
Alias: Trevor:Boston:Acme
Alias: Moorehead:Boston:Acme
CHS!Delete Alias
  Alias: Trevor
Deleting alias Trevor, which stands for Trevor M. Moorehead:Boston:Acme.
Confirm? (Y/N): Y
Done.
CHS!Add Alias
  Add alias for name: Trevor M. Moorehead
  Adding alias for Trevor M. Moorehead
Existing aliases are: Moorehead:Boston:Acme
New alias to be added: TMM
Done. TMM:Boston:Acme now stands for Trevor M. Moorehead:Boston:Acme.
Add another Alias? (Y/N): N
CHS!
```

Changing a user's password



Use this procedure to change the user's password. Only the Domain Administrator can perform this procedure.

Prerequisites

- Have the users store their 6085/8010 desktops at the File Service before their passwords are changed.

- Update the User Directory Worksheet with any changes you are making.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Change Password** .

Name:

3. Type the name of the user whose password you want to change .

Changing User: <user name > .
Password:

4. Type the new password .

Confirm new Password? (Y/N):

5. Type **Y** or **N** to confirm the change .
 - Y** Changes the password.
 - N** Cancels the process.

Done. Password changed.
CHS!

6. Log off.

Wrap-up

When you see the message "Done. Password changed," you have successfully changed a password in the Clearinghouse database.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

If your network has only one Clearinghouse, perform the "Backing up a single Clearinghouse Service" procedure in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

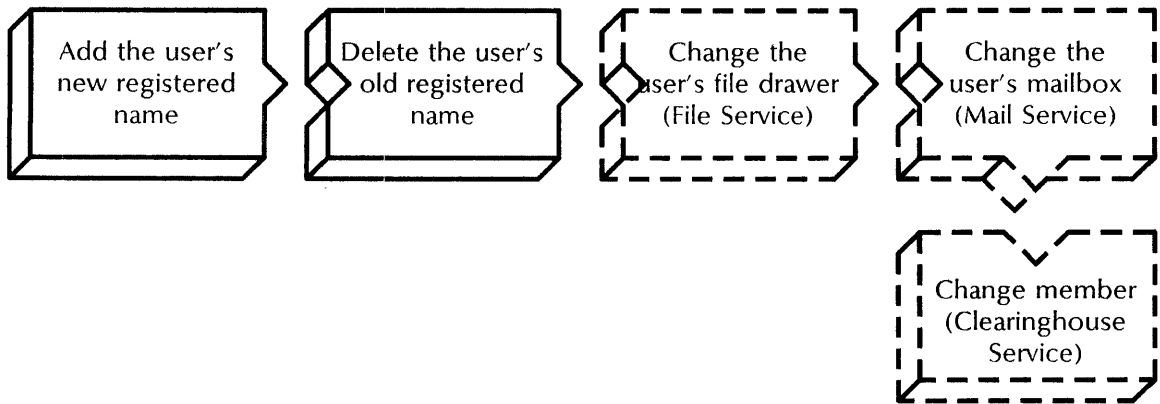
Example

This example shows changing a password. Note that the password appears on the screen as a series of asterisks to ensure confidentiality.

```

CHS!Change Password
Name: Moorehead:Boston
Changing User: Trevor M. Moorehead:Boston:Acme.
Password: *****
Confirm new password? (Y/N): Y
Done. Password changed.
CHS!
    
```

Changing a user's registered name



Use this procedure to change a user's registered name (for example, to reflect a change in marital status). First you give the user a new identity and then remove the old identity. Be sure to change all occurrences of the old name to the new one (for example, in groups, file drawers, and mailboxes) before you delete the old name.

Prerequisites

- Update the User Directory Worksheet with the user's new name, password, description, home File Service, and aliases.
- If the user has a 6085/8010 workstation, have him or her store all documents, record files, and folders by moving them to a file drawer on a File Service or copying them to floppy disks. Then delete the old desktop. The user can retrieve these items onto a new desktop after you change the user's name.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Add User** ⇐.

First Name (and Middle Name, if desired):

3. Type the user's new first name and middle initial ↵.

Last Name:

4. Type the user's new last name ↵.

Password:

5. Type the user's password ↵.

Description:

6. Type a description for the user ↵.

"Home" File Service:

7. Type the name of the user's home File Service ↵.

Alias:

8. Type an alias for the user ↵.

Alias:

9. Type another alias and press RETURN. This prompt repeats until you simply press RETURN.

Confirm this user information? (Y/N):

10. Type **Y** or **N** to confirm the information ↵.

Y Adds the user.

N Return to step 3.

Done. <User name:Domain:Organization> (User) added.
Add another user? (Y/N):

11. Type **Y** or **N** to add another user ↵.

Y Return to step 3.

N Ends the process.



CAUTION: A new user name may need up to a week to take effect throughout a large internetwork. Do not delete the old name until the new name has been replicated throughout the internetwork.

12. Type **Delete** ↵.

Name:

13. Type the user's old name and domain \Leftarrow .

Deleting <old user name:domain:organization>. This User will no longer be registered.
Confirm? (Y/N):

14. Type **Y** or **N** to confirm the deletion \Leftarrow .

Y Deletes the old user name.

N Cancels the deletion.

Done.
CHS!

15. Log off.

Wrap-up

When you see the message "Done," you have successfully changed a user name in the Clearinghouse database.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Now perform these procedures:

- "Changing file drawer information" (see the File Service chapter)
- "Change mailboxes" (see the Mail Service chapter)
- "Adding user groups" (see this chapter)

If your network has only one Clearinghouse, perform the "Backing up a single Clearinghouse Service" procedure in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

Example

This example shows changing a user's registered name. The user's last name is changed from Smith to Marigold.

CHS!Add User

First Name (and Middle Name, if desired): **Janet L.**

Last Name: **Marigold:Boston:Acme**

Password: *********

Description: **Software Project Leader**

"Home" File Service: **Whitehorse:Detroit:Acme**

Alias: **Marigold**

Alias: **JLM**

Alias:

Confirm this User information? (Y/N): **Y**

Done. Janet L. Marigold:Boston:Acme (User) added.

Add another User (Y/N): **N**

CHS!Delete

Name: **Smith:Boston**

Deleting Janet L. Smith:Boston:Acme. This User will no longer be registered.

Confirm? (Y/N): **Y**

Done.

CHS!

Changing domain access



Use this procedure to add, change, or remove domain access privileges for a user or group. A Domain Administrator can replicate and delete that domain, and can designate other administrators of that domain.

The recommended way to control domain administration is to set up a user group specifically for that purpose. Grant administrative access privileges to that group.

Prerequisites

- If you are granting Domain Administration privileges to a group, ensure that the group exists and contains members.
- Know the group name.
- Update the Clearinghouse Service Worksheet with any changes you are making to the domain name and access privileges.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Change Domain Access** .

Domain Name:

3. Type the domain name .

Name:

4. Type a current or new Domain Administrator or group .

Admin Access? (Y/N):

5. Type **Y** or **N** to grant administrative access .
- Y** Grants administrative access to the name you specified.
N Does not grant administrative access to the name you specified.

Done. <user name:domain:organization > granted Admin access to <domain:organization >
CHS!

6. Log off.

Wrap-up

When you see the message "Done," you have successfully changed domain access in the Clearinghouse database.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

If your network has only one Clearinghouse, perform the "Backing up a single Clearinghouse Service" procedure in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

Example

This example shows changing domain access. Administrative access privileges are given to a user group made up of System Administrators.

CHS!Change Domain Access

Domain Name: **Detroit**

Name: **SysAdmin**

Admin Access? (Y/N): **Y**

Done. SysAdmin:Detroit:Acme granted Admin access to Detroit:Acme.

CHS!

Changing group access



Use this procedure to grant or revoke administrative or self access privileges for the members of a user group. Initially, Domain Administrators have such access and can use this procedure to delegate it to other users.



Domain Administrators can delete any user group, whether or not they have administrative access to it the group.

Prerequisite

Update the Group Member Directory Worksheet with any changes you are making to the user names and access privileges.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Change Group Access** .

Group:

3. Type the name of the group for which you are changing the access controls .

Access by:

4. Type the name of the user who has or will have access to this group .

Admin Access? (Y/N):

5. Type **Y** or **N** to grant administrative access .
 - Y** Grants administrative access to the name you specified.
 - N** Does not grant administrative access to the name you specified.

Self Access? (Y/N):

6. Type **Y** or **N** to grant self access .
 - Y** Grants self access to the name you specified.
 - N** Does not grant self access to the name you specified.

Change another Access List entry? (Y/N):

7. Type **Y** or **N** to change another access list entry .
 - Y** Return to step 4.
 - N** Ends the process.
8. Log off.

```
Done. Access List changed
```

Wrap-up

When you see the message "Access List changed," you have successfully changed group access in the Clearinghouse database.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

If your network has only one Clearinghouse, perform the procedure "Backing up a single Clearinghouse Service" in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

Example

This example shows changing group access. All users in Boston:Acme are authorized to add themselves to the group named Product Testers.

```
CHS!Change Group Access
  Group: Product Testers:Boston
  Access by: Boston:Acme
  Admin Access? (Y/N): N
  Self Access? (Y/N): Y
  Change another Access List entry? (Y/N): N
Done. Access List changed
CHS!
```

Changing organization access

Use this procedure to change the access controls for an organization. An Organization Administrator can create new domains within that organization, and can designate other administrators of that organization.

Prerequisites

Update the Clearinghouse Service Worksheet with any changes you are making to the name of the organization and its administrator.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Change Organization Access** .

```
Organization Name:
```


3. Type the organization name \leftarrow .

Name:

4. Type the name of the user who is or will be an Organization Administrator \leftarrow .

Admin Access? (Y/N):

5. Type **Y** or **N** to grant administrative access \leftarrow .

Y Grants administrative access to the name you specified.

N Does not grant administrative access to the name you specified.

Done. <name:domain:org> granted Admin access to <domain:org>

6. Log off.

Wrap-up

When you see the message "Done. <name:domain:org> granted Admin access to <domain: org>," you have successfully changed organization access for a user in the Clearinghouse database.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

If your *network* has only one Clearinghouse, perform the procedure "Backing up a single Clearinghouse Service" in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

Example

This example shows changing organization access. The user Prospero Jones is given administrative access to the organization Acme.

CHS!Change Organization Access

Organization Name: **Acme**

Name: **Prospero Jones**

Admin Access? (Y/N): **Y**

Done. Prospero Jones:OurOrg:Acme granted Admin access to ::Acme.

Changing user information



Use this procedure to change a user's description, home File Service, or both.

Prerequisites

- If you are changing the user's home File Service, retrieve the user's desktop to a workstation. Keep the desktop on the workstation until you make the change, and all Clearinghouses serving the domain have noted it (up to one week later for large internetworks).
- Update the User Directory Worksheet with any changes you are making to the user name, description, and home File Service.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Change User** .

Name:

3. Type the name of the user whose information you want to change .

Changing User: <user name >
Description: <current description >

4. To change the description of the user, type the new user description and press RETURN; or press RETURN to skip the prompt without changing the information.

"Home" File Service: <current File Service >

5. To change the user's home File Service, type the new home File Service .

Confirm this User information? (Y/N):

6. Type **Y** or **N** to confirm the information .
 - Y** Changes the user information.
 - N** Cancels the process.

Done. <user name:domain:org > (User) changed.
CHS!

7. Log off.

Wrap-up

When you see the message "Done. <user name:domain:org> (User) changed," you have successfully changed the user information in the Clearinghouse database.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

If your network has only one Clearinghouse, perform the "Backing up a single Clearinghouse Service" procedure in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

Example

This example shows changing user information.

```

CHS!Change User
  Name: Citizen:Boston
  Changing User: John Q. Citizen
  Description: Software Project Manager
  "Home" File Service: Rose:Boston
  Confirm this User information? (Y/N): Y
Done. John Q. Citizen:Boston:Acme (User) changed.
CHS!

```

Correcting domain inconsistency



Use this procedure to correct inconsistencies between domains. Interrupted server operation can cause inconsistencies between Clearinghouses. If you notice inconsistencies lasting longer than 24 hours, correct them manually using the **Compare Databases** command. You also perform this operation if the network addresses of two Clearinghouses change simultaneously during a large-scale move.

Prerequisite

If you are using the **Compare Databases** command for the first time, see the Clearinghouse Service Worksheet which provides the name, address, network number, and processor number for the remote Clearinghouse.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Compare Databases** \Leftarrow .

Remote CHS name:

- If you are comparing databases for the first time or after joining two internetworks, press RETURN. **Perform steps 4 through 6** before logging off. Otherwise, **skip to step 7**.

Enter remote CHS address:

- Type the address of the remote Clearinghouse \leftarrow .

Network Number:

- Type the network number of the remote Clearinghouse \leftarrow .

Processor Number:

- Type the processor number of the remote Clearinghouse \leftarrow .
- Type the name of the Clearinghouse Service with which you want the comparison performed \leftarrow .

NOTE

You generally specify the nearest Clearinghouse Service with a copy of the affected domain.

Comparing Databases.
Done. Databases are consistent.

- Log off.

Wrap-up

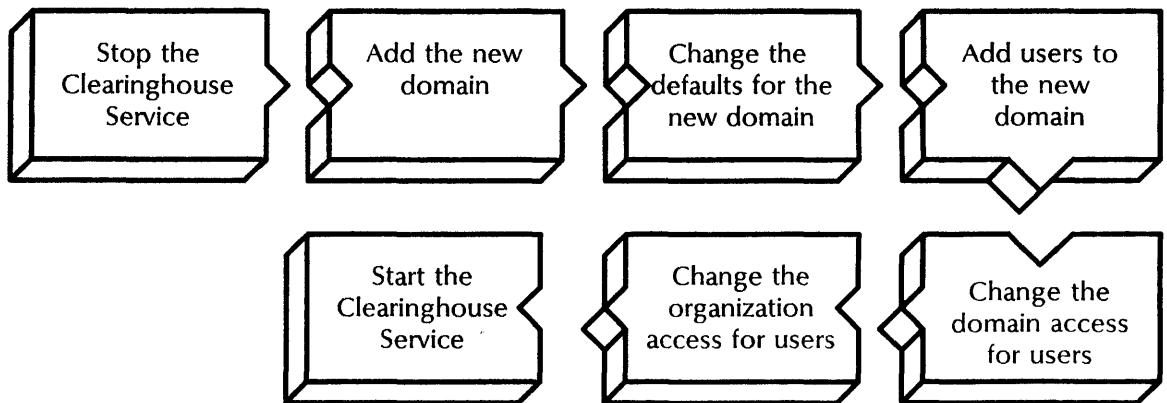
When you see the message "Done. Databases are consistent," the databases have been compared and corrected as necessary. You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows databases being compared for the first time after two internetworks have been joined.

```
CHS!Compare Databases
Remote CHS name:
Enter remote CHS address:
Network Number: 1-703
Processor Number: 12-584-766-232
Comparing Databases.
Done. Databases are consistent.
CHS!
```

Creating domains



Use this procedure to create domains. You can create a domain in one of two ways:

- If a new network is to share your domain, make the remote System Administrator a Domain Administrator of the existing domain by performing steps 11 through 24.
- If a new network or organization is to have a new domain of its own, create the new domain on your Clearinghouse Service by performing steps 1 through 31.

Prerequisites

- Have access to the organization that is to contain the new domain.
- Have the special organization-specific password you obtained from the Xerox Software Control Center, which approved and registered your organization name.
- Update the User Directory Worksheet and the Clearinghouse Service Worksheet with any changes you are making to the domain and user names, password, description, home File Service, aliases, and access privileges.
- Notify users that the Clearinghouse will be unavailable for a period of time.

Step-by-step

1. Log on and enable in the Clearinghouse context.
2. Type **Stop Service** .

```

Select choices
1 Clearinghouse Service
2 <service name >
Enter one or more choices:
  
```

3. Type the number for the Clearinghouse Service .

CHS: Stop immediately? (Y/N):

4. Type **Y** or **N** at the "Stop immediately" prompt .

 - Y** Stops the Clearinghouse immediately; all Clearinghouse Service functions are unavailable to the network.
 - N** Stops the Clearinghouse after all current activity ends.

Stopping Clearinghouse Service.
Clearinghouse Service functions are now unavailable to the network.

CHS!

5. Type **Add Domain** .

Domain name:

6. Type the domain and organization name of the domain you want to create.

NOTE

Enter these names carefully. Make sure the use of uppercase, lowercase, and spacing is correct. To make corrections after you create the domain, you must delete and recreate the domain.

Organization <organization> does not exist.
Creating new Organization <organization> on this CHS.
Confirm? (Y/N):

7. If the Organization name does not exist:
 - a. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Confirms the new organization.
 - N** Return to step 6.

Enter password for creating this organization:

- b. Type the organization password using the correct case and spacing .
- c. **Continue with step 8.**

Domain <domain:organization> does not exist.
Creating new <domain:organization> on this CHS.
Confirm? (Y/N):

8. Type **Y** or **N** to confirm the new domain .

 - Y** Adds the new domain.
 - N** Return to step 6.

9. Type **Change Default** .
10. Type the name of the new domain and organization .

Done.
CHS!

Default Domain:

Done.
CHS!

11. Type **Add User** ↵.

First Name (and Middle Name, if desired):

12. Type the user's first name and middle initial ↵.

Last Name:

13. Type the user's last name ↵.

Password:

14. Type the user's password ↵.

Description:

15. Type a description for the user ↵.

"Home" File Service:

16. Type the name of the user's home File Service ↵.

Alias:

17. Type an alias for the user ↵.

Alias:

18. Type another alias and press RETURN. This prompt repeats until you simply press RETURN.

Confirm this User information? (Y/N):

19. Type **Y** or **N** to confirm the information ↵.

Y Adds the user.

N Return to step 12.

Done. <user name:domain:organization> (User) added.
Add another User? (Y/N):

20. Type **Y** or **N** to add another user .

Y Return to step 12.

N Ends the process.

21. Type **Change Domain Access** .

Domain Name:

22. Type the domain name .

Name:

23. Type the fully qualified name of the Domain Administrator .

Admin Access? (Y/N):

24. Type **Y** to grant administrative access .

Y Grants administrative access to the user.

N Does not grant administrative access to the user.

Done. <name:domain:organization> granted Admin access
to <domain:organization>

25. Type **Change Organization Access** .

Organization Name:

26. Type the organization name .

Name:

27. Type the name of the user .

Admin Access? (Y/N):

28. Type **Y** to grant administrative access .


Y Grants administrative access to the user.

N Does not grant administrative access to the user.

Done. <name:domain:organization> granted Admin access
to <domain:organization>
CHS!

29. Type **Start Service** .

```
Select choices
1 Clearinghouse Service
2 <service name >
Enter one or more choices:
```

30. Type the number for the Clearinghouse Service .

```
Starting Clearinghouse Service.
Clearinghouse Service functions are now available to the
network.
CHS!
```

31. Log off.

Wrap-up

When you see the message "Clearinghouse Service functions are now available to the network. CHS!," you have successfully created the domain.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

If your network has only one Clearinghouse, perform the "Backing up a single Clearinghouse Service" procedure in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

Example

This example shows creating a domain. First, the Clearinghouse Service is stopped. Then the new domain is added, and John Williams is added to the domain as a user. Next, Williams is given administrative access to the domain and organization. Finally, the Clearinghouse is started again.

CHS!Stop Service

Select choices

- 1 Clearinghouse Service
- 2 Internetwork Routing Service

Enter one or more choices: **1**

CHS: Stop immediately? (Y/N): **Y**

Stopping Clearinghouse Service.

Clearinghouse Service functions are now unavailable to the network.

CHS!Add Domain

Domain Name: **Marketing**

Domain Marketing:ABC does not exist.

Creating new Domain Marketing:ABC on this CHS. Confirm? (Y/N): **Y**

Done.

CHS!Change Default

Default domain: **Marketing:OurOrg**

Done.

CHS!Add User

First Name (and Middle Name, if desired): **John B**

Last Name: **Williams**

Password: *********

Description: **System Administrator for Marketing**

"Home" File Service: **Chipmunk**

Alias: **JBW**

Alias:

Confirm this User information? (Y/N): **Y**

Done. John B Williams:Marketing:ABC (User) added.

Add another user? (Y/N): **N**

CHS!Change Domain Access

Domain Name: **Marketing**

Name: **JBW**

Admin Access? (Y/N): **Y**

Done. John B Williams:Marketing:ABC granted Admin Access to Marketing:ABC.

CHS!Change Organization Access

Organization Name: **ABC**

Name: **JBW**

Admin Access? (Y/N): **Y**

Done. John B Williams:Marketing:ABC granted Admin Access to Marketing:ABC.

CHS!Start Service

Select choices

- 1 Clearinghouse Service

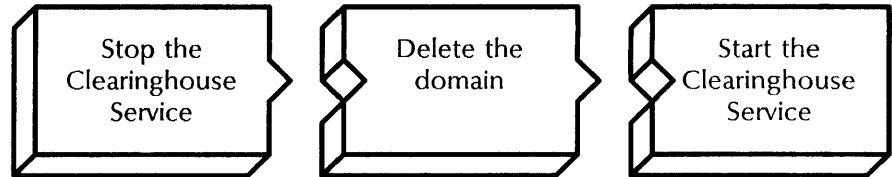
Enter one or more choices: **1**

Starting Clearinghouse Service.

Clearinghouse Service functions are now available to the network.

CHS!

Deleting a domain



Use this procedure to delete the last or next-to-last copy of a domain. Confirm the deletion only if you intend to eliminate the domain from the Clearinghouse database. If you do not want to eliminate the domain, replicate it first.

On an internetwork, this procedure deletes only the local copy of the domain.

Prerequisites

- Make sure you have administrative access to the server's domain and the domain you are deleting.
- Schedule the deletion during off-peak hours.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Stop Service**

```

Select choices
1 Clearinghouse Service
2 <service name >
Enter one or more choices:
  
```

3. Type the number for the Clearinghouse Service .

```

CHS: Stop immediately? (Y/N):
  
```

4. Type **Y** or **N** at the "Stop immediately" prompt .
 - Y** Stops the Clearinghouse immediately; all Clearinghouse Service functions are unavailable to the network.
 - N** Stops the Clearinghouse after all current activity ends.

```

Stopping Clearinghouse Service.
Clearinghouse Service functions are now unavailable to
the network.
CHS!
  
```

5. Type **Delete Domain** .

```

Domain:
  
```

6. Type the domain name ↵.

Deleting Domain <domain:organization> from this CHS.
Confirm? (Y/N):

7. Type **Y** or **N** to confirm the deletion ↵.

Y Confirms the deletion.

N Return to step 6.

Warning: This is the only copy of Domain
<domain:organization>.
Confirm destruction of this domain? (Y/N):

8. Type **Y** or **N** to confirm the deletion again ↵.

Y Deletes the domain.

N Return to step 6.



CAUTION: If you delete the last copy of a domain, you cannot re-create that domain for at least one month.

Done.
CHS!

9. Type **Start Service** ↵.

Select choices
1 Clearinghouse Service
2 <service name>
Enter one or more choices:

10. Type the number for the Clearinghouse Service ↵.

Starting Clearinghouse Service.
Clearinghouse Service functions are now available to the
network.
CHS!

11. Log off.

Wrap-up

When you see the message "Clearinghouse Service functions are now available to the network. CHS!," the domain has been successfully deleted.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Place a copy in the *Activities Guide*.

If your network has only one Clearinghouse, perform the "Backing up a single Clearinghouse Service" procedure in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

Example

This example shows deleting the Pittsburgh domain from a Clearinghouse Service that has been stopped. After the deletion, the Clearinghouse Service must be restarted.

```

CHS!Delete Domain
  Domain: Pittsburgh:Acme
Deleting Domain Pittsburgh:Acme from this CHS.
Confirm? (Y/N): Y
Warning: This is the only copy of Domain Pittsburgh:Acme
Confirm destruction of this domain? (Y/N): Y
Done.
CHS!
  
```

Deleting a group



Use this procedure to delete groups within a domain. A group need not be empty to be deleted. Use the **List Groups** command first to confirm the name of the group you want to delete.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **List Groups**

Pattern:

3. Type a group name pattern to list specific groups, or the wildcard symbol (*) to list all groups in the domain .
4. Note the correct group name.
5. Type **Delete** .

Name:

6. Type the name of the group you want to delete .

```

Deleting <group name:domain:organization> This Group will
no longer be registered.
Confirm? (Y/N):
  
```

7. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Deletes the group.

N Cancels the process.

```
Done.
CHS!
```

8. Log off.

Wrap-up

When you see the message "Done. CHS!," you have successfully deleted the group.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

If your network has only one Clearinghouse, perform the "Backing up a single Clearinghouse Service" procedure in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

Example

This example shows a System Administrator group being deleted.

```
CHS!Delete
  Name: SysAdmin:Boston
Deleting SysAdmin:Boston:Acme. This Group will no longer be registered.
Confirm? (Y/N): Y
Done.
CHS!
```

Deleting a member from a group



Use this procedure to delete a group member. Use the **List Members** command first to confirm the name of the member you want to delete.



When you change a user's registered name, you must also change the user's name in all groups of which the user is a member. Delete the old name from the group, then add the user using the new name. Similarly, when you delete a user from the Clearinghouse database, you must delete the user from all groups.

Prerequisites

- If you are a Group Administrator attempting to delete yourself from your own group, you must have self access privileges.
- Update the Group Member Directory Worksheet with any changes you are making to the group and member names.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **List Members** .

Group:

3. Type the group name .
4. Note the correct member name.
5. Type **Delete Member** .

Group:

6. Type the group name .

Member:

7. Type the fully qualified name of the member you want to delete and press RETURN. You can also type an alias, group name, or pattern.

Deleting < member name:domain:organization > from
< group name:domain:organization >
Confirm? (Y/N):

8. Type **Y** or **N** to confirm the deletion .
 - Y** Deletes the group member.
 - N** Return to step 7.

Done.
CHS!

8. Log off.

Wrap-up

When you see the message "Done. CHS!," you have successfully deleted the group member.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Place a copy in the *Activities Guide*.

If your network has only one Clearinghouse, perform the "Backing up a single Clearinghouse Service" procedure in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

Example

This example shows deleting a member name from a System Administrator group.

```

CHS!Delete Member
  Group: SysAdmin:Boston
  Member: John Q. Citizen:Boston:Acme
Deleting John Q. Citizen:Boston:Acme from
SysAdmin:Boston:Acme
  Confirm? (Y/N): Y
Done.
CHS!

```

Deleting a registered object



Use this procedure to remove a user or object registered in the Clearinghouse database.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Delete** .

Name:

3. Type the name of the object you want to delete .

NOTE

You can enter an alias at the "Name" prompt to delete the object with that alias. To delete only the alias and leave the object registered, use the **Delete Alias** command.

```

Deleting < object name:domain:organization >. This
< object > will no longer be registered.
  Confirm? (Y/N):

```

4. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Deletes the object.
 - N** Cancels the process.

```

Done.
CHS!

```

5. Log off.

Wrap-up

When you see the message "Done. CHS!," you have successfully deleted the user.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Place a copy in the *Activities Guide*.

If your network has only one Clearinghouse, perform the procedure "Backing up a single Clearinghouse Service" in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

Example

This example shows deleting a user registration from a Clearinghouse.

```
CHS!Delete
```

```
  Name: Citizen:Boston
```

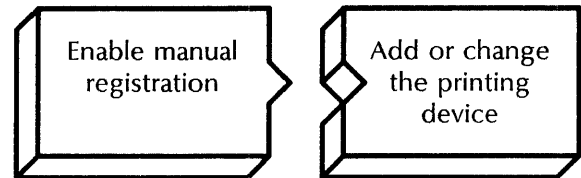
```
Deleting John Q. Citizen:Boston:GemSysCo. This User will no longer be registered.
```

```
  Confirm? (Y/N): Y
```

```
Done.
```

```
CHS!
```

Enabling manual registration for Print Services



Use this procedure to manually register a printing device like the 9700 Electronic Printer supported by the Print Service. You manually register a printing device if you are adding a printing device, or changing registration information about an already existing printing device. Use this procedure when a printing device cannot register itself.

Prerequisites

- Set up and properly attach the printing device to the network. See the installation instructions for the printing device.
- Initialize the Print Service.
- Update the Print Service Worksheet with any changes you are making to the name, network number, processor number, and description of the Print Service.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Enable Manual Registration** \leftarrow .

Warning: Use only according to instructions.
CHS!

3. If you are adding a new printing device, type **Add Print Service** \leftarrow .

If you are changing information for an already registered device, type **Change Print Service** \leftarrow .

NOTE

The **Enable Manual Registration** command enables you to enter only one manual registration command (**Add** or **Change**). Repeat the **Enable Manual Registration** command before each manual registration command.

Name:

4. Type the name of the printing device \leftarrow .

Network Number:

5. Type the network number \leftarrow .

Processor Number:

6. Type the processor number .

Description:

7. Type a description for the printing device .

Confirm this Print Service information? (Y/N):

8. Type **Y** or **N** at the "Confirm" prompt .

Y Registers the printing device or changes the registration information.

N Return to step 4.

Done. <printing device:domain:organization> (Print Service) <added/changed>.
Add another Print Service? (Y/N):

9. Type **Y** or **N** at the "Add another Print Service" prompt .

Y Return to step 4.

N Ends the process.

10. Log off.

Wrap-up

When you see the message "(Print Service) added" or "(Print Service) changed," you have manually registered the printing device with the Clearinghouse Service.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Place a copy in the *Activities Guide*.

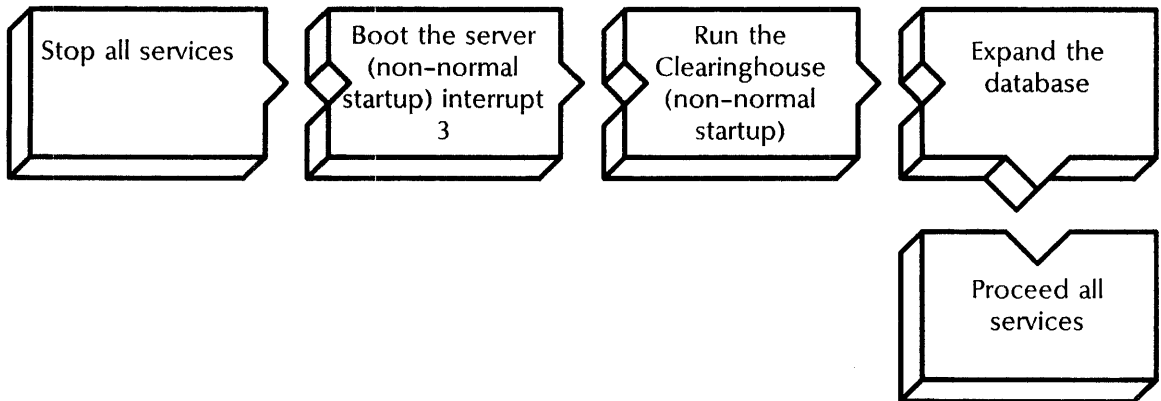
Example

This example shows registering the printing device named Penguin in the Clearinghouse database for the first time.

```

CHS!Enable Manual Registration
Warning: Use only according to instructions.
CHS!Add Print Service
  Name: Penguin
  Network Number: 021-345
  Processor Number: 01-354-321-789
  Description: Located in 1st floor lobby
  Confirm this Print Service information? ((Y/N): Y
Done. Penguin:Detroit:Acme (Print Service) added.
  Add another Print Service? (Y/N): N
CHS!
    
```

Expanding the Clearinghouse database



Use this procedure to increase the size of the database. You may need to perform this procedure if your Clearinghouse domain expands, or if you add replicated domains to your local database.

Prerequisites

- If there are no additional Clearinghouses available on your network, notify all users that all services will be unavailable for some time.
- Update the Clearinghouse Service Worksheet with any changes you are making.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Stop Service** \Leftarrow .

```

Select choices
1 Clearinghouse Service
2 <service name >
Enter one or more choices:
    
```

3. Type the numbers for all services (for example, 1-2) ↵.

```
<service name>: Stop immediately? (Y/N):
```

4. Type **Y** or **N** at each "Stop immediately" prompt ↵.
- Y** Stops the service immediately; all service functions are unavailable to the network.
- N** Stops the service once all current sessions have been terminated.

```
Stopping <service name> .
<service name> functions are now unavailable to the
network.
<service>!
```

5. Boot the server.
- Hold down the Boot Reset (B RESET) and Alternate B (ALT B) buttons at the same time.
 - Release the Boot Reset (B RESET) button.
 - When the maintenance panel displays 0001, release the Alternate B (ALT B) button.

```
Normal startup? (Y/N):
```

6. Type **N** at the "Normal startup" prompt ↵.
- Y** Normally starts and runs each service loaded on the server.
- N** Starts the services, but requires user interaction for the non-normal startup options for each service loaded on the server.

```
Enter interrupt point
1 Interrupt before opening primary volume
2 Interrupt before processing profile
3 Interrupt before running services
Enter one or more choices:
```

7. Type **3** for the "Interrupt before running services" option ↵.

```
Opening volume...done
Server is attached to network number: <number>
Server Name: <name>
Server Description: <description>
Validating server registration...Server entry validated.
>
```

8. If the Clearinghouse is replicated, log on and enable.
If you have a single Clearinghouse network, **skip to step 9.**

9. Type **Run Service** .

Select choice
1 Clearinghouse Service
2 <service name >
Enter one or more choices:

10. Type the number for the Clearinghouse Service .

CHS: Normal startup? (Y/N):

11. Type **N** at the "Normal startup" prompt .
- Y** Starts and runs all services on the active service list.
 - N** Registers the server but does not run any services.

Running Clearinghouse Service.
Select CHS non-normal option:
1 Expand Database
2 Run, but don't start
Enter choice number:

12. Type **1** for the "Expand Database" option .

Opening and expanding Clearinghouse Service database.
Current database size is <number> pages (<number>% of
the disk),
<number> pages used out of <number> total.
Disk pages to add to database (0..<number>):

13. Type the number of pages you wish to add and press RETURN. You cannot reduce the size of a Clearinghouse database.

Database size will be <number> disk pages.
Confirm? (Y/N):

14. Type **Y** or **N** at the "Confirm" prompt .
- Y** Expands the database to its new size.
 - N** Return to step 13.

Service is registered.
Done. Clearinghouse database open.
Clearinghouse Service functions are now available to
network.
Clearinghouse Service run.

15. Type **Proceed** .

Wrap-up

When you see the message "Clearinghouse Service run," you have successfully expanded the database. The remaining services are run.

Example

This example shows expanding the Clearinghouse database after the service has been run. Note that the Clearinghouse database size is always a multiple of six pages.

CHS!Stop Service

Select choices

1 Clearinghouse Service

Enter one or more choices: **1**CHS: Stop immediately? (Y/N): **Y**

Stopping Clearinghouse Service.

Clearinghouse Service functions are now unavailable to the network.

*(Boot the server)*CHS: Normal startup? (Y/N): **N**

Enter interrupt point

1 Interrupt before opening primary volume

2 Interrupt before processing profile

3 Interrupt before running services

Enter one or more choices: **3**

Opening volume....done

Server is attached to network number: 1-105

Server Name: Clearinghouse Server:AlphaServices:Xerox

Server Description: Clearinghouse server

Validating server registration...Server entry validated.

> LogonUser Name: **Martin Rigby**

Password: *****

> Enable**!Run Service**

Select choice

1 Clearinghouse Service

Enter one or more choices: **1**CHS: Normal startup? (Y/N): **N**

Running Clearinghouse Service.

Select CHS non-normal option:

1 Expand Database

2 Run, but don't start

Enter choice number: **1**

Opening and expanding Clearinghouse Service database.

Current database size is 4002 pages (23% of the disk),

3850 pages used out of 4002 total.

Disk pages to add to database (0..3890): **1600**

Database size will be 5598 disk pages.

Confirm? (Y/N): **Y**

Service is registered.

Done. Clearinghouse database open.

Clearinghouse Service functions are now available to the network.

Clearinghouse Service run.

CHS!Proceed

Listing objects registered in a domain



Use this procedure to display lists of various registered objects. When you type the command, follow the word **List** with one of these object types:

List commands

Aliases	Internetwork Routing Services
Boot Services	Members
Communication Interface Units	Print Services
Communication Monitoring Services	Organizations
Domains	Remote Batch Services
External Communication Services	RS232C Ports
File Services	Servers
Gateway Services	Users
IBM 3270 Hosts	User Groups
Interactive Terminal Services	Workstations
Mail Services	

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **List <object>** **↵**.

Pattern:

3. Type a pattern for the object names to be listed and press RETURN. You can use the wildcard symbol (*) as the local name only. Press RETURN to list all objects of the specified type.
4. Log off.

Wrap-up

When you see the "CHS!" prompt, the listing of the object you specified is complete.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Place a copy in the *Activities Guide*.

Example

This example shows the information you see when you list a Mail Service.

CHS!List Mail Services

Pattern: *

Mail Service SlyCat2:OurDomain:OurOrg on Rum Runner

CHS!

Manually updating Clearinghouses connected by dial-up links

Use this procedure to maintain the consistency of distributed Clearinghouse databases that are not continuously interconnected.

Prerequisites

- Determine which domains are served on both sides of a transient link, and record the names of the Clearinghouses serving these domains. If no one domain is served on both sides of a dial-up link, record the names of the Clearinghouses residing on opposite sides of the link.
- Arrange for the System Administrator of each domain to perform the procedure. The two administrators should be in telephone contact to ensure that they use the **Compare Databases** command simultaneously.
- Ensure that domains served on both ends of a transient link are checked every other day for consistency.

Step-by-step

1. Log on and enable in the Internetwork Routing Service context.
2. Type **List Routes** and press RETURN. You see a list of internetwork links.
3. Verify that all transient links are currently available.
4. Enter the Clearinghouse Service context.
5. Type **Compare Databases** at the same time as the remote System Administrator **↵**.

Remote CHS name:

6. Type the name of the Clearinghouse Service with which you want the comparison performed **↵**.

Comparing databases.
Done. Databases are consistent.
CHS!

7. Log off.

Wrap-up

When you see the message "Done. Databases are consistent," the database has been successfully updated.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows manually updating Clearinghouses using the **Compare Databases** command.

```

IRS!Clearinghouse Service
CHS!Compare Databases
  Remote CHS name: Tonto
Comparing Databases.
Done. Databases are consistent.
CHS!
  
```

Merging internetworks



Use this procedure as the last step in establishing a link between two Internetwork Routing Services, one on each internetwork. This procedure ensures that the Clearinghouse databases on both internetworks are consistent.

Prerequisites

- Consult your Systems Analyst. Establishing an internetwork link places a heavy burden on all Clearinghouses on both internetworks. The globally distributed portion of every Clearinghouse database on the resulting merged internetwork must be updated.
- Because all Clearinghouse Services inform each other about changes to the distributed databases, establish a schedule for maintaining the communication links and checking their reliability.
- Schedule the procedure for off-peak hours.
- Arrange for the Domain Administrator of each domain to perform the procedure. The two administrators should be in telephone contact during the procedure to ensure that they use the **Compare Databases** command simultaneously.
- Ensure that the two internetworks do not have domain names in common. If they do, a link between them cannot be established.

- Obtain the network number and processor number of the Clearinghouse Service on the other internetwork.
- Ensure that the Internetwork Routing Service link between both networks is up and running.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Compare Databases** simultaneously with the other Domain Administrator **↵**.

Remote CHS name:

3. Press RETURN at the "Remote CHS name" prompt.

Network Number:

4. Press RETURN at the "Enter remote CHS address" prompt.

Enter remote CHS address:

5. Type the network number of the remote Clearinghouse **↵**.

Processor Number:

6. Type the processor number of the remote Clearinghouse **↵**.

Comparing Databases.
Done. Databases are consistent.
CHS!

7. Log off.

Wrap-up

When you see the message "Done. Databases are consistent," you have successfully established a link between the two internetworks.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows merging two internetworks. Both Domain Administrators follow the same steps on their respective sides of the link.

CHS!Compare Databases

Remote CHS name:

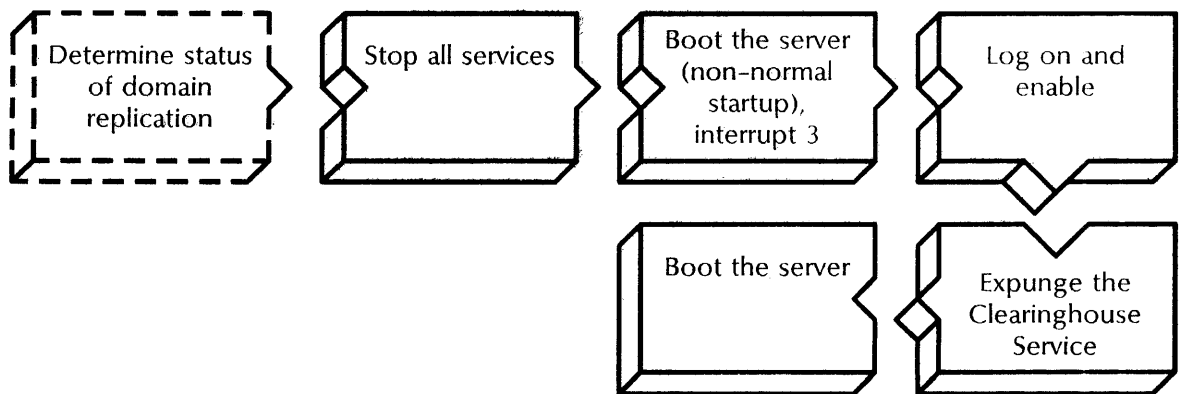
Enter remote CHS address:

Network Number: **1-703**Processor Number: **12-584-766-232**

Comparing Databases.

Done. Databases are consistent.

CHS!

Removing the Clearinghouse Service from a server

Use this procedure to remove the Clearinghouse Service from a server and erase the Clearinghouse database.

NOTE

Do not use the **Deactivate** command to remove a Clearinghouse Service. The **Deactivate** command puts a service out of operation temporarily and does not recover disk space. If you do not properly remove an unwanted Clearinghouse Service, problems will arise in the distributed Mail and Clearinghouse systems.

Prerequisites

- If you are moving a Clearinghouse Service to another server, replicate the domains contained in the Clearinghouse database to another server before you delete the original database. See the "Adding copies of domains (replicating)" procedure earlier in this chapter.
- Use the **Show Status** command to display a list of all domains served locally. Be sure that each domain is either replicated at one or more other Clearinghouse Services, or that it is no longer needed in the internetwork.

- Notify users that you will be stopping the services.

Step-by-step

1. Log on and enable at the server running the Clearinghouse Service.
2. Type **Stop Service** .

Select choices
 1 Clearinghouse Service
 2 <service name >
 Enter one or more choices:

3. Type the numbers for all services (for example, **1-2**) .

<service name > : Stop immediately? (Y/N):

4. For each service, type **Y** or **N** at the "Stop immediately" prompt .
 - Y** Stops the service immediately; all service functions are unavailable to the network.
 - N** Stops the service after all current activity ends.

Stopping <service name >.
 <service name > functions are now unavailable to the network.
 !

5. Boot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate B (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate B (ALT B) button.

Normal startup? (Y/N):

6. Type **N** at the "Normal startup?" prompt .
 - Y** Starts and runs all services on the active service list.
 - N** Registers the server but does not run any services.

Enter interrupt point
 1 Interrupt before opening primary volume
 2 Interrupt before processing profile
 3 Interrupt before running services
 Enter one or more choices:

7. Type **3**, for the "Interrupt before running services" option .

```

Opening volume...done
Server attached to network number <number>
Server Name: <name>
Server Description: <description>
Validating server registration...Server entry validated.
>

```

8. Log on and enable.

```
!
```

9. Type **Expunge Service** .

```

Select choice
1 Clearinghouse Service
2 <service name>
Enter one or more choices:

```

10. Type the number for the Clearinghouse Service .

```
CHS: Confirm? (Y/N):
```

11. Type **Y** or **N** at the "Confirm" prompt .

Y Confirms the expunge.

N Cancels the operation. Reboot the server.

```
Destroy the domains known only to this server (Y/N):
```

12. Type **Y** to verify the destruction of domains and press RETURN. This prompt appears if the Clearinghouse domain is not replicated anywhere else on the network.

Y Destroys the domain.

N Cancels the operation. Reboot the server.

```

Clearinghouse Service expunged
>

```

13. Boot the server.

NOTE

If the **Expunge Service** command does not complete, boot the server and use the command again until it does complete.

Wrap-up

When you see the message "Clearinghouse Service expunged," you have successfully removed the Clearinghouse Service from the server and restarted all services.

Example

This example shows removing a Clearinghouse Service from a server.

CHS!Stop Service

Select choices

- 1 Clearinghouse Service
- 2 Internetwork Routing Service

Enter one or more choices: **1-2**

CHS: Stop immediately? (Y/N): **Y**

Stopping Clearinghouse Service.

Clearinghouse Service functions are now unavailable to the network.

CHS!

IRS: Stop immediately? (Y/N): **Y**

Stopping Internetwork Routing Service.

Internetwork Routing Service functions are now unavailable to the network.

!

(Boot the server)

Normal Startup? (Y/N): **N**

Enter interrupt point

- 1 Interrupt before opening primary volume
- 2 Interrupt before processing profile
- 3 Interrupt before running services

Enter one or more choices: **3**

Opening volume....done

Server is attached to network number: 1-105

Server Name: Panama:OurDomain:OurOrg

Server Description: CHS and IRS server

Validating server registration...Server entry validated.

> Logon

User Name: **Fred User**

Password: ***

> **Enable**

!Expunge Service

Select choice

- 1 Clearinghouse Service
- 2 Internetwork Routing Service

Enter one or more choices: **1**

Confirm? (Y/N): **Y**

Destroy the domains known only to the server? (Y/N): **Y**

Expunging database ...

Clearinghouse Service expunged

!(Boot the server)

Showing Clearinghouse status



Use the **Show Status** command to display the status of the Clearinghouse Service and its local database.

Step-by-step

1. Direct your commands to the Clearinghouse Service context.
2. Type **Show Status** and press RETURN. The status information appears.
3. Log off.

Wrap-up

When you see the "CHS!" prompt, the status display is complete. You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows the status of the Clearinghouse and its local database.

```
CHS!Show Status
Database: 1250 disk pages used out of 3000 total; 42% full
Booted: 15-June-84 8:02:36 PM
Uptime: 457:43:11
Domains served:
    OurDomain:OurOrg
CHS!
```

Showing domains



Use this procedure to display the size, administrators, and Clearinghouses serving the specified domain.

The list of names that appear under “Administered by” are the Domain Administrators for the domain.

Step-by-step

1. Log on in the Clearinghouse Service context.
2. Type **Show Domain** \Leftarrow .

Name:

3. Type the domain name and press RETURN. The domain information appears.



Do not use wildcards when specifying the domain. This can slow the procedure by 15 minutes to 3 hours. Also, the domain information displayed may correspond to an unidentified domain.

4. Log off.

Wrap-up

When you see the “CHS!” prompt, the domain information has been displayed.

Example

This example shows information for the Boston domain. Note that the Clearinghouse named Sequoia is unavailable.

```
CHS!Show Domain
  Name: Boston
  Size = 412 pages.
  Administered by:
    SystemAdministrators:Boston:Acme
  Served by CHSs:
    Songbird (UP)
    Tonto (UP)
    Sequoia (DOWN)
CHS!
```

Showing group access



Use this procedure to display the access controls for a specified group.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Show Group Access** `⇐`.

Group:

3. Type the group name and press RETURN. The group access information appears.
4. Log off.

Wrap-up

When you see the "CHS!" prompt, all group access controls have been displayed.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows information regarding the Product Testers group. Group member John Q. Citizen has administrative and self access. The member All Boston, a group containing other users, has only self access.

```
CHS!Show Group Access
  Group: ProductTesters:Boston
  John Q Citizen:Boston:Acme
    Admin Access, Self Access
  All Boston:Boston:Acme
    Self Access
CHS!
```

Showing objects registered in a domain



Use this procedure to display complete information about objects registered in a domain. When you type the command, follow the word **Show** with one of these object types:

```

CHS!Show Mail Service
  Name: SlyCat2
  Full Name: SlyCat2:OurDomain:OurOrg
  Description: Mail Service on Rum Runner
  Network Number: 0-105
  Processor Number: 2-852-132-141
  Simple Authentication supported: YES
  Strong Authentication supported: YES
CHS!

```

Showing user information



Use this procedure to display complete information specific to a user.

Step-by-step

1. Log on in the Clearinghouse Service context.
2. Type **Show User** \Leftarrow .

Name:

3. Type the user name or alias and press RETURN. The user information appears.
4. Log off.

Wrap-up

When you see the "CHS!" prompt, the complete user information has been displayed.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows the complete user information for John Q. Citizen.

CHS!Show User

Name: **Citizen**

Full Name: John Q Citizen:Boston:Acme

Description: Software Project Leader

Home File Service: Elephant:Boston:Acme

Alias: Citizen:Domain:Organization

CHS!

This chapter contains the procedures you perform to maintain the Mail Service (MS) and the External Mail Gateway (EMG). These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Mail Service maintenance procedures:

- Install all required software as described in the Server Software Installation chapter of the *Services Installation and Setup Guide*.
- Perform all set up procedures as described in the Mail Service chapter of the *Services Installation and Setup Guide*.

Maintenance for the Mail Service also includes backing up its database and monitoring the size of the backup file drawer. See the Mail Service chapter and the File Service chapter in the *Backup and Restore Guide*.

Commands

This section lists the commands you use to maintain the Mail Service and External Mail Gateway option. You must be in the proper context to access these commands.

Table 4-1 shows all the maintenance commands, along with the logged on status and the service state (started or stopped) for accessing them.

Table 4-1. Mail Service maintenance commands

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Foreign Domain					•	•
Add Foreign Gateway					•	•
Add Mailbox					•	•
Change Foreign Gateway					•	•
Change RS232C Port					•	•
Delete Foreign Domain					•	•
Delete Foreign Gateway					•	•
Delete Mailbox					•	•
Expunge Mail Gateway						•
Expunge Service						•
List Foreign Domains			•	•	•	•
List Foreign Gateways			•	•	•	•
List Mailboxes			•	•	•	•
Show Activity			•	•	•	•
Show Delays			•	•	•	•
Show Foreign Gateway			•	•	•	•
Show History			•	•	•	•
Show Message Lengths			•	•	•	•
Show Other Servers			•	•	•	•
Show RS232C Port Statistics			•	•	•	•
Show Status			•	•	•	•
Show Usage			•	•	•	•
Shutdown Mail Service						•

Add Foreign Domain

Available to the enabled user. Adds a foreign domain to the local Gateway Mail Service.

Related procedures: Moving a foreign domain, Moving a foreign gateway

- Add Foreign Gateway** Available to the enabled user. Adds a foreign inbound gateway as identified by its telephone number and sets a single calling interval for the new foreign gateway. Use the **Change Foreign Gateway** command to add more calling intervals.
Related procedures: Moving a foreign gateway
- Add Mailbox** Available to the enabled user. Adds a mailbox to the local Mail Service. Lets you move a mailbox from one Mail Service to another.
Related procedure: Moving mailboxes, Moving the Mail Service, Removing the Mail Service
- Change Foreign Gateway** Available to the enabled user. Changes the phone number of a foreign gateway or changes the calling intervals for a foreign gateway.
Related procedures: Changing a foreign gateway phone number, Updating foreign gateway calling intervals
- Change RS232C Port** Available to the enabled user. Modifies the line speed of the port and changes the phone number that is dialed by foreign gateways for mail transfer.
Related procedure: Changing a local gateway's line speed or phone number
- Delete Foreign Domain** Available to the enabled user. Removes unneeded foreign domains. Use this command with the **Add Foreign Domain** command to move a foreign domain from one Mail Gateway to another.
Related procedure: Moving a foreign domain
- Delete Foreign Gateway** Available to the enabled user. Deletes a foreign inbound gateway so you can move it to a different Mail Service, or discontinue Gateway Mail Service to the foreign domain server.
Related procedures: Deleting a foreign gateway, Deleting the Mail Gateway option, Moving a foreign gateway
- Delete Mailbox** Available to the enabled user. Removes a user mailbox from the local Mail Service.
Related procedure: Removing a mailbox
- Expunge Mail Gateway** Available to the enabled user. Removes all foreign gateways and domains from the Mail Service.
Related procedure: Deleting the Mail Gateway option
- Expunge Service** Available to the enabled user. Removes the Mail Service from the server.
Related procedure: Removing the Mail Service

- List Foreign Domains** Available to the logged on user. Lists the mail domains served by the local External Mail Gateway. Also lists the foreign gateway and phone number to which each foreign domain is attached. This command does not list the foreign domains served by other Gateway Mail Services in the internetwork.
- Related procedure:** Monitoring foreign gateway and domain activity
- List Foreign Gateways** Available to the logged on user. Lists the phone numbers of the foreign gateways accessible from the local External Mail Gateway. This command does not list the foreign gateways accessible via other Gateway Mail Services in the internetwork.
- Related procedure:** Monitoring foreign gateway and domain activity
- List Mailboxes** Available to the logged on user. Lists all mailboxes on the local Mail Service, the number of messages in each mailbox and, if requested, the number of pages consumed by the messages in each mailbox. You can use the wildcard symbol (*) to list mailboxes.
- Related procedures:** Monitoring user activity, Moving the Mail Service
- Show Activity** Available to the logged on user. Lists the names of the user(s) using the Mail Service, the starting time of each user session, and the time of their last action.
- Related procedure:** Monitoring user activity
- Show Delays** Available to the logged on user. Displays a percentage breakdown of the time intervals between the posting of a message and the time it was delivered, read, and deleted.
- Related procedure:** Monitoring user activity
- Show Foreign Gateway** Available to the logged on user. Displays calling interval times, a list of foreign domains, and information on the last mail transfer to the foreign gateway.
- Related procedures:** Monitoring foreign gateway and domain activity, Monitoring Mail Service activity
- Show History** Available to the logged on user. Lists the current, minimum, and maximum values for queue statistics and database use since the last server reboot.
- Related procedure:** Monitoring Mail Service activity
- Show Message Lengths** Available to the logged on user. Displays the message lengths for messages posted to the Mail Service.
- Related procedure:** Monitoring user activity
- Show Other Servers** Available to the logged on user. Lists other Mail Services that a Mail Service has contacted since it was last booted. Also lists the status of each Mail Service since the last attempted contact was made.
- Related procedure:** Monitoring Mail Service activity

-
- Show RS232C Port Statistics** Available to the logged on user. Displays information to isolate problems in transferring mail to and from foreign gateways. These statistics are common to all services that use the RS232C port.
Related procedure: Monitoring foreign gateway and domain activity
- Show Status** Available to the logged on user. Displays the state of the Mail Service and the length of time since the last reset or the last server reboot. Lists the number of messages received and local deliveries; the number of mailboxes; the size of the Mail Service database; and queue, backup, and gateway status information.
Related procedures: Monitoring foreign gateway and domain activity, Monitoring Mail Service activity
- Show Usage** Available to the logged on user. Displays the number of protocol operations the mail server has been requested to perform, and successful operations.
Related procedure: Monitoring Mail Service activity
- Shutdown Mail Service** Available to the enabled user. Prepares the Mail Service for removal from the server. Mail in transit is forwarded to a Mail Service that you specify. Use this command when the Mail Service will be unavailable for a long period of time, for example, if you are moving equipment.
Related procedures: Moving the Mail Service, Removing the Mail Service

Procedures

This section contains these procedures for maintaining the Mail Service and the External Mail Gateway option.

Mail Service procedures

Expanding the Mail Service database

Use this procedure to increase the space available for the Mail Service database.

Monitoring Mail Service activity

Use this procedure to display information on the status and workload of the Mail Service.

Monitoring user activity

Use this procedure to display information on the status of Mail Service users.

Moving mailboxes

Use this procedure to move mailboxes to a different Mail Service.

Moving the Mail Service

Use this procedure to move the Mail Service to a different server.

Removing a mailbox

Use this procedure to delete a mailbox from the Mail Service database.

Removing the Mail Service

Use this procedure to delete a Mail Service from a server.

External Mail Gateway procedures

Changing a foreign gateway phone number

Use this procedure to change the phone number for a foreign gateway.

Changing a local gateway's line speed or phone number

Use this procedure to change the modem line speed or phone number for a local gateway.

Deleting a foreign gateway

Use this procedure to delete a foreign gateway.

Deleting the Mail Gateway option

Use this procedure to delete an External Mail Gateway option from a Mail Service.

Monitoring foreign gateway and domain activity

Use this procedure to monitor foreign gateway and foreign domain activity.

Moving a foreign domain

Use this procedure to move a foreign domain to a different Mail Service.

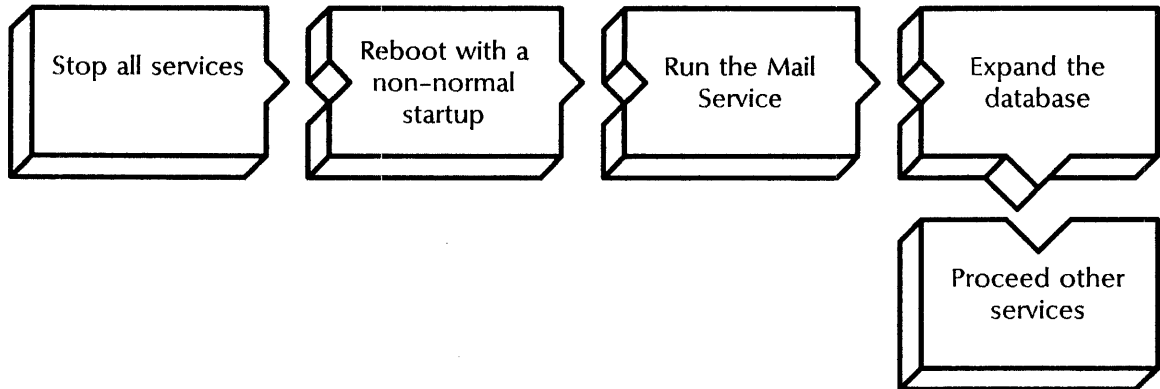
Moving a foreign gateway

Use this procedure to move a foreign Mail Gateway (and associated domains) to different Mail Service.

Updating foreign gateway calling intervals

Use this procedure to update calling intervals on a foreign gateway.

Expanding the Mail Service database



Use this procedure to expand the size of your Mail Service database. When you expand the database, the disk space is rounded down to the nearest multiple of six.

Prerequisites

- Know if your Mail Service is coresident with the only Clearinghouse Service supporting the domain.
- Know the number of additional disk pages you want to add to the database.

Step-by-step

1. Log on and enable.
2. Type **Stop Service** .

```

Select choices
1 <service name>
2 <service name>
3 <service name>
Enter one or more choices:
  
```

3. Type the numbers for all services (for example, **1-3**) .

```

Stop immediately? (Y/N):
  
```

4. Type **Y** or **N** at each "Stop Immediately" prompt .
 - Y** Stops the service immediately after processing the pending queues.
 - N** Waits until all users log off, then stops the service.

NOTE

The number of "Stop immediately" prompts you receive depend on the number of services installed on your server.

5. Reboot the server.

- a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
- b. Release the Boot Reset (B RESET) button.
- c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

Normal startup? (Y/N):

6. Type **N** at the "Normal startup" prompt .
- Y** Normally starts and runs each service loaded on the server.
- N** Lets you perform specific tasks before the server is fully operational.

Enter interrupt point

- 1 Interrupt before opening primary volume
- 2 Interrupt before processing profile
- 3 Interrupt before running services

Enter one or more choices:

7. Type **3** to select the "Interrupt before running services" option .
8. If your Mail Service is coresident with the only Clearinghouse serving the domain, type **Run Service** and press RETURN. Otherwise, **skip to step 10**.

Select choices

- 1 <service name >
- 2 <service name >
- 3 <service name >

Enter one or more choices:

9. Select the number for the Clearinghouse Service .
- Wait for the "Clearinghouse Service started" message to appear.
10. Log on and enable.
11. Type **Run Service** .

Select choices:

- 1 <service name >
- 2 <service name >
- 3 <service name >

Enter one or more choices:

12. Type the number for the Mail Service .

MS:Normal startup? (Y/N):

13. Type **N** to the "MS:Normal startup" prompt .
 - Y** Normally starts and runs the service.
 - N** Lets you perform specific tasks before the server is fully operational.

Specify Mail Service startup option

- 1 Initialize new database
 - 2 Restore old database
 - 3 Repair existing database
 - 4 Expand existing database
- Enter choice number:

14. Type **4** for the "Expand existing database" option .

Number of additional pages for database (0..3890):

15. Type the number of additional pages to expand the database .

Confirm (Y/N):

16. Type **Y** or **N** at the "Confirm" prompt
 - Y** Expands the Mail Service database.
 - N** Cancels the procedure.
17. Type **Proceed** to start other services on your server .
18. Log off.

Wrap-up

When you see the message "Done," the Mail Service database has been expanded.

Now increase the allocation for the Mail Service backup file drawer. See the File Service chapter in the *Backup and Restore Guide* to change the file drawer allocation.

Example

This example shows expanding the Mail Service database. The Mail Service and External Communication Service are installed on the same server.

!Run Service

Select choices

- 1 Mail Service
- 2 External Communication Service

Enter one or more choices: **1**

MS: Normal startup? (Y/N): **N**

Running Mail Service.

Specify Mail Service startup option

- 1 Initialize new database
- 2 Restore old database
- 3 Repair existing database
- 4 Expand existing database

Enter choice number: **4**

Current database size is 4002 pages (23% of the disk).

Number of additional pages for database (0..3890): **1600**

Database size will be 5598 disk pages.

Confirm (Y/N): **Y**

Restarting and expanding Mail Service database.

Mail Service name is Speedy:Detroit:GemSysCo

Validating Clearinghouse entry for Speedy:Detroit:GemSysCo

Done.

Mail Service started.

Mail Service run.

!Proceed

Monitoring Mail Service activity



Use this procedure to monitor the Mail Service workload and status. These commands let you display Mail Service statistics:

- **Show History**
- **Show Other Servers**
- **Show Status**
- **Show Usage**



CAUTION: The Mail Service database must NOT exceed 65,535 pages and 95% capacity. Use the **Show Status** command on a regular basis to monitor the Mail Service database size and capacity.

Step-by-step

1. Log on and enter the Mail Service context.

2. Type **Show History** .

< Displays statistics for Mail Service usage since the last server reboot >

3. Type **Show Other Servers** .

< Displays a list of fully qualified names and status for each server >

4. Type **Show Status** .

< Displays the current state of the Mail Service and how long it has been since the last reboot >

5. Type **Show Usage** .

< Displays the number of protocol operations the server has been requested to perform >

6. Log off.

Wrap-up

When you complete this procedure, you have listed Mail Service statistics.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

This example shows monitoring the Mail Service workload and status.

MS> Show History

	CURR.	MIN.	MAX.
Database Used:	1236	978	1428
% Database Used:	82%	65%	95%
Queue History:			
Input:	46	0	78
Forward:	12	0	27
Pending:	9	0	18
Gateway:	4	0	31

MS> Show Other Servers

SwiftMS: Detroit: GemSysCo: Up
 BlueMS: Detroit: GemSysCo: Down
 Noteworthy: Boston: GemSysCo: Up
 FirstMS: Boston: GemSysCo: Invalid

MS> Show Status

Database: 15,400 disk pages used out of 35,000 total; 44% full

Booted: 1-Nov-86 7:57:29

Uptime: 765:22:19

Messages Received: 9093

Local Deliveries: 7911

Mailboxes: 30

Queue Status:

 Input: 8

 Forward: 13

 Pending: 15

 Gateway: 9

Gateway Status:

 Transfer in progress.

 Last Attempted Transfer: 4-Nov-86 2:57:29

 Last Successful Transfer: 4-Nov-86 2:57:29

Backup Status:

 Last Attempted Backup: Succeeded

 Last Successful Backup: 4-Nov-86 12:28:54

MS> Show Usage

	CURR.	HIGH	REJECTED	TOTAL
Slot Poll:	1	3	0	0
Inbasket Poll:	0	0	0	0
Post:	0	0	0	0
Deliver:	0	0	0	0
Logon:	0	0	0	0
List:	0	0	0	0
Retrieve:	0	2	0	5
Interserver Forward:	0	1	0	40

MS>

Monitoring user activity



Use this procedure to monitor user status and activity. These commands let you display user statistics:

- **Show Activity**
- **Show Delays**
- **Show Message Lengths**
- **List Mailboxes**

Prerequisite

Know how to use the wildcard (*) symbol, as described in the File Service chapter of the *Guide to System Administrative Activities*.

Step-by-step

1. Log on and enter the Mail Service context.
2. Type **Show Activity** .

<Displays a list of fully qualified user names, and starting and ending times >

3. Type **Show Delays** .

<Displays statistics on showing delays in mail delivery by length of time >

4. Type **Show Message Lengths** .

<Displays the number of messages by percentage of page length >

5. Type **List Mailboxes** .

Pattern: *.*.*

6. Press RETURN to list all mailboxes; or type the name of the mailbox you want to list and press RETURN; or type a name pattern using the wildcard symbol (*) .

Show sizes (this takes longer) (Y/N):

7. Type **Y** or **N** at the "Show sizes" prompt `<=>`.
 - Y** Shows the number of messages and disk pages for each mailbox.
 - N** Does not show the number of messages and disk pages for each mailbox.
8. Log off.

Wrap-up

When you complete this procedure, you have listed user statistics.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

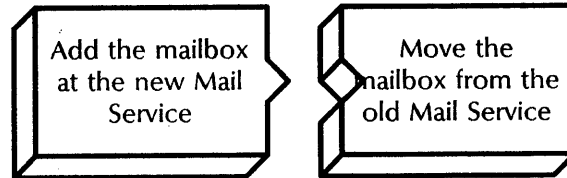
Example

This example shows monitoring user statistics.

```

MS> Show Activity
User Name                               Start Time      Last Action
John Q. Citizen:Detroit:GemSysCo        2:30:12         2:32:44
Susan B. Smith:Detroit:GemSysCo         2:28:22         2:31:01
MS> Show Delays
TIME UNTIL . . .                        DELIVERED       READ            DELETED
0-2 min:                                32%             0%             0%
2-10 min:                               22%             12%            12%
10-60 min:                              13%             13%            13%
1-3 hrs:                                 6%              6%             6%
3-8 hrs:                                 2%              2%             2%
8-24 hrs:                                6%              2%             2%
1-3 days:                               12%             8%             8%
3-7 days:                                1%              3%             3%
Longer:                                  1%              4%             4%
MS> Show Message Lengths
0-1 pages:                               50%
1-2 pages:                               41%
2-4 pages:                               5%
4-8 pages:                               3%
8-16 pages:                              1%
16-32 pages:                             0%
32-64 pages:                             0%
64-128 pages:                            0%
128-256 pages:                           0%
Longer:                                   0%
MS> List Mailboxes
      Pattern: *:*:*
      Show sizes (this takes longer) (Y/N): Y
Albert Smith:Detroit:GemSysCo; Messages: 6 size: 179
Barbara Jones:Detroit:GemSysCo; Messages: 1 Size: 10
Barbara Wu:Detroit:GemSysCo; Messages: 2 size: 442
Brian T. Moore:Detroit:GemSysCo; Messages: 20 size: 1989
Marilyn Bass:Detroit:GemSysCo; Messages: 0 size: 0
Brenda Lee:Detroit:GemSysCo; Messages: 14 size: 142
MS>
    
```

Moving mailboxes



Use this procedure to move mailboxes and their contents to a different Mail Service. When the contents have been moved, the mailbox is automatically deleted from the old Mail Service.

The moving process can take up to two days, depending on the number of Clearinghouse Services through which the new mailbox information must propagate.

Prerequisite

- Make sure user names are registered in the Clearinghouse Service database.
- Know the user names or aliases of the mailboxes you want to move. See the **List Mailbox** command for more information.
- Make sure there are available disk pages. See the **Show Status** command for more information.

Step-by-step

1. Log on and enable in the Mail Service context at the new Mail Service.
2. Type **Add Mailbox**

Name:

3. Type the user name or alias of the mailbox you want to move at the "Name" prompt and press RETURN. The domain and organization names default to that of the server.

Confirm? (Y/N):

4. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Starts the process to move the mailbox to the local Mail Service database.
 - N** Cancels the process.

Do you want the mailbox moved to this server? (Y/N):

5. Type **Y** or **N** at the "Do you want the mailbox moved to this server" prompt .
 - Y** Moves the mailbox to the local Mail Service database.
 - N** Cancels the process.



It may take up to two days for the mailbox information to propagate through more than one Clearinghouse Service.

6. Repeat steps 2 through 5 for each mailbox you want to move.
7. Log off.

Wrap-up

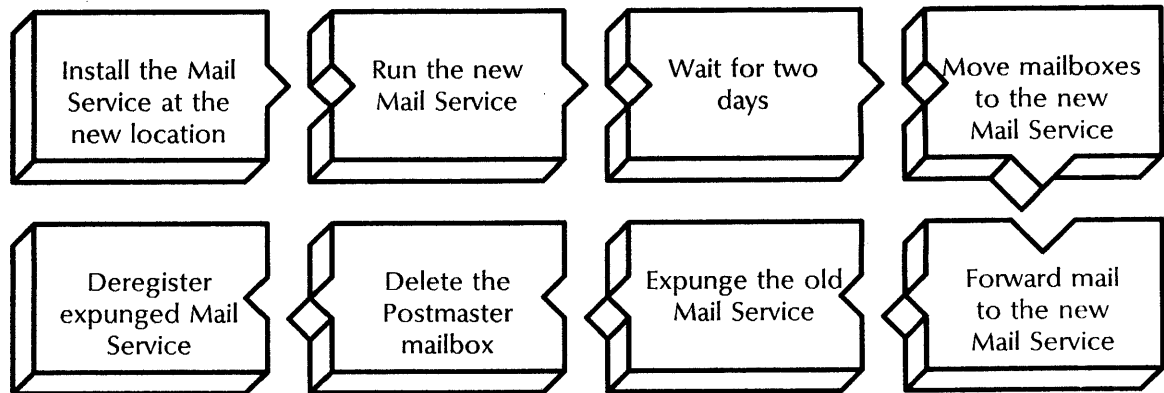
When you see the message "Done," you have moved a mailbox and its contents to a different Mail Service.

Example

This example shows moving a mailbox.

```
MS!Add Mailbox
  Name: Thomas
Adding Mailbox James Q. Thomas:LosAngeles:GemSysCo
  Confirm? (Y/N): Y
Warning: Mailbox is registered on another server.
  Do you want the mailbox moved to this server? (Y/N): Y
Done
MS!
```


Moving the Mail Service



Use this procedure to move an existing Mail Service to a different server.

Prerequisites

- Obtain the cartridge tape or floppy disk containing the Mail Service software.
- Inform users that you are moving the Mail Service and have them retrieve their mail.
- Update the Mail Service Worksheet with any changes you are making to the following information:
 - The number of disk pages for the Mail Service database at the new location
 - The Mail Service name and description for the new location
 - The Mail Service you will use to forward the mailboxes and their messages
 - The fully qualified name of the Postmaster mailbox

Step-by-step to Install the Mail Service at a new location

1. Log on and enable at the new location where you are installing the Mail Service.
2. Type **Stop Service** .

Select choices:

1 <service name>

2 <service name>

3 <service name>

Enter one or more choices:

3. Type the number for all services (for example, **1-3**) .

Stop immediately? (Y/N):

4. Type **Y** or **N** at each "Stop Immediately" prompt .

Y Stops the service immediately after processing the pending queues.

N Waits until all users log off, then stops the service.

NOTE

The number of "Stop immediately" prompts you receive depend on the number of services installed on your server.

5. Reboot the server.
- Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - Release the Boot Reset (B RESET) button.
 - When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

Normal startup? (Y/N):

6. You must type **N** at the "Normal startup" prompt .

Y Normally starts and runs each service loaded on the server.

N Lets you perform specific tasks before the server is fully operational.

Enter interrupt point

1 Interrupt before opening primary volume

2 Interrupt before processing profile

3 Interrupt before running services

Enter one or more choices:

7. Type **3** for the "Interrupt before running services" .
- If you have a single Clearinghouse internet and the Clearinghouse Service resides on this server, **skip to step 9**.
 - If you have a single Clearinghouse internet and the Clearinghouse Service does not reside on this server, or if your Clearinghouse Service is replicated, **continue with step 8**.
8. Log on and enable.
9. Insert the Mail Service cartridge tape or floppy disk.

10. Type **Install Service** **↵**.

Select choices:

1 <service name >

2 <service name >

3 <service name >

Enter one or more choices:

11. Type the number for the Mail Service **↵**.

Mail Service: Activate? (Y/N):

12. Type **Y** at the "Mail Service: Activate" prompt **↵**.

Y Starts the Mail Service.

N Cancels the process.

Wrap-up

When you see the "MS!" prompt, you have installed the Mail Service on the new server. Now run the new Mail Service.

Example

This example shows installing the Mail Service at the new server. The Clearinghouse Service and External Communication Service are installed on the server.

```

MS!Stop Service
  Select choices
    1  Clearinghouse Service
    2  External Communication service
  Enter one or more choices: 1-2
  CHS: Stop immediately? (Y/N): Y
  Stopping Clearinghouse Service.
  Stopping the Clearinghouse Service processes
  Clearinghouse Service has stopped.
  ECS: Stop immediately? (Y/N): Y
  Stopping External Communication Service.
  ECS: External Communication Service is stopped.
MS!Install Service
  Installation choices
    1  Mail Service
  Enter one or more choices: 1
  Installing Mail Service . . . done.
  Mail Service: Activate? (Y/N): Y
MS!

```

**Step-by-step to
Run the new Mail Service**

13. If you are already logged on and enabled, **skip to step 18.**
14. If you have a single Clearinghouse internet coresident with this Mail Service, type **Run Service** .

```

Select choices:
1  <service name >
2  <service name >
3  <service name >
Enter one or more choices:

```

15. Type the number for the Clearinghouse Service .

```

CHS: Normal startup? (Y/N):

```

16. Type **Y** at the "CHS: Normal startup" prompt .

Y Normally starts and runs the service.

N Lets you perform specific tasks before the server is fully operational.

17. Log on after the "Clearinghouse Service started" message appears.

18. Type **Run Service** .

Select choices:

1 <service name >

2 <service name >

3 <service name >

Enter one or more choices:

19. Type the number for the Mail Service .

MS: Normal startup? (Y/N):

20. Type **N** at the "Normal startup" prompt .

Y Normally starts and runs the service.

N Lets you perform specific tasks before the server is fully operational.

Specify Mail Service startup option

1 Initialize new database

2 Restore old database

Enter choice number:

21. Type **1** for the "Initialize new database" option .

Number of pages for new database (1500...70,000):

22. Type the number of pages you want for the Mail Service database .

Confirm (Y/N):

23. Type **Y** or **N** at the "Confirm" prompt .

Y Continues to initialize the Mail Service database.

N Cancels the process.

Enter Service name:

24. Type the service name at the "Enter Service name" prompt and press RETURN. The domain and organization default to that of the server.

Enter description:

25. Type the service description at the "Enter description" prompt .

Confirm (Y/N):

26. Type **Y** or **N** at the "Confirm" prompt .
- Y** Completes the Mail Service initialization.
 - N** Cancels initialization; return to step 24.
27. Type **Proceed** to run the other services on your server .

Wrap-up

When you complete this procedure, you have installed the Mail Service at the new server.

You must wait two days before moving the mailboxes. This allows for propagation of the Mail Service entry to all Clearinghouse Services serving the new Mail Service domain.

Example

This example shows running the new Mail Service without a coresident Clearinghouse Service. The Mail Service and the External Communication Service are installed on the server.

MS!Run Service

Select choices:

- 1 Mail Service
- 2 External Communication Service

Enter one or more choices: **1**

MS: Normal startup? (Y/N): **N**

No existing Mail Service database found.

Specify Mail Service startup option.

- 1 Initialize new database
- 2 Restore old database

Enter choice number: **1**

Initializing Mail Service database.

Number of pages for new database (1500...70,000): **35000**

Database size will be 34,494 disk pages.

Confirm (Y/N): **Y**

Service name and description unknown.

Enter Service name: **Milano**

Enter description: Los Angeles Mail Service

Confirm (Y/N): **Y**

Validating Clearinghouse entry for Milano:Los Angeles:GemSysCo

A new Clearinghouse entry was created.

Done.

Mail Service started.

Mail Service run.

MS!Proceed

MS!

Step-by-step to Move mailboxes to the new Mail Service

28. Enter the Mail Service context at the old location where the mailboxes reside or use RSA at your workstation.
29. Type **List Mailboxes** .

Pattern: *:*:*

30. Press RETURN to list all mailboxes; type the name of the mailbox you want to list and press RETURN; or type a name pattern using the wildcard symbol (*) .

Show sizes (this takes longer) (Y/N):

31. Type **Y** or **N** at the "Show sizes" prompt .

- Y** Show the number of messages and disk pages each mailbox occupies.
- N** Does not show the number of messages and disk pages each mailbox occupies.

< Displays a list of mailboxes. >

32. Make a list of the mailboxes you plan to move to the new location. If you are using Remote System Administration (RSA), make a list using the Make Document or Make Screen option.
33. Log on and enable in the Mail Service context at the server where the new Mail Service is installed or use RSA at your workstation.
34. Type **Add Mailbox** .

Name:

35. Type the user name or alias of the mailbox you want to add at the "Name" prompt and press RETURN. The domain and organization default to that of the server.

Confirm? (Y/N):

36. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Starts the process to add the mailbox to the local Mail Service database.
 - N** Cancels the process.

Do you want the mailbox moved to this server? (Y/N):

37. Type **Y** or **N** at the "Do you want the mailbox moved to this server" prompt .
 - Y** Adds the mailbox to the local Mail Service database.
 - N** Cancels the process.
38. Repeat steps 34 through 37 for each mailbox you want to add.



When you move the contents, the mailbox is automatically deleted from the old server. The process can take up to two days, depending on the number of Clearinghouse Services through which the new mailbox information is propagated.

Wrap-up

When you complete these steps, you have added the mailboxes to the new Mail Service. Now wait two days for the information to propagate, then forward the mail to an existing Mail Service.

Example

This example shows listing the mailboxes at the old location and moving one mailbox using the **Add Mailbox** command at the new Mail Service location.

MS>List Mailboxes

Pattern: *.*.*

Show sizes (this takes longer) (Y/N): Y

Albert Smith:Detroit:GemSysCo; Messages: 6 size: 179

Barbara Jones:Detroit:GemSysCo; Messages: 1 Size: 10

Barbara Wu:Detroit:GemSysCo; Messages: 2 size: 442

Brian T. Moore:Detroit:GemSysCo; Messages: 20 size: 1989

Marilyn Bass:Detroit:GemSysCo; Messages: 0 size: 0

Brenda Lee:Detroit:GemSysCo; Messages: 14 size: 142

<At the new Mail Service location >

MS!Add Mailbox

Name: Jones

Add Mailbox Barbara Jones:Detroit:GemSysCo

Confirm? (Y/N): Y

Warning: Mailbox is registered on another server.

Do you want the mailbox moved to this server? (Y/N): Y

MS!

Step-by-step to Forward mail to a different Mail Service

39. Log on and enable in the Mail Service context at the old Mail Service location.
40. Type **List Mailboxes**

None found.

41. If mailboxes are listed, wait a while and type **List Mailboxes** again until you see the message "None found."
42. Type **Shutdown Mail Service** .

Stop Immediately? (Y/N):

43. Type **Y** or **N** at the "Stop Immediately" prompt .
 - Y** Stops the service immediately after processing the pending queues.
 - N** Current users are allowed to complete tasks before the service is stopped.

Confirm (Y/N):

44. Type **Y** or **N** at the "Confirm" prompt .

Y Starts the process to shutdown the Mail Service.

N Cancels the process.

If you see the message, "There are still mailboxes on this server," **continue with step 45**. Otherwise, **skip to step 46**.

Continue (Y/N):

45. Type **Y** or **N** at the "Continue" prompt .

Y Starts the process to shutdown the Mail Service.

N Cancels the process.

The local Clearinghouse will suffer if the Mail Service is stopped for any length of time
Confirm (Y/N):

46. Type **Y** or **N** at the "Confirm" prompt .

Y Starts the process to delete existing mailboxes.

N Cancels the process.

Name of a MS that this mail can be sent to:

47. Type the fully qualified name of the Mail Service where you want to send the mail .

.....The specified MS is no longer available.
Name of a MS that this mail can be sent to:

48. If the Mail Service is unavailable, type the fully qualified name of a different Mail Service .

MS Shutdown finished. Reboot and Expunge.
MS!

NOTE

Ensure that all messages are forwarded to the new Mail Service before you expunge the old Mail Service. Use the **List Mailboxes** command to display unforwarded mailboxes.

Wrap-up

When you see the message "MS Shutdown finished. Reboot and Expunge," you have forwarded all mail from the old Mail Service to a different Mail Service. Now you are ready to expunge the Mail Service from the old location.

Example

This example shows how to shutdown the Mail Service to forward mail messages.

MS!Shutdown Mail Service

Stop Immediately (Y/N): **N**

Preparing for Mail Service Expunge

Confirm? (Y/N): **Y**

Continue? (Y/N): **Y**

The local Clearinghouse will suffer if the Mail Service is stopped for any length of time

Confirm? (Y/N): **Y**

Press BREAK to Abort.

Mail Service will stop when last user logs off.

Outstanding Mail Service sessions:

Jane Citizen:Los Angeles:GemSysCo

John Citizen:Los Angeles:GemSysCo

Sessions Ended:

John Citizen:Los Angeles:GemSysCo

Jane Citizen:Los Angeles:GemSysCo

BREAK is disabled for the duration of this command

Stopping the Mail Service processes

Stopping the Mail Gateway

There are queued messages which must be moved to another MS (23)

Name of a MS that this mail can be sent to: **Roadrunner:Home Office:Acme**

.....The specified MS is no longer available.

Name of a MS that this mail can be sent to: **Milano:Home Office:Acme**

MS Shutdown finished. Reboot and Expunge.

MS!

Step-by-step to Expunge the Mail Service

49. Type **Stop Service** \Leftarrow .

Select choices

1 <service name >

2 <service name >

3 <service name >

Enter one or more choices:

50. Type the number for all services (for example, **1-3**) .

Stop Immediately? (Y/N):

51. Type **Y** or **N** at each "Stop Immediately" prompt .

Y Stops the service immediately after processing the pending queues.

N Waits until all users log off, then stops the service.

NOTE

The number of "Stop immediately" prompts you receive depend on the number of services installed on your server.

52. Reboot the server.
- Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - Release the Boot Reset (B RESET) button.
 - When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

Normal startup? (Y/N):

53. Type **N** at the "Normal startup" prompt .

Y Normally starts and runs each service loaded on the server.

N Lets you perform specific tasks before the server is fully operational.

Enter interrupt point

- Interrupt before opening primary volume
- Interrupt before processing profile
- Interrupt before running services

Enter one or more choices:

54. Type **3** for the "Interrupt before running services" option .

55. If your Mail Service coresides with the only Clearinghouse serving the domain, type **Run Service** and press RETURN. Otherwise, **skip to step 58**.

Select choices

- <service name >
- <service name >
- <service name >

Enter one or more choices:

56. Type the number for the Clearinghouse Service and press RETURN. Wait for the "Clearinghouse Service started" message to appear.
57. Log on and enable.
58. Type **Expunge Service** .

Select choices

1 <service name>

2 <service name>

3 <service name>

Enter one or more choices:

59. Type the number for the Mail Service .

Confirm (Y/N):

60. Type **Y** or **N** at the Confirm prompt .
 - Y** Continues the process to expunge the Mail Service.
 - N** Cancels the process.
61. Reboot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

Normal startup? (Y/N):

62. Type **Y** at the "Normal startup" prompt .
 - Y** Normally starts and runs the services on the server.
 - N** Lets you perform specific tasks before the server is fully operational.

Wrap-up

When you see the message "Mail Service expunged," these steps are complete. Now delete the Postmaster mailbox from the old Mail Service location.

Example

This example shows expunging the Mail Service when the Clearinghouse Service coresides on the same server.

```

!Run Service
  Select choice:
  1 Clearinghouse Service
  2 Mail Service
  Enter one or more choices: 1
<Logon and enable >
!Expunge Service
  Select choices
  1 Mail Service
  Enter choice number: 1
  MS:Confirm? (Y/N): Y
Expunging Mail Service.
  Deleting Clearinghouse entry for: Speedy:Los Angeles:GemSysCo
  Done
Mail Service expunged.
!

```

**Step-by-step to
Delete the Postmaster mailbox**

63. Enable in the Clearinghouse context at the Clearinghouse Service that serves the old Mail Service.
64. Type **Delete** .

Name:

65. Type the name, domain, and organization for the old Postmaster mailbox .

Confirm? (Y/N):

66. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Deletes the Postmaster mailbox from the old location.
 - N** Cancels the process.

Wrap-up

When you see the message "Done," you have deleted the Postmaster mailbox in the Clearinghouse Service. Now check to see if the Mail Service has deregistered itself in the Clearinghouse Service.

Example

This example shows deleting the Postmaster mailbox from the Clearinghouse Service.

CHS!**Delete**

Name: **Postmaster of Speedy:LosAngeles:GemSysCo**

Deleting Postmaster of Speedy:LosAngeles:GemSysCo. This user will no longer be registered.

Confirm? (Y/N): **Y**

Done.

CHS!

Step-by-step to Deregister the expunged Mail Service

67. Type **List Mail Services** **↵**.

Pattern: *

68. Press RETURN at the "Pattern: *" prompt to list all the mail services.

69. If the Mail Service name is displayed, type **Delete** **↵**. Otherwise, **skip to step 73**.

Name:

70. Type the service name of the expunged Mail Service at the "Name" prompt and press RETURN. The domain and organization default to that of the server.

Confirm? (Y/N):

71. Type **Y** or **N** at the "Confirm" prompt **↵**.

Y Deletes the Mail Service name from the Clearinghouse Service database.

N Cancels the process.

72. Repeat steps 67 through 71 at each Clearinghouse Service serving the Mail Service domain.

73. Log off.

74. Delete the old backup copies of the Mail Service database from the backup file drawer. Refer to the Mail Service chapter in the *Backup and Restore Guide*.

Wrap-up

When you see the message "Done," you have deleted the name of the Mail Service from the Clearinghouse Service.

Example

This example shows deregistering an expunged Mail Service from the Clearinghouse Service.

CHS!List Mail Services

Pattern: *

Speedy:Los Angeles:GemSysCo, located on 3rd floor

Greyhound:Pasadena:GemSysCo, located on 1st floor

CHS!DeleteName: **Speedy**

Deleting Speedy:Los Angeles:GemSysCo. This Mail Service will no longer be registered.

Confirm? (Y/N): **Y**

Done.

CHS!

Removing a mailbox



Use the **Delete Mailbox** command to remove from the Mail Service a mailbox that is no longer in use.

Prerequisite

- You must be a System Administrator of the domain where you are deleting the mailboxes.
- Know the user name for the mailbox you want to delete.

Step-by-step

1. Log on and enable in the Mail Service context.
2. Type **Delete Mailbox** .

Name:

3. Type the alias or user name of the mailbox you want to delete and press RETURN. The domain and organization default to that of the server.

Confirm? (Y/N):

4. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Deletes the mailbox from the Mail Service.
 - N** Cancels the process.

Warning: Mailbox is not empty; mail will be lost
Are you sure you want to delete this mailbox? (Y/N):

5. If the mailbox is not empty, type **Y** or **N** .
 - Y** Deletes the mailbox from the Mail Service.
 - N** Cancels the process.

Wrap-up

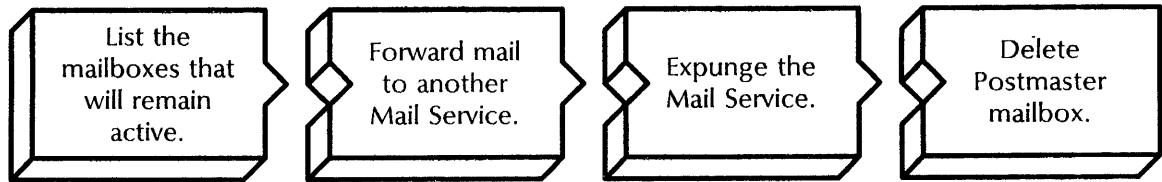
When you see the message "Done," you have removed a mailbox from the Mail Service.

Example

This example shows deleting a mailbox.

```
MS!Delete Mailbox
  Name: Citizen
Deleting mailbox John Q. Citizen:Detroit:GemSysCo
Confirm? (Y/N): Y
Warning: Mailbox is not empty; mail will be lost
Are you sure you want to delete this mailbox? (Y/N): Y
Done.
MS!
```

Removing the Mail Service



Use this procedure to remove a Mail Service from a server. If the Mail Service has the External Mail Gateway configured, move the foreign mail gateways and domains that still need to be served to a different External Mail Gateway before deleting this Mail Service. See the “Moving a foreign gateway” procedure later in this chapter.

Prerequisites

- Inform users that you are removing the Mail Service and have them retrieve their mail.
- Update the Mail Service Worksheet with any changes you are making to the following information:
 - The number of disk pages for the Mail Service database at the new location.
 - The new Mail Service name and description.-
 - The Mail Service you will use to forward the mailboxes and their messages.
 - The fully qualified name of the Postmaster mailbox.

Step-by-step to Move mailboxes

1. Go to the server where you are removing the Mail Service.
2. Log on in the Mail Service context.
3. Type **List Mailboxes**

Pattern: *.*.*

4. Press RETURN to list all mailboxes; type the name of the mailbox you want to list and press RETURN; or type a name pattern using the wildcard symbol (*) .

Show sizes (this takes longer) (Y/N):

5. Type **Y** or **N** at the “Show sizes” prompt .

- Y** Show the number of messages and disk pages for each mailbox.
- N** Does not show the number of messages and disk pages for each mailbox.

< Displays a list of mailboxes >

6. Make a list of the mailboxes you plan to move. If you use Remote System Administration, make a list using the Make Document or Make Screen option.
7. Log on and enable in the Mail Service context at the server where you want to move the mailboxes or use RSA at your workstation.
8. Type **Add Mailbox** **↵**.

Name:

9. Type a user name or alias from your list and press RETURN. The domain or organization default to that of the server.

Confirm? (Y/N):

10. Type **Y** or **N** at the "Confirm" prompt **↵**.
 - Y** Starts the process to add the mailbox to the local Mail Service database.
 - N** Cancels the process.

Do you want the mailbox moved to this server? (Y/N):

11. Type **Y** or **N** at the "Do you want the mailbox moved to this server" prompt **↵**.
 - Y** Adds the mailbox to the local Mail Service database.
 - N** Cancels the process.
12. Repeat steps 8 through 11 for each mailbox you are moving.

Wrap-up

When you complete these steps, you have moved the mailboxes to the new Mail Service. Wait two days for the information to propagate before going on to forward mail to the new Mail Service.

Example

This example shows listing the mailboxes at the old location and moving one mailbox using the **Add Mailbox** command at the new Mail Service location.

```

MS>List Mailboxes
  Pattern: *.*.*
  Show sizes (this takes longer) (Y/N): Y
Albert Smith:Detroit:GemSysCo; Messages: 6 size: 179
Barbara Jones:Detroit:GemSysCo; Messages: 1 Size: 10
Barbara Wu:Detroit:GemSysCo; Messages: 2 size: 442
Brian T. Moore:Detroit:GemSysCo; Messages: 20 size: 1989
Marilyn Bass:Detroit:GemSysCo; Messages: 0 size: 0
Brenda Lee:Detroit:GemSysCo; Messages: 14 size: 142
<At the new Mail Service location>
MS!Add Mailbox
  Name: Jones
Add Mailbox Barbara Jones:Detroit:GemSysCo
  Confirm? (Y/N): Y
Warning: Mailbox is registered on another server.
  Do you want the mailbox moved to this server? (Y/N): Y
MS!

```

Step-by-step to Forward mail to a different Mail Service

13. Log on and enable in the Mail Service context at the server where you are removing the Mail Service.
14. Type **List Mailboxes** ⇐.

None found.

15. If mailboxes are listed, wait a while and type **List Mailboxes** again until you see the message "None found."

16. Type **Shutdown Mail Service** .

Stop Immediately? (Y/N):

17. Type **Y** or **N** at the "Stop Immediately" prompt .

Y Stops the service immediately after processing the pending queues.

N Current users are allowed to complete tasks before the service is stopped.

Confirm (Y/N):

18. Type **Y** or **N** at the "Confirm" prompt .

Y Starts the process to shutdown the Mail Service.

N Cancels the process.

If you see the message "There are still mailboxes on this server," **continue at step 19**. Otherwise, **skip to step 20**.

Continue (Y/N):

19. Type **Y** or **N** at the "Continue" prompt .

Y Starts the process to shutdown the Mail Service.

N Cancels the process.

The local Clearinghouse will suffer if the Mail Service is stopped for any length of time

Confirm (Y/N):

20. Type **Y** or **N** at the "Confirm" prompt .

Y Starts the process to delete existing mailboxes.

N Cancels the process.

Name of a MS that this mail can be sent to:

21. Type the fully qualified name of the Mail Service where you want to send the mail .

.....The specified MS is no longer available.

Name of a MS that this mail can be sent to:

22. If the Mail Service you specify is unavailable, type the fully-qualified name of a different Mail Service .

```
MS Shutdown finished. Reboot and Expunge.  
MS!
```

NOTE

Ensure that all messages are forwarded to the new Mail Service before you expunge the old Mail Service. Use the **List Mailboxes** command to display unforwarded mailboxes. If the message "None found" is displayed you are ready to continue. If mailboxes are listed, wait a while and try again. Do not expunge the Mail Service until all the mailboxes are forwarded.

Wrap-up

When you see the message "MS Shutdown finished. Reboot and Expunge," you have forwarded all mail from the old Mail Service to a different Mail Service. Now expunge the Mail Service from the old location.

Example

This example shows forwarding mail messages to a different Mail Service.

MS!Shutdown Mail Service

Stop Immediately (Y/N): **N**

Preparing for Mail Service Expunge

Confirm? (Y/N): **Y**

Continue? (Y/N): **N**

The local Clearinghouse will suffer if the Mail Service is stopped for any length of time

Confirm? (Y/N): **Y**

Press BREAK to Abort.

Mail Service will stop when last user logs off.

Outstanding Mail Service sessions:

Jane Citizen:Los Angeles:GemSysCo

John Citizen:Los Angeles:GemSysCo

Sessions Ended:

John Citizen:Los Angeles:GemSysCo

Jane Citizen:Los Angeles:GemSysCo

BREAK is disabled for the duration of this command

Stopping the Mail Service processes

Stopping the Mail Gateway

There are queued messages which must be moved to another MS (23)

Name of a MS that this mail can be sent to: **Roadrunner:Home Office:Acme**

.....The specified MS is no longer available.

Name of a MS that this mail can be sent to: **Milano:Home Office:Acme**

MS Shutdown finished. Reboot and Expunge.

MS!

**Step-by-step to
Expunge the Mail Service**

23. Type **Stop Service** .

Select choices

1 < service name >

2 < service name >

3 < service name >

Enter one or more choices:

24. Type the number for all services (for example, **1-3**) .

Stop Immediately? (Y/N):

25. Type **Y** or **N** at each "Stop Immediately" prompt \leftarrow .

Y Stops the service immediately after processing the pending queues.

N Waits until all users log off, then stops the service.

NOTE

The number of "Stop immediately" prompts you receive depend on the number of services installed on your server.

26. Reboot the server.

a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.

b. Release the Boot Reset (B RESET) button.

c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

Normal startup? (Y/N):

27. Type **N** at the "Normal startup" prompt \leftarrow .

Y Normally starts and runs the services on the server.

N Lets you perform specific tasks before the server is fully operational.

Enter interrupt point

1 Interrupt before opening primary volume

2 Interrupt before processing profile

3 Interrupt before running services

Enter one or more choices:

28. Type **3** for the "Interrupt before running services" option \leftarrow .

29. If your Mail Service coresides with the only Clearinghouse serving the domain, type **Run Service** and press RETURN. Otherwise, **skip to step 31**.

Select choices

1 <service name >

2 <service name >

3 <service name >

Enter one or more choices:

30. Type the number for the Clearinghouse Service and press RETURN. Wait for the "Clearinghouse Service started" message to appear.
31. Log on and enable.
32. Type **Expunge Service** .

```
Select choices
1 <service name >
2 <service name >
3 <service name >
Enter one or more choices:
```

33. Type the number for the Mail Service .

```
Confirm (Y/N):
```

34. Type **Y** or **N** at the Confirm prompt .
- Y** Expunges the Mail Service.
- N** Cancels the process
35. Reboot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

```
Normal startup? (Y/N):
```

36. Type **Y** at the "Normal startup" prompt .
- Y** Normally starts and runs the services on the server.
- N** Lets you perform specific tasks before the server is fully operational.

```
Mail Service expunged.
!
```

Wrap-up

When you see the message "Mail Service expunged," you have removed the Mail Service from the server. Now delete the Postmaster mailbox from the old Mail Service location.

Example

This example shows expunging the Mail Service. The Clearinghouse Service coresides on the same server.

!Run Service

Select choice:

1 Clearinghouse Service

2 Mail Service

Enter one or more choices: 1

<Logon and enable >

!Expunge Service

Select choices

1 Mail Service

Enter choice number: 1

MS:Confirm? (Y/N): Y

Expunging Mail Service.

Deleting Clearinghouse entry for: Speedy;Los Angeles;GemSysCo

Done

Mail Service expunged.

!

Step-by-step to Delete the Postmaster mailbox

37. Log on and enable in the Clearinghouse context at the Clearinghouse Service that serves the Mail Service domain.
38. Type **Delete** ↵.

Name:

39. Type the name, domain, and organization for the old Postmaster mailbox ↵.

Confirm? (Y/N):

40. Type **Y** at the "Confirm" prompt ↵.
 - Y** Deletes the Postmaster mailbox from the old location.
 - N** Cancels the process.

Wrap-up

When you see the message "Done," you have deleted the Postmaster mailbox in the Clearinghouse Service. Now check to see if the Mail Service has deregistered itself in the Clearinghouse Service.

Example

This example shows deleting the Postmaster mailbox from the Clearinghouse Service.

```

CHS!DeleteRETURN
      Name: Postmaster of Speedy:LosAngeles:GemSysCoRETURN
Deleting Postmaster of Speedy:LosAngeles:GemSysCo. This User will no longer be
registered.
      Confirm? (Y/N): YRETURN
Done.
CHS!

```

**Step-by-step to
Deregister the expunged Mail Service**

41. Type **List Mail Services** **↵**.

Pattern: *

42. Press RETURN at the "Pattern: *" prompt to list all the mail services.
43. If the Mail Service name is displayed, type **Delete** **↵**. Otherwise, **skip to step 47**.

Name:

44. Type the service name of the expunged Mail Service at the "Name" prompt and press RETURN. The domain and organization default to that of the server.

Confirm? (Y/N):

45. Type **Y** or **N** at the "Confirm" prompt **↵**.
- Y** Deletes the Mail Service name from the Clearinghouse Service database.
 - N** Cancels the process.
46. Repeat steps 41 through 45 at each Clearinghouse Service serving the Mail Service domain.
47. Log off.
48. Delete the old backup copies of the Mail Service database from the backup file drawer. Refer to the Mail Service chapter in the *Backup and Restore Guide*.

Wrap-up

When you see the message "Done," you have deleted the names from the Clearinghouse Service.

Example

This example shows deregistering an expunged Mail Service from the Clearinghouse Service.

CHS!List Mail Services

Pattern: *

Speedy:Los Angeles:GemSysCo, located on 3rd floor

Greyhound:Pasadena:GemSysCo, located on 1st floor

CHS!DeleteName: **Speedy**

Deleting Speedy:Los Angeles:GemSysCo. This Mail Service will no longer be registered.

Confirm? (Y/N): **Y**

Done.

CHS!

Changing a foreign gateway phone number



Use this procedure to change the foreign gateway phone number.

Prerequisites

Update the worksheet with any changes you are making to the new area code and phone number for the foreign gateway.

Step-by-step

1. Log on and enable in the Mail Service context.
2. Type **Change Foreign Gateway** .

Phone number:

3. Type the current area code and phone number and press RETURN. Enter the numbers without parentheses or hyphens.

Select one of the following:

- 1 Add, change, or delete calling interval
 - 2 Change foreign gateway phone number
- Enter choice number:

4. Type **2** to change the foreign gateway phone number .

New Number:

5. Type the new area code phone number and press RETURN. Enter the numbers without parentheses or hyphens.

Change phone number. Confirm (Y/N):

6. Type **Y** or **N** at the "Confirm" prompt .
- Y** Registers the new phone number.
N Cancels the procedure.

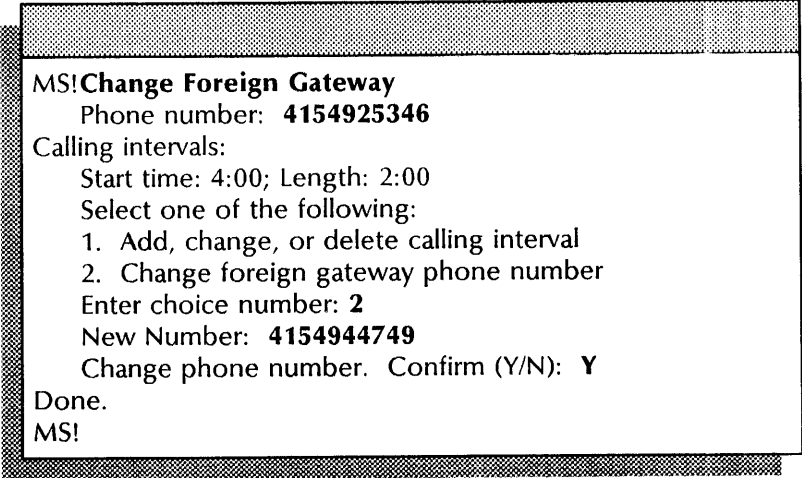
Wrap-up

When you see the message "Done," you have changed the phone number for the foreign gateway.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

This example shows changing a foreign gateway phone number.



```
MS!Change Foreign Gateway
  Phone number: 4154925346
Calling intervals:
  Start time: 4:00; Length: 2:00
  Select one of the following:
  1. Add, change, or delete calling interval
  2. Change foreign gateway phone number
  Enter choice number: 2
  New Number: 4154944749
  Change phone number. Confirm (Y/N): Y
Done.
MS!
```

Changing a local gateway's line speed or phone number



Use this procedure to change the line speed of the modem and the phone number for the local gateway.

Prerequisites

Update the Mail Service Worksheet with any changes you are making to the new line speed and the phone number for the local gateway.

Step-by-step

1. Log on and enable in the Mail Service context.
2. Type **Change RS232C Port** **↵**.

Enter choice number:

3. Type the number for the new line speed of the modem **↵**.

Local gateway phone number:

4. Type the area code and phone number and **press RETURN**. Enter the number without using parentheses or hyphens.

Wrap-up

When you see the "MS!" prompt, you have changed the line speed for the modem or the phone number.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

This example shows changing the line speed of the local gateway.

```

MS!Change RS232C Port
  Select line speed
  1  1200 bps
  2  2400 bps
  3  3600 bps
  4  4800 bps
  5  7200 bps
  6  9600 bps
  Enter choice number: 1
  Local gateway phone number: 3323132
MS!

```

Deleting a foreign gateway



Use this procedure to delete a foreign gateway. The **Delete Foreign Gateway** command also lets you remove the foreign gateway after adding it to a different Mail Service.

Use this procedure to discontinue Mail Gateway service to all of the foreign domains accessible via the specified foreign gateway.

Prerequisites

Update the Mail Service Worksheet with any changes you are making to the area code and phone number for the foreign gateway.

Step-by-step

1. Log on and enable in the Mail Service context.
2. Type **Delete Foreign Gateway** .

Phone number:

3. Type the area code and phone number of the foreign gateway you are deleting and press RETURN. Enter the number without parentheses or hyphens.

Confirm (Y/N):

4. Type **Y** or **N** at the "Confirm" prompt **↵**.
 - Y** Deletes the foreign gateway phone number
 - N** Cancels the procedure

Warning: Foreign Gateway still has Foreign Domain attached.
Confirm (Y/N):

5. If a foreign gateway is still the connection point for one or more foreign domains, type **Y** or **N** at the Confirm prompt and press RETURN. Otherwise, **skip to step 6**.
 - Y** Deletes the foreign gateway phone number
 - N** Cancels the procedure so you can reassign the domains to other foreign gateways. Refer to the "Moving a foreign domain" procedure later in this chapter.
6. Log off.

Wrap-up

When you see the message "Done," you have deleted a foreign gateway.

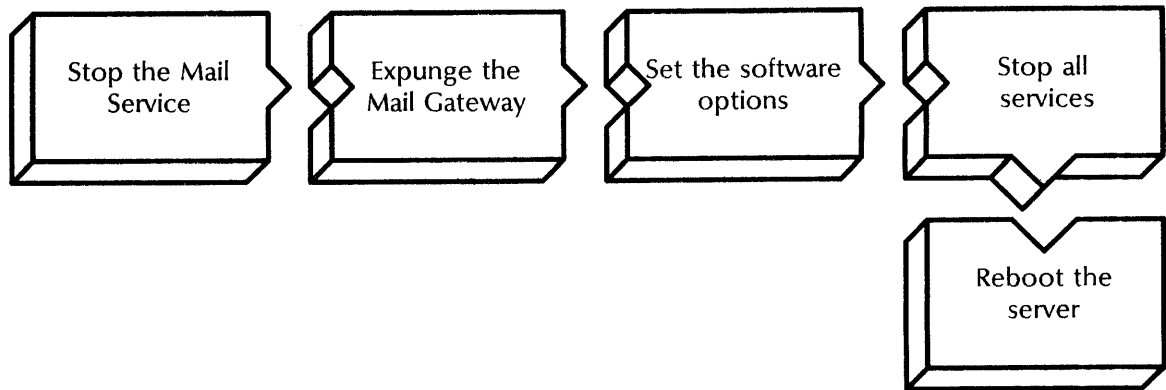
You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

This example shows deleting a foreign gateway.

```
MS!Delete Foreign Gateway
  Phone number: 4154934765
  Confirm (Y/N): Y
Warning: Foreign Gateway still has Foreign Domain attached.
  Confirm (Y/N): Y
Done.
MS!
```

Deleting the Mail Gateway option



This procedure removes all foreign gateways and foreign domains from the Mail Service using the **Expunge Mail Gateway** command.

Prerequisites

- Know the telephone number of the Software Control Center.
- Know the service group number containing the External Mail Gateway option.

Step-by-step

1. Log on and enable.
2. Type **Stop Service** .

```

Select choice
1 <service name>
2 <service name>
3 <service name>
Enter one or more choices:
  
```

3. Type the number for the Mail Service .

```

Stop immediately? (Y/N):
  
```

4. Type **Y** or **N** at the "Stop Immediately" prompt .
 - Y** Stops the Mail Service immediately after processing pending queues.
 - N** Lets users complete their mail task, then stops the Mail Service.

```

Mail Service has stopped.
  
```

5. Type **Expunge Mail Gateway** ↵.

Expunge Mail Gateway. Confirm (Y/N):

6. Type **Y** or **N** at the "Confirm" prompt ↵.
 - Y** Expunges the Mail Gateway option from the Mail Service.
 - N** Cancels the procedure.



CAUTION: After expunging the Mail Gateway, you must immediately disable the Mail Gateway software option using the following steps. Failure to do so causes mail destined for the Mail Gateway to accumulate in the Mail Gateway queues and remain there indefinitely.

7. Type **List Software Options** ↵.

< Displays software serial numbers for the services groups >

8. Record the Software Serial Numbers, the date the software options were last set, and the processor number. If you are using Remote System Administration, use the Make Document or Make Screen option
9. Call the Software Control Center. Tell them you want to disable the External Mail Gateway option, and give them the recorded information. They will give you a new password for the software.
10. Type **Set Software Options** ↵.

< Displays software serial numbers for the services groups. The serial numbers should be the same numbers displayed in step 8 >
Confirm? (Y/N):

11. Type **Y** or **N** at the "Confirm" prompt ↵.
 - Y** Confirms the serial numbers and displays the product groups.
 - N** Displays a new set of serial numbers.

Product groups to be configured
 1 Services Group I
 2 Services Group II
 3 Printer Fonts
 Enter one or more choices:

12. Type the number for the services group option containing the Mail Gateway option ↵.

Enter password for Services Group:

13. Type the password you received from the Software Control Center and press RETURN. Asterisks appear in place of the password for protection.

Okay to lock this software now?

14. Type **Y** or **N** at the "Okay to lock this software now" prompt ↵.
- Y** Confirms that the listed options are correct. **Skip to step 17.**
- N** Indicates that the listed options are not correct. **Continue with step 15.**
15. Call the Software Control Center and confirm that you were given the correct password.
16. Repeat steps 10 through 14.
17. If there are coresident services on this server, type **Stop Service** and press RETURN. Otherwise, **skip to step 20.**

Select choice:

- 1 < service name >
2 < service name >
3 < service name >

Enter one or more choices:

18. Type the number for all services (for example, 1-3) ↵.

Stop immediately? (Y/N):

19. Type **Y** or **N** at each "Stop Immediately" prompt ↵.
- Y** Stops the service immediately after processing pending queues.
- N** Lets users complete their task, then stops the service.

NOTE

The number of "Stop immediately" prompts you receive depend on the number of services installed on your server.

20. Reboot the server.
- Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - Release the Boot Reset (B RESET) button.
 - When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

Normal startup? (Y/N):

21. Type **Y** at the "Normal startup" prompt ↵.
- Y** Normally starts and runs the service.
- N** Lets you perform specific tasks before the server is fully operational.

Mail Service has started.



CAUTION: After the Mail Gateway is expunged, you may notice the External Mail Gateway message file is still present in the working directory. Do not delete it. The Mail Service cannot load and run without the file.



The message “that foreign domain already exists” might display when you try to configure a different Mail Gateway to serve a foreign domain formerly served by the expunged Mail Gateway. To recover, enable the External Mail Gateway option again, reconfigure it with the same set of foreign domains, and expunge it again.

Wrap-up

When you see the message “Mail Service has started,” you have deleted the Mail Gateway option from the Mail Service.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

This example shows deleting the Mail Gateway option. Mail Service and External Communication Service are installed on the server.

!Stop Service

Select choices

- 1 Mail Service
- 2 External Communication Service

Enter one or more choices: **1**

MS: Stop immediately? (Y/N): **Y**

Stopping Mail Service.

Stopping the Mail Service processes

Stopping the Mail Gateway

Mail Service has stopped.

MS!Expunge Mail Gateway

Expunge Mail Gateway. Confirm (Y/N): **Y**

MS!List Software Options

Standard Services Software

Asynchronous Communication Protocol

Mail Service

External Mail Gateway

The Software Serial Numbers for this machine are:

Services Group I: 5 STZM CJ3Q 9FDK

Services Group II: S ZT4W J9QV EVMG

Printer Fonts: C 3CTT NRFT U63M

Software locked on 12-Apr-87 15:26:55

The processor number is 2-522-132-941

Screen continued

This example shows setting the software options.

!Set Software Options

Standard Services Software
Asynchronous Communication Protocol
Mail Service
 External Mail Gateway

The Software Serial Numbers for this machine are:

Services Group I: 5 STZM CJ3Q 9FDK
Services Group II: S ZT4W J9QV EVMG
Printer Fonts: C 3CTT NRFT U63M

Software locked on 12-Apr-87 15:26:55

The processor number is 2-522-132-941

The software to be configured on this machine is provided under a prearranged agreement with Xerox. Attempts to configure any software not authorized by Xerox will be in violation of the agreement.

Confirm? (Y/N): **Y**

Product groups to be configured

- 1 Services Group I
- 2 Services Group II
- 3 Printer Fonts

Enter one or more choices: **1**

One password is required to configure options in that product group.

Enter password for Services Group I: *********

Standard Services Software

Formatting Print Service

Remote Batch Service

Electronic Printer Print Service

...

...

Network Statistics Service

Okay to lock this software now? (Y/N): **Y**

!Stop Service

Select choices

- 1 External Communication Service

Enter one or more choices: **1**

ECS: Stop immediately? (Y/N): **Y**

Stopping External Communication Service.

ECS: External Communication Service is stopped.

Mail Service has stopped.

!

Monitoring foreign gateway and domain activity



Use this procedure to list foreign gateways and domains, and to monitor foreign gateway activity.

The **List Foreign Gateways** and **List Foreign Domains** commands display the local mail gateways and/or domains accessible from a Mail Service with the Mail Gateway option.

The **Show Foreign Gateway** command displays calling intervals and mail transfer statistics for a specified foreign gateway. The **Show Status** command shows the state of the gateway's queue for outgoing mail. The **Show RS232C Port Statistics** command shows information to isolate problems found with gateway mail transfer.

Prerequisites

Know the area code and phone number for the foreign gateway.

Step-by-step to List foreign gateways and foreign domains

1. Log on in the Mail Service context.
2. Type **List Foreign Gateways** \Leftarrow .

< Displays a list of foreign gateway phone numbers >

3. Type **List Foreign Domains** \Leftarrow .

< Displays the fully qualified name and phone number for each foreign domain >

4. Type **Show Foreign Gateway** \Leftarrow .

Phone number:

5. Type the area code and phone number of the foreign gateway you want to list \Leftarrow .

< Displays the calling intervals and foreign domains >

6. Type **Show RS232C Port Statistics** \Leftarrow .

< Displays sending and receiving information >

7. Type **Show Status** .

< Displays statistics for the Mail Service and External Mail Gateway, including information on total number of disk pages, number of mailboxes, queue status, and backup status >

Wrap-up

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

This example shows listing foreign gateways and foreign domains.

```
MS> List Foreign Gateways
4154954549
6179632931
2134518149
MS> List Foreign Domains
Boston:Acme; Foreign Gateway: 6179632931
Los Angeles:Acme; Foreign Gateway: 2134518149
San Jose:Acme; Foreign Gateway: 4154954549
MS>
```

This example shows displaying foreign gateway activity.

```
MS> Show Foreign Gateway
  Phone number: 4154944749
Calling intervals:
  Start time: 3:00; Length: 2:00
  Start time: 23:00; Length: 3:30
Foreign Domains:
  Boston:Bigelow
  Portland:Bigelow
  Seattle:Bigelow
Outgoing mail queued for transfer.
Last attempted transfer: 19-May-87 4:30
Last attempted transfer failed: Connection rejected.
Last successful transfer: 19-May-87 2:40
MS> Show RS232C Port Statistics
      1663  packets sent
    412,536 bytes sent
      1822  packets received
    726833  bytes received
           0  send error, bad status
           0  congestion count
           0  receive error, data lost
           0  transmission timeouts
           0  link timeouts
           0  receive frame timeouts
           0  receive checksum errors
           0  receive device errors
           1  other receive errors
           1  times out of transmit buffers
           0  time out of receive buffers

MS>
```

Screen continued

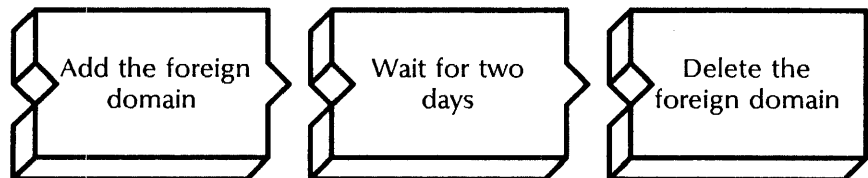
This example shows the status of the Mail Service.

```

MS> Show Status
Database: 765 disk pages used out of 4000 total; 19% full
Booted: 22-Apr-87 7:54:32
Uptime: 765:22:19
Messages Received: 4093
Local Deliveries: 2911
Mailboxes: 178
Queue Status:
    Input: 8
    Forward: 13
    Pending: 15
    Gateway: 9
Gateway Status:
    Transfer in progress.
    Last attempted transfer: 15-May-87 13:45:12
    Last Successful Transfer: 15-May-87 13:45:12
Backup Status:
    Backup in progress Start time: 18-May-87 15:22:19
    Last Attempted Backup: Failed
    Failure Reason: Cannot contact Clearinghouse
    Last Successful Backup: 16-May-87 11:15:22
MS>

```

Moving a foreign domain



Use this procedure to move a foreign domain to a different External Mail Gateway.



CAUTION: Do NOT delete the foreign domain before you add it to the new gateway or you will cause complications with the Clearinghouse Service.

Prerequisites

Update the Mail Service Worksheet with any changes you are making to the following information:

- The foreign domain name
- The area code and phone number for the foreign gateway

Step-by-step

1. Log on and enable in the Mail Service context at the server where you are installing the foreign domain.
2. Type **Add Foreign Domain** \leftarrow .

Foreign Domain name:

3. Type the name of the domain and organization that you are moving and press RETURN. Use a colon to separate the domain and organization names.

Foreign Gateway (phone number):

4. Type the area code and phone number that serves this domain and press RETURN. Enter the number without using parentheses or hyphens.

Warning: Foreign Domain already served by some Mail Service
Add Foreign Domain. Confirm (Y/N):

5. Type **Y** or **N** at the "Confirm" prompt \leftarrow .
 - Y** Registers the foreign domain with the Clearinghouse Service.
 - N** Cancels the procedure.
6. Log off.
7. Wait two days for the domain to register itself and ensure propagation of the new information to all Clearinghouse Services. Then **proceed with step 8**.
8. Log on in the Mail Service context at the server where you want to delete the foreign domain.
9. Type **Show Status** \leftarrow .



CAUTION: Do NOT use the **Delete Foreign Gateway** command if the **Show Status** command shows mail in the gateway queue or you may cause server failure. Wait until the **Show Status** command shows no items in the gateway queue. Also, do not use the **Delete Foreign Gateway** and **Show Status** commands during any of the calling intervals associated with the local Mail Gateway.

10. Type **Delete Foreign Domain** \leftarrow .

Foreign Domain name:

11. Type the name of the domain and organization that you added in step 3 and press RETURN. Use a colon to separate the domain and organization names.

Confirm (Y/N):

12. Type **Y** or **N** at the "Confirm" prompt \leftarrow .
 - Y** Deletes the foreign domain from the Clearinghouse Service.
 - N** Cancels the procedure.

Wrap-up

When you see the "Done" message, you have moved a foreign domain.

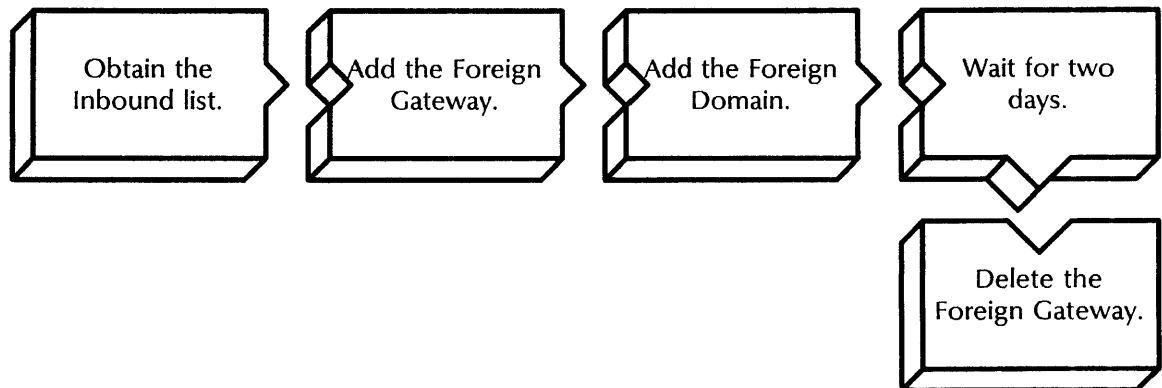
You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

This example shows moving a foreign domain.

```
MS!Add Foreign Domain
  Foreign Domain name: Boston:Mutual
  Foreign Gateway (phone number): 6179642113
Warning: Foreign Domain already served by some Mail
Service
  Add Foreign Domain. Confirm (Y/N): Y
Done.
MS!Delete Foreign Domain
  Foreign Domain name: Boston:Mutual
  Confirm (Y/N): Y
Done.
MS!
```

Moving a foreign gateway



Use this procedure to move a foreign Mail Gateway to a different Mail Service.

Prerequisites

- Obtain the inbound list from the System Administrator of the foreign internetwork you will be moving before you supply the area code and phone number necessary for this procedure.
- Know the start time and length of the calling interval.

Step-by-step

1. Log on and enable in the Mail Service context at the server where you are installing the Mail Gateway.
2. Type **Add Foreign Gateway** .

Phone number:

3. Type the new area code and phone number from the inbound list at the "Phone number" prompt and press RETURN. Enter the number without parentheses or hyphens.

Start time of calling interval:

4. Type the calling interval start time at the "Start time of calling interval" prompt and press RETURN. Enter the number in the HH:MM format.



CAUTION: The server locks up if one calling interval has a start time of midnight, and you attempt to add another calling interval that starts before midnight and ends after midnight.

Length of calling interval:

5. Type the length of the calling interval and press RETURN. Enter the number in the HH:MM format.
6. Type **Add Foreign Domain** .

Foreign Domain name:

7. Type the name of the domain and organization you are moving and press RETURN. Use a colon to separate the domain and organization names.

Foreign Gateway (phone number):

8. Type the area code and phone number that serves this domain and press RETURN. Enter the number without hyphens or parentheses.

Warning: Foreign Domain already served by some Mail Service
Add Foreign Domain. Confirm (Y/N):

9. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Registers the foreign domain with the Clearinghouse Service.
 - N** Cancels the procedure.
10. Log off.
11. Wait two days for the new domain information to propagate through all Clearinghouse Services. Then **proceed with step 12.**
12. Log on and enable in the Mail Service context at the server where you want to delete the Mail Gateway.
13. Type **Show Status** .



CAUTION: Do NOT use the **Delete Foreign Gateway** command if the **Show Status** command shows mail in the gateway queue or you may cause server failure. Wait until the **Show Status** command shows zero items in the gateway queue. Also, do not use the **Delete Foreign Gateway** and **Show Status** commands during any of the calling intervals associated with the local Mail Gateway.

14. Type **Delete Foreign Gateway** .

Phone number:

15. Type the area code and phone number for the foreign gateway you added in step 3 and press RETURN. Enter the numbers without hyphens and parentheses.

Confirm? (Y/N):

16. Type **Y** or **N** at the "Confirm" prompt .

Y Deletes the foreign gateway.

N Cancels the procedure.

Warning: Foreign Gateway still has Foreign Domain attached.
Confirm? (Y/N):

17. If the foreign gateway is the connection point for one or more foreign domains, type **Y** or **N** at the "Confirm" prompt . Otherwise, **skip to step 18**.

Y Deletes the foreign gateway.

N Cancels the command and lets you reassign the domain(s) to other foreign gateways before retrying the command.



CAUTION: If you try to delete a foreign domain right after you add it, you may see the error message: "Unexpected problem with Clearinghouse" because the information about the new foreign domain has not yet propagated. To recover, repeat the operation after the information has propagated to all Clearinghouse Services.

18. Log off.

Wrap-up

When you see the message "Done," you have moved a foreign gateway to a different Mail Service.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

This example shows moving a foreign gateway.

```
MS!Add Foreign Gateway
  Phone number: 4154944748
  Start time of calling interval: 23:00
  Length of calling interval: 4:30
Done.
MS!Add Foreign Domain
  Foreign Domain name: Boston:Mutual
  Foreign Gateway (phone number): 6179642113
Warning: Foreign Domain already served by some Mail
Service
  Add Foreign Domain. Confirm (Y/N): Y
Done
MS!Delete Foreign Gateway
  Phone number: 4154944748
  Confirm? (Y/N): Y
Warning: Foreign Gateway still has Foreign Domain attached.
  Confirm? (Y?N): Y
Done
MS!
```

Updating foreign gateway calling intervals



Use this procedure to change, add, or delete the calling intervals for a foreign gateway.

Prerequisites

Update the Mail Service Worksheet with any changes you are making to the following information:

- The area code and phone number for the foreign gateway.
- The length and start time of the calling interval.

Step-by-step

1. Log on and enable in the Mail Service context.
2. Type **Change Foreign Gateway** .

Phone number:

3. Type the area code and phone number and press RETURN. Enter the number without hyphens or parentheses.

Select one of the following:

1. Add, change, or delete calling interval
2. Change foreign gateway phone number

Enter choice number:

4. Type **1** for to add, change, or delete a calling interval .



CAUTION: The server locks up if one calling interval has a start time of midnight, and you attempt to add another calling interval that starts before midnight and ends after midnight.

Start time of calling interval:

5. Type the calling interval start time and press RETURN. Enter the time in the HH:MM format.

If the starting time matches that of an existing interval, the existing interval is modified. If the starting time does not match an existing interval, a new interval is added.

Length of calling interval:

6. Type the length of the calling interval and press RETURN. Enter the time in the HH:MM format.

If the length is changed to 0, the interval is deleted.

```
Change <Add> calling interval. Confirm (Y/N):
```

7. Type **Y** or **N** to confirm the calling interval change .
 - Y** Changes the calling interval.
 - N** Cancels the procedure.

Wrap-up

When you see the message "Done," you have changed the calling interval.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Examples

This example shows changing a calling interval.

```
MS!Change Foreign Gateway
  Phone number: 4154925346
Calling intervals:
  Start time: 23:00; Length: 4:30
  Select one of the following:
  1. Add, change, or delete calling interval
  2. Change foreign gateway phone number
  Enter choice number: 1
  Start time of calling interval: 23:00
  Length of calling interval: 3:00
  Change calling interval. Confirm (Y/N): Y
Done.
MS!
```

This example shows adding a new calling interval.

MS!Change Foreign Gateway

Phone number: **4154925346**

Calling intervals:

Start time: 23:00; Length: 4:30

Select one of the following:

1. Add, change, or delete calling interval
2. Change foreign gateway phone number

Enter choice number: **1**

Start time of calling interval: **04:00**

Length of calling interval: **2:00**

Add calling interval. Confirm (Y/N): **Y**

Done.

MS!

This example shows deleting a calling interval.

MS!Change Foreign Gateway

Phone number: **4154925346**

Calling Intervals:

Start time: 4:00; Length: 2:00

Start time: 23:00; Length: 3:00

Select one of the following:

1. Add, change, or delete the calling interval
2. Change foreign gateway phone number

Enter choice number: **1**

Start time of calling interval: **23:00**

Length of calling interval: **0:00**

Delete calling interval. Confirm (Y/N): **Y**

Done.

MS!

This chapter contains the procedures you perform to maintain the Print Service. The chapter is divided into these sections:

- Common Print Service procedures
- 8040 Series Electronic Printer procedures
- Laser CP Electronic Printer procedures
- Telecopier 495-1 Printer procedures
- Formatting Print Service procedures
- Recovery procedures

These procedures are available using an 8000 or an 8090 server and these software versions:

- 11.0 - This chapter supports the procedures you perform for an 8040 Series or a Laser CP Electronic Printer. You can run 11.0 software on an 8000 or an 8090 server.
- 10.0 through 10.3 - This chapter supports the procedures you perform for a Telecopier 495-1 Printer or a Formatting Print Service. You can run 10.0, 10.2, or 10.3 software on an 8000 server only.

Unless otherwise labeled, the procedures in this chapter apply to all software versions. Be sure you use the appropriate procedure for your software version.

Prerequisites

Complete these steps before you perform any Print Service maintenance procedures:

- Install all required software as described in the *Services Installation and Setup Guide*.
- Install all required hardware for the printing option you are setting up. See the Print Service chapter in the *Guide to System Administration Activities* for the hardware requirements.
- Perform all setup procedures as described in the *Services Installation and Setup Guide*.

Commands

This section lists the commands you use to maintain the Print Service. You can access these commands from the Print Service context.

Table 5-1 shows the Print Service commands for maintenance along with the logged on status and the service state (started or stopped) for accessing them.

Table 5-1. **Print Service maintenance commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Cancel All Documents					•	•
Cancel Documents			•	•	•	•
Delete Font					•	
Delete Test Pattern					•	
List Documents	•	•	•	•	•	•
List Fonts	•	•	•	•	•	•
List Test Patterns	•	•	•	•	•	•
List Volumes (SSS)	•	•	•	•	•	•
Print Test Pattern	•		•		•	
Query Target Print Service	•		•		•	
Rename Print Service						•
Reset Statistics					•	
Set Banner					•	
Set Default Substitution Font					•	
Set Parameters					•	
Set Target Print Service					•	
Show Status	•	•	•	•	•	•
Shutdown Printer					•	
Start			•		•	
Start Diagnostic	•		•		•	
Start Printing			•		•	
Start Queuing			•		•	
Stop					•	
Stop Printing					•	
Stop Queuing					•	
Wakeup Printer					•	

Cancel Document Available to the logged on user when the Print Service is started or stopped. Lists the documents as they are canceled and deletes the canceled document files.

If you are running software version 11.0, this command cancels a specific document sent to the printer. An enabled System Administrator can cancel anyone's documents.

If you are running software version 10.0, 10.2, or 10.3, this command cancels the printing of selected categories of documents.

Related procedures: Canceling a document sent to the Print Service, Canceling a specific document sent to the Print Service

Cancel All Documents Available to the enabled user when the Print Service is started or stopped. This command is available only if the server is running software version 11.0. Cancels all the documents in the Print Service queue. This command lists the documents as they are canceled and deletes the canceled document files.

Related procedure: Canceling all documents sent to the Print Service

Delete Font Available to the enabled user when the Print Service is started and printing is stopped with the **Stop Printing** command. Deletes unused fonts to increase space on the server volume. Prompts appear for every installed font. After deleting fonts, restart printing with the **Start Printing** command.

Related procedure: Deleting fonts

Delete Test Pattern Available to the enabled user when the Print Service is started. Deletes unused test patterns.



Normally, you will not delete test patterns because they are required for proper Print Service operation.

Related procedure: Deleting test patterns

List Documents Available to any user when the Print Service is started or stopped. Lists the sender, document status, and name of documents received by the Print Service.

Use this command to check the position of a document in the queue. Normally, the command lists documents in one of the following states:

- Queued and awaiting formatting
- Being formatted
- Formatted and awaiting printing or forwarding
- Being printed or forwarded
- Completed

Related procedure: Checking the status of documents received by the Print Service

List Fonts Available to any user when the Print Service is started or stopped. Displays the name, file size, and creation date and time of all installed fonts.

Related procedure: Listing fonts or test patterns

- List Test Patterns** Available to any user when the Print Service is started or stopped. Displays the name, file size, and creation date and time of all installed test patterns.
Related procedure: Listing fonts or test patterns
- List Volumes** Available to any user. This Services System Software command displays the volume name, status (open, closed, online), and drive number. For open and online volumes, this command also displays the number of used and available pages, and the percent of the volume used.
Related procedures: Printing documents with complex pages
- Print Test Pattern** Available to any user when the Print Service is started, even if printing, queuing, or both are stopped. Prints a test pattern to test the Print Service.
Related procedures: Checking Print Service operation, Correcting printer image alignment
- Proceed** Available to the enabled user. This Services System Software command is available at all initialization interrupt points after rebooting the server and selecting a non-normal startup. It leaves an interrupt point and continues to the next interrupt point. If there are no interrupt points remaining, the system runs all activated services and completes server initialization.
Related procedures: Printing documents with complex pages
- Query Target Print Service** Available to any user when the Print Service is started. This command supports the Formatting Print Service and is available only if you have an 8000 server running software version 10.0, 10.2, or 10.3. Obtains and displays the current status of the Target Print Service and its current paper handling parameters. Paper handling parameters include paper size, stapling, and two-sided copying.
Related procedure: Updating paper handling options
- Rename Print Service** Available to the enabled user when the Print Service is stopped with the **Stop Service** command. Lets you change the name of the Print Service. The command deletes the current name at the Clearinghouse Service and adds the new name. After renaming the Print Service, restart the Print Service with the **Start Service** command.
Related procedure: Renaming the Print Service
- Reset Statistics** Available to the enabled user when the Print Service is started. Resets to zero all counters that accumulate service statistics.
Related procedure: Resetting statistics
- Run Service** Available to the enabled user. This Services System Software command runs the software files for a service not currently running, bringing the service to a fully-operational state. This command is useful when you want to invoke a non-normal service startup to access a service's non-normal options, or to configure a service before you run other coresident services.
Related procedures: Printing documents with complex pages, Recovering from a Print Service crash during startup

Set Banner	<p>Available to the enabled user when the Print Service is started. Lets you change the banner page option for a Laser CP Electronic Printer.</p> <p>Related procedure: Changing the banner option</p>
Set Default Substitution Font	<p>Available to the enabled user when the Print Service is started and printing is stopped with the Stop Printing command. This command is available only if the server is running software version 11.0. Changes the default substitution font to Modern or Classic. After changing the default substitution font, restart printing with the Start Printing command.</p> <p>Related procedure: Changing the default substitution font</p>
Set Parameters	<p>Available to the enabled user when the Print Service is started. Lets you change the paper handling parameters for the 8040 Series Electronic Printer or the Telecopier 495-1 Printer.</p> <p>Related procedures: Changing paper handling options, Changing paper handling and transmission options</p>
Set Target Print Service	<p>Available to the enabled user when the Print Service is started. This command supports the Formatting Print Service and is available only if you have an 8000 server running software version 10.0, 10.2, or 10.3. Specifies a printer as the Target Print Service.</p> <p>Related procedure: Changing the Target Print Service</p>
Show Status	<p>Available to any user when the Print Service is started or stopped. Displays current operational status, configuration, and statistics.</p> <p>Related procedure: Showing Print Service status</p>
Shutdown Printer	<p>Available to the enabled user when the Print Service is started. Reduces the power consumption during slack periods by putting the print engine in low power mode. The printer enters this mode automatically when unused for over 90 minutes. This command supports the B2 version of the 8040 Series Electronic Printer when these conditions exist:</p> <ul style="list-style-type: none">• The printer is in full power mode• No job is being processed• The Print Service is not in an L4 status condition <p>Related procedure: Controlling the power mode of a B2 printer</p>
Start	<p>Available to the logged on user when the Print Service is started and both printing and queuing are stopped. Restarts printing and queuing of documents by the Print Service. This command also displays the name of the user who stopped queuing and printing, and the reason queuing and printing were stopped, if known. The Start command serves the same function as the Start Queuing and Start Printing commands together.</p> <p>Related procedure: Restarting the processing of documents</p>

- Start Diagnostic** Available to any user when the Print Service is started. This command supports the 8040 Series Electronic Printer, the Laser CP Electronic Printer, or the Telecopier 495-1 Printer. Starts the diagnostic program that tests the server-printer interface. Running the diagnostic program preempts normal functions (queuing, printing, and so on).
- Related procedures:** Correcting an **L2** error code; Correcting **P1**, **P2**, and **P3** error codes; Setting the Telecopier 495-1 clock
- Start Printing** Available to the logged on user when the Print Service is started and printing is stopped. Lets the Print Service print documents in the document queue. This command displays the name of the user who stopped printing and the reason printing was stopped, if known.
- Related procedures:** Deleting fonts, Restarting the processing of documents
- Start Queuing** Available to the logged on user when the Print Service is started and queuing is stopped. Lets the Print Service queue documents from the network. Queuing starts automatically after Print Service installation and initialization. This command displays the name of the user who stopped queuing and the reason queuing was stopped, if known.
- Related procedure:** Restarting the processing of documents
- Stop** Available to the enabled user when the Print Service is started and both queuing and printing are started. Stops queuing and printing by the Print Service. Once stopped, queuing and printing remain stopped until restarted, even if the server is rebooted. Documents currently in progress are requeued and processed when printing is restarted. The **Stop** command serves the same function as the **Stop Queuing** and **Stop Printing** commands together.
- Related procedure:** Stopping the processing of documents
- Stop Printing** Available to the enabled user when both the Print Service and printing are started. Stops printing by the Print Service; however, test patterns may still be printed. Once stopped, printing remains stopped until restarted, even if the server is rebooted. Documents currently in progress are requeued and processed when printing is restarted.
- Related procedures:** Deleting fonts, Stopping the processing of documents
- Stop Queuing** Available to the enabled user when both the Print Service and queuing are started. Stops queuing of documents from the network. Once stopped, queuing remains stopped until restarted, even if the server is rebooted.
- Related procedure:** Stopping the processing of documents

Wakeup Printer

Available to the enabled user when the Print Service is started. This command supports the B2 version of the 8040 Series Electronic Printer when the printer is in low power mode. Returns the printer to full power mode. The printer automatically enters full power mode when it receives a printing job. The printer requires about six minutes to warm up before becoming operational, during which time an **L1** status is displayed.

Related procedure: Controlling the power mode of a B2 printer

Common Print Service procedures

This section contains these procedures for maintaining the Print Service:

Canceling a document sent to the Print Service (versions 10.0 through 10.3 only)

Use this procedure to cancel the printing of a document sent to the Print Service.

Canceling a specific document sent to the Print Service (version 11.0 only)

Use this procedure to cancel the printing of a document sent to the Print Service.

Canceling all documents sent to the Print Service (version 11.0 only)

Use this procedure to cancel all documents in the Print Service queue.

Changing the default substitution font (version 11.0 only)

Use this procedure to specify a different default substitution font.

Checking the status of documents received by the Print Service

Use this procedure to check the status of documents sent to the Print Service.

Deleting fonts

Use this procedure to delete unused fonts and increase the space on the server volume.

Deleting test patterns

Use this procedure to delete test patterns.

Listing fonts or test patterns

Use this procedure to list all fonts or test patterns installed on the Print Service.

Printing documents with complex pages (version 11.0 only)

Use this procedure to print documents with complex graphics, large numbers of graphics, or large bitmap images.

Renaming the Print Service

Use this procedure to change the name of the Print Service.

Resetting statistics

Use this procedure to reset the counters that accumulate service statistics.

Restarting the processing of documents

Use this procedure to restart the processing of documents after processing has been stopped.

Showing Print Service status

Use this procedure to monitor Print Service status.

Stopping the processing of documents

Use this procedure to stop processing documents while you install fonts or service the printer.

Canceling a document sent to the Print Service (versions 10.0 through 10.3 only)



Use this procedure to cancel the printing of a document sent to the Print Service. You can use the **List Documents** command first to determine the status of the document. See the "Listing documents" procedure later in this chapter.

The procedure for canceling a document is the same for the Telecopier 495-1 and the Formatting Print Service (FPS). The screen varies slightly, displaying "Printing document" for the Telecopier 495-1 and "Forwarding document" for the FPS.

Prerequisite

Be familiar with the options described in "Canceling a document" in the Print Service chapter of the *Guide to System Administration Activities*.

Step-by-step

1. Log on and enable in the Print Service context.
2. Type **Cancel Document** \Leftarrow .

```

1 Formatting document
2 <Printing or Forwarding> document
3 Documents being processed
4 Queued documents
5 All documents
Enter choice number:

```

3. Type the number for the category you want to cancel \Leftarrow .

```
Please confirm (Y/N):
```

4. Type **Y** at the "Please confirm" prompt and press RETURN; or simply press RETURN.

Y Cancels documents in the category selected.

N Cancels the process.

```

<name of document>
<#> document(s) canceled.

```

5. Log off.

Wrap-up

When you see a message displaying the number of documents canceled, you have completed this procedure. The Interpress masters for the canceled documents are deleted from the server disk.

Example

This screen shows canceling the formatting document.

```

PS!Cancel Document
  1 Formatting document
  2 Printing document
  3 Documents being processed
  4 Queued documents
  5 All documents
Enter choice number: 1
Please confirm (Y/N): Y
Monthly Status Report (Canceled in formatter)
1 document(s) canceled.
PS!

```

Canceling a specific document sent to the Print Service (version 11.0 only)



Use this procedure to cancel the printing of a document after it has been sent to the Print Service. An enabled System Administrator may cancel documents sent by anyone. A logged on user may only cancel his or her own documents and the fully qualified name must be specified as the sender name with the print request. The procedure is the same whether you are logged on or enabled, although the screen display varies slightly. If a document completes before the cancellation takes effect, the document status will be listed as printed.

Step-by-step

1. Log on in the Print Service context if you are canceling your own document. Log on and enable in the Print Service context if you are canceling someone else's document.
2. Type **Cancel Document** .

```

Select documents < >
  1 <document name> <status>
  2 <document name> <status>
  3 <document name> <status>
  4 All of the above
Enter one or more choices:

```

3. Type the number(s) for the document(s) you want to cancel and press RETURN. (For example, to cancel 1 and 3, type **1,3**.)


```

Documents to be canceled:
  < document name < status >
  < document name < status >
Please confirm (Y/N):

```

4. Type **Y** at the "Please confirm" prompt .
- Y** Cancels the selected documents.
- N** Cancels the process.

```

< document name > (Canceled < >)
< document name > (Canceled < >)
< # > document(s) canceled.

```

5. Log off.

Wrap-up

When a message displays the number of documents canceled, the procedure is complete. The Interpress masters for the canceled documents are deleted from the server disk.

Examples

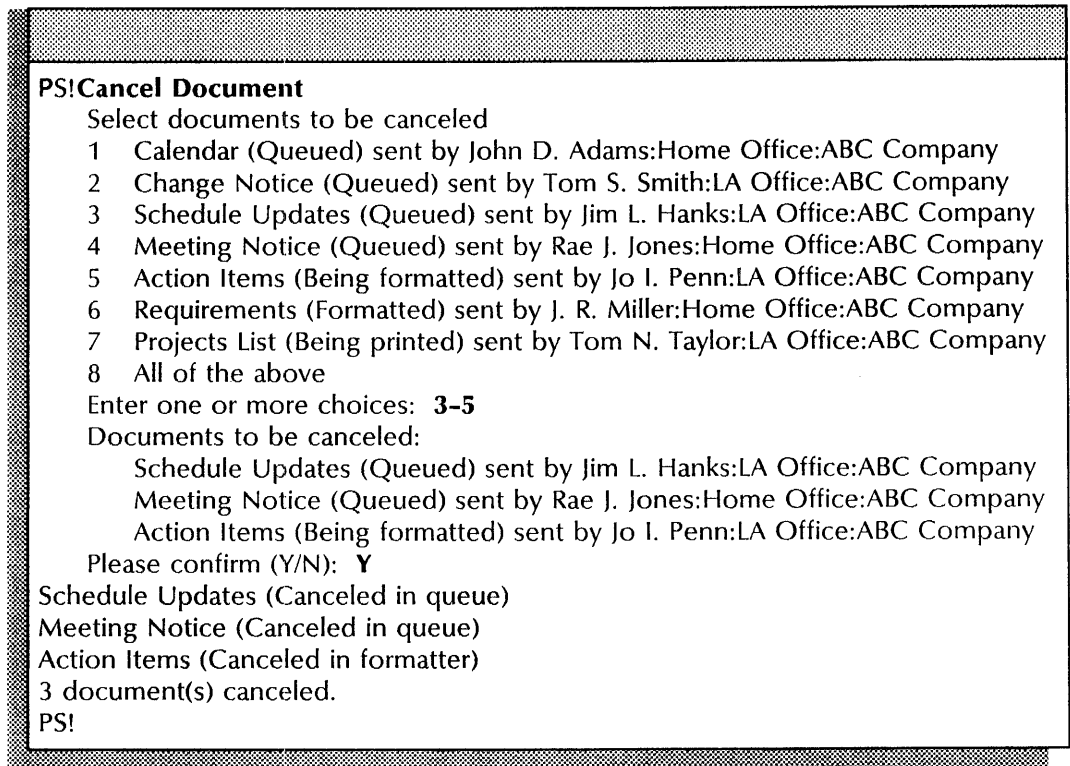
This screen shows a logged on user canceling specific documents.

```

PS> Cancel Document
Select documents sent by Diane M. Davis:Home Office:ABC Company
1 Meeting Minutes (Queued)
2 Department Personnel (Formatted)
3 Action Items (Being printed)
4 All of the above
Enter one or more choices number: 1,3
Documents to be canceled:
  Meeting Minutes (Queued)
  Action Items (Being printed)
Please confirm (Y/N): Y
Meeting Minutes (Canceled in queue)
Action Items (Canceled at printer)
2 document(s) canceled.
PS>

```

This screen shows an enabled System Administrator canceling someone else's documents.



Canceling all documents sent to the Print Service (version 11.0 only)



Use this procedure to cancel the printing of all documents in the Print Service queue. Document names and statuses display as they are canceled.

Step-by-step

1. Log on and enable in the Print Service context.
2. Type **Cancel All Documents** .

Please confirm cancellation of all documents (Y/N):

3. Type **Y** to confirm the cancellation .
 - Y** Cancels all documents in the queue.
 - N** Cancels the process.

```

< document name > (Canceled < >)
< document name > (Canceled < >)
< document name > (Canceled < >)
< document name > (Canceled < >)
< document name > (Canceled < >)
< document name > (Canceled < >)
< document name > (Canceled < >)
< # > document(s) canceled.

```

4. Log off.

Wrap-up

When a message displays the number of documents canceled, the procedure is complete. The Interpress masters for the canceled documents are deleted from the server disk.

Example

This screen shows canceling all documents in the queue.

```

PS!Cancel All Documents
      Please confirm cancellation of all documents (Y/N): Y
Calendar (Canceled in queue)
Minutes from the staff meeting (Canceled in queue)
Change Notices (Canceled in queue)
Status Report (Canceled in queue)
Newsletter (Canceled in queue)
Meeting Agenda (Canceled in formatter)
Schedules (Canceled in queue)
Monthly Reports (Canceled at printer)
8 document(s) canceled.
PS!

```

Changing the default substitution font (version 11.0 only)



Use this procedure to specify either Modern or Classic as the default font. The Print Service substitutes the specified default font when a requested font is not available. The Print Service automatically specifies the Modern font when the service is run for the first time.

Step-by-step

1. Log on and enable in the Print Service context **⇐**.
2. Type **Stop Printing ⇐**.

Please enter reason:

3. Type the reason for stopping printing (optional) **↵**.
 Providing the reason informs users of the status of the Print Service so they will not restart printing before you complete your task.

Stopping printing...
Done.

4. Type **Set Default Substitution Font** **↵**.

Select default substitution font
 1 Modern
 2 Classic
 Enter choice number:

5. Type the number for the option you want **↵**.

Default substitution font =



If the font you specify is not installed, you see a warning message requesting that you install the font file before starting printing. See the "Loading fonts and test patterns onto the Print Service" procedure in the *Services Installation and Setup Guide*.

6. Type **Start Printing** **↵**.

Printing stopped by: <Name> Reason:
Please confirm Start Printing (Y/N):

7. Type **Y** at the "Please confirm Start Printing" prompt **↵**.
Y Restarts printing.
N Cancels the command.
 The above prompt appears only if you entered the reason for stopping printing.

Starting printing...
Done.

8. Log off.

Wrap-up

When you see the message "Starting printing...Done," you have completed this procedure.

Example

This screen shows changing the default font to Classic.

```

PS!Stop Printing
  Please enter reason: Change default font
  Stopping printing...
  Done.
PS!Set Default Substitution Font
  Select default substitution font
  1 Modern
  2 Classic
  Enter choice number: 2
  Default substitution font = Classic
PS!Start Printing
  Printing stopped by: John Miller Reason: Change default font
  Please confirm Start Printing (Y/N): Y
  Starting printing...
  Done.
PS!

```

Checking the status of documents received by the Print Service



Use this procedure to check the status of documents received by the Print Service. The list shows the sender, document status, and document name. The number of pages is also listed for documents formatted or being formatted.

The procedure is the same for all printing options. However, for the Telecopier 495-1, the list also shows the status for each job destination (Transmit Status). For the local print, the destination is identified as "local." The destination identifying a remote transmission is the first 22 characters of the telephone number the user supplied. The command also shows the date and time processing was completed for each destination, and the elapsed telephone time for remote transmissions. See the screens in the "Examples" section for display differences.

Prerequisite

Be familiar with the options described in "Listing documents" in the Print Service chapter of the *Guide to System Administration Activities*.

Step-by-step

1. Type **Print Service** to enter the Print Service context **←|**.
2. Type **List Documents** **←|**.

- 1 Documents being processed
 - 2 All uncompleted documents
 - 3 Completed documents
 - 4 All documents
- Enter choice number:

3. Type the number for the option you want .

Sent By	Document Status	Document Name	Pages
< name >	< status >	< document >	< # >
< name >	< status >	< document >	< # >
< name >	< status >	< document >	< # >

< # > document(s) listed.

4. Log off.

Wrap-up

When you see a message showing the total number of documents listed, you have completed this procedure.

Examples

This screen shows checking the status of all documents received by the Print Service and applies to all printing options except the Telecopier 495-1.

```

PS> List Documents
    1 Documents being processed
    2 All uncompleted documents
    3 Completed documents
    4 All documents
Enter choice number: 4
Sent By      Document Status      Document Name      Pages
Jane R. Smith Queued              Mapping Tables
Tony A. Davis Being formatted     Online illustrations 3
Tony A. Davis Formatted           Test Case           2
Jeff M. Jones Being printed       Basic Guidelines    10
Jane R. Smith Printed             Status Report       7
Jeff M. Jones Canceled in queue   Meeting Minutes
6 document(s) listed.
PS>
    
```

This screen shows checking all documents received by the Print Service for the Telecopier 495-1.

```

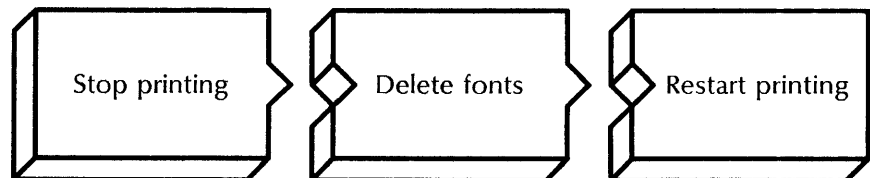
PS> List Documents
  1 Documents being processed
  2 All uncompleted documents
  3 Completed documents
  4 All documents
Enter choice number: 4
Sent By      Document Status   Document Name      Pages
Transmit Status  Destination      Date Time          Phone Time

Jane R. Smith  Queued           Mapping Tables
Pending       Local
Pending       1(221) 475-1228
Pending       1(654) 422-9571
Tony A. Davis  Being formatted  Online illustrations  3
Pending       8*P856-2047
Tony A. Davis  Completed        Test Case             3
Transmitted   424-2087 # 4098   14-Feb 08:13        3:01
Jeff M. Jones  Canceled in queue Meeting Minutes
Aborted       Local

4 document(s) listed.
PS>

```

Deleting fonts



Use this procedure to remove unused fonts and increase space on the server volume.

For software version 11.0, the screen displays the number of files and disk pages deleted. For versions 10.0 through 10.3, it displays the number of files deleted.



If you do not allow documents currently being formatted or printed to complete before you stop printing, they are queued and reprocessed when you restart printing.

Prerequisite

- Notify users before you delete fonts.
- Update the Print Service Worksheet with any changes to the installed fonts.

Step-by-step

1. Log on and enable in the Print Service context.
2. Type **Stop Printing** \leftarrow .

Please enter reason:

3. Type the reason for stopping printing (optional) \leftarrow .
Providing the reason informs users of the status of the Print Service so they will not restart printing before you complete your task.

Stopping printing...
Done.

4. Type **Delete Font** \leftarrow .

Delete < font >? (Y/N):

5. Type **Y** or **N** at each prompt and press RETURN. A prompt appears for each installed font.
Y Deletes the font.
N Retains the font.

< # > files, < # > disk pages deleted.

6. Type **Start Printing** \leftarrow .

Printing stopped by: < Name > Reason:
Please confirm Start Printing (Y/N):

7. If you entered a reason in step 3, type **Y** at the "Please confirm Start Printing" prompt \leftarrow .
Y Restarts printing.
N Cancels the command.

Starting printing...
PS:Cataloging fonts (this may take a while)...
Done.

8. Log off.

Wrap-up

When you see the message "Cataloging fonts (this may take a while)...Done," you have completed this procedure.

Example

This screen shows deleting fonts from a server running software version 11.0.

```

PS!Stop Printing
  Please enter reason: Delete fonts
  Stopping printing...
  Done.
PS!Delete Font
  Delete Xerox.Graphics.Newvec? (Y/N): N
  Delete Xerox.XC1-1-1.Modern? (Y/N): N
  Delete Xerox.XC1-1-1.Modern.Bold? (Y/N): N
  Delete Xerox.XC1-1-1.Modern.Italic? (Y/N): N
  Delete Xerox.XC1-1-1.Classic? (Y/N): Y
  Deleting Xerox.XC1-1-1.Classic. . .done
  1 file, 1286 disk pages deleted.
PS!Start Printing
  Printing stopped by: John Miller Reason: Delete fonts
  Please confirm Start Printing (Y/N): Y
  Starting printing...
PS:Cataloging fonts (this may take a while)...
  Done.
PS!

```

Deleting test patterns



Use this procedure to delete unused test patterns. Deleting test patterns is not recommended since they are required for proper Print Service operation.

For software version 11.0, the screen displays the number of files and disk pages deleted. For versions 10.0 through 10.3, it displays the number of files deleted.

Step-by-step

1. Log on and enable in the Print Service context.
2. Type **Delete Test Pattern** .

```
Delete <test pattern>? (Y/N):
```

3. Type **Y** or **N** at each prompt and press RETURN. A prompt appears for each installed test pattern.
 - Y** Deletes the test pattern.
 - N** Retains the test pattern.
4. Log off.

Wrap-up

When you see a message indicating the number of files and disk pages deleted, you have completed this procedure.

Example

This screen shows deleting a test pattern installed on an 8040 Series Electronic Printer. The server is running software version 11.0.

```

PS!Delete Test Pattern
  Delete AlignmentPattern.interpress? (Y/N): N
  Delete CAM.interpress? (Y/N): N
  Delete DarkDusting.interpress? (Y/N): N
  Delete GreyDusting.interpress? (Y/N): N
  Delete LightDusting.interpress? (Y/N): Y
1 file, 5 disk pages deleted.
PS!

```

Listing fonts or test patterns



Use this procedure to list the fonts or test patterns installed on the Print Service. The list shows the name, file size, and creation date and time of all installed fonts or test patterns.

For software version 11.0, the screen displays the number of files and disk pages listed. For versions 10.0 through 10.3, it displays the number of files listed.

Step-by-step

1. Enter the Print Service context.
2. Type **List Fonts** or **List Test Patterns** .
3. Log off.

Wrap-up

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy of the listed fonts in the *Activities Guide*.

Examples

This screen shows the fonts installed on the Print Service. The server is running software version 11.0.

PS> List Fonts

```
Xerox.Graphics.Newvec (133 disk pages, created 12-Mar-88 16:29:45)
Xerox.XC1-1-1.Modern (2329 disk pages, created 13-Mar-88 12:37:01)
Xerox.XC1-1-1.Modern.Bold (1605 disk pages, created 14-Mar-88 13:09:32)
Xerox.XC1-1-1.Modern.Italic (1572 disk pages, created 15-Mar-88 14:10:33)
4 files, 5712 disk pages listed.
```

PS>

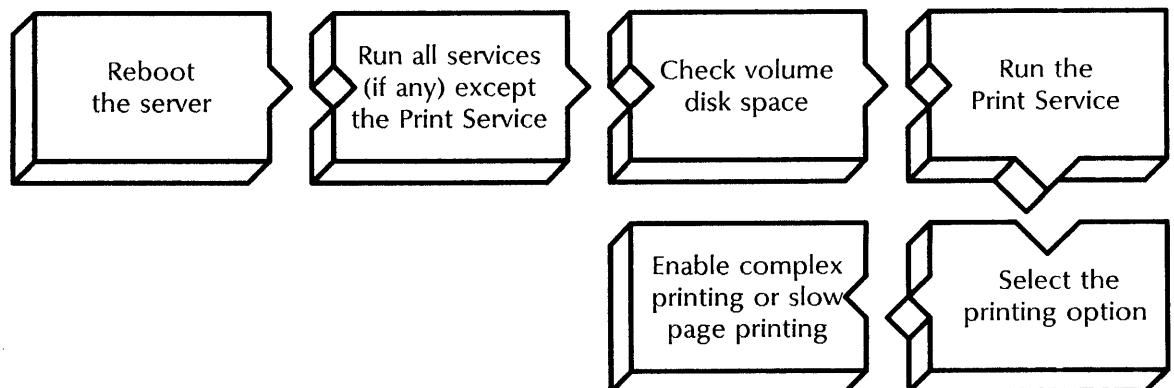
This screen shows the test patterns installed on an 8040 Series Electronic Printer. The server is running software version 11.0

PS> List Test Patterns

```
AlignmentPattern.interpress (87 disk pages, created 12-Mar-88 16:29:45)
CAM.interpress (5 disk pages, created 12-Mar-88 16:30:39)
DarkDusting.interpress (1 disk pages, created 12-Mar-88 16:31:30)
GreyDusting.interpress (1 disk pages, created 12-Mar-88 16:32:22)
LightDusting.interpress (1 disk pages, created 12-Mar-88 16:33:14)
5 files, 95 disk pages listed.
```

PS>

Printing documents with complex pages (version 11.0 only)



Use this procedure to print documents with complex graphics and images. The slow page printing feature enables the printing of complex graphics without image gaps. The complex printing feature enables the printing of documents containing more complex graphics, large numbers of graphics, or large bitmap images (e.g., scanned images). Slow page printing is automatically enabled when complex printing is enabled.



CAUTION: Do not enable complex printing or slow page printing on multi-function servers with less than 3.6 Mb of real memory.

Prerequisites

- The server running Print Service only must have at least 1.5 Mb of real memory; a multi-function server must have at least 3.6 Mb of real memory.
- You must have at least 17,700 available disk pages (before the Print Service is run) and 23-bit virtual memory (VM) to enable the complex printing feature.
- You must have at least 11,700 available disk pages (before the Print Service is run) to enable the slow page printing feature separately. (Slow page printing is automatically enabled with complex printing.)



Print Service operation may be impaired if these features are enabled with less than the required available disk pages.

- Update the Print Service Worksheet with any changes you are making.

See “Complex and slow page printing features” under “Planning for setup” in the Print Service chapter of the *Guide to System Administration Activities* for more information.

Step-by-step

1. Reboot the server:
 - a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

Normal startup? (Y/N):

2. Type **N** at the “Normal startup” prompt \Leftarrow .
 - Y** Completes the initialization process.
 - N** Interrupts the initialization process to perform special functions and displays the interrupt points available.

Enter interrupt point

- 1 Interrupt before opening primary volume
- 2 Interrupt before processing profile
- 3 Interrupt before running services

Enter one or more choices:

3. Type **3** for the “Interrupt before running services” option \Leftarrow .
4. Log on and enable.

5. Type **Run Service** ↵.

```
Select choices
1 <Print Service >
2 <service name >
```

6. If other services are listed, type the numbers for all services except the Print Service and press RETURN. If the Print Service is the only service listed, press CTRL and C at the same time to cancel the command and **skip to step 8**.

```
Normal startup? (Y/N):
```

7. Type **Y** at the "Normal startup" prompt for each service ↵.

```
Running <service name >.
```

8. Type **List Volumes** ↵.

```
Volume name      Used/available (%)   Status
<name >         < # > / < # (%) >   <status >
```

9. Check the available space on the server volume to be sure you have the required available disk pages.
10. Type **Run Service** ↵.

```
Select choice
1 Print Service
Enter one or more choices:
```

11. Type the number for Print Service ↵.

```
PS: Normal Startup? (Y/N):
```

12. Type **N** at the "PS: Normal startup" prompt ↵.
- Y** Completes the initialization process.
 - N** Interrupts the initialization process to perform special functions and displays the Print Service non-normal startup options.

```
Specify non-normal startup options
1 Change configuration
2 Stop queuing and printing
3 Delete backing files
Enter one or more choices:
```

13. Type **1** for the "Change configuration" option ↵.

Specify printing option
1 8040 Series Electronic Printer
2 Laser CP Electronic Printer
Enter choice number:

14. Type the number for the option you want and press RETURN. If you selected the 8040 Series Electronic Printer, **continue with step 15**. If you selected the Laser CP Electronic Printer, **skip to step 16**.

Specify printer version
1 B1
2 B2
Enter choice number:

15. Press RETURN to confirm your printer version .

Reserve extra disk pages for complex printing (required for scanned images)? (Y/N):

16. You see the above prompt only if your server has sufficient resources. Type **Y** or **N** and press RETURN. Otherwise, **skip to step 18**.
- Y** Enables the complex printing and slow page printing features and reserves the required disk space. **Skip to step 18**.
 - N** Does not enable the complex printing feature. **Continue with step 17**.

Enable slow page printing as needed to avoid printing gaps (uses extra disk pgs)? (Y/N):

17. Type **Y** or **N** at the enable slow page printing prompt .
- Y** Enables the slow page printing feature.
 - N** Does not enable the slow page printing feature.

Print Service run.
!

18. After Print Service initialization completes, type **Proceed** and press RETURN to complete server initialization.
19. Log off.

Wrap-up

When the system runs all activated services, you have completed this procedure.

Examples

This screen shows checking the space on the server volume, step 8.

> List Volumes		
Volume name	Used/available (%)	Status
Finance	20153/14143 (58%)	open
>		

This screen shows enabling the slow page printing feature only, steps 10 through 18.

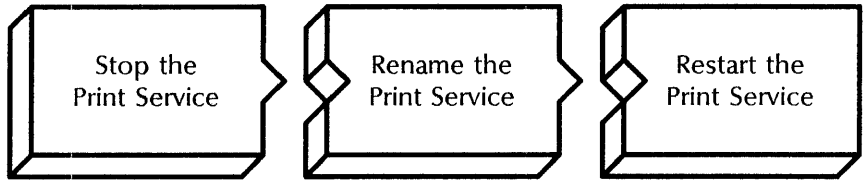
```

!Run Service
  Select choices
  1 Print Service
  Enter one or more choices: 1
  PS: Normal Startup? (Y/N): N
Running Print Service
  Specify non-normal startup options
  1 Change configuration
  2 Stop queuing and printing
  3 Delete backing files
  Enter one or more choices: 1
  Specify printing option
  1 8040 Series Electronic Printer
  2 Laser CP Electronic Printer
  Enter choice number: 1
  Specify printer version
  1 B1
  2 B2
  Enter choice number: 2
  Reserve extra disk pages for complex printing (required for scanned
  images)? (Y/N): N
  Enable slow page printing as needed to avoid printing gaps (uses extra disk
  pgs)? (Y/N): Y

Print Service run.
!Proceed
!

```

Renaming the Print Service



Use this procedure to change the name of your Print Service. This procedure deletes the old name and adds the new name at the Clearinghouse Service database. The new name appears on the banner sheet when the server is rebooted.

Prerequisite

Update the Print Service Worksheet with the new Print Service name and description.

Step-by-step

1. Log on and enable in the Print Service context.
2. Type **Stop Service** .

```

1 Print Service
2 <other service>
Enter one or more choices:
  
```

3. Type the number for the Print Service .

```
PS: Stop immediately? (Y/N):
```

4. Type **Y** at the "Stop immediately" prompt .
 - Y** Stops queuing and processing of all documents.
 - N** Stops queuing of documents; stops all processing but lets the currently printing document complete.



Documents in progress when the Print Service is stopped are requeued and processed again after the service is started.



CAUTION: Do not stop the service if you see the message "Print Service in Repair Mode, do you still want to Stop?" This message appears only when the 8040 Series Electronic Printer is being repaired. Try the procedure again when the repairs are complete.

```
Stopping Print Service.
```

```
PS!
```

5. Type **Rename Print Service** .

Please confirm (Y/N):

6. Type **Y** at the "Please confirm" prompt ↵.

Y Continues the process.

N Cancels the command.

Delete old name...

Deleting Clearinghouse entry for:
<name:domain:organization >
Done.

Add new name...

Service name and description unknown
Enter service name:

7. Type the local name of the Print Service at the "Enter service name" prompt and press RETURN. The Print Service domain and organization default to those of the server.

Enter service description:

8. Type the description at the "Enter service description" prompt ↵.

The description may be the location of the printer or Target Print Service, the department, or other identifying information.

NOTE

Confirm (Y/N):

9. Type **Y** at the "Confirm" prompt ↵.

Y Confirms the service name and description.

N Cancels the service name and description and displays the prompts again.

Validating Clearinghouse entry

for: <name:domain:organization >

A new Clearinghouse entry was created.

Done.

The new service name will not appear on the banner sheet until the server is rebooted.

10. Type **Start Service** ↵.

```
Select choices
1  Print Service
2  <other service >
Enter one or more choices:
```

11. Type the number for the Print Service |.

```
Starting Print Service.
PS!
```

12. Log off.

Wrap-up

When you see the message "Starting Print Service," you have completed this procedure. Notify all users of the new Print Service name.

Example

This screen shows renaming the Print Service.

```

PS!Stop Service
  Select choices
  1  Print Service
  Enter one or more choices: 1
  PS: Stop immediately? (Y/N): Y
Stopping Print Service.

PS!Rename Print Service
  Please confirm (Y/N): Y

  Delete old name . . .
    Deleting Clearinghouse entry for: Eagle:Home Office:ABC Co
  Done.

  Add new name . . .
    Service name and description unknown
    Enter service name: Dover
    Enter service description: Electronic Printer in Room 386
  Confirm (Y/N): Y
  Validating Clearinghouse entry for: Dover:Home Office:ABC Co
  A new Clearinghouse entry was created.
  Done.
  The new service name will not appear on the banner sheet until the server is
  rebooted.

PS!Start Service
  Select choices
  1  Print Service
  Enter one or more choices: 1
Starting Print Service.

PS!

```

Resetting statistics



Use this procedure to reset to 0 the current count and cumulative count for each statistic displayed by the **Show Status** command.

Step-by-step

1. Log on and enable in the Print Service context.
2. Type **Reset Statistics** **↵**.

```
Please confirm (Y/N):
```

3. Type **Y** at the "Please confirm" prompt \Leftarrow .
 - Y** Continues the process.
 - N** Cancels the process.
4. Log off.

Example

This screen shows resetting Print Service statistics to zero.

```
PS!Reset Statistics
Please confirm (Y/N): Y
PS!
```

Restarting the processing of documents



Use this procedure to restart queuing, printing, or both at the Print Service. You may restart queuing and printing together or separately.

When you restart queuing using the **Start Queuing** command, the Print Service accepts documents again. When you restart printing using the **Start Printing** command, the Print Service processes documents again. Documents that were in progress when printing was stopped, are reprocessed.

The **Start** command combines the effects of using the **Start Queuing** and **Start Printing** commands separately.

The procedure for each of these commands is the same. See the screens in the "Examples" section for display differences.

Step-by-step

1. Log on in the Print Service context.
2. Type **Start** and press RETURN to restart queuing and printing.

```
Queuing stopped by: <name> Reason: <reason>
Printing stopped by: <name> Reason: <reason>
Please confirm Start (Y/N):
```

3. Type **Y** or **N** at the "Please confirm Start" prompt \Leftarrow .
 - Y** Continues the process.
 - N** Cancels the process.

The above information and prompt appear only if the reason for stopping queuing and printing was furnished.

```

Queuing started.
Starting printing...
Done.

```

4. Log off.

Wrap-up

When you see the message "Done," you have restarted the processing of documents using the **Start** or **Start Printing** command. When you see the message "Queuing started," you have restarted the processing of documents using the **Start Queuing** command. The Print Service can accept new documents, and can reprocess the documents in progress when printing was stopped.

Examples

These screens show using the **Start**, **Start Queuing**, and **Start Printing** commands to restart the processing of documents.

```

PS> Start
Queuing stopped by: Jerry Jones Reason: Engine repair
Printing stopped by: Jerry Jones Reason: Engine repair
Please confirm Start (Y/N): Y
Queuing started.
Starting printing...
Done.
PS>

```

```

PS> Start Queuing
Queuing stopped by: Jerry Jones Reason: Add toner
Please confirm Start Queuing (Y/N): Y
Queuing started.
PS>

```

```

PS> Start Printing
Printing stopped by: Jerry Jones Reason: Install fonts
Please confirm Start Printing (Y/N): Y
Starting printing...
PS:Cataloging fonts (this may take a while)...
Done.
PS>

```

Showing Print Service status



Use this procedure to monitor the operational status of the printer. Although you need not be logged on and enabled to perform this procedure, additional information is provided if you are.

The procedure for showing status is the same for all printing options; the information displayed varies slightly.

Prerequisite

Be familiar with the terms described under “Print Service status” in the Print Service chapter of the *Guide to System Administration Activities*.

Step-by-step

1. Log on and enable in the Print Service context.
2. Type **Show Status** `←|`.
3. Log off.

Wrap-up

When you see the “PS!” prompt, you have completed this procedure. You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Examples

This screen shows the status displayed to an enabled user when the Print Service is started. The printing option is an 8040 Series Electronic Printer, B2 version; the default substitution font is Modern; and complex printing and slow page printing are enabled. The server is running software version 11.0.

PS!Show Status

Print Service "Dover" started
Queuing started by: Tony Martel
Printing started by: Tony Martel
Installed 28-Mar-87 13:43:21; Times rebooted = 63
Last booted 23-Feb-88 08:23:07
Statistics reset 21-Mar-88 13:43:21
Last activity 3-Apr-88 11:13:45
Queue disk pages allocated = 24
Font directory disk pages allocated = 14040
Default substitution font = Modern
Printing option: 8040 Series Electronic Printer, B2
Printer Idle; Status: Okay.
Complex printing: Enabled
Slow page printing where required to avoid printing gaps: Enabled
 Paper size in top tray = 8.5" x 14"
 Paper size in bottom tray = 8.5" x 11"
 Paper feed = As appropriate
 Output stacking = Each set of copies offset
 Banner = Per set of copies
Documents printed: 676; Total since reset: 3154
Documents canceled: 10; Total since reset: 123
Queue failures: 2; Total since reset: 27
Test pattern requests: 1; Total since reset: 9
Recovery retry requests: 0; Total since reset: 32
Docs purged at recovery: 0; Total since reset: 10

PS!

This screen shows the status displayed to an enabled user when the Print Service is started. The printing option is a Telecopier 495-1. The server is running software version 10.0, 10.2, or 10.3.

PS!Show Status

```

Print Service "Dover" started
Queuing started by: Tony Martel
Printing started by: Tony Martel
Installed 28-Mar-87 13:43:21; Times rebooted = 63
Last booted 23-Feb-88 08:23:07
Statistics reset 21-Mar-88 13:43:21
Last activity 3-Apr-88 11:13:45
Total volume pages - 52776; Free pages - 17926
Queue pages allocated - 24; Font pages allocated - 14040
Printing option: Telecopier 495-1
    Transmission retries (no connection) = 5, retry delay (minutes) = 5
    Transmission retries (transmit error) = 3, retry delay (minutes) = 2
    Local banner = Per set of copies
    Remote banner = Suppressed
    Local duplicate copies = Allowed
    Remote duplicate copies = Suppressed
Documents printed: 676; Total since reset: 3154
Documents aborted: 10; Total since reset: 123
Queue failures: 2; Total since reset: 27
Test pattern requests: 1; Total since reset: 9
Recovery retry requests: 0; Total since reset: 32
Docs purged at recovery: 0; Total since reset: 10

```

PS!

Stopping the processing of documents



Use this procedure to stop queuing, printing, or both at the Print Service. You may stop queuing and printing together or separately; for example, so you can install or delete fonts or service the printer. Once stopped, queuing and printing remain stopped until restarted, even if the server is rebooted.

When you stop queuing using the **Stop Queuing** command, the Print Service stops accepting documents. When you stop printing using the **Stop Printing** command, the Print Service stops processing documents. Documents in progress are requeued and processed when printing restarts.

The **Stop** command combines the effects of using the **Stop Queuing** and **Stop Printing** commands separately.

The procedure for each of these commands is the same. See the screens in the "Examples" section for display differences.

Step-by-step

1. Log on and enable in the Print Service context.
2. Type **Stop** .

Please enter reason:

3. Type the reason for stopping processing (optional) and press RETURN; or simply press RETURN.

Providing the reason informs users of the status of the Print Service so they will not restart queuing or printing before you complete your task.

Stopping queuing...
Done.
Stopping printing...
Done.

4. Log off.

Wrap-up

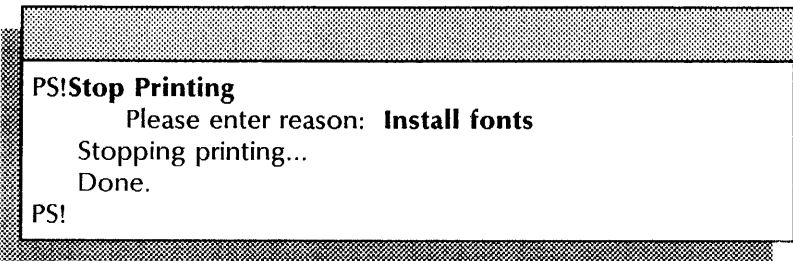
When you see the message "Done," you have completed this procedure. The Print Service cannot accept or process new documents. Queuing, printing, or both remain stopped until you restart processing. See the "Restarting the processing of documents" procedure earlier in this chapter.

Examples

These screens show using the **Stop**, **Stop Queuing**, and **Stop Printing** commands to stop the processing of documents.

PS!**Stop**
Please enter reason: **Engine repair**
Stopping queuing...
Done.
Stopping printing...
Done.
PS!

PS!**Stop Queuing**
Please enter reason: **Add toner**
Stopping queuing...
Done.
PS!



8040 Series Electronic Printer procedures

Your initial sources of information for operation and maintenance of the 8040 Series Electronic Printer are the quick-reference cards and labels on the machine. These sources tell you how to check dry imager, add paper, and clear paper jams.

This section contains these procedures for maintaining the 8040 Series Electronic Printer:

Changing paper handling options

Use this procedure to change the paper size, feed, banner, and stacking options.

Checking Print Service operation

Use this procedure to print a test pattern to check Print Service operation.

Controlling the power mode of a B2 printer

Use this procedure to put a B2 printer in low or full power mode.

Correcting an L2 error code

Use this procedure to run the Image Test to diagnose and correct an L2 failure.

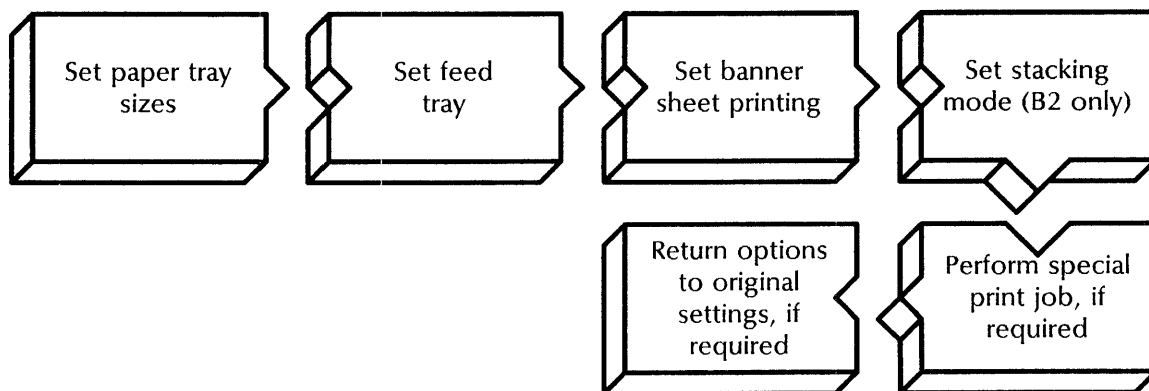
Correcting an L4 error code

Use this procedure when the Print Service is unable to communicate with the printer.

Correcting printer image alignment

Use this procedure to correct the alignment of images on the paper.

Changing paper handling options



Use this procedure to change paper handling options. Four paper handling options affect print jobs: paper size, feed, banner, and stacking; the stacking option displays for B2 printers only. If the paper size is not correctly set, documents may be rejected or print on the wrong size paper.



To check the current paper handling options, use the **Show Status** command.



You use the Registration option only if the printer image alignment needs adjusting. See the “Correcting printer image alignment” procedure for more information.

Prerequisites

- Be familiar with paper handling options, so you can make the appropriate selections. See “Paper handling options” in the Print Service chapter of the *Guide to System Administration Activities*.
- If you are changing paper handling options for a special print job, be sure to record the current paper handling options. You will need this information to reset the options.
- Update the Print Service Worksheet with any changes you are making to the paper handling options.

Step-by-step

1. Log on and enable in the Print Service context.
2. Type **Set Parameters** ↵.

```

1 Exit
2 Paper size
3 Feed
4 Banner
5 Stacking
6 Registration
Enter choice number:
  
```

3. Type the number for the “Paper size” option ↵.

Specify top tray paper size

- 1 8.5" x 11"
- 2 8.5" x 14"
- 3 A4

Enter choice number:

4. Type the number for the paper size you want in the top tray ↵.

Specify bottom tray paper size

- 1 8.5" x 11"
- 2 8.5" x 14"
- 3 A4

Enter choice number:

5. Type the number for the paper size you want in the bottom tray ↵.

Select from

- 1 Exit
- 2 Paper size
- 3 Feed
- 4 Banner
- 5 Stacking
- 6 Registration

Enter choice number:

6. Type the number for the "Feed" option ↵.

Specify feed tray

- 1 From bottom, banner from top
- 2 From bottom or top

Enter choice number:

7. Type the number for the feed tray option you want ↵.

Paper feed = <option selected>

- 1 Exit
- 2 Paper size
- 3 Feed
- 4 Banner
- 5 Stacking
- 6 Registration

Enter choice number:

8. Type the number for the "Banner" option ↵.

Select banner sheet option

- 1 Per copy
- 2 Per set of copies
- 3 Suppressed

Enter choice number:

9. Type the number for the banner sheet option you want \leftarrow .

Banner = < option selected >

Select from

- 1 Exit
- 2 Paper size
- 3 Feed
- 4 Banner
- 5 Stacking
- 6 Registration

Enter choice number:

10. If you have a B2 printer, type the number for the "Stacking" option and press RETURN. If you have a B1 printer, **skip to step 12.**

Specify output stacking mode

- 1 Aligned
- 2 Each copy offset
- 3 Each set of copies offset

Enter choice number:

11. Type the number for the output stacking mode you want \leftarrow .

Output stacking = < option selected >

- 1 Exit
- 2 Paper size
- 3 Feed
- 4 Banner
- 5 Stacking
- 6 Registration

Enter choice number:

12. Type **1** for the "Exit" option when you have made all necessary changes and press RETURN. If the above changes are permanent, **skip to step 17.** If you are performing a special print job, **continue with step 13.**
13. Add special paper to the printer if necessary, and perform the special print job.
14. Remove any special paper when the special print job is complete.
15. Refill the paper bins with standard paper.

16. Repeat steps 2 through 12 to reset the paper handling options back to the original settings.
17. Log off.

Wrap-up

When you see the "PS!" prompt, you have completed this procedure.

Example

This screen shows changing paper handling options.

```

PS!Set Parameters

1  Exit
2  Paper size
3  Feed
4  Banner
5  Stacking
6  Registration
Enter choice number: 2
Specify top tray paper size
1  8.5" x 11"
2  8.5" x 14"
3  A4
Enter choice number: 2
Specify bottom tray paper size
1  8.5" x 11"
2  8.5" x 14"
3  A4
Enter choice number: 2
Paper size in both trays = 8.5" x 14"
Select from
1  Exit
2  Paper size
3  Feed
4  Banner
5  Stacking
6  Registration
Enter choice number: 3
Specify feed tray
1  From bottom, banner from top
2  From bottom or top
Enter choice number: 1
Paper feed = From bottom, banner from top tray
Screen continued

```

Select from

- 1 Exit
- 2 Paper size
- 3 Feed
- 4 Banner
- 5 Stacking
- 6 Registration

Enter choice number: **4**

Select banner sheet option

- 1 Per copy
- 2 Per set of copies
- 3 Suppressed

Enter choice number: **2**

Banner = Per set of copies

Select from

- 1 Exit
- 2 Paper size
- 3 Feed
- 4 Banner
- 5 Stacking
- 6 Registration

Enter choice number: **5**

Specify output stacking mode

- 1 Aligned
- 2 Each copy offset
- 3 Each set of copies offset

Enter choice number: **3**

Output stacking = Each set of copies offset

Select from

- 1 Exit
- 2 Paper size
- 3 Feed
- 4 Banner
- 5 Stacking
- 6 Registration

Enter choice number: **1**

PS!

Checking Print Service operation

Use this procedure to check Print Service operation by printing a CAM.interpress test pattern.

Step-by-step

1. Enter the Print Service context.
2. Type **Print Test Pattern** .

```

1 AlignmentPattern.interpress
2 CAM.interpress
3 DarkDusting.interpress
4 GreyDusting.interpress
5 LightDusting.interpress
Enter choice number:

```

3. Type **2** for the "CAM.interpress" option .

```

Enter copy count (1..999):

```

4. Type the number of copies you want at the "Enter copy count" prompt .

```

Specify paper size
1 8.5" x 14"
2 8.5" x 11"
Enter choice number:

```

5. The above prompt appears only if two paper sizes are loaded. Type the number for the paper size you want .

```

Test pattern queued for printing.
PS>

```

Wrap-up

When you see the message "Test pattern queued for printing," you have completed this procedure.

Example

This screen shows queuing the CAM.interpress test pattern to check the operation of the Print Service.

```

PS> Print Test Pattern
    1 AlignmentPattern.interpress
    2 CAM.interpress
    3 DarkDusting.interpress
    4 GreyDusting.interpress
    5 LightDusting.interpress
Enter choice number: 2
Enter copy count (1..999): 1
Specify paper size
    1 8.5" x 14"
    2 8.5" x 11"
Enter choice number: 2
Test pattern queued for printing.
PS>

```

Controlling the power mode of a B2 printer



Use this procedure to put the printer in low power mode or to return it to full power mode. The printer automatically enters the low power mode when it is not used for 90 minutes. It automatically returns to full power mode when it receives a print job. The **Shutdown Printer** command puts the printer in low power mode. The **Wakeup Printer** command returns it to full power mode.

Step-by-step for entering low power mode

1. Log on and enable in the Print Service context.
2. Type **Shutdown Printer** .

Please confirm (Y/N):

3. Type **Y** at the "Please confirm" prompt .
 - Y** Puts the printer in low power mode.
 - N** Cancels the process.
4. Log off.

Step-by-step for returning to full power mode

1. Log on and enable in the Print Service context.
2. Type **Wakeup Printer** .
3. Log off.

Wrap-up

The printer requires about six minutes to warm up following the **Wakeup Printer** command. During this time, it displays an **L1** status code.

Examples

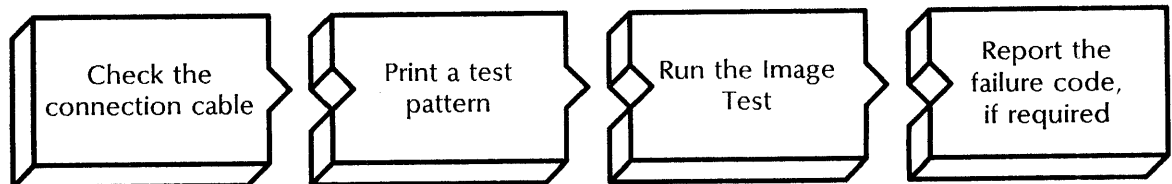
This screen shows putting a B2 printer in low power mode.

```
PS!Shutdown Printer
Please confirm (Y/N): Y
PS!
```

This screen shows returning a B2 printer to full power mode.

```
PS!Wakeup Printer
PS!
```

Correcting an L2 error code



Use the **Start Diagnostic** command to run the Image Test. The results of this test enables Xerox service personnel to diagnose an **L2** failure.

The **L2** error code indicates that the server processor is not receiving the video clock or line-sync signals from the printer. A printer problem, a cable problem, or a problem within the server processor can cause this malfunction.

NOTE

The Image Test produces one grey test print.

Prerequisite

Use the **List Test Patterns** command to check that the GreyDusting.interpress test pattern used to run the Image Test is loaded.

Step-by-step

1. Check the cable connecting the printer to the server.
2. Press Off Line.
3. Press Test. The printer produces one test print.
4. Press On Line.
5. Check the test print for a series of vertical stripes, each approximately 3/10 inch wide, spaced about 1 inch apart.
6. Enter the Print Service context.
7. Type **Start Diagnostic** .

Please confirm (Y/N):

8. Type **Y** at the "Please confirm" prompt .
 - Y** Confirms the process.
 - N** Cancels the process.

Select From...

- 1 Exit
 - 2 Command/Status Turnaround Test
 - 3 Image Test
 - 4 Display Tech Rep Log
 - 5 Print Tech Rep Log
 - 6 Reset Tech Rep Log
- Enter choice number:

9. Type **3** for the "Image Test" option that starts the diagnostic program for testing the server and printer imaging components .

NOTE

Running the diagnostic program preempts all normal Print Service functions such as queuing and printing.

Image Test...Working.

If "Image Test...Working" does not appear, you see a message indicating a failure code and the reason for failure:

Image Test...Failing: Code <number>, <Reason>

Select From...

- 1 Exit
- 2 Command/Status Turnaround Test
- 3 Image Test
- 4 Display Tech Rep Log
- 5 Print Tech Rep Log
- 6 Reset Tech Rep Log

Enter choice number:

10. Type **1** for the "Exit" option **↵**.

Wrap-up

If the test print in step 5 above does not fit the description, call your local Xerox office for printer service. If you see a failure code while running the image test, record the code and its message on the Print Service Activity Log in the *Activities Guide*. The message determines the action you take:

- For failure codes 0 through 2, call for server processor service.
- For failure codes 3 through 8, call for printer service.
- For the message "Aborted: Test Pattern file problem," load the GreyDusting.interpress test pattern before trying to run the Image Test again.
- For the message "Aborted: Other Error," correct the L4 error that stopped the test. See the "Correcting an L4 error code," next procedure.

Example

This screen shows running the Image Test.

```

PS > Start Diagnostic

Please confirm (Y/N): Y
Select From...
1 Exit
2 Command/Status Turnaround Test
3 Image Test
4 Display Tech Rep Log
5 Print Tech Rep Log
6 Reset Tech Rep Log
Enter choice number: 3

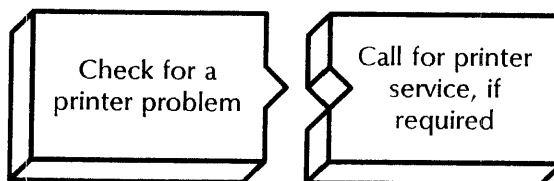
Image Test...Working.

Select From...
1 Exit
2 Command/Status Turnaround Test
3 Image Test
4 Display Tech Rep Log
5 Print Tech Rep Log
6 Reset Tech Rep Log
Enter choice number: 1

Done.
PS >

```

Correcting an L4 error code



Use this procedure when you have an **L4** failure. The **L4** error code indicates that the Print Service is unable to communicate with the printer. The server processor is not detecting correct status signals from the printer in response to commands sent to the printer. A printer problem, a cable problem, or a problem within the server processor may cause this malfunction.

Step-by-step

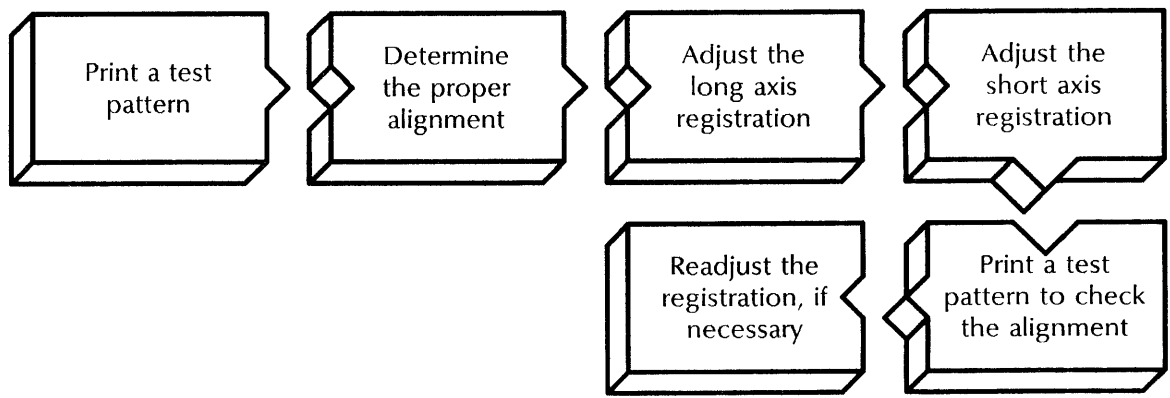
1. Ensure that the printer power is on. The power switch is behind the front door in the upper left corner.
2. Check the cable connecting the printer to the server processor.

3. Reboot the printer:
 - a. Switch off the printer power.
 - b. Wait 10 seconds.
 - c. Switch on the printer power.

Wrap-up

The printer panel displays "L1" and the server displays the message "***Printer Status=L1-Warming, please wait." If these messages do not appear, call your local Xerox office for printer service.

Correcting printer image alignment



Use this procedure to correct the alignment of images on the paper. You determine the correct registration values by printing the AlignmentPattern.interpress test pattern.

Step-by-step

1. Log on and enable in the Print Service context.
2. Type **Print Test Pattern** ↵.

```

1 AlignmentPattern.interpress
2 CAM.interpress
3 DarkDusting.interpress
4 GreyDusting.interpress
5 LightDusting.interpress
Enter choice number:
  
```

3. Type **1** for the "AlignmentPattern.interpress" option ↵.

```

Enter copy count (1..999):
  
```

4. Type the number of copies you want at the "Enter copy count (1..999)" prompt ↵.

Specify paper size

- 1 8.5" x 14"
- 2 8.5" x 11"

Enter choice number:

5. You see the above prompt only if two paper sizes are loaded. Type the number for the desired paper size **↵**.

Test pattern queued for printing.
PS!

6. Retrieve the test pattern from the printer.
7. Type **Set Parameters** **↵**.

- 1 Exit
- 2 Paper size
- 3 Feed
- 4 Banner
- 5 Stacking
- 6 Registration

Enter choice number:

8. Type **6** for the "Registration" option **↵**.
The current registration value for the long axis (top to bottom on the page) is displayed in units. Possible units are 10-43.

Enter registration value for the long axis (10-43): <number>

9. Type the new value and press RETURN, after using the following information to determine the correct value:
 - a. The default setting for long axis registration is 23.
 - b. Using the test pattern you printed above, the 0 marks should align at the bottom edge of the paper. Use these 0 marks to determine the up-and-down adjustment needed.
 - c. Using the current long axis registration value, decrease that number to move the 0 marks down the page; increase that number to move the 0 marks up the page. Each unit is equal to 6/300 inch.

Enter registration value for the short axis (1-30): <number>

- The current registration value for the short axis (left-to-right on the page) is displayed in units. Possible units are 1-30.
10. Type the new value and press RETURN after using the following information to determine the correct value:
 - a. The default setting for short axis registration is 8.

- b. Using the test pattern you printed above, the 0 marks should align along the left edge of the paper. Use these 0 marks to determine the left-to-right alignment on the page.
- c. Using the current short axis registration value, decrease that number to move the 0 marks left on the page; increase that number to move the 0 marks right on the page. Each unit is equal to 6/300 inch.

Long (X) axis registration = <number>

Short (Y) axis registration = <number>

Select from

- 1 Exit
- 2 Paper size
- 3 Feed
- 4 Banner
- 5 Stacking
- 6 Registration

Enter choice number:

11. Type **1** for the "Exit" option \Leftarrow .
12. Repeat steps 2 through 6 to print another test pattern.
13. Check the test pattern for proper alignment. If alignment is correct, **skip to step 15**. If alignment is not correct, **continue with step 14**.
14. Repeat steps 7 through 13 until the alignment is correct.
15. Log off.

Wrap-up

Enter in the Print Service Activity Log the registration changes you made to correct printer image alignment.

Example

This screen shows changing the registration values to correct the alignment of the image on the paper, steps 2 through 11. The alignment pattern is printed on 8.5" x 11" paper. The long axis registration is changing from 23 to 25 units to move the image up the page by 12/300 inch. The short axis registration is changing from 8 to 10 units to move the image to the right on the page by 12/300 inch.

```
PS!Print Test Pattern

1  AlignmentPattern.interpress
2  CAM.interpress
3  DarkDusting.interpress
4  GreyDusting.interpress
5  LightDusting.interpress
Enter choice number: 1
Enter copy count (1..999): 3
Specify paper size
1  8.5" x 11"
2  8.5" x 14"
Enter choice number: 1
Test Pattern queued for printing.
PS!Set Parameters

1  Exit
2  Paper size
3  Feed
4  Banner
5  Stacking
6  Registration
Enter choice number: 6
Enter registration value for the long axis (10-43): 25
Enter registration value for the short axis (1-30): 10
Long (X) axis registration = 25
Short (Y) axis registration = 10
Select from
1  Exit
2  Paper size
3  Feed
4  Banner
5  Stacking
6  Registration
Enter choice number: 1
PS!
```

Laser CP Electronic Printer procedures

Your first sources of information for operation and maintenance of the Laser CP Electronic Printer are the quick-reference cards, the printer labels located on the machine, and the *NS 8000 Laser CP Operator's Guide* supplied with your printer. These sources tell you how to add dry imager, add paper, and clear paper jams. This section contains the following procedures for maintaining the Laser CP Electronic Printer:

Changing the banner option

Use this procedure to change the printing of banner pages.

Checking Print Service operation

Use this procedure to print a test pattern to check Print Service operation.

Checking printer image alignment

Use this procedure to check the alignment of images on the paper.

Correcting P1, P2, and P3 error codes

Use this procedure to run the Image Test to diagnose and correct **P1**, **P2**, and **P3** failures.

Correcting a P4 error code

Use this procedure to correct a printer, cable, or server processor problem.

Changing the banner option



Use this procedure to change the banner sheet option. The **Show Status** command lets you check the current banner option setting.

Prerequisites

- Update the Print Service Worksheet with the change you are making to the banner sheet option.
- Be familiar with the Laser CP Electronic Printer banner options described in "Planning for maintenance" in the Print Service chapter of the *Guide to System Administration Activities*.

Step-by-step

1. Log on and enable in the Print Service context.
2. Type **Set Banner**

Select banner sheet option

- 1 Per copy
- 2 Per set of copies
- 3 Suppressed

Enter choice number:

3. Type the number for the banner sheet option you want .
4. Log off.

Wrap-up

When you see a message displaying the banner option setting, you have completed this procedure.

Example

This example screen shows setting the banner sheet option to print a banner sheet for every job requested.

PS!**Set Banner**

Select banner sheet option

- 1 Per copy
- 2 Per set of copies
- 3 Suppressed

Enter choice number: **2**

Banner = Per set of copies

PS!

Checking Print Service operation

Use this procedure to check the Print Service operation by printing a CAM.interpress test pattern.

Step-by-step

1. Enter the Print Service context.
2. Type **Print Test Pattern** .

```

1 CAM.interpress
2 GreyDusting.interpress
3 LaserCPAlignmentPattern.interpress
4 LightDusting.interpress
Enter choice number:

```

3. Type **1** for the "CAM.interpress" option .

```

Enter copy count (1..999):

```

4. Type the number of copies you want at the "Enter copy count (1..999)" prompt .

Wrap-up

When you see the message "Test pattern queued for printing," you have completed this procedure.

Example

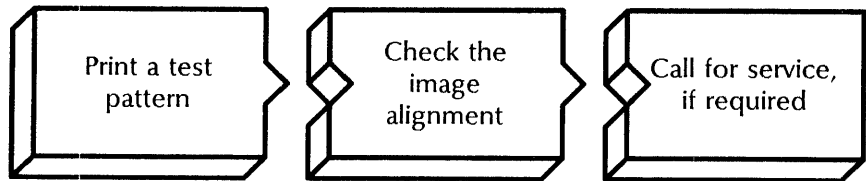
This screen shows printing the CAM.interpress test pattern to check the operation of the Print Service.

```

PS> Print Test Pattern
   1 CAM.interpress
   2 GreyDusting.interpress
   3 LaserCPAlignmentPattern.interpress
   4 LightDusting.interpress
Enter choice number: 2
Enter copy count (1..999): 1
Test pattern queued for printing.
PS>

```

Checking printer image alignment



Use this procedure to check the alignment of images on the paper.

Step-by-step

1. Enter the Print Service context.
2. Type **Print Test Pattern** \leftarrow .

```

1 CAM.interpress
2 GreyDusting.interpress
3 LaserCPAlignmentPattern.interpress
4 LightDusting.interpress
Enter choice number:
  
```

3. Type **3** for the "LaserCPAlignmentPattern.interpress" option \leftarrow .

```
Enter copy count (1..999):
```

4. Type the number of copies you want at the "Enter copy count (1..999)" prompt \leftarrow .

```
Test Pattern queued for printing.
PS>
```

5. Check the test pattern copy for proper alignment:
 - a. Fold the pattern in quarters.
 - b. Check whether the fold marks align with the cross-lines for the paper size indicated in the center of the page.

Wrap-up

After you check your test pattern, if the alignment is unacceptable for your specific needs, call the local Xerox office for printer service.

Example

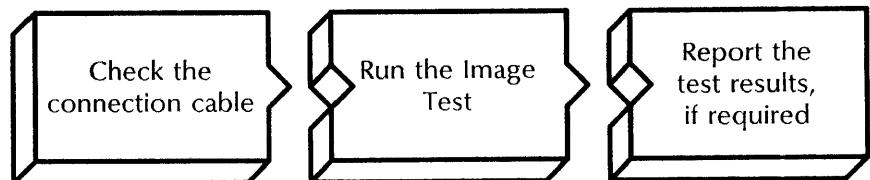
This screen shows printing the LaserCPAlignmentPattern to check the alignment of images on the paper.

```

PS> Print Test Pattern
  1 CAM.interpress
  2 GreyDusting.interpress
  3 LaserCPAlignmentPattern.interpress
  4 LightDusting.interpress
Enter choice number: 3
Enter copy count (1..999): 3
Test Pattern queued for printing.
PS>

```

Correcting P1, P2, and P3 error codes



Use this procedure to diagnose and correct **P1**, **P2**, and **P3** failures.

The printer maintenance panel or server terminal displays a **P1**, **P2**, or **P3** error code when the processor is not receiving the video clock or line-sync signals from the printer. A printer problem, a cable problem, or a problem within the server processor can cause this malfunction.



The Image Test produces one grey test print.

Prerequisite

Use the **List Test Patterns** command to check that the GreyDusting.interpress test pattern used to run the Image Test is loaded.

Step-by-step

1. Check the cable connecting the printer to the server processor.
2. Enter the Print Service context.
3. Type **Start Diagnostic** **↵**.

Please confirm (Y/N):

4. Type **Y** at the “Please confirm” prompt \leftarrow .

 - Y** Confirms the command.
 - N** Cancels the command.

```
Select From...
1 Exit
2 Command/Status Turnaround Test
3 Image Test
4 Display Tech Rep Log
5 Print Tech Rep Log
6 Reset Tech Rep Log
Enter choice number:
```

5. Type **3** for the “Image Test” option that starts the diagnostic program for testing the server and printer imaging components \leftarrow .

NOTE

Running the diagnostic program preempts all normal Print Service functions such as queuing and printing.

Image Test...Working.

If “Image Test...Working” does not appear, you see a message indicating a failure code and the reason for failure:

Image Test...Failing: Code < # >, < Reason >

```
Select From...
1 Exit
2 Command/Status Turnaround Test
3 Image Test
4 Display Tech Rep Log
5 Print Tech Rep Log
6 Reset Tech Rep Log
Enter choice number:
```

6. Type **1** for the “Exit” option \leftarrow .

Wrap-up

If you see a failure code while running the Image Test, record the code and its message on the Print Service Activity Log in the *Activities Guide*. The message determines the action you take:

- For failure codes 0 through 2, call for server processor service.
- For failure codes 3 through 8, call for printer service.
- For the message "Aborted: Test Pattern file problem," install the GreyDusting.interpress test pattern file before trying to run the Image Test again.
- For the message "Aborted: Other Error," correct the **P4** error that stopped the test. See the "Correcting a P4 error code," next procedure.

Example

This screen shows the Image Test completing successfully.

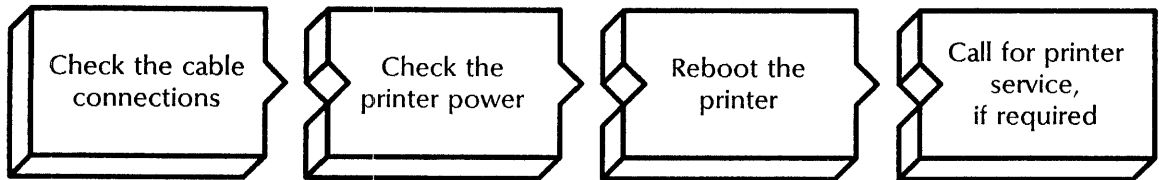
```
PS > Start Diagnostic
Please confirm (Y/N): Y
Select From...
1 Exit
2 Command/Status Turnaround Test
3 Image Test
4 Display Tech Rep Log
5 Print Tech Rep Log
6 Reset Tech Rep Log
Enter choice number: 3

Image Test...Working.

Select From...
1 Exit
2 Command/Status Turnaround Test
3 Image Test
4 Display Tech Rep Log
5 Print Tech Rep Log
6 Reset Tech Rep Log
Enter choice number: 1

Done.
PS >
```

Correcting a P4 error code



Use this procedure when you have a **P4** error code. The **P4** error code indicates that the Print Service is unable to communicate with the printer. The server processor is not detecting correct status signals from the printer in response to commands sent to the printer. A printer problem, a cable problem, or a problem within the server processor may cause this malfunction.

Step-by-step

1. Check the cable connections from the printer and the server.
2. Ensure that the printer power is on and that the Ready light is lit. (The power switch is located on the top, left side of the printer.)
3. Reboot the printer:
 - a. Switch off the printer power.
 - b. Wait five seconds.
 - c. Switch on the printer power.

Wrap-up

Check that the ready light is on. If not, call the local Xerox office for printer service.

Telecopier 495-1 Printer procedures (versions 10.0 through 10.3 only)

This section contains these procedures for maintaining your Telecopier 495-1 Printer:

Changing paper handling and transmission options

Use this procedure to change the paper handling and transmission options.

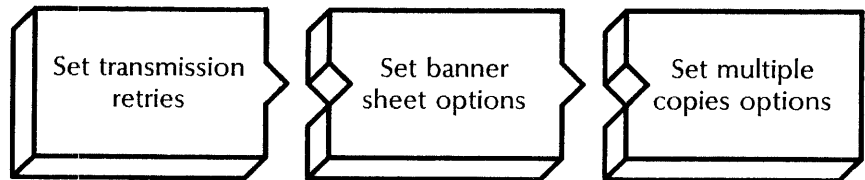
Checking Print Service operation

Use this procedure to check Print Service operation when a document sent to the printer will not print.

Setting the Telecopier 495-1 clock

Use this procedure to set the internal clock to the current time of the server.

Changing paper handling and transmission options



Use this procedure to change paper handling and transmission options. You set paper handling options for both local and remote destinations. To check the current paper handling and transmission options, use the **Show Status** command.

Prerequisites

- Update the Print Service Worksheet with any changes you are making to the paper handling and transmission options.
- Be familiar with the paper handling and transmission options, so you can make the appropriate selections. See “Paper handling and transmission options” in the Print Service chapter of the *Guide to System Administration Activities*.

Step-by-step

1. Log on and enable in the Print Service context.
2. Type **Set Parameters** |.

```

1  Exit
2  Transmission retries
3  Banner
4  Multiple copies
Enter choice number:
  
```

3. Type **2** for the “Transmission retries” option |.

```
Retries in case of no connection (0..100):
```

4. Type the number you want at the “Retries in case of no connection (0..100)” prompt |.

```
Retry interval in minutes (1..100):
```

5. Type the number you want at the “Retry interval in minutes (1..100)” prompt |.

```
Retries in case of transmit error (0..100):
```

6. Type the number you want at the “Retries in case of transmit error (0..100)” prompt |.

Retry interval in minutes (1..100):

7. Type the number you want at the "Retry interval in minutes (1..100)" prompt ↵.

Transmission retries (no connection) = <number>, retry delay (minutes) = <number>
 Transmission retries (transmit failure) = <number>, retry delay (minutes) = <number>
 Select from
 1 Exit
 2 Transmission retries
 3 Banner
 4 Multiple copies
 Enter choice number:

8. Type 3 for the "Banner" option ↵.

Specify local banner sheet option
 1 Per copy
 2 Per set of copies
 3 Suppressed
 Enter choice number:

9. Type the number for the local banner option you want ↵.

Specify remote banner sheet option
 1 Per copy
 2 Per set of copies
 3 Suppressed
 Enter choice number:

10. Type the number for the remote banner option you want ↵.

Local banner = <number>
 Remote banner = <number>
 Select from
 1 Exit
 2 Transmission retries
 3 Banner
 4 Multiple copies
 Enter choice number:

11. Type 4 for the "Multiple copies" option ↵.

Select local duplicate copy option

- 1 Allowed
- 2 Suppressed

Enter choice number:

12. Type the number for the local copy option you want ↵.

Select remote duplicate copy option

- 1 Allowed
- 2 Suppressed

Enter choice number:

13. Type the number for the remote copy option you want ↵.

Local duplicate copies = <number >

Remote duplicate copies = <number >

Select from

- 1 Exit
- 2 Transmission retries
- 3 Banner
- 4 Multiple copies

Enter choice number:

14. Type **1** for the "Exit" option when you have made all the necessary changes ↵.
15. Log off.

Wrap-up

When you see the "PS!" prompt, you have successfully changed the paper handling and transmission options.

Examples

This screen shows changing the paper handling and transmission options.

PS!Set Parameters

- 1 Exit
- 2 Transmission retries
- 3 Banner
- 4 Multiple copies

Enter choice number: **2**

Retries in case of no connection (0..100): **5**

Retry interval in minutes (1..100): **5**

Retries in case of transmit error (0...100): **3**

Retry interval in minutes (1..100): **3**

Transmission retries (no connection) = 5, retry delay (minutes) = 5

Transmission retries (transmit failure) = 3, retry delay (minutes) = 3

Select from

- 1 Exit
- 2 Transmission retries
- 3 Banner
- 4 Multiple copies

Enter choice number: **3**

Specify local banner sheet option

- 1 Per copy
- 2 Per set of copies
- 3 Suppressed

Enter choice number: **2**

Specify remote banner sheet option

- 1 Per copy
- 2 Per set of copies
- 3 Suppressed

Enter choice number: **2**

Local banner = Per set of copies

Remote banner = Per set of copies

Screen continued

```

Select from
1 Exit
2 Transmission retries
3 Banner
4 Multiple copies
Enter choice number: 4
Select local duplicate copy option
1 Allowed
2 Suppressed
Enter choice number: 1
Select remote duplicate copy option
1 Allowed
2 Suppressed
Enter choice number: 1
Local duplicate copies = Allowed
Remote duplicate copies = Allowed
Select from
1 Exit
2 Transmission retries
3 Banner
4 Multiple copies
Enter choice number: 1
PS!

```

Checking Print Service operation

Use this procedure to check Print Service operation when a document sent to the printer will not print. You can check the operation at both local and remote printers by printing the CAM.interpress test pattern.

Prerequisite

Know the telephone number of the remote facsimile device.

Step-by-step

1. Enter the Print Service context.
2. Type **Print Test Pattern** ↵.

```

1 CAM.interpress
Enter choice number:

```

3. Type **1** for the "CAM.interpress" option ↵.

Enter copy count (1..999):

4. Type the number of copies you want at the "Enter copy count (1..999)" prompt \Leftarrow .

Specify paper size

1 8.5" x 14"

2 8.5" x 11"

Enter choice number: 2

5. Type the number for the paper size you want \Leftarrow .

Local print? (Y/N):

6. Type **Y** at the "Local print" prompt to print a test pattern at the local printer \Leftarrow .

Y Prints a test pattern at the local printer.

N Prevents printing of a test pattern at the local printer.

Remote print? (Y/N):

7. Type **Y** at the "Remote print" prompt to transmit a test pattern to a remote facsimile device for printing \Leftarrow .

Y Prints a test pattern at the remote printer.

N Prevents printing of a test pattern at the remote printer.

Enter telephone number:

8. Type the telephone number of the remote facsimile device and press RETURN. Use a facsimile device that you know is functional, so you can tell whether the Telecopier 495-1 can transmit successfully.

Test pattern queued for printing.

PS >

Wrap-up

When you see the message "Test pattern queued for printing," you have completed this procedure. If the test pattern prints, but its print quality is poor, call your local Xerox office for printer service.

Example

This screen shows checking the operation of the Print Service at both the local and remote facsimile devices. One copy is being printed on 8.5" x 11" paper size.

```

PS> Print Test Pattern

      1  CAM.interpress
Enter choice number: 1
Enter copy count (1-999): 1
Specify paper size
      1  8.5" x 11"
      2  8.5" x 14"
Enter choice number: 1
Local print? (Y/N): Y
Remote print? (Y/N): Y
Enter telephone number: 1(213)454-0210
Test pattern queued for printing.
PS>

```

Setting the Telecopier 495-1 clock

Use this procedure to set the internal clock of the Telecopier 495-1 to the current time of the server.

Step-by-step

1. Enter the Print Service context.
2. Type **Start Diagnostic**

Please confirm (Y/N):

3. Type **Y** at the "Please confirm" prompt .
 - Y** Confirms the process.
 - N** Cancels the process.

Select From...

```

1  Exit
2  RS232 loopback test
3  Telecopier 495-1 internal self test
4  Set Telecopier 495-1 clock to current time
Enter choice number:

```

4. Type **4** for the "Set Telecopier 495-1 clock to current time" option .

```

Set Telecopier 495-1 clock...done. Time set to <Date >
<Time >.
Select From...
1 Exit
2 RS232 loopback test
3 Telecopier 495-1 internal self test
4 Set Telecopier 495-1 clock to current time
Enter choice number:

```

5. Type 1 for the "Exit" option .

Wrap-up

If you are unable to set the Telecopier 495-1 clock, a message appears indicating the reason for the failure. Record the failure message on the Print Service Activity Log in the *Activities Guide*. Then perform the procedure again after you have corrected the problem.

Example

This screen shows setting the internal clock of the Telecopier 495-1 to the server's current time.

```

PS> Start Diagnostic
Please Confirm (Y/N): Y
Select From...
1 Exit
2 RS232 loopback test
3 Telecopier 495-1 internal self test
4 Set Telecopier 495-1 clock to current time
Enter Choice number: 4

Set Telecopier 495-1 clock...done. Time set to 10-Apr-88 13:55.
Select From...
1 Exit
2 RS232 loopback test
3 Telecopier 495-1 internal self test
4 Set Telecopier 495-1 clock to current time
Enter choice number: 1
PS>

```

Formatting Print Service procedures (versions 10.0 through 10.3 only)

This section contains these procedures for maintaining the Formatting Print Service option of the Print Service:

Changing the Target Print Service

Use this procedure to change the Target Print Service that prints your documents.

Checking Print Service operation

Use this procedure to print a test pattern to check Print Service operation.

Updating paper handling options

Use this procedure to update Formatting Print Service paper handling options to those of the Target Print Service.

Changing the Target Print Service



Use this procedure to change the Target Print Service that prints your documents. The Target Print Service may be a 4050, an 8700, or a 9700 Electronic Printing System. After you make the change, the Formatting Print Service sends all documents to the new Target Print Service including those in progress when you made the change. The association of the Formatting Print Service with the Target Print Service is retained across system restarts. A Formatting Print Service can be associated with only one Target Print Service at a time.

Prerequisite

Update the Print Service Worksheet with the changes you are making to the Clearinghouse name or network address of the Target Print Service. See "Planning for setup" in the Print Service chapter of the *Guide to System Administration Activities*, if you need more information.

Step-by-step

1. Log on and enable in the Print Service context.
2. Type **Set Target Print Service** \Leftarrow .

Enter Clearinghouse name or network address:

3. Type the Clearinghouse name or network address of the Target Print Service and press RETURN. If you do not enter the Target Print Service domain and organization, they will default to those of the Print Service.



If a warning message informs you that the Target Print Service is unavailable, use the "Updating paper handling options" procedure later in this section to obtain the paper handling properties.

4. Log off.

Wrap-up

When you see the message "Done," you have successfully changed the Target Print Service.

Example

This screen shows changing the Target Print Service. The Clearinghouse name, domain, and organization are Target9700:Home Office:ABC Company.

PS! Set Target Print Service

Enter Clearinghouse name or network address: **Target9700:Home Office:ABC Company**
Done.

PS!

Checking Print Service operation

Use this procedure to check Print Service operation by printing a CAM.interpress test pattern.

Step-by-step

1. Enter the Print Service context.
2. Type **Print Test Pattern**

1 CAM.interpress
Enter choice number:

3. Type **1** for the "CAM.interpress" option .

Enter copy count (1..999):

4. Type the number of copies you want at the "Enter copy count (1..999)" prompt .

Wrap-up

When you see the message "Test pattern queued for printing," you have successfully completed this procedure. If the test pattern cannot be forwarded to the Target Print Service, check the status of the Target Print Service and the network communication link. See the "Updating paper handling options" procedure next to obtain the current status of the Target Print Service and update the paper handling options.

Example

This screen shows printing the CAM.interpress test pattern to check the operation of the Print Service.

```

PS > Print Test Pattern

      1 CAM.interpress
      Enter choice number: 1
      Enter copy count (1..999): 1
      Test pattern queued for printing.
PS >

```

Updating paper handling options



Use this procedure any time paper handling options change on the Target Print Service. This procedure shows you the current status of the Target Print Service and updates the Formatting Print Service paper handling options to those of the Target Print Service. The Formatting Print Service must always have the correct Target Print Service options.

The Formatting Print Service stores the Target Print Service options in its local database so the correct printer options are passed to the ViewPoint workstation printer icons. Paper handling options include paper size, stapling, and two-sided printing.



You can use the **Show Status** command to check the Formatting Print Service options without making a call to the Target Print Service.

Prerequisite

Be familiar with the paper handling options described in "Planning for setup" in the Print Service chapter of the *Guide to System Administration Activities*.

Step-by-step

1. Enter the Print Service context.
2. Type **Query Target Print Service** and press RETURN. The Target Print Service status information and paper handling options are displayed.

Wrap-up

When you see the "PS>" prompt, you have completed this procedure.

Example

The following screen shows updating the Formatting Print Service paper handling options.

```
PS> Query Target Print Service
```

```
Clearinghouse name: Target9700:Home Office:ABC Company
```

```
Network address: 0-065.2-852-132-894.0
```

```
Spooler: available
```

```
Formatter: busy
```

```
Printer: available
```

```
Paper size = 8.5" x 11"
```

```
Two-sided copy = available
```

```
Stapling = unavailable
```

```
PS>
```

Recovery procedures

This section contains these recovery procedures for all printing options:

Recovering from a Print Service crash during startup

Use this procedure when the Print Service crashes during initialization, before cataloging fonts, or while cataloging fonts.

Recovering from a Print Service crash after startup completes

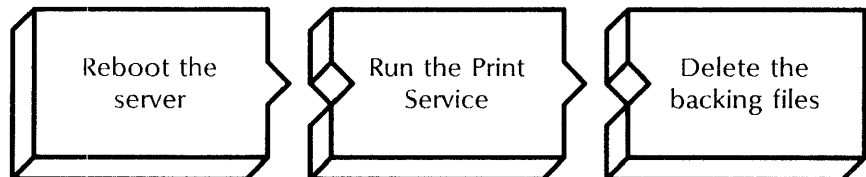
Use this procedure to cancel a document that might be causing the Print Service to crash.

Recovering from a Print Service crash during startup

Use this procedure to recover from a crash during startup. Recovery is necessary only in rare cases when the Print Service private backing files are damaged. Be sure to use the appropriate procedure below to correct your problem:

- “Step-by-step recovery from a crash during initialization or before cataloging fonts” – This procedure deletes all Print Service files, except fonts and test patterns. The Print Service then recreates the backing files and logs. You must then reenter the appropriate configuration information. Use this procedure if the Print Service crashes at these times:
 - During initialization – Between the messages “Running Print Service” and “Print Service run”
 - Before cataloging fonts – Before you see the message “Cataloging fonts (this may take a while)...”
- Step-by-step recovery from a crash while cataloging fonts” – Use this procedure if the Print Service crashes after you see the message “Cataloging fonts (this may take a while)...” but before startup is complete.

Step-by-step recovery from a crash during initialization or before cataloging fonts



1. Reboot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

Normal startup? (Y/N):

2. Type **N** at the “Normal Startup” prompt **␣**.
 - Y** Completes the initialization process.
 - N** Interrupts the initialization process to perform special functions and displays the interrupt points available.

Enter interrupt point

- 1 Interrupt before opening primary volume
- 2 Interrupt before processing profile
- 3 Interrupt before running services

Enter one or more choices:

3. Type **3** for the "Interrupt before running services" option .
4. Log on and enable.
5. Type **Run Service** .

Select choices

- 1 Print Service

Enter one or more choices:

6. Type the number for the "Print Service" option .

PS: Normal Startup? (Y/N):

7. Type **N** at the "PS: Normal Startup" prompt .
 - Y** Completes the initialization process.
 - N** Interrupts the initialization process to perform special functions and displays the non-normal startup options.

Specify non-normal startup option

- 1 Change configuration
- 2 Stop queuing and printing
- 3 Delete backing files

Enter one or more choices:

8. Type **3** for the "Delete backing files" option .

Ready to delete all Print Service backing files, including print queue data? (Y/N):

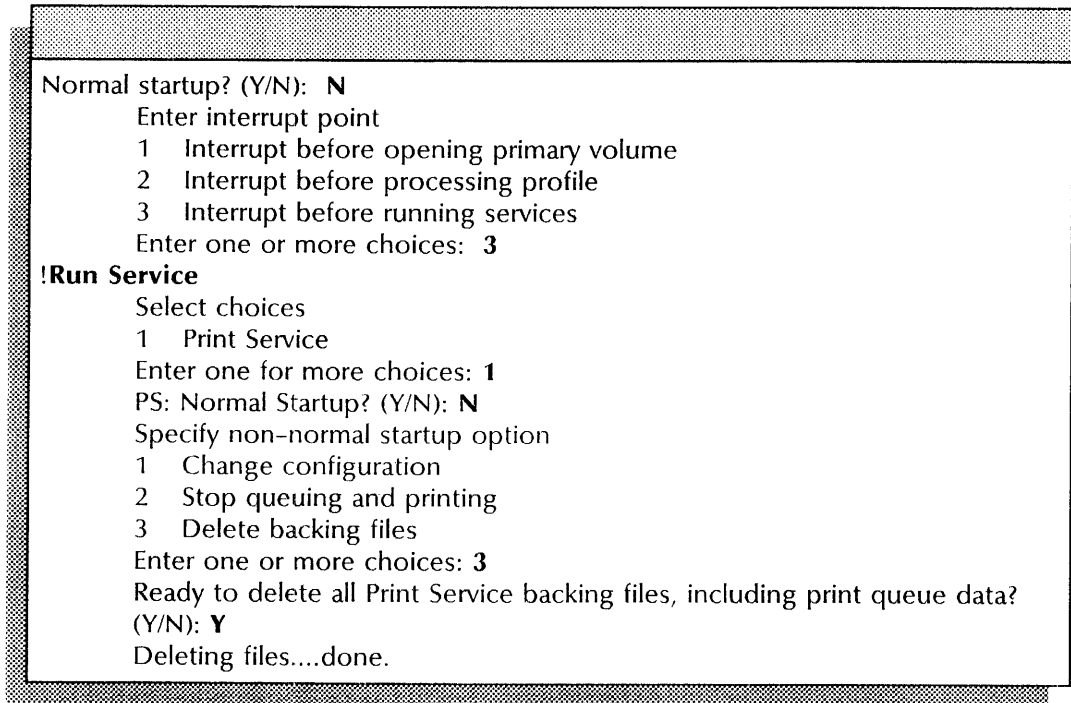
9. Type **Y** at the "Ready to delete all Print Service backing files, including print queue data" prompt .
 - Y** Deletes the Print Service backing files.
 - N** Cancels the operation and redisplay the non-normal startup options.

Wrap-up

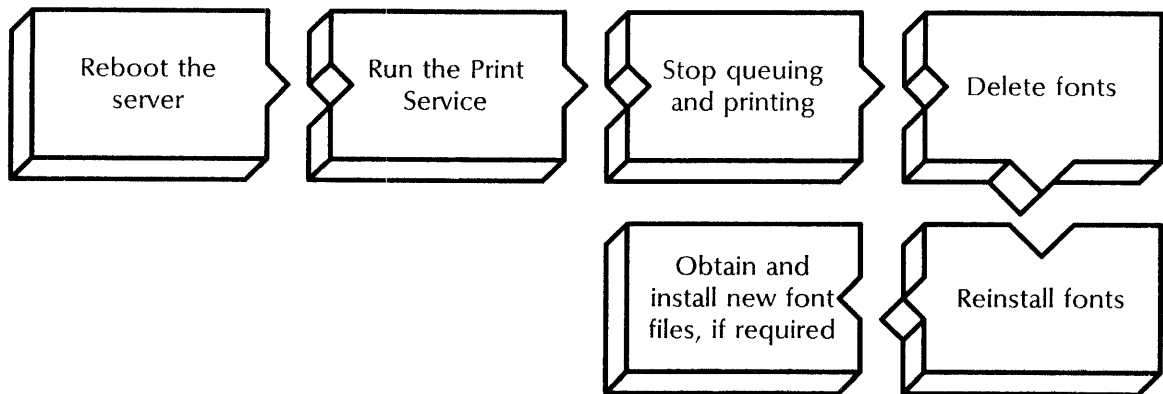
When you see the message "Deleting files....done," the Print Service backing files are deleted. You may then be prompted to reenter configuration information.

Example

This screen shows recovering from a crash by deleting backing files.



Step-by-step recovery from a crash while cataloging fonts



1. Reboot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

Normal Startup? (Y/N):

2. Type **N** at the "Normal Startup" prompt .
 - Y** Completes the initialization process.
 - N** Interrupts the initialization process to perform special functions and displays the interrupt points available.

Enter interrupt point

- 1 Interrupt before opening primary volume
- 2 Interrupt before processing profile
- 3 Interrupt before running services

Enter one or more choices:

3. Type **3** for the "Interrupt before running services" option .
4. Log on and enable.
5. Type **Run Service** .

Enter one or more choices:

6. Type the number for the "Print Service" option .

PS: Normal Startup? (Y/N):

7. Type **N** at the "PS: Normal Startup" prompt .
 - Y** Completes the initialization process.
 - N** Interrupts the initialization process to perform special functions and displays the non-normal startup options.

Specify non-normal startup options

- 1 Change configuration
- 2 Stop queuing and printing
- 3 Delete backing files

Enter one or more choices:

8. Type **2** for the "Stop queuing and printing" option .
9. Enter the Print Service context.
10. Delete fonts using the "Deleting fonts" procedure earlier in this chapter.
11. Reinstall fonts a few at a time to find out which ones are causing the Print Service crash. Use the "Loading fonts and test patterns onto the Print Service" procedure in the *Services Installation and Setup Guide*.
12. If the Print Service crashes again, make a note of the bad font file. You may then install the good font files and use them until you receive a replacement set.

13. Obtain a replacement set of font files and reinstall them.

Wrap-up

When you see the message "Print Service run," you have stopped queuing and printing.

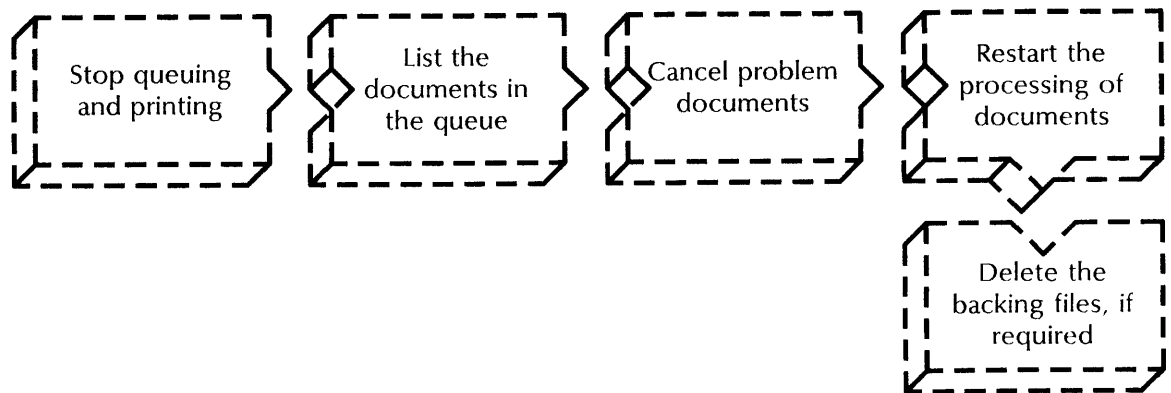
Example

This screen shows recovering from a crash by stopping queuing and printing.

```
Normal Startup? (Y/N): N
Enter interrupt point
 1 Interrupt before opening primary volume
 2 Interrupt before processing profile
 3 Interrupt before running services
Enter one or more choices: 3
> Logon
  User name: Jerri Smith
  Password: *****
> Enable
!Run Service
  Select choices
  1 Print Service
Enter one for more choices: 1
PS: Normal Startup? (Y/N): N
Specify non-normal startup option
 1 Change configuration
 2 Stop queuing and printing
 3 Delete backing files
Enter one or more choices: 2

Print Service run.
!
```

Recovering from a Print Service crash after startup completes



Use this procedure when the Print Service crashes after startup completes. A document in the queue may cause the Print Service to crash once or twice. After the second time, documents found in progress are automatically purged from the queue. In the rare event that the Print Service crashes a third time, use this procedure to recover.

Step-by-step

1. Perform steps 1 through 9 of the previous procedure ("Step-by-step recovery from a crash while cataloging fonts").
This stops queuing and printing so the Print Service can initialize without trying to process any documents in the queue.
2. List the documents in the queue. See the "Checking the status of documents received by the Print Service" procedure earlier in this chapter.
3. Cancel documents that may be causing the problem. See the "Canceling a specific document sent to the Print Service" (version 11.0 only), or the "Canceling a document sent to the Print Service" (versions 10.0 through 10.3 only) procedure earlier in this chapter.
4. Restart queuing and printing. See the "Restarting the processing of documents" procedure earlier in this chapter.
5. If the Print Service crashes again, delete the backing files using the "Step-by-step recovery from a crash during initialization or before cataloging fonts" procedure, earlier in this section.

Wrap-up

When you see one of these messages, you have completed the procedure:

- "PS: Cataloging fonts (this may take a while)..."
- "Deleting files....done."

This chapter contains the procedures you perform to maintain the File Service. These procedures are available using an 8000 or an 8090 server.

Maintenance also includes backing up the File Service. See the File Service chapter in the *Backup and Restore Guide*.

Prerequisites

Complete these tasks before you perform any File Service maintenance procedures:

- Install all required software as described in the Server Software Installation chapter of the *Services Installation and Setup Guide*.
- Perform all setup procedures as described in the File Service chapter of the *Services Installation and Setup Guide*.
- Know whether your File Service is running on a single-drive or a multiple-drive server.

Commands

This section lists the commands you use to maintain the File Service. You must be in the proper context to access these commands.

Table 6-1 shows the File Service commands for maintenance along with the logged on status and the service state (started or stopped) for accessing them.

Table 6-1. File Service maintenance commands

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add File Drawer					•	•
Change File Drawer			•	•	•	•
Change Profile (SSS)					•	•
Change User (CHS)					•	•
Close Volume (SSS)					•	•
Copy Container					•	•
Delete (CHS)					•	•
Delete Desktop			•	•	•	•
Delete File Drawer					•	•
Delete Old Versions			•	•	•	•
Expunge Service (SSS)						•
List Desktops			•	•	•	•
List File Drawers			•	•	•	•
List Users (CHS)			•	•	•	•
Offline Volume					•	•
Online Volume					•	•
Open Volume (SSS)					•	•
Report Disk Usage					•	•
Reset Statistics					•	•
Restore Container					•	•
Show Activity	•	•	•	•	•	•
Show Statistics	•	•	•	•	•	•
Stop Service (SSS)					•	

Add File Drawer

Available to the enabled user when the File Service is started or stopped. Creates a new file drawer, sets its page limit, and optionally, assigns access rights.

Related procedures: Creating private file drawers for users, Creating public file drawers for users

- Change File Drawer** Available to the logged on user when the File Service is started or stopped. Allows a user with change access rights to change the access list. An enabled System Administrator can change the name, owner, page limit, or access list for a file drawer. You can use the wildcard symbol (*) to specify the access list.
Related procedure: Changing file drawer information
- Change Profile** Available to the enabled user when the File Service is started or stopped. This Services System Software command lets you enable or disable the Validate Desktops feature.
Related procedure: Validating desktops
- Change User** Available to the enabled user when the Clearinghouse Service is started or stopped. This Clearinghouse Service command changes a user's home File Service.
Related procedure: Expunging a File Service
- Close Volume** Available to the enabled user when the File Service is started or stopped. This Services System Software command terminates all system use of an open secondary volume on a multiple-drive server. Allows a removable disk pack on which the volume is located to be spun down and removed.
Related procedure: Moving a File Service volume
- Copy Container** Available to the enabled user when the File Service is started or stopped. Copies a file drawer, a folder in the file drawer, or a file to a floppy disk or cartridge tape.
Related procedure: Recovering File Service disk space by moving file drawers
- Delete** Available to the enabled user when the Clearinghouse Service is started or stopped. This Clearinghouse Service command deletes the File Service name from the Clearinghouse after you expunge a File Service.
Related procedure: Expunging a File Service
- Delete Desktop** Available to the logged on user when the File Service is started or stopped. Deletes a 6085 or an 8010 desktop stored on the File Service. The System Administrator can delete the desktop of any user. Any logged on user can delete his or her own desktop.
Related procedure: Recovering File Service disk space by deleting obsolete desktops
- Delete File Drawer** Available to the enabled user when the File Service is started or stopped. Deletes a file drawer. You can use the wildcard symbol (*) to delete file drawers.
Related procedures: Deleting file drawers, Expunging a File Service
- Delete Old Versions** Available to the logged on user when the File Service is started or stopped. Deletes old versions of files in a file drawer. The user must have write or remove access rights.
Related procedure: Recovering file drawer space by deleting old file versions

- Expunge Service** Available to the enabled user. This Services System Software command is available at the third interrupt point after rebooting the server and selecting a non-normal startup. It permanently deletes a File Service from a server and deletes all server profile entries.
- Related procedure:** Expunging a File Service
- List Desktops** Available to the logged on user when the File Service is started or stopped. Lists the 6085 and 8010 desktops stored on the File Service.
- Related procedure:** Recovering File Service disk space by deleting obsolete desktops
- List File Drawers** Available to the logged on user when the File Service is started or stopped. Lists the names and attributes of file drawers, including the owner, page limit, and access list. You can use the wildcard symbol (*) to list file drawers.
- Related procedure:** Listing file drawers
- List Users** Available to the logged on user when the Clearinghouse Service is started or stopped. This Clearinghouse Service command displays a list of the users registered in the Clearinghouse Service.
- Related procedure:** Expunging a File Service
- Offline Volume** Available to the enabled user when the File Service is started or stopped. Makes an online volume inaccessible to remote clients.
- Related procedure:** Moving a File Service volume
- Online Volume** Available to the enabled user when the File Service is started or stopped. Makes an open volume accessible to remote clients.
- Related procedures:** Moving a File Service volume, Validating desktops
- Open Volume** Available to the enabled user when the File Service is started or stopped. This Services System Software command opens a secondary volume on a multiple-drive server making it available for local access.
- Related procedure:** Moving a File Service volume
- Proceed** Available to the enabled user. This Services System Software command is available at all initialization interrupt points after rebooting the server and selecting a non-normal startup. It leaves an interrupt point and continues to the next interrupt point. If there are no interrupt points remaining, the system runs all activated services and completes server initialization.
- Related procedure:** Expunging a File Service
- Report Disk Usage** Available to the enabled user when the File Service is started or stopped. Creates a report showing the use of file drawer space. For each file drawer, this command lists the total number of files and pages used; the number of files and pages used for old versions; the number of pages referenced in the last 30, 60, 90, and 180 days; and the number of pages never referenced.
- Related procedure:** Monitoring file drawer disk usage

-
- Reset Statistics** Available to the enabled user when the File Service is started or stopped. Resets to zero all counters that accumulate service statistics you display with the **Show Statistics** command.
- Related procedure:** Monitoring File Service activity
- Restore Container** Available to the enabled user when the File Service is started or stopped. Copies a file drawer, folder, or file from a floppy disk or cartridge tape to a File Service volume.
- Related procedure:** Recovering File Service disk space by moving file drawers
- Show Activity** Available to any user when the File Service is started or stopped. Lists current remote connections, including the user who initiated the connection, the volume, the connection time, and the time of last activity.
- Related procedures:** Monitoring File Service activity, Moving a File Service volume
- Show Statistics** Available to any user when the File Service is started or stopped. Lists File Service statistics compiled since the last reset or the last server reboot. The statistics are cumulative for all volumes managed by a File Service.
- Related procedure:** Monitoring File Service activity
- Stop Service** Available to the enabled user when the File Service is started. This Services System Software command stops the service so you can perform special procedures. During this time, the service does not respond to external requests.
- Related procedure:** Expunging a File Service

Procedures

This section contains these procedures for maintaining the File Service:

Changing file drawer information

Use this procedure to change the file drawer name, owner, page limit, or access list.

Creating private file drawers for users

Use this procedure to create private file drawers for individual users.

Creating public file drawers for users

Use this procedure to create public file drawers for users to share.

Deleting file drawers

Use this procedure to delete unwanted file drawers from the File Service.

Expunging a File Service

Use this procedure to delete a File Service from the server.

Listing file drawers

Use this procedure to list the names and attributes of all file drawers on the File Service.

Monitoring file drawer disk usage

Use this procedure to create a disk usage report showing use of file drawer space.

Monitoring File Service activity

Use this procedure to monitor the status and use of the File Service.

Moving a File Service volume

Use this procedure to move a File Service volume from a removable disk pack to a different removable disk pack.

Recovering file drawer space by deleting old file versions

Use this procedure to increase file drawer disk space while deleting old versions of files in the drawer.

Recovering File Service disk space by deleting obsolete desktops

Use this procedure to increase disk space on a File Service by checking for obsolete desktops and deleting them.

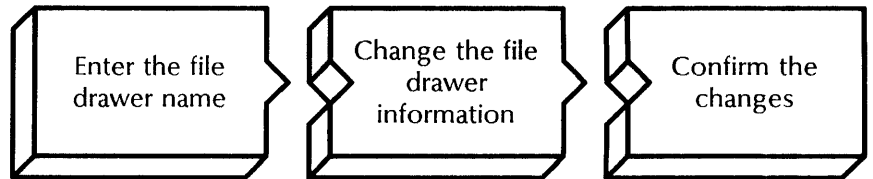
Recovering File Service disk space by moving file drawers

Use this procedure to increase the disk space on a File Service by moving file drawers to another volume.

Validating desktops

Use this procedure to ensure that all desktops stored on the File Service are intact and usable.

Changing file drawer information



Use this procedure to change the name, owner, page limit, or access list of a file drawer. You may also add, change, or delete access list entries. A logged on user with change access list rights may change the access list also.

Prerequisites

Update the File Drawer Worksheet with any changes you are making to the following information:

- The file drawer name and the owner's name
- The file drawer page limit
- The name of the users or group having access to the file drawer
- The access rights for the users or group

See "Creating file drawers" in the File Service chapter of the *Guide to System Administration Activities* for more information.

Step-by-step

1. Log on and enable in the File Service context.
2. Type **Change File Drawer** \Leftarrow .

```

Select Volume
1  <volume name >
2  <volume name >
Enter choice number:
  
```

3. If the File Service is running on a single-drive server, **skip to step 4**. If the File Service is running on a multiple-drive server, type the number for the volume you want \Leftarrow .

```

File drawer name:
  
```

4. Type the name of the file drawer whose information you want to change \Leftarrow .

```

New file drawer name: <current name >
  
```

5. To change the file drawer name, type the new name and press RETURN. Simply press RETURN to confirm the name displayed.

New owner's name: <current owner>

- To change the owner for the drawer, type the new owner's name and press RETURN. Simply press RETURN to confirm the name displayed.

New page limit (type 0 for no limit) (1..2147483647): <limit>

- To change the page limit, type the new number and press RETURN. Simply press RETURN to confirm the page limit displayed.

Change Access List? (Y/N):

- Type **Y** or **N** at the "Change Access List" prompt .
 - Y** Lets you change the access list.
 - N** Cancels the change process. **Skip to step 16.**

Enter User, Alias, or Group Name:

- Type the name of the individual or group you want to have access to the drawer, or whose access rights you want to change .

Permission to read? (Y/N):

- Type **Y** or **N** at the "Permission to read" prompt .
 - Y** Lets users read the files in the drawer.
 - N** Prevents read access.

Permission to write? (Y/N):

- Type **Y** or **N** at the "Permission to write" prompt .
 - Y** Lets users write to the files in the drawer.
 - N** Prevents write access.

Permission to add? (Y/N):

- Type **Y** or **N** at the "Permission to add" prompt .
 - Y** Lets users add files to the drawer.
 - N** Prevents add access.

Permission to remove? (Y/N):

- Type **Y** or **N** at the "Permission to remove" prompt .
 - Y** Lets users remove files from the drawer.

N Prevents remove access.

Permission to change the access list? (Y/N):

14. Type **Y** or **N** at the "Permission to change access list" prompt \Leftarrow .

Y Lets users change the access list.

N Prevents users from making changes.

Make another change to access list? (Y/N):

15. Type **Y** or **N** at the "Make another change to access list" prompt \Leftarrow .

Y Lets you make additional changes to the access list for this drawer. Return to step 9.

N Completes the process.

Confirm the above changes (Y/N):

16. Type **Y** or **N** at the "Confirm the above changes" prompt \Leftarrow .

Y Changes the file drawer information.

N Cancels the process.

Done

17. Log off.

Wrap-up

When you see the message "Done," you have changed the file drawer information.

Example

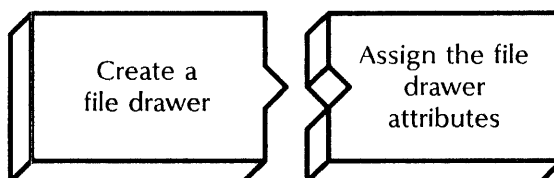
This screen shows changing the file drawer name and adding a group (Writers:Unit 3:Acme) to the access list. The File Service is running on a multiple-drive server.

```

FS!Change File Drawer
  Select Volume
  1  Finance
  2  Planning
  Enter choice number: 1
  File drawer name: Documentation 1987
  New file drawer name: Documentation 1988
  New owner's name: Jim J. Jones:Unit 3:Acme
  New page limit (type 0 for no limit) (0..2147483647): 0
  Change Access List? (Y/N): Y
  Enter User, Alias, or Group Name: Writers:Unit 3:Acme
    Permission to read? (Y/N): Y
    Permission to write? (Y/N): Y
    Permission to add? (Y/N): Y
    Permission to remove? (Y/N): Y
    Permission to change the access list? (Y/N): N
  Make another change to access list? (Y/N): N
  Confirm the above changes (Y/N): Y
  Done
FS!

```

Creating private file drawers for users



Use this procedure to create private file drawers for individual users. You must create file drawers on an open volume; the volume can be either online or offline. You cannot use the wildcard symbol (*) in drawer and owner names.

Prerequisites

- The owner must be a registered user in the Clearinghouse.
- Update the File Drawer Worksheet to show the new file drawers you are creating. Include the following information:
 - The file drawer name and the owner's name
 - The file drawer page limits as described in "Creating file drawers" in the File Service chapter of the *Guide to System Administration Activities*

Step-by-step

1. Log on and enable in the File Service context.
2. Type **Add File Drawer** .

```
Select Volume
1 <volume name >
2 <volume name >
Enter choice number:
```

3. If the File Service is running on a single-drive server, **skip to step 4**. If the File Service is running on a multiple-drive server, type the number for the volume you want .

```
File drawer name:
```

4. Type the name of the file drawer and press RETURN. The name may be up to 100 characters long, and must be different from all other names on the volume.

```
Owner's name:
```

5. Type the name of the file drawer owner and press RETURN. Unless you specify the domain and organization, they default to those of the server. The owner has full access to the drawer by default.

```
Page limit (type 0 for no limit) (0..2147483647):
```

6. Type the number of disk pages you want to assign to the drawer .

```
<name:domain:organization > is granted full access.
Change Access List? (Y/N):
```

7. Type **N** at the "Change Access List" prompt .
 - Y** Lets you create an access list for a public file drawer.
 - N** Completes the process.

```
FS!Done
```

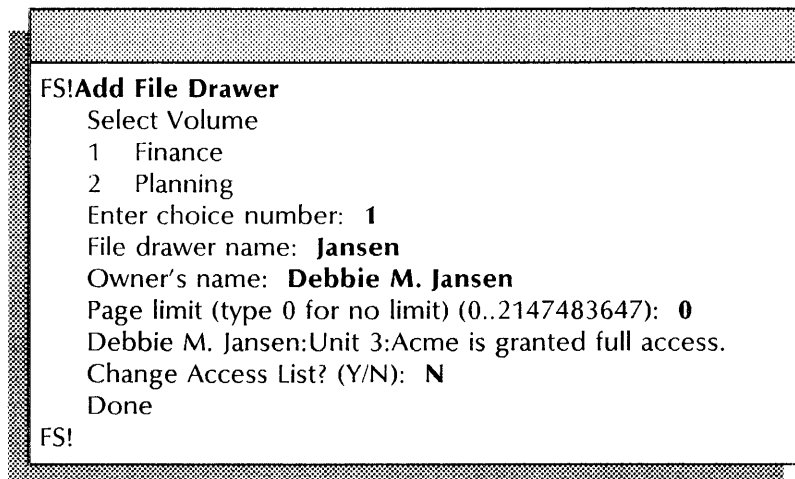
8. Repeat steps 2 through 7 for each file drawer you want to create.
9. Log off.

Wrap-up

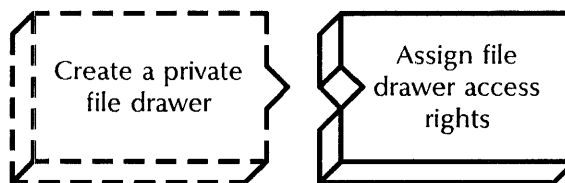
When you see the message "Done," you have created a file drawer.

Example

This screen shows adding a private file drawer for Debbie M. Jansen. The File Service is running on a multiple-drive server. The domain and organization are Unit 3:Acme. The page limit is 0, which sets no page limit.



Creating public file drawers for users



Use this procedure to create public file drawers for users to share. You must create file drawers on an open volume; the volume can be either online or offline. You cannot use the wildcard symbol (*) in drawer and owner names, but you can use it when specifying access list entries.

Prerequisites

- The owner must be a registered user in the Clearinghouse.
- Update the File Drawer Worksheet to show the new file drawers you are creating. Include the following information:
 - The file drawer name and the owner's name
 - The file drawer page limit
 - The access rights for the group

See "Creating file drawers" in the File Service chapter of the *Guide to System Administration Activities* for more information.

Step-by-step

1. Perform steps 1 through 6 of the "Creating private file drawers for users" procedure.

Change Access List? (Y/N): N

2. Type **Y** at the "Change Access List" prompt .
Y Lets you assign access rights to a public file drawer.
N Does not let you assign access rights.

Enter User, Alias, or Group Name:

3. Type the fully qualified name of the group you want to have access to this file drawer and press RETURN. You may use the wildcard symbol (*).

Permission to read? (Y/N):

4. Type **Y** or **N** at the "Permission to read" prompt .
Y Lets users read the files in the drawer.
N Prevents read access.

Permission to write? (Y/N):

5. Type **Y** or **N** at the "Permission to write" prompt .
Y Lets users write to the files in the drawer.
N Prevents write access.

Permission to add? (Y/N):

6. Type **Y** or **N** at the "Permission to add" prompt .
Y Lets users add files to the drawer.
N Prevents add access.

Permission to remove? (Y/N):

7. Type **Y** or **N** at the "Permission to remove" prompt .
Y Lets users remove files from the drawer.
N Prevents remove access.

Permission to change the access list? (Y/N):

8. Type **Y** or **N** at the "Permission to change the access list" prompt \Leftarrow .
 - Y** Lets users change the access list.
 - N** Prevents users from making changes.

Make another change to access list? (Y/N):

9. Type **Y** or **N** at the "Make another change to access list" prompt \Leftarrow .
 - Y** Lets you make additional access list entries. Return to step 3.
 - N** Completes the process.

Done
FS!

10. Repeat steps 1 through 9 for each public file drawer you want to create.
11. Log off.

Wrap-up

When you see the message "Done," you have created a public file drawer.

Example

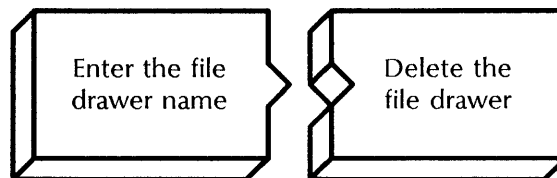
This screen shows creating a public file drawer using the wildcard symbol (*). The File Service is running on a multiple-drive server. The file drawer name is Documentation. The owner of the file drawer is Debbie M. Jansen. The domain and organization are Unit 3:Acme. The page limit is 0, which sets no limit. Read, write, add, and remove rights are granted to all users in the group.

```

FS!Add File Drawer
Select Volume
 1 Finance
 2 Planning
Enter choice number: 1
File drawer name: Documentation
Owner's name: Debbie M. Jansen:Unit 3:Acme
Page limit (type 0 for no limit) (0..2147483647): 0
Debbie M. Jansen:Unit 3:Acme is granted full access.
Change Access List? Y
Enter User, Alias, or Group Name: *:Unit 3:Acme
Adding new name to access list
  Permission to read? (Y/N): Y
  Permission to write? (Y/N): Y
  Permission to add? (Y/N): Y
  Permission to remove? (Y/N): Y
  Permission to change the access list? (Y/N): N
Make another change to access list? (Y/N): N
Done
FS!

```

Deleting file drawers



Use this procedure to delete an unwanted file drawer from the File Service. You may use the wildcard symbol (*) with this command.

Prerequisites

- Know the name of the file drawer you are deleting.
- If your File Service is running on a multiple-drive server, know the File Service volume on which the file drawer is located.
- If your server is also running PC File Service and you are deleting a file drawer that is shared by PC File Service users, first perform the "Removing network resources and deleting

directories” procedure at the PC File Service. See the PC File Service chapter later in this book for more information.

- Update the File Drawer Worksheet and remove the file drawers you are deleting.

Step-by-step

1. Log on and enable in the File Service context.
2. Type **Delete File Drawer** .

```
Select Volume
1 <volume name >
2 <volume name >
Enter choice number:
```

3. If the File Service is running on a single-drive server, **skip to step 4**. If the File Service is running on a multiple-drive server, type the number for the volume you want .

```
File drawer name:
```

4. Type the name of the file drawer you want to delete or type a name pattern using the wildcard symbol (*) .

```
Delete <file drawer name >? (Y/N):
```

5. If you typed a pattern in step 4, type **Y** or **N** at each “Delete <file drawer name>” prompt and press RETURN. The prompt repeats for each file drawer whose name matches the pattern.

Y Deletes the file drawer.

N Retains the file drawer.

```
This file drawer is not empty. Delete it anyway? (Y/N):
```

6. If the file drawer is not empty, type **Y** or **N** at the “Delete it anyway” prompt. If the file drawer is empty, **skip to step 7**.

Y Deletes the file drawer.

N Retains the file drawer.

```
Deleting...
Done
FS!
```

7. Log off.

Wrap-up

When you see the message “Done” followed by the “FS!” prompt, you have deleted the file drawers.

Example

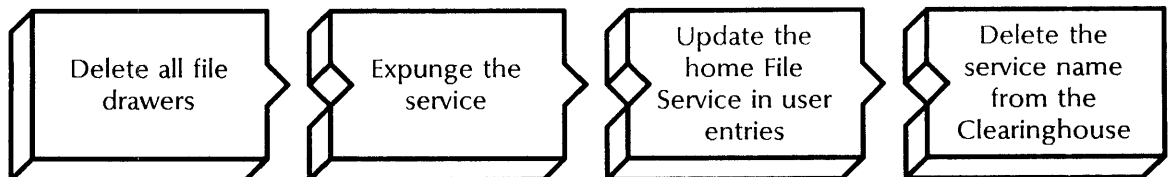
This screen shows deleting file drawers whose names match the pattern Forms. The File Service is running on a multiple-drive server.

```

FS!Delete File Drawer
  Select Volume
  1 Finance
  2 Planning
  Enter choice number: 1
File drawer name: *Forms
Delete Charts and Forms? (Y/N): Y
This file drawer is not empty. Delete it anyway? (Y/N): Y
Deleting . . .
Done
Delete Ledger Forms? (Y/N): Y
This file drawer is empty. Deleting . . .
Done
FS!

```

Expunging a File Service



Use this procedure to remove a File Service from the server. First delete all file drawers on the volume. Then, after you remove the service from the server, you must manually update the Clearinghouse database, changing the home File Service in user entries and deleting the service name.



CAUTION: Expunging a File Service does not delete privately stored volume names managed by the File Service. Thus, when you install a new File Service, the old volume names automatically apply. To change the old names, use the “Changing the volume name” procedure in the Services System Software chapter earlier in this book.

Prerequisites

- Know which File Service will become the home File Service for users affected by the expunge.
- Ensure that no desktops are stored on the File Service you are expunging. Use the **List Desktops** command.
- Update the File Service worksheets with any File Service and file drawer changes you are making.

Step-by-step

1. Log on and enable in the File Service context.
2. Type **Delete File Drawer** ↵.

```
Select Volume
1 <volume name>
2 <volume name>
Enter choice number:
```

3. If the File Service is running on a single-drive server, **skip to step 4**. If the File Service is running on a multiple-drive server, type the number for the volume you want ↵.

```
File drawer name:
```

4. Type * at the "File drawer name" prompt to delete all the file drawers ↵.

```
Delete <file drawer name>? (Y/N):
```

5. Type **Y** at each "Delete <file drawer name>" prompt ↵.
 - Y** Deletes the file drawer.
 - N** Retains the file drawer.

```
This file drawer is not empty. Delete it anyway? (Y/N):
```

6. Type **Y** at each "Delete it anyway" prompt and press RETURN. This prompt appears only if the file drawer is not empty.
 - Y** Deletes the file drawer.
 - N** Retains the file drawer.

```
Deleting...
Done
FS!
```

7. Type **Stop Service** ↵.

```
Select choices
1 <service name>
2 <service name>
Enter one or more choices:
```

8. Type the numbers to stop all services listed (for example, **1-2**) ↵.

FS: Stop immediately? (Y/N):

9. Type **Y** or **N** at each "Stop immediately" prompt \Leftarrow .
- Y** Disconnects all logged on users and immediately stops the service.
 - N** Waits until all users log off, then stops the service.

Stopping <service name > .
<service name > is stopped.

10. Reboot the server.
- a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

Normal startup? (Y/N):

11. Type **N** at the "Normal startup" prompt \Leftarrow .
- Y** Normally starts and runs each service loaded on the server.
 - N** Starts the services, but requires user interaction for the non-normal startup options for each service loaded on the server.

Enter interrupt point
 1 Interrupt before opening primary volume
 2 Interrupt before processing profile
 3 Interrupt before running services
 Enter one or more choices:

12. Type **3** for the "Interrupt before running services" option \Leftarrow .
- If you have a single Clearinghouse internetwork and the Clearinghouse resides on this server, **skip to step 14**. (You are in Genesis Mode and can use the **Expunge Service** command without being logged on.)
13. Log on and enable.
14. Type **Expunge Service** \Leftarrow .

Select choices
 1 <service name >
 2 <service name >
 Enter one or more choices:

15. Type the number for File Service \Leftarrow .

FS: Confirm (Y/N):

16. Type **Y** at the "FS: Confirm" prompt **↵**.
 - Y** Continues the expunge process.
 - N** Cancels the expunge process.
17. Type **Proceed** to complete server initialization **↵**.
18. Log off.
19. Log on and enable in the Clearinghouse Service context at the Clearinghouse that serves your user entries. Use Remote System Administration if you want to make a copy of the users you list in step 22.
20. Type **List Users** **↵**.



Pattern: *

21. Press RETURN at the "Pattern: *" prompt to list all users.
22. Record the users' names or use the RSA Make Document feature and print a copy.
23. Type **Change User** **↵**.

Name:

24. Type the name of the user whose home File Service you want to change **↵**.

Changing User: <name:domain:organization >
Description: <current description >

25. Press RETURN at the "Description" prompt.

"Home" File Service:

26. Type the name of the user's new home File Service **↵**.

Confirm this User information? (Y/N):

27. Type **Y** to confirm this information **↵**.
 - Y** Changes the user information.
 - N** Cancels the process.

Done. <name:domain:organization > (User) changed.
CHS!

28. Repeat steps 23 through 27 for each user.



29. If users on a different Clearinghouse Service are affected by this expunge, go to that Clearinghouse Service or use RSA from your workstation and repeat steps 19 through 28.
30. Log on and enable in the Clearinghouse Service context at the Clearinghouse Service where the expunged File Service is registered.
31. Type **Delete** .

Name:

32. Type the name of the File Service you just expunged .

Deleting <name:domain:organization>. This File Service will no longer be registered.
Confirm? (Y/N):

33. Type **Y** at the "Confirm" prompt .
- Y** Deletes the entry.
- N** Cancels the process.

Done
CHS!

34. Log off.

Wrap-up

When you see the message "Done," followed by the "CHS!" prompt, you have expunged the File Service. If you made copies using Remote System Administration, store them in the Activities Guide.

Examples

This screen shows deleting file drawers and stopping all services, steps 2 through 9 of the procedure for expunging a File Service. The File Service is running on a single-drive server. The File Service and Interactive Terminal Service are installed on the server.

```
FS! Delete File Drawer
File drawer name: *
Delete Charts and Forms? (Y/N): Y
This file drawer is not empty. Delete it anyway? (Y/N): Y
Deleting . . .
Done
Delete Ledger Forms? (Y/N): Y
This file drawer is empty. Deleting . . .
Done
FS! Stop Service
  Select choices
    1 File Service
    2 Interactive Terminal Service
  Enter one or more choices: 1-2
  FS: Stop immediately? (Y/N): Y
Stopping File Service.
No active users.
File Service is stopped.

  ITS: Stop immediately? (Y/N): Y
Stopping Interactive Terminal Service.
ITS: Interactive Terminal Service is stopped.
FS!
```

This screen shows expunging the File Service after rebooting the server, steps 14 through 17.

```
!Expunge Service
  Select choices
    1 File Service
    2 Interactive Terminal Service
  Enter one or more choices: 1
  FS: Confirm (Y/N): Y
!Proceed
```

This screen shows updating a home File Service entry, steps 20 through 27.

```

CHS! List Users
  Pattern: *
Ann B. Letterman:Unit 1:Acme
Ellen M. Evans:Unit 1:Acme, Documentation Group
John L. Martin:Unit 1:Acme, Product Tester
Susan R. Spencer:Unit 1:Acme
Jerry L. Parsons:Unit 1:Acme, Developer
CHS! Change User
  Name: Martin:Unit 1
  Changing User: John L. Martin:Unit 1:Acme
  Description: Project Manager
  "Home" File Service: Rose:Unit 1
  Confirm this User information? (Y/N): Y
Done. John L. Martin:Unit 1:Acme (User) changed.
CHS!

```

This screen shows deleting the service name from the Clearinghouse domain, steps 31 through 33.

```

CHS! Delete
  Name: Daisy:Unit 1
Deleting Daisy:Unit 1:Acme. This File Service will no longer
be registered.
  Confirm? (Y/N): Y
Done
CHS!

```

Listing file drawers



Use this procedure to list the file drawers on the File Service. You can specify the file drawer names to be listed, the owner, size, and access list information. If you use the wildcard symbol (*) to request a pattern for a file drawer name, all file drawers on the File Service (volume) are listed.

Step-by-step

1. Log on in the File Service context.
2. Type **List File Drawers** \Leftarrow .

Select Volume

1 <volume name >
 2 <volume name >
 Enter choice number:

3. If the File Service is running on a single-drive server, **skip to step 4**. If the File Service is running on a multiple-drive server, type the number for the File Service volume you want ↵.

File drawer name: *

4. Press RETURN to list all file drawers, or type the name of the file drawer you want to list and press RETURN, or type a name pattern using one of the wildcard symbols (* or #) ↵.

Show file drawer owner? (Y/N):

5. Type **Y** or **N** at the "Show file drawer owner" prompt ↵.
Y Displays file drawer owners.
N Does not display file drawer owners.

Show file drawer sizes? (Y/N):

6. Type **Y** or **N** at the "Show file drawer sizes" prompt ↵.
Y Displays file drawer sizes.
N Does not display file drawer sizes.

Show file drawer access lists? (Y/N):

7. Type **Y** or **N** at the "Show file drawer access lists" prompt ↵.
Y Displays file drawer access lists.
N Does not display file drawer access lists.

< file drawer list >
 FS >

8. Log off.

Wrap-up

When you see a message showing the total space used by the listed file drawers, you have completed this procedure. You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This screen shows listing file drawers whose names match the pattern *Forms. File drawer owners, sizes, and access lists are displayed. The File Service is running on a multiple-drive server.

FS > List File Drawers

Select Volume

1 Finance

2 Planning

Enter choice number: **1**

File drawer name: ***Forms**

Show file drawer owner? (Y/N): **Y**

Show file drawer sizes? (Y/N): **Y**

Show file drawer access lists? (Y/N): **Y**

Charts and Forms

owner: Harry H. Harrison:Steno Pool:GemSysCo

size: 194 disk pages

access list:

Harry H. Harrison:Steno Pool:GemSysCo

permission to read, write, add, remove, change
access

*:Steno Pool:GemSysCo

permission to read, add

::GemSysCo

permission to read

Ledger Forms

owner: Jim J. Jones:Unit1:GemSysCo

size: 327 disk pages

access list:

Jim J. Jones:Unit1:GemSysCo

permission to read, write, add, remove, change
access

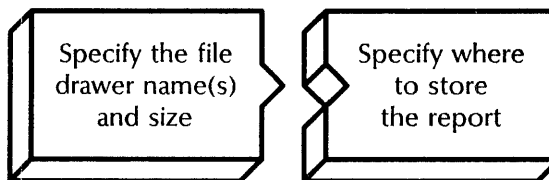
*:Unit1:GemSysCo

permission to read, add

Total space used by listed file drawers: 521 disk pages

FS >

Monitoring file drawer disk usage



Use this procedure to create a report showing file drawer usage. You specify the names and the minimum size of the file drawers you want to monitor. Use the wildcard symbol (*) to specify multiple file drawers for monitoring.

Prerequisites

- Know the File Service name, domain, and organization. See the File Service Worksheet.
- Know how to specify the report location. See “Disk usage report” in the File Service chapter of the *Guide to System Administration Activities*.
- Choose a file drawer or folder where you have write and add access for storing the report.

Step-by-step

1. Log on and enable in the File Service context.
2. Type **Report Disk Usage** .

```
Select Volume
1 <volume name >
1 <volume name >
Enter choice number:
```

3. If the File Service is running on a single-drive server, **skip to step 4**. If the File Service is running on a multiple-drive server, type the number for the File Service volume you want .

```
File drawer name: *
```

4. Press RETURN to monitor all the file drawers, or type the name of a specific file drawer .

```
Enter the minimum file drawer size (0..2147483647): 0
```

5. Press RETURN to monitor all the specified file drawers, regardless of size, or type a specific file drawer size . Only file drawers containing the specified number of pages or more will be monitored.

Report location:

6. Type the name of the file drawer or folder where you want to store the disk usage report ↵.

File drawer names have the form (File Service:domain:organization)file drawer/folder. You can omit the domain and organization if the file drawer is on a File Service in the same domain.

Done
FS!

7. Log off.

Wrap-up

When you see the message "Done," you have created a disk usage report.

To retrieve the report at a 6085 or 8010 workstation, convert it to ViewPoint format from ASCII format. Change the font to Terminal 8 to display the report properly. Make a copy of the report and store it in the *Activities Guide*.

Example

This screen shows creating a disk usage report for all file drawers on the volume. The File Service is running on a multiple-drive server. See Table 6-2 for an example disk usage report.

FS!Report Disk Usage

Select Volume

1 Finance

2 Planning

Enter choice number: 1

File drawer name: *

Enter the minimum file drawer size (0..2147483647): 0

Report location: (Finance:Unit1:TecCo)MonthlyReports/DiskUsageReports

Ashley . . .

Brown. . .

Dobbs. . .

Jones. . .

Mears. . .

Thomas. . .

Done

FS!

Table 6-2. Example disk usage report

Volume Yale:Unit1:TecCo Disk Usage Report-7-Apr-88 12:27:02									
File Drawer	Total		Old Versions		Pages vs. days since last reference				
	files	pages	files	pages	< 30	< 60	< 90	<180	<Never
Ashley	37	194	12	56	62	24	48	0	60
Brown	156	327	25	113	127	41	29	64	136
Dobbs	0	0	0	0	0	0	0	0	0
Jones	0	0	0	0	0	0	0	0	0
Mears	0	0	0	0	0	0	0	0	0
Thomas	156	327	25	113	127	41	29	64	136

Monitoring File Service activity



Use this procedure to monitor File Service activity and to set to zero the counters that accumulate File Service statistics. You can monitor the current status as well as the cumulative workload and utilization of the File Service.

Prerequisites

Be familiar with the terms described under "Monitoring File Service activity" in the File Service chapter of the *Guide to System Administration Activities*.

Step-by-step

1. Enter the File Service context.
2. Type **Show Activity** \leftarrow .

User Name	Volume Name	Start Time	Last Action
< name >	< volume >	< time >	< time >
< name >	< volume >	< time >	< time >

3. Type **Show Statistics** \leftarrow .

```
< list of File Service statistics >
```

4. Log on and enable.
5. Type **Reset Statistics** .

```
Done
FS >
```

6. Log off.

Wrap-up

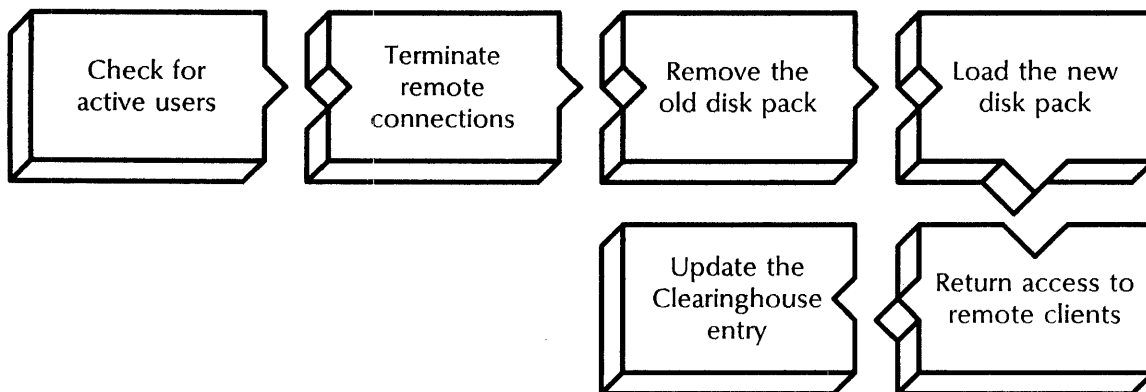
When you see the message "Done," you have completed this procedure. You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This screen shows monitoring File Service activity.

```
FS > Show Activity
User Name           Volume Name      Start Time      Last Action
Harry H. James:LA:Acme  Finance         13:00:09       13:25:56
Jim J. Jones:Unit1:Acme Planning         13:15:27       13:27:14
FS > Show Statistics
File Service statistics since reset 6-Apr-88 10:51:04
    10 Total connections
    60 Minimum connect time (seconds)
  1834 Maximum connect time (seconds)
    459 Average connect time (seconds)
    95 Total List operations
    59 Total Open operations
    15 Total Delete operations
    20 Total Store operations
    32 Total Retrieval operations
FS > Logon
      User name: Jerri Green
      Password: ******
FS > Enable
FS!Reset Statistics
      Done
FS!
```

Moving a File Service volume



If you have a multiple-drive server with removable disk packs, use this procedure to move a File Service volume so you can use its drive for other purposes. For example:

- You can use the drive as a File Service during the day and as a backup drive at night by replacing the disk pack with a specified backup disk pack.
- You can reconfigure the volumes among different servers, if the server is being repaired.
- You can remove a File Service volume temporarily to use its drive for the **Copy Volume** operation.

Prerequisites

- Have a multiple-drive server with removable disk packs.
- Know how to load and unload a removable disk pack. See the “Loading a removable disk pack” and “Unloading a removable disk pack” procedures in Appendix A of the *Services Maintenance Guide*.
- Update the File Service Worksheet with any changes you are making to the File Service volume.

Step-by-step

1. Log on and enable in the File Service context.
2. Type **Show Activity** and press RETURN. If there is no list of active users for that volume, **skip to step 4**.

User Name	Volume Name	Start Time	Last Action
<name>	<volume name>	<time>	<time>
<name>	<volume name>	<time>	<time>

3. Tell the logged on users you are taking the volume offline and ask them to log off.
4. When all users have logged off, type **Offline Volume** \leftarrow .

```
Select Volume
1 <volume name >
2 <volume name >
Enter choice number:
```

5. Type the number for the volume you are moving .

```
Disconnect active users? (Y/N):
```

6. If no active users are listed, **skip to step 7**. Otherwise, type **Y** at the "Disconnect active users" prompt .
- Y** Disconnects users when their current action is complete.
- N** Continues to accept new connections.
7. Type **Close Volume** .

```
Select Volume
1 <volume name >
Enter choice number:
```

8. Type the number for the volume .

```
Done
```

9. Remove the File Service volume (disk pack) from the drive.
10. Load a new disk pack into the same drive.
11. Wait until the green light stops flashing.
12. Log on and enable in the File Service context.
13. Type **Open Volume** .

```
Drive (1..4):
```

14. Type the number for the appropriate drive .

```
Opening volume. . .done
```

15. Type **Online Volume** .

```
Select Volume
1 <volume name >
Enter choice number:
```

16. Type the number for the new volume .

```

Bringing drive < # > online...
  Validating Clearinghouse entry for:
    < name:domain:organization >
  Done
Validating User Desktops...
...
Volume online.
FS!
    
```

17. Log off.

Wrap-up

When you see the message "Volume online," you have moved the volume, and its name and location have been validated in the Clearinghouse Service.

Examples

This screen shows moving a File Service volume, steps 2 through 8. Note that there are active users.

```

FS! Show Activity
User Name                Volume Name      Start Time      Last Action
Harry H. James:LA:Acme  Finance         13:00:09       13:25:56
Jim J. Jones:Unit1:Acme Planning        13:15:27       13:27:14
FS! Offline Volume
  Select Volume
  1 Finance
  2 Planning
  Enter choice number: 1
User Name                Volume Name      Start Time      Last Action
Harry H. James:LA:Acme  Finance         13:00:09       13:25:56
Jim J. Jones:Unit1:Acme Planning        13:15:27       13:27:14
  Disconnect active users? (Y/N): Y
Done
FS! Close Volume
  Select Volume
  1 Finance
  2 Planning
  Enter choice number: 1
FS!
    
```

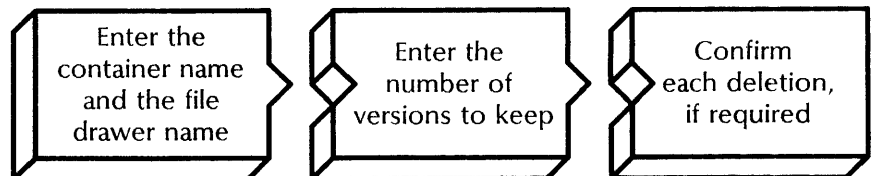

This screen shows steps 13 through 16 after the new disk pack has been loaded in the same disk drive.

```

FS! Open Volume
    Drive (1..4): 2
Opening volume...done
FS! Online Volume
    Select Volume
    1 Finance
    Enter choice number: 1
Bringing drive 3 online...
    Validating Clearinghouse entry for: <name:domain:organization>
    Done
Validating User Desktops...
Gary C. Campbell:Unit 3:Acme...ok
Linda Mooradian:Unit 3:Acme...
Desktop may be damaged; try restoring from backup of April 2, 1988.
Lynn R. Anderson:Unit 2:Acme...ok
Geri Drake:Unit 3:Acme...
Desktop may be damaged; desktop has never been backed up.
My old file...
Not a desktop; this object will be deleted.
5 desktops validated.
1 non-desktops deleted.
Volume online.
FS!

```

Recovering file drawer space by deleting old file versions



Use this procedure to delete old versions of a file and recover file drawer space. You can delete versions of a specific file, or use a pattern to delete versions of more than one file. You specify the number of versions you want to keep; the most recent versions are retained.

Prerequisite

- Know the container name.



A container is a file that has other files associated with it and contains the associated files; for example, a file drawer or folder.

Step-by-step

1. Log on and enable in the File Service context.

2. Type **Delete Old Versions** **↵**.

```
Select Volume
1 <volume name>
2 <volume name>
Enter choice number:
```

3. If the File Service is running on a single-drive server, **skip to step 4**. If the File Service is running on a multiple-drive server, type the number for the volume you want **↵**.

```
Container:
```

NOTE

If a container or file name includes the diagonal slash (/), exclamation point (!), asterisk (*), pound sign (#), apostrophe ('), or parentheses (), precede that character with a single quotation mark; for example, 04'/28'/84'/Birthday.

4. Type the name of the container and press RETURN. Use slashes in the name to separate each container level; for example, FileDrawerName/FolderName.

```
File name:
```

5. Type the name of the file whose old versions you want to delete, or type a name pattern using the wildcard symbol (*) **↵**.

```
Number of versions to keep (1..65534):
```

6. Type the number of versions you want to keep **↵**.

```
Consider all levels (Y/N):
```

7. Type **Y** at the "Consider all levels" prompt **↵**.
- Y** Selects old versions at all levels below the named container (file drawers, folders, and documents).
 - N** Selects old versions at one level below the named container only (file drawers, folders, and documents).

```
Confirm each delete (Y/N):
```

8. Type **Y** or **N** at the "Confirm each delete" prompt **↵**.
- Y** Lets you confirm the deletion of each file version.
 - N** Deletes the file version automatically.

```
< Container name >  
Delete < file name > < version number > ? (Y/N):
```

9. Type **Y** or **N** to confirm deletion of each file version. This prompt appears only if you typed **Y** in step 8.

Y Deletes the file version.

N Does not delete the file version.

```
...deleted  
Done  
FS!
```

10. Log off.

Wrap-up

When you see the message "Done," you have deleted old versions of files.

Example

This screen shows recovering file drawer space by deleting old file versions. The File Service is running on a multiple-drive server. The wildcard symbol (*) is used to delete versions of all files in the container. Each deletion is confirmed.

FS!Delete Old Versions

Select Volume

1 Finance

2 Planning

Enter choice number: **1**

Container: **FileDrawerName/Folder**

File name: *****

Number of versions to keep (1..65534): **1**

Consider all levels (Y/N): **Y**

Confirm each delete (Y/N): **Y**

FileDrawerName!1/Folder!1

Delete File1!1? (Y/N): **Y**

...deleted

Delete File1!2? (Y/N): **Y**

...deleted

Delete File1!3? (Y/N): **Y**

...deleted

Delete File2!1? (Y/N): **Y**

...deleted

Delete File2!2? (Y/N): **Y**

...deleted

FileDrawerName!1/Folder!1/Folder2!1

Delete File3!1? (Y/N): **N**

Delete File3!2? (Y/N): **N**

Delete File3!3? (Y/N): **N**

Delete File4!1? (Y/N): **N**

Delete File4!2? (Y/N): **N**

FileDrawerName!1/Folder!1

Delete File5!1? (Y/N): **Y**

...deleted

Delete File5!2? (Y/N): **N**

Delete File6!1? (Y/N): **Y**

...deleted

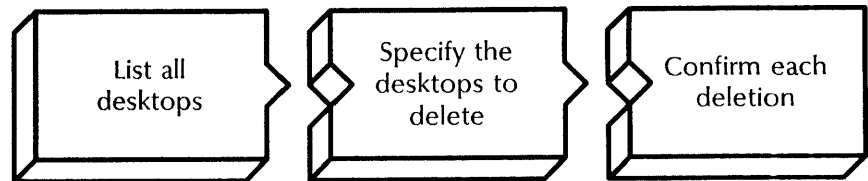
Delete File6!2? (Y/N): **Y**

...deleted

Done

FS!

Recovering File Service disk space by deleting obsolete desktops



Use the **List Desktops** command to list all desktops and the disk pages they are consuming. Then use the **Delete Desktop** command to delete obsolete desktops and recover File Service disk space. If you use the wildcard symbol (*) to specify the desktop name, confirmation is required for each desktop matching the pattern. Using the wildcard symbol (*) alone to specify a name, matches patterns in the same domain and organization only.



A logged on user can delete his or her own desktop. Only an enabled System Administrator can delete the desktop of another user.

Prerequisite

Check with the desktop owner to be sure the owner does not need the desktop.

Step-by-step

1. Log on and enable in the File Service context.
2. Type **List Desktops**

```

Select Volume
1 <volume name >
2 <volume name >
Enter choice number:
  
```

3. If the File Service is running on a single-drive server, **skip to step 4**. If the File Service is running on a multiple-drive server, type the number for the volume you want .

```

Desktop Name           Pages      Created
<name:domain:organization > < # >    <date time >
<name:domain:organization > < # >    <date time >
Total space used by listed desktops: < # > disk pages.
  
```

4. Type **Delete Desktop** .

Select Volume

1 <volume name >

2 <volume name >

Enter choice number:

5. If the File Service is running on a single-drive server, **skip to step 6**. If the File Service is running on a multiple-drive server, type the number for the volume you want **↵**.

Desktop Name:

6. Type the name of the desktop you want to delete, or type a name pattern using the wildcard symbol (*) **↵**.

<Confirm> or <Delete desktop name?> (Y/N):

7. Type **Y** or **N** at each prompt to confirm deletion of the desktop and press RETURN. If you typed a pattern in step 6, the prompt repeats for each desktop whose name matches the pattern.

Y Deletes the desktop.**N** Does not delete the desktop.

Done

FS!

8. Log off.

Wrap-up

When you see the message "Done," you have completed this procedure.

Examples

This screen shows deleting an obsolete desktop specifying the fully qualified desktop name.

```

FS!List Desktops
  Select Volume
  1 Finance
  2 Planning
  Enter choice number: 1
Desktop Name           Pages      Created
Jim J. Jones:Unit 1:GemSysCo   2300      14-Jan-88 9:50:10
Harry H. Harrison:Payroll:GemSysCo 1579      17-Feb-88 13:29:12
Total space used by listed desktops: 3879 disk pages.
FS!Delete Desktop
  Select Volume
  1 Finance
  2 Planning
  Enter choice number: 1
  Desktop Name: Jim J. Jones:Unit 1:GemSysCo
  Confirm (Y/N): Y
  Done
FS!

```

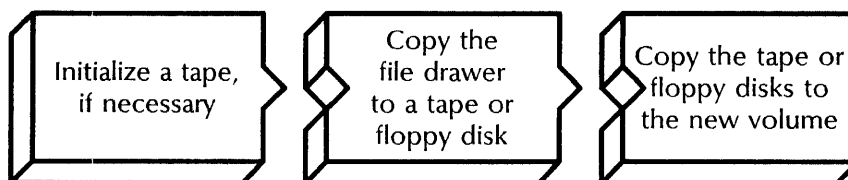
This screen shows deleting an obsolete desktop specifying a name pattern.

```

FS!List Desktops
  Select Volume
  1 Finance
  2 Planning
  Enter choice number: 1
Desktop Name           Pages      Created
Jim J. Jones:Unit 1:GemSysCo   2300      14-Jan-88 9:50:10
Harry H. Harrison:Payroll:GemSysCo 1579      17-Feb-88 13:29:12
Total space used by listed desktops: 3879 disk pages.
FS!Delete Desktop
  Select Volume
  1 Finance
  2 Planning
  Enter choice number: 1
  Desktop Name: *:*:GemSysCo
  Delete Jim X. Jones:Unit 1:GemSysCo? (Y/N): Y
  Delete John C. Miller:Accounting:GemSysCo? (Y/N): N
  Done
FS!

```

Recovering File Service disk space by moving file drawers



Use this procedure to move a file drawer to another volume and recover File Service disk space. Use the **Copy Container** command to copy a file drawer to floppy disks or cartridge tape. Then use the **Restore Container** command to copy the file drawer from the disks or tape to a different volume. If a file drawer will not fit on one floppy disk, you are prompted at the appropriate time to insert another disk.



CAUTION: If a file drawer with the same name exists on the new volume, you see a warning message and the file drawer is not copied. Go to a workstation and check that the contents of the two drawers are the same before you delete the drawer on the new volume.



If you want to copy file drawers to a tape containing obsolete data, initialize the tape during the copy container operation to erase that data.



Use the **List Volumes** command to check the number of available pages on your volume. If a volume regularly becomes more than 90 percent full, consider expansion to an additional or larger capacity server.

Prerequisites

- Know the name of the file drawer you are copying.
- Be sure you have enough floppy disks or tapes to perform the procedure.
- If you have an 8090 server, format your tapes. See the “Formatting a cartridge tape” procedure in the *Backup and Restore Guide*.
- If your server is also running PC File Service and you are moving a file drawer that is shared by PC File Service users, first perform the “Removing network resources and deleting directories” procedure at the PC File Service. See the PC File Service chapter later in this book for more information.
- Update the File Drawer Worksheet with any changes you are making to the file drawers.



Use the **List File Drawers** command to check the correct spelling of the file drawer name.

Step-by-step for cartridge tape

1. Log on and enable in the File Service context at the server where the file drawers reside.
2. Type **Copy Container** \Leftarrow .

Select Volume

- 1 <volume name >
 - 2 <volume name >
- Enter choice number:

3. If the File Service is running on a single-drive server, **skip to step 4**. If the File Service is running on a multiple-drive server, type the number for the volume you want .

Enter full container pathname, beginning with file drawer name.

Container:

4. Type the file drawer name at the "Container" prompt .

NOTE

If the file drawer name includes the diagonal slash (/), exclamation point (!), asterisk (*), pound sign (#), apostrophe ('), or parentheses (), precede that character with a single quotation mark; for example, 04'/28'/84'/Birthday.

Select Backup Medium

- 1 Cartridge Tape
 - 2 High Capacity Cartridge Tape
- Enter choice number:

5. Type the number for the type of tape you have .

Insert Cartridge Tape

6. Insert the cartridge tape into the server drive.

Proceed (Y/N):

7. Type **Y** at the "Proceed" prompt .

Y Continues the operation.

N Cancels the process.

This tape is named <tape name> and has < # > remaining free pages.

Select initialization choice

- 1 Append to existing data on tape
- 2 Initialize tape
- 3 Format and initialize tape

Enter choice number:

8. If you need to initialize your tape, type the number for the "Initialize tape" option and press RETURN. If your tape has already been initialized, type the number for the "Append to existing data on tape" option and **skip to step 12**.

- 1 Copies the file drawer of a previously formatted, initialized tape.
- 2 Removes all data on the tape (which takes from 1 to 5 minutes) before copying the file drawer.
- 3 Formats and removes all data on the new tape (which takes about 60 minutes) before copying the file drawer.

Warning: Initializing a tape will delete any files that are on the tape.
Proceed (Y/N)?

9. Type **Y** at the "Proceed" prompt .
- Y** Continues the process.
- N** Cancels the prompt.

A second confirmation is required to destroy data on this tape.
Proceed (Y/N)?

10. Type **Y** at the second "Proceed" prompt .

Enter new tape name:

11. Type the new name of the tape .

Initializing tape...done
Copy container is starting... < # > pages remaining on tape
< tape name >
Done

12. Remove the cartridge tape when the copy operation is complete.
13. Repeat steps 6 through 12 at each prompt for another cartridge tape.

Done
FS!

14. Log off.
15. Log on and enable in the File Service context at the server where you are moving the file drawers.
16. Type **Restore Container** .

Select Volume

1 <volume name >
2 <volume name >
Enter choice number:

17. If the File Service is running on a single-drive server, **skip to step 18**. If the File Service is running on a multiple-drive server, type the number for the volume you want ↵.

Restoring to volume <volume name >

Enter full container name, beginning with file drawer name.
Container:

18. Type the file drawer name at the "Container" prompt ↵.

NOTE

If the file drawer name includes the diagonal slash (/), exclamation point (!), asterisk (*), pound sign (#), apostrophe ('), or parentheses (), precede that character with a single quotation mark; for example, 04'/28'/84'/Birthday.

Restore using increment data from this volume? (Y/N):

19. Type **N** at the "Restore using increment data from this volume" prompt ↵.
- Y** Displays the tape to insert.
 - N** Does not display the tape to insert.

Restore files through date:

20. Press RETURN to copy the latest state of the volume or type the date and time through which you want to copy ↵.

Confirm each restore (Y/N):

21. Type **N** at the "Confirm each restore" prompt ↵.
- Y** Lets you confirm each file to copy.
 - N** Copies each file without confirmation.

Suppress feedback (Y/N):

22. Type **Y** or **N** at the "Suppress feedback" prompt ↵.
- Y** Does not list the files being copied.
 - N** Lists the files being copied.

Restore backup increments in reverse order.
 Please indicate the Backup source.
 Select Backup medium
 1 Rigid disk
 2 Cartridge Tape
 3 High Capacity Cartridge Tape
 Enter choice number:

23. Type the number for the type of tape you have .

Insert Cartridge Tape

24. Insert the cartridge tape into the server drive.

Proceed (Y/N):

25. Type **Y** at the "Proceed" prompt .

- Y** Continues the operation.
- N** Cancels the prompt.

This tape is named < tape name > and has < # > remaining free pages.
 Restore from increment
 1 < date > < time > from < volume:domain:organization >
 Created by incremental Backup (complete)
 2 < date > < time > from < volume:domain:organization >
 Created by incremental Backup (complete)
 Enter choice number:

26. Type the number for the increment you want to copy .

Backup increment of < date > < time >
 on < tape type > < tape name >
 Skip this backup increment (Y/N):

27. Type **N** at the "Skip this backup increment" prompt .

- Y** Does not copy the increment.
- N** Copies the increment.

Processing tape...
 < file name >
 < file name >
 < file name >
 Done
 FS!

28. Log off.

Wrap-up

When you see the first message "Done," you have copied the file drawer to a cartridge tape. When you see the second message "Done," you have copied the file drawer from the tape to a volume.

If your server is also running PC File Service and you moved a file drawer that is shared by PC File Service users, next perform the "Creating directories and adding network resources" procedure at the PC File Service. See the PC File Service chapter later in this book for more information.

Examples

This screen shows copying a file drawer to a cartridge tape.

```

FS!Copy Container
  Select Volume
  1 Finance
  2 Planning
  Enter choice number: 1
Enter full container name, beginning with file drawer name.
  Container: Project Reports
  Select Backup Medium
  1 Cartridge Tape
  2 High Capacity Cartridge Tape
  Enter choice number: 1
Insert Cartridge Tape
  Proceed (Y/N): Y
This tape is named Archive 1-May-88
  Select initialization choice
  1 Append to existing data on tape
  2 Initialize tape
  3 Format and initialize tape
  Enter choice number: 2
Warning: Initializing a tape will delete any files that are on the tape.
  Proceed (Y/N)? Y
A second confirmation is required to destroy data on this tape.
  Proceed (Y/N)? Y
  Enter new tape name: File Drawer 1
Initializing tape...done
Copy Container is starting...12345 pages remaining on tape File Drawer 1
Done
FS!

```

This screen shows copying a file drawer from the cartridge tape to a different volume.

```

FS!Restore Container
  Select Volume
  1  Finance
  2  Planning
  Enter choice number: 2
Restoring to volume Planning
Enter full container name, beginning with file drawer name.
  Container: Project Reports
  Restore using increment data from the volume? (Y/N): N
  Restore files through date: 28-May-88 13:47:34
  Confirm each restore (Y/N): N
  Suppress feedback (Y/N): N
Restore backup increments in reverse order.
Please indicate the Backup source.
  Select Backup medium
  1  Rigid disk
  2  Cartridge Tape
  3  High Capacity Cartridge Tape
Enter choice number: 2
Insert Cartridge Tape
  Proceed (Y/N): Y
This tape is named File Drawer 1 and has 12345 remaining free pages.
Restore from increment
  1  28-May-88 11:35:21 from Planning:Western Region:Acme
      Created by incremental Backup (complete)
  2  28-May-88 11:34:21 from Planning:Western Region:Acme
      Created by incremental Backup (complete)
Enter choice number: 1
Backup increment of 28-May-88 11:35:21 on cartridge tape File Drawer 1
22-May-88
  Skip this backup increment (Y/N): N
Processing tape...
FileDrawer 1!1/Manager!1
FileDrawer 1!1/Manager!1/Tasks!2
FileDrawer 1!1/Manager!1/Monthly!2
Done
FS!

```

Step-by-step for floppy disk

1. Log on and enable in the File Service context at the server where the file drawers reside.
2. Type **Copy Container** ←.

Select Volume

1 <volume name >
2 <volume name >
Enter choice number:

3. If the File Service is running on a single-drive server, **skip to step 4**. If the File Service is running on a multiple-drive server, type the number for the volume you want .

Enter full container pathname, beginning with file drawer name.

Container:

4. Type the file drawer name at the "Container" prompt .

NOTE

If the file drawer name includes the diagonal slash (/), exclamation point (!), asterisk (*), pound sign (#), apostrophe ('), or parentheses (), precede the character with a single quotation mark; for example, 04'/28'/84'/Birthday.

Insert floppy disk

5. Insert the floppy disk into the server drive.

NOTE

The floppy disk does not need to be pre-formatted.

Proceed (Y/N):

6. Type **Y** at the "Proceed" prompt .
- Y** Continues the process.
N Cancels the process.
7. Remove the floppy disk when the copy operation is complete.
8. Repeat steps 5 through 7 at each prompt for another floppy disk.

Done
FS!



CAUTION: You **MUST** insert a separate floppy disk for each file drawer you want to copy. Otherwise, the system overwrites the floppy disk when you enter the **Copy Container** command.

9. Repeat steps 2 through 8 for each file drawer you are copying.
10. Log off.
11. Log on and enable in the File Service context at the server where you are moving the file drawers.

12. Type **Restore Container** \leftarrow .

```
Select Volume
1 <volume name>
2 <volume name>
Enter choice number:
```

13. If the File Service is running on a single-drive server, **skip to step 14**. If the File Service is running on a multiple-drive server, type the number for the volume you want \leftarrow .

```
Restoring to volume <volume name>
Enter full container pathname, beginning with file drawer
name.
Container:
```

14. Type the file drawer name at the "Container" prompt \leftarrow .

NOTE

If the file drawer name includes the diagonal slash (/), exclamation point (!), asterisk (*), pound sign (#), apostrophe ('), or parentheses (), precede that character with a single quotation mark; for example, 04'/28'/84'/Birthday.

```
Restore using increment data from this volume? (Y/N):
```

15. Type **N** at the "Restore using increment data from this volume" prompt \leftarrow .

- Y** Displays the floppy disk to insert.
- N** Does not display the floppy disk to insert.

```
Restore files through date:
```

16. Press RETURN to restore the latest state of the volume or type the date and time through which you want to copy \leftarrow .

```
Confirm each restore (Y/N):
```

17. Type **N** at the "Confirm each restore" prompt \leftarrow .

- Y** Lets you confirm each file to copy.
- N** Copies each file without confirmation.

```
Suppress feedback (Y/N):
```

18. Type **Y** or **N** at the "Suppress feedback" prompt \leftarrow .

- Y** Does not list the files being copied.
- N** Lists the files being copied.

Please indicate the Backup source.
Select Backup medium
1 Floppy disk
2 Rigid disk
Enter choice number:

19. Type the number for floppy disk

Insert floppy disk

20. Insert the floppy disk into the server drive.

Proceed (Y/N):

21. Type **Y** at the "Proceed" prompt .

- Y** Continues the process.
- N** Cancels the prompt.

Insert floppy disk

22. Remove the floppy disk from the server drive.
23. Repeat steps 20 through 22 for each floppy you are copying.

Proceed (Y/N):

24. Type **N** at the "Proceed" prompt when you have completed the copy operation.
25. Log off.

Wrap-up

When you see the message "Done" followed by the "FS!" prompt, you have copied a file drawer to floppy disks. When you see the next "FS!" prompt, you have copied a file drawer from the floppy disk to a volume.

If your server is also running PC File Service and you moved a file drawer that is shared by PC File Service users, next perform the "Creating directories and adding network resources" procedure at the PC File Service. See the PC File Service chapter later in this book for more information.

Examples

This screen shows copying a file drawer to floppy disks.

```
FS!Copy Container
  Select Volume
  1 Finance
  2 Planning
  Enter choice number: 1
  Enter full container pathname, beginning with file drawer name.
  Container: Project Reports
  Insert floppy disk
  Proceed (Y/N): Y
  Processing floppy...
  Split increment # 1 of 2-May-88 18:28:35 for Finance:West Coast:Acme complete.
  Insert another floppy
  Proceed (Y/N): Y
  Processing floppy...
  Split increment # 2 of 2-May-88 18:28:35 for Finance:West Coast:Acme complete.
  Done
  FS!
```

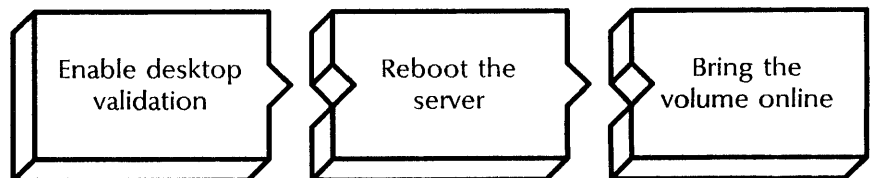
This screen shows copying a file drawer from floppy disks to a different volume. Feedback is suppressed.

```

FS!Restore Container
  Select Volume
  1 Finance
  2 Planning
  Enter choice number: 2
Restoring to volume Planning
Enter full container pathname, beginning with file drawer name.
  Container: Project Reports
  Restore using increment data from the volume? (Y/N): N
  Restore files through date: 28-May-88 13:47:34
  Confirm each restore (Y/N): N
  Suppress feedback (Y/N): Y
Restore backup increments in reverse order.
Please indicate the Backup source.
  Select Backup medium
  1 Floppy disk
  2 Rigid disk
  Enter choice number: 1
Insert floppy disk
  Proceed (Y/N): Y
Processing floppy...
Increment completed, ready for next increment.
  Proceed (Y/N): N
FS!

```

Validating desktops



Use this procedure to enable desktop validation. The desktop validation feature maintains the desktop directory of a File Service. It ensures that all desktops stored on the File Service are intact and usable.

When desktop validation is enabled, the File Service examines the desktop directory each time you bring the volume online. A message informs you if a desktop appears to be damaged and indicates the problem.

Desktop validation also deletes non-desktop files after you bring the File Service online again.

Step-by-step

1. Log on and enable.
2. Type **Change Profile** \leftarrow .

```
Section to be changed
1  File Service
2  < service name >
Enter choice number:
```

3. Type the number for the File Service \leftarrow .

```
Entry to be changed
1  Validate Desktops
Enter choice number:
```

4. Type the number for the "Validate Desktops" option \leftarrow .

```
Validate Desktops
1  TRUE
2  FALSE
Enter choice number:
```

5. Type the number for TRUE \leftarrow .
TRUE Enables desktop validation.
FALSE Disables desktop validation.

```
Entry to be changed
1  Validate Desktops
Enter choice number:
```

6. Press RETURN to display the profile menu. (Do not type a number.)

```
Section to be changed
1  File Service
2  < service name >
Enter choice number:
```

7. Press RETURN again to exit the **Change Profile** command.
8. Tell the logged on users you are taking the volume offline and ask them to log off.
9. When all users have logged off, type **Offline Volume** \leftarrow .

```

Select Volume
1 <volume name >
2 <volume name >
Enter choice number:

```

10. Type the number for the volume you are taking offline

```

Disconnect active users? (Y/N):

```

11. If no active users are listed, **skip to step 12**. Otherwise, type **Y** at the "Disconnect active users" prompt .
- Y** Disconnects users when their current action is complete.
- N** Continues to accept new connections.
12. Type **Online Volume** .

```

Select Volume
1 <volume name >
Enter choice number:

```

13. Type the number for the volume you are bringing online .

```

Bringing drive < # > online...
  Validating Clearinghouse entry for:
    < name:domain:organization >
  Done
Validating User Desktops...
...
Volume online.
FS!

```

14. Log off.

Wrap-up

When you see the message "Volume online," you have validated desktops and made the volume accessible to remote clients.

Example

This screen shows enabling desktop validation. Note that there are no active users. The File Service and Mail Service are installed on the server.

!Change Profile

Section to be changed

1 File Service

2 Mail Service

Enter choice number: **1**

Entry to be changed

1 Validate Desktops

Enter choice number: **1**

Validate Desktops

1 TRUE

2 FALSE

Enter choice number: **1**

Entry to be changed

1 Validate Desktops

Enter choice number:

Section to be changed

1 File Service

2 Mail Service

Enter choice number:

FS! Offline Volume

Select Volume

1 Finance

2 Planning

Enter choice number: **1**

No active users.

Done

FS! Online Volume

Select Volume

1 Finance

Enter choice number: **1**

Bringing drive 3 online...

Validating Clearinghouse entry for: Finance:Unit 3:Acme

Done

Validating User Desktops...

Gary C. Michaelson:Unit 3:Acme...ok

Liz Moorehead:Unit 3:Acme...

Desktop may be damaged; try restoring from backup of April 9, 1988.

Jon Williamson:Unit 3:Acme

Desktop may be damaged; desktop has never been backed up.

My old file...

Not a desktop; this object will be deleted.

4 desktops validated.

1 non-desktops deleted.

Volume online.

FS!

This chapter contains the procedures you perform to maintain the PC File Service (PCFS). These procedures are available using an 8000 or an 8090 server.



The term directory is used throughout this chapter to represent file drawers or folders.

Prerequisites

Complete these tasks before you perform any PC File Service maintenance procedures:

- Install all required software as described in the Server Software Installation chapter in the *Services Installation and Setup Guide*.
- Perform all setup procedures as described in the PC File Service chapter of the *Services Installation and Setup Guide*.

Maintenance for the PC File Service also includes backing up its database and monitoring the size of the backup file drawer. See the PC File Service chapter and the File Service chapter in the *Backup and Restore Guide*.

Commands

This section lists the commands you use to maintain your PC File Service. You must be in the PC File Service context to access these commands.

Table 7-1 shows the PC File Service maintenance commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 7-1. **PC File Service maintenance commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Directory					•	•
Add Net Share					•	•
Change Net Share					•	•
Close File					•	•
Copy Container					•	•
Delete Directory					•	•
List Directory			•	•	•	•
List Net Shares	•	•	•	•	•	•
List Open Files					•	•
Remove Net Share					•	•
Reset Statistics					•	•
Restore Container					•	•
Show Activity	•	•	•	•	•	•
Show Name Translation			•	•	•	•
Show Statistics	•	•	•	•	•	•

Add Directory Available to the enabled user. Creates directories on the PC File Service volume for use by PC clients (networked PC users). The directory may be a top-level directory (file drawer), or a subdirectory (folder).

Related procedure: Creating directories and adding network resources

Add Net Share Available to the enabled user. Adds a filing resource (a directory and all the files within it) to the list of network resources available for use by PC clients (networked PC users).

Related procedure: Creating directories and adding network resources

Change Net Share Available to the enabled user. Changes the password and/or access rights for network resources available to PC clients.

Related procedure: Changing network resources

Close File	Available to the enabled user. Closes files left open by PC clients. Related procedure: Listing and closing open files
Copy Container	Available to the enabled user. Copies directories to be moved. Related procedure: Moving directories to another volume
Delete Directory	Available to the enabled user. Deletes a directory and all the files within it from the server. Related procedure: Removing network resources and deleting directories
Expunge Service	Available to the enabled user. Removes the PC File Service from the server. Related procedure: Removing network resources and deleting directories
List Directory	Available to the logged on user. Shows the contents of a directory. This command does not show the contents of subdirectories. Related procedure: Listing directories and network resources
List Net Shares	Available to any user. Displays the list of available network resources. Related procedure: Listing directories and network resources
List Open Files	Available to the enabled user. Displays the list of files currently open. Related procedure: Listing and closing open files
Remove Net Shares	Available to the enabled user. Removes a resource from the list of resources available to PC clients. Related procedure: Removing network resources and deleting directories
Reset Statistics	Available to the enabled user. Resets the statistic counters for one or all of the PC File Service volumes. Related procedure: Showing activity and statistics
Restore Container	Available to the enabled user. Restores copies of directories onto a server. You must have copied the directories to a tape or floppy disk using the Copy Container command. Related procedure: Moving directories to another volume
Show Activity	Available to any user. Displays the list of current PC clients. Related procedure: Showing activity and statistics
Show Name Translation	Available to the logged on user. Displays filename translation from Xerox syntax and PC (MS-DOS) syntax. Related procedure: Showing name translation
Show Statistics	Available to any user. Provides information on how one or all PC File Service volumes are being used. Related procedure: Showing activity and statistics

Procedures

This section contains these procedures for maintaining the PC File Service:

Changing network resources

Use this procedure to change the password and access rights for any resource in use by PC clients (networked PC users). You can make these changes effective immediately, or make them effective for later use.

Creating directories and adding network resources

Use this procedure to create a directory and add it to the resources available for use by PC clients.

Listing and closing open files

Use this procedure to list any files currently open, and to close the open files.

Listing directories and network resources

Use this procedure to list existing directories and the directories available to PC clients. You can list all directories and files, or specific directories and files.

Moving directories to another volume

Use this procedure to copy and restore network resources from one location (volume) to another.

Removing network resources and deleting directories

Use this procedure to remove a directory from the list of resources available to PC clients, and then delete the directory.

Showing activity and statistics

Use this procedure to display activity, show statistics and to reset statistics counters to zero. You can show statistics for a specific volume or all volumes combined.

Showing name translation

Use this procedure to show the translated names of files and directory paths.

Changing network resources



This procedure lets you change the password and access rights for any network resource. You specify the network name of the resource as shown when it was originally added to the network, and specify a new password and/or access rights.

This command does not affect users currently connected to the network resource. If you want changes to the password and/or access rights to take effect immediately, first remove the resource from the list of network resources and then add it to the list of network resources with the new password and access rights.



The term subtree used throughout this procedure represents a network resource (a directory and all its subdirectories and files).

Prerequisites

Update the PC File Service Worksheet with any changes you are making to the following information:

- The network name of the resource
- The new password and/or access rights for the resource

Step-by-step

1. Log on and enable in the PC File Service context.
2. Type **Change Net Share** \Leftarrow .

Network name:

3. Type the network name for the resource you want to change \Leftarrow .

Subtree password (enter return for no password):

4. Type the new or current password \Leftarrow . To require no password, simply press RETURN.

Select subtree permissions

- 1 Read
- 2 Write
- 3 Read, Write
- 4 Write, Create
- 5 Read, Write, Create

Enter choice number:

5. Press RETURN to retain the current access rights to the resource, or type the number for the access rights **⇐**.



The default number for access rights (1-5) represents your previous choice. You can select a different number or press RETURN to keep the original access rights.

Confirm these changes (Y/N):

6. Type **Y** or **N** at the "Confirm these changes" prompt **⇐**.
 - Y** Changes the password and access rights
 - N** Cancels the procedure

Wrap-up

When you see the PCFS! prompt, you have changed the network resource.

Inform PC clients of the changes to the available resources.

Example

This example shows changing the password and access rights for the network resource with the pathname Accounts/Receive.

PCFS!Change Net Share

Network name: **Accounts/Receive**

Subtree password (enter return for no password):

Select subtree permissions

1 Read

2 Write

3 Read, Write

4 Write, Create

5 Read, Write, Create

Enter choice number: **5**

Confirm these changes (Y/N): **Y**

PCFS!

Creating directories and adding network resources



Use this procedure to create a directory and, if desired, to add it to the network as a new resource for use by PC clients. All directories in the path to this new directory must already exist.

Prerequisites

- Update the PC File Service Worksheet with any changes you are making to the following information:
 - The complete pathname of the new directory you want to make available
 - The access rights and optional short name for the directory
- Use the **List Volume** command to display the amount of space available. See the File Service chapter in the *Guide to System Administration Activities* for information on increasing the size of the file drawer.
- Check with PC clients to make sure files are not being used before you delete a directory.

Step-by-step

1. Log on and enable in the PC File Service context.
2. Type **Add Directory** .

```
Select Volume
1 <volume name >
2 <volume name >
3 <volume name >
Enter choice number:
```

3. If the PC File Service is running on a multiple-drive server, type the number for the volume and press RETURN. If the PC File Service is running on a single-drive server, **skip to step 4**.

```
Please enter the directory pathname in Xerox form.
Directory pathname:
```

4. Type the complete pathname of the new directory . Use a slash to separate the name of each directory level.
If you want to add the directory to the network as a new resource, **continue with step 5**. If not, **skip to step 14**.

```
Done.
PCFS!
```

5. Type **Add Net Share** \Leftarrow .

Select Volume
1 <volume name >
2 <volume name >
3 <volume name >
Enter choice number:

6. If the PC File Service is running on a multi-drive server type the number of the volume and press RETURN. If the PC File Service is running on a single-drive server, **go to step 7**.

Please enter the directory pathname in Xerox form.
Directory pathname:

7. Type the complete pathname for the resource you want to make available and press RETURN. Use a slash to separate the name of each directory level.

What should be used for the network name?
1 The directory pathname
2 A shortname
Enter choice number:

8. Type the number for the form of name you want PC clients to use to access the resource \Leftarrow . If you enter **1** and the pathname is less than eight characters, **skip to step 10**. If you enter **2** or the pathname is longer than eight characters, **continue with step 9**.

Shortname:

9. Type the short name you want PC clients to use to access the resource and press RETURN.

Subtree password (enter RETURN for no password):

10. Type the password you want PC clients to enter to access the resource and press RETURN, or press RETURN to require no password.

Select subtree permissions
1 Read
2 Write
3 Read, Write
4 Write, Create
5 Read, Write, Create
Enter choice number:

11. Type the number for the access rights to the directory ⇐.

Confirm addition of net share (Y/N): Y

12. Press RETURN to accept the default, or type N at the "Confirm addition of net share" prompt ⇐.

- Y Adds the directory as a resource PC clients can access
N Cancels the process so you can begin again

Done. <network name> has been added.
Add another net share (Y/N): N

13. Press RETURN to accept the default, or type Y at the "Add another net share" prompt ⇐.

- Y Lets you add another directory to the network resources. Return to step 7.
N Ends the procedure.

14. Log off.

Wrap-up

If you added a directory as a network resource, inform PC clients of the new resource available to them. They need to know the network name, service name, access rights, and password, if applicable.

Example

This example shows creating a directory named Account/Receivable, and adding to the network as a resource. The directory is given the short name AcctRec, a password and full access rights for PC clients.

PCFS!Add Directory

Select Volume

- 1 Finance
- 2 Planning
- 3 Correspondence

Enter choice number: **1**

Please enter the directory pathname in Xerox form.

Directory pathname: **Account/Receivable**

Done.

PCFS!Add Net Share

Select Volume

- 1 Finance
- 2 Planning
- 3 Correspondence

Enter choice number: **1**

Please enter the directory pathname in Xerox form.

Directory pathname: **Account/Receivable**

What should be used for the network name

- 1 The directory pathname
- 2 A shortname

Enter choice number: **2**Shortname: **AcctRec**Subtree password (enter **RETURN** for no password): ****

Select subtree permissions

- 1 Read
- 2 Write
- 3 Read, Write
- 4 Write, Create
- 5 Read, Write, Create

Enter choice number: **5**Confirm addition of net share (Y/N): **Y**

Done. ACCTREC has been added.

Add another net share (Y/N): **N**

PCFS!

Listing and closing open files



Use this procedure to list open files, and close open files not in use. If a file is not in use but remains open, other PC clients cannot access it.

Prerequisites

- Update the PC File Service Worksheet with any changes you are making to the following information:
 - The complete pathname of the file you want to close
- Check with PC clients to make sure the file is not being used before using the command to close the file.

Step-by-step

1. Log on and enable in the PC File Service context.
2. Type **List Open Files** \leftarrow .

```
<All open files are listed, showing name, record locks, and
current users.>
PCFS!
```

3. Type **Close File** \leftarrow .

```
Select Volume
1 <volume name>
2 <volume name>
3 <volume name>
Enter choice number:
```

4. If the PC File Service is running on a multiple-drive server, type the number for the volume and press RETURN. If the PC File Service is running on a single-drive server, **skip to step 5**.

```
Please enter the file pathname in Xerox form.
File pathname:
```

5. Type the complete pathname of the file you want to close and press RETURN. Use slashes to separate each directory level.

```
PCFS!
Done.
```

Wrap-up

When you see the message "Done," you have listed all open files and closed selected open files.

Example

This example shows listing the open file RCVPROG.KAL, and then closing it.

```
PCFS!List Open Files
RCVPROG.KAL
  Volume name:      Cambridge
  File pathname:    Harvard
  Record locks:     3
  Users:            PC11, PC2, PC4
PCFS!Close Open Files
  Select Volume
  1 Finance
  2 Planning
  3 Correspondence
  Enter choice number: 1
  Please enter the file pathname in Xerox form.
  File pathname: Account/Receive/RCVPROG.KAL
Done.
PCFS!
```

Listing directories and network resources



Use this procedure to list files within a directory and directories available to networked PC clients. You can list all or specific file and directories.

Prerequisites

Update the PC File Service Worksheet with any changes you are making to the following information:

- The existing filename
- The complete pathname and network name of any resource you want to list

Step-by-step

1. Log on in the PC File Service context.
2. Type **List Directory** \leftarrow .

```
Select Volume
1 <volume name >
2 <volume name >
3 <volume name >
Enter choice number:
```

3. If the PC File Service is running on a multiple-drive server, type the number for the volume and press RETURN. If the PC File Service is running on a single-drive server, **skip to step 4.**

```
Please enter the directory pathname in Xerox form.
Directory pathname:
```

4. Press RETURN to list the contents of the volume's root directory or, type the complete pathname of the directory whose contents you want to list and press RETURN. Use slashes to separate each directory level.

```
File name: *
```



A wildcard character (*) appears as the default for the filename.

5. Press RETURN to accept the default and list all files in the directory, or type a filename or wildcard pattern \leftarrow .

```
< file information >
Total number of files in directory: < number >
PCFS!
```

6. Type **List Net Shares** \leftarrow .

Network Name: *

NOTE

A wildcard character (*) appears as the default for the network name.

7. Press RETURN to accept the default, or type a network name or a wildcard pattern.

Wrap-up

When you see the PCFS> prompt, you have listed all (or specific) files or network resources available within a specified directory.

Example

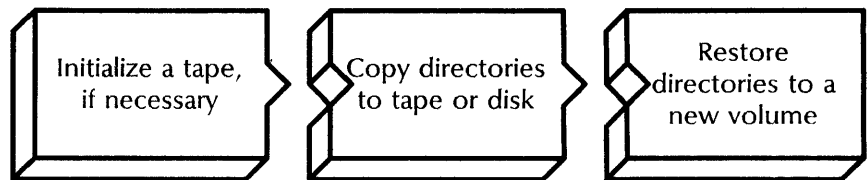
This example shows listing the files available within the Account directory. It also shows listing the directories available to PC clients.

```

PCFS> List Directory
Select Volume
 1 Finance
 2 Planning
 3 Correspondence
Enter choice number: 1
Please enter the directory pathname in Xerox form.
Directory pathname: Account/Receivable
File name: *
Name      Version  Size in bytes  Created
85 Report  1         23196         10-Oct-85 13:31
86 Report  2         43754         22-Jan-87 09:45
Total number of files in directory: 2
PCFS> List Net Shares
Network Name: *
PAC
Volume name:      Harvard
Directory pathname: pac!1
Access:           Read, Write, Create
Current users:    None
GEG
Volume name:      Cambridge
Directory pathname: Harvard!1
Access:           Read, Write, Create
Current users:    None
PCFS>

```

Moving directories to another volume



If you have a multiple-drive server, you can move directories to another volume to recover PC File Service disk space.



Use the **List Volumes** command to check the number of available pages on your volume. If a volume regularly becomes more than 90 percent full, consider expansion to an additional or larger capacity server.

Prerequisites

- If you have an 8090 server, format your tapes. See the File Service chapter "Formatting a cartridge tape" procedure in the *Backup and Restore Guide*.
- Remove the directory from the list of available resources (see the "Removing network resources and deleting directories" section in this chapter).
- Update the PC File Service Worksheet with any changes you are making to the following information:
 - The complete pathname for the directory you are copying



Use the **List Directory** command to check the correct spelling of the container name. You can use the wildcard (*) to specify the names to be listed.



CAUTION: If a directory with the same name exists on the new volume, you see a warning message and the directory is not copied. Go to a workstation and check that the contents of the two directories are the same before you delete the directory on the new volume.



CAUTION: If you want to copy directories to a tape containing obsolete data, initialize the tape during the copy container operation to erase that data.

Step-by-step for cartridge tape

1. Log on and enable in the PC File Service context at the server where the directory resides.
2. Type **Copy Container**

```

Select Volume
1 <volume name >
2 <volume name >
Enter choice number:
  
```

3. Type the number for the volume you want to copy .

Enter full container name, beginning with file drawer name.
Container:

4. Type the complete pathname of the directory and press RETURN. Use a slash to separate the name of each directory level.

NOTE

If the name includes the diagonal slash (/), exclamation point (!), asterisk (*), pound sign (#), apostrophe ('), or parentheses (), precede that character with a single quotation mark, for example, 04'/28'/84'/Birthday.

Insert tape cartridge

5. Insert the cartridge tape into the server drive.

Proceed (Y/N):

6. Type **Y** at the "Proceed" prompt .
Y Continues the procedure.
N Cancels the procedure.

This tape is named < tape name >
Select initialization choice
1 Append to existing data on tape
2 Initialize tape
3 Format and initialize tape
Enter choice number:

7. If you need to initialize your tape, type **2** for the "Initialize tape" option and press RETURN. If your tape has already been initialized, type **1** for the "Append to existing data on tape" option and **skip to step 10**.
1 Copies the container at the end of a previously formatted, initialized tape.
2 Removes all data on the tape (which takes from 1 to 5 minutes) before copying the container.
3 Formats and removes all data on the new tape (which takes about 60 minutes) before copying the container.

Warning: Initializing a tape will delete any files that are on the tape.
Proceed (Y/N)?

8. Type **Y** at the "Proceed" prompt ↵.
Y Continues the procedure.
N Cancels the prompt.

```
A second confirmation is required to destroy data on this
tape.
Proceed (Y/N)?
```

9. Type **Y** at the second "Proceed" prompt ↵.

```
Enter new tape name:
```

10. Type the new name of the tape ↵.

```
Initializing tape volume...done
Copy container is starting...
Done
```

11. Remove the cartridge tape when the copy procedure is complete.
12. Repeat steps 5 through 10 for each tape required to copy the directory.

```
Done
PCFS!
```

13. Log off.
14. Log on and enable in the PC File Service context at the server where you are moving the directories.
15. Type **Restore Container** ↵.

```
Select Volume
1 <volume name >
2 <volume name >
Enter choice number:
```

16. Type the number for the volume to which you want to restore the directory ↵.

```
Restoring to volume <volume name >
Enter full container name, beginning with file drawer name.
Container:
```

17. Type the complete pathname of the directory and press RETURN. Use a slash to separate the name of each directory level.

NOTE

If the name includes the diagonal slash (/), exclamation point (!), asterisk (*), pound sign (#), apostrophe ('), or parentheses (), precede that character with a single quotation mark; for example, 04'/28'/84'/Birthday.

Restore using increment data from this volume? (Y/N):

18. Type **N** at the "Restore using increment data from this volume" prompt .

Y Displays the tape to insert.

N Does not display the tape to insert.

Restore files through date:

19. Type today's date at the "Restore files through date" prompt and press RETURN. To restore the latest state of the volume, simply press RETURN.

Confirm each restore (Y/N):

20. Type **N** at the "Confirm each restore" prompt .

Y Requires confirmation to restore each file as it is listed.

N Restores each file without confirmation.

Suppress feedback (Y/N):

21. Type **Y** or **N** at the "Suppress feedback" prompt .

Y Does not list the files being restored.

N Lists the files being restored.

Restore backup increments in reverse order.

Please indicate the Backup source.

Select Backup medium

1 Rigid disk

2 Tape

Enter choice number:

22. Type the number for tape .

1 Refers to a hard disk.

2 Refers to a cartridge tape.

Insert tape cartridge containing increment closest to
< date > < time >

23. Insert the cartridge tape into the server drive.

Proceed (Y/N):

24. Type **Y** at the "Proceed" prompt .

Y Continues the procedure.

N Cancels the procedure.

Restore from increment

1 < date > < time > from < volume:domain:organization >
Created by incremental Backup (complete)

2 < date > < time > from < volume:domain:organization >
Created by incremental Backup (complete)

Enter choice number:

25. Type the number for the increment you want to restore .

Backup increment of < date > < time >

on tape < tape name >

Skip this backup increment (Y/N):

26. Type **N** at the "Skip this backup increment" prompt .

Y Does not restore the increment.

N Restores the increment.

Done.

PCFS!

27. Log off.

Wrap-up

When you see the message "Done," the procedure is complete.

Examples

This example shows copying a directory to a cartridge tape.

```
PCFS!Copy Container
  Select Volume
  1 Finance
  2 Planning
  Enter choice number: 1
  Enter full container name, beginning with file drawer name.
  Container: Spreadsheet/Accounts
  Insert tape cartridge
  Proceed (Y/N): Y
  This tape is named Archive 1-May-87
  Select initialization choice
  1 Append to existing data on tape
  2 Initialize tape
  3 Format and initialize tape
  Enter choice number: 1
  Warning: Initializing a tape will delete any files that are on the tape.
  Proceed (Y/N)? Y
  A second confirmation is required to destroy data on this tape.
  Proceed (Y/N)? Y
  Enter new tape name: Archive 22-May-87
  Initializing tape volume...done.
  Copy Container is starting...
  Done
  PCFS!
```

This example shows copying the directory from the cartridge tape to a different volume.

PCFS!Restore Container

Select Volume

- 1 Finance
- 2 Planning

Enter choice number: **2**

Restoring to volume Planning

Enter full container name, beginning with file drawer name.

Container: **Spreadsheet/Accounts1**

Restore using increment data from the volume? (Y/N): **N**

Restore files through date: **28-May-87 13:47:34**

Confirm each restore (Y/N): **N**

Suppress feedback (Y/N): **N**

Restore backup increments in reverse order.

Please indicate the Backup source.

Select Backup medium

- 1 Rigid disk
- 2 Tape

Enter choice number: **2**

Insert tape cartridge containing increment closest to 28-May-87 13:47:34

Proceed (Y/N): **Y**

Restore from increment

- 1 28-May-87 11:35:21 from Planning:Western Region:Acme
Created by incremental Backup (complete)
- 2 28-May-87 11:34:21 from Planning:Western Region:Acme
Created by incremental Backup (complete)

Enter choice number: **1**

Backup increment of 28-May-87 11:35:21 on tape File Drawer 1 22-May-87

Skip this backup increment (Y/N): **N**

Processing tape (this may take a while)...

Done.

PCFS!

Step-by-step for floppy disk

1. Log on and enable in the PC File Service context at the server where the directory resides.
2. Type **Copy Container** .

```
Select Volume
1 <volume name >
2 <volume name >
Enter choice number:
```

3. Type the number for the volume containing the directory you want to copy .

```
Enter full container pathname, beginning with file drawer
name.
Container:
```

4. Type the pathname of the directory and press RETURN. Use a slash to separate the name of each directory level.

NOTE

If the name includes the diagonal slash (/), exclamation point (!), asterisk (*), pound sign (#), apostrophe ('), or parentheses (), precede that character with a single quotation mark; for example, 04'/28'/84'/Birthday.

```
Select Backup Medium
1 Floppy disk
2 Rigid disk
Enter choice number:
```

5. Type the number to select the floppy disk .

```
Insert floppy disk
```

6. Insert the floppy disk into the server drive.

NOTE

The floppy disk does not need to be pre-formatted.

```
Proceed (Y/N):
```

7. Type **Y** at the "Proceed" prompt .
 - Y** Continues the procedure.
 - N** Cancels the procedure.
8. Remove the floppy disk when the copy procedure is complete.

9. Repeat steps 6 through 8 for each floppy disk required to copy the directory.

Done
PCFS!

10. Log off.
11. Log on and enable in the PC File Service context at the server to which you are moving the directory.
12. Type **Restore Container** ↵.

Select Volume
1 <volume name >
2 <volume name >
Enter choice number:

13. Type the number for the volume to which you want to restore the directory ↵.

Restoring to volume <volume name >
Enter full container pathname, beginning with file drawer name.
Container:

14. Type the pathname of the directory and press RETURN. Use a slash to separate the name of each directory level.

NOTE

If the name includes the diagonal slash (/), exclamation point (!), asterisk (*), pound sign (#), apostrophe ('), or parentheses (), precede that character with a single quotation mark; for example, 04'/28'/84'/Birthday.

Restore files through date:

15. Type the date and time and press RETURN. To restore the latest state of the volume, simply press RETURN.

Confirm each restore (Y/N):

16. Type **N** at the "Confirm each restore" prompt ↵.
Y Requires confirmation to restore each file as it is listed.
N Restores each file without confirmation.

Suppress feedback (Y/N):

17. Type **Y** or **N** at the "Suppress feedback" prompt .
- Y** Does not list the files being copied.
 - N** Lists the files being copied.

Restore using increment data from this volume? (Y/N):

18. Type **N** at the "Restore using increment data from this volume" prompt .
- Y** Displays the floppy disk to insert.
 - N** Does not display the floppy disk to insert.

Restore backup increments in reverse order.
Please indicate the Backup source.
Select Backup medium
1 Floppy disk
2 Rigid disk
Enter choice number:

19. Type the number for floppy disk .
20. Insert the floppy disk into the server drive.

Proceed (Y/N):

21. Type **Y** at the "Proceed" prompt .
- Y** Continues the procedure.
 - N** Cancels the prompt.

Restore file (Y/N):

22. If you typed **N** in step 16, this prompt does not appear; skip to step 23. If you typed **Y** in step 16, type **Y** or **N** at each "Restore file" prompt .
- Y** Copies the file.
 - N** Does not copy the file.

Insert floppy disk

23. Remove the floppy disk from the server drive.
24. Repeat steps 20 through 23 for each floppy disk you are copying.

Proceed (Y/N):

25. Type **Y** or **N** at the "Proceed" prompt .
- Y** Continue with step 26.
- N** Ends the procedure.

Continue with Restore (Y/N):

26. Type **Y** or **N** at the "Continue.." prompt .
- Y** Repeat steps 23 through 25 for each floppy disk.
- N** Ends the procedure.
27. Log off.

Wrap-up

When you see the message "Done", you have moved directories to another volume. Now add the directory as a network resource to the new volume and inform PC clients of the change.

Examples

This example shows copying a directory to floppy disks.

```

PCFS!Copy Container
  Select Volume
    1 Finance
    2 Planning
  Enter choice number: 1
  Enter full container pathname, beginning with directory name.
  Container: Spreadsheet/Accounts
  Select Backup Medium
    1 Floppy disk
    2 Rigid disk
  Enter choice number: 1
  (Insert floppy disk)
  Proceed (Y/N): Y
  Processing floppy disk...
  Split increment # 1 of 2-May-87 18:28:35 for Finance:West Coast:Acme complete.
  Insert another floppy disk
  Proceed (Y/N): Y
  Processing floppy disk...
  Split increment # 2 of 2-May-87 18:28:35 for Finance:West Coast:Acme complete.
  Done
  PCFS!

```

This example shows copying the directory from floppy disks to a different volume.

```
PCFS!Restore Container
  Select Volume
    1 Finance
    2 Planning
  Enter choice number: 2
Restoring to volume Planning
Enter full container pathname, beginning with directory name.
  Container: Spreadsheet/Accounts
  Restore files through date: 28-May-87 13:47:34
  Confirm each restore (Y/N): N
  Suppress feedback (Y/N): N
  Restore using increment data from the volume? (Y/N): N
Restore backup increments in reverse order.
Please indicate the Backup source.
  Select Backup medium
    1 Floppy disk
    2 Rigid disk
  Enter choice number: 1
  (Insert floppy disk)
  Proceed (Y/N): Y
Processing floppy disk...
Increment completed, ready for next increment.
Insert floppy disk
  Proceed (Y/N): Y
Processing floppy disk...
Increment completed, ready for next increment.
Increment completed, ready for next increment.
  Continue with Restore (Y/N): N
Done.
PCFS!
```


Removing network resources and deleting directories



Use this procedure to remove the directory from the list of resources available to PC clients and, if desired, to delete the directory. In this way, the resource cannot be accessed during the deletion process.

Prerequisites

- Update the PC File Service Worksheet with any changes you are making to the following information:
 - The complete pathname and network name for the existing directory
- Check with PC clients to make sure files are not being used before you delete a directory.

Step-by-step

1. Log on and enable in the PC File Service context.
2. Type **Remove Net Share**

Network name:

3. Type the network name as shown when the resource was added to the network .

Confirm (Y/N):

4. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Waits until no clients are using the directory, then removes the resource from the network.
 - N** Cancels the process.

The network name is currently in use. Disconnect active users? (Y/N):

5. Type **Y** or **N** at the "Disconnect active users" prompt .
 - Y** Disconnects active clients and removes the resource from the network.
 - N** Cancels the process.

If you only want to remove the resource from the network, then the procedure is complete. If not, **continue with step 6** to delete the directory from the PC File Service.

Done.
PCFS!

6. Type **Delete Directory** .
7. If the PC File Service is running on a multiple-drive server, type the number for the volume and press RETURN. If the

Select Volume

1 <volume name >
 2 <volume name >
 3 <volume name >
 Enter choice number:

PC File Service is running on a single-drive server, **skip to step 8.**

Please enter the directory pathname in Xerox form.
 Directory pathname:

8. Type the complete pathname of the directory you want to delete and press RETURN. Use a slash to separate the name of each directory level.

The directory is not empty. Delete it anyway? (Y/N):

9. Type **Y** or **N** at the "Delete it anyway" prompt \Leftarrow .
- Y** Deletes the directory, including all files if the directory is no longer a network resource.
 - N** Cancels the process so you can begin again.

NOTE

If you type **Y** and the directory and all its subdirectories are not a network resource, the procedure is complete. If you type **Y** and the directory or one of its subdirectories is a resource to networked PC clients, **go to step 10.**

The directory or one of its descendants is being offered to the network.
 Delete the directory anyway? (Y/N):

10. Type **Y** or **N** at the second "Delete it anyway" prompt \Leftarrow .
- Y** Deletes the directory, including all files.
 - N** Retains the directory.

NOTE

If you enter **Y** and you receive the message, "This directory is in use. Try again later. Directory not deleted.", return to step 2 to first remove the directory as a resource, and then delete the directory.

Done.
 PCFS!

Wrap-up

When you see the PCFS! prompt, you have removed a directory (and associated files) from the list of resources available to PC clients, and may have deleted the directory from the PC File Service.

Inform PC clients of the change in available network resources.

Example

This example shows removing the Forms/Common directory from the list of resources available to PC clients. The Forms/Common directory is then deleted from the Finance volume root directory.

PCFS!Remove Net Share

Network name: **Forms/Common**

Confirm (Y/N): **Y**

The network name is currently in use. Disconnect active users? (Y/N): **Y**

Done.

PCFS!Delete Directory

Select Volume

1 Finance

2 Planning

3 Correspondence

Enter choice number: **1**

Please enter the directory pathname in Xerox form.

Directory pathname: **Forms/Common**

The directory is not empty. Delete it anyway? (Y/N): **Y**

The directory or one of its descendants is currently being offered to the network.

Delete the directory anyway? (Y/N): **Y**

Done.

PCFS!

Showing activity and statistics



Use this procedure to show activity as well as to let you see PC File Service statistics for one volume or all volumes combined. After examining the statistics, you reset the statistics counters to zero on one volume or all volumes combined.

Prerequisites

Update the PC File Service Worksheet with any changes you are making to the following information:

- The name of the volume

Step-by-step

1. Log on and enable in the PC File Service context.
2. Type **Show Activity** ↵.

```
<All user activity is shown.>
PCFS!
```

3. Type **Show Statistics** ↵.

```
Select:
1 Show statistics for all volumes combined
2 Show statistics for a single volume
Enter choice number:
```

4. Type **1** or **2** ↵.
 - 1 Displays statistics for all volumes.
 - 2 Displays statistics for a specified volume.

NOTE

If you type **1**, **continue with step 6**. If you type **2**, **continue with step 5**.

```
Select volume:
1 <volume name >
2 <volume name >
Enter choice number:
```

5. If the PC File Service is running on a multiple-drive server, type the number for the volume and press RETURN. If the PC File Service is running on a single-drive server, **skip to step 6**.

```
<Volume statistics are shown.>
PCFS!
```

6. Type **Reset Statistics** \leftarrow .

Select:

- 1 Reset statistics for all volumes combined
- 2 Reset statistics for a single volume

Enter choice number:

7. Type **1** or **2** \leftarrow .

- 1** Resets the statistic counters for all volumes.
- 2** Resets the statistic counters for a specified volume.

NOTE

If you type **1**, **skip to step 9**. If you type **2**, **continue with step 8**.

Select volume:

- 1 < volume name >
- 2 < volume name >

Enter choice number:

8. Type the number for the volume \leftarrow .

Confirm? (Y/N):

9. Type **Y** or **N** at the "Confirm" prompt \leftarrow .

- Y** Resets the counters to zero
- N** Cancels the process

Wrap-up

When you see the PCFS! prompt, you have shown activity, listed statistics and reset the statistic counters for one or all volumes.

Example

This example shows current activity, the statistics for the Finance volume, and resetting the statistic counters for that volume.

PCFS!Show Activity

User Name	Start Time	Last Action
PC11	10-Jan-86 13:00:09	10-Jan-86 15:45:15
PC2	11-Jan-86 09:42:32	11-Jan-86 11:41:18

PCFS!Show Statistics

Select:

- 1 Show statistics for all volumes combined
- 2 Show statistics for a single volume

Enter choice number: **2**

Select volume

- 1 Finance
- 2 Planning

Enter choice number: **1**

PC File Service statistics for volume Finance since reset
February 9, 1985 08:51:37

- 42 Start Connection operations
- 36 Open operations
- 29 List operations
- 9 Create operations
- 4 Delete operations
- 14 Store operations
- 37 Retrieval operations

PCFS!Reset Statistics

Select:

- 1 Reset statistics for all volumes combined
- 2 Reset statistics for a single volume

Enter choice number: **2**

Select volume

- 1 Finance
- 2 Planning

Enter choice number: **1**Confirm (Y/N): **Y**

Done.

PCFS!

Showing name translation



Use this procedure to display the names of files and directory paths translated from Xerox or PC (MS-DOS) syntax.

Prerequisites

Update the PC File Service Worksheet with any changes you are making to the following information:

- The pathname of the existing file, the directory pathname, or the network name

Step-by-step

1. Log on in the PC File Service context.
2. Type **Show Name Translation** .

Select:

- 1 Show the translated name of a file
- 2 Show the translated name of an existing path
- 3 Show the existing paths that translate into a given translated pathname

Enter choice number:

3. Type **1, 2, or 3** .

NOTE

If you type **1**, complete the procedure at step 4. If you type **2**, complete the procedure at steps 5 and 6. If you type **3**, complete the procedure at steps 7 and 8.

File name:
File version:

4. Type the file name and version you want to see translated .

Network name:

5. Type the network name .

Please enter the file pathname in Xerox form
File pathname (relative to network name):

6. Type the relative pathname for the existing file and press RETURN. Use slashes to separate the name of each directory level.

Network name:

7. Type the network name \leftarrow .

Please enter the file pathname in PC form
Translated pathname (relative to network name):

8. Type in PC syntax the file pathname \leftarrow .

Wrap-up

When you see PCFS! prompt, you have shown the translated name of a file or directory path or the existing files that translate into the same name.

Example

This example shows the name of a file translated from Xerox syntax displaying to MS-DOS syntax.

PCFS! Show Name Translation

Select:

- 1 Show the translated name of a file
- 2 Show the translated name of an existing path
- 3 Show the existing paths that translate into a given translated pathname

Enter choice number: **1**

File name: **Account;Rec**

File version: **2**

The translated name is ACCOUNTR.M02

PCFS!

This chapter contains the procedures you perform to maintain the Librarian Service (LS). These procedures are available using an 8000 or an 8090 server.

Maintenance for the Librarian Service also includes backing up the database. See the Librarian Service chapter in the *Backup and Restore Guide*.

Prerequisites

Complete these tasks before you perform any Librarian Service maintenance procedures:

- Install all required software as described in the Server Software Installation chapter of the *Services Installation and Setup Guide*.
- Perform all setup procedures as described in the Librarian Service chapter of the *Services Installation and Setup Guide*.

Commands

This section lists the commands you use to maintain the Service. You must be in the Librarian Service context to access these commands.

Table 8-1 shows the commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 8-1. **Librarian Service maintenance commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Backup Databases					•	
Checkin Libject					•	
Create Database					•	
Destroy Database						•
List Databases	•		•		•	
Recover Database					•	
Register Database					•	
Set Authentication Level					•	
Set Backup Path					•	
Set Readers					•	
Set Writers					•	
Start Service					•	•
Stop Service					•	•
Toggle Tracing			•	•	•	•
Unregister Database					•	

Backup Databases Available to the enabled user when the Librarian Service is started. Starts the backup process.

Related procedure: Moving a database

Checkin Libject Available to the enabled user when the Librarian Service is started. Returns the library object (libject) to the database.

Related procedure: Checking in a library object

Create Database Available to the enabled user when the Librarian Service is started. Creates and names the Librarian Service database.

Related procedure: Moving a database

Destroy Database Available to the enabled user when the Librarian Service is stopped. Removes all files associated with the database you specify. Any remote backup versions of the database must be deleted separately.

Related procedures: Deleting a database, Moving a database

List Databases	Available to any user when the Librarian Service is started. Lists each database. Optionally, lists the sizes and dates of the three files for each database and all database parameter settings such as the users with read and write access rights, the authentication level, and the backup pathname. Related procedure: Listing database names and parameters
Recover Database	Available to the enabled user when the Librarian Service is started. Retrieves a copy of the database from a remote location. Related procedure: Moving a database
Register Database	Available to the enabled user when the Librarian Service is started. Registers the name of the database with the Clearinghouse Service. Related procedure: Moving a database
Set Authentication Level	Available to the enabled user when the Librarian Service is started. Defines the level of authentication required for database access. Related procedure: Moving a database
Set Backup Path	Available to the enabled user when the Librarian Service is started. Provides the pathname to a remote backup location and specifies the number of copies to store. Related procedure: Moving a database
Set Readers	Available to the enabled user when the Librarian Service is started. Identifies the user or group that can view the database. Related procedure: Moving a database
Set Writers	Available to the enabled user when the Librarian Service is started. Identifies the user or group that can update the database. Related procedure: Moving a database
Start Service	Available to the enabled user when the Librarian Service is started or stopped. Starts a service. Related procedures: Deleting a database, Moving a database
Stop Service	Available to the enabled user when the Librarian Service is started or stopped. Stops a service. Related procedures: Deleting a database, Moving a database
Toggle Tracing	Available to the logged on user when the Librarian Service is started or stopped. Turns the tracing feature on or off. If tracing is on, messages indicate the opening and closing of sessions and the user's name. Related procedure: Monitoring session activity
Unregister Database	Available to the enabled user when the Librarian Service is started. Removes the database name from the Clearinghouse. Related procedures: Deleting a database, Moving a database

Procedures

This section contains these procedures for maintaining the Librarian Service:

Checking in a library object

Use this procedure to check in a library object to the database, making it available to other users.

Deleting a database

Use this procedure to delete the database from the Librarian Service and remove its name from the Clearinghouse.

Listing database names and parameters

Use this procedure to list the database names. You can also list the size of each database file, the date it was created, and the parameters of the database file.

Monitoring session activity

Use this procedure to turn the tracing feature on or off.

Moving a database

Use this procedure to move a database from one server to another.

Checking in a library object



Use this procedure to check in a library object, making it available to other applications such as Shared Books. Perform this procedure only if required. See the Shared Books information in the VP Series Reference and Procedures Library for more information.

Prerequisites

- Know the name of the database.
- Know the name of the library object to check in.
- Notify users when you plan to perform this procedure so they do not attempt to access the database at that time.
- Ensure that the database is not currently being backed up.

Step-by-step

1. Log on and enable in the Librarian Service context.
2. Type **Checkin Libject** \Leftarrow .

```
Which database?
1 <database name>
2 <database name>
Enter choice number:
```

3. Type the number of the database where you want to check in the library object \Leftarrow .

```
Libject name:
```

4. Type the name of the library object you want to return to the database \Leftarrow .

```
Checking in <name> ... done.
LS!
```

5. Log off.

Wrap-up

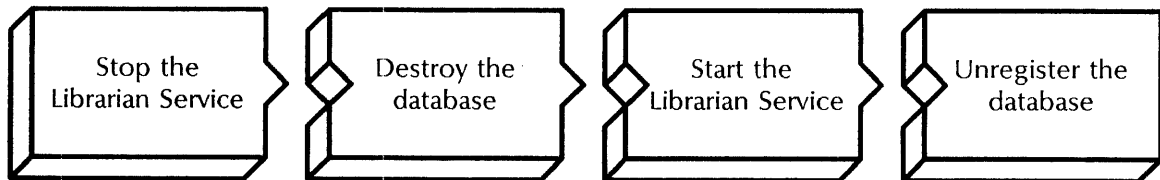
When you see the "LS!" prompt, you have checked in a library object and made it available to other users.

Example

This screen shows checking in a library object.

```
LS!Checkin Libject
  Which database?
  1  Research
  2  Clippings
  3  Statistics
Enter choice number: 2
Libject name: 7FC80-03345-03EF0-D323-765B
Checking in 7FC80-03345-03EF0-D323-765B ... done.
LS!
```

Deleting a database



Use this procedure to delete the database from the Librarian Service and remove its name from the Clearinghouse. Any backup versions of the database must be deleted separately.

Prerequisites

- Know the name of the database you want to remove.
- Notify users when you plan to stop the service.
- Ensure that no one is actively using the database.

Step-by-step

1. Log on and enable in the Librarian Service context.
2. Type **Stop Service** .

```
Select choices
1  Librarian Service
2  <service name>
Enter one or more choices:
```

3. Type the number for the Librarian Service .

```
LS: Stop immediately? (Y/N):
```

4. Type **Y** or **N** at the “Stop immediately” prompt .
- Y** Stops the service and disconnects active users.
- N** Stops the service gradually, allowing all user sessions to complete before stopping.

Stopping Librarian Service.
LS!

5. Type **Destroy Database** ↵.

Database name
1 <name >
2 <name >
Enter choice number:

6. Type the number for the database you want to delete ↵.

Destroy <name >. Confirm (Y/N):

7. Type **Y** or **N** at the "Confirm" prompt ↵.

Y Destroys the three database files.

N Does not destroy the database and cancels the command.

Destroying '<name >' ... done.
LS!

8. Type **Start Service** ↵.

Select choices
1 Librarian Service
Enter one or more choices:

9. Type the number of the Librarian Service ↵.

Starting Librarian Service.
LS!

10. Type **Unregister Database** ↵.

Database name:

11. Type the name of the database you want to remove ↵.

Unregistering '<name >' ... done.
LS!

12. Log off.

Wrap-up

When you see the message "Unregistering <database name> ... done," you have deleted the three files associated with a Librarian Service database and removed its name from the Clearinghouse.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows deleting a Librarian Service database.

```
LS!Stop Service
Select choices
1  Librarian Service
2  Internetwork Routing Service
Enter one or more choices: 1
LS: Stop immediately? (Y/N): Y
Stopping Librarian Service.
LS!Destroy Database
Database name
1  Research
2  Clippings
Enter choice number: 1
Destroy Research. Confirm (Y/N): Y
Destroying 'Research' ... done.
LS!Start Service
Select choices
1  Librarian Service
Enter one or more choices: 1
Starting Librarian Service.
LS!Unregister Database
Database name: Research
Unregistering 'Research' ... done.
LS!
```


Listing database names and parameters



Use this procedure to list the database names. You can also list the size of each database file, the date it was created, and the parameters of the database file.

Prerequisite

Know the name of the database you want to list.

Step-by-step

1. Enter the Librarian Service context.
2. Type **List Databases** .

Database name: *

3. Type the name of the database you want to list and press RETURN. Press RETURN to list all databases.

Verbose feedback? (Y/N): N

4. Type **Y** or **N** at the "Verbose feedback" prompt .
 - Y** Lists the name and parameters for each database and loads any unloaded database files.
 - N** Lists only the names of all databases.

Wrap-up

When you see the "LS>" or "LS!" prompt, you have listed all database names and parameters.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example first shows listing just the name of each database, then listing all parameters.

```
LS> List Databases
Database name: *
Verbose feedback? (Y/N): N
Research
Clippings
LS> List Databases
Database name: *
Verbose feedback? (Y/N): Y
Research
.Records      10240    8-Dec-87  8:25:57 PST
.HashTable   35840    8-Dec-87  8:25:58 PST
.Log          0         8-Dec-87  8:26:40 PST
Readers: *
Writers: *
Authentication level: strong
Backup path: (FS1)California/South
Clippings
.Records      10240    8-Dec-87  8:25:57 PST
.HashTable   35840    8-Dec-87  8:25:58 PST
.Log          0         8-Dec-87  8:26:40 PST
Readers: *
Writers: *
Authentication level: strong
Backup path: (FS2)California/North
LS>
```

Monitoring session activity



Use this procedure to monitor Librarian Service activity. You use the **Toggle Tracing** command to turn the tracing feature on or off. The Librarian Service starts up with tracing on. Once tracing begins, the Librarian Service keeps a list of users who access the LS and the names of the databases they open and close.

Step-by-step

1. Log on in the Librarian Service context.
2. Type **Toggle Tracing** \leftarrow .

```
Tracing now on.  
LS>
```

3. Type **Toggle Tracing** \leftarrow .

```
No more tracing.  
LS>
```

4. Log off.

Example

This example shows starting and stopping tracing.

```
LS> Toggle Tracing  
Tracing now on.  
LS> Toggle Tracing  
No more tracing.  
LS>
```

Moving a database



Use this procedure to move a database from one server to another.

Prerequisites

- Determine when the Librarian Service is least active. Plan to perform the procedure during that time.
- Notify users when you will perform this procedure. They should not attempt to access the database at that time.
- Make sure that no one is accessing the database.

Step-by-step

1. Log on and enable in the Librarian Service context.
2. Type **Backup Databases** |.

```
LS!
LS: < name > : started.
LS: < name > : completed.
```

3. Type **Stop Service** |.

```
Select choices
1 Librarian Service
2 < service name >
Enter one or more choices:
```

4. Type the number for the Librarian Service |.

```
LS: Stop immediately? (Y/N):
```

5. Type **Y** or **N** at the “Stop immediately” prompt |.
 - Y** Stops the service and disconnects active users.
 - N** Stops the service gradually, allowing all user sessions to complete before stopping.

```
Stopping Librarian Service.
LS!
```

6. Type **Destroy Database** |.

```
Database name
1 <name>
2 <name>
Enter choice number:
```

7. Type the number for the database you want to delete .

```
Destroy <name>. Confirm (Y/N):
```

8. Type **Y** or **N** at the "Confirm" prompt .
- Y** Destroys the database.
- N** Does not destroy the database and cancels the command.

```
Destroying '<name>' ... done.
LS!
```

9. Type **Start Service** .

```
Select choices
1 Librarian Service
Enter one or more choices:
```

10. Type the number of the Librarian Service .

```
Starting Librarian Service.
LS!
```

11. Type **Unregister Database** .

```
Database name:
```

12. Type the name of the database you want to remove .

```
Unregistering '<name>' ... done.
LS!
```

13. Log off.
14. At the server where you want to move the database, log on and enable in the Librarian Service context.
15. Type **Create Database** .

```
Database name:
```

16. Type the original name of the database .

Creating '<name>' ... done.

17. Type **Register Database** .

Database name:

18. Type the original name of the database .

Registering '<name>' ... done.

19. Type **Recover Database** .

Which database?

1 <name>

Enter choice number:

20. Type the number for the database .

Recovery path:

21. Type the pathname of the File Service to which the original database was backed up .

Recover will delete existing database. Confirm (Y/N):

22. Type **Y** or **N** at the "Confirm" prompt .

Y Deletes the newly-created database.

N Does not begin the recovery; cancels the process.

LS: <name>: recovery started.

LS: <name>: being loaded.

LS: <name>: recovery completed.

LS!

23. Type **Set Authentication Level** .

Which database?

1 <name>

Enter choice number:

24. Type the number for the database .

LS: <name>: being loaded.

Authentication level needed for opening session

1 strong

2 simple

Enter choice number:

25. Type the number of the authentication level you want to assign \leftarrow .

LS!

26. Type **Set Readers** \leftarrow .

Which database?
1 <name >
Enter choice number:

27. Type the number for the database \leftarrow .

Group allowed to read this data base: *

28. Type the name of the individual or group you want to assign read access rights. Press RETURN to use the wildcard character to give read access rights to all individuals.

LS!

29. Type **Set Writers** \leftarrow .

Which database?
1 <name >
Enter choice number:

30. Type the number for the database \leftarrow .

Group allowed to write this data base: *

31. Type the name of the individual or group you want to assign write access rights. Press RETURN to use the wildcard character to give write access rights to all individuals.

LS!

32. Type **Set Backup Path** \leftarrow .

Which database?
1 <name >
Enter choice number:

33. Type the number for the database \leftarrow .

Path to back up files for this data base:

34. Type the pathname to the remote backup location **↵**.

Number of backup versions to keep (1..100): 2

35. Type the number of versions you want to store **↵**.

LS!

36. Log off.

Wrap-up

When you have entered the number of backup versions you want to keep, the process is complete. You have removed the database from one Librarian Service and recovered the backup copy of the database at another Librarian Service.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

The following screen shows backing up the the Librarian Service database files in preparation for moving the Research database.

```
LS!Backup Databases
LS!
LS: Research: backup started.
LS: Research: backup completed.
LS: Clippings: backup started.
LS: Clippings: backup completed.
Stop Service
Select choices
1  Librarian Service
2  Internetwork Routing Service
Enter one or more choices: 1
LS: Stop immediately? (Y/N): Y
Stopping Librarian Service.
LS!Destroy Database
Database name
1  Research
Enter choice number: 1
Destroy Research.  Confirm (Y/N): Y
Destroying 'Research' ... done.
LS!Start Service
Select choices
1  Librarian Service
Enter one or more choices: 1
Starting Librarian Service.
LS!Unregister Database
Database name: Research
Unregistering 'Research' ... done.
LS!
```

The following screen shows recovering the Research database at the new location.

```
LS!Create Database
Database name: Research
Creating 'Research' ... done.
LS!Register Database
Database name: Research
Registering 'Research' ... done.
LS!Recover Database
  Which database?
  1  Research
  Enter choice number: 1
  Recovery path: (FS1)January
Recover will delete existing database. Confirm (Y/N): Y
LS: Research: recovery started.
LS: Research: being loaded.
LS: Research: recovery completed.
LS!Set Authentication Level
  Which database?
  1  Research
  Enter choice number: 1
  Authentication level needed for opening session
  1  strong
  2  simple
  Enter choice number: 1
LS!Set Readers
  Which database?
  1  Research
  Enter choice number: 1
  Group allowed to read this data base: *
LS!Set Writers
  Which database?
  1  Research
  Enter choice number: 1
  Group allowed to write this data base: *
LS!Set Backup Path
  Which database?
  1  Research
  Enter choice number: 1
  Path to back up files for this data base: (FS1)January
  Number of backup versions to keep (1..100): 2
LS!
```

9. External Communication Service

This chapter contains the procedures you perform to maintain the External Communication Service (ECS). These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any External Communication Service maintenance procedures:

- Install all required software as described in the Server Software Installation chapter of the *Services Installation and Setup Guide*.
- Perform all setup procedures as described in the External Communication Service chapter of the *Services Installation and Setup Guide*.

Commands

This section lists the commands you use to maintain the service. You must be in the External Communication Service context to access these commands.

Table 9-1 shows all the commands along with the logged-on status and the service state (started or stopped) for accessing them.

Table 9-1. External Communication Service commands

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Assign IBM 3270 Default Host						•
Change Communication Interface Unit						•
Change IBM 3270 Host						•
Change RS232C Port						•
Delete Communication Interface Unit						•
Delete IBM 3270 Host						•
Delete RS232C Port						•
Describe RS232C Port			•	•	•	•
List Communication Interface Units			•	•	•	•
List IBM 3270 Hosts			•	•	•	•
List RS232C Ports			•	•	•	•
Rename Service					•	•
Show RS232C Port Statistics			•	•	•	•
Start						•
Start IBM 3270 Emulation						•
Stop					•	
Stop IBM 3270 Emulation					•	
Verify Clearinghouse Entries					•	•

Assign IBM 3270 Default Host

Available to the enabled user when the ECS and IBM 3270 emulation are stopped. Registers IBM 3270 hosts with the External Communication Service.

Related procedure: Assigning a different IBM 3270 host

Change Communication Interface Unit

Available to the enabled user when the External Communication Service is stopped. Changes existing information about a Communication Interface Unit (CIU).

Related procedures: Changing an asynchronous CIU port configuration,

- Change IBM 3270 Host** Available to the enabled user when the ECS and IBM 3270 emulation are stopped. Changes existing information about an IBM 3270 host.
Related procedures: Changing an IBM 3270 BSC host configuration, Changing an IBM 3270 SNA host configuration
- Change RS232C Port** Available to the enabled user when the External Communication Service is stopped. Changes existing information about an RS232C port.
Related procedures: Changing an asynchronous server port or Multiport configuration, Changing an IBM 3270 BSC server port configuration, Changing an IBM 3270 SNA server port or Multiport configuration
- Delete Communication Interface Unit** Available to the enabled user when the External Communication Service is stopped. Removes all information about a Communication Interface Unit.
Related procedure: Deleting an RS232C port or a CIU configuration
- Delete IBM 3270 Host** Available to the enabled user when the ECS and IBM 3270 emulation are stopped. Removes all information about an IBM 3270 host.
Related procedure: Deleting an IBM 3270 host configuration
- Delete RS232C Port** Available to the enabled user when the External Communication Service is stopped. Removes existing information about an RS-232C port.
Related procedure: Deleting an RS232C port or CIU configuration
- Describe RS232C Port** Available to the logged on user when the External Communication Service is started or stopped. Lists current information about an RS232C port used for asynchronous terminal emulation, asynchronous dial-in, or IBM 3270 emulation.
Related procedure: Describing RS232C ports
- List Communication Interface Units** Available to the logged on user when the External Communication Service is started or stopped. Displays a list of all Communication Interface Units registered with the External Communication Service.
Related procedure: Listing External Communication Service information
- List IBM 3270 Hosts** Available to the logged on user when the External Communication Service is started or stopped. Displays a list of all IBM 3270 hosts registered with the External Communication Service.
Related procedure: Listing External Communication Service information

List RS232C Ports	<p>Available to the logged on user when the External Communication Service is started or stopped. Displays a list of all RS232C ports registered with the External Communication Service.</p> <p>Related procedure: Listing External Communication Service information</p>
Rename Service	<p>Available to the enabled user when the External Communication Service is started or stopped. Changes the name of the External Communication Service.</p> <p>Related procedure: Renaming the External Communication Service</p>
Show RS232C Port Statistics	<p>Available to the logged on user when the External Communication Service is started or stopped. Displays the performance, loading, and error information collected for each port.</p> <p>Related procedure: Showing RS232C port statistics</p>
Start	<p>Available to the enabled user when the External Communication Service is stopped. Starts the External Communication Service.</p> <p>Related procedures: Changing an asynchronous CIU port configuration, Changing an IBM 3270 SNA CIU port configuration, Changing an asynchronous server port or Multiport configuration, Changing an IBM 3270 BSC server port configuration, Changing an IBM 3270 SNA server port or Multiport configuration, Deleting an RS232C port or CIU configuration</p>
Start IBM 3270 Emulation	<p>Available to the enabled user when the External Communication Service is started and IBM 3270 emulation is stopped. Controls the availability of the 3270 emulation feature.</p> <p>Related procedures: Assigning a different IBM 3270 host, Changing an IBM 3270 BSC host configuration, Changing an IBM 3270 SNA host configuration, Deleting an IBM 3270 host configuration</p>
Stop	<p>Available to the enabled user when the External Communication Service is started. Stops the External Communication Service.</p> <p>Related procedures: Changing an asynchronous CIU port configuration, Changing an IBM 3270 SNA CIU port configuration, Changing an asynchronous server port or Multiport configuration, Changing an IBM 3270 BSC server port configuration, Changing an IBM 3270 SNA server port or Multiport configuration, Deleting an RS232C port or CIU configuration</p>
Stop IBM 3270 Emulation	<p>Available to the enabled user when the External Communication Service and IBM 3270 emulation are started. Controls the availability of the 3270 emulation feature.</p> <p>Related procedures: Assigning a different IBM 3270 host, Changing an IBM 3270 BSC host configuration, Changing an IBM 3270 SNA host configuration, Deleting an IBM 3270 host configuration</p>

Verify Clearinghouse Entries

Available to the enabled user when the External Communication Service is started or stopped. Updates the entries in the Clearinghouse database.

Related procedure: Verifying Clearinghouse entries

Procedures

This section contains these procedures for maintaining the External Communication Service:

Assigning a different IBM 3270 host

Use this procedure to assign a different IBM 3270 host to a configured port.

Changing an asynchronous CIU port configuration

Use this procedure to change Communication Interface Unit information for an asynchronous port configuration.

Changing an IBM 3270 SNA CIU port configuration

Use this procedure to change Communication Interface Unit information for an IBM 3270 SNA port configuration.

Changing an asynchronous server port or Multiport configuration

Use this procedure to change information for an asynchronous server port or Multiport configuration.

Changing an IBM 3270 BSC server port configuration

Use this procedure to change information for an IBM 3270 BSC server port configuration.

Changing an IBM 3270 SNA server port or Multiport configuration

Use this procedure to change information for an IBM 3270 SNA server port or Multiport configuration.

Changing an IBM 3270 BSC host configuration

Use this procedure to change information for an IBM 3270 BSC host configuration.

Changing an IBM 3270 SNA host configuration

Use this procedure to change information for an IBM 3270 SNA host configuration.

Deleting an IBM 3270 host configuration

Use this procedure to remove the configuration of an assigned IBM 3270 host.

Deleting an RS232C port or CIU configuration

Use this procedure to remove RS232C ports or CIUs that you have configured from the External Communication Service.

Describing RS232C ports

Use this procedure to list line speed, duplexity, and other information about an RS232C port.

Listing External Communication Service information

Use this procedure to list RS232C ports, hosts, and CIUs configured on the External Communication Service.

Renaming the External Communication Service

Use this procedure to change the name of the External Communication Service.

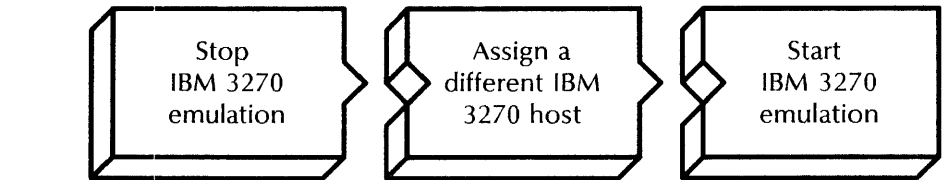
Showing RS232C port statistics

Use this procedure to show RS232C port state, users, configuration, and other information.

Verifying Clearinghouse entries

Use this procedure to reregister External Communication Service port information in the Clearinghouse database.

Assigning a different IBM 3270 host



Use this procedure to switch to a different IBM 3270 host for emulation. Instruct 8010/6085 workstation users to delete their old TTY, VT100, or 3270 icons and retrieve new ones after you complete the procedure.

Prerequisites

Update the External Communication Service Worksheet with any changes you are making to the following information:

- The name of the RS232C port through which the host is accessed
- The name of the new host

Step-by-step

1. Log on and enable in the External Communication Service context.
2. Type **Stop IBM 3270 Emulation** \leftarrow .

Disconnect active users? (Y/N):

3. Type **Y** or **N** at the "Disconnect active users" prompt \leftarrow .
 - Y** Immediately disconnects the IBM 3270 users in the External Communication Service.
 - N** Stops IBM 3270 emulation after all current users log off.

ECS: IBM 3270 Emulation is stopped.
ECS!

4. Type **Assign IBM 3270 Default Host** \leftarrow .

Choose the RS232C port name through which the host is accessed

1 <port name >
2 <port name >
Enter choice number: <number >

5. Type the number to be used for host access \leftarrow .

Possible IBM 3270 Hosts are

1 <host name>

2 <host name>

Enter choice number: <number>

6. Type the number for the new host .

Done.

ECS!

7. Type **Start IBM 3270 Emulation** .

ECS: IBM 3270 Emulation is started.

ECS!

8. Log off.

Wrap-up

When you see the message "IBM 3270 Emulation is started," you have assigned a different IBM 3270 host.

You may want to make a copy of the new host information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

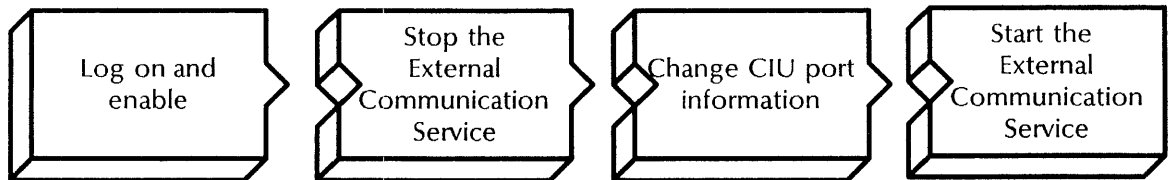
Example

This example shows assigning the host NewYorkHost to RS232C port SNA port.

```

ECS!Stop IBM 3270 Emulation
  Disconnect active users? (Y/N):
ECS: IBM 3270 Emulation is stopped.
ECS!Assign IBM 3270 Default Host
  Choose the RS232C port name through which the Host
  is accessed
  1 SNA port
  2 Backup port
  Enter choice number: 1
  Possible IBM 3270 Hosts are
  1 NewYorkHost
  2 FloridaHost
  Enter choice number: 1
  Done
ECS!Start IBM 3270 Emulation
ECS: IBM 3270 Emulation is started.
ECS!
    
```

Changing an asynchronous CIU port configuration



Use this procedure to change the information for an 873 CIU port used for asynchronous terminal emulation and/or dial-in.

Prerequisites

Update the External Communication Service Worksheet with any changes you are making to the following information:

- The CIU port name and description
- The type of CIU
- The CIU processor number

Step-by-step

1. Log on and enable in the External Communication Service context.
2. Type **Stop**

```

Disconnect active users? (Y/N):
    
```

3. Type **Y** or **N** at the "Disconnect active users" prompt .

- Y** Immediately stops all ECS user sessions and the External Communication Service.
- N** Stops the External Communication Service after all ECS current user activity ends.

ECS: External Communication Service is stopped.

4. Type **Change Communication Interface Unit** .

NOTE

Default values appear for these prompts. Press RETURN to retain any default value.

Possible Communication Interface Units are

1 <CIU name >
 2 <CIU name >
 Enter choice number: <CIU name >

5. Type the number for the CIU you want to change .

Name: <name >

6. Type the name of the CIU .

Description: <description >

7. Type a new description for the CIU .

Type of Communication Interface Unit:

1 One board
 2 Two board
 Enter choice number: <number >

8. Type the number for the type of CIU you have installed .

Processor Number of Communication Interface Unit:
 <number >

9. Type the CIU processor number .

Confirm this Communication Interface Unit information (Y/N):

10. Type **Y** or **N** at the "Confirm this Communication Interface Unit information" prompt .

Y Changes the CIU port information.

N Cancels the changes. Return to step 5.

```
Clearinghouse update complete
Done. Communication Interface Unit <name> has been
changed.
  Change another Communication Interface Unit? (Y/N):
<Y/N>
```

11. Type **Y** or **N** at the "Change another Communication Interface Unit" prompt **⇐**.
 - Y** Return to step 5.
 - N** Ends the process.
12. Type **Start** **⇐**.

```
ECS: External Communication Service is started.
ECS!
```

13. Log off.

Wrap-up

The CIU reboots automatically when you start the External Communication Service. You see a boot message and the number assigned to the CIU board (or two numbers in sequence if you are using a two-board unit).

When you see the message "External Communication Service is started," you have changed the configuration of the CIU port used for asynchronous terminal emulation and/or dial-in. The External Communication Service lists the RS232C ports assigned to the Communication Interface Unit and updates the Clearinghouse.

You may want to make a copy of the new port information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

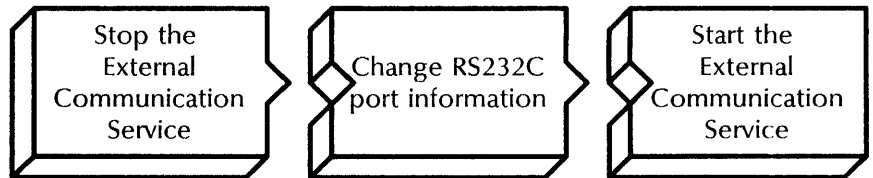
This example shows changing the configuration information for a port on the CIU named Echo. The port was previously configured for asynchronous terminal emulation and dial-in.

```

ECS!Stop
  Disconnect active users? (Y/N): Y
ECS: External Communication Service is stopped.
Change Communication Interface Unit
Possible Communication Interface Units are
1  Echo
2  Piermont
Enter choice number: 1
  Name: Whisper
  Description: CIU port shared between emulation and Greeter
  Type of Communication Interface Unit
1  One board
2  Two board
Enter choice number: 1
  Processor Number of Communication Interface Unit: 949-000-000
  Confirm this Communication Interface Unit information? (Y/N): Y
  Clearinghouse update complete
Done. Communication Interface Unit Whisper has been changed.
  Change another Communication Interface Unit? (Y/N): N
ECS!Start
ECS: External Communication Service is started.
ECS!

```

Changing an IBM 3270 SNA CIU port configuration



Use this procedure to change the information for an 873 CIU port used for IBM 3270 SNA terminal emulation. This configuration must use a dedicated leased line.

Prerequisites

- Use the **List IBM 3270 Hosts** command to see if any hosts require the port you are changing.
- Use the **Describe RS232C Port** command to see which host is assigned to the port as the default host.
- Update the External Communication Service Worksheet with any changes you are making to the following information:
 - The name of the CIU that controls the port
 - The RS232C port number
 - The port use
 - The line speed

Step-by-step

1. Log on and enable in the External Communication Service context.
2. Type **Stop** .

```
Disconnect active users? (Y/N):
```

3. Type **Y** or **N** at the "Disconnect active users" prompt .
 - Y** Immediately stops all ECS user sessions and the External Communication Service.
 - N** Stops the External Communication Service after all ECS current user activity ends.

```
ECS: External Communication Service is stopped.
```

4. Type **Change RS232C Port** .

```
Possible Communication Interface Units are
1 <CIU name >
2 <CIU name >
Enter choice number:
```

5. Type the number for the CIU you want to change .

Default values appear for these prompts. Press RETURN to retain any default value.

NOTE

```
Select port number
1 A1
2 A2
3 A3
4 A4
5 B1
6 B2
7 B3
8 B4
Enter choice number: < number >
```

6. Type the number for the port you want to change .

```
Type of use for which port is intended
1 Asynchronous Terminal Emulation
2 Asynchronous Dial-In
3 Asynchronous Terminal Emulation and Dial-In
4 IBM 3270 SNA Emulation
5 IBM 3270 BSC Emulation
Enter choice number: < number >
```


7. Type **4** to identify the port use \Leftarrow .

NOTE

The choices you see for this step depend on the software communication protocol options you have enabled.

Description: <description >

8. Type a description for the port \Leftarrow .

Select line speed

- 1 300 bps
- 2 600 bps
- 3 1200 bps
- 4 2400 bps
- 5 3600 bps
- 6 4800 bps
- 7 7200 bps
- 8 9600 bps

Enter choice number: <number >

9. Type the number for the equipment line speed \Leftarrow .

Confirm this Communication Interface Unit information?
(Y/N): <Y/N >

10. Type **Y** or **N** at the "Confirm this Communication Interface Unit information" prompt \Leftarrow .

Y Changes the CIU port information.

N Cancels the changes. Return to step 5.

Clearinghouse update complete

Done. Communication Interface Unit <name > has been changed.

Change another Communication Interface Unit? (Y/N):
<Y/N >

11. Type **Y** or **N** at the "Change another Communication Interface Unit" prompt \Leftarrow .

Y Return to step 5.

N Ends the process.

12. Type **Start** \Leftarrow .

ECS: External Communication Service is started.
ECS!

13. Log off.

Wrap-up

The CIU reboots automatically when you start the External Communication Service. You see a boot message and the number assigned to the CIU board (or two numbers in sequence if you are using a two-board unit).

When you see the message "External Communication Service is started," you have changed the configuration of the CIU port used for IBM 3270 SNA emulation. The External Communication Service lists the RS232C ports assigned to the Communication Interface Unit and updates the Clearinghouse.

You may want to make a copy of the new port information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

If you changed the port name, reassign the port for the host entry that specifies that port. If you changed the port use, reassign the port for the host entry that specifies that port. For any other changes, if there is more than one host defined for a port, reassign the default host for the changed port.

Example

This example shows changing the configuration information for a port on the CIU named Tangerine. The port was previously configured for IBM 3270 emulation.

```
ECS!Stop
  Disconnect active users? (Y/N): Y
ECS: External Communication Service is stopped.
Change RS232C Port
  Possible Communication Interface Units are
  1  Tangerine
  2  Echo
  Enter choice number: 1
  Select port number
  1  A1
  2  A2
  3  A3
  4  A4
  5  B1
  6  B2
  7  B3
  8  B4
  Enter choice number: 4
  Type of use for which port is intended
  1  Asynchronous Terminal Emulation
  2  Asynchronous Dial-In
  3  Asynchronous Terminal Emulation and Dial-In
  4  IBM 3270 SNA Emulation
  Enter choice number: 4
```

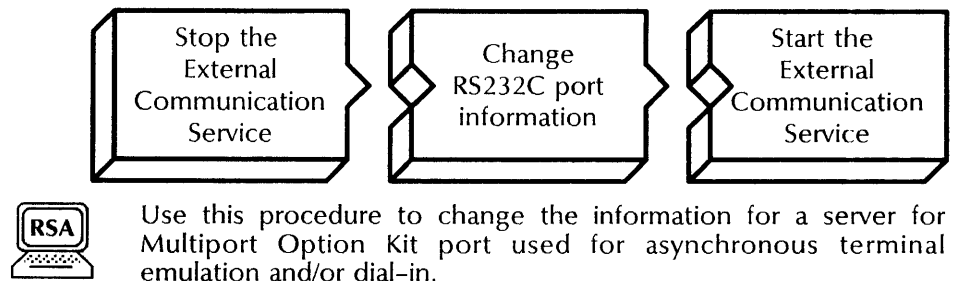
Screen continued

```

Description: CIU port supporting dedicated line to SNA host
Select line speed
1 300 bps
2 600 bps
3 1200 bps
4 2400 bps
5 3600 bps
6 4800 bps
7 7200 bps
8 9600 bps
Enter choice number: 7
Confirm this Communication Interface Unit information? (Y/N): Y
Clearinghouse update complete
Done. Communication Interface Unit Tangerine has been changed.
Change another Communication Interface Unit? (Y/N): N
ECS!Start
ECS: External Communication Service is started
ECS!

```

Changing an asynchronous server port or Multiport configuration



Prerequisites

Update the External Communication Service Worksheet with any changes you are making to the following information:

- The RS232C port name
- The local port number, if you are using the Multiport Option Kit
- The port use
- Whether dial-in users will be automatically connected to the Interactive Terminal Service
- The number of data and stop bits in each character

- The parity of each character bit pattern
- If your equipment has autodialer hardware, the autodialer type and the OCTAL values for the XOn and XOff characters
- The equipment duplexity and line speed
- The port access controls

Step-by-step

1. Log on and enable in the External Communication Service context.
2. Type **Stop** \leftarrow .

Disconnect active users? (Y/N):

3. Type **Y** or **N** at the "Disconnect active users" prompt \leftarrow .
 - Y** Immediately stops all ECS user sessions and the External Communication Service immediately.
 - N** Stops the External Communication Service after all current ECS user activity ends.

ECS: External Communication Service is stopped.

4. Type **Change RS232C Port** \leftarrow .

Select RS232C port to change
1 <port name >
2 <port name >
Enter choice number: <number >

5. Type the number for the port you want to change \leftarrow .

Default values appear for these prompts. Press RETURN to retain any default value.

NOTE

Enter RS232C port name: <name >

6. Type a new name for the RS232C port \leftarrow .

Enter local port number (0..63): <number >

7. Type the local port number and press RETURN. This prompt appears only if you have the Multiport Option Kit installed.

Type of use for which port is intended

- 1 Asynchronous Terminal Emulation
- 2 Asynchronous Dial-In
- 3 Asynchronous Terminal Emulation and Dial-In
- 4 IBM 3270 SNA Emulation
- 5 IBM 3270 BSC Emulation

Enter choice number: < number >

8. Type **1**, **2**, or **3** to identify the port use .

NOTE

The choices you see for this step depend on the communication protocol software options you have enabled.

Should dial-in users be automatically connected to the local ITS? (Y/N): < number >

9. Type **Y** or **N** at the automatic ITS connection prompt. This prompt appears only if you typed **2** or **3** in step 8.

Y Connects incoming calls to this port to the local Interactive Terminal Service only, preventing Remote System Administration.

N Lets the connecting user use the Interactive Terminal Service, including an Interactive Terminal Service on another server, or enable Remote System Administration functions from the remote terminal.

Description: < description >

10. Type a description for the port .

Select number of data bits in each character

- 1 five
- 2 six
- 3 seven
- 4 eight

Enter choice number: < number >

11. Type the number for the data bits in each character .

Select number of stop bits in each character

- 1 one
- 2 two

Enter choice number: < number >

12. Type the number for the stop bits in each character .

Select parity

- 1 even
- 2 odd
- 3 none

Enter choice number: < number >

13. Type the number for the parity of each character bit pattern ↵.

Does equipment have autodialer hardware? (Y/N): < Y/N >

14. Type **Y** or **N** at the "Does equipment have autodialer hardware" prompt ↵.

Y Indicates your equipment has autodialer hardware. **Continue with step 15.**

N Indicates your equipment does not have autodialer hardware. **Skip to step 16.**

Autodialer type is

- 1 Ven-Tel
- 2 Racal-Vadic
- 3 V25bis
- 4 Hayes command set on a pulse dialed line
- 5 Hayes command set on a touch-tone dialed line
- 6 RS366

Enter choice number: < number >

15. Type the number for the kind of autodialer you have and press RETURN. Select RS366 dialing only if you are using port 0. This prompt appears only if the Multiport Option Kit is installed.

Does equipment support XOn/XOff flow control?
(Y/N) < Y/N >

16. Type **Y** or **N** at the flow control prompt ↵.

Y Displays the following prompts for flow control information. **Continue with step 17.**

N **Skip to step 19.**

Enter OCTAL value for XOn character: < number >

17. Type the OCTAL value for the XOn character ↵.

Enter OCTAL value for XOff character: < number >

18. Type the OCTAL value for the XOff character ↵.

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number: <number>

19. Type the number for the equipment duplexity .

Select line speed

- 1 75 bps
- 2 110 bps
- 3 134.5 bps
- 4 150 bps
- 5 300 bps
- 6 600 bps
- 7 1200 bps
- 8 2400 bps
- 9 3600 bps
- 10 4800 bps
- 11 7200 bps
- 12 9600 bps
- 13 19200 bps

Enter choice number: <number>

20. Type the number for the equipment line speed .

Is access control desired? (Y/N): <Y/N>

21. Type **Y** or **N** at the access control prompt .

Y Allows a specific user group to use this asynchronous emulation port. **Continue with step 22.**

N Allows all users on the internetwork to use this asynchronous emulation port. **Skip to step 23.**

Enter the name of the group allowed access to this port:
<name>

22. Type the name of the user group whose members may access asynchronous emulation .


Confirm this RS232C Port information? (Y/N): <Y/N>

23. Type **Y** or **N** at the "Confirm this RS232C Port information" prompt .

Y Changes the port information.

N Cancels the changes. Return to step 5.

Clearinghouse update complete
Done. RS232C port <port name> has been changed.
ECS!

24. Type **Start** .

```
ECS: External Communication Service is started.
ECS!
```

25. Log off.

Wrap-up

When you see the message "External Communication Service is started," you have changed the configuration of a server or Multiport Option port used for asynchronous terminal emulation and dial in. The External Communication Service lists the RS232C ports assigned and updates the Clearinghouse database.

You may want to make a copy of the new port information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

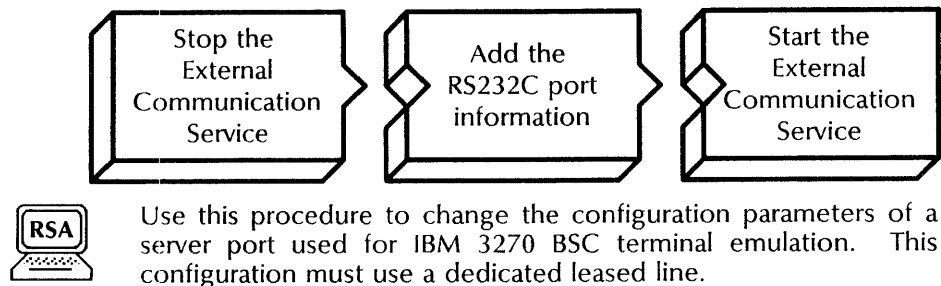
This example shows changing the configuration information for an RS232C port on an 8000 server. The port was previously configured for asynchronous terminal emulation and dial-in.

```
ECS!Stop
  Disconnect active users? (Y/N): Y
ECS: External Communication Service is stopped.
Change RS232C Port
  Select RS232C port to change
  1 SNA port
  2 Asynch port
  Enter choice number: 2
  Enter RS232C port name: Port3
  Enter local port number (0...63): 2
  Type of use for which this port is intended
  1 Asynchronous Terminal Emulation
  2 Asynchronous Dial-In
  3 Asynchronous Terminal Emulation and Dial-In
  4 IBM 3270 SNA Emulation
  Enter choice number: 3
  Should dial-in users be automatically connected to the
  local ITS? (Y/N): N
  Description: TTY emulation and dial-in on 8000 port
  Select number of data bits in each character
  1 five
  2 six
  3 seven
  4 eight
  Enter choice number: 3
```

Screen continued


```
Select number of stop bits in each character
1  one
2  two
Enter choice number: 2
Select parity
1  even
2  odd
3  none
Enter choice number: 3
Does equipment have autodialer hardware? (Y/N): Y
Autodialer type is
1  Ven-Tel
2  Racal-Vadic
3  V25bis
4  Hayes command set on a pulse dialed line
5  Hayes command set on a touch-tone dialed line
6  RS366
Enter choice number: 2
Does equipment support XOn/XOff flow control? (Y/N): Y
Enter OCTAL value for XOn character: 21
Enter OCTAL value for XOff character: 23
The equipment connected to this port is
1  full duplex
2  half duplex
Enter choice number: 1
Select line speed
1  75 bps
2  110 bps
3  134.5 bps
4  150 bps
5  300 bps
6  600 bps
7  1200 bps
8  2400 bps
9  3600 bps
10 4800 bps
11 7200 bps
12 9600 bps
13 19200 bps
Enter choice number: 7
Is access control desired? (Y/N): N
Confirm this RS232C Port information? (Y/N): Y
Clearinghouse update complete
Done. RS232C port Port3 has been changed.
ECS!Start
ECS: External Communication Service is started
ECS!
```

Changing an IBM 3270 BSC server port configuration



Prerequisites

- Use the **List IBM 3270 Hosts** command to see if any hosts require the port you are changing.
- Use the **Describe RS232C Port** command to see which host is assigned to the port as the default host.
- Update the External Communication Service Worksheet with any changes you are making to the following information:
 - The RS232C port name
 - The port use
 - The equipment duplexity and line speed

Step-by-step

1. Log on and enable in the External Communication Service context.
2. Type **Stop** .

Disconnect active users? (Y/N):

3. Type **Y** or **N** to the "Disconnect active users" prompt .
 - Y** Immediately stops all ECS user sessions and the External Communication Service.
 - N** Stops the External Communication Service after all current ECS user activity ends.

ECS: External Communication Service is stopped.

4. Type **Change RS232C Port** .

Select RS232C port to change

- 1 <port name >
- 2 <port name >

Enter choice number:

5. Type the number for the port you want to change \leftarrow .
Default values appear for these prompts. Press RETURN to retain any default value.

NOTE

Enter RS232C port name: < number >

6. Type a new name for the RS232C port \leftarrow .

Type of use for which port is intended
 1 Asynchronous Terminal Emulation
 2 Asynchronous Dial-In
 3 Asynchronous Terminal Emulation and Dial-In
 4 IBM 3270 SNA Emulation
 5 IBM 3270 BSC Emulation
 Enter choice number: < number >

7. Type 5, for the "IBM 3270 BSC Emulation" option \leftarrow .

NOTE

If you set the communications software options for IBM 3270 BSC Communication Protocol emulation only, you do not see all the choices available for port use.

Description: < description >

8. Type a description for the port \leftarrow .

The equipment connected to this port is
 1 full duplex
 2 half duplex
 Enter choice number: < number >

9. Type the number for the equipment duplexity \leftarrow .

Select line speed
 1 300 bps
 2 600 bps
 3 1200 bps
 4 2400 bps
 5 3600 bps
 6 4800 bps
 7 7200 bps
 8 9600 bps
 9 19200 bps
 10 28800 bps
 11 38400 bps
 12 48000 bps
 13 56000 bps
 Enter choice number: < number >

10. Type the number for the equipment line speed **↵**.

```
Confirm this RS232C Port information? (Y/N): <Y/N>
```

11. Type **Y** or **N** at the "Confirm this RS232C Port information" prompt **↵**.

Y Changes the port information.

N Cancels the changes. Return to step 6.

```
Clearinghouse update complete  
Done. RS232C port <port name> has been changed  
ECS!
```

12. Type **Start** **↵**.

```
ECS: External Communication Service is started  
ECS!
```

13. Log off.

Wrap-up

When you see the message "External Communication Service is started," you have changed the configuration parameters of a 8000/8090 server port used for IBM 3270 BSC emulation. The External Communication Service lists the RS232C ports added and updates the Clearinghouse.

You may want to make a copy of the new port information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

If you changed the port name, reassign the port for the host entry that specifies that port. If you changed the port use, reassign the port for the host entry that specifies that port. For any other changes, if there is more than one host defined for a port, reassign the default host for the changed port.

Example

This example shows changing the configuration information for an RS232C port named Port2. This port was previously configured for IBM 3270 BSC terminal emulation. The communications software options are set for 3270 BSC Communication Protocol only.

ECS!Stop

Disconnect active users? (Y/N): **Y**

ECS: External Communication Service is stopped.

Change RS232C Port

Select RS232C port to change

1 Port 1

2 Port 2

Enter choice number: **2**

Enter RS232C port name: **Port2**

Type of use for which port is intended

1 IBM 3270 BSC Emulation

Enter choice number: **1**

Description: **local port supporting 3270 BSC to host**

The equipment connected to this port is

1 full duplex

2 half duplex

Enter choice number: **1**

Select line speed

1 300 bps

2 600 bps

.

.

7 7200 bps

.

.

13 56000 bps

Enter choice number: **8**

Confirm this RS232C Port information? (Y/N): **Y**

Clearinghouse update complete.

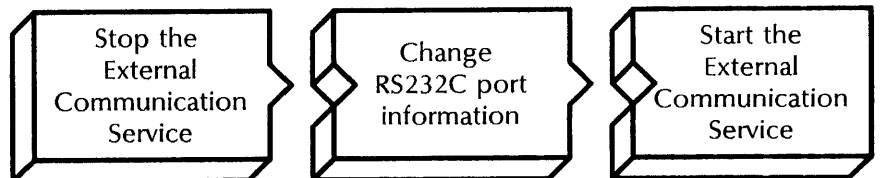
Done. RS232C port Port2 has been changed.

ECS!Start

ECS: External Communication Service is started.

ECS!

Changing an IBM 3270 SNA server port or Multiport configuration



Use this procedure to change the information for a server port, or a port on the Multiport Option Kit used for IBM 3270 SNA terminal emulation.

Prerequisites

- Use the **List IBM 3270 Hosts** command to see if any hosts require the port you are changing.

- Use the **Describe RS232C Port** command to see which host is assigned to the port as the default host.
- Update the External Communication Service Worksheet with any changes you are making to the following information:
 - The RS232C port name
 - If you are using a Multiport Option Kit, the local port numbers, and the type of data encoding
 - The port use
 - If you are using an autodialer, the autodialer type
 - The equipment duplexity and line speed

Step-by-step

1. Log on and enable in the External Communication Service context.
2. Type **Stop**

Disconnect active users? (Y/N):

3. Type **Y** or **N** to the "Disconnect active users" prompt .
 - Y** Immediately stops all ECS user sessions and the External Communication Service.
 - N** Stops the External Communication Service after all current ECS user activity ends.

ECS: External Communication Service is stopped.

4. Type **Change RS232C Port** .

Select RS232C port to change
 1 <port name >
 2 <port name >
 Enter choice number:

5. Type the number for the port you want to change .

Default values appear for these prompts. Press RETURN to retain any default value.

NOTE

Enter RS232C port name: <name >

6. Type a new name for the RS232C port .

Enter local port number (0..63): <number >

7. Type the local port number and press RETURN. This prompt appears only if you have the Multiport Option Kit installed.
8. Type **4** for the "IBM 3270 SNA Emulation" option .

Type of use for which port is intended

- 1 Asynchronous Terminal Emulation
- 2 Asynchronous Dial-In
- 3 Asynchronous Terminal Emulation and Dial-In
- 4 IBM 3270 SNA Emulation
- 5 IBM 3270 BSC Emulation

Enter choice number: < number >

NOTE

Item number 5 appears only if you enabled the IBM 3270 BSC Communication Protocol software option.

Description: < description >

9. Type a description for the port .

Does equipment have autodialer hardware? (Y/N): < Y/N >

10. Type **Y** or **N** at the "Does the equipment have autodialer hardware" prompt .

Y Indicates your equipment has autodialer hardware. **Continue with step 11.**

N Indicates your equipment does not have autodialer hardware. **Skip to step 12.**

Autodialer type is

- 1 Hayes
- 2 RS366
- 3 V25bis

Enter choice number: < number >

11. Type the number for the kind of autodialer you have and press RETURN. Select RS366 dialing only if you are using port 0. This prompt appears only if you have installed the Multiport Option Kit.

The equipment connected to this port encodes data using:

- 1 nrz
- 2 nrzi

Enter choice number: < number >

12. Type the number for the kind of data encoding used and press RETURN. This prompt appears only if you have installed the Multiport Option Kit.

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number: < number >

13. Type the number for equipment duplexity .

```
Select line speed
1   300 bps
2   600 bps
3  1200 bps
4  2400 bps
5  3600 bps
6  4800 bps
7  7200 bps
8  9600 bps
9 19200 bps
10 28800 bps
11 38400 bps
12 48000 bps
13 56000 bps
Enter choice number: <number >
```

14. Type the number for the equipment line speed and press RETURN.

```
Confirm this RS232C Port information? (Y/N): <Y/N >
```

15. Type **Y** or **N** at the "Confirm this RS232C Port information" prompt ␣.
 - Y** Changes the port information.
 - N** Cancels the changes. Return to step 6.

```
Clearinghouse update complete
Done. RS232C port <name > has been changed
ECS!
```

16. Type **Start** ␣.

```
ECS: External Communication Service is started
ECS!
```

17. Log off.

Wrap-up

When you see the message "External Communication Service is started," you have changed the configuration information for a server or Multiport Option Kit port used for IBM 3270 SNA terminal emulation. The External Communication Service lists the RS232C ports added and updates the Clearinghouse.

You may want to make a copy of the new port information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

If you changed the port name, reassign the port for the host entry that specifies that port. If you changed the port use, reassign the port for the host entry that specifies that port. For

any other changes, if there is more than one host defined for a port, reassign the default host for the changed port.

Example

This example shows changing the configuration information for an RS232C port named Jupiter-Localport. The port was previously configured for IBM 3270 SNA terminal emulation.

```
ECS!Stop
  Disconnect active users? (Y/N): Y
ECS: External Communication Service is stopped.
Change RS232C Port
Select RS232C port to change
1  Jupiter-Localport
2  Port3
Enter choice number: 1
Enter RS232C port name:Jupiter-Port 1
```

Screen continued

Enter local port numbers (0...63): **2**

Type of use for which port is intended

- 1 Asynchronous Terminal Emulation
- 2 Asynchronous Dial-In
- 3 Asynchronous Terminal Emulation and Dial-In
- 4 IBM 3270 SNA Emulation
- 5 IBM 3270 BSC Emulation

Enter choice number: **4**

Description: **local port supporting 3270 SNA to host**

Does equipment have autodialer hardware? (Y/N): **N**

The equipment connected to this port encodes data using:

- 1 nrz
- 2 nrzi

Enter choice number: **1**

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number: **2**

Select line speed

- 1 300 bps
- 2 600 bps
- 3 1200 bps
- 4 2400 bps
- 5 3600 bps
- 6 4800 bps
- 7 7200 bps
- 8 9600 bps
- 9 19200 bps
- 10 28800 bps
- 11 38400 bps
- 12 48000 bps
- 13 56000 bps

Enter choice number: **6**

Confirm this RS232C Port information? (Y/N): **Y**

Clearinghouse update complete.

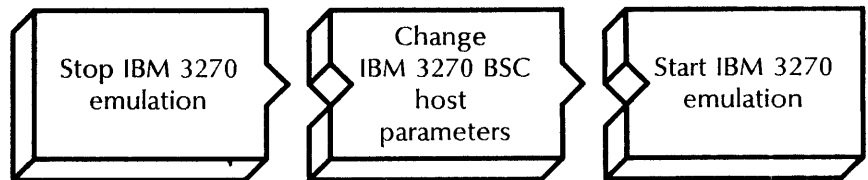
Done. RS232C port Jupiter-Localport has been changed.

ECS!**Start**

ECS: External Communication Service is started

ECS!

Changing an IBM 3270 BSC host configuration



Use this procedure to change the IBM 3270 BSC host configuration parameters.

Prerequisites

Update the External Communication Service Worksheet with any changes you are making to the following information:

- The name of the 3270 BSC host
- The RS232C port for host access
- The emulated 3276 controller address
- The size of the IBM host buffers
- The number of ports on the emulated 3276 controller
- The access controls for each port
- The language supported

Step-by-step

1. Log on and enable in the External Communication Service context.
2. Type **Stop IBM 3270 Emulation**

Disconnect active users? (Y/N):

3. Type **Y** or **N** at the "Disconnect active users" prompt .
 - Y** Immediately disconnects the IBM 3270 users on the External Communication Service.
 - N** Stops IBM 3270 emulation after all current users log off.

ECS: IBM 3270 Emulation is stopped.
ECS!

4. Type **Change IBM 3270 Host** .

Possible IBM 3270 Hosts are
1 <host name >
2 <host name >
Enter choice number:

5. Type the number for the IBM 3270 host entry you want to change .



Default values appear for these prompts. Press RETURN to retain any default value.

Name: < name >

6. Type a new name for the IBM 3270 host .

Description: < description >

7. Type a new description for the IBM 3270 host entry .

Choose the RS232C port through which the Host is accessed
1 < port name >
Enter choice number: < number >

8. Type the number for the port to be used for host access .

Enter the Emulated 3276 Controller's address
(0-31): < number >

9. Type the controller address .

Enter the size of buffers to IBM 3270 Host
(60...512): < number >

10. Type the size of the IBM 3270 host buffers .

Enter the number of ports on the emulated 3276 Controller
(1-8): < number >

11. Type the number of ports on the emulated 3276 controller .

Is access control desired? (Y/N): < Y/N >

12. Type **Y** or **N** at the access control prompt .

Y Allows a specific user group to use IBM 3270 BSC emulation for these ports. **Continue with step 13.**

N Allows all users on the internetwork to use IBM 3270 BSC emulation for these ports. **Skip to step 16.**

Is the access control the same for all ports? (Y/N):

13. Type **Y** or **N** at the access control prompt .

Y Allows a specific user group to use this asynchronous emulation port. **Continue with step 14.**

N Allows a specific user group to access each port. **Skip to step 15.**

Enter the name of the group allowed access to these ports: < name >

14. Type the name of the user group whose members may access all ports ↵.

Enter the name of the group allowed access to port < number > : < name >

15. Type the name of the user group whose members may access each port. Simply press RETURN if you do not want to control access to a port.

Language supported by this Emulated 3276 Controller is
 1 Austrian
 .
 .
 9 English (US)
 .
 .
 26 Swedish (Alternate)
 Enter choice number: < number >

16. Type the number for the language supported and press RETURN. Always type **9**, for the "English (US)" option, unless your computer site advises you otherwise.

Is all the Emulated 3276 Controller information correct? (Y/N):

17. Type **Y** or **N** at the "Is all the Emulated 3276 Controller information correct" prompt ↵.

Y Changes the controller information.

N Cancels the controller changes. Return to step 6.

Change another Emulated 3276 Controller to this IBM 3270 Host? (Y/N):

18. Type **Y** or **N** at the "Change another Emulated 3276 Controller to this IBM 3270 Host" prompt ↵.

Y Return to step 5.

N **Continue with step 19.**

Confirm this IBM 3270 Host information? (Y/N):

19. Type **Y** or **N** at the "Confirm this IBM 3270 Host information" prompt **↵**.

Y Changes the IBM 3270 host information.

N Cancels all changes. Return to step 5.

```
Clearinghouse update complete
Done. <name> (IBM 3270 Host) changed.
ECS!
```

20. Type **Start IBM 3270 Emulation** **↵**.

```
ECS: IBM 3270 emulation is started
ECS!
```

21. Log off.

Wrap-up

When you see the message "IBM 3270 Emulation is started," you have changed the configuration information for an IBM 3270 BSC host.

You may want to make a copy of the new port information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

This example shows changing the configuration information for an IBM 3270 host named Engineering, configured for BSC emulation. Access is controlled to ports 0, 1, and 2 of the emulated 3276 controller.

ECS!Stop IBM 3270 EmulationDisconnect active users? (Y/N): **Y**

ECS: IBM 3270 Emulation is stopped

ECS!Change IBM 3270 Host

Possible IBM 3270 Hosts are

1 Engineering

2 Testing

Enter choice number: **1**Name: **Engineering**Description: **IBM Host entry for 3270 BSC use**

Choose the RS232C port name through which the Host is accessed

1 Port1

Enter choice number: **1**Enter the Emulated 3276 Controller's address (0-31): **1**Enter the size of buffers to IBM 3270 Host (60...512): **512**Enter the number of ports on the emulated 3276 Controller (1-8): **8**Is access control desired? (Y/N): **Y**Is the access control the same for all ports? (Y/N): **N**Enter the name of the group allowed access to port 0: **Marketing**Enter the name of the group allowed access to port 1: **Marketing**Enter the name of the group allowed access to port 2: **Research:R&D**

Enter the name of the group allowed access to port 3:

Enter the name of the group allowed access to port 4:

Enter the name of the group allowed access to port 5:

Enter the name of the group allowed access to port 6:

Enter the name of the group allowed access to port 7:

Language supported by this Emulated 3276 Controller is

1 Austrian

.

.

9 English (US)

.

.

26 Swedish (Alternate)

Enter choice number: **9**Is all the Emulated 3276 Controller information correct? (Y/N): **Y**Change another Emulated 3276 Controller to this IBM 3270 Host? (Y/N): **N**Confirm this IBM 3270 Host information? (Y/N): **Y**

Clearinghouse update complete

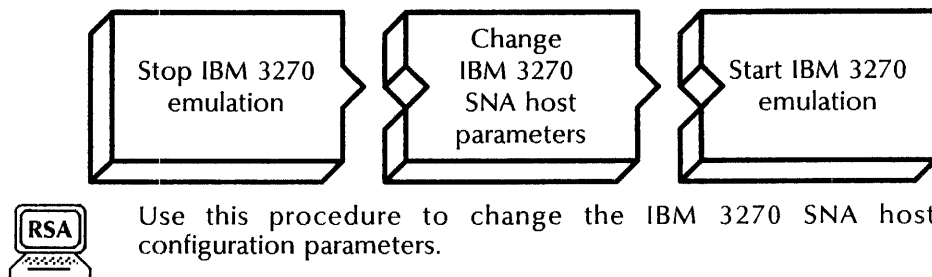
Done. Engineering (IBM 3270 Host) changed.

ECS!Start IBM 3270 Emulation

ECS: IBM 3270 Emulation is started.

ECS!

Changing an IBM 3270 SNA host configuration



Prerequisites

- Change the server port information first.
- Update the External Communication Service Worksheet with any changes you are making to the following information:
 - The name of the 3270 SNA host
 - The RS232C port for host access
 - The dial-up phone number for a dial-up line
 - The emulated 3276 controller XID number
 - The emulated 3276 controller address
 - The size of the IBM host buffers
 - The number of ports on the emulated 3276 controller
 - The access controls for each port
 - The language supported

Step-by-step

1. Log on and enable in the External Communication Service context.
2. Type **Stop IBM 3270 Emulation** ↵.

Disconnect active users? (Y/N):

3. Type **Y** or **N** at the "Disconnect active users" prompt ↵.
 - Y** Immediately disconnects the IBM 3270 users on the External Communication Service.
 - N** Stops IBM 3270 emulation after all current users log off.

ECS: IBM 3270 Emulation is stopped.
ECS!

4. Type **Change IBM 3270 Host** ↵.

Possible IBM 3270 Hosts are

1 <host name >

2 <host name >

Enter choice number: <number >

5. Type the number for the IBM host entry you want to change .

NOTE

Default values appear for these prompts. Press RETURN to retain any default value.

Description: <description >

6. Type a new description for the IBM host entry .

Choose the RS232C port through which the Host is accessed

1 <port name >

2 <port name >

Enter choice number: <number >

7. Type the number for the port to be used for host access .

Is this a dial-up line? (Y/N): <Y/N >

8. Type **Y** or **N** at the "Is this a dial-up line" prompt .

Y Displays the following prompts for dial-up lines.
Continue with step 9.

N **Skip to step 10.**

Enter the phone number to be dialed: <number >

9. Type a seven-digit phone number (do not hyphenate) .

Enter Emulated 3276 Controller XID: <number >

10. Type the five hexadecimal characters that represent the XID .

Enter the Emulated 3276 Controller's address
(1-255): <number >

11. Type the controller address .

Enter the size of buffers to IBM 3270 Host
(60-512): <number >

12. Type the size of the IBM 3270 host buffers ⇐.

Enter the number of ports on the emulated 3276 Controller (1-8): <number>

13. Type the number of ports on the emulated 3276 controller ⇐.

Is access control desired? (Y/N): <Y/N>

14. Type **Y** or **N** at the access control prompt ⇐.

Y Allows a specific user group to use IBM 3270 emulation for these ports. **Continue with step 15.**

N Allows all users on the internetwork to use IBM 3270 emulation for these ports. **Skip to step 18.**

Is access control the same for all ports? (Y/N): <Y/N>

15. Type **Y** or **N** at the access control prompt ⇐.

Y Allows one group access to all configured 3270 ports, and displays the following prompt. **Continue with step 16.**

N Allows one group access to each port. **Skip to step 17.**

Enter the name of the group allowed access to these ports: <name>

16. Type the name of the user group whose members may access all ports ⇐.

Enter the name of the group allowed access to port <number>: <name>

17. Type the name of the group whose members may access each port. Simply press RETURN if you do not want to control access to a port.

Language supported by this Emulated 3276 Controller is

1 Austrian

.

.

9 English (US)

.

.

26 Swedish (Alternate)

Enter choice number: <number>

NOTE

18. Type the number for the language supported.

Always type 9, for the "English (US)" option, unless your computer site advises you otherwise.

Is all the Emulated 3276 Controller information correct?
(Y/N):

19. Type **Y** or **N** at the "Is all the Emulated 3276 Controller information correct" prompt ↵.

Y Changes the controller information.

N Cancels the controller changes. Return to step 9.

Change another Emulated 3276 Controller to this IBM 3270 Host? (Y/N):

20. Type **Y** or **N** at the "Change another Emulated 3276 Controller to this IBM 3270 Host" prompt ↵.

Y Return to step 5.

N **Continue with step 21.**

Confirm this IBM 3270 Host information? (Y/N):

21. Type **Y** or **N** at the "Confirm this IBM 3270 Host information" prompt ↵.

Y Changes the IBM 3270 host information.

N Cancels all changes. Return to step 5.

Clearinghouse update complete
Done. <name> (IBM 3270 Host) changed.
ECS!

22. Type **Start IBM 3270 Emulation** ↵.

ECS: IBM 3270 emulation is started
ECS!

23. Log off.

Wrap-up

When you see the message "IBM 3270 Emulation is started," you have changed the configuration for an IBM 3270 SNA host.

You may want to make a copy of the new port information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

This example shows changing the configuration information for an IBM 3270 host named Development, configured for SNA emulation. Access is controlled to ports 0, 1, and 2 of the emulated 3276 controller.

ECS!Stop IBM 3270 Emulation

Disconnect active users? (Y/N): **Y**

ECS: IBM 3270 Emulation is stopped

ECS!Change IBM 3270 Host

Possible IBM 3270 Hosts are

- 1 Development
- 2 Testing

Enter choice number: **1**

Description: **IBM Host entry for 3270 SNA use**

Choose the RS232C port through which the Host is accessed

- 1 CIUport
- 2 Jupiter-Localport

Enter choice number: **2**

Is this a dial-up line? (Y/N): **Y**

Enter the phone number to be dialed: **5551212**

Enter Emulated 3276 Controller XID: **054FD**

Enter the Emulated 3276 Controller's address (1-255): **193**

Enter the size of buffers to IBM 3270 Host (60...512): **265**

Enter the number of ports on the emulated 3276 Controller (1-8): **4**

Is access control desired? (Y/N): **Y**

Is the access control the same for all ports? (Y/N): **N**

Enter the name of the group allowed access to port 0: **Marketing**

Enter the name of the group allowed access to port 1: **Marketing**

Enter the name of the group allowed access to port 2: **Research:R&D**

Enter the name of the group allowed access to port 3:

Language supported by this Emulated 3276 Controller is

- 1 Austrian
- .
- .
- 9 English (US)
- .
- .

26 Swedish (Alternate)

Enter choice number: **9**

Is all the Emulated 3276 Controller information correct? (Y/N): **Y**

Change another Emulated 3276 Controller to this IBM 3270 Host? (Y/N): **N**

Confirm this IBM 3270 Host information? (Y/N): **Y**

Clearinghouse update complete

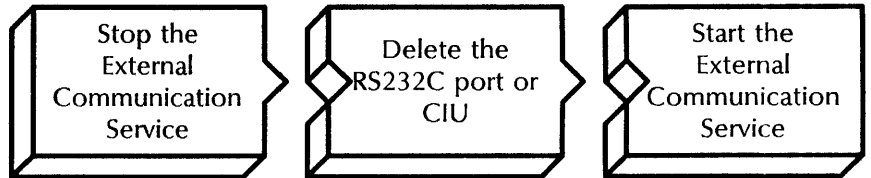
Done. Development (IBM 3270 Host) changed.

ECS!Start IBM 3270 Emulation

ECS: IBM 3270 Emulation is started

ECS!

Deleting an RS232C port or CIU configuration



Use this procedure to delete port configuration information from the External Communication Service.

Instruct 8010/6085 workstation users to delete their old TTY or VT100 icons after you have deleted the port configurations.



Delete all RS232C ports assigned to a Communication Interface Unit before you delete the unit.

Prerequisites

- Use the **List IBM 3270 Hosts** command to see if any hosts require the port you are deleting.
- Use the **Describe RS232C Ports** command to see which host is assigned to the port as a default host.

Step-by-step

1. Log on and enable in the External Communication Service context.
2. Type **Stop**

```
Disconnect active users? (Y/N):
```

3. Type **Y** or **N** at the "Disconnect active users" prompt .
 - Y** Immediately stops all ECS user sessions and the External Communication Service.
 - N** Stops the External Communication Service after all ECS current user activity ends.

```
ECS: External Communication Service is stopped.
```

4. Type **Delete RS232C Port** or **Delete Communication Interface Unit** .

```
Possible <RS232C ports/CIUs> are
1 <name>
2 <name>
Enter choice number:
```

5. Type the number for the RS232C port or Communication Interface Unit you are deleting **↵**.

```
Clearinghouse update complete
The <RS232C port/CIU name> has been deleted.
ECS!
```

6. Type **Start ↵**.

```
ECS: External Communication Service is started.
ECS!
```

7. Log off.

Wrap-up

When you see the message "External Communication Service is started," you have deleted the RS232C port or the Communication Interface Unit.

You may want to make a copy of the new port information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Next change the host entry to specify a different port.

Example

This example shows deleting an RS232C port named Port1.

```
ECS!Stop
  Disconnect active users? (Y/N): Y

ECS: External Communication Service is stopped.
Delete RS232C Port
  Possible RS232C Ports are
  1  Port1
  2  Port2
  Enter choice number: 1
  Clearinghouse update complete
  The RS232C port Port1 has been deleted.
ECS!Start
ECS: External Communication Service is started.
ECS!
```

Deleting an IBM 3270 host configuration



Use this procedure to delete IBM 3270 host configuration information from the External Communication Service.

Instruct 8010/6085 workstation users to delete their 3270 desktop icons after you delete the host configuration.

Step-by-step

1. Log on and enable in the External Communication Service context.
2. Type **Stop IBM 3270 Emulation**

Disconnect active users? (Y/N):

3. Type **Y** or **N** at the "Disconnect active users" prompt .
 - Y** Immediately disconnects users and stops IBM 3270 emulation.
 - N** Stops IBM 3270 emulation after all current users log off.

ECS: IBM 3270 Emulation is stopped.
ECS!

4. Type **Delete IBM 3270 Host** .

Possible IBM 3270 Hosts are
1 <host name >
2 <host name >
Enter choice number:

5. Type the number for the IBM 3270 host you want to delete .

Clearinghouse update complete
The IBM 3270 Host named <name > has been deleted.
ECS!

- Type **Start IBM 3270 Emulation** **↵**.

```
ECS: IBM 3270 emulation is started.
ECS!
```

- Log off.

Wrap-up

When you see the message "IBM 3270 Emulation is started," you have deleted the IBM 3270 host configuration.

You may want to make a copy of the new port information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

This example shows deleting an IBM 3270 host named OBS1 used for IBM 3270 emulation.

```
ECS!Stop IBM 3270 Emulation
  Disconnect active users? (Y/N): Y
ECS: IBM 3270 Emulation is stopped.
ECS!Delete IBM 3270 Host
  Possible IBM 3270 Hosts are
  1  OBS1
  2  Host 2
  Enter choice number: 1
  Clearinghouse update complete
  The IBM 3270 Host named OBS1 has been deleted.
ECS!Start IBM 3270 Emulation
ECS: Assuming control of path to IBM 3270 Host. Host 2 using controller number
1 though RS232C port Port3
ECS: IBM 3270 Emulation is started
ECS: External Communication Service is started
ECS!
```

Describing RS232C ports



Use this procedure to list current information about an RS232C port used for asynchronous terminal emulation, asynchronous dial-in, or IBM 3270 emulation.

Step-by-step

- Log on in the External Communication Service context.
- Type **Describe RS232C Port** **↵**.


```
Which port:
1  <port name >
2  <port name >
Enter choice number:
```

3. Type the number for the port whose configuration you want to see and press RETURN. The current information appears.
4. Log off.

Wrap-up

When you see the "ECS>" prompt, you have displayed the configuration information for the port you chose.

You may want to make a copy of the new port information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Examples

This example shows describing an RS232C port for asynchronous dial-in.

```
ECS> Describe RS232C Port
      Which port
      1  ITS/TTY emulation port
      2  TTY emulation port
      Enter choice number: 1
Name: ITS/TTY emulation port, Line Number: 0
Line speed: 300 bps, Local Port: 0.
Description: ITS's second 300 bps port. Call 225-1234
Port duplex: full duplex, Synchronous capability:
asynchronous.
Port use: Asynchronous Dial-in.
Preemption: forbidden
Dial-in users will be given a choice of connections.
Data bits/character: eight, Stop bits: one, Parity: none.
Autodialer: RS366
Access control: TeamLeaders:OurDomain:OurOrg
Flow control: none.
ECS>
```

This example shows an RS232C port description for asynchronous terminal emulation.

```
ECS > Describe RS232C Port
      Which port
      1  ITS/TTY emulation port
      2  TTY emulation port
      Enter choice number: 2
Name: TTY emulation port, Line Number: 64
Line speed: 1200 bps, CIU Port: A1
Description: TTY 1200 bps for time sharing
Port duplex: full duplex, Synchronous capability:
asynchronous.
Port use: Asynchronous terminal emulation.
Data bits/character: seven, Stop bits: one, Parity: even.
Autodialer: Racal-Vadic.
Port type: terminal (DTE).
Flow control: XOn/XOff, XOn: 21, XOff: 23.
ECS >
```

This example shows describing an RS232C port for asynchronous dial-in.

```
ECS > Describe RS232C Port
      Which port:
      1  ITS/TTY emulation port
      2  TTY emulation port
      3  Asynchronous dial-in and dial-out
      Enter choice number: 3
Name: ITS/TTY emulation port, Line Number: 0
Line speed: 300 bps, Local Port: 0.
Description: ITS's second 300 bps port. Call 225-1234
Port duplex: full duplex, Synchronous capability:
asynchronous.
Port use: Asynchronous Emulation and Dial-in.
Preemption: allowed
Dial-in users will be given a choice of connections.
Data bits/character: eight, Stop bits: one, Parity: none.
Autodialer: RS366
Access control: TeamLeaders:OurDomain:OurOrg
Port type: terminal (DTE)
Flow control: none.
ECS >
```

This example shows describing an RS232C port for IBM 3270 BSC emulation.

```
ECS> Describe RS232C Port
      Which port:
      1  CIU SNA port
      2  Local BSC port
      Enter choice number: 2
Name: Local BSC port, Line Number: 0
Line speed: 4800 bps, Local Port: 0.
Description: BSC link to IBM Host in San Francisco
Port duplex: full duplex, Synchronous capability: byte
synchronous.
Port use: IBM 3270 BSC Emulation.
Default Host Name: San Francisco.
Default Host Description: Regional HQ Office Host.
Controller Address: 1, Number of Ports on Controller: 8
Language: English (US), RS232C port: Local BSC port
Link Type: BSC, Buffer Size: 265.
Access control:
      for port 0: Managers:Western Region:OurOrg.
      for port 1: ::.
      for port 2: ::.
      for port 3: Managers:Eastern Region:OurOrg.
      for port 4: ::.
      for port 5: Sales:Eastern Region:OurOrg.
      for port 6: ::.
      for port 7: ::.
ECS>
```

This example shows describing an RS232C port for IBM 3270 SNA emulation. The port is on the Multiport Option Kit.

```
ECS> Describe RS232C Port
      Which port:
      1  Local SNA port
      2  TTY emulation port
      Enter choice number: 1
Name: Local SNA port,   Line Number: 0
Line speed: 4800 bps,  Local Port: 0.
Description: SNA link to New York IBM Host.  Call
214-678-8221
Port duplex: half duplex, Synchronous capability: bit
synchronous.
Port use: IBM 3270 SNA Emulation.
Autodialer: none.
Encoding: nrzi
Default Host Name: New York City.
Phone Number: 2146788221
Default Host Description: Central Office Host.
Controller Address: 1, Number of Ports on Controller: 3
Language: English (US), RS232C port: Local SNA port
Link Type: SNA,   XID: OEB54,   Buffer Size: 265.
Access control:
      for port 0: ::
      for port 1: ::
      for port 2: ::
ECS>
```

This example shows describing an RS232C port for IBM 3270 SNA emulation. The port is on an 873 Communication Interface Unit.

```
ECS> Describe RS232C Port
      Which port:
      1  CIU SNA port
      2  TTY emulation port
      Enter choice number: 1
Name: CIU SNA port,   Line Number: 66
Line speed: 4800 bps,  CIU Port: A3.
Description: Dedicated link to Chicago IBM Host
Port duplex: full duplex, Synchronous capability: bit
synchronous.
Port use: IBM 3270 SNA Emulation.
Autodialer: none.
Default Host Name: County Office Host.
ECS>
```

Listing External Communication Service information



Use this procedure to display a list of ports or hosts registered with the External Communication Service.

Step-by-step

1. Log on in the External Communication Service context.
2. Type **List Communication Interface Units**, **List IBM 3270 Hosts**, or **List RS232C Ports** and press RETURN. The list of ports or hosts appears.
3. Log off.

Wrap-up

When you see the "ECS>" prompt, you have successfully displayed the port or host information available.

You may want to make a copy of the new port information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

This example shows listing the configured RS232C ports.

```

ECS> List RS232C Ports
port name  owning service type  description
Local Ports
0, ChefPort3,  IBM 3270,  4800 1/2 dpx to OBS
2, Ven-Tel on Chef,  Asyn IN/OUT,  1200 8-1-N 333-3044
3, Ven-Tel-1200-31,  Asyn IN/OUT,  Async 1200 8-1-N 333-0921
1, None,  IRS,  Clusterport for testing
ECS>

```

Renaming the External Communication Service



Use this procedure to change the name of the External Communication Service; for example, if the location of the service changes within your organization.

Prerequisites

Update the External Communication Service Worksheet in your *Activities Guide* with the new name.

Step-by-step

1. Log on and enable in the External Communication Service context.

2. Type **Rename Service** .

```
Deleting Clearinghouse entry for:
< name:domain:organization >
Done
Attempting to determine the name of this External
Communication Service.
    Service name and description unknown.
    Enter Service Name:
```

3. Type a new name for the External Communication Service .

```
Enter service description:
```

4. Type a new description for the External Communication Service .

```
Confirm? (Y/N):
```

5. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Registers the new name in the Clearinghouse.
 - N** Cancels the changes. Return to step 3.
6. Log off.

Wrap-up

When you see the message "Clearinghouse entry verification complete," you have successfully renamed the External Communication Service.

You may want to make a copy of the new port information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

This example shows renaming the External Communication Service from OurECS to NewECS.

```

ECS!Rename Service
Deleting Clearinghouse entry for: OurECS:OurDomain:OurOrg
Done
Attempting to determine the name of this External Communication Service.
Service name and description unknown.
Enter Service Name: NewECS
Enter service description: ECS with a new name
Confirm? (Y/N): Y
Validating Clearinghouse entry for: NewECS:OurDomain:OurOrg
A new Clearinghouse entry was created.
Done
Data pertaining to this External Communication Service has changed. Verify
Clearinghouse Entries command will be run now.
Attempting to determine the name of this External Communication Service
Validating Clearinghouse entry for: NewECS:OurDomain:OurOrg
Done
Clearinghouse entry verification complete.
ECS!

```

Showing RS232C port statistics



Use this procedure to display statistics for ports used for asynchronous communication or communication to an IBM host. The statistics include performance, loading, and error information for one or all ports.

Step-by-step

1. Log on in the External Communication Service context.
2. Type **Show RS232C Port Statistics** .

```

Which port:
1 <port name >
2 <port name >
3 All ports
Enter choice number:

```

3. Type the number for the port whose statistics you want to see and press RETURN. The statistics appear.
4. Log off.

Wrap-up

When you see the "ECS>" prompt, you have displayed all statistics for the port you chose. If you are using Remote System Administration, use the Make Document or Make Screen options. Store a copy in the *Activities Guide*.

Example

This example shows statistics for an asynchronous dial-in port.

```
ECS> Show RS232C Port Statistics
      Which port:
      1  ITS/TTY emulation port
      2  Another ITS/TTY emulation port
      3  All ports
      Enter choice number: 1
Name: ITS/TTY emulation port, Description: An ITS/TTY emulation port
Current state: listening
No session statistics available.
Since boot: Total time: 755 minutes. Number of connections: 10. Percent
utilized: 6%
      Connect time: Total: 45 minutes. Minimum: 1 minute. Maximum: 6
minutes.
      Total characters sent: 518. Total characters received: 4164.
      Parity errors: 0. Percentage of characters with parity error: 0%.
ECS!
```

This example shows statistics for an asynchronous terminal emulation port.

```
ECS> Show RS232C Port Statistics
      Which port:
      1  ITS/TTY emulation port
      2  TTY emulation port
      3  All ports
      Enter choice number: 2
Name: TTY emulation port, Description: TTY emulation port.
Current state: In use.
User: Bennett:OurDomain:OurOrg. Session length: 47 minutes.
Line speed: 1200 baud. Data bits/character: 8, Stop bits: 1, Parity: none.
Total characters sent: 456. Total characters received: 3459.
Parity errors: 0. Percentage of characters with parity error: 0%.
Since boot: Total time: 755 minutes. Number of connections: 15. percent utilized:
30%
      Connect time: Total: 226 minutes. Minimum: 1 minute. Maximum: 50 minutes
      Total characters sent: 5182. Total characters received: 41640.
      Parity errors: 0. Percentage of characters with parity error: 0%.
ECS!
```


This example shows statistics for an IBM 3270 BSC emulation port.

```
ECS> Show RS232C Port Statistics
Which port:
1  ITS/TTY emulation port
2  TTY emulation port
3  IBM 3270 BSC port
4  All ports
Enter choice number: 3
Name: IBM 3270 BSC port, Description: Link to Host in Rochester, NY.
Controller: Total time: 2029 minutes. Current number of users: 0. Percent utilized:
0%
Errors: 0, Percent transmission errors: 0%.
ECS!
```

This example shows statistics for an IBM 3270 SNA emulation dedicated port.

```
ECS> Show RS232C Port Statistics
Which port:
1  ITS/TTY emulation port
2  TTY emulation port
3  IBM 3270 dedicated port
4  All ports
Enter choice number: 3
Name: IBM 3270 dedicated port, Description: Room 101.
Controller: Total time: 8 minutes. Current number of users: 2. Percent utilized:
50%
Errors: 0, Percent transmission errors: 0%.
Device 0: Display. User: Heffner:Coast:OurOrg. Current state: active
Total session time: 4 minutes. Number of busy rejects: 2
Device 2:
...
Device 7: Display. User: Jensen:Personnel:OurOrg. Current state: active
Total session time: 1 minute. Number of busy rejects: 0
Done
ECS!
```

This example shows statistics for an IBM 3270 SNA emulation dial-up port.

```

ECS> Show RS232C Port Statistics
Which port:
1 ITS/TTY emulation port
2 TTY emulation port
3 SNA dial-up port
4 All ports
Enter choice number: 3
Name: SNA dial-up port, Description: Port for SNA Dial-Up
Controller: Total time: 2286 minutes. Current number of users: 0. Percent utilized:
0%
Errors: 0, Percent transmission errors: 0%.
ECS!

```

Verifying Clearinghouse entries



Normally the External Communication Service automatically registers ports and IBM hosts when you create or change these entries. If the External Communication Service reports that it cannot register information with the Clearinghouse Service, use this procedure to reregister the External Communication Service information.



The Clearinghouse Service does not verify asynchronous dial-in ports. Dial-in users are never known to the Clearinghouse Service, and are not shown.

Step-by-step

1. Log on and enable in the External Communication Service context.
2. Type **Verify Clearinghouse Entries**

Should all entries be verified? (Y/N):

3. Type **Y** or **N** at the "Should all entries be verified" prompt .
 - Y** Checks all entries for consistency.
 - N** Checks only inconsistent entries. An inconsistent entry is an unsuccessful registration of a port or host in the Clearinghouse. To speed the verification, check only inconsistent entries.
4. Log off.

Wrap-up

When you see the message "Clearinghouse entry verification complete," all inconsistent entries have been registered in the Clearinghouse.

Example

This example shows verifying all entries. The entry for the External Communication Service Iceman is validated and the entry for RS232C port Port1 is updated in the Clearinghouse database.

ECS!Verify Clearinghouse Entries

Should all entries be verified? (Y/N): **Y**

Attempting to determine the name of this External Communication Service.

Validating Clearinghouse Entry for Iceman:OurDomain:OurOrg.

Done

Attempting to update entry for RS232C Port, Port1:OurDomain:OurOrg.

Clearinghouse update complete

...

Clearinghouse entry verification complete.

ECS!

This chapter contains the procedures you perform to maintain the SNA Mail Relay (SMR) and the Foreign Gateway Assistant (FGA). These procedures are available using an 8000 server.

Prerequisites

Complete these tasks before you perform any SNA Mail Relay maintenance procedures:

- Install all required software as described in the Server Software Installation chapter of the *Services Installation and Setup Guide*.
- Perform all setup procedures as described in the SNA Mail Relay chapter of the *Services Installation and Setup Guide*.

Commands

This section lists the commands you use to maintain your SNA Mail Relay. You can be in one of three contexts; SNA Mail Relay, SNA Access, or Foreign Gateway Assistant. The following section lists the commands available through each context.

SNA Mail Relay

You must be in the SNA Mail Relay context to access these commands.

Table 10-1 shows the SNA Mail Relay maintenance commands along with the logged on status and the server state (started or stopped) for accessing them.

Table 10-1. SNA Mail Relay maintenance commands

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add XNS domains					•	
Add Mail Link						•
Backup Database						•
Change Database					•	
Change Mail Link						•
Delete Mail Link					•	•
Delete XNS domains					•	
List Mail Links	•	•	•	•	•	
List XNS domains	•	•	•	•	•	
Restore Database						•
Show History			•	•	•	
Show Mail Link Parameters	•	•	•	•	•	
Show Status			•	•	•	
Shutdown Mail Relay					•	

Add Mail Link Available to the enabled user. Sets up XNS file-to-IBM document mappings.

Related procedure: Moving the SNA Mail Relay

Add XNS domains Available to the enabled user. Sets up XNS domains for mapping to SNADS DGNs.

Related procedures: Changing XNS domain-to-DGN mappings, Moving the SNA Mail Relay

Backup Database Available to the enabled user. Creates a copy of the SNA Mail Relay database on a different server.

Related procedure: Moving the SNA Mail Relay

Change Database	Available to the enabled user. Increases or decreases the size of the SNA Mail Relay database. Also indicates the database size. Related procedure: Monitoring SNA Mail Relay activity
Change Mail Link	Available to the enabled user. Changes existing foreign domain pairing to SNADS network information. Related procedure: Changing XNS file-to-IBM document mappings
Delete Mail Link	Available to the enabled user. Deletes a SNADS network-to-foreign domain pairing. Related procedure: Deleting the SNADS network and mail link
Delete XNS domains	Available to the enabled user. Deletes an existing mapping of XNS domain-to-DGN. Related procedures: Changing XNS domain-to-DGN mappings, Deleting XNS domain-to-DGN mappings
List Mail Links	Available to any user. Displays a list of SNADS networks with corresponding foreign domains. Related procedure: Displaying mail links, XNS domains, and SNADS networks
List XNS domains	Available to any user. Displays a list of XNS domains with corresponding DGNs. Related procedure: Displaying mail links, XNS domains, and SNADS networks
Restore Database	Available to the enabled user. Writes a copy of the SNA Mail Relay database to the local server disk. The SNA Mail Relay must be stopped before using this command. Related procedure: Moving the SNA Mail Relay
Show History	Available to the logged on user. Displays statistics on the SNA Mail Relay. Includes information on date and time of statistics collection, number of messages forwarded and posted, number of duplicates messages received from SNADS network, database size, and number of disk pages used. Related procedure: Monitoring SNA Mail Relay activity
Show Mail Link Parameters	Available to any user. Displays information for specified SNADS network-to-foreign domain pairing. Related procedure: Displaying mail links, XNS domains, and SNADS networks
Show Status	Available to any user. Displays current status of the SNA Mail Relay. Includes information on messages queued for XNS and SNADS mail systems, and database size and usage. Related procedure: Monitoring SNA Mail Relay activity
Shutdown Mail Relay	Available to the enabled user. Causes the SNA Mail Relay to stop receiving mail from both the XNS and SNADS mail systems. Related procedure: Moving the Foreign Gateway Assistant

SNA Access

This section lists the commands you use to maintain your SNA Access. You must be in the SNA Access context to access these commands.

Table 10-2 shows the SNA Access maintenance commands along with the logged on status and the server state (started or stopped) for accessing them.

Table 10-2. SNA Access maintenance commands

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Controller					•	
Add RS232C port					•	
Add SNADS Network					•	
Change Controller					•	
Change RS232C port					•	
Change SNADS Network						•
Delete Controller					•	
Delete RS232C port					•	
Delete SNADS Network						•
List Event Loggers	•	•	•	•	•	
List SNADS Networks	•	•	•	•	•	
Reset History			•	•	•	
Show Controller			•	•	•	
Show History			•	•	•	
Show RS232C Ports			•	•	•	
Show Status			•	•	•	
Show SNADS Network Parameters	•	•	•	•	•	
Start Controller					•	
Start Event Logging					•	
Stop Controller					•	
Stop Event Logging					•	

Add Controller Available to the enabled user. Sets up controller information to allow eventual communication with a remote SNA device.

Related procedure: Moving the SNA Mail Relay

Add RS232C port Available to the enabled user. Sets up RS232C port information to allow eventual communication with a remote SNA device.

Related procedure: Moving the SNA Mail Relay

- Add SNADS Network** Available to the enabled user. Sets up SNADS network information to allow eventual communication with SNADS users.
Related procedure: Moving the SNA Mail Relay
- Change Controller** Available to the enabled user. Changes existing controller information, including logical unit names and addresses, controller phone number, and station address. The specified controller must be stopped before using this command.
Related procedure: Changing the controller
- Change RS232C port** Available to the enabled user. Changes existing RS232C port information, including phone line access, data encoding, and duplexity. The specified controller must be stopped before using this command.
Related procedure: Changing the RS232C port
- Change SNADS Network** Available to the enabled user. Changes existing SNADS network information, including controller name, sending/receiving controller, and connection time.
Related procedure: Changing the SNADS network
- Delete Controller** Available to the enabled user. Deletes existing controller information. The specified controller must be stopped before using this command.
Related procedure: Deleting the controller and RS232C port
- Delete RS232C port** Available to the enabled user. Deletes existing RS232C port information. The specified controller must be stopped before using this command.
Related procedure: Deleting the controller and RS232C port
- Delete SNADS Network** Available to the enabled user. Deletes existing SNADS network information.
Related procedure: Deleting the SNADS network and mail link
- List Event Loggers** Available to any user. Displays which SNADS network, controller, and SNA Mail Relay are logging events.
Related procedure: Monitoring SNA Mail Relay events
- List SNADS Network** Available to any user. Displays names of existing SNADS networks.
Related procedure: Displaying mail links, XNS domains, and SNADS networks
- Reset History** Available to logged on user. Resets the start date and time for recording controller status.
Related procedure: Monitoring SNA Mail Relay activity
- Show Controller** Available to logged on user. Displays controller name(s) and description, as well as the corresponding RS232C port for each controller.
Related procedure: Deleting the controller and RS232C port

Show History	Available to logged on user. Displays a record of the controller status, as well as information about transmission errors and messages forwarded and posted. Related procedure: Monitoring SNA Mail Relay activity
Show RS232C Port	Available to logged on user. Displays a list of RS232C port names, numbers and descriptions. Related procedure: Deleting the controller and RS232C port
Show Status	Available to logged on user. Displays the state of the logical units and controller, as well as information about RS232C port connections. Related procedures: Deleting the SNADS network and mail link, Monitoring SNA Mail Relay activity
Show SNADS Network Parameters	Available to any user. Displays existing SNADS network information, including controller name, sending/receiving controller, and connection time. Related procedure: Displaying mail links, XNS domains, and SNADS networks
Start Controller	Available to the enabled user. Makes available the controller logical units to the SNA Mail Relay. Related procedures: Changing the controller, Moving the SNA Mail Relay
Start Event Logging	Available to the enabled user. Starts the recording of events. Related procedures: Monitoring SNA Mail Relay events, Moving the SNA Mail Relay
Stop Controller	Available to the enabled user. Stops communication with a specified controller. Related procedures: Changing the controller, Deleting the controller and RS232C port
Stop Event Logging	Available to the enabled user. Stops the recording of events. Related procedure: Monitoring SNA Mail Relay events

Foreign Gateway Assistant

This section lists the commands you use to maintain your Foreign Gateway Assistant. You must be in either the Mail Service (MS) or Foreign Gateway Assistant (FGA) context to access these commands.

Table 10-3 shows the Foreign Gateway Assistant maintenance commands along with the logged on status and the server state (started or stopped) for accessing them.

Table 10-3. **Foreign Gateway Assistant maintenance commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Foreign Domain (MS)					•	
Add Foreign Gateway (MS)					•	
Add Foreign Gateway Mailbox (FGA)					•	
Change Foreign Gateway (MS)					•	
Clear Problems (FGA)					•	
Delete Foreign Domain (MS)					•	
Delete Foreign Gateway (MS)					•	
List Maps (FGA)	•	•	•	•	•	•
List Problems (FGA)	•	•	•	•	•	•
Show Status (FGA and MS)			•	•	•	•

Add Foreign Domain

Available to the enabled user. Sets up a foreign domain for use by the SNA Mail Relay.

Related procedures: Moving the SNA Mail Relay, Moving the Foreign Gateway Assistant, Changing the foreign gateway and foreign domain

Add Foreign Gateway

Available to the enabled user. Sets up a foreign gateway for use by the SNA Mail Relay.

Related procedures: Moving the SNA Mail Relay, Moving the Foreign Gateway Assistant,

Add Foreign Gateway Mailbox

Available to the enabled user. Sets up a mailbox for use by the SNA Mail Relay.

Related procedures: Moving the SNA Mail Relay, Moving the Foreign Gateway Assistant

Change Foreign Gateway

Available to the enabled user. Changes an existing foreign gateway used by the SNA Mail Relay.

Related procedures: Moving the SNA Mail Relay, Changing the foreign gateway and foreign domain, Moving the Foreign Gateway Assistant

- Clear Problems** Available to the enabled user. Deletes the Foreign Gateway Assistant record of problems.
Related procedure: Monitoring Foreign Gateway Assistant activity
- Delete Foreign Domain** Available to the enabled user. Deletes the foreign domain used by the SNA Mail Relay.
Related procedures: Deleting the SNADS network and mail link, Moving the Foreign Gateway Assistant, Changing the foreign gateway and foreign domain, Deleting the foreign gateway and foreign domain
- Delete Foreign Gateway** Available to the enabled user. Deletes the foreign gateway used by the SNA Mail Relay.
Related procedures: Deleting the foreign gateway and foreign domain, Moving the Foreign Gateway Assistant
- List Maps** Available to any user. Displays foreign domain-to-mailbox mappings.
Related procedure: Monitoring Foreign Gateway Assistant activity
- List Problems** Available to any user. Displays a list of problems for mailboxes, domains, and configuration.
Related procedure: Monitoring Foreign Gateway Assistant activity
- Show Status** Available to logged on user. Displays the state of the Foreign Gateway Assistant, whether it is moving mail and if any errors are recorded. Displays pending mail queue in the Mail Service context.
Related procedure: Monitoring Foreign Gateway Assistant activity

Procedures

This section contains these procedures for maintaining the SNA Mail Relay and the Foreign Gateway Assistant:

SNA Mail Relay procedures

Changing the RS232C port

Use this procedure to change the port number, description, type of phone line access, encoding protocol or duplexity.

Changing the controller

Use this procedure to change the name and description of the controller, as well as update changes in port information, host phone number, station address and number of logical units.

Changing the SNADS network

Use this procedure to change the RGN (Routing Group Name) and REN (Routing Element Name) of the host or server, as well as update the changes made to the controller and logical units, hop counts, and connecting intervals.

Changing XNS domain-to-DGN mappings

Use this procedure to change the mappings between XNS domains and SNADS DGNs (Distribution Group Name).

Changing XNS file-to-IBM document mappings

Use this procedure to change the XNS file types mapped to IBM document types.

Deleting the controller and RS232C port

Use this procedure to delete the controller and port information.

Deleting XNS domain-to-DGN mappings

Use this procedure to delete mappings between XNS domains and SNADS DGNs (Distribution Group Name).

Deleting the SNADS network and mail link

Use this procedure to delete the foreign domain, the mail link, and the SNADS network.

Displaying mail links, XNS domains, and SNADS networks

Use this procedure to display configuration information.

Expunging the SNA Mail Relay

Use this procedure to remove the SNA Mail Relay from a server.

Monitoring SNA Mail Relay activity

Use this procedure to look at current activity and status of the SNA Mail Relay.

Monitoring SNA Mail Relay events

Use this procedure to establish a baseline of SNA Mail Relay activity.

Moving the SNA Mail Relay

Use this procedure to move the SNA Mail Relay from one server location to another.

Foreign Gateway Assistant procedures

Changing the foreign gateway and foreign domain

Use this procedure to change the phone number for the foreign gateway, as well as change the foreign domain name.

Deleting the foreign gateway and foreign domain

Use this procedure to delete the foreign gateway and foreign domain information.

Expunging the Foreign Gateway Assistant

Use this procedure to remove the Foreign Gateway Assistant from the server.

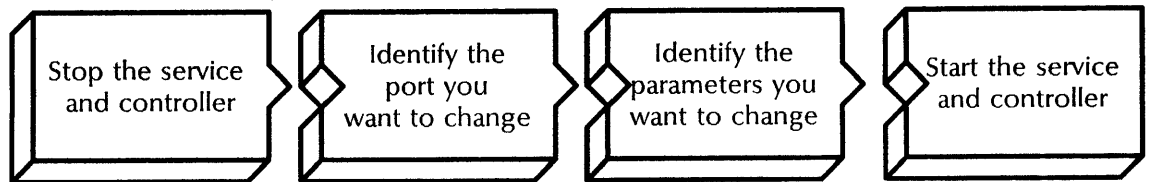
Monitoring Foreign Gateway Assistant activity

Use this procedure to monitor the status of the Foreign Gateway Assistant.

Moving the Foreign Gateway Assistant

Use this procedure to move the Foreign Gateway Assistant from one server location to another.

Changing the RS232C port



Use this procedure to change one or all of the parameters associated with a port. You perform this procedure at the server where the SNA Mail Relay is installed.

Prerequisites

- Update the SNA Mail Relay Worksheet with the following information:
 - The port number and description
 - The port is using a switched or a dedicated line
 - Autodialer hardware is installed
 - The encoding is NRZ or NRZI
 - The modem is full or half duplex
- Use the **Show RS232C port** command to verify port information.

Step-by-step

1. Log on and enable in the SNA Access context at the server where the SNA Mail Relay is installed.
2. Type **Stop Service** .

```

Select choices
1  <service name>
2  <service name>
Enter one or more choices:
  
```

3. Type the number for the SNA Mail Relay option .

```

SMR: Stop immediately? (Y/N):
  
```

4. Type **Y** or **N** at the "Stop immediately" prompt .
 - Y** Stops the service immediately after processing the pending queues.
 - N** Waits until all users log off, then stops the service.

```

Stopping SNA Mail Relay Service.
SNA!
  
```

5. Type **Stop Controller** ↵.

```
Choose controller to stop
1 <controller name>
2 <controller name>
Enter choice number:
```

6. Type the number of the controller you want to change ↵.

```
Terminate communications immediately? (Y/N):
```

7. Type **Y** or **N** at the “Terminate communications immediately” prompt ↵.

Y Immediately stops the controller.

N Processes all pending queues and then stops the controller.

```
SNA: <date> <time> - Communications line status:
connection aborted.
Controller <name> is stopped.
SNA!
```

8. Type **Change RS232C port** ↵.

```
RS232C port to change
1 <port name>
2 <port name>
Enter choice number:
```

9. Type the number of the RS232C port you want to change ↵.

```
Parameters to change (current value)
1 local port number <2>
2 description <existing information>
3 switched/dedicated <switched or dedicated>
4 NRZ/NRZI <NRZ or NRZI>
5 half/full duplex <half or full duplex>
Enter one or more choices:
```

10. Type the number of the item you want to change and press RETURN. You can specify one or more items, for example 1-3. After you make the changes, **continue with step 11**.

```
Confirm this RS232C port information? (Y/N):
```

11. Type **Y** or **N** at the “Confirm this RS232C port information” prompt ↵.

Y Changes the port information.

N Cancels the process.

12. Type **Start Service** \leftarrow .

```
Select choices
1  <service name >
2  <service name >
Enter one or more choices:
```

13. Type the number for the SNA Mail Relay option \leftarrow .

```
Starting SNA Mail Relay Service.
SNA!
```

14. Type **Start Controller** \leftarrow .

```
Choose controller to start
1  <controller name >
2  <controller name >
Enter choice number:
```

15. Type the number of the controller you want to start \leftarrow .

```
Dial <phone number > to establish connection.
Controller <controller name > has been started.
<date > <time >
SNA!
```

Wrap-up

When you see the "SNA!" prompt, you have changed RS232C port information.

If you changed the port name, you must also change it within the controller information. Perform the next procedure "Changing controller information."

If you added autodialer hardware, perform the next procedure, "Changing controller information" to autostart the phone connection.

Example

This example shows changing phone line access from dedicated to switched.

SNA!Stop Service

Select choices

1 SNA Mail Relay Service

Enter one or more choices: **1**

SMR: Stop immediately? (Y/N): **Y**

Stopping SNA Mail Relay Service.

SNA!Stop Controller

Choose controller to stop

1 OBS Controller

2 Xerox

Enter choice number: **1**

Terminate communications immediately? (Y/N): **N**

SNA: 6-Jan-87 16:00:36 - Communications line status: connection aborted.

Controller OBS Controller is stopped.

SNA!Change RS232C port

RS232C port to change

1 MPOK Port 2

Enter choice number: **1**

Parameters to change (current value)

1 local port number (2)

2 description (NRZI Port to OBS)

3 switched/dedicated (dedicated)

4 NRZ/NRZI (NRZI)

5 half/full duplex (half duplex)

Enter one or more choices: **3**

Access to the telephone line is

1 dedicated

2 switched

Enter choice number: **2**

Confirm this RS232C port information? (Y/N): **Y**

RS232C port MPOK Port 2 has been changed.

SNA!Start Service

Select choices

1 SNA Mail Relay Service

Enter one or more choices: **1**

Starting SNA Mail Relay Service.

SNA!Start Controller

Choose controller to start

1 OBS Controller

2 Xerox

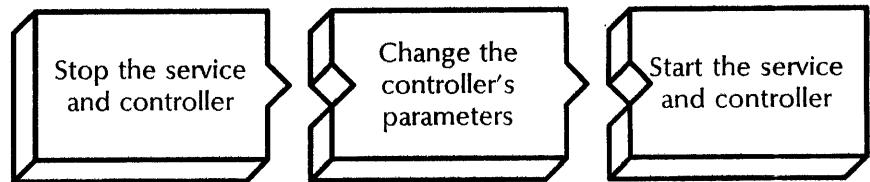
Enter choice number: **1**

Dial 1-400-980-0200 to establish connection.

Controller OBS Controller has been started. 6-Jan-87 16:04:27

SNA!

Changing the controller



Use this procedure to change one or all of the parameters associated with a controller. You perform this procedure at the server where the SNA Mail Relay is installed.

Prerequisites

- Update the SNA Mail Relay Worksheet with the following information:
 - The name and description of the controller
 - The name of the port
 - Whether the line is autostarted
 - The phone number for the host (switched lines only)
 - The XID number
 - The SDLC number
 - The MAXDATA number
 - The name and address of the sending LU
 - The name and address of the receiving LU

Step-by-step

1. Log on and enable in the SNA Access context at the server where the SNA Mail Relay is installed.
2. Type **Stop Service** .

```

Select choices
1  <service name >
2  <service name >
Enter one or more choices:
  
```

3. Type the number for the SNA Mail Relay option .

```

SMR: Stop immediately? (Y/N):
  
```

4. Type **Y** or **N** at the "Stop immediately" prompt .
 - Y** Stops the service immediately after processing the pending queues.
 - N** Waits until all users log off, then stops the service.

```
Stopping SNA Mail Relay Service.  
SNA!
```

5. Type **Stop Controller** .

```
Choose controller to stop  
1 <controller name >  
2 <controller name >  
Enter choice number:
```

6. Type the number of the controller you intend to change .

```
Terminate communications immediately? (Y/N):
```

7. Type **Y** or **N** at the "Terminate communications immediately" prompt .

- Y** Immediately stops the controller.
- N** Processes all pending queues and then stops the controller.

```
SNA: <date > <time > - Communications line status:  
connection aborted.  
Controller <name > is stopped.  
SNA!
```

8. Type **Change Controller** .

```
Controller to change  
1 <controller name >  
2 <controller name >  
Enter choice number:
```

9. Type the number of the controller you want to change ↵.

```
Parameters to change (current value)
1 name <existing information >
2 description <existing information >
3 RS232C port <name >
4 automatically start <yes or no >
5 telephone number <number >
6 XID <number >
7 SDLC station address <number >
8 MAXDATA <number >
9 logical units <number LUs are configured >
Enter one or more choices:
```

10. Type the number of the item you want to change and press RETURN. You can specify one or more items, for example 1-3. After you make the changes, **continue with step 11.**

```
Confirm this controller information? (Y/N):
```

11. Type **Y** or **N** at the "Confirm this controller information" prompt ↵.
- Y** Changes the controller information. **Continue with step 12.**
 - N** Cancels the process.
12. Type **Start Service** ↵.

```
Select choices
1 <service name >
2 <service name >
Enter one or more choices:
```

13. Type the number for the SNA Mail Relay option ↵.

```
Starting SNA Mail Relay Service.
SNA!
```

14. Type **Start Controller** ↵.

```
Choose controller to start
1 <controller name >
2 <controller name >
Enter choice number:
```

15. Type the number of the controller you want to start **↵**.

```
Dial <phone number> to establish connection.  
Controller <controller name> has been started.  
<date> <time>  
SNA!
```

Wrap-up

When you see the "SNA!" prompt, you have changed the controller information. Use the **Show Controller** command to verify the controller information before continuing.

If you changed the name of the controller, you must also change it within the SNADS network. Perform the next procedure "Changing SNADS network information."

If you changed the name of the sending or receiving logical unit, you must also change it within the SNADS network. Perform the next procedure "Changing SNADS network information."

If you changed the name of the port, you must also change it within the port's description. Perform the prior procedure "Changing RS232C port information."

If you indicated you wanted to autostart the line, you need to identify the autodialer hardware within the port's description. Perform the prior procedure "Changing RS232C port information."

Example

This example shows stopping the service and controller, and changing the name and address of a logical unit.

SNA!Stop Service

Select choices

1 SNA Mail Relay Service

Enter one or more choices: **1**

SMR: Stop immediately? (Y/N): **Y**

Stopping SNA Mail Relay Service.

SNA!Stop Controller

Choose controller to stop

1 OBS Controller

2 Xerox

Enter choice number: **1**

Terminate communications immediately? (Y/N): **Y**

SNA: 6-Jan-87 16:00:36 - Communications line status: connection aborted.

Controller OBS Controller is stopped.

SNA!Change Controller

Controller to change

1 OBS Controller

2 Xerox

Enter choice number: **1**

Parameters to change (current value)

1 name (OBS Controller)

2 description (OBS Controller for test)

3 RS232C port (MPOK Port 1)

4 automatically start (yes)

5 telephone number (1-400-980-0200)

6 XID (03E00180)

7 SDLC station address (2)

8 MAXDATA (265)

9 logical units (2 LUs are configured)

Enter one or more choices: **9**

Change logical units? (Y/N): **Y**

Logical units to change

1 U05SZ221

2 U05SZ220

Enter one or more choices: **1**

Name of logical unit: U05SZ221

NAU address (hex) of logical unit U05SZ221: **2**

Delete logical units? (Y/N): **N**

Add a logical unit? (Y/N): **N**

WARNING: Changing the controller name OR changing, deleting or adding LUs requires review of configurations referencing this controller

Confirm this controller information? (Y/N): **Y**

Controller OBS Controller has been changed.

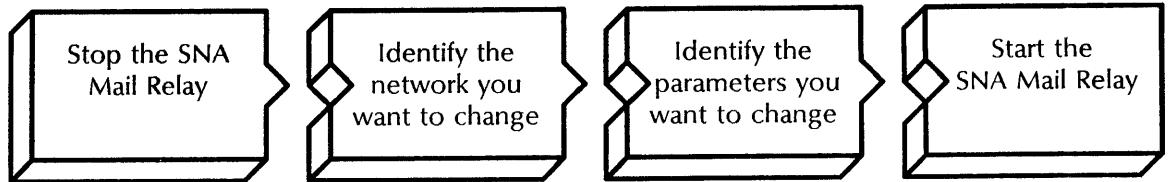
SNA!

Screen continued

This example shows starting the service and controller.

```
SNA!Start Service
  Select choices
  1  SNA Mail Relay Service
  Enter one or more choices: 1
Starting SNA Mail Relay Service.
SNA!Start Controller
  Choose controller to start
  1  OBS Controller
  2  Xerox
  Enter choice number: 1
  Dial 1-400-980-0200 to establish connection.
  Controller OBS Controller has been started. 6-Jan-87 16:04:27
SNA!
```

Changing the SNADS network



This procedure lets you change one or all parameters associated with the SNADS network. You perform this procedure at the server where the SNA Mail Relay is installed.

Prerequisites

- Update the SNA Mail Relay Worksheet with the following information:
 - The name of the network
 - The RGN and REN of the host
 - The RGN and REN of the XNS server
 - The name of the controller
 - The name of the sending and receiving LUs
 - The LOGMODE for sending and receiving
 - The number of hops
 - Whether the connection is continuous
 - If the connection is not continuous, the start time and length of the interval

Step-by-step

1. Log on and enable in the SNA Access context at the server where the SNA Mail Relay is installed.
2. Type **Stop Service**

```

Select choices
1  <service name>
2  <service name>
Enter one or more choices:
  
```

3. Type the number for the SNA Mail Relay option .

```

SMR: Stop immediately? (Y/N):
  
```

4. Type **Y** or **N** at the "Stop immediately" prompt .
 - Y** Stops the service immediately after processing the pending queues.
 - N** Waits until all users log off, then stops the service.

Stopping SNA Mail Relay Service.
SNA!

5. Type **Change SNADS Network** .

Select a SNADS Network
1 <network name >
2 <network name >
Enter choice number:

6. Type the number of the SNADS network you want to change .

Configuration parameters to change
1 RGN and REN of adjacent node
2 RGN and REN of Xerox server
3 Local controller, LUs and mode names
4 Remote LUs
5 Hopcount
6 Connecting intervals
Enter one or more choices:

7. Type the number of the item you want to change and press RETURN. You can specify one or more items, for example 1-3. After you make the changes, **continue with step 8.**

Changing SNADS network <name>. Confirm? (Y/N):

8. Type **Y** or **N** at the "Confirm" prompt .
- Y** Changes the SNADS network information.
N Cancels the process.
9. Type **Start Service** .

Select choices
1 <service name >
2 <service name >
Enter one or more choices:

10. Type the number for the SNA Mail Relay option .

Starting SNA Mail Relay Service.
SNA!

Wrap-up

When you see the "SNA!" prompt, you have changed SNADS network information. Use the **Show SNADS Network Parameters** and the **List SNADS Networks** commands to verify SNADS information before continuing.

If you changed the name of the controller, you must also change it within the controller's description. Perform the prior procedure "Changing controller information."

If you changed the name of the sending and receiving logical unit, you must also change it within the controller's description. Perform the prior procedure "Changing controller information."

Example

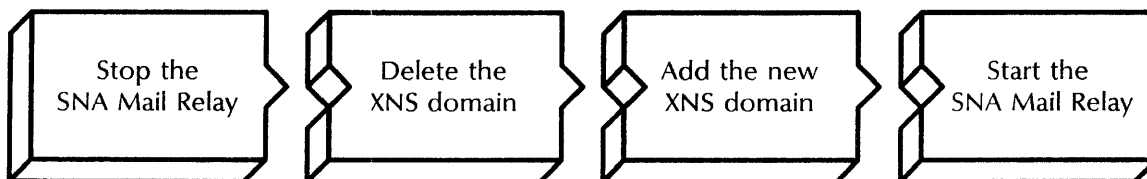
This example shows changing logical unit mode names.

```

SNA!Stop Service
  Select choices
  1  SNA Mail Relay Service
  Enter one or more choices: 1
  SMR: Stop immediately? (Y/N): Y
Stopping SNA Mail Relay Service.
SNA!Change SNADS Network
  Select a SNADS Network
  1  OBS NZRI SNADS Network
  Enter choice number: 1
  Configuration parameters to change
  1  RGN and REN of adjacent node
  2  RGN and REN of Xerox server
  3  Local controller, LUs and mode names
  4  Remote LUs
  5  Hopcount
  6  Connecting intervals
  Enter one or more choices: 3
  Select a controller for sending and receiving
  1  OBS Controller
  2  Xerox
  Enter choice number: 1
  Select a local LU for SENDING to SNADS network
  1  U05SZ221
  2  U05SZ220
  Enter choice number: 1
  Mode name used for SENDING to SNADS network: S36
  Select a local LU for RECEIVING from SNADS network
  1  U05SZ220
  Enter choice number: 1
  Mode name used for RECEIVING from SNADS network: S36
  Changing SNADS network OBS NZRI SNADS Network. Confirm? (Y/N): Y
SNA!Start Service
  Select choices
  1  SNA Mail Relay Service
  Enter one or more choices: 1
Starting SNA Mail Relay Service.
SNA!

```

Changing XNS domain-to-DGN mappings



Use this procedure to change the XNS domain that is mapped to a DGN. You perform this procedure at the server where the SNA Mail Relay is installed.

Prerequisites

- Update the SNA Mail Relay Worksheet with the following information:
 - The name of the current XNS domain mapped to the DGN
 - The name of the new XNS domain mapped to the DGN
 - The DGN for the new XNS domain

Step-by-step

1. Log on and enable in the SNA Mail Relay context at the server where the SNA Mail Relay installed.
2. Type **Stop Service**

```
Select choices
1 <service name>
2 <service name>
Enter one or more choices:
```

3. Type the number for the SNA Mail Relay option .

```
SMR: Stop immediately? (Y/N):
```

4. Type **Y** or **N** at the "Stop immediately" prompt .
 - Y** Stops the service immediately after processing the pending queues.
 - N** Waits until all users log off, then stops the service.

```
Stopping SNA Mail Relay Service.
SMR!
```

5. Type **Delete XNS Domain** .

NOTE: DGN appears in parenthesis
 Choose the domains that you want to delete
 1 <domain name> (DGN name)
 2 <domain name> (DGN name)
 Enter one or more choices:

6. Type the number for the XNS domain you want to delete .

Deleting Domain-DGN mapping <domain name>. Confirm?
 (Y/N):

7. Type **Y** or **N** at the "Confirm" prompt .
- Y** Deletes the foreign domain.
N Cancels the process.

Deleted 1 Domain-DGN mapping(s)
 SMR!

8. Type **Add XNS Domain** .

XNS domain that can receive SNADS mail:

9. Type the domain and organization name for the new XNS domain and press RETURN. Use a colon to separate the domain and organization name.

SNADS Distribution Group Name for this XNS domain:

10. Type the DGN for the new XNS domain .

Do you want to add another XNS Domain mapping? (Y/N):

11. Type **Y** or **N** at the "Do you want to add another XNS Domain mapping" prompt .
- Y** Repeats the process starting at step 9.
N Ends the process to add an XNS domain. **Continue with step 12.**

12. Type **Start Service** **↵**.

```
Select choices
1  <service name>
2  <service name>
Enter one or more choices:
```

13. Type the number for the SNA Mail Relay option **↵**.

```
Starting SNA Mail Relay Service.
SMR!
```

14. Log off.

Wrap-up

When you see the "SMR!" prompt, you have changed XNS domain-to-DGN mappings. Use the **List XNS domains** command to verify domain-to-DGN changes.

Provide an updated mailing list for both XNS and SNADS users.

Example

This example shows changing the XNS domain-to-DCN mapping.

SMR!Stop Service

Select choices

1 SNA Mail Relay Service

Enter one or more choices: **1**

SMR: Stop immediately? (Y/N): **Y**

Stopping SNA Mail Relay Service.

SMR!Delete XNS Domains

NOTE: DGN appears in parenthesis

Choose the domains that you want to delete

1 Beta:Xerox (SEAX)

2 Tour:Xerox (R3934101)

Enter one or more choices: **1**

Deleting Domain - DGN mapping Beta:Xerox. Confirm? (Y/N):**Y**

Deleted 1 Domain - DGN mapping(s)

SMR!Add XNS Domains

XNS domain that can receive SNADS mail: **Alpha:Xerox**

SNADS Distribution Group Name for this XNS domain: **Pax**

Do you want to add another XNS Domain mapping? (Y/N): **N**

Added 1 Domain - DGN mapping(s)

SMR!Start Service

Select choices

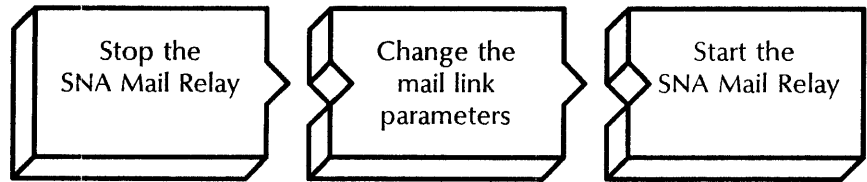
1 SNA Mail Relay Service

Enter one or more choices: **1**

Starting SNA Mail Relay Service.

SMR!

Changing XNS file-to-IBM document mappings



Use this procedure to change the document types associated with a specific SNADS network. You perform this procedure at the server where the SNA Mail Relay is installed.

Prerequisites

Update the SNA Mail Relay Worksheet with the following information:

- The name of the SNADS network

Step-by-step

1. Log on and enable in the SNA Mail Relay context at the server that has the SNA Mail Relay installed.
2. Type **Stop Service** .

```

Select choices
1 <service name>
2 <service name>
Enter one or more choices:
  
```

3. Type the number for the SNA Mail Relay option .

```

SMR: Stop immediately? (Y/N):
  
```

4. Type **Y** or **N** at the "Stop immediately" prompt .
 - Y** Stops the service immediately after processing the pending queues.
 - N** Waits until all users log off, then stops the service.

```

Stopping SNA Mail Relay Service.
SMR!
  
```

5. Type **Change Mail Link** .

```

Choose the Mail Link (by SNADS network name) to change
1 <SNADS network name>
2 <SNADS network name>
Enter choice number:
  
```

6. Type the number for the SNADS network .

DIA document type for ViewPoint documents (hexadecimal):

7. Type the hexadecimal number for ViewPoint documents, or press RETURN to accept the default.

DIA document type for 860 documents (hexadecimal):

8. Type the hexadecimal number for 860 documents, or press RETURN to accept the default.

DIA document type for ViewPoint folders (hexadecimal):

9. Type the hexadecimal number for ViewPoint folders, or press RETURN to accept the default.

Default DIA document type for XNS documents (hexadecimal):

NOTE: Set XNS file type to 0 in order to delete the DIA document type / XNS file type mapping

10. Type the hexadecimal number for XNS documents, or type 0 to specify the default

Do you wish to specify DIA document types for other XNS file types? (Y/N):

11. Type Y or N at the "Do you wish to specify DIA document types for other XNS file types" prompt .

Y Specifies addition document types. **Continue to step 12.**

N Ends the process to specify document types. **Skip to step 14.**

XNS file type (decimal) (0..2147483647):

12. Type the file type for other XNS file types .

DIA document type (hexadecimal):

13. Type the DIA document type that corresponds to other XNS file types .

Changing Mail Link <name> SNADS Network. Confirm? (Y/N):

14. Type **Y** or **N** at the "Confirm" prompt **⇐**].

Y Changes mail link information.

N Cancels the process.

```
Mail Link to SNADS network <name> changed.
SMR!
```

15. Type **Start Service** **⇐**].

```
Select choices
1 <service name >
2 <service name >
Enter one or more choices:
```

16. Type the number for the SNA Mail Relay option **⇐**].

```
Starting SNA Mail Relay Service.
SMR!
```

17. Log off.

Wrap-up

When you see the "SMR!" prompt, you have changed the mapping information between XNS file types and IBM document types. Use the **List Mail Links** command to verify file and document mappings.

Example

This example shows changing information between XNS file types and IBM document types.

SMR!Stop Service

Select choices

1 SNA Mail Relay Service

Enter one or more choices: **1**

SMR: Stop immediately? (Y/N): **Y**

Stopping SNA Mail Relay Service.

SMR!Change Mail Link

Choose the Mail Link (by SNADS network name) to change

1 OBS SNADS Network

2 Doc Test

Enter choice number: **2**

DIA document type for ViewPoint documents (hexadecimal):

DIA document type for 860 documents (hexadecimal):

DIA document type for ViewPoint folders (hexadecimal):

Default document type will be used

Default DIA document type for XNS documents (hexadecimal): **0**

NOTE: Set XNS file type to 0 in order to delete the

DIA document type / XNS file type mapping

XNS file type (decimal) (0..2147483647): **1**

DIA document type (hexadecimal): **A000**

XNS file type (decimal) (0..2147483647): **0**

Do you wish to specify DIA document types

for other XNS file types? (Y/N): **N**

Changing Mail Link Doc Test. Confirm? (Y/N): **Y**

Mail Link to SNADS network Doc Test changed.

SMR!Start Service

Select choices

1 SNA Mail Relay Service

Enter one or more choices: **1**

Starting SNA Mail Relay Service.

SMR!

Deleting the controller and RS232C port



Use this procedure to delete the controller and associated RS232C port. You perform this procedure at the server where the SNA Mail Relay is installed.

Prerequisites

Update the SNA Mail Relay Worksheet with the name of the controller and RS232C port you want to delete.

Step-by-step

1. Log on and enable in the SNA Access context at the server where the SNA Mail Relay is installed.
2. Type **Stop Service** .

```
Select choices
1  <service name >
2  <service name >
Enter one or more choices:
```

3. Type the number for the SNA Mail Relay option .

```
SMR: Stop immediately? (Y/N):
```

4. Type **Y** or **N** at the "Stop immediately" prompt .
 - Y** Stops the service immediately after processing the pending queues.
 - N** Waits until all users log off, then stops the service.

```
Stopping SNA Mail Relay Service.
SNA!
```

5. Type **Stop Controller** .

```
Choose controller to stop
1  <controller name >
2  <controller name >
Enter choice number:
```

6. Type the number of the controller you want to stop .

```
Terminate communications immediately? (Y/N):
```

7. Type **Y** or **N** at the "Terminate communications immediately" prompt .
- Y** Immediately stops the controller.
- N** Processes all pending queues and then stops the controller.

```
SNA: <date> <time> - Communications line status:
connection aborted.
    Controller <name> is stopped.
SNA!
```

8. Type **Delete Controller** .

```
Controller to delete
 1 <controlle name >
 2 <controlle name >
Enter one or more choices:
```

9. Type the number of the controller to delete .

```
Deleting controller <name> . Confirm? (Y/N):
```

10. Type **Y** or **N** at the "Confirm" prompt .
- Y** Deletes the controller information.
- N** Cancels the process.

11. Type **Delete RS232C port** .

```
Delete RS232C port
 1 <port name >
 2 <port name >
Enter one or more choices:
```


12. Type the number of the port to delete .

```
Deleting RS232C port <name> . Confirm? (Y/N):
```

13. Type **Y** or **N** at the "Confirm" prompt .
- Y** Deletes the port information.
- N** Cancels the process.

14. Type **Start Service** .

```
Select choices
1  <service name >
2  <service name >
Enter one or more choices:
```

15. Type the number for the SNA Mail Relay option .

```
Starting SNA Mail Relay Service.
SNA!
```

Wrap-up

When you see the "SNA!" prompt, you have deleted the controller and the RS232C port information. Use the **Show Controller** and **Show RS232C port** commands to verify information.

Example

This example shows deleting a controller and associated RS232C port.

SSNA!Stop Service

Select choices

1 SNA Mail Relay Service

Enter one or more choices: **1**

SMR: Stop immediately? (Y/N): **Y**

Stopping SNA Mail Relay Service

SNA!Stop Controller

Choose controller to stop

1 OBS Controller

2 Xerox

Enter choice number: **1**

Terminate communications immediately? (Y/N): **Y**

SNA: 6-Jan-87 16:00:36 - Communications line status: connection aborted.

Controller OBS Controller is stopped.

SNA!Delete Controller

Controller to delete

1 CONTROLLER MPOK PORT # 2

Enter choice number: **1**

Deleting controller CONTROLLER MPOK PORT # 2. Confirm?

(Y/N): **Y**

SNA!Delete RS232C port

Delete RS232C port

1 MPOK Port 2

Enter choice number: **1**

Deleting RS232C port MPOK Port 2. Confirm? (Y/N): **Y**

SNA!Start Service

Select choices

1 SNA Mail Relay Service

Enter one or more choices: **1**

Starting SNA Mail Relay Service.

SNA!

Deleting XNS domain-to-DGN mappings



Use this procedure to delete an XNS domain that is mapped to a DGN (Distribution Group Name). You perform this procedure at the server where the SNA Mail Relay is installed.

Prerequisites

- Update the SNA Mail Relay Worksheet with the name of the XNS domain you want to delete.
- Be familiar with the procedure, “Displaying mail links, XNS domains, and SNADS networks.” You may want to perform this procedure to verify information before deleting.

Step-by-step

1. Log on and enable in the SNA Mail Relay context at the server where the SNA Mail Relay is installed.
2. Type **Delete XNS Domain** .

NOTE: DGN appears in parenthesis
Choose the domains that you want to delete

1	< domain name >	(DGN name)
2	< domain name >	(DGN name)

Enter one or more choices:

3. Type the number for the XNS domain you want to delete .

Deleting Domain-DGN mapping < domain name >. Confirm?
(Y/N):

4. Type **Y** or **N** at the “Confirm” prompt .
 - Y** Deletes the foreign domain-to-DGN mapping.
 - N** Cancels the procedure.

Deleted 1 Domain-DGN mapping(s)
SMR!

Wrap-up

When you see the “SMR!” prompt, you have deleted XNS domain-to-DGN mappings. Provide an updated mailing list for both XNS and SNADS users.

Example

This example shows deleting a XNS domain-to-DGN mapping.

SMR!Delete XNS Domains

NOTE: DGN appears in parenthesis

Choose the domains that you want to delete

1 Beta:Xerox (SEAX)

2 Tour:Xerox (R3934101)

Enter one or more choices: **1**

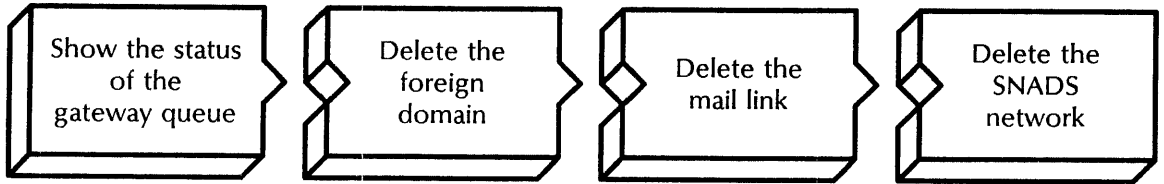
Deleting Domain - DGN mapping Beta:Xerox. Confirm?

(Y/N): **Y**

Deleted 1 Domain - DGN mapping(s)

SMR!

Deleting the SNADS network and mail link



Use this procedure to delete the foreign domain, the mail link, and the SNADS network. You perform this procedure at the server where the Mail Service is installed.

Prerequisites

- Update the SNA Mail Relay Worksheet with the following information:
 - The domain and organization name of the foreign domain
 - The name of the mail link
 - The name of the SNADS network
- Be familiar with the procedure, “Displaying mail links, XNS domains, and SNADS networks.” You may want to perform this procedure to verify information before deleting.

Step-by-step

1. Log on and enable in the Mail Service context at the server where the Mail Service is installed.
2. Type **Show Status** ↵.



CAUTION: Do NOT use the **Delete Foreign Gateway** command if the **Show Status** command shows mail in the gateway queue or you may cause server failure.

3. Type **Delete Foreign Domain** ↵.

Foreign Domain name:

4. Type the domain and organization name and press RETURN. Use a colon to separate the domain and organization names.

Confirm (Y/N):

5. Type **Y** or **N** at the “Confirm” prompt ↵.
 - Y** Deletes the foreign domain.
 - N** Cancels the procedure.

6. Log on and enable in the SNA Mail Relay context at the server where the SNA Mail Relay is installed.
7. Type **Stop Service** .

```
Select choices
1  <service name >
2  <service name >
Enter one or more choices:
```

8. Type the number for the SNA Mail Relay option .

```
SMR: Stop immediately? (Y/N):
```

9. Type **Y** or **N** at the "Stop immediately" prompt .
 - Y** Stops the service immediately after processing the pending queues.
 - N** Waits until all users log off, then stops the service.

```
Stopping SNA Mail Relay Service.
SNA!
```

10. Type **Delete Mail Link** .

```
Choose the Mail Link (by SNADS network name) to delete
1  <SNADS network name >
2  <SNADS network name >
Enter choice number:
```

11. Type the number for the SNADS network you want to delete .

```
Deleting Mail Link <SNADS network name > Confirm? (Y/N):
```

12. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Deletes the mail link.
 - N** Cancels the process.

```
Mail Link to <SNADS network name > deleted
SMR!
```

13. Type **SNA Access** .

```
SNA!
```

14. Type **Delete SNADS Network** ↵.

```
Select a SNADS network
1  <SNADS network name >
2  <SNADS network name >
Enter choice number:
```

15. Type the number for the SNADS network you identified in step 11 ↵.

```
Deleting Mail Link <SNADS network name > Confirm? (Y/N):
```

16. Type **Y** or **N** at the "Confirm" prompt ↵.
- Y** Deletes the SNADS network.
 - N** Cancels the process.
17. Repeat steps 10 and 16 for each SNADS network you have mapped to the foreign domain specified in step 4.
18. Type **Start Service** ↵.

```
Select choices
1  <service name >
2  <service name >
Enter one or more choices:
```

19. Type the number for the SNA Mail Relay option ↵.

```
Starting SNA Mail Relay Service.
SMR!
```

Wrap-up

When you see the "SMR!" prompt, you have deleted a SNADS network and the mail link information. Now you can delete the controller and RS232C port supporting the deleted SNADS network and mail link.

Example

This example shows deleting a SNADS network.

```
MS!Delete Foreign Domain
  Foreign Domain name: Tour:Xerox
  Confirm (Y/N): Y
Done.
MS!
<At other server>
SMR!Stop Service
  Select choices
  1  SNA Mail Relay Service
  Enter one or more choices: 1
  SMR: Stop immediately? (Y/N): Y
Stopping SNA Mail Relay Service.
SMR!Delete Mail Link
  Choose the Mail Link (by SNADS network name) to delete
  1  OBS SNADS Network
  2  Xerox-Acme
  Enter choice number: 2
  Deleting Mail Link Xerox-Acme. Confirm? (Y/N): Y
Mail Link to SNADS network Xerox-Acme deleted
SMR!SNA Access
SNA!Delete SNADS Network
  Select a SNADS Network
  1  OBS NRZI SNADS Network
  2  Xerox-Acme
  3  OBS SNADS Network
  Enter choice number: 2
  Deleting SNADS network Xerox-Acme Confirm? (Y/N) Y
  SNADS network Xerox-Acme deleted
SNA!Start Service
  Select choices
  1  SNA Mail Relay Service
  Enter one or more choices: 1
Starting SNA Mail Relay Service.
SNA!
```

Displaying mail links, XNS domains, and SNADS networks



Use this procedure to list the names of the mail links, XNS domains, and SNADS networks at the server where the SNA Mail Relay is installed. You can also show the parameters of the mail links and SNADS networks. You perform this procedure at the server where the SNA Mail Relay is installed.

Prerequisite

Know the name of the SNADS network.

- Be familiar with the procedure, "Displaying mail links, XNS domains, and SNADS networks." You may want to perform this procedure to verify information before deleting.

Step-by-step

1. Log on and enable in the SNA Mail Relay context at the server where the SNA Mail Relay is installed.
2. Type **List Mail Links** .

NOTE: Foreign Domain appears in parenthesis
 <network name> SNADS Network (foreign domain)
 SMR!

3. Type **Show Mail Link Parameters** .

Choose the Mail Link (by SNADS network name) to show
 1 <name> SNADS Network
 Enter choice number:

4. Type the number for the SNADS network .

SNADS Network name corresponding to this Mail Link:
 <name> SNADS Network
 XNS Foreign Domain corresponding to this Mail Link
 name:domain
 DIA document type for ViewPoint documents (hexadecimal):
 <number>
 DIA document type for 860 documents (hexadecimal):
 <number>
 Default DIA document type for XNS documents
 (hexadecimal): <number>
 XNS file type (decimal): <number>
 DIA document type (hexadecimal): <number>
 SMR!

5. Type **List XNS Domains** \Leftarrow .

```
NOTE: DGN appears in parentheses
<network name> SNADS Network      (DGN)
SMR!
```

6. Type **SNA Access** \Leftarrow .

```
SNA!
```

7. Type **List SNADS Networks** \Leftarrow .

```
<network name>
<network name>
```

8. Type **Show SNADS Network Parameters** \Leftarrow .

```
Select a SNADS Network
1  <network name> SNADS Network
2  <network name> SNADS Network
Enter choice number:
```

9. Type the number of the network \Leftarrow .

```
SNADS Network Name : <name> SNADS Network
RGN of adjacent SNADS node : <existing>
REN of adjacent SNADS node : <existing>
RGN of Xerox server : <existing>
REN of Xerox server : <existing>
Controller for sending and receiving : <name> Controller
Local LU for sending to SNADS network : <existing>
Mode name used for sending to SNADS network : <name>
Local LU for receiving from SNADS network : <existing>
Mode name used for receiving from SNADS network :
<name>
Remote LU for sending to SNADS network : <existing>
Remote LU for receiving from SNADS network : <existing>
Maximum hops for delivery : <number>
Continous (24 hr) connection has been defined
SNA!
```

10. Log off.

Wrap-up

When the "SNA!" prompt appears, you have listed the names and parameters of the mail links, XNS domains, and SNADS networks.

Example

This example shows the names and parameters for one SNADS network.

SMR!List Mail Links

NOTE: Foreign Domain appears in parentheses

SNADS Network (Tour:Xerox)

SMR!Show Mail Link Parameters

Choose the Mail Link (by SNADS network name) to show

1 OBS SNADS Network

Enter choice number:

SNADS Network name corresponding to this Mail Link : OBS SNADS Network

XNS Foreign Domain corresponding to this Mail Link Tour:Xerox

DIA document type for ViewPoint documents (hexadecimal) : D001

DIA document type for 860 documents (hexadecimal) : C000

Default DIA document type for XNS documents (hexadecimal) : 0

XNS file type (decimal) : 1

DIA document type (hexadecimal) : A000

SMR!List XNS Domains

NOTE: DGN appears in parenthesis

OBS SNADS Network (SEAX)

SMR!SNA Access**SNA!List SNADS Networks**

OBS NRZI SNADS Network

OBS SNADS Network

SNA!Show SNADS Network Parameters

Select a SNADS Network

1 OBS NRZI SNADS Network

2 OBS SNADS Network

Enter choice number: **2**

SNADS Network Name : OBS SNADS Network

RGN of adjacent SNADS node : OBS Host A

REN of adjacent SNADS node : DSV Host

RGN of Xerox server : OBSHost A

REN of Xerox server : S36RXI

Controller for sending and receiving : OBS Controller

Local LU for sending to SNADS network : U055Z221

Mode name used for sending to SNADS network : 6DU

Local LU for receiving from SNADS network : U055Z220

Mode name used for receiving from SNADS network : 6DU

Remote LU for sending to SNADS network : DISOSS32

Remote LU for receiving from SNADS network : DISOSS32

Maximum hops for delivery : 5

Continuous (24 hr) connection has been defined

SNA!

Expunging the SNA Mail Relay

Use this procedure to remove the SNA Mail Relay from the server.

Prerequisite

- Notify users you intend to perform this procedure.
- Be familiar with the procedure, "Displaying mail links, XNS domains, and SNADS networks." You may want to perform this procedure to verify information before expunging.

Step-by-step

1. Go to the server that has the SNA Mail Relay installed.
2. Type **Stop Service** .

```
Select choices
1 <service name >
2 <service name >
3 <service name >
Enter one or more choices:
```

3. Type the numbers for all services (for example, **1-3**) .

```
Stop immediately? (Y/N):
```

4. Type **Y** or **N** at each "Stop Immediately" prompt .
 - Y** Stops the service immediately after processing the pending queues.
 - N** Waits until all users log off, then stops the service.

NOTE

The number of "Stop immediately" prompts you receive depend on which services are installed on your server.

5. Reboot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

```
Normal startup? (Y/N):
```

6. Type **N** at the "Normal startup" prompt .
 - Y** Normally starts and runs each service loaded on the server.
 - N** Lets you perform specific tasks before the server is fully operational.

Enter interrupt point
 1 Interrupt before opening primary volume
 2 Interrupt before processing profile
 3 Interrupt before running services
 Enter one or more choices:

7. Type **3** for the "Interrupt before running services" option .
8. Log on and enable.
9. Type **Expunge Service** .

Select choices
 1 <service name >
 2 <service name >
 3 <service name >
 Enter one or more choices:

10. Type the number for the "SNA Mail Relay" option .

SMR: Confirm (Y/N):

11. Type **Y** or **N** at the "SMR: Confirm" prompt .
Y Confirms the process to expunge the SNA Mail Relay.
N Cancels the process.

Expunging SNA Mail Relay Service.
 Messages may be lost. Confirm? (Y/N):

12. Type **Y** or **N** at the "Confirm" prompt .
Y Confirms the process to expunge the SNA Mail Relay.
N Cancels the process.

Do you really want to expunge the SNA Mail Relay Service?
 (Y/N):

13. Type **Y** or **N** at the "Do you really want to expunge ..." prompt .
 - Y** Continues the process to expunge the SNA Mail Relay.
 - N** Cancels the process

```
SMR: Validating Clearinghouse entry for: <SNA Mail Relay
name >
SMR: Done
SMR: Deleting Clearinghouse entry for: <SNA Mail Relay
name >
SMR: Done
SNA Mail Relay Service expunged.
!
```

14. Reboot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

```
Normal startup? (Y/N):
```

15. Type **Y** at the "Normal startup" prompt .
 - Y** Normally starts and runs the services on the server.
 - N** Lets you perform specific tasks before the server is fully operational.
16. Log on and enable.

Wrap-up

When you see the message "SNA Mail Relay service expunged," the steps to expunge the SNA Mail Relay are complete.

Example

This example shows expunging the SNA Mail Relay.

!Stop Service

Select choices

1 SNA Mail Relay Service

Enter one or more choices: **1**

SMR: Stop immediately? (Y/N): **Y**

Stopping SNA Mail Relay Service.

SMR: SNA Mail Relay Service is stopped.

SNA Mail Service has stopped.

<Reboot the server.>

!Expunge Service

Select choices

1 SNA Mail Relay Service

Enter choice number: **1**

SMR: Confirm (Y/N): **Y**

Expunging SNA Mail Relay Service.

Messages may be lost. Confirm? (Y/N): **Y**

Do you really want to expunge the SNA Mail Relay Service? (Y/N): **Y**

SMR: Validating Clearinghouse entry for: Speedy:Anaheim:Xerox

SMR: Done

SMR: Deleting Clearinghouse entry for: Speedy:Anaheim:Xerox

SMR: Done

SNA Mail Relay Service expunged.

!

Monitoring SNA Mail Relay activity



Use this procedure to monitor the SNA Mail Relay Service workload and status. These commands also let you display statistics within the context of SNA Access. You perform this procedure at the server supporting the SNA Mail Relay.

- **Show Status** (SNA and SMR context)
- **Show History** (SNA and SMR context)

Prerequisites

Be familiar with the SNA Mail Relay activity terms described in the SNA Mail Relay chapter of the *Guide to System Administration Activities*.

Step-by-step

1. Log on and enable in the SNA Mail Relay context at the server supporting the SNA Mail Relay.
2. Type **Show Status** .

<Displays number of queued messages and the database size.>

3. Type **Show History** .

<Displays number of messages sent and the number of errors returned, as well as the database usage.>

4. Enter the SNA Access context .
5. Type **Show Status** .

<Displays RS232C port information, as well as information on the SNADS network.>

6. Type **Show History** .

<Displays number of SDLC bytes sent and the number of errors returned, as well as the database usage.>

Wrap-up

When you complete this procedure, you have listed statistics within the SNA Mail Relay and SNA Access context.



You may want to use the **Reset History** command to reset the start date and time.

Example

This example shows monitoring SNA Mail Relay statistics in the SNA Mail Relay context. Compare the relationship between the database size and the number of pages in use. You may decide to use the **Change Database** command to reduce the number of available pages.

```

!SNA Mail Relay Service
SMR!Show Status
SNA Mail Relay Service - SMR to SNADS Network:Beta:Xerox
15-Dec-86 12:12:02
Service status:                Started
Flow Control:                  OFF

Messages queued for Xerox mail system:  0
Messages queued for SNADS:              0

Database size (pages):              50888
Database in use (pages):             15
SMR!Show History
SNA Mail Relay Service - SMR to SNADS Network:Beta:Xerox
15-Dec-86 12:12:12
Last reset:      13-Dec-86 11:40:30
Messages sent to SNADS:                1
Errors returned to SNADS:              0

Messages sent to Xerox Mail system:    2
Errors returned to Xerox Mail system:  1
Duplicates received by Xerox Mail system: 0
Flow control activity -
  instances:                            0
  total time:                            0 mins, 0 secs

Database size (pages):              50888
Maximum database usage (pages):     39
SMR!
    
```

This example shows monitoring statistics in the SNA Access context, and the status of the controller and the SNADS network.

```
SMR!SNA Access
SNA!Show Status
  Select components
  1  Controllers
  2  SNADS
  Enter one or more choices: 1,2
SNA Access on server Tour:Beta:Xerox
15-Dec-86 12:12:43
Controller Status
Port name: MPOB Port 1
  Port number:      1
  Line state:      down
  In use by:       Acme, Inc.

  Controller:      Acme - started
  PU state:        inactive
  Connected clients:  0
  LUs:
    NTECP2L1 - inactive
      Session State - unbound
      Client is - NONE
    NTECP2L2 - inactive
      Session State - unbound
      Client is - NONE

SNA!
```

This example shows the history of the controller and the SNADS network within the SNA context and then shows resetting the start time and date for both components.

```

SNA!Show History
  Select components
    1  Controllers
    2  SNADS
  Enter one or more choices: 1,2
SNA Access on server Tour:Beta:Xerox
15-Dec-86 12:13:16
Controller Statistics
Last reset: 13-Dec-86 8:13:27
Controller: OBS Controller
  SDLC bytes sent:          1800
  SDLC bytes received:     1837
  SDLC CRC errors:         3
  SDLC retransmissions:    0
  ACTPUs received:         0
  Medium down:             0
  Buffer not available:     0
  SNA errors:              2

  LU name: U05SZ221
  Bind successes:          1
  Bind failures:           1
  Abnormal Unbinds -
  Initiated locally:       0
  Initiated remotely:      0
  Current session start:   15-Dec-86 10:18:42

SNADS Statistics
Last reset: 15-Dec-86 8:12:57
SNADS network name: OBS SNADS Network
  Messages (Data and Status) sent to:      2
  Messages (Data and Status) received from: 2
  Communications errors:                    0

Client service: SNA Mail Relay Service
  Messages (Data and Status) received from: 2
  Messages (Data and Status) delivered to:  2
  Flow control active for -
  instances:                                0
  Total time:                               0 mins, 0 secs

DIU parsing errors: 0

SNA! Reset History
  Select components
    1  Controllers
    2  SNADS
  Enter one or more choices: 1,2
SNA!

```

Monitoring SNA Mail Relay events



Use this procedure to start and stop event logging. You perform this procedure at the server supporting the SNA Mail Relay.

If you only want to start and list event logging, perform steps 1 through 5. If you want to stop event logging, perform step 6.

Prerequisite

Know the components you want to monitor.

Step-by-step

1. Log on and enable in the SNA Mail Relay context at the server supporting the SNA Mail Relay.
2. Type **Start Event Logging** .

Log events for which components?

- 1 SNADS
- 2 SNA Mail Relay Service
- 3 ControllerManager

Enter one or more choices:

3. Type the number of the component you want to monitor .

A log file already exists:

File name: Event Log; Size: 25 pages; Created:
8-Jan-87 10:27:03;
Use this file? (Y/N):

4. Type **Y** or **N** at the "Use this file" prompt .
 - Y** Uses the existing log file.
 - N** Lets you create a new log file.

SNA!

5. Type **List Event Loggers** .

The following components are logging:

SNADS
SNA Mail Relay Service
ControllerManager
SNA!

6. Type **Stop Event Logging** .

Stop Logging events for which components?

- 1 SNADS
- 2 SNA Mail Relay Service
- 3 ControllerManager

Enter one or more choices:

- 7. Type the number of the component for which you want to stop event logging .

The log file, Event Log, is closed
SNA!

Wrap-up

When you see the "SNA!" prompt, you have started or stopped the logging facility or displayed the components that are currently being logged.

Example

This example shows starting event logging, listing the event loggers, and stopping event logging.

SNA!Start Event Logging

Log events for which components?

- 1 SNADS
- 2 SNA Mail Relay Service
- 3 ControllerManager

Enter one or more choices: 1-3

A log file already exists:

File name: Event Log; Size: 25 pages; Created: 8-Jan-87 10:27:03;

Use this file? (Y/N): Y

SNA!List Event Loggers

The following components are logging:

- SNADS
- SNA Mail Relay Service
- ControllerManager

SNA!Stop Event Logging

Stop Logging events for which components?

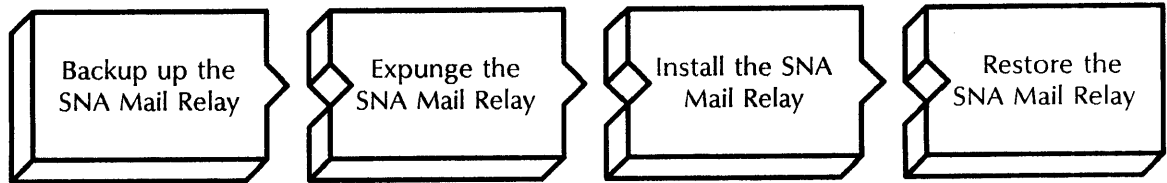
- 1 SNADS
- 2 SNA Mail Relay Service
- 3 ControllerManager

Enter one or more choices: 1-3

The log file, Event Log, is closed

SNA!

Moving the SNA Mail Relay



Use this procedure to move an existing SNA Mail Relay from one server to another.

Prerequisites

- Install all required software on the new server supporting the SNA Mail Relay as described in the Server Software Installation chapter in the *Services Installation and Setup Guide*.
- Perform the procedure, “Initializing the SNA Mail Relay” at the new server location. Refer to the SNA Mail Relay chapter in the *Services Installation and Setup Guide*.
- Update the SNA Mail Relay Worksheet with the new location of the SNA Mail Relay.
- Be familiar with the information presented in the “Planning for setup” section of the *Guide to System Administration Activities*.
- Have full access rights to the remote directory.
- Know the fully qualified name of the remote File Service containing the SNA Mail Relay backup file drawer.
- To prevent the SNA Mail Relay backup file drawer from filling up, perform the procedure “Recovering file drawer space by deleting old versions” in the File Service chapter of this book.

Step-by-step to Back up the SNA Mail Relay database

1. Log on and enable in the SNA Mail Relay context at the old server location for the SNA Mail Relay.

SMR!

2. Type **Stop Service** .

Select choices:
1 SNA Mail Relay
Enter one or more choices:

3. Type the number of the SNA Mail Relay .

SNA Mail Relay: Stop immediately? (Y/N):

4. Type **Y** or **N** at the "Stop immediately" prompt **↵**.
 - Y** Stops the service immediately and disconnects all active users.
 - N** Stops the service gradually, allowing all user sessions to complete before stopping.

```
Stopping SNA Mail Relay.  
SNA Mail Relay functions are now unavailable to the network.  
SMR!
```

5. Type **Backup Database** **↵**.

```
File Service:
```

6. Type the fully qualified name of the File Service that contains the SNA Mail Relay backup file drawer **↵**.

```
File Drawer:
```

7. Type the name of the SNA Mail Relay backup file drawer **↵**.

```
Starting backup of SNA Mail Relay Service database to (< File  
Service > : < domain > : < organization > ) < file drawer > /SMR-  
< service name > .Backup  
Database backup completed.  
SMR!
```

Wrap-up

When the SNA Mail Relay is backed up, you have finished this step. Now expunge the SNA Mail Relay from this server, next.

Example

This example shows backing up the SNA Mail Relay database.

```

SNA! SNA Mail Relay
SMR! Stop Service
Select choices:
1  SNA Mail relay
Enter one or more choices: 1
SNA Mail Relay: Stop immediately? (Y/N): Y
Stopping SNA Mail Relay.
SNA Mail Relay functions are now unavailable to the network.
SMR! Backup Database
File Service: Hawaii:AlphaServices:Acme
File Drawer: SNAbackup
Starting backup of SNA Mail Relay Service database to
(Hawaii:AlphaServices:Acme)SNAbackup/SMR to SNADS Network.Backup
Database backup completed.
SMR!Start Service
Select choices
1  SNA Mail Relay Service
Enter one or more choices: 1
Starting SNA Mail Relay Service.
The SNA Mail Relay Service has been started.
SMR!

```

Step-by-step to Expunge the SNA Mail Relay

1. Go to the old server location for the SNA Mail Relay.
2. Type **Stop Service** .

```

Select choices
1  <service name >
2  <service name >
3  <service name >
Enter one or more choices:

```

3. Type the numbers for all services (for example, 1-3) .

```

Stop immediately? (Y/N):

```

4. Type **Y** or **N** at each "Stop Immediately" prompt .
 - Y** Stops the service immediately after processing the pending queues.
 - N** Waits until all users log off, then stops the service.

NOTE

The number of "Stop immediately" prompts you receive depend on which services are installed on your server.

5. Reboot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

Normal startup? (Y/N):

6. Type **N** at the "Normal startup" prompt .
 - Y** Normally starts and runs each service loaded on the server.
 - N** Lets you perform specific tasks before the server is fully operational.

Enter interrupt point
 1 Interrupt before opening primary volume
 2 Interrupt before processing profile
 3 Interrupt before running services
 Enter one or more choices:

7. Type **3** for the "Interrupt before running services" option .
8. Log on and enable.
9. Type **Expunge Service** .

Select choices
 1 <service name >
 2 <service name >
 3 <service name >
 Enter one or more choices:

10. Type the number for the "SNA Mail Relay" option .

SMR: Confirm (Y/N):

11. Type **Y** or **N** at the "SMR: Confirm" prompt .
 - Y** Confirms the process to expunge the SNA Mail Relay.
 - N** Cancels the process.

Expunging SNA Mail Relay Service.
 Messages may be lost. Confirm? (Y/N):

12. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Confirms the process to expunge the SNA Mail Relay.
 - N** Cancels the process.

Do you really want to expunge the SNA Mail Relay Service?
(Y/N):

13. Type **Y** or **N** at the "Do you really want to expunge ..." prompt .
- Y** Continues the process to expunge the SNA Mail Relay.
 - N** Cancels the process

```
SMR: Validating Clearinghouse entry for: <SNA Mail Relay
name >
SMR: Done
SMR: Deleting Clearinghouse entry for: <SNA Mail Relay
name >
SMR: Done
SNA Mail Relay Service expunged.
!
```

14. Reboot the server.
- a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

Normal startup? (Y/N):

15. Type **Y** at the "Normal startup" prompt .
- Y** Normally starts and runs the services on the server.
 - N** Lets you perform specific tasks before the server is fully operational.
16. Log on and enable.

Wrap-up

When you see the "!" prompt, you have expunged the SNA Mail Relay. Continue with the next step-by-step to add the port, controller, and SNADS network information at the new server location.

Example

This example shows expunging the SNA Mail Relay.

```

!Stop Service
  Select choices
  1 SNA Mail Relay Service
  Enter one or more choices: 1
  SMR: Stop immediately? (Y/N): Y
  Stopping SNA Mail Relay Service.
  SMR: SNA Mail Relay Service is stopped.
  SNA Mail Service has stopped.
  <Reboot the server.>
!Expunge Service
  Select choices
  1 SNA Mail Relay Service
  Enter choice number: 1
  SMR: Confirm (Y/N): Y
  Expunging SNA Mail Relay Service.
  Messages may be lost. Confirm? (Y/N): Y
  Do you really want to expunge the SNA Mail Relay Service? (Y/N): Y
  SMR: Validating Clearinghouse entry for: Speedy:Anaheim:Xerox
  SMR: Done
  SMR: Deleting Clearinghouse entry for: Speedy:Anaheim:Xerox
  SMR: Done
  SNA Mail Relay Service expunged.
  !

```

**Step-by-step to
Add port, controller, and SNADS network**

1. Log on and enable in the SNA Access context at the new server location for the SNA Mail Relay.
2. Type **Add RS232C Port** .

Enter choice number:

3. Type the number of the RS232C port .

Enter RS-232-C port name:

4. Type the name of the RS232C port .

Description:

5. Type a description of the purpose of this port \leftarrow .

Access to the telephone line is
1 dedicated
2 switched
Enter choice number:

6. Type **1** or **2** to identify the telephone access for the RS232C port \leftarrow .
- 1 Indicates the telephone line is dedicated.
 - 2 Indicates the telephone line is switched.

Does this equipment have autodialer hardware (Y/N):

7. Type **Y** or **N** to indicate autodialing capability and press RETURN. The next prompt appears only if you have a Multiport Option Kit installed. If not, **skip to step 9**.

The equipment connected to this port encodes data using
1 nrz
2 nrzi
Enter choice number:

8. Type **1** or **2** to identify how the data will be encoded \leftarrow .
- 1 Indicates NZR encoding is in use.
 - 2 Indicates NZRI encoding is in use.

The equipment connected to this port is
1 full duplex
2 half duplex
Enter choice number:

9. Type **1** or **2** to identify the duplexity of the modem attached to the RS232C port .

 - 1** Indicates full duplex; the modem can transmit data in both directions at the same time.
 - 2** Indicates half duplex; the modem can transmit data in both directions, but not at the same time.

Confirm this RS232C port information? (Y/N):

10. Type **Y** or **N** at the "Confirm" prompt .

 - Y** Adds the port information.
 - N** Does not add the port information.

RS232C port < name > has been added.
SNA!

11. Type **Add Controller** .

Controller Name:

12. Type the name of the controller .

Description:

13. Type the description of the controller .

RS232C port to use
 1 <port name >
 2 <port name >
 Enter choice number:

14. Type the number for the port you entered in step 3 .

Re-start controller when server is rebooted? (Y/N):

15. Type **Y** or **N** at the "Re-start controller when server is rebooted" prompt \Leftarrow .

Y Restarts the controller when you reboot the server.

N Does not restart the controller.

Telephone number:

16. Type the telephone number of the host \Leftarrow . This prompt appears only if your phone line is switched.

XID (hex):

17. Type the XID hexadecimal number \Leftarrow . This prompt appears only if your phone line is switched.

SDLC station address (hex):

18. Type the SDLC station address \Leftarrow .

MAXDATA (decimal) (0..16384):

19. Type the MAXDATA hexadecimal number \Leftarrow .

Add a logical unit? (Y/N):

20. Type **Y** or **N** at the "Add a logical unit" prompt \Leftarrow .

Y Lets you add and define a logical unit; **continue with step 21.**

N Completes the process without adding a logical unit; **skip to step 24.**

Name of logical unit:

21. Type the name for the logical unit \Leftarrow .

This logical unit is of type 6.2.

Address of logical unit (hex):

22. Type the hexadecimal address for the logical unit \Leftarrow .

Add another logical unit? (Y/N):

23. Type **Y** or **N** at the "Add another logical unit" prompt \Leftarrow .

Y Lets you add another logical unit; **return to steps 21 and 22.**

N Completes the process to add a logical unit; **continue with step 24.**

Confirm this controller information? (Y/N):

24. Type **Y** or **N** at the "Confirm this controller information" prompt .

Y Adds the controller information.

N Cancels the process.

Controller <name> has been added.
SNA!

25. Type **Add SNADS Network** .

SNADS Network Name:

26. Type the name of the SNADS network .

RGN of adjacent SNADS node:

27. Type the RGN for the host .

REN of adjacent SNADS node:

28. Type the REN for the host .

RGN of Xerox server:

29. Type the RGN for the Xerox server .

REN of Xerox server:

30. Type the REN for the Xerox server .

Select a controller for sending and receiving

1 <controller name>

2 <controller name>

Enter choice number:

31. Type the number for the controller you entered at step 12 .

Select a local LU for SENDING to SNADS network

1 <logical unit name>

2 <logical unit name>

Enter choice number:

32. Type the number for the local sending logical unit .

Mode name used for SENDING to SNADS network:

33. Type the LOGMODE for sending to a SNADS network .

Select a local LU for RECEIVING from SNADS network
1 <logical unit name >
Enter choice number:

34. Type the number for the local receiving logical unit .

Mode name used for RECEIVING from SNADS network:

35. Type the LOGMODE for receiving from a SNADS network .

Remote LU for SENDING to SNADS network:

36. Type the name of the remote sending logical unit .

Remote LU for RECEIVING from SNADS network:

37. Type the name of the remote receiving logical unit .

Maximum hops for delivery (1..32767):

38. Type the number of hops .

Do you want continuous (24 hr) connection? (Y/N):

39. Type **Y** or **N** at the "Do you want ..." prompt .

Y Establishes a 24 hour connection between the network and the controller. **Skip to step 43.**

N Does not establish a continuous connection. **Continue with step 40.**

Start time of connection interval (hh:mm):

40. Indicate the start time of the connection in the HH:MM format .

Length of connecting interval (hh:mm):

41. Indicate the length of the interval in the HH:MM format .

Add another connecting interval? (Y/N):

42. Type **Y** or **N** at the "Add another connecting interval" prompt .

Y Return to step 40.

N Ends the process.

Adding SNADS network <name>. Confirm? (Y/N):

43. Type **Y** or **N** at the "Confirm" prompt .

Y Adds the SNADS network to the configuration.

N Cancels the procedure to add the SNADS network.

SNADS network <name> added
SNA!

Wrap-up

When you see the "SNA!" prompt, you have added the RS232C port, controller, and SNADS network information. It is recommended that you verify the port, controller, and SNADS parameters before continuing with the next step-by-step to add the foreign gateway, mailbox, and foreign domain information.

Use the **Show RS232C port**, **Show Controller**, and **Show SNADS Network Parameters** in the SNA Access context to verify the information you entered from the worksheet. Make sure you entered the correct information for:

- encoding protocol (NRZ or NRZI)
- XID address (switched lines only)
- SDLC station address
- LU names and addresses

Use the **Change RS232C port**, **Change Controller**, and **Change SNADS Network Parameters** to make changes.

Example

This example shows adding port and controller information for the SNA Mail Relay. The server has a Multiport Option Kit installed.

SNA!Add RS232C port

Enter local port number

- 1 port 0
- 2 port 1
- 3 port 2
- 4 port 3

Enter choice number: **2**

Enter RS-232-C port name: **MPOK port 1**

Description: **OBS Port**

Access to the telephone line is

- 1 dedicated
- 2 switched

Enter choice number: **2**

Does this equipment have autodialer hardware? (Y/N): **N**

The equipment connected to this port encodes data using

- 1 nrz
- 2 nrzi

Enter choice number: **1**

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number: **2**

Confirm this RS232C port information? (Y/N): **Y**

RS232C port MPOK port 1 has been added.

SNA!Add Controller

Controller Name: **OBS Controller**

Description: **OBS controller for test**

RS232C port to use

- 1 MPOK port 1

Enter choice number: **1**

Re-start controller when server is rebooted? (Y/N): **Y**

Telephone number: **1-500-555-0200**

XID (hex): **03E00180**

SDLC station address (hex): **02**

MAXDATA (decimal) (0..16384): **265**

Add a logical unit? (Y/N): **Y**

Name of logical unit: **U05SZ221**

This logical unit is of type 6.2.

Address of logical unit (hex): **2**

Add another logical unit? (Y/N): **N**

Confirm this controller information? (Y/N): **Y**

Controller OBS Controller has been added.

SNA!

This example shows adding and defining the SNADS network.

```

SNA!Add SNADS Network
SNADS Network Name: OBS SNADS Network
RGN of adjacent SNADS node: OBSHostA
REN of adjacent SNADS node: DSVHost
RGN of Xerox server: OBSHostA
REN of Xerox server: S36XRXI
Select a controller for sending and receiving
1  OBS Controller
Enter choice number: 1
Select a local LU for SENDING to SNADS network
1  U05SZ221
2  U05SZ220
Enter choice number: 1
Mode name used for SENDING to SNADS network: 6DU
Select a local LU for RECEIVING from SNADS network
1  U05SZ220
Enter choice number: 1
Mode name used for RECEIVING from SNADS network: 6DU
Remote LU for SENDING to SNADS network: DISOSS33
Remote LU for RECEIVING from SNADS network: DISOSS33
Maximum hops for delivery (1..32767): 5
Do you want continuous (24 hr) connection? (Y/N): Y
Adding SNADS network OBS SNADS Network. Confirm? (Y/N): Y
SNADS network OBS SNADS Network added
SNA!

```

Step-by-step to Add the foreign gateway, mailbox, and foreign domain

1. At the server supporting the Mail Service and Foreign Gateway Assistant, log on and enable in the Mail Service context.

MS!

2. Type **Add Foreign Gateway** .

Phone number:

3. Type the area code and phone number for the foreign gateway and press RETURN. Enter the number without parentheses or hyphens.

Start time of calling interval:

4. Type **00:00** to define the start time of the calling interval .

Length of calling interval:

5. Type **00:00** to define the length of the calling interval .

Done.
MS!

6. Type **Change Foreign Gateway** .

Phone number: <number>

7. Type the telephone number for the foreign gateway you entered in step 3 .

Calling intervals:

Start time: <time>; Length: <time>

Select one of the following

- 1 Add, change or delete calling interval
- 2 Change foreign gateway phone number

Enter choice number: 1

8. Type **1** to change the calling interval .

- 1** Lets you make changes to the calling interval definition.
- 2** Lets you change the phone number.

Start time of calling interval:

9. Type **00:00** to define the start time of the interval .

Length of calling interval:

10. Type **00:00** to define the length of the calling interval .

NOTE

If you see the message, "ERROR: No such calling interval exists", use the **Delete Foreign Gateway** command and start the procedure over at step 2.

Delete calling interval. Confirm (Y/N):

11. Type **Y** at the "Confirm" prompt .

- Y** Deletes the calling interval.
- N** Does not change the calling interval definition.

Done.
MS!

12. Type **Add Foreign Domain** \leftarrow .

Foreign Domain name:

13. Type the domain and organization name of the foreign domain and press RETURN. Use a colon to separate the domain and organization.

Foreign Gateway (phone number):

14. Type the area code and phone number for the foreign gateway entered at step 3 \leftarrow .

Done.
MS!

15. Type **Foreign Gateway Assistant** \leftarrow .

FGA!

16. Type **Add Foreign Gateway Mailbox** \leftarrow .

Foreign Mail Gateway Service Name:

17. Type the fully qualified name of the mailbox \leftarrow .

Adding mailbox.
Done.
FGA!

Wrap-up

When you see the "FGA!" prompt, you have added the foreign gateway, domain and mailbox information to the server with the Mail Service installed. It is recommended that you verify the foreign gateway, domain and mailbox information before continuing with the next step-by-step to add mail link and XNS domain information.

Use the **List Foreign Gateway** command in the Mail Service context to make sure there is only one phone number. If there are other phone numbers, use the **Delete Foreign Gateway** command.

Use the **Show Foreign Gateway** command in the Mail Service context to list the foreign domains. Use the **Delete Foreign Domain** to remove an incorrect foreign domain.

Example

This screen shows adding the foreign gateway, and then adding the foreign gateway mailbox and domain.

```

MS!Add Foreign Gateway
  Phone number: 2131112222
  Start time of calling interval: 00:00
  Length of calling interval: 00:00
Done.
MS!Change Foreign Gateway
  Phone number: 2131112222
Calling intervals:
  Start time: 00:00; Length: 00:00
  Select one of the following
  1  Add, change or delete calling interval
  2  Change foreign gateway phone number
Enter choice number: 1
  Start time of calling interval: 00:00
  Length of calling interval: 00:00
  Delete calling interval. Confirm (Y/N): Y
Done.
MS!Add Foreign Domain
  Foreign Domain name: SNADS:Xerox
  Foreign Gateway (phone number): 2131112222
Done.
MS!Foreign Gateway Assistant
FGA!Add Foreign Gateway Mailbox
  Foreign Mail Gateway Service Name: Speedy:Anaheim:Xerox
  Adding mailbox.
  Done.
FGA!

```

Step-by-step to Add the mail link and XNS domain-to-DGN mappings

1. Log on and enable in the SNA Mail Relay context at the new server location for the SNA Mail Relay.
2. Type **Stop Service** .

```

Select choices
1  <service name >
2  <service name >
Enter one or more choices:

```

3. Type the number for the SNA Mail Relay option .

```

SMR: Stop immediately? (Y/N):

```

4. Type **Y** or **N** at the "Stop immediately" prompt .
 - Y** Stops the service immediately after processing the pending queues.
 - N** Waits until all users log off, then stops the service.

Stopping SNA Mail Relay Service.
SMR!

5. Type **Add Mail Link** .

SNADS Network name corresponding to this Mail Link:

6. Type the name of the SNADS network .

XNS Foreign Domain corresponding to this Mail Link:

7. Type the domain and organization name for the foreign domain and press RETURN. Use a colon to separate the domain and organization.

DIA document type for ViewPoint documents (hexadecimal):

8. Type the hexadecimal number for ViewPoint documents, or press RETURN to accept the default.

DIA document type for 860 documents (hexadecimal):

9. Type the hexadecimal number for 860 documents, or press RETURN to accept the default.

DIA document type for ViewPoint folders (hexadecimal):

10. Type the hexadecimal number for ViewPoint folders, or press RETURN to accept the default.

Default DIA document type for XNS documents (hexadecimal):

11. Type the hexadecimal number for XNS documents, or type **0** to specify the default .

Do you wish to specify DIA document types for other XNS file types? (Y/N):

12. Type **Y** or **N** at the "Do you wish to specify ..." prompt .
 - Y** Specifies additional document types. **Continue to step 13.**
 - N** Ends the process to specify document types. **Skip to step 15.**

XNS file type (decimal) (0..2147483647):

13. Enter the file type for other XNS file types ←.

DIA document type (hexadecimal):

14. Type the DIA document type that corresponds to other XNS file types ←.

Adding Mail Link <name> SNADS Network. Confirm? (Y/N):

15. Type **Y** or **N** at the "Confirm" prompt ←.
- Y** Adds the mail link to the network.
 - N** Cancels the procedure to add the mail link.

Mail Link <name> SNADS Network added
SMR!

16. Type **Add XNS Domains** ←.

XNS domain that can receive SNADS mail:

17. Type the domain and organization name for the XNS domain and press RETURN. Use a colon to separate the domain and organization.

SNADS Distribution Group Name for this XNS domain:

18. Type the DGN for the XNS domain ←.

Do you want to add another XNS Domain mapping? (Y/N):

19. Type **Y** or **N** at the "Do you want to add ..." prompt ←.
- Y** Repeats the process to add an XNS domain-to-DGN mapping **starting at step 17**.
 - N** Ends the process to add another XNS domain-to-DGN mapping. **Continue with step 20**.

Added 1 Domain - DGN mapping(s)
SMR!

20. Type **Start Service** ←.

Select choices
1 SNA Mail Relay Service
Enter one or more choices:

21. Type the number for the SNA Mail Relay .

Starting SNA Mail Relay Service.
 Creating a database for this service
 Size of database in pages (2000..50888):

22. Type the number of disk pages for the SNA Mail Relay database .

The SNA Mail Relay Service has been started
 SMR!

23. Type **SNA Access** .

SNA!

24. Type **Start Controller** .

Choose controller to start
 1 <name>
 Enter choice number:

25. Type the number for the controller .

Dial <number> to establish connection.
 Controller <name> has been started. <date> <time>
 SNA!

26. Type **Start Event Logging** .

Log events for which components?
 1 SNADS
 2 ControllerManager
 3 SNA Mail Relay Service
 Enter one or more choices:

27. Type **1,2,3** to establish event logs for all components .

Creating a new log file
 Size in disk pages (1..500):

28. Press RETURN to accept the default number of disk pages for the event logging file.

Log file created:
 File name: Event Log; Size: <number> pages; Created:
 <date> <time>
 SNA!

Wrap-up

When you see the "SNA!" prompt, you have added mail link and XNS domain-to DGN mapping information. It is recommended that you verify the mail link and mapping information before continuing with the next step-by-step to restore the SNA Mail Relay database.

Use the **List Mail Links** command in the SNA Mail Relay context to verify:

- The foreign domain(s) matches the foreign domain(s) listed at the server where the Mail Service is installed. Use **Delete Mail Link** to remove an incorrect entry, and then **Add Mail Link** to enter the correct foreign domain.
- The SNADS network name matches the network name displayed using the **Show SNADS Network Parameters** command.

Use the **List XNS Domains** command in the SNA Mail Relay context to check the accuracy of the DGN-to-XNS domain mappings. Use the **Delete XNS Domains** to remove an incorrect entry, and then **Add XNS Domains** to enter the correct domain.

Example

This screen shows adding the mail link and the XNS domain-to-DGN mappings.

SMR!Stop Service

Select choices

1 SNA Mail Relay Service

Enter one or more choices: **1**

SMR: Stop immediately? (Y/N): **Y**

Stopping SNA Mail Relay Service.

SMR!Add Mail Link

SNADS Network name corresponding to this Mail Link: **OBS SNADS**

DIA document type for ViewPoint documents (hexadecimal): **0006**

DIA document type for 860 documents (hexadecimal): **C001**

DIA document type for ViewPoint folders (hexadecimal):

Default document type will be used

Default DIA document type for XNS documents (hexadecimal): **0**

Do you wish to specify DIA document types

for other XNS file types? (Y/N): **Y**

XNS file type (decimal) (0..2147483647): **15**

DIA document type (hexadecimal): **D001**

Do you wish to specify DIA document types

for other XNS file types? (Y/N): **N**

Adding Mail Link OBS SNADS Network. Confirm? (Y/N): **Y**

Mail Link OBS SNADS Network added

SMR!Add XNS Domains

XNS domain that can receive SNADS mail: **South:OC**

SNADS Distribution Group Name for this XNS domain: **CN393411**

Do you want to add another XNS Domain mapping? (Y/N): **N**

Added 1 Domain - DGN mapping(s)

SMR!

Screen continued

This screen shows starting the SNA Mail Relay, the controller, and the event logging facility.

```

SMR!Start Service
  Select choices
  1  SNA Mail Relay Service
  Enter one or more choices: 1
Starting SNA Mail Relay Service.
  Creating a database for this service
  Size of database in pages (2000..50888): 50888
The SNA Mail Relay Service has been started
SMR!SNA Access
SNA!Start Controller
  Choose controller to start
  1  OBS Controller
  Enter choice number: 1
  Dial 1-300-555-0200 to establish connection.
  Controller OBS Controller has been started. 30-Sep-87
  7:53:55
SNA!Start Event Logging
  Log events for which components?
  1  SNADS
  2  ControllerManager
  3  SNA Mail Relay Service
  Enter one or more choices: 1,2,3
Creating a new log file
  Size in disk pages (1..500):
Log file created:
  File name: Event Log; Size: 25 pages; Created:
  30-Sep-87 7:55:00
SNA!

```

Step-by-step to Restore the SNA Mail Relay database



1. Log on and enable in the SNA Mail Relay context at the new server location.

```
SMR!
```

2. Type **Stop Service** .

```
Select choices:
1  SNA Mail relay
Enter one or more choices:
```

3. Type the number for the SNA Mail Relay .

```
SNA Mail Relay: Stop immediately? (Y/N):
```


4. Type **Y** or **N** at the "Stop immediately" prompt .
 - Y** Stops the service immediately and disconnects all active users.
 - N** Stops the service gradually, allowing all user sessions to complete before stopping.

Stopping SNA Mail Relay.
SNA Mail Relay functions are now unavailable to the network.
SMR!

5. Type **Restore Database** .

File Service:

6. Type the name of the File Service that contains the SNA Mail Relay backup file drawer .

File Drawer:

7. Type the name of the SNA Mail Relay backup file drawer .


Restoring SNA Mail Relay Service database from
(Hawaii:AlphaServices:Acme)SMRbackup/SMR to SNADS
Network.Backup
Confirm? (Y/N):

8. Type **Y** at the "Confirm" prompt .
 - Y** Starts the restore operation.
 - N** Cancels the process.

Restoration completed.
SMR!

9. Type **Start Service** .

Select choices:
1 SNA Mail relay
Enter one or more choices:

10. Type the number for the SNA Mail Relay .

```
SNA Mail Relay has started.  
SMR!
```

Wrap-up

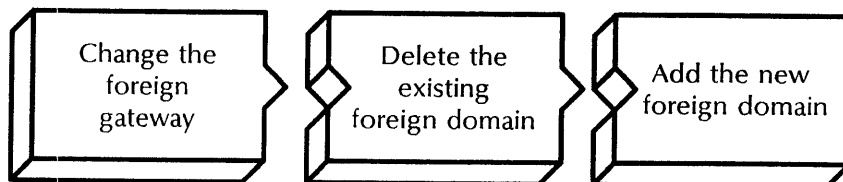
When you see the "SMR!" prompt, you have retrieved the SNA Mail Relay from the remote location. This completes the procedure to move the SNA Mail Relay to the new server location.

Example

This example shows restoring the SNA Mail Relay database.

```
SMR!Restore Database  
File Service: Hawaii:AlphaServices:Acme  
File Drawer: SMRbackup  
Restoring SNA Mail Relay Service database from  
(Hawaii:AlphaServices:Acme)SMRbackup/SMR to SNADS Network.Backup  
Confirm? (Y/N): Y  
Restoration completed  
SMR!Start Service  
Select choices  
1 SNA Mail Relay Service  
Enter one or more choices: 1  
Starting SNA Mail Relay Service.  
The SNA Mail Relay Service has been started  
SMR!
```

Changing foreign gateway and foreign domain



Use this procedure to change an existing foreign gateway phone number and foreign domain name. You perform this procedure at the server supporting the Mail Service and Foreign Gateway Assistant.

Prerequisites

- Update the SNA Mail Relay Worksheet with the following information:
 - The phone number of the existing foreign gateway
 - The name of the new foreign domain

Step-by-step

1. Log on and enable in the Mail Service context at the server where the Mail Service and Foreign Gateway Assistant is installed.
2. Type **Change Foreign Gateway** \Leftarrow .

Phone number: <number >

3. Type the telephone number for the foreign gateway \Leftarrow .

Calling intervals:

Start time: <time >; Length: <time >

Select one of the following

- 1 Add, change or delete calling interval
 - 2 Change foreign gateway phone number
- Enter choice number: 1

4. Type **1** or **2** \Leftarrow .
 - 1** Lets you make changes to the calling interval definition. **Continue with step 5.**
 - 2** Lets you change the phone number. **Skip to step 8.**

Start time of calling interval:

5. Type **00:00** to define the start time of the interval .

Length of calling interval:

6. Type **00:00** to define the length of the calling interval .

NOTE

If you see the message, "ERROR: No such calling interval exists", use the **Delete Foreign Gateway** command and start the procedure over.

Delete calling interval. Confirm (Y/N):

7. Type **Y** at the "Confirm" prompt .

Y Deletes the calling interval.

N Does not change the calling interval definition.

New number:

8. Type the new phone number for the foreign gateway .

Done.
MS!

9. Type **Delete Foreign Domain** .

Foreign Domain name:

10. Type the domain and organization name of the foreign domain and press RETURN. Use a colon to separate the domain and organization.

Confirm (Y/N):

11. Type **Y** or **N** at the "Confirm" prompt .

Y Deletes the foreign domain. Continue with step 12 to add a new foreign domain.

N Ends the process.

12. Type **Add Foreign Domain** .

Foreign Domain name:

13. Type the domain and organization name of the foreign domain and press RETURN. Use a colon to separate the domain and organization.

Foreign Gateway (phone number):

14. Type the phone number for the foreign gateway .

Confirm (Y/N):

15. Type **Y** or **N** at the "Confirm" prompt \Leftarrow .

Y Adds the new foreign domain.

N Ends the process.

Done.
MS!

Wrap-up

When you see the "MS!" prompt, you have completed the procedure to change foreign gateway and domain information.

Use the **List Foreign Gateways** and **List Foreign Domains** commands to verify your changes.

Example

This example shows changing the foreign gateway phone number, and changing the foreign domain by deleting the existing foreign domain and adding a new foreign domain.

MS!Change Foreign Gateway

Phone number: **111-1111**

Calling intervals:

None found.

Select one of the following

1 Add, change or delete calling interval

2 Change foreign gateway phone number

Enter choice number: **2**

New number: **222-2222**

Change phone number. Confirm (Y/N): **Y**

Done.

MS!Delete Foreign Domain

Foreign Domain name: **Boston:Mutual**

Confirm (Y/N): **Y**

Done.

MS!Add Foreign Domain

Foreign Domain name: **Marketing:Xerox**

Foreign Gateway (phone number): **222-2222**

Warning: Foreign domain already served by some mail service

Add foreign domain. Confirm (Y/N): **Y**

Done.

MS!

Deleting the foreign gateway and foreign domain



Use this procedure to delete the foreign gateway and the foreign domain. You perform this procedure at the server supporting the Mail Service and Foreign Gateway Assistant.

Prerequisites

- Update the SNA Mail Relay Worksheet with the following information:
 - The name and fictitious phone number of the foreign gateway you want to delete
 - The name of the foreign domain you want to delete

Step-by-step

1. Log on and enable in the Mail Service context at the server where the Mail Service and Foreign Gateway Assistant is installed.
2. Type **Delete Foreign Domain** .

Foreign Domain name:

3. Type the domain and organization name of the foreign domain and press RETURN. Use a colon to separate the domain and organization.

Confirm (Y/N):

4. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Deletes the foreign domain. **Continue with step 5.**
 - N** Ends the process to delete the foreign domain.

Done.
MS!

5. Type **Delete Foreign Gateway** .

Phone number: <number>

6. Type the phone number of the foreign gateway .

Confirm (Y/N):

7. Type **Y** or **N** at the "Confirm" prompt **↵**.
 - Y** Deletes the foreign gateway.
 - N** Cancels the process.

```
Done.  
MS!
```

Wrap-up

When you see the "MS!" prompt, you have deleted foreign gateway and foreign domain information.

Use the **List Foreign Gateways** and **List Foreign Domains** commands to verify the deletions.

Example

This example shows deleting the foreign gateway and the foreign domain.

```
MS!Delete Foreign Domain  
Foreign Domain name: Boston:Mutual  
Confirm (Y/N): Y  
Done.  
MS!Delete Foreign Gateway  
Phone number: 222-2222  
Confirm (Y/N): Y  
Done.  
MS!
```

Expunging the Foreign Gateway Assistant

Use this procedure to remove the Foreign Gateway Assistant from the server.

Prerequisite

Notify users you intend to perform this procedure.

Step-by-step

1. Logon and enable at the server where the Foreign Gateway Assistant is installed.
2. Type **Stop Service** .

```
Select choices
1 <service name >
2 <service name >
3 <service name >
Enter one or more choices:
```

3. Type the numbers for all services (for example, **1-3**) .

```
Stop immediately? (Y/N):
```

4. Type **Y** or **N** at each "Stop Immediately" prompt .
 - Y** Stops the service immediately after processing the pending queues.
 - N** Waits until all users log off, then stops the service.

NOTE

The number of "Stop immediately" prompts you receive depend on which services are installed on your server.

5. Reboot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

```
Normal startup? (Y/N):
```

6. Type **N** at the "Normal startup" prompt .
 - Y** Normally starts and runs each service loaded on the server.
 - N** Lets you perform specific tasks before the server is fully operational.

Enter interrupt point

- 1 Interrupt before opening primary volume
- 2 Interrupt before processing profile
- 3 Interrupt before running services

Enter one or more choices:

7. Type **3** for the "Interrupt before running services" option .
8. If your Foreign Gateway Assistant coresides with the only Clearinghouse serving the domain, type **Run Service** and press RETURN. Otherwise, **skip to step 10**.

Select choices

- 1 <service name >
- 2 <service name >
- 3 <service name >

Enter one or more choices:

9. Type the number for the "Clearinghouse Service" option and press RETURN. Wait for the "Clearinghouse Service started" message to appear.
10. Log on and enable.
11. Type **Expunge Service** .

Select choices

- 1 <service name >
- 2 <service name >
- 3 <service name >

Enter one or more choices:

12. Type the number for the "Foreign Gateway Assistant" option .

FGA: Confirm (Y/N):

13. Type **Y** or **N** at the "FGA: Confirm" prompt .
 - Y** Continues the process to expunge the Foreign Gateway Assistant.
 - N** Cancels the process.

Expunging Foreign Gateway Assistant.
Messages may be lost. Confirm? (Y/N):

14. Type **Y** or **N** at the "Confirm" prompt \Leftarrow .
- Y** Continues the process to expunge the Foreign Gateway Assistant.
 - N** Cancels the process.

```
Do you really want to expunge the Foreign Gateway
Assistant? (Y/N):
```

15. Type **Y** or **N** at the "Do you really want to expunge ..." prompt \Leftarrow .
- Y** Continues the process to expunge the Foreign Gateway Assistant.
 - N** Cancels the process.

```
Validating Clearinghouse entry for: <FGA name >
Done
Deleting Clearinghouse entry for: <FGA name >
Done
Foreign Gateway Assistant expunged.
!
```

NOTE

If you see the message, "Problem deleting service file: <filename> messages; please re-boot and delete <filename> messages manually," write down the filenames and perform steps 16 through 23. If this message does not appear, perform steps 16 through 21.

16. Type **Stop Service** and press RETURN, if the Foreign Gateway Assistant coresides with the only Clearinghouse serving the domain. Otherwise, **skip to step 19**.

```
Select choices
1 Clearinghouse Service
Enter one or more choices:
```

17. Type the number for the Clearinghouse Service \Leftarrow .

```
Stop immediately? (Y/N):
```

18. Type **Y** or **N** at each "Stop Immediately" prompt \Leftarrow .
- Y** Stops the service immediately after processing the pending queues.
 - N** Waits until all users log off, then stops the service.
19. Reboot the server.
- a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

```
Normal startup? (Y/N):
```

20. Type **Y** at the “Normal startup” prompt `↵`.
 - Y** Normally starts and runs the services on the server.
 - N** Lets you perform specific tasks before the server is fully operational.
21. Log on and enable.
22. Type **Delete Files** `↵`.

```
File list:
```

23. Type the name of the message file at the “File list” prompt `↵`.

```
<Filename> ...deleted.  
!
```

Wrap-up

When you see the message “Foreign Gateway Assistant expunged,” you have expunged the Foreign Gateway Assistant.

Example

This example shows expunging the Foreign Gateway Assistant.

!Stop Service

Select choices

- 1 Foreign Gateway Assistant
- 2 Mail Service

Enter one or more choices: **1**

FGA: Stop immediately? (Y/N): **Y**

Stopping Foreign Gateway Assistant.

FGA: Foreign Gateway Assistant is stopped.

Foreign Gateway Assistant has stopped.

<Reboot the server.>

!Expunge Service

Select choices

- 1 Foreign Gateway Assistant
- 2 Mail Service

Enter choice number: **1**

FGA: Confirm (Y/N): **Y**

Expunging Foreign Gateway Assistant.

Messages may be lost. Confirm? (Y/N): **Y**

Do you really want to expunge the Foreign Gateway Assistant? (Y/N): **Y**

Validating Clearinghouse entry for: A1:RedDomain:Test

Done

Deleting Clearinghouse entry for: A1:RedDomain:Test

Done

Foreign Gateway Assistant expunged.

!

Monitoring Foreign Gateway Assistant activity



Use this procedure to monitor the Foreign Gateway Assistant configuration and activity. You perform this procedure at the server supporting the the Mail Service.

Prerequisite

Be familiar with the Foreign Gateway Assistant activity terms as described in the SNA Mail Relay chapter of the *Guide to System Administration Activities*.

Step-by-step

1. Log on in the Foreign Gateway Assistant context at the server where the Mail Service is installed.
2. Type **List Maps** \Leftarrow .

<Displays a list of foreign domain to mailbox mappings.>

3. Type **List Problems** \Leftarrow .

<Displays the number of problems for mailboxes, domains, and configuration.>

4. Type **Clear Problems** \Leftarrow .

<Returns the number of problems to zero.>

5. Type **Show Status** \Leftarrow .

<Displays the state of the Foreign Gateway Assistant and whether it is started or stopped, and any errors.>

6. Log off.

Wrap-up

When you complete this procedure, you have listed Foreign Gateway Assistant activity and configuration.

Example

This example shows monitoring the Foreign Gateway Assistant configuration and activity.

FGA!List Maps

Domain - SNADS:Xerox ; Mailbox - SMR to SNADS Network:Boston:Mutual
WARNING -- Check FGA Problem Reports.

FGA!List Problems

Choose Problems type

- 1 Mailbox problems
- 2 Domain problems
- 3 Configuration problems
- 4 All problems

Enter one or more choices: **4**

Mailbox not found: SMR to SNADS Network:Boston:Mutual. (count: 2)

Done.

FGA!Clear Problems

Choose Problems type

- 1 Mailbox problems
- 2 Domain problems
- 3 Configuration problems
- 4 All problems

Enter one or more choices: **4**

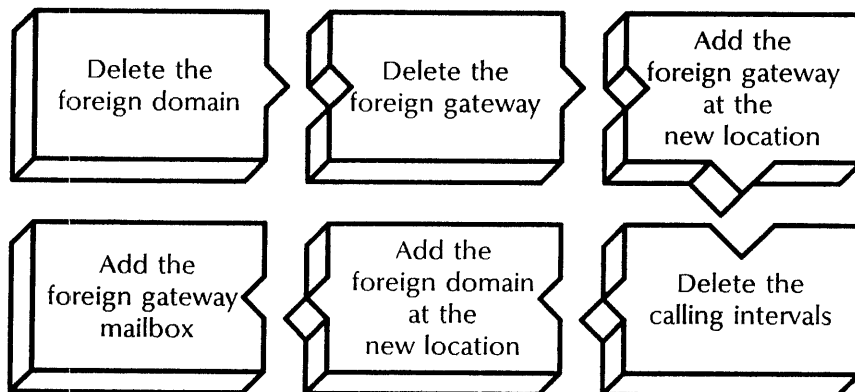
Done.

FGA!Show Status

State: ok Status: started

FGA!

Moving the Foreign Gateway Assistant



Use this procedure to move the Foreign Gateway Assistant from one location to another.

Prerequisites

- Update the SNA Mail Relay Worksheet with the following information:
 - The name of the foreign domain you want to move
 - The fictitious phone number of the foreign gateway
 - The fully qualified name of the of the foreign gateway mailbox
- Use the **List Mailboxes** command at the server supporting the Foreign Gateway Assistant to make sure the foreign gateway mailbox is empty before continuing.

Step-by-step

1. Log on and enable in the Mail Service context at the server where the Foreign Gateway Assistant is installed.
2. Type **Delete Foreign Domain** \leftarrow .

Foreign Domain name:

3. Type the domain and organization name of the foreign domain and press RETURN. Use a colon to separate the domain and organization.

Confirm (Y/N):

4. Type **Y** or **N** at the "Confirm" prompt .
- Y** Deletes the foreign domain.
- N** Ends the process to delete the foreign domain.

Done.
MS!

5. Type **Delete Foreign Gateway** .

Phone number: <number>

6. Type the phone number of the foreign gateway .

Confirm (Y/N):

7. Type **Y** or **N** at the "Confirm" prompt .
- Y** Deletes the foreign gateway.
- N** Cancels the process.

Done.
MS!

8. Go to the new server location for the Foreign Gateway Assistant, and log on and enable in the Mail Service context.
9. Type **Add Foreign Gateway** .

Phone number:

10. Type the area code and phone number for the foreign gateway and press RETURN. Enter the number without parentheses or hyphens.

Start time of calling interval:

11. Type **00:00** to define the start time of the calling interval .

Length of calling interval:

12. Type **00:00** to define the length of the calling interval .

NOTE

If you see the message, "ERROR: No such calling interval exists", use the **Delete Foreign Gateway** command and start the procedure over.

Done.
MS!

13. Type **Change Foreign Gateway** .

Phone number: <number>

14. Type the telephone number for the foreign gateway you entered in step 10 .

Calling intervals:

Start time: <time>; Length: <time>

Select one of the following

1 Add, change or delete calling interval

2 Change foreign gateway phone number

Enter choice number: 1

15. Type **1** to change the calling interval .

1 Lets you make changes to the calling interval definition.

2 Lets you change the phone number.

Start time of calling interval:

16. Type **00:00** to define the start time of the interval .

Length of calling interval:

17. Type **00:00** to define the length of the calling interval .

Delete calling interval. Confirm (Y/N):

18. Type **Y** at the "Confirm" prompt .

Y Deletes the calling interval.

N Does not change the calling interval definition.

Done.
MS!

19. Type **Add Foreign Domain** .

Foreign Domain name:

20. Type the domain and organization name of the foreign domain and press RETURN. Use a colon to separate the domain and organization.

Foreign Gateway (phone number):

21. Type the area code and phone number for the foreign gateway entered at step 10 ↵.

Done.
MS!

22. Type **Foreign Gateway Assistant** ↵.

FGA!

23. Type **Add Foreign Gateway Mailbox** ↵.

Foreign Mail Gateway Service Name:

24. Type the fully qualified name of the mailbox ↵.

Adding mailbox.
Done.
FGA!

25. Log off.

Wrap-up

When you see the "FGA!" prompt, you have added the foreign gateway, domain and mailbox information to the server with the Mail Service installed.

Example

This example shows moving the Foreign Gateway Assistant from one server location to another.

```
MS!Delete Foreign Domain
  Foreign Domain name: Boston:Mutual
  Confirm (Y/N): Y
Done.
MS!Delete Foreign Gateway
  Phone number: 222-2222
  Confirm (Y/N): Y
Done.
<At new server location >
MS!Add Foreign Gateway
  Phone number: 2131112222
  Start time of calling interval: 00:00
  Length of calling interval: 00:00
Done.
MS!Change Foreign Gateway
  Phone number: 2131112222
Calling intervals:
  Start time: 00:00; Length: 00:00
  Select one of the following
  1  Add, change or delete calling interval
  2  Change foreign gateway phone number
  Enter choice number: 1
  Start time of calling interval: 00:00
  Length of calling interval: 00:00
  Delete calling interval. Confirm (Y/N): Y
Done.
MS!Add Foreign Domain
  Foreign Domain name: SNADS:Xerox
  Foreign Gateway (phone number): 2131112222
Done.
MS!Foreign Gateway Assistant
FGA!Add Foreign Gateway Mailbox
  Foreign Mail Gateway Service Name: Speedy:Anaheim:Xerox
  Adding mailbox.
  Done.
FGA!
```

11. Internetwork Routing Service

This chapter contains the procedures you perform to maintain the Internetwork Routing Service (IRS). These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Internetwork Routing Service procedures:

- Install all required software as described in the Server Software Installation chapter of the *Services Installation and Setup Guide*.
- Perform all setup procedures as described in the Internetwork Routing Service chapter of the *Services Installation and Setup Guide*.

Commands

This section lists the commands you use to maintain the service. You must be in the proper context to access these commands.

Table 11-1 shows the commands along with the logged on status and the server state (started or stopped) for accessing them.

Table 11-1. **Internetwork Routing Service maintenance commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add X25 Network					•	
Change Circuit					•	
Change X25 Network					•	
Delete Circuit					•	
Delete X25 Network					•	
Expunge Service					•	
List Circuits	•		•		•	
List Routes	•		•		•	
List X25 Network	•		•		•	
Rename			•		•	
Show Statistics	•		•		•	
Start		•		•		•
Start Circuit					•	
Stop					•	
Stop Circuit					•	

Add X25 Network Available to the enabled user when the Internetwork Routing Service is started. Changes the X.25 network location and high-level data link control (HDLC) parameters.

Related procedure: Changing the X.25 network location



Change Circuit

Use the **Change X25 Network** command if you are changing the HDLC parameters but not the location of the X.25 network.

Available to the enabled user when IRS is started and the circuit to be changed is stopped. Changes an existing circuit. You must stop the External Communication Service to change circuits on the Communication Interface Unit (CIU).

Related procedure: Changing circuit parameters

Change X25 Network

Available to the enabled user when the Internetwork Routing Service is started. Changes the high-level data link control (HDLC) parameters of an existing X.25 network.

Related procedure: Changing the X.25 network parameters

- Delete Circuit** Available to the enabled user when the IRS is started and the circuit to be deleted is stopped. Removes an existing Internetwork Routing Service circuit.
Related procedure: Deleting circuits and the X.25 network
- Delete X25 Network** Available to the enabled user when the IRS is started. Removes an existing X.25 network definition so you can change the network location. Delete all X.25 switched virtual circuits (SVCs) before you use this command.
Related procedures: Changing the X.25 network location, Deleting circuits and the X.25 network
- Expunge Service** Available to the enabled user at the third interrupt point. Permanently removes from a server the service you specify. The system deletes all server profile entries for that service and cancels its registration with the Clearinghouse Service.
Related procedures: Removing the Internetwork Routing Service
- List Circuits** Available to any user when the Internetwork Routing Service is started. Displays a complete description of Internetwork Routing Service circuits, their status, and a list of networks they can reach.
Related procedures: Listing circuits, X.25 networks, and routes; Starting and stopping circuits
- List Routes** Available to any user when the Internetwork Routing Service is started. Displays a list of networks interconnected to your network through the Internetwork Routing Service. This command also displays status and network management data.
Related procedures: Listing circuits, X.25 networks, and routes; Starting and stopping circuits
- List X25 Network** Available to any user when the Internetwork Routing Service is started. Displays the high-level data link control (HDLC) parameters of an existing X.25 network.
Related procedure: Listing circuits, X.25 networks, and routes
- Rename** Available to the logged on user when the Internetwork Routing Service is started using a non-normal startup. Changes the name of the Internetwork Routing Service.
Related procedure: Renaming the Internetwork Routing Service
- Show Statistics** Available to any user when the Internetwork Routing Service is started. Shows circuit activity on internetwork links.
Related procedure: Showing the Internetwork Routing Service statistics
- Start** Available to the enabled user when the Internetwork Routing Service is stopped. Restarts the service. You can also use the Services System Software **Start Service** command.
- Start Circuit** Available to the enabled user when the IRS is started and a circuit is stopped. Accesses the port and manually starts the the circuit.
Related procedures: Changing circuit parameters, Changing the X.25 network parameters, Starting and stopping circuits

Stop Available to the enabled user when the Internetwork Routing Service is started. Stops the service. You can also use the Services System Software **Stop Service** command.

Stop Circuit Available to the enabled user when the IRS is started and a circuit is started. Stops the circuit.

Related procedures: Changing circuit parameters, Changing the X.25 network parameters, Deleting circuits and the X.25 network, Starting and stopping circuits

Procedures

This section contains these procedures for maintaining the Internetwork Routing Service:

Changing circuit parameters

Use this procedure to change the configuration of an existing circuit.

Changing the X.25 network location

Use this procedure to change the location of an X.25 network. During this procedure, you delete all X.25 switched virtual circuits, remove the X.25 network, and add a new X.25 network.

Changing the X.25 network parameters

Use this procedure to change the HDLC parameters of an existing X.25 network.

Deleting circuits and the X.25 network

Use this procedure to remove circuits, and to remove the X.25 network.

Listing circuits, X.25 networks, and routes

Use this procedure to display information about the IRS circuits and networks.

Removing the Internetwork Routing Service

Use this procedure to delete the IRS after you stop and delete all circuits and the X.25 network.

Renaming the Internetwork Routing Service

Use this procedure to change the name of an existing IRS.

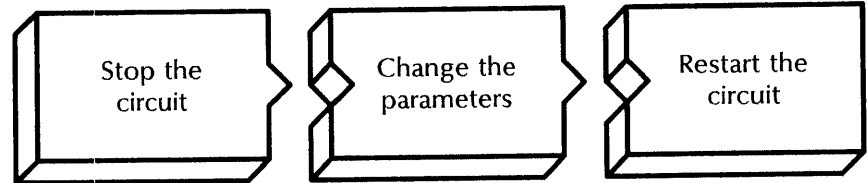
Showing the Internetwork Routing Service statistics

Use this procedure to list all phone line data for active circuits since the last reboot, reset the statistics counter, and show incremental statistics since the last reset.

Starting and stopping circuits

Use this procedure to remove circuits from and restore them to service.

Changing circuit parameters



Use this procedure to change the type and other information about an existing circuit.

You cannot change an X.25 switched virtual circuit to another circuit type.

Prerequisites

- Update the Internetwork Routing Service Worksheet with any changes you are making to the following information:
 - If more than one IRS port exists, the port you want to change
 - The network address of the remote host (if applicable)
 - The modem's line speed and duplexity
 - Whether the line is autostarted
 - If the circuit is auto-dialed, the phone number
 - If the circuit is part of a clusternet, the clusternet number
- If the circuit uses a CIU, stop the External Communication Service (ECS) before you enter the **Change Circuit** command. Restart the ECS after you change circuit information.

Step-by-step to stop a circuit

1. Log on and enable in the Internetwork Routing Service context.
2. If the circuit you want to change is started, type **Stop Circuit** and press RETURN. If the circuit is already stopped, **skip to step 4**.

```

Circuits
1 < circuit description >
2 < circuit description >
Enter choice number:
  
```

3. Type the number for the circuit you want to stop so you can change it **↵**.

```
Done.
```

4. Perform the following steps to change X.25 SVC information.

Step-by-step to change X.25 SVC information

1. Type **Change Circuit** .

```
Circuits
1 < circuit description >
2 < circuit description >
Enter choice number:
```

2. Type the number for the X.25 circuit you want to change .

```
X25 network address of remote host: < address >
```

3. Press RETURN to accept the information shown, or type the numbers identifying the network address for the remote host .

```
Autostart? (Y/N): < existing information >
```

4. Type **Y** or **N** at the "Autostart" prompt .
 - Y** Starts the circuit automatically when you start the IRS normally.
 - N** Requires that the System Administrator use the **Start Circuit** command to start the circuit manually.

```
Circuit description: < existing information >
```

5. Type a description of the purpose and type of circuit .

```
Confirm circuit information (Y/N):
```

6. Type **Y** or **N** at the "Confirm circuit information" prompt .
 - Y** Adds the circuit information.
 - N** Cancels the process.

```
Done.
```

7. Type **Start Circuit** .

```
Circuits
1 < circuit description >
2 < circuit description >
Enter choice number:
```

8. Type the number for the circuit you just changed .

Done.

9. Log off.

Step-by-step to change to an auto-dialed circuit

1. Type **Change Circuit** .

```
Circuits
1 < circuit description >
2 < circuit description >
Enter choice number:
```

2. Type the number for the circuit you want to change .

```
Circuit Type
1 Auto-dialed
2 Manually dialed
3 Dedicated
Enter choice number:
```

3. Type **1** to change the circuit to an auto-dialed circuit .

```
Enter local port number (0..63): < existing information >
```

4. Type the number of the local port .

```
Select line speed
1 1200 bps
2 2400 bps
3 3600 bps
4 4800 bps
5 7200 bps
6 9600 bps
7 19200 bps
8 28800 bps
9 38400 bps
10 48000 bps
11 56000 bps
Enter choice number: < existing information >
```

5. Type the number for the line speed of the modem attached to the RS232C port .

```
The equipment connected to this port is
1 full duplex
2 half duplex
Enter choice number: < existing information >
```

6. Type **1** or **2** to identify the duplexity of the modem .
- 1** Indicates full duplex; the modem can transmit data in both directions at the same time.
 - 2** Indicates half duplex; the modem can transmit data in both directions, but not at the same time.

Circuit description: <existing information>

7. Type a description of the purpose of this circuit .

Want to add a number to the current phone list? (Y/N):

8. Type **Y** or **N** to indicate whether you want to add a number to the phone list .
- Y** Lets you add a number to the list.
 - N** **Skip to step 12.**

Phone number:

9. Type the number accessing this circuit .

Phone number description:

10. Type a description of the phone's location or purpose .

Want to add another number to the current phone list?(Y/N):

11. Type **Y** or **N** to indicate whether you want to add another phone number now .
- Y** Lets you add another number to the list.
 - N** **Skip to step 12.**

Confirm circuit information? (Y/N):

12. Type **Y** or **N** at the "Confirm circuit information" prompt .
- Y** Adds the circuit information.
 - N** Cancels the process.

Done.

13. Type **Start Circuit** .

```
Circuits
1 < circuit description >
2 < circuit description >
Enter choice number:
```

14. Type the number of the circuit you want to start .

```
Select number to be dialed
1 < phone number >
2 < phone number >
Enter choice number:
```

15. Type the number for this auto-dialed circuit .

```
Done
```

16. Log off.

Step-by-step to change to a manually dialed or dedicated circuit

1. Type **Change Circuit** .

```
Circuits
1 < circuit description >
2 < circuit description >
Enter choice number:
```

2. Type the number for the circuit you want to change .

```
Circuit Type
1 Manually dialed
2 Dedicated
Enter choice number:
```

3. Type **1** to change to a manually dialed circuit or **2** to change to a dedicated circuit .

```
Should this line be autostarted? (Y/N):
```

4. Type **Y** or **N** at the "Should this line be autostarted" prompt .
- Y** Starts this circuit automatically when you start the IRS normally. **Skip to step 6.**
- N** Requires that the System Administrator use the **Start Circuit** command to start this circuit manually. **Continue with step 5.**

Should CIU be booted for this use? (Y/N):

5. Type **Y** or **N** at the "Should CIU be booted for this use" prompt .
- Y** Boots the CIU to autostart the line.
- N** Does not boot the CIU.

Select line speed

- 1 1200 bps
 2 2400 bps
 3 3600 bps
 4 4800 bps
 5 7200 bps
 6 9600 bps

Enter choice number: < existing information >

6. Type the number that identifies the line speed of the modem attached to the RS232C port and press RETURN. If you are using the local port, the line speeds will range up to 56,000 bits per second.
- If you are using the local port, you need to identify the duplexity of the modem. If you are using a CIU, you must use a full duplex modem.

The equipment connect to this port is

- 1 full duplex
 2 half duplex

Enter choice number: < existing information >

7. Type **1** or **2** to identify your modem .
- 1** Indicates full duplex; the modem can transmit data in both directions at the same time.
- 2** Indicates half duplex; the modem can transmit data in both directions, but not at the same time.

Description: < existing information >

8. Type a description of the purpose of this circuit .

Is this circuit part of a clusternet? (Y/N):

9. Type **Y** or **N** at the clusternet prompt \Leftarrow |.
- Y** Indicates this circuit is part of a clusternet. **Continue with step 10.**
 - N** Indicates this circuit is not part of a clusternet. **Skip to step 11.**

Clusternet number: < number >

10. Type the number of the clusternet \Leftarrow |.

Confirm circuit information (Y/N):

11. Type **Y** or **N** at the "Confirm circuit information" prompt \Leftarrow |.
- Y** Adds the circuit information.
 - N** Cancels the process.

Done

12. Type **Start Circuit** \Leftarrow |.

Circuits
1 < circuit description >
2 < circuit description >
Enter choice number:

13. Type the number of the circuit you want to start \Leftarrow |.

Done.

14. Log off.

Wrap-up

When you see the message "Done," you have successfully changed the circuit.

Example

This example shows changing an already stopped circuit from dedicated to manually dialed.

```
IRS!Change Circuit
Circuits
1  Manually dialed test circuit
2  Dedicated line to lab
Enter choice number: 2
Circuit Type
1  Manually dialed
2  Dedicated
Enter choice number: 1
Select line speed
1  1200 bps
2  2400 bps
3  3600 bps
4  4800 bps
5  7200 bps
6  9600 bps
Enter choice number: 4
Equipment connected to this port is
1  full duplex
2  half duplex
Enter choice number: 1
Description: Line to lab X (now manually dialed)
Is this circuit part of a clusternet? (Y/N): N
Confirm circuit information (Y/N): Y
Done.
IRS!
```


This example establishes an already stopped, existing circuit as the first member of a clusternet.

IRS!Change Circuit

Circuits

1 Manually dialed circuit

2 Dedicated circuit

Enter choice number: **2**

Circuit Type

1 Manually dialed

2 Dedicated

Enter choice number: **2**Should this line be autostarted (Y/N): **Y**

Select line speed

1 1200 bps

2 2400 bps

3 3600 bps

4 4800 bps

5 7200 bps

6 9600 bps

Enter choice number: **6**

The equipment connected to this port is

1 full duplex

2 half duplex

Enter choice number: **1**Description: **Dedicated to answer calls**Is this circuit part of a clusternet? (Y/N): **Y**Clusternet number: **1-101**

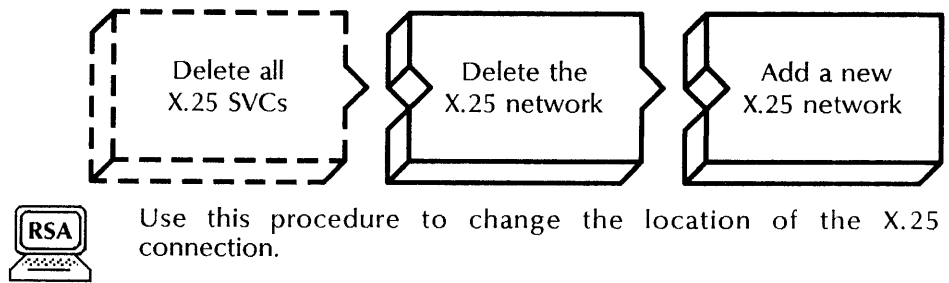
Circuit added to clusternet number 1-101

Confirm circuit information (Y/N): **Y**

Done.

IRS!

Changing the X.25 network location



Prerequisites

- Delete all X.25 switched virtual circuits.
- Update the Internetwork Routing Service Worksheet with any changes you are making to the following information:
 - The line speed for the new network
 - The local address for the new network
 - The number of seconds you want the circuit to wait before attempting to retransmit a packet (retransmission timeout), and the number of times you want to try to send the packet
 - The number of outstanding frames you want to allow
 - The type of packet-switched data network (PSDN) you are using and the protocol ID
 - The start and stop channel numbers for the switched virtual circuit (SVC) range
 - The description of the new network

Step-by-step

1. Log on and enable in the Internetwork Routing Service context, if necessary.
2. Type **Delete X25 Network** .

Confirm deletion of X25 network (Y/N):

3. Type **Y** or **N** at the "Confirm deletion of X25 network" prompt .
 - Y** Deletes the network.
 - N** Cancels the deletion.

Done.

4. Type **Add X25 Network** .

Enter local port number (0..63):

5. If you are using the Multiport Option Kit, type the number of the local port and press RETURN. If you do not have the Multiport Option Kit installed, **skip to step 6**.

NOTE

Step 6 provides X.25 network configuration information to the External Communication Service. You specify autostarting for each circuit as you add it to the network.

Should this line be autostarted (Y/N):

6. Type **Y** or **N** at the "Should this line be autostarted" prompt .

Y Indicates that you want to use the autostart option. You determine which circuits are autostarted as you add them.

N Indicates that all the X.25 circuits will be manually started.

Select line speed

- 1 1200 bps
- 2 2400 bps
- 3 3600 bps
- 4 4800 bps
- 5 7200 bps
- 6 9600 bps

Enter choice number: < existing information >

7. Type the number for the line speed of the modem attached to the RS232C port .

Local address: < address >

8. Type the numbers identifying the local address of this network .

Retransmission timeout (3..20): < number >

9. Type the number of seconds you want each circuit to wait for a response before resending a packet .

Maximum number of retransmissions (1..100): < number >

10. Type the number of times you want a circuit to try to send a packet .

Maximum number of outstanding frames (1..7):

11. Type the number of outstanding frames you want to allow .

Network types
 1 Tymnet, Uninet
 2 Telenet
 3 DDX
 4 International DDX
 5 DDX 80
 6 Passive DTE
 Enter choice number:

12. Type the number that identifies the type of packet-switched data network (PSDN) you are using .

Protocol ID:

13. Using uppercase letters, type the eight hexadecimal digits that represent the protocol ID you want to assign for internetwork routing and press RETURN; or simply press RETURN to accept the default setting of FFFFFFFF.

Switched virtual circuit range
 start: (1..4095):

14. Type the number of the start channel for the X.25 switched virtual circuit .

stop: (1..4095):

15. Type the number of the stop channel for the X.25 switched virtual circuit .

X.25 network description:

16. Type a description of the X.25 network .

Confirm X25 network information (Y/N):

17. Type **Y** or **N** at the "Confirm X25 network information" prompt .

Y Enters the X.25 network information.

N Cancels the process.

Done.

Wrap-up

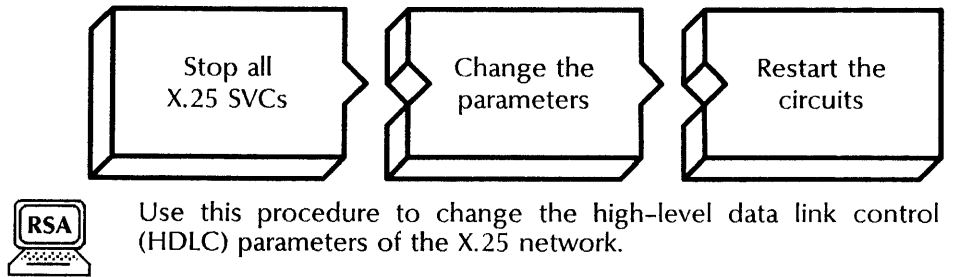
When you see the message "Done," you have successfully deleted an existing X.25 network and added the parameters for a new network.

Example

This example shows deleting an existing network and adding a new network.

```
IRS!Delete X25 Network
Confirm deletion of X25 network (Y/N): Y
Done.
IRS!Add X25 Network
Enter local port number (0..63): 1
Should this line be autostarted (Y/N): N
Select line speed
1 1200 bps
2 2400 bps
3 3600 bps
4 4800 bps
5 7200 bps
6 9600 bps
Enter choice number: 6
Local address: 5551234
Retransmission timeout (3..20): 4
Maximum number of retransmissions (1..100): 30
Maximum number of outstanding frames (1..7): 7
Network types
1 Tymnet, Uninet
2 Telenet
3 DDX
4 International DDX
5 DDX 80
6 Passive DTE
Enter choice number: 2
Protocol ID: FFFFFFFF
Switched virtual circuit range
start: (1..4095): 1
stop: (1..4095): 420
X25 network description: X25 for Finance
Confirm X25 network information (Y/N): Y
Done.
IRS!
```

Changing the X.25 network parameters



Prerequisites

Update the Internetwork Routing Service Worksheet with any changes you are making to the following information:

- The line speed for the network
- The local address for the network
- If you are using a Multiport Option Kit, the port number
- The number of seconds you want the circuit to wait before attempting to retransmit a packet (transmission timeout) and the number of times you want to try to send the packet
- The number of outstanding frames you want to allow
- The type of packet-switched data network (PSDN) you are using and the protocol ID
- The start and stop channel numbers for the switched virtual circuit (SVC) range
- The description of the X.25 network

Step-by-step

1. Log on and enable in the Internetwork Routing Service context.
2. If the SVCs are started, type **Stop Circuit** and press RETURN. If they are stopped, **skip to step 4**.

```

Circuits
1  <circuit description >
2  <circuit description >
Enter choice number:
  
```

3. Type the numbers for all the X.25 circuits you want to stop (for example, **1-2**) **↵**.

4. Type **Change X25 Network** \leftarrow .



Press RETURN to skip a prompt without changing existing information.

Enter local port number (0..63): <number>

5. If are using the Multiport Option Kit, type the number of the local port and press RETURN. If you do not have the Multiport Option Kit installed, **skip to step 6.**



Step 6 provides X.25 network configuration information to the External Communication Service. You specify autostarting for each circuit as you add it to the network.

Should this line be autostarted (Y/N):

6. Type **Y** or **N** at the "Should this line be autostarted" prompt \leftarrow .

Y Indicates that you want to use the autostart option. You determine which circuits are autostarted as you add them.

N Indicates that all the X.25 circuits will be manually started.

Select line speed
 1 1200 bps
 2 2400 bps
 3 3600 bps
 4 4800 bps
 5 7200 bps
 6 9600 bps
 Enter choice number: <existing information>

7. Type the number for the line speed of the modem attached to the RS232C port \leftarrow .

Local address: <existing information>

8. Type the numbers identifying the local address of this network \leftarrow .

Retransmission timeout (3..20): <number>

9. Type the number of seconds you want each circuit to wait for a response before resending a packet \leftarrow .

Maximum number of retransmissions (1..100): <number>

10. Type the number of times you want a circuit to try to send a packet ↵.

Maximum number of outstanding frames (1..7): <number>

11. Type the number of outstanding frames you want to allow ↵.

Network types

- 1 Tymnet, Uninet
- 2 Telenet
- 3 DDX
- 4 International DDX
- 5 DDX 80
- 6 Passive DTE

Enter choice number: <existing information>

12. Type the number that identifies the type of packet-switched data network (PSDN) you are using ↵.

Protocol ID: <value>

13. Using uppercase letters, type the eight hexadecimal digits that represent the protocol ID you want to assign for internetwork routing and press RETURN; or simply press RETURN to accept the default setting of FFFFFFFF.

Switched virtual circuit range
start: (1..4095): <number>

14. Type the number of the start channel for the X.25 switched virtual circuit ↵.

stop: (1..4095): <number>

15. Type the number of the stop channel for the X.25 switched virtual circuit ↵.

X.25 network description: <existing information>

16. Type a description of the X.25 network ↵.

Confirm X25 network information (Y/N):

- 17. Type **Y** or **N** at the "Confirm X25 network information" prompt **↵**.
 - Y** Enters the X.25 network information.
 - N** Cancels this process.

```
Done.
```

- 18. Type **Start Circuit** **↵**.

```
Circuits
1 <circuit description>
2 <circuit description>
Enter choice number:
```

- 19. Type the numbers of the circuits you want to start and press RETURN (for example **1-2**).

```
Done.
IRS!
```

Wrap-up

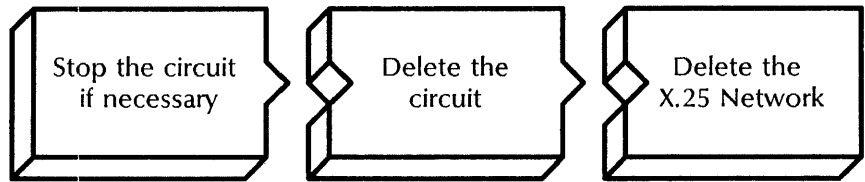
When you see the message "Done," you have changed the parameters for the X.25 network.

Example

This example shows changing the X.25 network parameters.

```
IRS!Stop Circuit
Circuits
 1 X25 circuit to lab
 2 X25 circuit to headquarters
Enter choice number: 1-2
Done.
IRS!Change X25 Network
Select line speed
 1 1200 bps
 2 2400 bps
 3 3600 bps
 4 4800 bps
 5 7200 bps
 6 9600 bps
Enter choice number: 6
Local address: 310114152220
Retransmission timeout (3..20): 4
Maximum number of retransmissions (1..100): 30
Maximum number of outstanding frames (1..7): 7
Network types
 1 Tymnet, Uninet
 2 Telenet
 3 DDX
 4 International DDX
 5 DDX 80
 6 Passive DTE
Enter choice number: 1
Protocol ID: FFFFFFFF
Switched virtual circuit range
  start: (1-4095): 2
  stop: (2-4095): 100
X25 network description: Updated X.25 network
Circuit description: Lab/headquarters
Confirm X25 network information (Y/N): Y
Done.
IRS!Start Circuit
Circuits
 1 X25 circuit to lab
 2 X25 circuit to headquarters
Enter choice number: 1-2
Done.
IRS!
```

Deleting a circuit and the X.25 network



Use this procedure to remove circuits and delete the X.25 network.

Prerequisites

- If the circuit uses a CIU, stop the External Communication Service before using the **Delete Circuit** command
- Know the circuit you want to delete
- If you are deleting an X.25 network, first delete all its circuits

Step-by-step

1. Log on and enable in the Internetwork Routing Service context.
2. If the circuit you want to delete is started, type **Stop Circuit** and press RETURN. If the circuit is stopped, **skip to step 4**.

```

Circuits
1 < circuit description >
2 < circuit description >
Enter choice number:
  
```

3. Type the number for the circuit you want to stop **↵**.

```
Done.
```

4. Type **Delete Circuit** **↵**.

```

Circuits
1 < circuit description >
2 < circuit description >
Enter choice number:
  
```

5. Type the number for the circuit you want to delete **↵**.

```
Confirm deletion of circuit (Y/N):
```

6. Type **Y** or **N** at the "Confirm deletion of circuit" prompt **↵**.
 - Y** Deletes the circuit.
 - N** Cancels the deletion.

NOTE

Perform steps 7 and 8 to delete the X.25 network. Otherwise, skip to step 9.

7. Type **Delete X25 Network** .

Confirm deletion of X25 network (Y/N):

8. Type **Y** or **N** at the "Confirm deletion of X25 network" prompt .

Y Deletes the network.

N Cancels the deletion.

Done.

9. Log off.

Wrap-up

When you see the message "Done," you have deleted circuits in the X.25 network.

Example

This example shows deleting all stopped circuits and the X.25 network.

```

IRS! Stop Circuit
  Circuits
  1  Port1
  2  Port2 in room 305
  Enter choice number: 1-2
Done.
IRS!Delete Circuit
  Circuits
  1  Port1
  2  Port2 in room 305
  Enter choice number: 1-2
  Confirm deletion of circuit (Y/N): Y
Done.
Delete X25 Network
  Confirm deletion of X25 network (Y/N): Y
Done.
IRS!

```

Listing circuits, X.25 networks, and routes

Use this procedure to list the IRS circuits, list the current X.25 high-level data link control (HDLC) parameters, or the networks (routes) the IRS can reach.

Step-by-step

1. Enter the Internetwork Routing Service context.
2. Type **List Circuits**, **List X25 Network**, or **List Routes** \Leftarrow .
3. Log off.

Example

This example shows listing circuits.

```
IRS!List Circuits
Rabbit Ears Local Port (Auto-dialed, Local port number 1)
Circuit is full duplex, 3600bps.
Status: stopped.
Test of CIU async/sync on one board (Dedicated, Port A2 of CIU)
Circuit is full duplex, 9600bps.
Circuit is autostarted.
Status: port has been acquired.
To Trinidad (Dedicated, Local port number 1)
Circuit is full duplex, 9600bps.
Status: connection is established to remote host.
Connection was established April 23, 1985.
Connected to an Internetwork Routing Service.
Connected to Trinidad-IRS: ABC Company (1-333.2-852-345-123.)
The following networks are reached through this circuit: 1-333, 1-334.
Done.
IRS!
```

This example shows listing the current X.25 HDLC parameters.

```
IRS!List X25 Network
X.25 network: Link to NY(local port, 9600bps):
Local port number 1
Local address: 310114152220
Retransmission timeout: 4
Maximum number of retransmissions: 30
Maximum number of outstanding frames: 7
X25 network type: Tymnet
Protocol ID: FFFFFFFF
Switched virtual circuit range
    start: 2
    stop: 100
Status: connection established with the PSDN.
Done.
IRS!
```

This example shows listing routes and showing the step count from network to network.

```
IRS!List Routes
Network 0-002 is the local Ethernet
Network 0-999 is the local clusternet
Network 0-048 is 1 step away via the local Ethernet and Home-IRS
Network 1-104 is 1 step away via X.25 SVC circuit "Paris"
Network 0-500 is 1 step away via dedicated circuit "I'll be there"
Network 1-108 is 2 steps away via X.25 SVC circuit "Paris"
Network 1-007 is 2 steps away via dedicated circuit "I'll be there"
Network 2-110 is 3 steps away via X.25 SVC circuit "Paris"
Network 2-224 is 4 steps away via X.25 circuit "Paris"
Done.
IRS!
```

Removing the Internetwork Routing Service

Use this procedure to remove the Internetwork Routing Service from a server.

Prerequisites

Perform the procedure "Deleting circuits and the X.25 network" earlier in this chapter, to stop and delete all circuits and remove the X.25 network.

Step-by-step

1. Log on and enable.
2. Type **Stop Service** .

```
Select choices:
1 <service name>
2 <service name>
Enter one or more choices:
```

3. Type the numbers for all services (for example, **1-2**) .

```
<service name>: Stop immediately? (Y/N):
```

4. Type **Y** or **N** at each "Stop immediately" prompt .
 - Y** Stops the service immediately; all services functions are unavailable to the network.
 - N** Stops the service after all current activity has been completed.

```
Stopping <service name> .
<service name> is stopped.
```

5. Boot the server.
 - a. Hold down the Boot Reset (B RESET) and the Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset B RESET button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

```
Normal startup? (Y/N): Y
```

6. Type **N** at the "Normal startup" prompt .
 - Y** Starts and runs each service loaded on the server.
 - N** Starts the services, but requires user interaction for the non-normal startup options for each service loaded on the server.

Enter interrupt point

- 1 Interrupt before opening primary volume
- 2 Interrupt before processing profile
- 3 Interrupt before running services

Enter one or more choices:

7. Type **3** for the "Interrupt before running services" option .
8. Log on and enable.
9. Type **Expunge Service** .

Select choices

- 1 Internetwork Routing Service
- 2 <other service name>

Enter one or more choices:

10. Type the number for the Internetwork Routing Service .

IRS: Confirm? (Y/N): Y

11. Type **Y** or **N** at the "Confirm" prompt and press RETURN. Or, simply press RETURN to accept the default to remove the service.
 - Y** Removes the IRS.
 - N** Cancels the process.

Expunging Internetwork Routing Service

Deleting the IRS server profile information

Deleting the IRS name

Deleting Clearinghouse entry for: <name:domain:org>

Done

Done

Internetwork Routing Service expunged

!

12. Boot the server.
 - a. Hold down the Boot Reset (B RESET) and the Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

Normal startup? (Y/N):

13. Type **Y** at the "Normal startup" prompt .
14. Log off.

Wrap-up

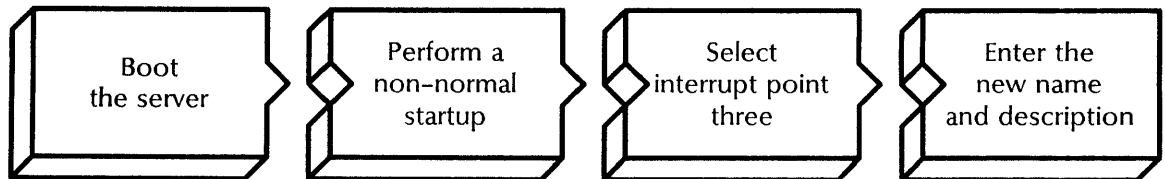
When you see the message "IRS expunged," you have removed the service from a server and deleted its entry in the Clearinghouse.

Example

This example shows removing the Internetwork Routing Service.

```
!Stop Service
Select choices:
 1 Internetwork Routing Service
 2 Server Monitor Service
Enter one or more choices: 1-2
Internetwork Routing Service: Stop immediately? (Y/N): N
Stopping Internetwork Routing Service.
Internetwork Routing Service is stopped.
Server Monitor Service: Stop immediately? (Y/N): N
Stopping Server Monitor Service.
Server Monitor Service is stopped.
Normal startup? (Y/N): N
Enter interrupt point
 1 Interrupt before opening primary volume
 2 Interrupt before processing profile
 3 Interrupt before running services
Enter one or more choices: 3
!Expunge Service
Select choices
 1 Internetwork Routing Service
 2 Server Monitor Service
Enter one or more choices: 1
Confirm? (Y/N): Y
Expunging Internetwork Routing Service
Deleting the IRS server profile information
Deleting the IRS name
  Deleting Clearinghouse entry for: Finance:Dallas:Texas
  Done
Done
Internetwork Routing Service expunged
!
```

Renaming the Internetwork Routing Service



Use this procedure to change the name of the Internetwork Routing Service. The **Rename** command is available after a non-normal startup.

Step-by-step

1. Log on and enable.
2. Type **Stop Service** .

```

Select choices:
1 <service name>
2 <service name>
Enter one or more choices:
  
```

3. Type the numbers for all services (for example, **1-2**) .

```

<service name>: Stop immediately? (Y/N):
  
```

4. Type **Y** or **N** at each "Stop immediately" prompt .
 - Y** Stops the service immediately; all services functions are unavailable to the network.
 - N** Stops the service after all current activity has been completed.

```

Stopping <service name>.
<service name> is stopped.
  
```

5. Boot the server.
 - a. Hold down the Boot Reset (B RESET) and the Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

```

Normal startup? (Y/N):
  
```

6. Type **N** at the "Normal startup" prompt .
 - Y** Starts and runs each service loaded on the server.
 - N** Starts the services, but requires user interaction for the non-normal startup options for each service loaded on the server.

Enter interrupt point

- 1 Interrupt before opening primary volume
- 2 Interrupt before processing profile
- 3 Interrupt before running services

Enter one or more choices:

7. Type **3** for the "Interrupt before running services" option

NOTE

Perform steps 5 through 7 if the Clearinghouse Service and the Internetwork Routing Service are not on the same server. Otherwise, **skip to step 8**.

8. Log on and enable.
9. Type **Run Service** .

Select choices

- 1 Clearinghouse service
- 2 <other service >

Enter one or more choices:

10. Type the number for the Clearinghouse Service .

Normal startup? (Y/N):

11. Type **Y** at the "Normal startup" prompt .
12. Type **Run Service** .

Select choices

- 1 Internetwork Routing Service
- 2 <other service >

Enter one or more choices:

13. Type the number for the Internetwork Routing Service .

Normal startup? (Y/N):

14. Type **N** at the "Normal startup" prompt .
15. Enter the Internetwork Routing Service context.
16. Type **Rename** .

Deleting Clearinghouse entry for:

<name:domain:organization >

Done.

Service name and description unknown.

Enter service name:

17. Type the new Internetwork Routing Service name .

Enter service description:

18. Type the new description .

Confirm? (Y/N):

19. Type **Y** or **N** at the "Confirm" prompt .

Y Enters the new information.

N Cancels the process so you can enter a different service name.

```
Validating Clearinghouse entry for: <new
name:domain:organization >
A new Clearinghouse entry was created.
Done.
```

20. Type **Proceed** to register the new name in the Clearinghouse .

21. Log off.

Wrap-up

When you see the message "A new Clearinghouse entry was created. Done," you have renamed the service and registered it in the Clearinghouse.

Example

This example shows renaming and describing the service, steps 16 through 21.

```
IRS!Rename
  Deleting Clearinghouse entry for: OurIRS:domain:org
Done.
  Service name and description unknown.
  Enter service name: Magic
  Enter service description: IRS that was called OurIRS
Confirm (Y/N): Y
Validating Clearinghouse entry for: Magic:domain:org
A new Clearinghouse entry was created.
Done.
IRS!Proceed
```

Showing the Internetwork Routing Service statistics

Use this procedure to list phone line statistics for active circuits or display the X.25 HDLC statistics for an existing X.25 network. You can use this command to:

- Show statistics since the server was last rebooted
- Reset the statistics counter for incremental statistics
- Show the incremental statistics (statistics between resets)

Step-by-step

1. Enter the Internetwork Routing Service context.
2. Type **Show Statistics** \leftarrow .

```
Interval choices
1  Statistics since server was booted
2  Incremental statistics since reset
3  Reset statistics counters
Enter choice number:
```

3. Type **1** for the "Statistics since server was booted" option \leftarrow .
4. Type **Show Statistics** and press RETURN again.

```
Interval choices
1  Statistics since server was booted
2  Incremental statistics since reset
3  Reset statistics counters
Enter choice number:
```

5. Type **3** for the "Reset statistics counters" option \leftarrow .
6. Wait about 15 minutes; then type **Show Statistics** and press RETURN again.

```
Interval choices
1  Statistics since server was booted
2  Incremental statistics since reset
3  Reset statistics counters
Enter choice number:
```

7. Type **2** for the "Incremental statistics since reset" option \leftarrow .
8. Log off.

Wrap-up

When you see the message "Done," you have displayed the phone line statistics since the server was booted, reset the counters, and displayed all statistics since the last reset.

Example

This example shows statistics collected since the server was last rebooted.

Show Statistics

Interval choices

- 1 Statistics since server was booted
- 2 Incremental statistics since reset
- 3 Reset statistics counters

Enter choice number: 1

Statistics at 17-Jan-87 11:20:28 Statistics since server was booted
1 days, 1 hours, 32 minutes, 40 seconds (since 16-Jan-87 9:49:08)

5245 packets forwarded

458292 bytes forwarded

Circuit: Lab circuit

18865 packets sent

809200 bytes sent

1 send error, bad status

79204 packets received

6336320 bytes received

12 packets rejected

2 receive error, data lost

12 receive error, no get

1 receive error, unknown

1 receive error, frame timeout

1 receive device error

17 CRC errors

2 times dsr dropped

1 congestion count

10 too long since last receive

2 connection established count

1 no response count

4462 bps sent

1996 bytes received

4946 bps throughput

Done.

Starting and stopping circuits

Use this procedure to stop a circuit to remove it from service or start a circuit to restore it to service.

If an IRS is unavailable for 24 hours or more, use the **Compare Database** command from the local Clearinghouse to the remote Clearinghouse. The Clearinghouse databases will then be consistent when you activate the link again. See the Clearinghouse Service chapter earlier in this book for more information.

Prerequisites

Before you stop a circuit, use the **List Circuits** and **List Routes** commands to show the circuits and networks this procedure will affect.

Step-by-step to stop a circuit

1. Log on and enable in the Internetwork Routing Service context.
2. Type **List Circuits** to show the current circuits .
3. Type **List Routes** to see the current networks .



CAUTION: Do not remove a circuit from service or, you may be unable to reach all networks.

4. Type **Stop Circuit** .

```
Circuits
1 < circuit description >
2 < circuit description >
Enter choice number:
```

5. Type the number for the circuit that you want to stop .

Step-by-step to start a circuit

1. Type **Start Circuit** .

```
Circuits
1 < circuit description >
2 < circuit description >
Enter choice number:
```

2. Type the number for the circuit you want to start .
3. If the circuit is auto-dialed, type the number for the phone number .
4. Log off.

Wrap-up

When you see the message "Done," you have removed a circuit from and returned it to service.

Example

This example shows stopping a circuit, and immediately starting it again.

IRS!Stop Circuit

Circuits

- 1 Dedicated link
 - 2 Auto-dialed local port
- Enter choice number: **1**

Done.

IRS!Start Circuit

Circuits

- 1 Dedicated link
 - 2 Autodialed local port
- Enter choice number: **1**
- 1 8562418 (Lassen(Left Codex 24/24))
 - 2 (619)987-6543 (SD Zoo)

Enter choice number: **1**

Acquired for auto-dial connection. Port "local port"

Done.

IRS!

12. Interactive Terminal Service

This chapter contains the procedures you perform to maintain the Interactive Terminal Service (ITS). These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Interactive Terminal Service maintenance procedures:

- Install all required software as described in the Interactive Terminal Service chapter of the *Services Installation and Setup Guide*.
- Perform all ITS setup procedures as described in the Interactive Terminal Service chapter of the *Services Installation and Setup Guide*.

Commands

This section lists the Interactive Terminal Service commands you use to maintain the service. You must be in the proper context to access the commands.

Table 12-1 shows the commands along with the logged-on status and the service state (started or stopped) for accessing them.

Table 12-1. **Interactive Terminal Service maintenance commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Change File Drawer					•	•
List Users	•		•		•	
Rename					•	
Set Tracing					•	
Start Service						•
Stop Service					•	

Change File Drawer Available to the enabled user. Use this File Service command to assign a new owner to the drawer, change the page limit, add a new user or group, and modify the access rights.

Related procedure: Changing the ITS User Profiles drawer

List Users Available to the logged on user. Displays the name of the service, the number of users logged on, their names, and when their sessions started.

Related procedure: Listing user activity

Rename Available to the enabled user. Changes the name of the Interactive Terminal Service.

Related procedure: Renaming the Interactive Terminal Service

Set Tracing Available to the enabled user. Starts or stops a monitoring facility that keeps a log of user activities.

Related procedure: Monitoring Interactive Terminal Service sessions

Start Service Available to the enabled user. Cancels the effects of a **Stop Service** command or explicitly starts a service after a service-specific failure.

Related procedure: Reconfiguring Interactive Terminal resources

Stop Service Available to the enabled user. Stops the currently loaded and started services you select. This command reverses the effects of a **Start Service** command. The service continues to run but does not respond to external requests for service.

Related procedure: Reconfiguring Interactive Terminal resources

Procedures

This section contains these procedures for maintaining the Interactive Terminal Service:

Changing the ITS User Profiles drawer

Use this procedure to modify the parameters of the ITS User Profiles drawer. You can change the owner, the page limit, or the access privileges for specific user or group.

Listing user activity

Use this procedure to determine current Interactive Terminal Service activity.

Monitoring Interactive Terminal Service sessions

Use this procedure to establish a record of Interactive Terminal Service activity.

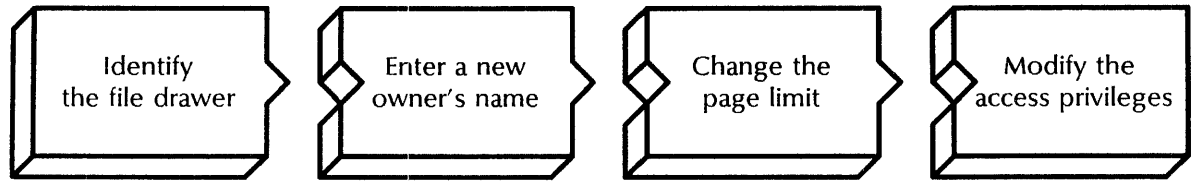
Reconfiguring Interactive Terminal Service resources

Use this procedure to change the number of users that can access the Interactive Terminal Service at the same time, and to change the page limit for a user.

Renaming the Interactive Terminal Service

Use this procedure to change the name and description of an existing Interactive Terminal Service.

Changing the ITS User Profiles drawer



Use this procedure to modify the parameters of the ITS User Profiles drawer. You can add users or groups to the list, change existing access privileges, and delete users or groups from the list.

Prerequisites

See the Interactive Terminal Service Worksheet for the following information:

- Whether the File Service is running on a multiple-drive or a single-drive server
- If a multiple-drive server, know the volume name to use for the ITS User Profiles drawer
- The page requirements for your network
- The name of the user or group to whom you want to give access
- The access rights to give (read, write, add)

Step-by-step

1. At the server supporting the File Service with the ITS User Profiles drawer, log on and enable in the File Service context.
2. Type **Change File Drawer** \Leftarrow .

```

Select Volume
1 <volume name >
2 <volume name >
3 <volume name >
Enter choice number:
  
```

3. If the File Service is running on a multiple-drive server, type the number for the File Service volume and press RETURN. If the File Service is running on a single-drive server, **skip to step 4.**

```

File drawer name:
  
```

4. Type **ITS User Profiles** to identify the file drawer you want to change \Leftarrow .

```

New file drawer name: ITS User Profiles
  
```



CAUTION: For the Interactive Terminal Service to recognize the drawer, it must be named ITS User Profiles.

5. Press RETURN to skip this prompt without changing the file drawer name.

New owner's name: <current owner>

6. To change the owner for the file drawer, type the new owner's name and press RETURN. Press RETURN to skip this prompt without changing the owner's name.

New page limit (type 0 for no limit) (0..2147483647): <limit >

7. To change the page limit, type the new number of total pages and press RETURN. Press RETURN to skip this prompt without changing the page limit.

Change Access List? (Y/N):

8. Type **Y** or **N** at the "Change Access List" prompt .
- Y** Lets you change the access list.
- N** Ends the change process.

Enter User, Alias, or Group Name:

9. Type the name of the individual or group you want to have access to the ITS User Profiles drawer .

Permission to read? (Y/N):

NOTE

To delete a user or a group, type **N** at all "Permission to..." prompts.

10. Type **Y** or **N** at the "Permission to read" prompt .
- Y** Lets users read the files in the drawer.
- N** Prevents read access.

Permission to write? (Y/N):

11. Type **Y** or **N** at the "Permission to write" prompt .
- Y** Lets users write to the files in the drawer.
- N** Prevents write access.

Permission to add? (Y/N):

12. Type **Y** or **N** at the "Permission to add" prompt \Leftarrow .
- Y** Lets users add files to the drawer.
 - N** Prevents add access.

Permission to remove? (Y/N):

13. Type **N** at the "Permission to remove" prompt \Leftarrow .
- Y** Lets users remove files from the drawer.
 - N** Prevents remove access.

Permission to change the access list? (Y/N):

14. Type **N** to restrict users from making changes to this access list \Leftarrow .
- Y** Lets users change the access list.
 - N** Prevents users from making changes.

Make another change to access list? (Y/N):

15. Type **Y** or **N** at the "Make another change to access list" prompt \Leftarrow .
- Y** Lets you make additional changes to the access list for this drawer. Return to step 9.
 - N** Does not let you make additional changes.

Confirm the above changes (Y/N):

16. Type **Y** or **N** at the "Confirm" prompt \Leftarrow .
- Y** Confirms the information is accurate.
 - N** Cancels the process.

Done
FS!

Wrap-up

When you see the message "Done," you have changed the parameters if the ITS User Profiles file drawer. You may wish to make a copy of this information. If you are using Remote System Administration, use the make Document or Make Screen option.

Example

This example shows changing the owner of the ITS User Profiles drawer and providing him full access rights. Then read, write, and access rights are given to another group.

FS!Change File Drawer

Select Volume

1 Finance

2 Planning

Enter choice number: **1**

File drawer name: **ITS User Profiles**

New file drawer name: ITS User Profiles

New owner's name: **JimJones:Unit3:Acme**

New page limit (type 0 for no limit) (0..2147483647): **2**

Change Access List? (Y/N): **Y**

Enter User, Alias, or Group Name: **JimJones:Unit3:Acme**

Permission to read? (Y/N): **Y**

Permission to write? (Y/N): **Y**

Permission to add? (Y/N): **Y**

Permission to remove? (Y/N): **Y**

Permission to change the access list? (Y/N): **Y**

Make another change to access list? (Y/N): **Y**

Enter User, Alias, or Group Name: **Sales:Unit3:Acme**

Permission to read? (Y/N): **Y**

Permission to write? (Y/N): **Y**

Permission to add? (Y/N): **Y**

Permission to remove? (Y/N): **N**

Permission to change the access list? (Y/N): **N**

Make another change to access list? (Y/N): **N**

Confirm the above changes (Y/N): **Y**

Done

FS!

Listing user activity



Use this procedure to display the names of logged on ITS users and show when their session started. You may want to use this procedure before you stop or expunge the Interactive Terminal Service.

Step-by-step

1. Log on in the Interactive Terminal Service context.
2. Type **List Users** \Leftarrow .

The name of this ITS is: <fully qualified name of the ITS>
 < # > users connected to ITS. ITS is currently <status>.
 User <name> logged on since <date> <time>

Wrap-up

When you see the "ITS>" prompt, you have displayed the number of active users and when they logged on.

Example

This example shows that two users are currently using the ITS.

```
ITS> List Users
The name of this ITS is:
OurITS:OurDomain:OurOrg
2 users connected to ITS. ITS is currently started.
    User Tom Malone logged on since 28-Dec-87 11:37:40.
    User Joyce Smith logged on since 28-Dec-87 11:38:20.
ITS>
```

Monitoring Interactive Terminal Service sessions



Use this procedure to monitor Interactive Terminal Service activity. You use the **Set Tracing** command to start or stop monitoring. Once tracing begins, the system displays the names of ITS users and the length of their sessions.

You may want to use this procedure before you stop or expunge the Interactive Terminal Service.

Step-by-step

1. Log on and enable in the Interactive Terminal Service context.
2. Type **Set Tracing** .

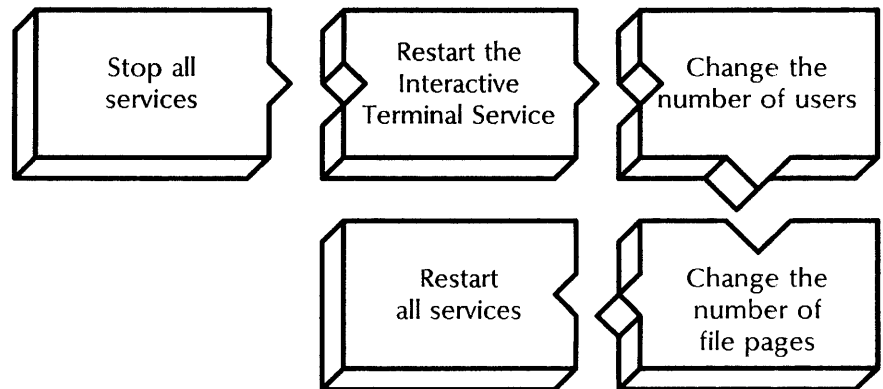
On (Y/N):

3. Type **Y** at the "On" prompt .
 - Y** Starts tracing.
 - N** Stops tracing.

Wrap-up

This procedure has turned on the tracing feature to provide an on-going record of when an ITS user logs on and off. As each activity takes place, a message appears.

Reconfiguring the Interactive Terminal Service resources



Use this procedure to change the number of users who can access the ITS at the same time and the number of file pages for each user.

Prerequisites

- Determine the period during which the services on the server are least active. Plan to stop all services during this time.
- Notify users of the time you will stop the services.
- See the Interactive Terminal Worksheet for the number of users this ITS supports, and the number of file pages to allow each user.
- If your server supports multiple services, allow enough space to support the other services. See the *Guide to System Administration Activities* for more information.

Step-by-step

1. Log on and enable.
2. Type **Stop Service** .

```

Select choices
1 <service name>
2 <service name>
3 <service name>
Enter one or more choices:
  
```

3. Type the numbers for all services (for example, **1-3**) .

```

<service name> Stop immediately? (Y/N):
  
```

4. Type **Y** or **N** at each "Stop immediately" prompt .

- Y** Stops the service and disconnects active users.
- N** Stops the service gradually. The system waits for each user to log off before stopping.

Stopping <service name> .
Stopping the <service name> processes
<service name> is stopped.

5. After all the services on the server are stopped, boot the server:
 - a. Hold down the Boot Reset (B RESET) and Alternate B (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate B (ALT B) button.

Normal startup? (Y/N):

6. Type **N** at the "Normal startup?" prompt .
 - Y** Normally starts and runs each service loaded on the server.
 - N** Starts the services, but requires user interaction for the non-normal startup options associated with each service.

Enter interrupt point
1 interrupt before opening primary volume
2 interrupt before processing profile
3 interrupt before running services
Enter one or more choices:

7. Type **3** for the "Interrupt before running services" option .
8. Type **Run Service** .

Select choices
1 <service name >
2 <service name >
3 <service name >
Enter one or more choices:

9. Type the number for the Interactive Terminal Service .

ITS: Normal startup? (Y/N):

10. Type **N** at the "Normal Startup" prompt .

Running Interactive Terminal Service.

ITS: Interactive Terminal Service is initializing

This Interactive Terminal Service is configured for < number >
user(s) and < number > file pages per user.

Do you wish to change these values? (Y/N): N

11. Type **Y** at the "Do you wish to change these values?" prompt .

Y Lets you enter new values.

N Starts the Interactive Terminal Service without changing existing values. **Skip to step 14.**

Number of users allowed (1...8): < current number >

12. Type the number of users who may access the ITS at the same time .

Number of file pages per user (0...1250): < current number >

13. Type the number of file pages each user needs .

ITS: Interactive Terminal Server is initialized.

ITS: Validating Clearinghouse entry for < service name >

ITS: Done

ITS: Interactive Terminal Service is started.

ITS: Interactive Terminal Service run.

14. Type **Proceed** and press RETURN. Various messages display as the system runs each additional service.

Wrap-up

When you see messages that all services are running, you have successfully reconfigured the ITS resources. Make a copy of the new configuration so you can update your Interactive Terminal Service Worksheet. If you are using Remote System Administration, use the Make Document or Make Screen option.

Example

The following screen shows stopping the Mail Service, the External Communication Service, and the Interactive Terminal Service to reconfigure the ITS resources. The number of ITS users is increased to 8 and the number of file pages per user to 20.

!Stop Service

Select choices

- 1 Mail Service
- 2 External Communication Service
- 3 Interactive Terminal Service

Enter one or more choices: **1-3**MS: Stop Immediately? (Y/N): **Y**

Stopping Mail Service.

WARNING: The local Clearinghouse will suffer if the Mail Service is stopped for any length of time.

Continue (Y?N): **Y**

Stopping the Mail Service processes

Stopping the Mail Gateway

Mail Service has stopped.

ECS: Stop Immediately? (Y/N): **Y**

Stopping External Communication Service.

ECS: External Communication Service is stopped.

ITS: Stop Immediately? (Y/N): **Y**

Stopping Interactive Terminal Service.

ITS: Interactive Terminal Service is stopped.

*Boot the server*Normal startup? (Y/N): **N**

Enter interrupt point

- 1 Interrupt before opening primary volume
- 2 Interrupt before processing profile
- 3 Interrupt before running services

Enter one or more choices:

Run Service

Select choices

- 1 Mail Service
- 2 External Communication Service
- 3 Interactive Terminal Service

Enter one or more choices: **3**ITS: Normal startup? (Y/N): **N**

Running Interactive Terminal Service.

ITS: Interactive Terminal Service is initializing.

ITS: This Interactive Terminal Service is configured for <3> user(s) and <10> file pages per user.

Do you wish to change these values? (Y/N): **Y**Number of users allowed (1..8): **8**Number of file pages per user (0...1250): **20**

ITS: Interactive Terminal Service is initialized.

ITS: Validating Clearinghouse entry for <service name >

ITS: Done

ITS: Interactive Terminal Service is started.

ITS: Interactive Terminal Service run.

!Proceed

Renaming the Interactive Terminal Service



Use this procedure to enter a new name and description for an existing ITS.

Prerequisites

See the Interactive Terminal Service Worksheet for the name and description of your service.

Step-by-step

1. Log on and enable in the Interactive Terminal Service context.
2. Type **Rename** .

```
Deleting Clearinghouse entry for <ITS name >
Done.
Service name and description unknown.
Enter service name:
```

3. Type the new name of your service .

```
Enter service description:
```

4. Type the new description of your service .

```
Confirm? (Y/N):
```

5. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Registers the new name and description in the Clearinghouse.
 - N** Cancels the process so you can begin again.

```
Validating Clearinghouse entry for <newITS:domain:org >
A new Clearinghouse entry was created.
Done.
```

Wrap-up

When you see the message "Done," you have successfully entered a new name and description for the Interactive Terminal Service.

Example

This example shows changing the name and description of an Interactive Terminal Service.

ITS!Rename

Deleting Clearinghouse entry for Sales:Western:ABCCorp
Done.

Service name and description unknown.

Enter service name: **Marketing**

Enter service description: **western marketing ITS**

Confirm? (Y/N): **Y**

Validating Clearinghouse entry for Marketing:Western:
ABCCorp

A new Clearinghouse entry was created.

Done

ITS!

This chapter contains the procedures you perform to maintain the Remote Batch Service (RBS). These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Remote Batch Service maintenance procedures:

- Install all required software as described in the Server Software Installation chapter in the *Services Installation and Setup Guide*.
- Perform all RBS setup procedures as described in the Remote Batch Service chapter of the *Services Installation and Setup Guide*.

Commands

This section lists the commands you use to maintain your Remote Batch Service. You must be in the Remote Batch Service context to access these commands.

Table 13-1 shows the commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 13-1. **Remote Batch Service maintenance commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Change Partner					•	
Change Port					•	
Delete Partner					•	
Delete Port					•	
List Contents			•		•	
Rename Service					•	
Set Interpretation					•	
Show Interpretation			•		•	
Show Partner			•		•	
Show Port			•		•	
Show Statistics			•		•	
Start Service						•
Stop Service					•	

Change Partner Available to the enabled user when the Remote Batch Service is started and at least one partner entry exists. Changes information for an existing communication partner.

Related procedure: Changing communication partner information

Change Port Available to the enabled user when the Remote Batch Service is started and the port entry exists. Changes information for an existing RS232C port.

Related procedure: Changing RS232C port information

Delete Partner Available to the enabled user when the Remote Batch Service is started and at least one partner entry exists. Removes an existing communication partner definition.

Related procedure: Deleting a communication partner

Delete Port Available to the enabled user when the Remote Batch Service is started and the port entry exists. Removes an RS232C port definition.

Related procedure: Deleting an RS232C port

- List Contents** Available to the logged on user when the Remote Batch Service is started and at least one partner entry exists. Describes the contents of the file drawers in use by the Remote Batch Service and the contents of the error folder.
Related procedure: Describing the contents of active file drawers
- Rename Service** Available to the enabled user when the Remote Batch Service is started. Changes the name of the Remote Batch Service.
Related procedure: Renaming the Remote Batch Service
- Set Interpretation** Available to the enabled user when the Remote Batch Service is started and at least one partner entry exists. Defines the interpretation of received data.
Related procedure: Setting and displaying data interpretation
- Show Interpretation** Available to the logged on user when the Remote Batch Service is started and at least one partner entry exists. Lists the information you specified with the **Set Interpretation** command.
Related procedure: Setting and displaying data interpretation
- Show Partner** Available to the logged on user when the Remote Batch Service is started and at least one partner entry exists. Lists an existing communication partner definition.
Related procedure: Displaying communication partner definition
- Show Port** Available to any user when the Remote Batch Service is started and a port entry exists. Lists information about the RS232C port definition, including its name and description.
Related procedures: Displaying RS232C port information, Deleting an RS232C port
- Show Statistics** Available to the logged on user when the Remote Batch Service is started. Lists RBS statistics compiled since the last reset or the last server restart.
Related procedure: Showing Remote Batch Service statistics
- Start Service** Available to the enabled user when the service is stopped. Starts the service.
Related procedures: Changing communication partner information, Changing RS232C port information, Deleting a communication partner, Deleting an RS232C port
- Stop Service** Available to the enabled user when the service is started. Stops the service.
Related procedure: Changing communication partner information, Changing RS232C port information, Deleting a communication partner, Deleting an RS232C port

Procedures

This section contains these procedures for maintaining the Remote Batch Service:

Changing communication partner information

Use this procedure to change information for a Remote Batch Service communication partner.

Changing RS232C port information

Use this procedure to change information for an RS232C port.

Deleting a communication partner

Use this procedure to remove a partner's name from the Remote Batch Service.

Deleting an RS232C port

Use this procedure to remove an RS232C port.

Describing the contents of active file drawers

Use this procedure to list the contents of file drawers the Remote Batch Service is using.

Displaying a communication partner definition

Use this procedure to show details about a defined communication partner.

Displaying RS232C port information

Use this procedure to list the name, description, and configuration for an RS232C port.

Renaming the Remote Batch Service

Use this procedure to change the name of a Remote Batch Service.

Setting and displaying data interpretation

Use this procedure to define and list the interpretation of data received.

Showing Remote Batch Service statistics

Use this procedure to list data collection statistics for the Remote Batch Service.

Changing communication partner information



Use this procedure to change information about an existing communication partner. You must stop and restart the Remote Batch Service after you change the information.

Prerequisites

Update the Remote Batch Service Worksheet with any changes you are making to the following information:

- The name and description of the communication partner you want to change
- The name of the File Service where the input and output file drawers will be located
- The type of line the RBS is using
- Whether you want to restrict the hours of service operation; if you do, the time of day when service starts and ends
- If you are using a dial-out line:
 - the number of jobs waiting and how much time must pass before re-creating the connection
 - the phone number to dial and, optionally, the terminal identification and user password
- Whether you want to terminate the connection if it is inactive, and how many seconds should pass before termination
- Whether the Remote Batch Service responds as a primary or secondary station when requesting to transmit
- The device being emulated and the maximum block size
- Whether the RBS is communicating with a mainframe or a word processor; if you are communicating with a mainframe:
 - the mainframe spooling program
 - optionally, the statements for SIGNON and SIGNOFF
 - the initial bid response
- The default data interpretation and whether the partner expects print and punch output devices and the data interpretation for each
- Whether you want to use the default partner option

Step-by-step

1. Log on and enable in the Remote Batch Service context.
2. Type **Change Partner**

More than one communication partner exists. Select one of them.

1 <partner name >
 2 <partner name >
 3 <partner name >
 Enter choice number:

3. Type the number for the partner you want to change .

NOTE

Press RETURN to skip any of the prompts without changing the current information.

Enter name of communication partner: <name >

4. Type the name of the communication partner .

Enter descriptive comment: <comment >

5. Type a description for the partner .

Enter name of file service: <name >

6. Type the fully qualified name of the File Service in which the file drawers will reside .

NOTE

The File Service must be on the same internetwork as the Remote Batch Service; it may be on a different network. Both file drawers must be on the same File Service.

Enter name of file drawer for job submission: <name >

7. Type the name of the file drawer for job submission .

Enter minutes between checks of job submission file drawer:
 (1..59): <number >

8. Type the number of minutes between Remote Batch Service checks of the job submission file drawer for new jobs (1-59) .

Enter name of file drawer for output retrieval: <name >

9. Type the name of the file drawer the Remote Batch Service uses to store output .

Select line usage
 1 dedicated
 2 automatic dialing
 3 manual dialing
 4 answer only
 Enter choice number: <number>

10. Type the number for the line usage .

Restrict hours of operation? (Y/N): <Y or N>

11. Type **Y** or **N** to restrict the hours of operation .

Y Automatically establishes and terminates connections with a host or word processor at a pre-selected time.

N Does not restrict the hours of operation. If you are using a dedicated line, **skip to step 22**. If not, **skip to step 14**.

Enter time of day when service begins operation (hh:mm):
 <time>

12. Type the time when you want to establish the connection (in 24 hour format) .

Enter the time of day when service ends operation (hh:mm):
 <time>

13. Type the time you want to end the connection .

Re-create connection when how many jobs are waiting (1..32767): <number>

14. Type the number of jobs that can be waiting before recreating a connection .

Re-create connection after how many minutes (1..59):
 <number>

15. Type the number of minutes between connections .

Terminate connection if inactive for specified duration? (Y/N):
 <Y or N>

16. Type **Y** or **N** at the prompt \Leftarrow .
- Y** Drops the line connection after the period of inactivity you specify.
 - N** Maintains the connection indefinitely. **Skip to step 18.**

Enter number of seconds of inactivity (15-32767): <number >

17. Type the number of seconds to allow for inactivity \Leftarrow .

Enter phone number to dial: <number >

18. Type the phone number for dialing \Leftarrow .

Specify terminal and user security identification? (Y/N):

19. Type **Y** or **N** at the "Specify terminal and user security identification" prompt \Leftarrow .
- Y** Lets you specify the terminal and user security identification.
 - N** Does not let you specify the terminal and user security identification. **Skip to step 22.**

Enter terminal identification: <existing information >

20. Type the terminal identification \Leftarrow .

Enter user security identification: <existing information >

21. Type the user security identification \Leftarrow .

Select station type
1 primary
2 secondary
Enter choice number: <number >

22. Type the number for the station type \Leftarrow .

Select device being emulated
1 2770
2 2780
3 3780
Enter choice number: <number >

23. Type the number for the device being emulated \Leftarrow .

Select device with which we are communicating

- 1 mainframe
- 2 word processor
- 3 IBM 5520 Processor

Enter choice number: <number>

24. Type the number for the device with which you are communicating and press RETURN.
- If you are communicating with a mainframe, **continue with step 25.**
 - If you are emulating a 2770 Remote Batch Terminal that is not communicating with a mainframe, **skip to step 30.**
 - If you are communicating with a word processor or an IBM 5520 Processor, **skip to step 31.**

Select mainframe spooling program

- 1 JES (MVS)
- 2 POWER (DOS/SE)
- 3 RSCS (VM/370)
- 4 Other

Enter choice number: <number>

25. Type the number for the mainframe spooling program .

Send SIGNON and SIGNOFF? (Y/N):

26. Type **Y** or **N** to send SIGNON and SIGNOFF .

Y Lets you create the signals for the beginning and end of a session.

N Does not let you create the signals. **Skip to step 29.**

Enter SIGNON statement: <statement>

27. Type a SIGNON statement .

Enter SIGNOFF statement: <statement>

28. Type a SIGNOFF statement .

Select initial bid response

- 1 NAK/ACK
- 2 WACK/ACK

Enter choice number: <number>

29. Type the number for the initial bid response .

Select maximum block size

- 1 128
- 2 256
- 3 512

Enter choice number: <number>

30. Type the number for the block size and press RETURN. The above prompt appears only if you are communicating with an IBM 2770 Remote Batch Terminal.

Select default interpretation of data received

- 1 interpret as DP
- 2 interpret as WP
- 3 interpret as XNS
- 4 uninterpreted (unknown format)

Enter choice number: <number>

31. Type the number for the default interpretation of data received and press RETURN. If you select 4, **continue with step 32**. If not, **skip to step 34**.

Select File Type for file received

- 1 Text (tText)
- 2 Unspecified (tUnspecified)
- 3 User defined (numeric value)

Enter choice number: <number>

32. Type the number for the file type for the file received and press RETURN. If you select 3, **continue with step 33**. If not, **skip to step 34**.

Enter Numeric value for fileType:(0..2147483647): <value>

33. Type a numeric value for the file type .

Expect component selection code (DCn) to precede data received? (Y/N):

34. Type **Y** or **N** if you expect the component selection code to precede data received .
- Y** The partner expects two output devices: a line printer and a card punch, **perform steps 35 through 36**.
 - N** **Skip to step 37**.

Select interpretation of print (DC1) data

- 1 interpret as DP
- 2 interpret as WP
- 3 interpret as XNS
- 4 uninterpreted (unknown format)

Enter choice number: <number>

35. Type the number for interpretation of the print data .

```
Select interpretation of punch (DC2) data
1  interpret as DP
2  interpret as WP
3  interpret as XNS
4  uninterpreted (unknown format)
Enter choice number: < number >
```

36. Type the number for interpretation of the punch data .

```
Allow to insert ETX at end of each sending file?
```

37. Type **Y** or **N** at the prompt .

Y Sends files to the mainframe with file separators (ETX) between them.

N Sends files without file separators.

```
Default partner option? (Y/N):
```

38. Type **Y** or **N** at the "Default partner option" prompt .

Y Starts this partner when you start the Remote Batch Service.

N Does not start this partner.

```
RBS:...Done
RBS!
```

39. Type **Stop Service** .

```
Select choices
1  Remote Batch Service
Enter one or more choices:
```

40. Type the number for the Remote Batch Service .

```
RBS: Stop immediately? (Y/N):
```

41. Type **Y** or **N** at the "Stop immediately" prompt. .

Y Disconnects all logged on users and immediately stops the service. Any files in the receive queue not yet copied to the output file drawer are lost.

N Waits for logged on users to complete their sessions before stopping the service.

```
Stopping Remote Batch Service.
RBS: Remote Batch Service is stopped.
RBS!
```

42. Type **Start Service** .

Select choices
 1 Remote Batch Service
 Enter one or more choices:

43. Type the number for the Remote Batch Service .

Starting Remote Batch Service.
 Validating Clearinghouse entry for: <name:domain:org>
 Done
 RBS: <number> disk pages of scratch file space was available.
 Default partner option:NO

If you typed **Y** in answer to the "Default partner option" prompt, **skip to step 46**. If you typed **N**, **continue with step 44**.

More than one communication partner exists. Select one of them.
 1 <partner name >
 2 <partner name >
 Enter choice number:

44. If you added several communication partners, type a number to select one of them .

Communication partner: <partner name >
 RBS: Remote Batch Service is started.

45. Log off. **Skip to the Wrap-up section**.

Default partner option:YES
 Communication partner: <partner name >
 Default partner option (answer within 30 sec.)? (Y/N):

46. Type **Y** or **N** at the "Default partner option" prompt .
- Y** Starts the RBS and the partner you identified as the default partner.
 - N** Does not start the RBS with the default partner.

More than one communication partner exists. Select one of them.
 1 <partner name >
 2 <partner name >
 Enter choice number:

47. Type the number for the communication partner .

```
Communication partner: <partner name >  
RBS: Remote Batch Service is started.  
RBS!
```

48. Log off.

```
Communication partner: <partner name >  
RBS: Remote Batch Service is started.  
RBS!
```

Wrap-up

When you see the "Remote Batch Service is started" message, you have successfully changed the information for an existing communication partner.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This screen shows changing information for a communication partner. The partner is an autodialed, secondary station that is communicating with a mainframe, in a 3780 emulation mode.

RBS!Change Partner

More than one communication partner exists. Select one of them.

- 1 Hawthorne
- 2 Melrose
- 3 Colorado

Enter choice number: **2**

Enter name of communication partner: **Melrose**

Enter descriptive comment: **2770/2780/3780 document interchange**

Enter name of file service: **FS:Calif:USA**

Enter name of file drawer for job submission: **Input Bin**

Enter minutes between checks of job submission file drawer (1-59): **1**

Enter name of file drawer for output retrieval: **Output Bin**

Select line usage

- 1 dedicated
- 2 automatic dialing
- 3 manual dialing
- 4 answer only

Enter choice number: **2**

Restrict hours of operation? (Y/N): **Y**

Enter time of day when service begins operation (hh:mm): **18:00**

Enter time of day when service ends operation (hh:mm): **07:15**

Re-create connection when how many jobs are waiting (1..32767): **5**

Re-create connection after how many minutes (1..59): **15**

Terminate connection if inactive for specified duration? (Y/N): **Y**

Enter number of seconds of inactivity (15-32767): **60**

Enter phone number to dial: **7929234**

Specify terminal and user security identification? (Y/N): **Y**

Enter terminal identification: **TID**

Enter user security identification: **USID**

Select station type

- 1 primary
- 2 secondary

Enter choice number: **2**

Screen continued

Select device being emulated

- 1 2770
- 2 2780
- 3 3780

Enter choice number: **3**

Select device with which we are communicating

- 1 mainframe
- 2 word processor
- 3 IBM 5520 Processor

Enter choice number: **1**

Select mainframe spooling program

- 1 JES (MVS)
- 2 POWER (DOS/VSE)
- 3 RSCS (VM/370)
- 4 Other

Enter choice number: **1**

Send SIGNON and SIGNOFF? (Y/N): **Y**

Enter SIGNON statement: **/*SIGNON REMOTE 23**

Enter SIGNOFF statement: **/*SIGNOFF**

Select initial bid response

- 1 NAK/ACK
- 2 WACK/ACK

Enter choice number: **2**

Select default interpretation of data received

- 1 interpret as DP
- 2 interpret as WP
- 3 interpret as XNS
- 4 uninterpreted (unknown format)

Enter choice number: **4**

Select File Type for file received

- 1 Text (tText)
- 2 Unspecified (tUnspecified)
- 3 User defined (numeric value)

Enter choice number: **1**

Expect component selection code (DCn) to precede data received? (Y/N): **Y**

Select interpretation of print (DC1) data

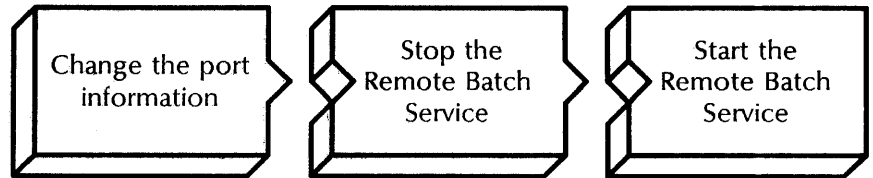
- 1 interpret as DP
- 2 interpret as WP
- 3 interpret as XNS
- 4 uninterpreted (unknown format)

Enter choice number: **2**

Screen continued

```
Select interpretation of punch (DC2) data
1  interpret as DP
2  interpret as WP
3  interpret as XNS
4  uninterpreted (unknown format)
Enter choice number: 3
Allow to insert ETX at end of each sending file ? (Y/N): N
Default partner option? (Y/N): N
RBS: ...Done
RBS!Stop Service
  Select choices
  1 Remote Batch Service
Enter one or more choices: 1
Stop immediately? (Y/N): Y
Stopping Remote Batch Service.
RBS: Remote Batch Service stopped.
RBS!Start Service
  Select choices
  1 Remote Batch Service
Enter one or more choices: 1
Starting Remote Batch Service.
Validating Clearinghouse entry for: Pasadena:Calif:USA
Done
RBS:4000 disk pages of scratch file space was available.
  Default partner option:NO
  More than one communication partner exists. Select one of them.
  1 Hawthorne
  2 Melrose
  3 Colorado
Enter choice number: 1
Communication partner: Hawthorne
Communicating with IBM mainframe in 3780 mode.
RBS: Remote Batch Service is started.
RBS!
```

Changing RS232C port information



Use this procedure to change information for a Remote Batch Service RS232C port.

Prerequisites

Update the Remote Batch Service Worksheet with any changes you are making to the following information:

- The name and description of your local port
- The modem's line speed and duplexity
- Whether the modem has autodialer hardware
- Whether the line is autostarted

Step-by-step

1. Log on and enable in the Remote Batch Service context.
2. Type **Change Port**

Enter RS-232-C port name: < name >

3. Type the RS232C port name .

Description: < description >

4. Type the port description .

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number: < number >

5. Type **1** or **2** to identify the duplexity of the modem attached to the RS232C port .

1 Indicates full duplex; the modem can transmit data in both directions at the same time.

2 Indicates half duplex; the modem can transmit data in both directions, but not at the same time.

Does this equipment have autodialer hardware? (Y/N):

6. Type **Y** or **N** at the “autodialer” prompt **⇐|**.
 - Y** Indicates that autodialing hardware is installed.
 - N** Indicates that autodialing hardware is not installed.

```
Select line speed
1 1200 bps
2 2400 bps
3 3600 bps
4 4800 bps
5 7200 bps
6 9600 bps
Enter choice number: <number >
```

7. Enter the number for the line speed of the modem **⇐|**.

```
Should this line be autostarted? (Y/N)
```

8. Type **Y** or **N** at the prompt **⇐|**.
 - Y** Automatically starts the line when the RBS starts.
 - N** Does not automatically start the line; lets other services share the local RS232C port.



Other services may have an entry for this port, but only one can be autostarted. If you try to add another autostarted line, you see the message “Failed: another service is auto-starting local RS232C port. New entry not added to profile file (but old entry was deleted).”

If you select **N**, RBS displays the informational message “WARNING - The port is not dedicated to RBS, conflicts may arise” when you start the service.

```
RBS: ...Done
RBS!
```

9. Type **Stop Service** **⇐|**.

```
Select choices
1 Remote Batch Service
Enter one or more choices:
```

10. Type the number for the Remote Batch Service **⇐|**.

```
RBS: Stop immediately? (Y/N):
```

11. Type **Y** or **N** at the "Stop immediately" prompt \Leftarrow .

- Y** Disconnects all logged on users and immediately stops the service. Any files in the receive queue not yet copied to the output file drawer are lost.
- N** Waits for logged on users to complete their sessions before stopping the service.

```
Stopping Remote Batch Service.
RBS: Remote Batch Service is stopped.
RBS!
```

12. Type **Start Service** \Leftarrow .

```
Select choices
1 Remote Batch Service
Enter one or more choices:
```

13. Type the number for the Remote Batch Service \Leftarrow .

```
Starting Remote Batch Service.
Validating Clearinghouse entry for: <name:domain:org >
Done
RBS: <number > disk pages of scratch file space was available.
Default partner option:NO
```

If you typed **Y** in answer to the "Default partner option" prompt, **skip to step 16**. If you typed **N**, **continue with step 14**.

```
More than one communication partner exists. Select one of
them.
1 <partner name >
2 <partner name >
Enter choice number:
```

14. If you added several communication partners, type a number to select one of them \Leftarrow .

```
Communication partner: <partner name >
RBS: Remote Batch Service is started.
```

15. Log off. **Skip to the Wrap-up section.**

```
Default partner option: YES
Communication partner: <partner name>.
Default partner option (answer within 30 sec.)? (Y/N):
```

16. Type **Y** or **N** at the "Default partner option" prompt .
- Y** Starts the RBS and the partner you identified as the default partner.
 - N** Does not start the RBS with the default partner.

```
More than one communication partner exists. Select one of
them.
1 <partner name>
2 <partner name>
Enter choice number:
```

17. Type the number for the communication partner .

```
Communication partner: <partner name>
RBS: Remote Batch Service is started.
RBS!
```

18. Log off.

Wrap-up

When you see the "Remote Batch Service is started" message, you have successfully changed the information for an existing RS232C port.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

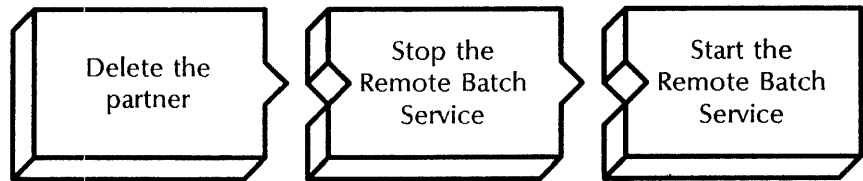
This example shows changing the RS232C port.

```

RBS!Change Port
  Enter RS-232-C port name: RBSport
  Description: 2780 document interchanger
  The equipment connected to this port is
  1  full duplex
  2  half duplex
  Enter choice number: 1
  Does this equipment have autodialer hardware? (Y/N): Y
  Select line speed
  1  1200 bps
  2  2400 bps
  3  3600 bps
  4  4800 bps
  5  7200 bps
  6  9600 bps
  Enter choice number: 4
  Should this line be autostarted? (Y/N): N
RBS: ...Done
RBS!Stop Service
  Select choices
  1  Remote Batch Service
  Enter one or more choices: 1
  RBS: Stop immediately? (Y/N): Y
  Stopping Remote Batch Service.
RBS!
RBS:Remote Batch Service is stopped.
RBS!Start Service
  Select choices
  1  Remote Batch Service
  Enter one or more choices: 1
  Starting Remote Batch Service.
  Validating Clearinghouse entry for: Pasadena:Calif:USA
  Done
RBS:34000 disk pages of scratch file space was available.
  Default partner option:YES
  Communication partner: Hawthorne
  Communicating with IBM mainframe in 2780 mode.
  Default partner option (answer within 30 sec.)? (Y/N): Y
  Communication partner: Hawthorne
  Communicating with mainframe in 2780 mode.
  File service: FS1:Calif:USA
  File drawer for job submission: Input Bin
  File drawer fro output retrieval: Output Bin
  Deleting temporary files from local file system
RBS:Remote Batch Service is started.
RBS!

```

Deleting a communication partner



Use this procedure to remove a communication partner. The RBS records the changes immediately in the profile file. You must stop and restart the Remote Batch Service for the changes to take place.

Prerequisites

Know the name of the communication partner you want to remove.

Step-by-step

1. Log on and enable in the Remote Batch Service context.
2. Type **Delete Partner** .

More than one communication partner exists. Select one of them.

```

1 <partner name >
2 <partner name >
Enter choice number:
  
```

3. If more than one partner exists, type the number for the partner you want to delete and press RETURN. If there is only one partner, press RETURN.

```

RBS: ...Done
RBS!
  
```

4. Type **Stop Service** .

```

Select choices
1 Remote Batch Service
Enter one or more choices:
  
```

5. Type the number for the Remote Batch Service .

```

RBS: Stop immediately? (Y/N):
  
```

6. Type **Y** or **N** at the "Stop immediately" prompt .
- Y** Disconnects all logged on users and immediately stops the service. Any files in the receive queue not yet copied to the output file drawer are lost.
 - N** Waits for logged on users to complete their sessions before stopping the service.

```
Stopping Remote Batch Service.
RBS!
RBS: Remote Batch Service is stopped.
```

7. Type **Start Service** .

```
Select choices
1 Remote Batch Service
Enter one or more choices:
```

8. Type the number for the Remote Batch Service .

```
Starting Remote Batch Service.
Validating Clearinghouse entry for: <name:domain:org >
Done
RBS: <number> disk pages of scratch file space was available
Default partner option:NO
```

If you typed **Y** in answer to the "Default partner option" prompt, **skip to step 11**. If you typed **N**, **continue with step 9**.

```
More than one communication partner exists. Select one of
them.
1 <partner name >
2 <partner name >
Enter choice number:
```

9. If you added several communication partners, type a number to select one of them .

```
Communication partner: <partner name >
RBS: Remote Batch Service is started.
```

10. Log off. **Skip to the Wrap-up section.**

```
Default partner option: YES
Communication partner: <partner name > .
Default partner option (answer within 30 sec.)? (Y/N):
```

11. Type **Y** or **N** at the "Default partner option" prompt .

Y Lets you start the RBS and the partner you identified as the default partner.

N Does not start the RBS with the default partner.

```
More than one communication partner exists. Select one of
them.
```

```
1 <partner name >
```

```
2 <partner name >
```

```
Enter choice number:
```

12. Type the number for the communication partner .

```
Communication partner: <partner name >
RBS: Remote Batch Service is started.
RBS!
```

13. Log off.

Wrap-up

When you see the message "Remote Batch Service is started," you have successfully removed a communication partner from the profile file.

Example

This example shows deleting a communication partner.

RBS!Delete Partner

More than one communication partner exists. Select one of them.

- 1 OBS 3780
- 2 Melrose

Enter choice number: **1**

RBS: ...Done

RBS!Stop Service

Select choices

- 1 Remote Batch Service

Enter one or more choices: **1**

RBS: Stop immediately? (Y/N): **Y**

Stopping Remote Batch Service

RBS!

RBS: Remote Batch Service is stopped.

Start Service

Select choices

- 1 Remote Batch Service

Enter one or more choices: **1**

Starting Remote Batch Service.

Validating Clearinghouse entry for: Pasadena:Calif:USA

Done

RBS:4000 disk pages of scratch file space was available.

Default partner option:YES

Communication partner: Hawthorne

Communicating with IBM mainframe in 3780 mode.

Default partner option (answer within 30 sec.)? (Y/N): **N**

More than one communication partner exists. Select one of them.

- 1 Hawthorne
- 2 Melrose
- 3 Colorado

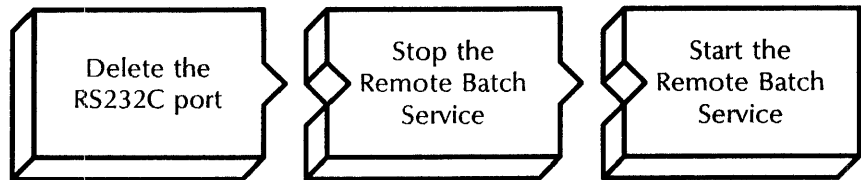
Enter choice number: **2**

Communication partner: Melrose

RBS: Remote Batch Service is started.

RBS!

Deleting an RS232C port



Use this procedure to delete an RS232C port. Although the profile file is changed immediately, you need to stop and restart the Remote Batch Service for the change to take effect.

Step-by-step

1. Log on and enable in the Remote Batch Service context.
2. Type **Delete Port**

```
RBS: ...Done
RBS!
```

3. Type **Stop Service** .

```
Select choices
1 Remote Batch Service
Enter one or more choices:
```

4. Type the number for the Remote Batch Service .

```
RBS: Stop immediately? (Y/N):
```

5. Type **Y** or **N** at the "Stop immediately" prompt .
 - Y** Disconnects all logged on users and immediately stops the service. Any files in the receive queue not yet copied to the output file drawer are lost.
 - N** Waits for logged on users to complete their sessions before stopping the service.

```
Stopping Remote Batch Service.
RBS!
RBS: Ending communication session (service stop)
RBS: Stopping communication in progress...
RBS: Communication session ended
RBS: Remote Batch Service is stopped.
```

6. Type **Start Service** .

```
Select choices
1 Remote Batch Service
Enter one or more choices:
```

7. Type the number for the Remote Batch Service .

```
Starting Remote Batch Service.
Validating Clearinghouse entry for: <name:domain:org >
Done
RBS: <number> disk pages of scratch file space was available
RBS: Failed: no RS232C port entry in profile file.
RBS: Remote Batch Service needs profile information.
RBS: Remote Batch Service is idle.
RBS!
```

8. Log off.

Wrap-up

When you see the message "Remote Batch Service is idle," you have successfully deleted the RBS port. Your next step should be to either delete the partner, or add another port.

Example

This example shows checking the name of the port before removing it.

```
RBS!Show Port
Name: RBSport
Description: 2770/2780/3780 document interchange
Port use: RBS, Autostarted: Yes.
Port duplex: half duplex, Line speed: 4800 bps.
Autodialer: RS366
RBS:...Done
RBS!Delete Port
RBS:...Done
RBS!Stop Service
  Select choices
  1 Remote Batch Service
  Enter one or more choices: 1
RBS: Stop immediately? (Y/N): Y
Stopping Remote Batch Service
RBS!
RBS: Remote Batch Service is stopped.
RBS!Start Service
  Select choices
  1 Remote Batch Service
  Enter one or more choices: 1
Starting Remote Batch Service.
Validating Clearinghouse entry for: Pasadena:Calif:USA
Done
RBS:43000 disk pages of scratch file space was available
RBS: Failed: no RS232C port entry in profile file.
RBS: Remote Batch Service needs profile information.
RBS: Remote Batch Service is idle.
RBS!
```

This example shows adding a new port, then stopping and starting the RBS to register the change.

RBS!Add PortEnter RS-232C port name: **RBSport2**Description: **2770/2780/3780 document interchange**

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number: **2**Does this equipment have autodialer hardware (Y/N): **Y**

Select line speed

- 1 1200 bps
- 2 2400 bps
- 3 3600 bps
- 4 4800 bps
- 5 7200 bps
- 6 9600 bps

Enter choice number: **4**Should this line be autostarted (Y/N): **Y**

RBS:...Done

RBS!Stop Service

Select choices

- 1 Remote Batch Service

Enter one or more choices: **1**RBS: Stop immediately? (Y/N): **Y**

Stopping Remote Batch Service

RBS!

RBS: Remote Batch Service is stopped.

RBS!Start Service

Select choices

- 1 Remote Batch Service

Enter one or more choices: **1**

Starting Remote Batch Service.

Validating Clearinghouse entry for: Pasadena:Calif:USA

Done

RBS:43000 disk pages of scratch file space was available

Default partner option: NO

More than one communication partner exists. Select one of them.

- 1 Hawthorne
- 2 Inglewood

Enter choice number: **1**

Communication partner: Hawthorne

Communicating with mainframe in 3780 mode.

File Service: File Service RBS: Design:Acme

File drawer for job submission: input

File drawer for output retrieval: output

RBS: Deleting temporary files from local file system

RBS: Remote Batch Service is started.

RBS!

Describing the contents of active file drawers



Use this procedure to list the contents of the file drawers in use by the Remote Batch Service.

Step-by-step

1. Enter the Remote Batch Service context.
2. Type **List Contents** .

```
Select file drawer or folder to be listed
1  job submission file drawer
2  output retrieval file drawer
3  job submission error folder
Enter choice number:
```

3. Type the number for the file drawer or folder .

```
RBS: ...Done
```

4. Log off.

Wrap-up

When you see the message "Done," the procedure is complete.

Example

This example shows that a job in the the job submission folder contains an error in its instructions document.

```
RBS> List Contents
  Select file drawer or folder to be listed
  1  job submission file drawer
  2  output retrieval file drawer
  3  job submission error folder
  Enter choice number: 1
Error Folder (file type: 8010 folder)
list of job submission file drawer is complete
RBS: ...Done
RBS> List Contents
  Select file drawer or folder to be listed
  1  job submission file drawer
  2  output retrieval file drawer
  3  job submission error folder
  Enter choice number: 3
Error in Instructions Not in Folder (file type: 8010 folder)
list of job submission error drawer is complete
RBS: ...Done
```

Displaying a communication partner definition



Use this procedure to list the details for a communication partner.

Step-by-step

1. Enter the Remote Batch Service context.
2. Type **Show Partner** **↵**.

Current partner? (Y/N):

3. Type **Y** or **N** at the "Current partner" prompt **↵**.
 - Y** Displays information for the partner running on the RBS. There is no display if a partner is not active.
 - N** Shows a list of all the partners.

RBS: ...Done

4. Log off.

Wrap-up

When you see the message "Done," you have listed all details for a communication partner.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows the description of the partner, the File Service information, hours of operation, and other statistics.

```
RBS > Show Partner
Current partner? (Y/N): Y
Communication Partner: Melrose
Created/Modified: 26-Mar-87 12:58:04
Description: 2770/2780/3780 document interchange
File service: FS:California:USA
  File drawer for job submission: Input Bin
    Check for new job submissions every 1 minutes.
  File drawer for output retrieval: Output Bin
Service operates only during certain hours.
  Start time: 18:00.      End time: 7:15.
Communicating with mainframe in 3780 mode.
  Station type: primary   Initial bid response: NAK/ACK
Line usage: automatic dialing  Phone number: 7929234.
  Communication connection will be...
    created if at least 5 jobs are waiting to be transmitted.
    created every 15 minutes to receive data
    terminated by service if it is inactive for 60 seconds.
  Terminal identification: TID Security identification: USID.
Language of communication partner: English (US).
Mainframe spooling program: JES (MVS).
Send SIGNON and SIGNOFF.
  Only server administrators allowed to see SIGNON statement
  SIGNOFF statement: /*SIGNOFF
Default interpretation of data received: interpret as WP
Interpretation of print (DC1) data: interpret as WP
Interpretation of punch (DC2) data: interpret as XNS
Allow to insert ETX at end of each sending file: NO
RBS: ...Done
RBS >
```

Displaying RS232C port information



Use this procedure to show information for an RS232C port.

Step-by-step

1. Enter the Remote Batch Service context.
2. Type **Show Port** .

```
Name: <name >
      Description: <description >
      Port use:RBS, Autostarted: <yes or no >
      Port duplex: <duplexity>, Line speed: <number >
      Autodialer: <none or RS366 >
RBS:...Done
RBS >
```

3. Log off.

Wrap-up

When you see the message "Done," the procedure is complete.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows the description of the port and other vital statistics.

```
RBS > Show Port
Name: RBSport
      Description: 2770/2780/3780 document interchange
      Port Use: RBS, Autostarted: No.
      Port duplex: half duplex, Line speed: 4800 bps.
      Autodialer: RS366.
RBS:...Done
RBS >
```


Setting and displaying data interpretation



Use the **Set Interpretation** command to define the interpretation of data received and to overwrite the definition on the communication partner. Any change you make to data interpretation takes place immediately and lasts until you stop the Remote Batch Service. The server profile file does not record the change.

You may use the **Show Interpretation** command to verify the information or to determine the current settings.

Step-by-step

1. Log on and enable in the Remote Batch Service context.
2. Type **Set Interpretation** .

```
Select default interpretation of data received
1  interpret as DP
2  interpret as WP
3  interpret as XNS
4  uninterpreted (unknown format)
Enter choice number: <number>
```

3. Type the number for the default interpretation of the data you will receive and press RETURN. If you select 4, **continue with step 4**. If not, **skip to step 6**.

```
Select File Type for file received
1  Text (tText)
2  Unspecified (tUnspecified)
3  User defined (numeric value)
Enter choice number: <number>
```

4. Type the number for the file type for the file received and press RETURN. If you select 3, **continue with step 5**. If not, **skip to step 6**.

```
Enter Numeric value for file Type: (0..2147483647): <value>
```

5. Type a numeric value for the file type .

```
Expect component selection code (DCn) to precede data
received? (Y/N):
```

6. Type **Y** or **N** if you expect the component selection code to precede data received .
 - Y** The partner expects two output devices: a line printer and a card punch, **perform steps 7 through 8**.
 - N** Does not define output devices; **skip to step 9**.

Select interpretation of print (DC1) data

- 1 interpret as DP
 - 2 interpret as WP
 - 3 interpret as XNS
 - 4 uninterpreted (unknown format)
- Enter choice number: <number >

7. Type the number for interpretation of the print data .

Select interpretation of punch (DC2) data

- 1 interpret as DP
 - 2 interpret as WP
 - 3 interpret as XNS
 - 4 uninterpreted (unknown format)
- Enter choice number: <number >

8. Type the number for interpretation of the punch data .

Allow to insert ETX at end of each sending file? (Y/N):

9. Type **Y** or **N** at the prompt .

Y Sends files to the mainframe with file separators (ETX) between them.

N Sends files without file separators.

RBS:...Done
RBS!

10. Type **Show Interpretation** .

Default interpretation of data received: <current setting >
File Type for files received: <number >
Interpretation of print (DC1) data: <current setting >
Interpretation of punch (DC2) data: <current setting >
Allow to insert ETX at end of each sending file: <yes or no >
RBS:...Done
RBS!

11. Log off.

Wrap-up

When you see the message "Done," the interpretation of received data has been redefined and you see the current settings.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows setting and displaying the interpretation of received data. WP is selected as the default interpretation and the interpretation of print data. XNS is the selected interpretation of punch data.

RBS!Set Interpretation

Select default interpretation of data received

- 1 interpret as DP
- 2 interpret as WP
- 3 interpret as XNS
- 4 uninterpreted (unknown format)

Enter choice number: **2**

Expect component selection code (DCn) to precede data received? (Y/N): **Y**

Select interpretation of print (DC1) data

- 1 interpret as DP
- 2 interpret as WP
- 3 interpret as XNS
- 4 uninterpreted (unknown format)

Enter choice number: **2**

Select interpretation of punch (DC2) data

- 1 interpret as DP
- 2 interpret as WP
- 3 interpret as XNS
- 4 uninterpreted (unknown format)

Enter choice number: **3**

Allow to insert ETX at end of each sending file? (Y/N): **N**

RBS:...Done

RBS!Show Interpretation

Default interpretation of data received: interpret as WP

Interpretation of print (DC1) data: interpret as WP

Interpretation of punch (DC2) data: interpret as XNS

Allow to insert ETX at end of each sending file: NO

RBS:...Done

RBS!

Renaming the Remote Batch Service



Use this procedure to change the name of the Remote Batch Service.

Prerequisite

Update the Remote Batch Service Worksheet with the new Service name.

Step-by-step

1. Log on and enable in the Remote Batch Service context.
2. Type **Rename Service** .

```
Deleting Clearinghouse entry for <RBS name >
Done
Service name and description unknown.
Enter service name:
```

3. Type the new Remote Batch Service name .

```
Enter service description:
```

4. Type the new Remote Batch Service description .

```
Confirm? (Y/N):
```

5. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Registers the new name in the Clearinghouse.
 - N** Return to step 3.

```
Validating Clearinghouse entry for: <RBS name >
A new Clearinghouse entry was created.
RBS: ...Done
RBS!
```

6. Log off.

Wrap-up

When you see the message "Done," the Remote Batch Service has been renamed. Notify all users of the new name.

Example

This example shows renaming the Remote Batch Service.

```
RBS!Rename Service
Deleting Clearinghouse entry for: Pasadena:Calif:USA
Done
    Service name and description unknown.
    Enter service name: SoPasadena:LACounty:USA
    Enter service description: Old Pasadena RBS
    Confirm? (Y/N): Y
Validating Clearinghouse entry for:SoPasadena:LACounty:USA
A new Clearinghouse entry was created.
RBS:...Done
RBS!
```

Showing Remote Batch Service statistics



Use this procedure to list the statistics collected by the Remote Batch Service. The system maintains statistics in these categories: job processing, communications, remote filing and code conversion, resource usage, and service profile.

Prerequisites

Know the statistics option you want to use. See the Remote Batch Service chapter in the *Guide to System Administration Activities*.

Step-by-step

1. Enter the Remote Batch Service context.
2. Type **Show Statistics**

```
Select type of statistics
1 Statistics since service started
2 Incremental statistics since reset
3 Incremental statistics since reset and reset
Enter choice number:
```

3. Type the number for the type of statistics you want to see .

```
RBS:...Done
RBS!
```

4. Log off.

Wrap-up

When you see the message "Done," this procedure is complete.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen options. Store the copy in the *Activities Guide*.

Example

This example shows a set of sample statistics collected since the service was started.

RBS > Show Statistics

Select type of statistics

- 1 Statistics since service started
- 2 Incremental statistics since reset
- 3 Incremental statistics since reset and reset

Enter choice number: **1**

REMOTE BATCH SERVICE STATISTICS

The service was started 22-Dec-87 10:34:46

The service has been running 1 hours, 15 minutes

Data collection started 22-Dec-87 10:34:46

Data collection ended 22-Dec-87 11:50:29

Data were collected over an interval of 1 hours, 15 minutes

JOB PROCESSING

- 1 total jobs were sent
 - 0 WP documents were sent
 - 2 DP documents were sent
 - 1 XNS documents were sent
 - 0 Uninterpreted documents were sent15742 bytes was the size of the largest document sent
- 4 total jobs were received
 - 0 WP documents were received
 - 3 DP documents were received
 - 1 XNS documents were received
 - 0 Uninterpreted documents were received15742 bytes was the size of the largest document
- 0 total jobs were aborted
 - 0 jobs were aborted while receiving
 - 0 jobs were aborted while sending
 - 0 jobs were aborted while filing
 - 0 jobs were aborted due to user error

Screen continued

COMMUNICATIONS

8978 seconds total connection time has been logged
4489 seconds have elapsed since the current connection was made
1 connections were established out of 1 attempts
16431 bytes were sent at a rate of 265 bytes/sec
35924 bytes were received at a rate of 570 bytes/sec
2 % connection utilization was achieved
0 communication errors occurred
0 connections were closed due to line inactivity

1 total send blocks NAK'd by remote
0 TTDs sent
0 ENQs sent
40 total blocks sent
3 WAKs sent
0 ENQs received
52 good data blocks received
0 received checksum errors
0 garbled data errors

REMOTE FILING AND CODE CONVERSION

6428 bytes were converted & filed remotely at a rate of 13 bytes/sec
0 times the remote file service was unavailable
0 remote filing errors occurred

RESOURCE USAGE

0 was the average number of jobs in the input bin
1 jobs was the maximum contents of the input bin
Input bin contents first reached maximum 22-Dec-87 10:35:45
0 seconds was the average send queue wait time
3 seconds was the average receive queue wait time
18110 disk pages of scratch file space was available
150 disk pages of scratch file space was the maximum demand
0 times there was not enough scratch file space

SERVICE PROFILE

498 seconds were spent fetching and converting input
104 seconds were spent sending input
172 seconds were spent receiving output
8580 seconds were spent converting and storing output
Done.
RBS>

14. 850/860 Gateway Service

This chapter contains the procedures you perform to maintain the 850/860 Gateway Service (GWS). These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any 850/860 Gateway Service maintenance procedures:

- Install all required software as described in the Server Software Installation chapter in the *Services Installation and Setup Guide*.
- Perform all setup procedures as described in the 850/860 Gateway Service chapter of the *Services Installation and Setup Guide*.

Commands

This section lists the commands you use to maintain the 850/860 Gateway Service. You must be in the 850/860 Gateway Service context to access these commands.

Table 14-1 shows the commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 14-1. **Gateway Service maintenance commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Change Configuration					•	
Delete Configuration					•	
List Configuration					•	
Start						•
Stop					•	

Change Configuration Available to the enabled user when the 850/860 Gateway Service is started. Changes the description of an 850/860 Gateway Service, including the mail clerk's name, domain, or organization, and redefines the type of data transmission equipment and its speed.

Related procedure: Changing the 850/860 Gateway Service information

Delete Configuration Available to the enabled user when the 850/860 Gateway Service is started. Removes local configuration data for an 850/860 Gateway Service so you can change the configuration.

Related procedures: Deleting the 850/860 Gateway Service configuration

List Configuration Available to the enabled user when the 850/860 Gateway Service is started. Displays configuration data for the 850/860 Gateway Service and identifies the current state of the RS232C port.

Related procedure: Listing 850/860 Gateway Service information

Start Available to the enabled user when the 850/860 Gateway Service is stopped. Restarts the service.

Related procedure: Changing the 850/860 Gateway Service information

Stop Available to the enabled user when the 850/860 Gateway Service is started. Stops the service.

Related procedure: Changing 850/860 Gateway Service information

Procedures

This section contains these procedures for maintaining the 850/860 Gateway Service:

Changing the 850/860 Gateway Service configuration

Use this procedure to change the configuration of the 850/860 Gateway Service.

Checking for mail

Use this procedure to forward mail to other users on the network.

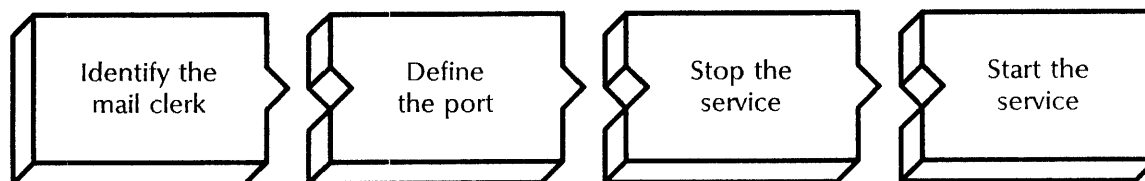
Deleting the 850/860 Gateway Service configuration

Use this procedure to delete local service information so you can change the configuration.

Listing the 850/860 Gateway Service configuration

Use this procedure to list service information to describe the port, identify the mail clerk, and provide statistics for current activity.

Changing the 850/860 Gateway Service information



Use this procedure to change the configuration of an existing 850/860 Gateway Service.

Prerequisites

See the 850/860 Gateway Service Worksheet in your *Activities Guide* for the following information:

- The name, domain, and organization of the mail clerk
- Whether the modem attached to the port is full or half duplex
- The line speed of the modem

Step-by-step

1. Log on and enable in the 850/860 Gateway Service context.
2. Type **Change Configuration** .

Enter mail clerk name:

3. Type the name of the mail clerk .

Enter mail clerk domain:



The mail clerk's domain and organization must be the same as those of the 850/860 Gateway Service.

4. Type the domain for the mail clerk .

Enter mail clerk organization:

5. Type the organization for the mail clerk .

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number:

6. Type **1** or **2** to identify your modem .
 - 1 Indicates full duplex; the modem can transmit data in both directions at the same time.
 - 2 Indicates half duplex; the modem can transmit data in both directions, but not at the same time.

```
Select line speed
1 300 bps
2 600 bps
3 1200 bps
4 2400 bps
5 3600 bps
6 4800 bps
7 7200 bps
8 9600 bps
Enter choice number:
```

7. Type the number that identifies the line speed of the modem **↵**.

```
Done.
GWS!
```

8. Type **Stop** **↵**.

```
Disconnect active users? (Y/N):
```

9. Type **Y** or **N** at the "Disconnect active users?" prompt **↵**.
- Y** Stops the service immediately.
 - N** Stops the service after all current activity is complete.

```
Done.
GWS:Gateway Service is stopped.
```

10. Type **Start** **↵**.

```
Gateway Service is starting
Validating Clearinghouse entry for <GWS
name:domain:organization >
Done.
Gateway Service is started.
```

11. Log off.

Wrap-up

When you see the message "Gateway Service is started," you have reconfigured the service.

Example

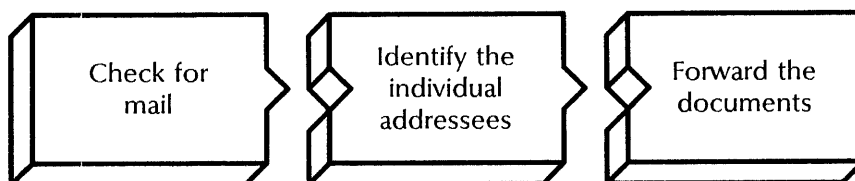
This example shows reconfiguring the 850/860 Gateway Service.

```

GWS!Change Configuration
Enter mail clerk name: Mike Jones
Enter mail clerk domain: Pasadena
Enter mail clerk organization: Calif
The equipment connected to this port is
1 full duplex
2 half duplex
Enter choice number: 1
Select line speed
1 300 bps
2 1200 bps
3 2400 bps
5 3600 bps
6 4800 bps
7 7200 bps
8 9600 bps
Enter choice number: 2
Done.
GWS!Stop
Disconnect active users?(Y/N): Y
GWS:Gateway Service is stopped.
GWS!Start
Gateway Service is starting
Validating Clearinghouse entry for Star Gate:Pasadena:Calif
Done.
Gateway Service is started.
GWS!

```

Checking for mail



Use this procedure to forward mail to other users on the network from a remote workstation.

See your workstation documentation for specific instructions for retrieving and forwarding mail and, if required, using the converter icon.

Step-by-step using an 850/860 workstation

Short mail documents (2500 characters or less) may be viewed on Ethernet while at the Mail Service, then forwarded to the intended recipients.

To view and forward long mail documents, perform these steps:

1. Log on to the mail clerk's In-Box.
2. Highlight, MARK, and MOVE all documents to a working disk.
3. Highlight and MARK the first document title.
4. Press COPY.
5. Press CODE + 5 at the "COPY TO?" prompt.
6. Press ACCPT at the "GET LIST FROM <document name>?" prompt.



The first page of the document will display.

7. After viewing the page, make a note of the intended recipient.
8. Press STOP twice.



The first time STOP is pressed, the disk index will display; the second time STOP is pressed, the highlighting will be removed from the document title. You must remove the highlighting from the document title before taking any further action.

9. Highlight the document title previously inspected.
10. Press RPLCE.
11. Type an appropriate title name, for example, Jones 1.
12. Repeat the above steps for each X860 type document.
13. After inspecting and renaming all the documents, batch mail them to the recipients. For example, mark each document for Jones, then mail; mark each document for the next recipient, then mail.

Step-by-step using a 6085/8010 workstation

1. Open your Inbasket icon.
2. Convert the documents from 860 to 6085/8010 format.
3. Open each document to identify the recipients.
4. Close each document.



To forward mail to 850/860 workstation users or to Interactive Terminal Service users, convert the document back to 860 format.

5. Forward the documents to the appropriate individuals.

Deleting the 850/860 Gateway Service configuration



Use this procedure to remove the local 850/860 Gateway Service configuration information.

You must delete the local data before you:

- Add a new 850/860 GWS configuration. See the “Configuring a local port” procedure in the 850/860 Gateway Service chapter of the *Services Installation and Setup Guide*.
- Remove the 850/860 Gateway Service from the server. See the “Expunging a service” procedure in the *Services System Software* chapter earlier in this book.

Step-by-step

1. Log on and enable in the 850/860 Gateway Service context.
2. Type **Delete Configuration** .

```
GWS!
```

3. Log off.

Wrap-up

When you see the message “Done,” you have removed the local data for the 850/860 Gateway Service. You must use the **Add Configuration** command to update the Clearinghouse entry.

Example

This example shows deleting an 850/860 Gateway Service configuration.


```
GWS!Delete Configuration
GWS!
```

Listing the 850/860 Gateway Service configuration



Use this procedure to display current configuration information, list statistics, and determine the state of the RS232C line.

Step-by-step

1. Log on in the 850/860 Gateway Service context.
2. Type **List Configuration** .

```
Local port: <number>, Line speed: <number>, Port duplex: <duplexity>
This Gateway Service is using Mail Clerk <name:domain:organization>
The RS232C port is <current state>
<...all current statistics...>
```

3. Log off.

Wrap-up

When you see the message "Done," you have displayed the statistical data about the 850/860 Gateway Service.

Example

This example shows listing the configuration for the 850/860 Gateway Service.

```
GWS> List Configuration
Local port: 0, Line speed: 2400 bps, Port duplex: half duplex.
This Gateway Service is using Mail Clerk Mike Jones:Pasadena:Calif
The RS232C port is awaiting incoming calls
  3 total sessions
  1 total blocks sent
  1 total send blocks NAK'd by remote
  3 TTDs sent
  19 good data blocks received
  38 WAKs sent
  1 ENQs received
  1 received checksum errors
  4 garbled data errors
  1 audible signals received
  invalid terminal IDs received
  1 open mail folder failures
  1 delete mail failures
  1 deliver mail failures
  1 850 to 860 translation filter logic failures
  1 850 format errors
  1 860 format errors
  1 gets aborted
  1 get timeout
  1 security IDs received
  1 invalid file polls received
  1 mail folder search failures
  1 clearinghouse down
  1 puts aborted
  1 put timeouts
  1 remote disconnects
  1 control send timeouts
  1 create failures
  1 create timeouts
  3 unexpected controls received
  1 unexpected remote behavior
Done.
GWS>
```

15. Server Monitor Service

This chapter contains the procedures you perform to maintain the Server Monitor Service (SMS). These procedures are available using an 8000 or an 8090 server.

Maintenance for the Server Monitor Service also includes backing up the configuration file. See the Server Monitor Service chapter in the *Backup and Restore Guide*.

Prerequisites

Complete these tasks before you perform any Server Monitor Service maintenance procedures:

- Install all required software as described in the Server Software Installation chapter of the *Services Installation and Setup Guide*.
- Perform all SMS setup procedures as described in the Server Monitor Service chapter of the *Services Installation and Setup Guide*.

Commands

This section lists the commands you use to maintain the Server Monitor Service. You must be in the Server Monitor Service context to access these commands.

Table 15-1 shows all the commands, along with the logged on status, and the service state (started or stopped) for accessing them.

Table 15-1. **Server Monitor Service maintenance commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Monitored Server					•	
Add User Notification					•	
Change Sampling Rate					•	
List Monitored Servers	•	•	•	•	•	•
List Remote Server's Event Recipients	•	•	•	•	•	•
List User Notifications	•	•	•	•	•	•
Remove Monitored Server					•	
Remove User Notification					•	
Show Monitored Server Statistics	•	•	•	•	•	•
Show Server Monitor Configuration	•	•	•	•	•	•
Start						•
Stop					•	
Verify Monitored Server					•	

Add Monitored Server Available to the enabled user when the Server Monitor Service is started. Adds a monitored server to the Server Monitor Service configuration file.

Related procedure: Adding, listing, and verifying monitored servers

Add User Notification Available to the enabled user when the Server Monitor Service is started. Adds a user to be notified (through the Mail Service) of changes in a monitored server's availability.


Related procedure: Adding users for notification, and listing user notifications

Change Sampling Rate Available to the enabled user when the Server Monitor Service is started. Changes the rate at which a monitored server is polled.

Related procedure: Changing sampling rates

List Monitored Servers Available to any user when the Server Monitor Service is started or stopped. Lists all servers being monitored by the Server Monitor Service.

Related procedures: Adding, listing, and verifying monitored servers; Removing monitored servers

- List Remote Server's Event Recipients** Available to any user when the Server Monitor Service is started or stopped. Lists the names and addresses of monitoring servers, and of servers hosting a Server Monitor Service to which the specified remote server reports events.
Related procedure: Listing remote server event recipients
- List User Notifications** Available to any user when the Server Monitor Service is started or stopped. Lists the users who are notified about the availability of a particular monitored server.
Related procedures: Adding users for notification, and listing user notifications; Removing users from a monitoring server notification list
- Remove Monitored Server** Available to the enabled user when the Server Monitor Service is started. Deletes a server from the Server Monitor Service configuration file. The server monitor also removes from the monitored server its registration as an event recipient.
Related procedure: Removing monitored servers
- Remove User Notification** Available to the enabled user when the Server Monitor Service is started. Deletes a user from the list of users who are notified about the availability and events of a server.
Related procedure: Removing users from a monitoring server notification list
- Show Monitored Server Statistics** Available to any user when the Server Monitor Service is started or stopped. Displays accumulated information about a specific monitored server or all the monitored servers.
The asterisk (*) after the server name indicates the binding or connection of the monitored server to the monitoring server, and the registration of the Server Monitor Service as an event recipient.
Related procedure: Showing monitored server statistics
- Show Server Monitor Configuration** Available to any user when the Server Monitor Service is started or stopped. Lists the servers that the Server Monitor Service is monitoring and the users to be notified about the availability and events of each server.
Related procedure: Showing the server monitor configuration
- Start** Available to the enabled user when the Server Monitor Service is stopped. Starts the Server Monitor Service with the local or a remote configuration file so the Server Monitor Service begins watching an already-defined configuration of servers.
The **Start** command also allows you to restore a configuration from backup. See the *Backup and Restore Guide* for more information.
-  You can use the Services System Software **Start Service** command to start the Server Monitor Service; however, this command always starts with the local database. This command is available to the logged on user.
Related procedure: Starting and stopping the Server Monitor Service

Stop Available to the enabled user when the Server Monitor Service is started. Stops the Server Monitor Service monitoring activities, but keeps the configuration of monitored servers and the list of users to be notified.

Related procedure: Starting and stopping the Server Monitor Service

Verify Monitored Server

Available to the enabled user when the Server Monitor Service is started. Checks the relationship between monitored and monitoring servers. If the monitoring server is registered with the monitored server as an event recipient, this command confirms the registration. If the monitoring server is not registered, this command performs the registration, if possible.



The verification fails if the monitored server is not configured with Internetwork Routing Service or Server Monitor Service software.

Related procedure: Adding, listing, and verifying monitored servers

Procedures

This section contains these procedures for maintaining your Server Monitor Service:

Adding, listing, and verifying monitored servers

Use this procedure to add servers to be monitored by the Server Monitor Service, list the names and addresses of the servers being monitored, and verify the registration with the monitored servers of the Server Monitor Service.

Adding users for notification, and listing user notifications

Use this procedure to add to a list users to be notified of the availability of the monitored server. You can also display the users on the notification list.

Changing sampling rates

Use this procedure to change the sampling rate for a server.

Listing remote server event recipients

Use this procedure to list the server monitors to which a remote server reports.

Removing monitored servers

Use this procedure to stop a server from being monitored.

Removing users from a monitoring server notification list

Use this procedure to remove users from a notification list.

Showing monitored server statistics

Use this procedure to display statistics about a monitored server or servers.

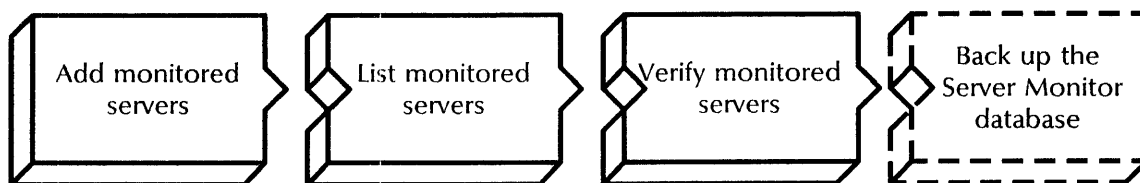
Showing the server monitor configuration

Use this procedure to list the servers being monitored, and the users on the notification list.

Starting and stopping the Server Monitor Service

Use this procedure to start or stop the Server Monitor Service.

Adding, listing, and verifying monitored servers



Use this procedure to specify additional servers to be monitored by the Server Monitor Service, including users for event notification.

Prerequisites

- Update the Server Monitor Service Worksheet with any changes you are making to the following information:
 - The name of the monitored server
 - The sampling rate
 - The fully qualified name of the user to notify of an event
- Check that any user you are adding for notification is a registered user.
- Check that any user you are adding for notification has a mailbox.

Step-by-step

1. Log on and enable in the Server Monitor Service context.
2. Type **Add Monitored Server**

Server name:

3. Type the name of the new server you want to monitor .

NOTE

When you are monitoring a server in a different domain, enter the fully qualified name of the server.

Sampling rate in minutes (15-32767):

4. Type the number indicating how often (in minutes) you want the monitored server to be polled .

User's name:

5. Type the name of the user you want to notify of any changes in the monitored server .

Immediate notification? (Y/N):

6. Type **Y** or **N** at the "Immediate notification" prompt .

Y Displays a message at the monitoring server and sends a mail note to users you specify.

N Displays a message at the monitoring server and sends a mail note to users you specify.

NOTE

If the workstation you specify is using the special tools provided by the Xerox Development Environment (XDE), a message appears on the workstation screen to notify the user of any change in the monitored server.

Notify another user? (Y/N):

7. Type **Y** or **N** at the "Notify another user" prompt .

Y Lets you add another user by repeating steps 4 through 6.

N Displays the next prompt.

Confirm (Y/N):

8. Type **Y** or **N** at the "Confirm" prompt .

Y Adds the information to the SMS configuration file.

N Cancels the process.

Done.

Add another monitored server? (Y/N):

9. Type **Y** or **N** at the "Add another monitored server" prompt .

Y Lets you add another monitored server by repeating steps 2 through 8.

N Ends the process.

10. Type **List Monitored Servers** .

- If an asterisk appears after the name of the new server, the registration was successful; **skip to step 13**.

- If no asterisk appears after the name of the new server, **continue with step 11**.

11. Type **Verify Monitored Server** .

Choose option

1 Specified monitored server

2 All monitored servers

Enter choice number:

12. Type the number for the type of server verification you want .

1 Verifies a specific server. Enter the server's fully qualified name when prompted for it.

2 Verifies all monitored servers.

13. Log off.

Wrap-up

The monitored server has been verified when you see the "SMS:Verify all monitored servers - end" message. You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Perform the procedure "Backing up a monitored server configuration" in the Server Monitor Service chapter of the *Backup and Restore Guide*.

Example

The following example shows adding a server named Paradise for monitoring by the Server Monitor Service.

```
SMS!Add Monitored Server
Server name: Paradise
Sampling rate in minutes (15-32767): 15
User's name: Matthew Bennett
Immediate notification? (Y/N): N
Notify another user? (Y/N): N
Confirm (Y/N):Y
Done.
Add another monitored server? (Y/N): N
```

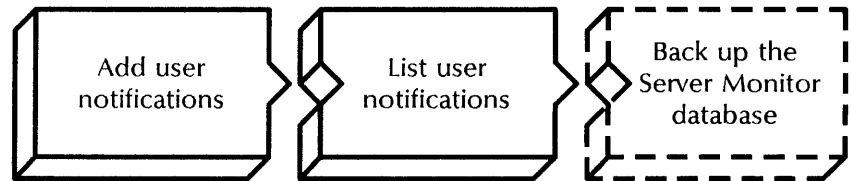
In the following example, the list shows that two servers have been added for monitoring by the Server Monitor Service.

```
SMS!List Monitored Servers
FS:Our Domain:OurOrg (Net 1-510, Processor 2-852-127-214)*
Paradise:Our Domain:OurOrg (Net 1-510, Processor 2-852-127-778)
```

The following example shows the **Verify Monitored Servers** command issued for all monitored servers.

```
SMS!Verify Monitored Servers
Choose option
1 Specified monitored server
2 All monitored servers
Enter choice number: 2
SMS: Verify all monitored servers - begin ... Command may take awhile.
SMS!
SMS: Verified Tundra:Our Domain:OurOrg
SMS: Verified Paradise:Our Domain:OurOrg
SMS: Verified Skijump:Our Domain:OurOrg
SMS: Verify all monitored servers - end.
```

Adding users for notification, and listing user notifications



Use this procedure to add users to notify when a monitored server's availability changes. The Mail Service notifies the users.

Prerequisites

- Update the Server Monitor Service Worksheet, with the names of the users to notify (see the *Activities Guide*).
- Check that the user you are adding for notification is a registered user.
- Check that the user you are adding for notification has a mailbox.

Step-by-step

1. Log on and enable in the Server Monitor Service context.
2. Type **Add User Notification** .

Server name:

3. Type the name of the server being monitored .

User's name:

4. Type the name of the user you want to notify of any change in the monitored server .

NOTE

You can type a Clearinghouse group name instead of a single user name at the "User's name" prompt.

Immediate Notification? (Y/N):

5. Type **Y** or **N** at the "Immediate Notification" prompt .
 - Y** Displays a message at the monitoring server and sends a mail note to users you specify.
 - N** Displays a message at the monitoring server and sends a mail note to users you specify.

NOTE

If the workstation you specify is using the special tools provided by the Xerox Development Environment (XDE), a message appears on the workstation screen to notify the user of any change in the monitored server.

Confirm (Y/N):

6. Type **Y** or **N** at the “Confirm” prompt .
 - Y** Adds the information to the SMS configuration file.
 - N** Cancels the process.

Notify another user? (Y/N):

7. Type **Y** or **N** at the “Notify another user” prompt .
 - Y** Lets you add another user to be notified by repeating steps 2 through 6.
 - N** Cancels the process.
8. Type **List User Notifications** to see the list of users to be notified so you can verify your additions .

Server name:

9. Type the name of the server being monitored .
10. Log off.

Wrap-up

When you see the “SMS!” prompt, you have successfully added a new user to the notification list.

Perform the procedure “Backing up a monitored server configuration” in the Server Monitor Service chapter of the *Backup and Restore Guide*.

Example

This example shows adding a new user and then listing the users to be notified.

SMS!Add User Notification

Server name: **FS**
 User's name: **Tyler Miska**
 Immediate Notification? (Y/N): **N**
 Confirm (Y/N): **Y**
 Notify another user? (Y/N): **N**

SMS!List User Notification

Server name: **FS:Our Domain:OurOrg**
 JackFrost:Our Domain:OurOrg
 FrostySnowman:Our Domain:OurOrg
 SMS!

Changing sampling rates



Use this procedure to cause the monitored server to be polled at a different rate.

Prerequisites

Update the Server Monitor Worksheet with any changes you are making to the following information:

- The name of the monitored server
- The new sampling rate

Step-by-step

1. Log on and enable in the Server Monitor Service context.
2. Type **Change Sampling Rate** .

Server name:

3. Type the name of the server whose sampling rate you want to change.

New sampling rate in minutes (15-32767):

4. Type the new sampling rate (in minutes) .

Confirm (Y/N):

5. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Adds the information to the SMS configuration file.
 - N** Cancels the process.

Done
SMS!

6. Log off.

Wrap-up

When you see the message "Done," the sampling rate is changed.

Perform the procedure "Backing up a monitored server configuration" in the Server Monitor Service chapter of the *Backup and Restore Guide*.

Example

This example shows changing the sampling rate to 30 minutes.

```
SMS!Change Sampling Rate
  Server name: FS:Our Domain:OurOrg
  New sampling rate in minutes (15-32767): 30
  Confirm (Y/N): Y
Done
SMS!
```

Listing remote server event recipients

Use this procedure to display the names and addresses of server monitors to which a remote server reports monitored events.

Step-by-step

1. Enter the Server Monitor Service context.
2. Type **List Remote Server's Event Recipients** **↵**.

```
Server name:
```

3. Type the name of the monitored server and press RETURN. A message appears if the server you specify is not running Event Site Reporting software.

Wrap-up

When you see the "Done" message, the list of remote server event recipients is complete.

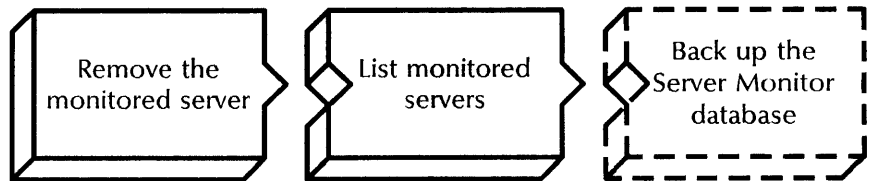
Example

This example shows that the server Tundra reports to the server Frostbite.

```
SMS> List Remote Server's Event Recipients
  Server name: Tundra:Our Domain:OurOrg

  Frostbite:Our Domain:OurOrg (Net 1-510, Processor 2-852-127-214)*
Total SMS Event Recipients: 1
Done
SMS>
```

Removing monitored servers



Use this procedure to delete a monitored server from the Server Monitor configuration file, causing the Server Monitor Service to cancel its registration as an event recipient of the monitored server. Verify that the server has been removed using the **List Monitored Servers** command.

Step-by-step

1. Log on and enable in the Server Monitor Service context.
2. Type **Remove Monitored Server** .

Server name:

3. Type name of the server you want to remove .

NOTE

If you have already deleted the server from the Clearinghouse Service, specify the server by its processor number.

Confirm (Y/N):

4. Type **Y** or **N** at the "Confirm" prompt .

Y Confirms the removal.

N Return to step 3.

Are you sure? (Y/N):

5. Type **Y** or **N** at the "Are you sure" prompt .

Y Removes the information from the SMS configuration file.

N Cancels the process.

NOTE

The Server Monitor Service cannot cancel its registration with a monitored server if that server is unavailable for that operation when you remove it. The server is removed from the configuration file, but the monitoring server remains registered as an event recipient of that server.

Done.
SMS!

6. Type **List Monitored Servers** .

7. Check the list to make sure the server has been removed.
8. Log off.

Wrap-up

When you see the “SMS!” prompt, you have successfully removed the server from being monitored. The **List Monitored Server** command verifies this status.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Perform the procedure “Backing up a monitored server configuration” in the Server Monitor Service chapter of the *Backup and Restore Guide*.

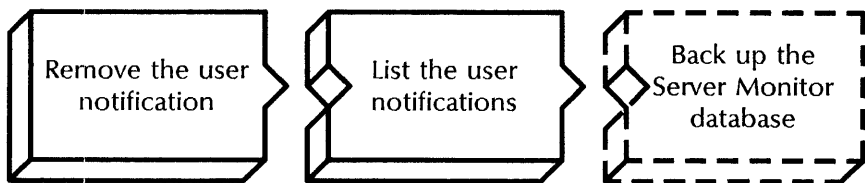
Example

This example shows removing the server Twinkle from the SMS configuration file. The list shows that this server is no longer monitored.

```

SMS!Remove Monitored Server
  Server name: Twinkle
  Confirm (Y/N): Y
  Are you sure? (Y/N): Y
Done
SMS!List Monitored Servers
Frostbite:Our Domain:OurOrg (Net 1-510, Processor 2-852-127-214)
SMS!
    
```

Removing users from a monitoring server notification list



Use this procedure to remove a user from the notification list. The monitored server continues to be monitored, even if it has no users to notify.

Step-by-step

1. Log on and enable in the Server Monitor Service context.
2. Type **Remove User Notification** \leftarrow .

Server name:

3. Type the name of the server whose user notification list you want to change .

User's name:

4. Type the name of the user you want to remove from the notification list .

Confirm (Y/N):

5. Type **Y** or **N** at the "Confirm" prompt .

Y Confirms the removal.

N Return to step 3.

Are you sure? (Y/N):

6. Type **Y** or **N** at the "Are you sure" prompt .

Y Removes the information from the SMS configuration file.

N Cancels the process.

Done.
SMS!

7. Type **List User Notifications** .

Server name:

8. Type the name of the server whose user notification list you want to see .

9. Check the list to make sure the user has been removed.

10. Log off.

Wrap-up

When you see the "SMS!" prompt, you have successfully removed the user name from the list of users to be notified.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Perform the procedure "Backing up a monitored server configuration" in the Server Monitor Service chapter of the *Backup and Restore Guide*.

Example

The following example shows removing a user named Tim Martin. The **List User Notification** command confirms the removal, with only Matthew Bennett in the list of users to be notified.

```
SMS!Remove User Notification
  Server name: FS
  User's name: Tim Martin
  Confirm (Y/N): Y
  Are you sure? (Y/N): Y
Done
SMS!List User Notification
  Server name: FS:Our Domain:OurOrg
Matthew Bennett:Our Domain:OurOrg
SMS!
```

The following example shows what is displayed if user notification does not occur.

```
SMS!List User Notification
  Server name: FS1:Our Domain:OurOrg
No user notification.
SMS!
```

Showing monitored server statistics



Use this procedure to display accumulated information about monitored servers.

Step-by-step

1. Enter the Server Monitor Service context.
2. Type **Show Monitored Server Statistics** .

```
Choose option:
1 Specified monitored server
2 All monitored servers
Enter choice number:
```

3. Type the number of the option you want .
 - 1 Shows the statistics for a specific server. Enter the server's fully qualified name when prompted for it.
 - 2 Shows the statistics for all monitored servers.

Wrap-up

When you see the "SMS!" prompt, you have successfully displayed the server statistics.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows monitored server statistics. An asterisk after the monitored server name shows the binding of that server to the monitoring server, and the registration of the server monitoring server as an event recipient.

```
SMS> Show Monitored Server Statistics
Choose option:
 1 Specified monitored server
 2 All monitored servers
Enter choice number: 1
Server name: Tundra:Our Domain:OurOrg

[Tundra:Our Domain:OurOrg (Net 1-510 Processor
2-852-127-214)]*
Monitoring session start time: 2-May-87 19:40:52
Sampling rate (in minutes): 15
Server state: responding
Up time: 13 hours, 14 minutes
Down time: 1 hour, 02 minutes
Up-down count: 0
Total up time: 13 hours, 14 minutes
Total down time: 0 minutes
Last response: 2-May-87 19:56:54
Last checked: 2-May-87 19:56:54
Last restart: 2-May-87 6:27:42
SMS>
```

Showing the server monitor configuration



Use this procedure to list the servers currently being monitored, and a list of the users notified of each server's availability and events.

Step-by-step

1. Enter the Server Monitor Service context.
2. Type **Show Server Monitor Configuration** \Leftarrow .
3. Check the list of servers and event recipients that the SMS displays.



If a workstation address does not appear after a user's name, the user is not directly notified.

Wrap-up

When you see the "SMS>" prompt, you have successfully shown the SMS configuration.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows that the server currently being monitored is Tundra, and that two users are registered as event recipients.

```
SMS> Show Server Monitor Configuration
[Tundra:Our Domain:OurOrg (Net 1-510 Processor
2-852-127-214)]*
  Sampling rate (in minutes): 15
  User's name: Jack Long:Our Domain:OurOrg
  Workstation address: Long (Net 51 Processor
2-852-133-778)
  User's name: Don Thompson:Our Domain:OurOrg
  Workstation address: (Net 51 Processor 2-852-133-778)
SMS>
```

Starting and stopping the Server Monitor Service

Use the **Start** command to start the Server Monitor Service with the local or remote configuration file. (The Services System Software **Start Service** command also starts the Server Monitor Service, but only with the local database. See the *Backup and Restore Guide* for details on backup configurations.)

Use the **Stop** command to stop the Server Monitor Service and its monitoring activities. The Server Monitor Service retains the configuration of the monitored servers and the list of users to be notified.

Prerequisites

- Have full access privileges to the backup file drawer for the Server Monitor Service.
- Know the name of the backup location.

Step-by-step for starting

1. Log on and enable in the Server Monitor Service context.
2. Type **Start** .

Restore configuration from backup? (Y/N):

3. Type **Y** or **N** at the "Restore configuration from backup" prompt .
 - Y** Restores the configuration from the backup location you specify in the next prompt.
 - N** Resets the configuration. You must re-enter the **Start** command and specify the backup location.

Backup location:

4. Type the backup location name or press RETURN to keep the default (last) backup location.

NOTE

For remote locations, specify the fully qualified name of the File Service (in parentheses).

Confirm (Y/N):

5. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Starts the Server Monitor Service.
 - N** Returns you to step 4.

SMS: Starting Server Monitor with backup configuration.
SMS: This Server Monitor is now started.
SMS!

6. Log off.

Step-by-step for stopping

1. Log on and enable in the Server Monitor Service context.
2. Type **Stop** .

```
SMS: This Server Monitor is now stopped.  
SMS!
```

3. Log off.

Example

This example shows starting a Server Monitor Service with a local configuration file, stored in the folder called SMBBackup. A colon separates the service name from the domain name. Immediately after starting, the Server Monitor Service is stopped.

```
SMS!Start  
Restore configuration from backup? (Y/N): Y  
Backup location: (FS:Our Domain)Log/SMBBackup/Config.database  
Confirm (Y/N): Y  
Done.  
SMS: Starting Server Monitor with backup configuration.  
SMS: This Server Monitor is now started.  
  
SMS!Stop  
SMS: This Server Monitor is now stopped.  
SMS!
```

This chapter contains the procedures you perform to maintain the Boot Service. These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Boot Service maintenance procedures:

- Install all required software as described in the Server Software Installation chapter of the *Services Installation and Setup Guide*.
- Perform all setup procedures as described in the Boot Service chapter of the *Services Installation and Setup Guide*.

Commands

This section lists alphabetically the commands you use to maintain the service. You must be in the Boot Service context to access these commands.

Table 16-1 shows the commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 16-1. **Boot Service maintenance commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Change Profile					•	
Delete Files					•	•
Install Etherboot Files					•	•
List Boot Statistics			•	•	•	•
List Etherboot Files					•	•
List Files					•	•
List Floppy Files					•	•
Retrieve Floppy Files					•	•
Start Service						•
Stop Service					•	

Change Profile

Available to the enabled user after a non-normal startup at the second and third interrupt points and after initialization has completed. Allows you to change the service name, description, number of remote executives, or service-specific values (Etherboot files for the Boot Service). You must boot the server for the changes to take effect.

Related procedure: Reconfiguring the Boot Service database

Delete Files

Available to the enabled user when the service is started or stopped. Deletes the files in the server's working directory that match the pattern you enter. Use this command to delete the Boot Service profile and the Etherboot files in the server's working directory.

Related procedure: Reconfiguring the Boot Service database

Install Etherboot Files

Available to the enabled user when the service is started or stopped. Copies Etherboot and Boot Service profile files from the cartridge tape to the working directory of an 8090 server. You enter either specific filenames or the standard wildcard character (*) for the default pattern. The server executive displays the name of each file that is successfully copied to the working directory. Press BREAK to cancel this command.

Related procedure: Reconfiguring the Boot Service database

- List Boot Statistics** Available to the logged on user when the service is started or stopped. Shows the number of boot and microcode boot files sent to network clients, and the number of boot and microcode boot files requested since the server was last booted.
Related procedure: Listing boot statistics
- List Etherboot Files** Available to the enabled user when the service is started or stopped. Lists the Etherboot and Boot Service profile files on a tape cartridge. You can specify a pattern for this operation. The default pattern is the wildcard character (*), which lists all files on the tape cartridge. Press BREAK to cancel this command.
Related procedure: Listing files on the installation media
- List Files** Available to the enabled user when the service is started or stopped. Lists the files in the server's working directory. You can specify a pattern for this operation. The default pattern is the wildcard character (*), which lists all files. Use this command to list the Etherboot and Boot Service profile files in the working directory. Press BREAK to cancel this command.
Related procedure: Listing boot files in the Boot Service database
- List Floppy Files** Available to the enabled user when the service is started or stopped. Lists the contents of a floppy disk. You can specify a pattern for this operation. The default pattern is the wildcard character (*), which lists all files. Press BREAK to cancel this command.
Related procedure: Listing boot files in the Boot Service database
- Retrieve Floppy Files** Available to the enabled user when the service is started or stopped. Copies Etherboot and Boot Service profile files from the floppy disk to the working directory of an 8000 server. You enter either specific filenames or the standard wildcard character (*) for the default pattern. The server executive displays the name of each file that is successfully copied to the working directory. Press BREAK to cancel this command.
Related procedure: Reconfiguring the Boot Service database
- Start Service** Available to the enabled user when the service is stopped. Starts a currently installed and stopped service. Starting the Boot Service causes it to validate the database with the data in the server profile. You cannot modify the Boot Service database after you start the Boot Service.
Related procedure: Reconfiguring the Boot Service database
- Stop Service** Available to the enabled user when the service is started. Stops a currently installed and started service so you can modify the Boot Service database.
Related procedure: Reconfiguring the Boot Service database

Procedures

This section contains these procedures for maintaining your Boot Service:

Listing boot files in the Boot Service database

Use this procedure to list the Etherboot and Boot Service profile files in the server's working directory.

Listing boot statistics

Use this procedure to see the boot file activity and monitor the network load for the Boot Service.

Listing files on the installation media

Use this procedure to list the Etherboot and Boot Service profile files on the installation media.

Reconfiguring the Boot Service database

Use this procedure to delete Etherboot and Boot Service profile files from the server's working directory, and to install new Etherboot and Boot Service profile files.

Listing boot files in the Boot Service database



Use this procedure to list the files in the Boot Service database.

Step-by-step

1. Log on and enable in the Boot Service context.
2. Type **List Files** \leftarrow .

```
File List:*
```

3. Type a pattern, or press RETURN for the default pattern.



If additional services are installed on this server, their filenames also display. You can interrupt this command by pressing BREAK.

Wrap-up

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option.

Example

This example shows a partial Boot Service database file list for the default pattern, represented by the wildcard character (*).

```
BS! List Files
  File List: *
EtherInitial.db      1-Feb-88 13:23:11
MoonBoot.db         27-Jan-88 10:34:19
TridentRavenMesa.db 21-Jan-88 11:00:12
```

Listing boot statistics



Use this procedure to monitor the performance of the Boot Service.

Step-by-step

1. Log on and enable in the Boot Service context.
2. Type **List Boot Statistics** `↵`.
3. Record the Boot Service statistics you need.

Wrap-up

When you see the message "Microcode boot files sent: <number>," you have successfully listed the statistics for the Boot Service.

You may want to make a copy of the boot statistics for your records. If you are using Remote System Administration, use the Make Document or Make Screen option.

Example

This example shows typical Boot Service statistics. In the example, six processors requested boot files. This Boot Service responded to five of those requests; another Boot Service on the same network may have responded to the sixth request. Typically, each boot file request is preceded by three requests for microcode boot files.

```
BS!List Boot Statistics
Boot files requested   6
Boot files sent       5
Microcode boot files requested   18
Microcode boot files sent   16
```

Listing files on the installation media

Use this procedure to list the files on the installation media.

Prerequisites

Obtain the cartridge tape or floppy disk with the Etherboot files.

Step-by-step

1. Log on and enable in the Boot Service context.
2. Insert the installation media containing Boot Service files into the server drive \Leftarrow .
3. If you are using:
 - an 8000 server, insert the floppy disk and type **List Floppy Files** \Leftarrow .
 - an 8090 server, insert the cartridge tape and type **List Etherboot Files** \Leftarrow .

```
File List:*
```

4. Type a pattern, or press RETURN for the default pattern.
You can interrupt this command by pressing BREAK.

NOTE

Wrap-up

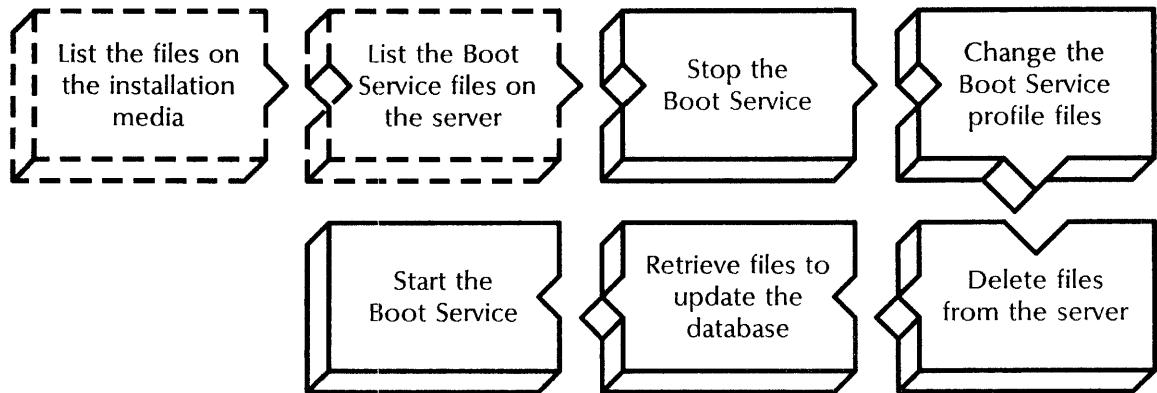
You may want to make a copy of the file list for your records. Compare the names of the files on the installation media to the names of the Boot Service files in the database (see the procedure "Listing boot files in the Boot Service database" earlier in this chapter).

Example

This example shows two file lists for a cartridge tape. The first list uses the wildcard character (*). The second list shows a message indicating the file was not found.

```
BS!List Etherboot Files
File List: *
EtherInitial.db 1-Feb-88 13:23:11
Moonboot.db 27-Jan-88 10:34:19
Dlion.germ 21-Jan-88 11:00:12
BS!List Etherboot Files
File List: abc
abc not found.
```

Reconfiguring the Boot Service database



Use this procedure to add or delete Etherboot files from the Boot Service database.

Prerequisites

- Obtain the installation media containing the Boot Service database files
- List the files in the Boot Service database so you know which files you have and which you are deleting
- List the files on the installation media if you need to know the names of the files you are adding
- Notify all users that the Boot Service will be temporarily interrupted

Step-by-step

1. Log on and enable in the Boot Service context.
2. Type **Stop Service** .

```
Select choices
1 Boot Service
2 Clearinghouse Service
Enter one or more choices:
```

3. Type the number for the Boot Service .

```
BS: Stop immediately? (Y/N):
```

4. Type **Y** or **N** to stop immediately .
 - Y** Stops the Boot Service user sessions immediately.
 - N** Stops the service gradually. The Boot Service completes any booting activity before stopping.

```
Stopping Boot Service.
```

5. When the service has stopped, you can:
 - Delete a file; **continue with step 6.**
 - Add a new file to the database; **skip to step 13.**

NOTE

To delete a file, first remove its entry from the Boot Service profile file and then delete it from the database.

6. Type **Change Profile** \leftarrow .

```
Section to be changed
1 Boot Service
2 Server
Enter choice number:
```

7. Type the number for the Boot Service \leftarrow .

```
Entry to be changed
1 Key
2 Profile file
Enter choice number:
```

8. Type the number for the Key entry \leftarrow .

```
File List:*
```

9. Type the filename to be removed from the profile file \leftarrow .
10. Press RETURN until the Boot Service prompt (BS) appears.
11. Type **Delete Files** \leftarrow .

```
File List:*
```



CAUTION: Do not use the wildcard when deleting files. Always specify the exact filename you want to remove.

12. Type the name of the file you want to delete \leftarrow .

```
< filename > ...deleted
```

13. If you are using:
 - an 8000 server, insert the floppy disk and type **Retrieve Floppy Files** \leftarrow .
 - an 8090 server, insert the cartridge tape and type **Install Etherboot Files** \leftarrow .

```
File List:*
```

14. Type the name of the file you want to add **<filename>**.

```
<filename> ...copied to the working directory
```

NOTE

If you see the message "A file by that name already exists on the working directory and files must be unique," you need to delete the existing file before you can add the new one.

15. Start the Boot Service.

Wrap-up

When you see the "Boot Service run" message, you have reconfigured your Boot Service database. You may want to use the **List Files** command to confirm that the files you installed are listed in the Boot Service database.

Example

This example shows stopping the Boot Service, deleting the EtherInitial file, and adding new files from a cartridge tape. To complete the procedure, you must restart the Boot Service.

```
BS!Stop Service
Select choices
1 Boot Service
Enter one or more choices: 1
BS: Stop immediately? (Y/N): Y
Stopping Boot Service.
BS!Delete Files
File List:EtherInitial.db
EtherInitial.db ...deleted
BS!Install Etherboot Files
File List:EtherInitial.db
EtherInitial.db ...copied to the working directory
BS!Start Service
```

17. Communications Monitoring Service

This chapter contains the maintenance procedures you perform to maintain the Communications Monitoring Service (CMS). These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Communications Monitoring Service maintenance procedures:

- Install all required software as described in the Services Software Installation chapter of the *Services Installation and Setup Guide*.
- Perform all setup procedures as described in the Communications Monitoring Service chapter of the *Services Installation and Setup Guide*.

Commands

This section lists the commands you use to maintain the Communications Monitoring Service. You must be in the Communications Monitoring Service context to access these commands.

Table 17-1 shows all the commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 17-1. **Communications Monitoring Service maintenance commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Help CMS			•	•	•	•
Rename Communications Monitoring Service					•	•
Save Log					•	•
Set Log Attributes					•	•
Set Log Name					•	•
Set Monitoring Profile					•	•
Set Protocol					•	•
Set Remote Log Handling					•	•
Show Active Log					•	•
Show Log					•	•
Show Monitoring Profile					•	•
Show Statistics					•	•
Start Communications Monitoring Service						•
Start Logging					•	•
Stop Logging					•	•
Stop Communications Monitoring Service					•	•

Help CMS Available to the logged on user. Briefly describes how to use the Communications Monitoring Service.

Related procedure: Getting on-line help

Rename Communications Monitoring Service

Available to the enabled user when the service is started. Renames the Communications Monitoring Service.

Related procedure: Renaming the Communications Monitoring Service

Save Log

Available to the enabled user when the service is started. Saves a working log file to a remote directory. This command does not change any values you have set in the monitoring profile.

Related procedure: Saving a working log file

- Set Log Attributes** Available to the enabled user when the service is started. Sets the logging portion of the monitoring profile by specifying the display format and the port you want to monitor.
Related procedure: Changing log attributes
- Set Log Name** Available to the enabled user when the service is started. Names the local log file. If you do not name the local log file, the Communications Monitoring Service provides a default name based on the protocol (SNA, X.25, or RS232C) and the RS232C port you select for monitoring.
Related procedure: Changing the log name
- Set Monitoring Profile** Available to the enabled user when the service is started. Sets all the parameters of the monitoring profile. Some of these parameters can be set individually with other **Set** commands.
Related procedure: Changing monitoring profile
- Set Protocol** Available to the enabled user when the service is started. Specifies the protocol you want to monitor: SNA, X.25, or RS232C. The Communications Monitoring Service is initially set to monitor RS232C. The protocol you choose is used until you change it.
Related procedure: Changing the protocol
- Set Remote Log Handling** Available to the enabled user when the service is started. Enables auto-logging. Auto-logging copies the local log file to a remote log file in the remote directory you name. To disable auto-logging, use the **Set Monitoring Profile** command.
Related procedure: Changing remote log handling
- Show Active Log** Available to the enabled user when the service is started. Displays the working log file (Log #1 or Log #2) in which the captured data is currently stored (the current log file).
Related procedure: Showing an active log
- Show Log** Available to the enabled user when the service is started. Stops logging and displays the working log file you specify (Log #1 or Log #2). To resume logging, you must use the **Start Logging** command.
Related procedure: Displaying a log
- Show Monitoring Profile** Available to the enabled user when the service is started. Displays the current values for the monitoring profile.
Related procedure: Showing the monitoring profile
- Show Statistics** Available to the enabled user when the service is started. Displays SNA statistics for the service you are monitoring. This command is not available if you specify a protocol other than SNA in the monitoring profile.
Related procedure: Showing statistics

Start Communications Monitoring Service

Available to the enabled user when the Communications Monitoring Service is stopped. Restarts the Communications Monitoring Service.

Related procedure: Renaming the Communications Monitoring Service

Start Logging

Available to the enabled user when the service is started. Starts the logging process. The captured data is written to the current log file (Log #1 or Log #2). Use the **Show Active Log** command to see which working log file is current.

Related procedures: Changing remote log handling, Changing the log name, Changing the monitoring profile, Changing the protocol, Starting the logging process

Stop Communications Monitoring Service

Available to the enabled user when the service is started. Stops the Communications Monitoring Service. All outstanding file operations complete before the service is stopped.

Related procedure: Renaming the Communications Monitoring Service

Stop Logging

Available to the enabled user when the service is started. Stops the logging process. To save the data in the current log file, use the **Save Log** command.

Related procedure: Stopping the logging process

Procedures

This section contains these procedures for maintaining the Communications Monitoring Service:

Changing log attributes

Use this procedure to change only the working log attributes: the number of bytes per log entry, the number of entries per log, and the comment.

Changing remote log handling

Use this procedure to change the parameters for remote log handling: the location, the number of logs, and the frequency. Also use this procedure to enable auto-logging.

Changing the log name

Use this procedure to change the name of the working log.

Changing the monitoring profile

Use this procedure to change parameters in the monitoring profile, and start or stop auto-logging.

Changing the protocol

Use this procedure to change the type of protocol monitoring.

Displaying a log

Use this procedure to view the present working log.

Getting on-line help

Use this procedure to see the help information for the Communications Monitoring Service.

Renaming the Communications Monitoring Service

Use this procedure to rename the Communications Monitoring Service.

Saving a working log file

Use this procedure to save a working log to a File Service.

Showing an active log

Use this procedure to show one of the two active logs.

Showing the statistics

Use this procedure to see the Communications Monitoring Service statistics.

Showing the monitoring profile

Use this procedure to see the present setup of the monitoring profile.

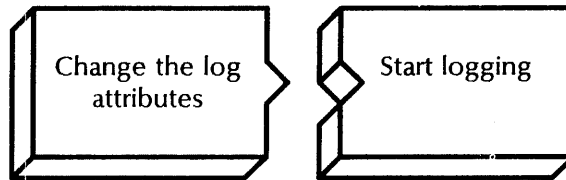
Starting the logging process

Use this procedure to start the Communications Monitoring Service logging.

Stopping the logging process

Use this procedure to stop the Communications Monitoring Service logging.

Changing log attributes



Use this procedure to change the attributes of the log kept by the Communications Monitoring Service.

Prerequisites

Update the Communications Monitoring Service Worksheet with any changes you are making to the following information:

- The number of data bytes per log entry
- The maximum number of entries in the log file
- The log file comment
- The display format
- The RS232C port to monitor

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Set Log Attributes** ↵.

Amount of data bytes to record per log entry (40..600):

3. Type the number of data bytes you want to record for each log entry ↵.

NOTE

Press RETURN to skip a prompt without changing existing information.

Maximum number of entries in log file (100..200):
< number >

4. Type the maximum number of entries for each log file ↵.

Log file comment: < comment >

5. Type a comment for the log file ↵.

```
Specify display format
1 HEX
2 OCTAL
3 ASCII
4 EBCDIC
Enter choice number: <number >
```

6. Type the number for the display format .

```
Choose RS232C port to monitor
1 <name >
2 <name >
Enter choice number:
```

7. Type the number for the port you want to monitor .

```
Confirm these log attributes? (Y/N):
```

8. Type **Y** or **N** at the "Confirm these log attributes" prompt .

Y Sets the log attributes.

N Cancels the process so you can begin again.

```
Log attributes set.
CMS!
```

9. Type **Start Logging** .

```
Log <number > started at <date > <time >
CMS!
```

10. Log off.

Wrap-up

When you see the message "Log <number > started at <date > <time >," you have successfully set the CMS log file attributes.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows setting log attributes for RS232C monitoring.

CMS! Set Log Attributes

Amount of data bytes to record per log entry (40..600): **600**

Maximum number of entries in log file (100..200): **200**

Log file comment: **This is a sample RS232C log**

Specify display format

1 HEX

2 OCTAL

3 ASCII

4 EBCDIC

Enter choice number: **4**

Choose RS232C port to monitor

1 RS232CPort1

2 RS232CPort2

Enter choice number: **1**

Confirm these log attributes? (Y/N): **Y**

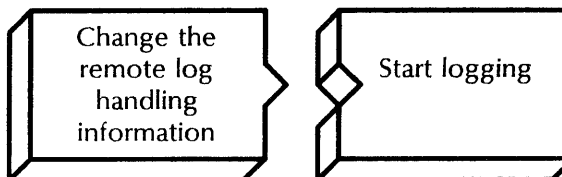
Log attributes set.

CMS!Start Logging

Log # 1 started at 18-May-88 16:22:31

CMS!

Changing remote log handling



If you have the automatic log backup enabled, use this procedure to change the log backup location, the frequency of backup, and the size of the logs stored there.

Prerequisites

- Ensure that automatic log backup is enabled.
- Update the Communications Monitoring Service Worksheet with any changes you are making to the following information:
 - The name of the remote directory (File Service)
 - The maximum number of logs stored remotely
 - The log storage frequency

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Set Remote Log Handling** ↵.

Remote Directory:

3. Type the name of the File Service where you want to store the remote log files ↵.

NOTE

You can either enter the fully qualified name of the File Service, or type a colon after the local name. Enclose the File Service name in parentheses.

NOTE

Press RETURN to skip a prompt without changing existing information.

Maximum number of logs stored remotely (1..100):
< number >

4. Type the maximum number of logs you want to store remotely ↵.

Store every Nth log (1..10): < number >

5. Type the number for log storage frequency ↵.

Confirm this log handling information (Y/N):

6. Type **Y** or **N** at the "Confirm this log handling information" prompt **↵**.
 - Y** Sets remote log handling parameters.
 - N** Cancels the process so you can begin again.
7. Type **Start Logging** **↵**.

Log <number> started at <date> <time>
CMS!

8. Log off.

Wrap-up

When you see the message "Log <number> started at <date> <time>," you have successfully set the CMS remote log file handling attributes.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows changing the remote log handling parameters.

CMS!Set Remote Log Handling

Remote Directory: **(FileService2:OurDomain:OurOrg)ComLogs**

Maximum number of logs stored remotely (1..100): **100**

Store every Nth log (1..10): **1**

Confirm this log handling information (Y/N): **Y**

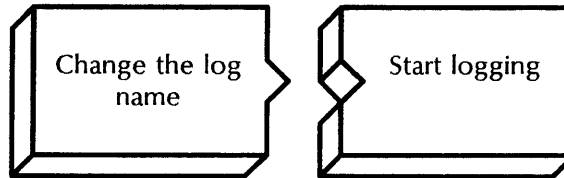
CMS: Remote Log Directory set to: (FileService2:OurDomain:OurOrg)ComLogs at (18-Sep-88 17:08:04)

CMS! Start Logging

Log # 1 started at 19-Oct-88 08:42:41

CMS!

Changing the log name



Use this procedure to change the name of the log file used to store the logs.

Prerequisites

Update the Communications Monitoring Service Worksheet with the new name of the log file.

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Set Log Name** \leftarrow .

Log Name:

3. Type the new log name \leftarrow .

Log name set.
CMS!

4. Type **Start Logging** \leftarrow .

Log <number> started at <date> <time>
CMS!

5. Log off.

Wrap-up

When you see the message "Log <number> started at <date> <time>," you have successfully changed the log file name.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

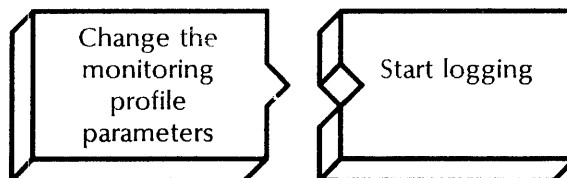
This example shows changing the log name to OurCMS.

```

CMS!Set Log Name
  Log name: OurCMS1
  Log name set.
CMS! Start Logging
  Log # 1 started at 10-Dec-87 10:53:04
  CMS!

```

Changing the monitoring profile



Use this procedure to set or change all parameters in the monitoring profile. Monitoring parameters are saved in the Communications Monitoring Service section of the server profile.

Prerequisites

Update the Communications Monitoring Service Worksheet with any changes you are making to the following information:

- The protocol to be monitored
- If you are monitoring SNA protocol
 - The product option
 - The protocol level
 - Whether statistics are to be included in the log
- The amount of data bytes to record per log entry
- The maximum number of entries in the log file
- The log file comment
- The display format
- The RS232C port
- The log name
- If you enable auto-logging
 - The remote directory (File Service)
 - The maximum number of logs stored remotely
 - The frequency of log storage

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Set Monitoring Profile** \leftarrow .

```
Select protocol to be monitored
1 SNA
2 X25
3 RS232C
Enter choice number:
```

3. Type **1**, **2**, or **3** to identify the protocol to be monitored \leftarrow .
If you select **2** (X.25) or **3** (RS232C), **skip to step 6**.
If you select **1** (SNA), **continue with step 4**.

NOTE

Press RETURN to skip a prompt without changing the existing information.

```
Possible product option(s)
1 3270
Enter choice number:
```

4. Type **1** to select the 3270 product option \leftarrow .

```
Select protocol level
1 SDLC
2 Path Control (LU & PU)
3 Path Control (PU ONLY)
4 ALL
Enter choice number:
```

5. Type the number for the protocol level \leftarrow .

```
Amount of data bytes to record per log entry (40..600):
<number>
```

6. Type the number of data bytes per log entry \leftarrow .

```
Maximum number of entries in log file (100..200):
<number>
```

7. Type the maximum number of entries to be included in each log file \leftarrow .

```
Log file comment: <comment>
```

8. Type a comment or description about the log file .

Include Statistics in log? (Y/N):

9. If you selected SNA in step 3, type **Y** or **N** at the "Include Statistics in log" prompt .

Y Includes the statistics in the log.

N Does not include the statistics in the log.

Specify display format

- 1 HEX
- 2 OCTAL
- 3 ASCII
- 4 EBCDIC

Enter choice number:

10. Type the number of the display format to use for the log file .



For SNA or X.25 monitoring, your only choice is HEX.

Choose RS232C port to monitor

- 1 <port name >

Enter choice number:

11. Type the number for the port you want to monitor .

Log name: <name >

12. Type the name of the log file .

Backup log automatically? (Y/N):

13. Type **Y** or **N** at the "Backup log automatically" prompt .

Y Enables auto-logging. **Continue with step 14.**

N Does not enable auto-logging. **Skip to step 17.**



You can enable auto-logging later without changing the other monitoring profile parameters. See the "Changing remote log handling" procedure.

Remote Directory: <directory >

14. Type the name of the File Service where the remote log files are to be stored **↵**.

```
Maximum number of logs stored remotely (1..100):
< number >
```

15. Type the maximum number of logs to be stored in the remote directory **↵**.

```
Store every Nth log (1..10): < number >
```

16. Type the number for the log storage frequency **↵**.

```
Confirm this monitoring profile? (Y/N):
```

17. Type **Y** or **N** at the "Confirm this monitoring profile" prompt **↵**.

Y Confirms your changes.

N Cancels the process so you can begin again.

```
Log < number > started at < date > < time >
CMS!
```

18. Type **Start Logging** **↵**.

```
Monitoring profile set.
CMS!
```

19. Log off.

Wrap-up

When you see the message "Monitoring profile set," you have successfully set the CMS monitoring profile.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

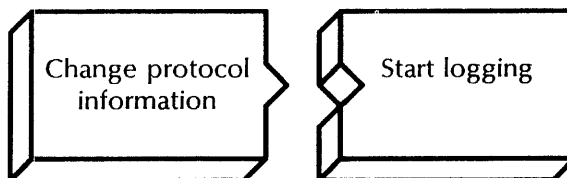
Example

This example shows changing the monitoring profile entries for SNA protocol, and selecting automatic log backup.

```

CMS!Set Monitoring Profile
  Select protocol to be monitored
  1 SNA
  2 X25
  3 RS232C
  Enter choice number: 1
  Possible product option(s)
  1 3270
  Enter choice number: 1
  Select protocol level
  1 SDLC
  2 Path Control (LU & PU)
  3 Path Control (PU ONLY)
  4 ALL
  Enter choice number: 2
  Amount of data bytes to record per log entry (40..600): 600
  Maximum number of entries in log file (100..200): 200
  Log file comment This is a sample log file
  Include Statistics in log? (Y/N): Y
  Specify display format
  1 HEX
  Enter choice number: 1
  Choose RS232C port to monitor
  1 SNAPort1
  Enter choice number: 1
  Log name: OurCMS1
  Backup log automatically? (Y/N): Y
  Remote Directory: (FileService1:OurDomain:OurOrg)/ComLogs
  Maximum number of logs stored remotely (1..100): 100
  Store every Nth log (1..10): 1
  Confirm this monitoring profile? (Y/N): Y
  Monitoring profile set
  CMS! Start Logging
  Log # 1 started at 18-Nov-88 10:13:41
  CMS!
    
```

Changing the protocol



Use this procedure to change the type of protocol monitoring you want to use.

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Set Protocol** .

```
Select protocol to be monitored
1 SNA
2 X.25
3 RS232C
Enter choice number:
```

3. Type **1, 2, or 3** for the protocol to be monitored .

NOTE

If you change the protocol to either X.25 or SNA, the display format is automatically set to HEX. For RS232C protocol, see the "Changing Monitoring Profile procedure," steps 3 through 6.

```
Confirm this protocol information? (Y/N):
```

4. Type **Y** at the "Confirm this protocol information" prompt .
 - Y** Sets the protocol.
 - N** Cancels the process so you can begin again.

```
Protocol information set.
CMS!
```

5. Type **Start Logging** .

```
Log <number> started at <date> <time>
CMS!
```

6. Log off.

Wrap-up

When you see the message "Log <number> started at <date> <time>," you have successfully set the CMS protocol.

Example

This example shows setting the RS232C protocol to be monitored.

```

CMS! Set Protocol
  Select protocol to be monitored
  1 SNA
  2 X.25
  3 RS232C
  Enter choice number: 3
  Confirm this protocol information (Y/N): Y
  Protocol information set.
CMS! Start Logging
  Log # 1 started at < data > < time >
CMS!

```

Displaying a log



Use this procedure to display the contents of a working log file. This command is useful to determine whether or not you want to save a particular log file. If you are monitoring RS232C communication, you can specify the data display format.

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Show Log** .

```

Select which log to show
1 Log # 1
2 Log # 2
Enter choice number:

```

3. Type the number for the log you want to display .

```

Specify display format:
1 HEX
2 OCTAL
3 ASCII
4 EBCDIC
Enter choice number:

```

4. If you are monitoring RS232C protocol, type the number of the display format for the log file and press RETURN. The log file is displayed.
5. Log off.

Wrap-up

When you see the "CMS!" prompt, you have successfully shown the log.

Logging stops when you display the log file. If you want logging to continue, use the **Start Logging** command.

If you decide you want to save the displayed log, perform the "Saving a log" procedure, next.

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows selecting the Hex format to display a log.

```
CMS! Show Log
  Select which log to show
    1 Log # 1
    2 Log # 2
Enter choice number: 2
Specify display format:
    1 HEX
    2 OCTAL
    3 ASCII
    4 EBCDIC
Enter choice number: 1
Displaying Log # 2...
.
.
CMS!
```

Getting on-line help



Use this procedure to display brief explanations of the CMS commands and their functions.

Step-by-step

1. Log on in the Communications Monitoring Service context.
2. Type **Help CMS** and press RETURN. The help information displays.
3. Log off.

Example

This example shows the on-line help file.

CMS> Help CMS

The Communications Monitoring Service provides protocol monitoring for Xerox Communication Services. It creates a monitoring profile for customizing monitoring. The monitoring parameters are recorded in the Communications Monitoring Service section of the server profile.

Monitoring is provided at various levels of SNA, X25, and RS232C. Two working log files capture information off the communication line. When a working log file is full, a local NS file is created in the working directory of the server.

The System Administrator may choose to have a remote NS file created automatically on a File Service at this time as well. Parameters for monitoring are set by using either Set Monitoring Profile (for all parameters), or Set Protocol, Set Log Attributes, Set Log Name, Set Remote Log Handling for setting portions of the profile parameters. Initial values of the profile default to monitor RS232C. The protocol may be changed with Set Protocol.

A default log name for the NS file will be created based on the type of monitoring selected. The System Administrator may change this to a name of their choice with the Set Log Name command.

The amount of data bytes collected during monitoring, the number of entries in a working log file, whether an optional comment or statistics (SNA only) should be inserted into the log file, the type of display format for the data, and the RS232C port to monitor may be specified with the Set Log Attributes command. Statistics are also available with the Show Statistics command.

Auto-logging of NS files is accomplished with the Set Remote Log Handling command. Parameters include the File Service path name, the maximum number of logs to store, and the store frequency to remotely store every Nth local NS file created.

All profile values may also be set with Set Monitoring Profile and shown with Show Monitoring Profile. Logging may be started and stopped with the Start Logging and Stop Logging commands.

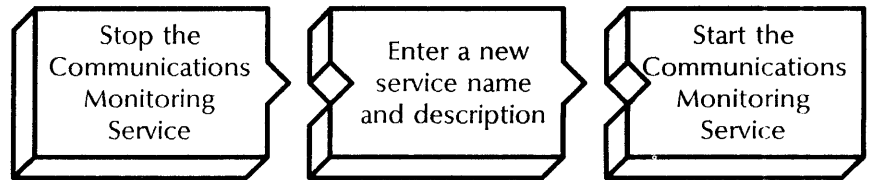
Working log files may be displayed with Show Log. A working log file may be stored to a File Service with Save Log. Starting and stopping the service is accomplished with the Start Communications Monitoring Service and Stop Communications Monitoring Service commands.

If service self-registration fails, Register Communications Monitoring Service is available.

To rename the service, use the Rename Communications Monitoring Service command.

CMS>

Renaming the Communications Monitoring Service



Use this procedure to change the service name.

Prerequisites

- Update the Communications Monitoring Service Worksheet with any changes you are making to the service name and description.

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Stop Communications Monitoring Service** .

```
CMS! Communications Monitoring Service is stopping
CMS! Communications Monitoring Service stopped
CMS!
```

3. Type **Rename Communications Monitoring Service** .

```
Enter service name:
```

4. Type a new name for the service .

```
Enter service description:
```

5. Type a description of the service .

```
Confirm (Y/N):
```

6. Type **Y** or **N** at the "Confirm" prompt .

Y Confirms the new name.

N Return to step 4.

```
Validating Clearinghouse entry for: <name >
A new Clearinghouse entry was created
Done
```

7. Type **Start Communications Monitoring Service** .

```
CMS: Communications Monitoring Service is running
CMS: Communications Monitoring Service is started.
CMS!
```

8. Log off.

Wrap-up

When you see the message "Communications Monitoring Service is started," you have successfully renamed the CMS. It will take a few days for the new name to propagate throughout your network. Be sure to inform users of the name change.

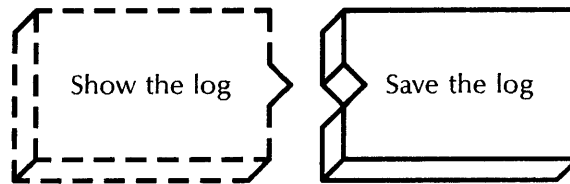
You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows renaming a Communications Monitoring Service and changing its description.

```
CMS! Stop Communications Monitoring Service
CMS: Communications Monitoring Service is stopping
CMS: Communications Monitoring Service stopped
CMS!Rename Communications Monitoring Service
  Deleting Clearinghouse entry for: OurCMS:OurDomain:OurOrg
  Done
  Service name and description unknown
  Enter service name: NewCMS
  Enter service description: Com monitor for OurServer
  Confirm (Y/N): Y
  Validating Clearinghouse entry for: NewCMS:OurDomain:OurOrg
  A new Clearinghouse entry was created
  Done
CMS!Start Communications Monitoring Service
CMS: Communications Monitoring Services is running
CMS: Communications Monitoring Service is started
CMS!
```

Saving a working log file



Use this procedure to save the data that is in a working log file. When you save the file, all outstanding file operations complete and then logging stops.



To save logs in different formats, first change the display format portion of the monitoring profile. Refer to the procedure "Changing the monitoring profile."

Prerequisites

Update the Communications Monitoring Service Worksheet with any changes you are making to the following information:

- The remote directory name
- The log file comment

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Save Log**

Remote directory:

3. Type the name of the File Service to which you want to save the working log file .



Enter a fully qualified name for the File Service, or simply the local name followed by a colon (:). This name and comment do not replace those you supplied for the monitoring profile earlier.

Log file comment:

4. Type a log file comment .

Select which log to save

- 1 Log # 1
- 2 Log # 2

Enter choice number:

5. Type the number for the log you want to save .

```
Saving Log < number > ...
CMS: < name > < date > < time >
CMS: Stored.
CMS!
```

6. Log off.

Wrap-up

When you see the message "Stored," you have saved the log to the specified directory.

Example

This example shows saving Log # 1.

```
CMS!Save Log
Completing outstanding file operation...Done.
Remote directory: (FileService1:OurDomain:OurOrg)ComLogs
Log file comment: Monitoring SDLC level SNA
Select which log to save
1 Log # 1
2 Log # 2
Enter Choice number: 1
Saving Log # 1...
CMS: OurCMS 18-Sep-88 16:19:50 ...
CMS: Stored.
CMS!
```

Showing an active log



Use this procedure to determine the current and active log file. If the current log file is not active, the other log file becomes the current log file when logging is started.

Prerequisites

Ensure that the Communications Monitoring Service is already logging.

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Show Active Log** and press RETURN. The log information displays.
3. Log off.

Example

This example shows that Log # 1 is an active current log file.

```
CMS! Show Active Log
Log # 1 is the current log. It is active.
CMS!
```

Showing statistics



Use this procedure to see the current status of the Communications Monitoring Service.

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Show Statistics** and press RETURN. The CMS statistics information displays.
3. Log off.

Wrap-up

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows statistics for CMS SNA monitoring.

CMS! Show Statistics

-- SNA Stats --

Number of active instances: 0

-- SNA Buffer Stats --

```

BuffersRequested = 0   BuffersAllocated = 0   BuffersAvailable = 0
SndBuffers = 0       RcvBuffers = 0
SndBuffersInUse = 0   RcvBuffersInUse = 0
ClustersAdded = 0     PoolsCreated = 0       AltGets = 0
Enqueues = 0          Dequeues = 0           DequeReturnedNIL = 0
ExtractFromQs = 0     ExtractFrmQRetNIL = 0
GetInputBufferWts = 0 GetInputBufRetNI = 0   GetBufferWaits = 0   GetBufferRetdNIL = 0
CreditRcvBufFaild = 0
Preallocates = 0     SmallGets (0) = 0     FullGets (0) = 0
Spare1 = 0           Spare2 = 0

```

CMS!

Showing the monitoring profile



Use this procedure to see the current parameters of the monitoring profile.

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Show Monitoring Profile** and press RETURN. The profile information displays.
3. Log off.

Wrap-up

You may want to make a copy of this information for your records. If you are using Remote System Administration, use the Make Document or Make Screen option. Store a copy in the *Activities Guide*.

Example

This example shows a typical Communications Monitoring Service profile file.

CMS! Show Monitoring Profile

Protocol: SNA/3270/Path Control (LU & PU)

Data Bytes/Log Entry: 300

Log Entries/File: 200

Comment: CMS in the comm room

Include Statistics: NO

Display Format: HEX

Line Number: 0

Log Name: rs232clog

CMS!

Starting the logging process



Use this procedure to start logging. Logging does not start automatically when the server running the CMS is rebooted.

Prerequisites

Ensure that the Communications Monitoring Service is running.

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Start Logging** .
3. Log off.

Wrap-up

When you see the "CMS!" prompt, you have started the logging process.

Example

This example shows starting the logging process.

CMS! Start Logging

Log # 1 started at 18-Sep-88 16:12:13

CMS!

Stopping the logging process



Use this procedure to stop logging. You can stop logging at any time. If the current log file is only partially full when you stop logging, and you want to save the data, use the **Save Log** command.



You must explicitly start and stop all monitoring and logging, except auto-logging. You cannot monitor a communication service without also logging it.

Prerequisites

Ensure that the Communications Monitoring Service is already logging.

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Stop Logging** **↵**.
3. Log off.

Wrap-up

When you see the message "Logging Stopped," you have successfully stopped logging.

Example

This example shows stopping the logging.

```
CMS! Stop Logging
CMS: Logging Stopped.
CMS!
```

A. Hardware maintenance

This appendix describes the 8090 and 8000 servers, their external storage devices, and the types of media they use. It also contains the tasks you perform to use and maintain the storage devices and media. Other documents you may find useful include:

- *Telecopier 495-1 Operator's Manual* (reorder number 610P72216)
- *NS 8000 Operator's Manual* (reorder number 619E02010)
- *Network Systems Facilities Hardware Installation Manual* (reorder number 600P88377)
- *Thin-Cable Ethernet Installation Guide* (reorder number 610E07240)

Additional copies of these documents can be ordered by completing the XDSS User Subscription Order Form located in the *Guide to System Administration Activities*.

Overview of the 8090 server system

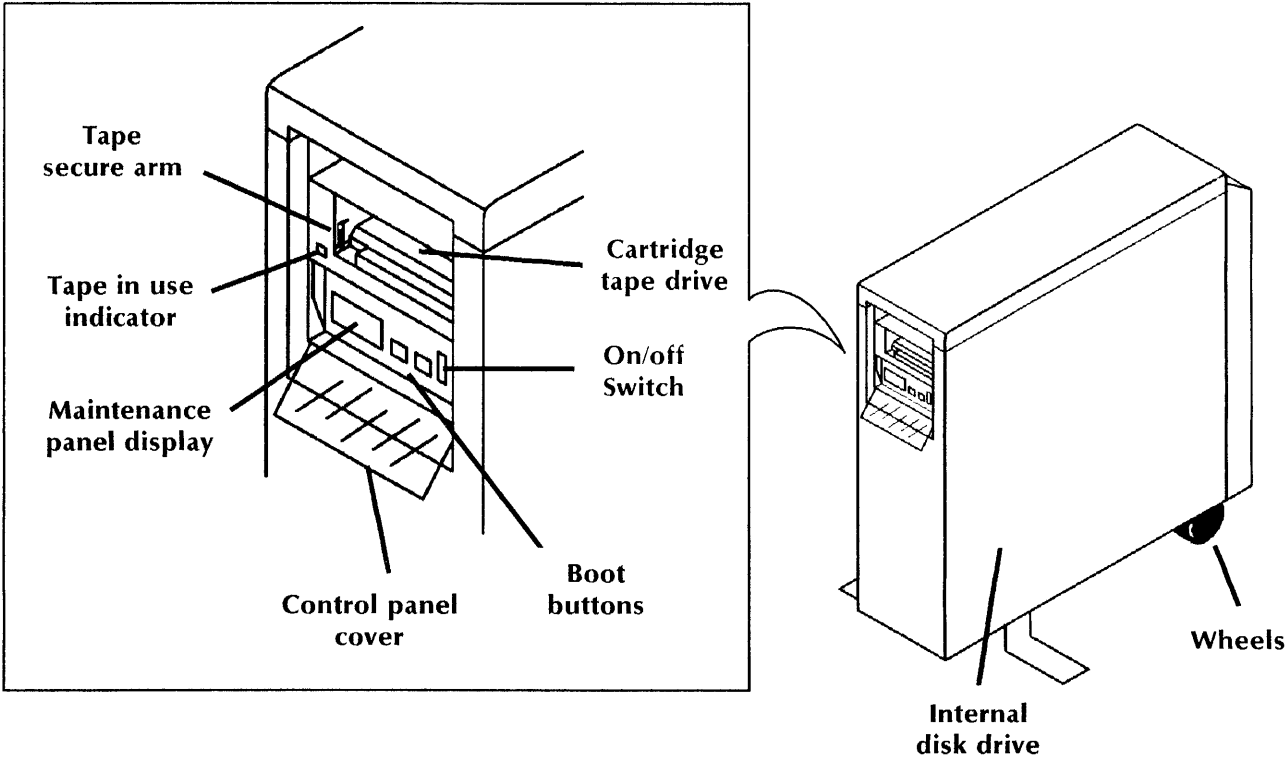
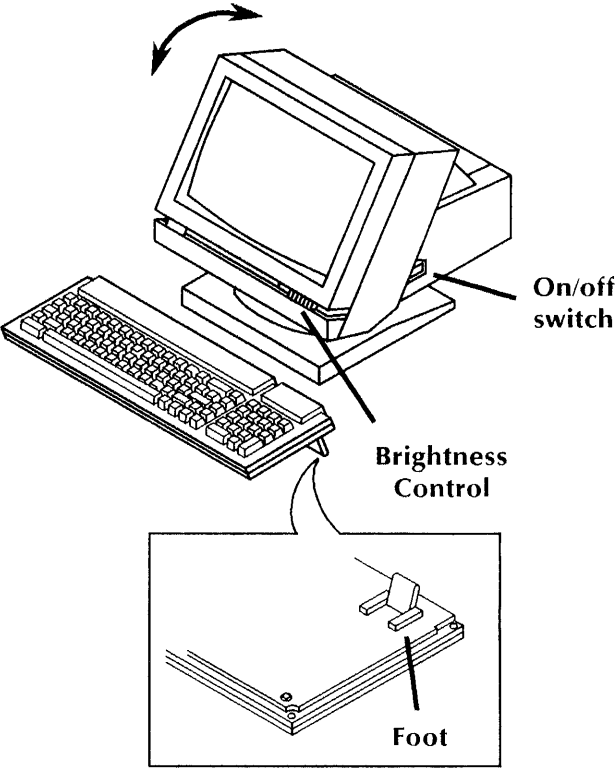
This section describes the 8090 server system and the media it uses.

There are two 8090 system configurations: basic and high-capacity.

The basic configuration consists of a terminal, a server with a 25 or 85 Mb internal disk drive and a 48 Mb cartridge tape drive, and, optionally, a Multiport Option Kit. Figure A-1 shows the 8090 hardware elements and features.

The high-capacity configuration consists of a terminal, a server with a 310 Mb internal disk drive, a 48 Mb cartridge tape drive, and up to two peripheral cabinets that can house a maximum of seven storage devices. Figure A-2 shows the peripheral cabinet.

Figure A-1. 8090 display terminal and server



The 8090 server and terminal

The 8090 server consists of an internal disk drive and a cartridge tape drive. Wheels at the back of the server make it easy to move.

The server's front control panel has these features:

- Cartridge tape drive** Uses 48 Mb cartridge tapes.
- Tape secure arm** Holds the cartridge tape in place.
- Tape ready indicator** A flashing light shows the system is accessing the tape.
- Maintenance panel display** Displays maintenance codes and alternate boot selection numbers.
- Boot buttons** Reboot the system and allow access to boot functions.
- On/off switch** Turns the power on or off.

The back panel of the server provides access to the RS232C and RS366 ports. You use these ports to connect devices such as modems, autodialers, printers, and the 8090 peripheral cabinet.

The 8090 terminal consists of a display screen with a tilt-swivel base and a detached keyboard. You can adjust the angle of the screen and the brightness of the display. To extend the life of the screen, the display automatically turns off after 18 minutes of inactivity. To restore the screen display, press the SHIFT key.

You can tilt the angle of the keyboard by adjusting the legs on the bottom.

External drives

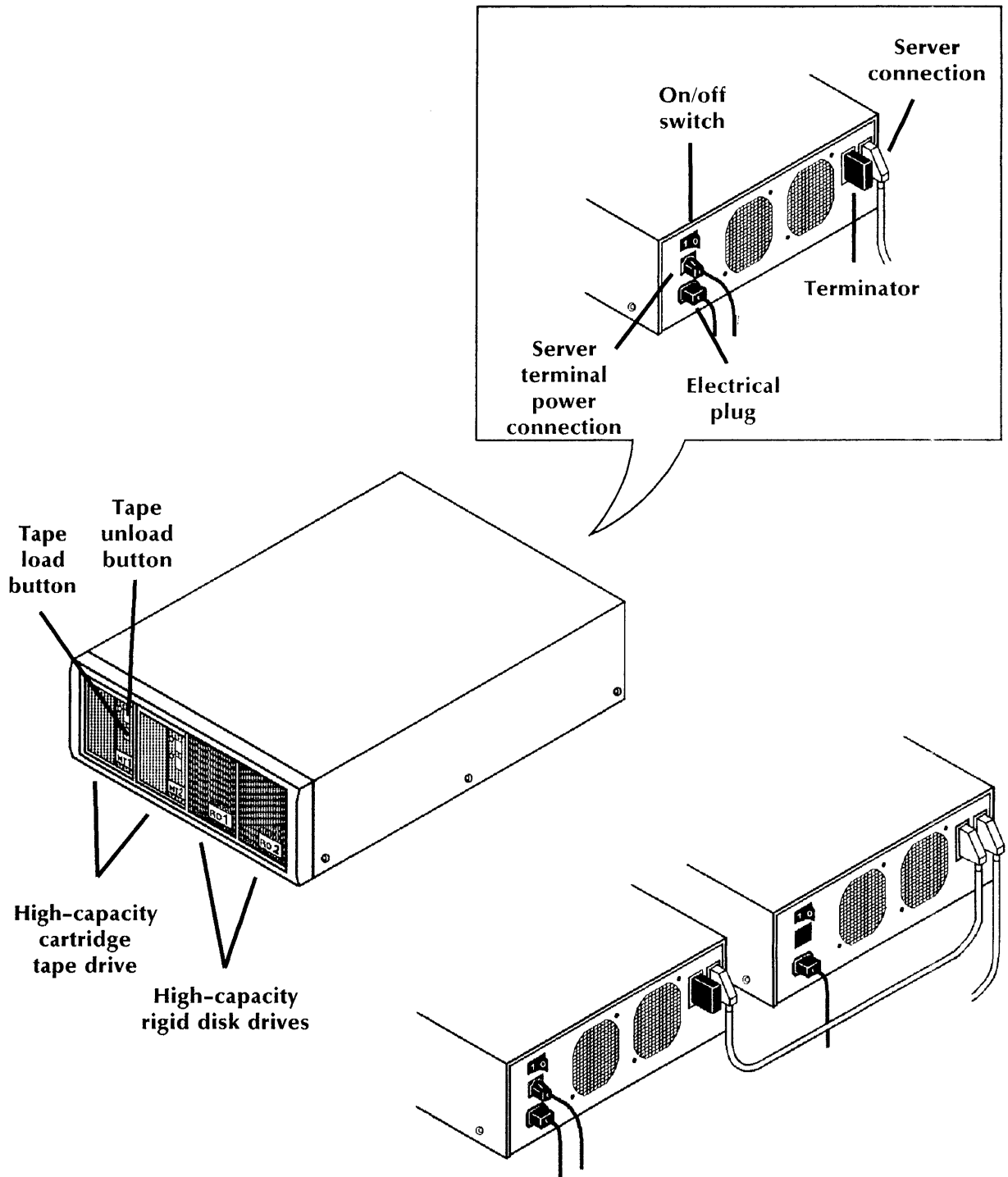
The 8090 server can be used with a peripheral cabinet, which allows up to four different drives: two high-capacity cartridge tape drives and two high-capacity fixed rigid disk drives. Minimally, the cabinet contains one tape and one fixed rigid disk drive. The 8090 server can control two external cabinets housing up to seven devices.

Figure A-2 shows the front and back of the 8090 peripheral cabinet.



See the Services System Software chapters of the *Guide to System Administration Activities* and the *Services Maintenance Guide* for more information about booting the server.

Figure A-2. 8090 peripheral cabinet



The front panel has these features:

- Tape load button**
- Tape unload button**
- Cartridge tape drive**
- Fixed rigid disk drive**

- Loads the high-capacity cartridge tape.
- Rewinds and ejects the tape.
- Uses 130 Mb high-capacity cartridge tapes.
- Houses the 310 Mb high-capacity fixed rigid disk.

You'll seldom need to change any connections on the back panel, however, it provides access to these features:

- On/off switch**
- Server terminal power connection**
- Electrical inlet**
- Server connection**
- Terminator**

- Turns the power on or off.
- Allows access for the terminal screen power connector.
- Provides power to the peripheral cabinet.
- Connection to the 8090 server processor.
- Required for proper operation of the high-capacity system.

Table A-1 lists the environmental requirements to consider when using the 8090 server system.

Table A-1. **8090 environmental requirements**

Temperature	Relative humidity	Altitude
50° to 90° F (10° to 32°C)	20% to 80%, non-condensing maximum wet-bulb 73° F (23°C)	6000 feet

Storage media

Depending on your hardware configuration, the 8090 server uses both 48 Mb cartridge tapes and 130 Mb high-capacity cartridge tapes. Figure A-3 illustrates the tapes.



The actual capacity of a high-capacity cartridge tape will vary with the size and number of files stored on the tape.

Each tape has a write-protect plug you can use to ensure that the data stored on the tape is safe from alteration. To write-protect a tape, insert a screwdriver in the plug and turn the arrow so that it points to the word **SAFE**. When a tape is write-protected, you can read the files it contains but you cannot change or overwrite their contents.

To store new data on the tape, or to delete or overwrite existing information, turn the arrow so that it points opposite the word **SAFE**.

Each tape has a read area door. This door allows read and write access to the tape by the tape drive. Do not open the door or touch the tape.

To protect cartridge tapes that are not in use, always store them in their protective covers in a secure and clean environment. Also, do not remove a cartridge tape when the tape in use light is on.



CAUTION: Do not store tapes in direct sunlight or near objects that can create magnetic fields, such as telephones, electric motors, or even paperclip holders.

Cartridge tapes require formatting before use. You can purchase pre-formatted cartridge tapes directly from Xerox. If you are using unformatted tapes, you must format them before use. Disable all services when you format a cartridge tape. See *Test and Diagnostic Tools* for this procedure. High-capacity tapes do not require formatting.

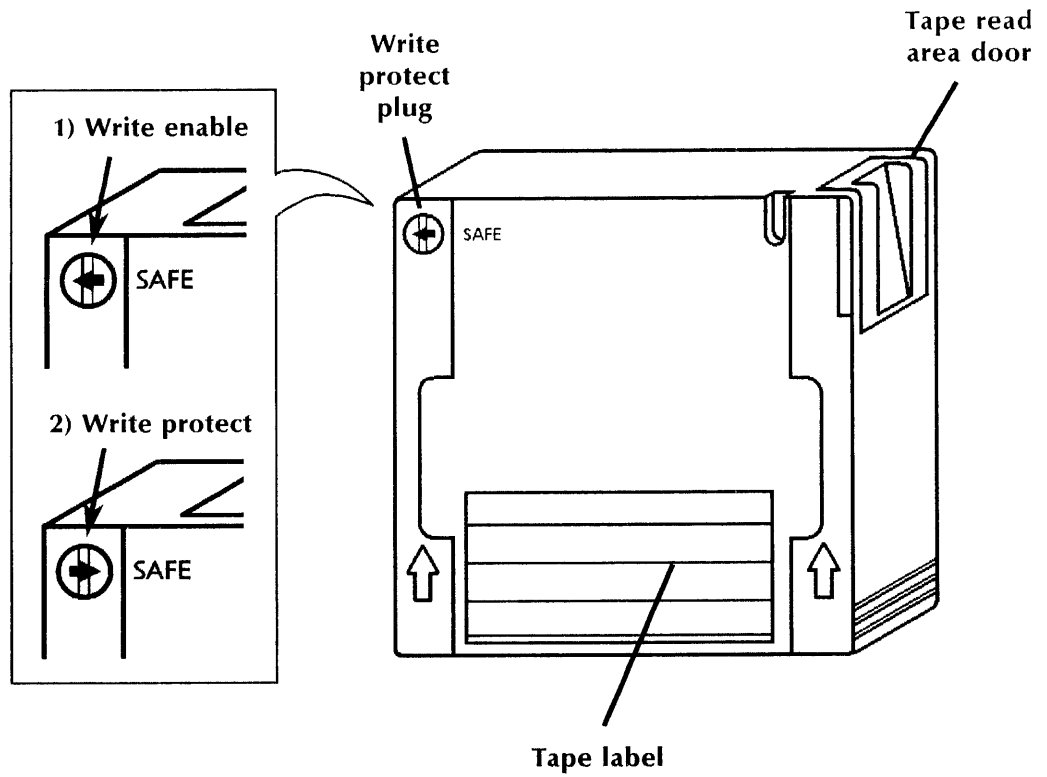
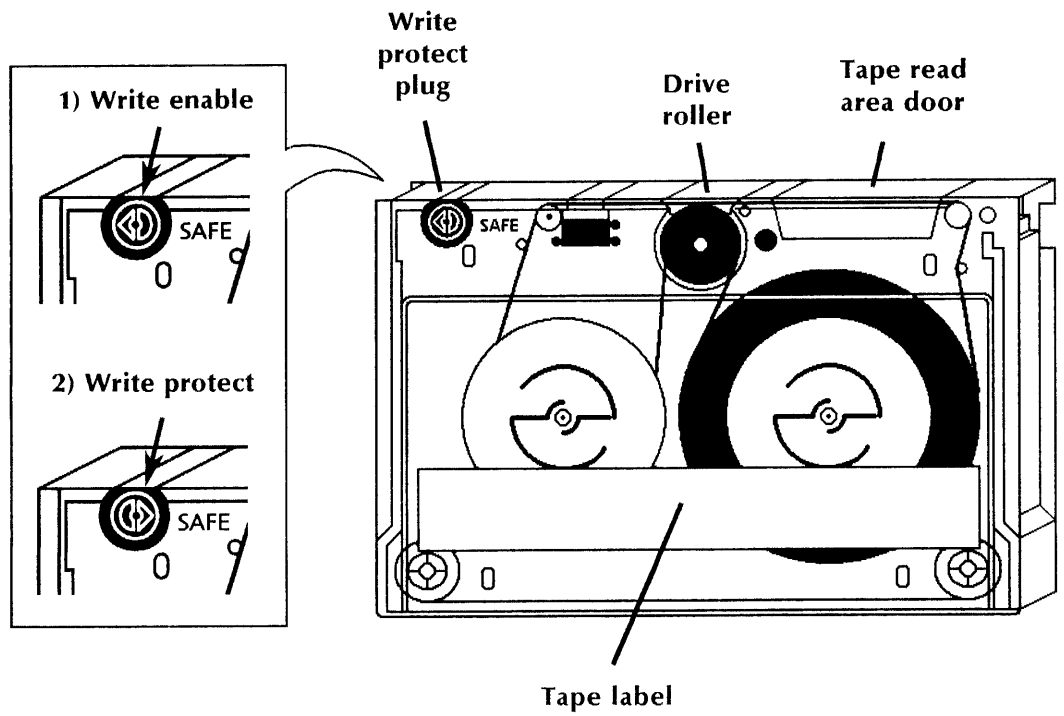
A cleaning kit is available for both cartridge tape drives. To order cleaning kits and additional cartridge or high-capacity cartridge tapes, ask your Xerox representative for the toll-free telephone number of the Xerox Supply-net. Use the reorder numbers on the outside of the tapes when placing your order.

Table A-2 list the cartridge tape supplies.

Table A-2. **8090 cartridge tape supplies**

Supply number	Product Description
9R88431	Xerox $\frac{1}{4}$ " Data Cartridge Tape, Formatted for 8090 and 6085
9R88432	Xerox $\frac{1}{4}$ " Cartridge Tape Drive Head Cleaning Kit
9R88788	Xerox $\frac{1}{2}$ " Data Cartridge Tape
9R88789	Xerox $\frac{1}{2}$ " Head Cleaning Cartridge

Figure A-3 . Cartridge tape and high capacity cartridge tape



8090 cartridge tape procedures

This section contains these cartridge tape procedures:

Inserting a cartridge tape

Use this procedure to insert a cartridge tape into a tape drive.

Removing a cartridge tape

Use this procedure to remove a cartridge tape from a tape drive.

Cleaning a cartridge tape drive

Use this procedure to clean a cartridge tape drive.

Retensioning a cartridge tape

Use this procedure to adjust the tension of the tape so it can be read correctly.

Inserting a cartridge tape

Use this procedure to insert and load a cartridge tape into its drive. Figure A-4 shows how to insert the tape.

Prerequisites

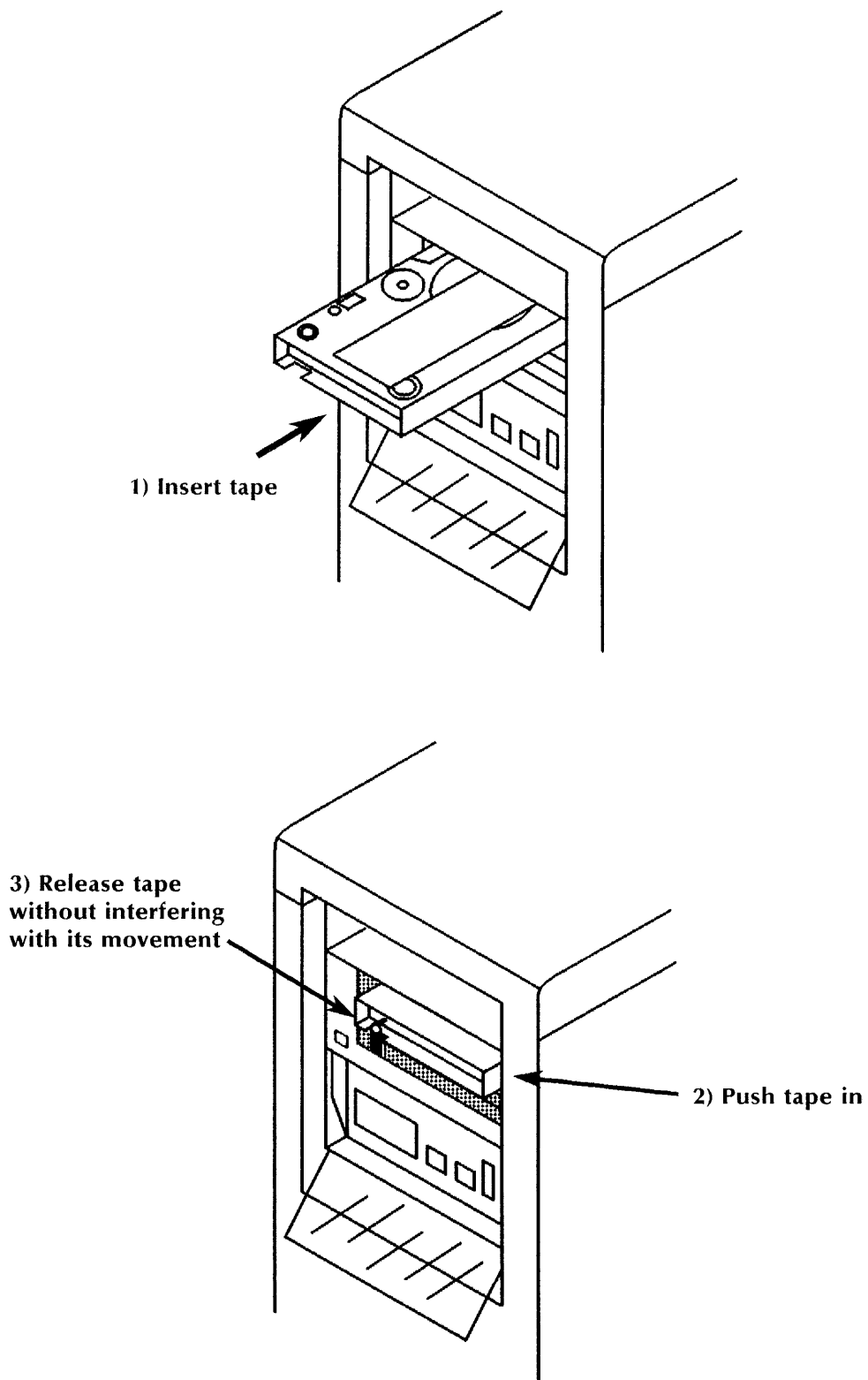
- If you want to store information on the tape, turn the arrow so it is pointing opposite the word **SAFE**.
- If you want to read information from the tape, turn the arrow so it is pointing to the word **SAFE**.

Step-by-step

1. Hold the tape, with the label side up, so that the tape read area will be inserted first.
2. Push the tape completely into the drive until it stops.
3. Quickly release the tape without interfering with its movement. The tape moves outward slightly and the tape secure arm locks it in place.



CAUTION: To protect your data, it is important that you do not restrict the movement of the tape. This lets the tape drive properly position it. If you incorrectly insert the tape, it may be unreadable.

Figure A-4 . **Inserting cartridge tape**

Removing a cartridge tape

Use this procedure to remove a cartridge tape from its drive.

Step-by-step

1. Push the tape back into the tape drive until the tape cannot go in any further.
2. Release the tape, so it can eject out of the drive.
3. Store the tape in its protective cover in a safe location.

Cleaning a cartridge tape drive

Use this procedure to clean a cartridge tape drive. Perform this procedure after every eight hours of continuous tape drive motion or whenever tape-related errors occur. If you are incrementally backing up to cartridge tape, perform this procedure after every second or third backup operation.

Prerequisites

Have handy the cartridge tape drive cleaning kit

Step-by-step

1. Prepare the cleaning cartridge as shown on its label.
2. Insert the cleaning cartridge into the drive.
You hear a whirring sound as the cartridge cleans the read/write heads.
3. Remove the tape after 30 seconds.
4. Mark the cleaning cartridge with this cleaning.
5. Follow the instructions in the kit for proper storage.



Replace the cleaning kit after 36 uses.

Retensioning a cartridge tape

Use this procedure to retension a cartridge tape that has been in storage for more than three days.

Step-by-step

1. Insert the tape into the drive.
2. Hold down the Alternate Boot and Boot Reset button until the maintenance panel displays 0000. Release the Boot Reset button. When the maintenance panel displays 0010, release the Alternate Boot button.
3. When the maintenance panel displays 0076, press the Alternate Boot button.

The code 0077 flashes on the panel. The code 0081 is displayed for about a minute and a half after which 0082 briefly displays. The 0081 code displays again for another minute and a half. When the tape is retensioned, 0076 redisplay.

4. To retension another tape, remove the first tape, insert the second tape and press the Alternate Boot button.
5. When you are done retensioning tapes, reboot the server:
 - a) Hold down the Boot Reset and Alternate Boot buttons at the same time.
 - b) Release the Boot Reset button.
 - c) When the maintenance panel displays 0001, release the Alternate Boot button.



The tape in use indicator does not light during this procedure.

8090 high-capacity cartridge tape procedures

This section contains these high-capacity cartridge tape procedures:

Loading a high-capacity cartridge tape

Use this procedure to insert a cartridge tape into a drive.

Unloading a high-capacity cartridge tape

Use this procedure to remove a cartridge tape from a drive.

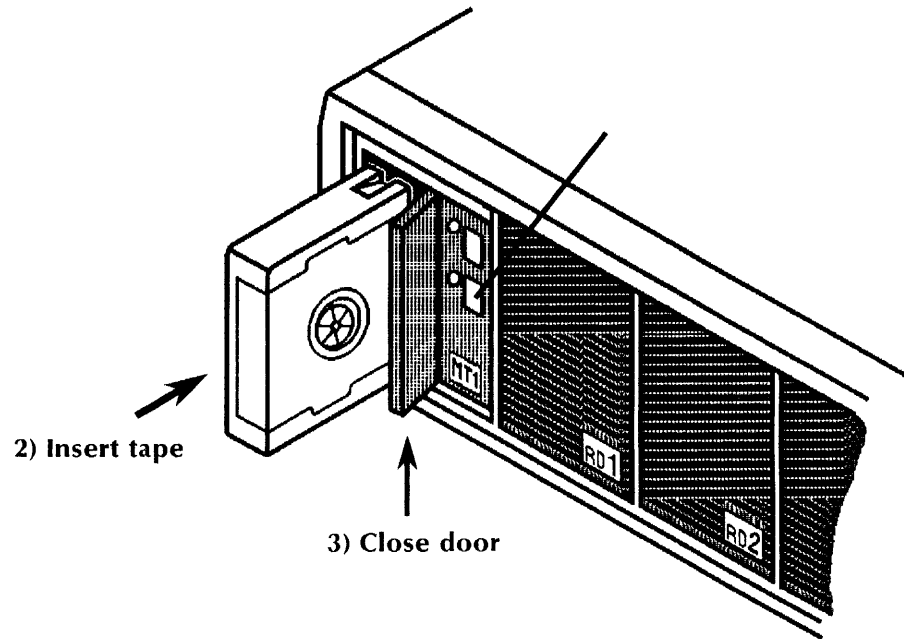
Cleaning a high-capacity cartridge tape drive

Use this procedure to clean a high-capacity cartridge tape drive.

Loading a high-capacity cartridge tape

Use this procedure to insert and load a high-capacity cartridge tape into a drive. Figure A-6 shows how to insert a tape.

Figure A-5. Loading a high capacity cartridge tape



Prerequisites

- Have handy the high capacity cartridge tape you want to insert.
- If you want to store information on the tape, turn the arrow so it is pointing opposite the word SAFE.
- If you want to read information from the tape, turn the arrow so it is pointing to the word SAFE.

Step-by-step

1. Open the door of the tape drive until the door stops.
2. Hold the tape so that the tape read area door will be inserted first.
2. Gently push the tape into the drive until it locks in place.
3. Close the tape drive door. The Unload light comes on.

Unloading a high-capacity cartridge tape

Use this procedure to remove a high-capacity cartridge tape from its drive.

Step-by-step

1. Press the Unload button on the tape drive. The Unload light flashes as the tape is rewinding.
2. When the light stops flashing, press the Unload button again to release the tape drive door.
3. Fully open the tape drive door.
4. Remove the tape and store it in a safe location.

Cleaning a high-capacity cartridge tape drive

Use this procedure to clean a high-capacity cartridge tape drive. Perform this procedure after every eight hours of tape drive motion or whenever tape-related errors occur. If you are incrementally backing up to cartridge tape, perform this procedure after every second or third backup operation.

Prerequisites

Have handy the high-capacity cartridge tape drive cleaning kit

Step-by-step

1. Prepare the cleaning tape as shown on its label.
2. Insert the cleaning tape into the drive.
3. Close the tape drive door.
5. Press the Load button to start the cleaning procedure. The Load button flashes until the cleaning process is complete.
6. Press the Unload button to rewind the tape.
7. Press the Unload button again to eject the tape.
8. Fully open the tape drive door.
9. Remove the tape, mark it with this cleaning, and store it in a safe location.
11. Store the tape cleaning kit.



Replace the cleaning kit after 100 uses.

Overview of the 8000 server system

This section describes the 8000 server system and the media it uses. Figure A-7 shows the 8090 hardware elements and features.

The basic 8000 system configuration consists of a terminal, a server with a 10 or 42 Mb internal disk drive.

Other 8000 server configurations provide for the attachment of up to four external devices.

The 8000 server and terminal

Floppy disk drive

The server's front control panel has these features:

Uses 1.2 Mb double-sided, double-density floppy disks.

Floppy disk drive door

Protects the disk from damage while in use.

Floppy disk drive door release button

Raises the disk drive door.

Floppy loaded indicator light

Lights when the disk is in use.

Control panel

Displays maintenance codes and boot switch numbers.

Boot buttons

Reboot the system and allow access to boot functions.

On/off switch

Turns the power on or off.

The back panel of the server provides access to the RS232C and RS366 ports. You use these ports to connect devices such as external disk drives, modems, autodialers, printers.

The 8000 terminal consists of a display screen and an attached keyboard. You have access to these items on the terminal:

Brightness switch

Adjusts the brightness of the display.

Fuse

Protects the terminal from changes in electrical power.



See the Services System Software chapters of the *Guide to System Administration Activities* and the *Services Maintenance Guide* for more information about booting the server.

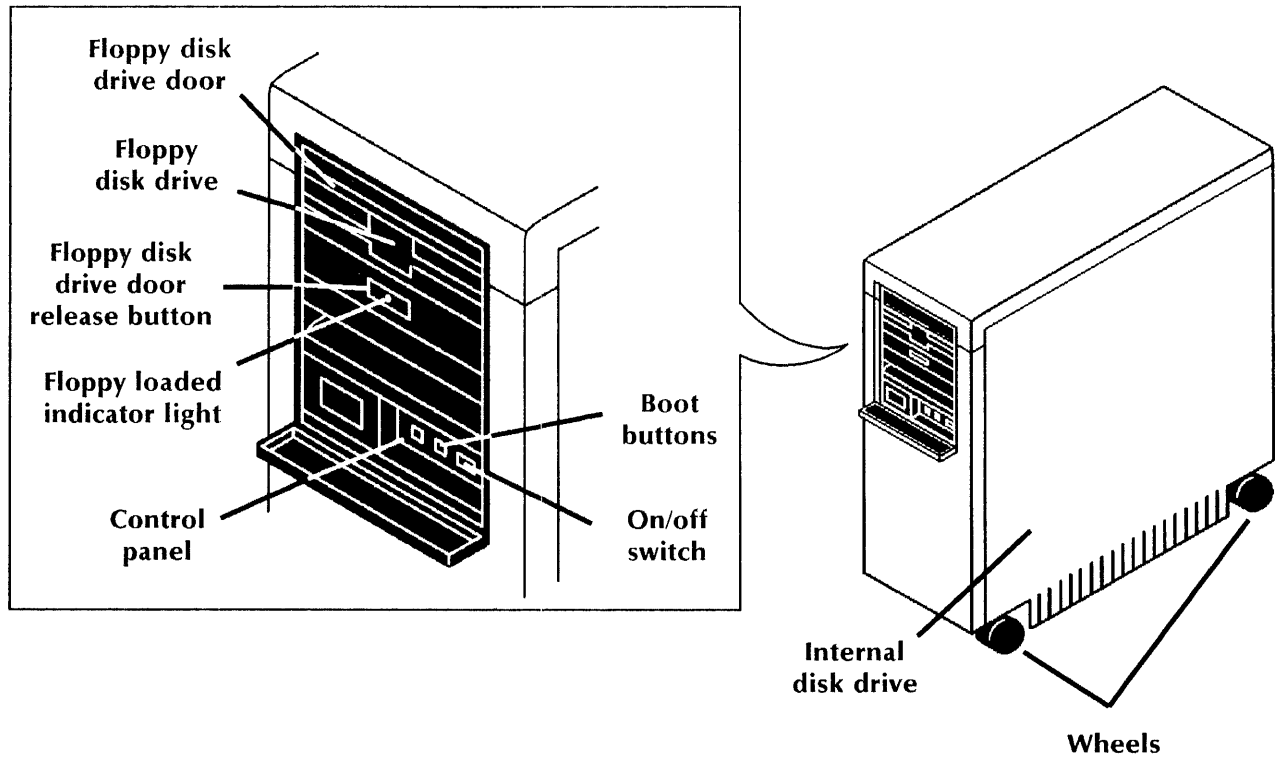
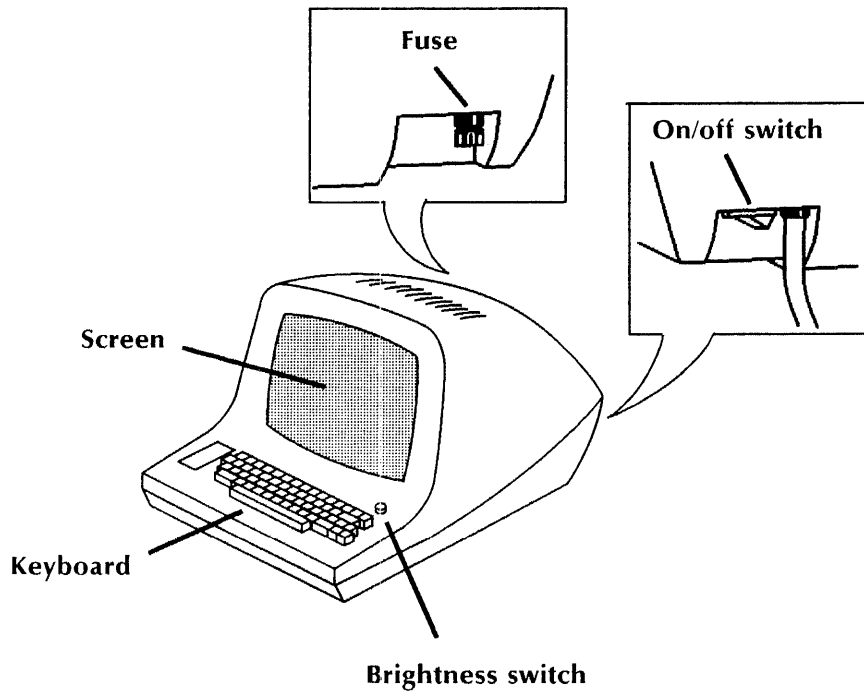


CAUTION: Do not touch this fuse unless authorized to do so by Xerox personnel.

On/off switch

Turns the power on or off.

Figure A-6. 8000 display terminal and server

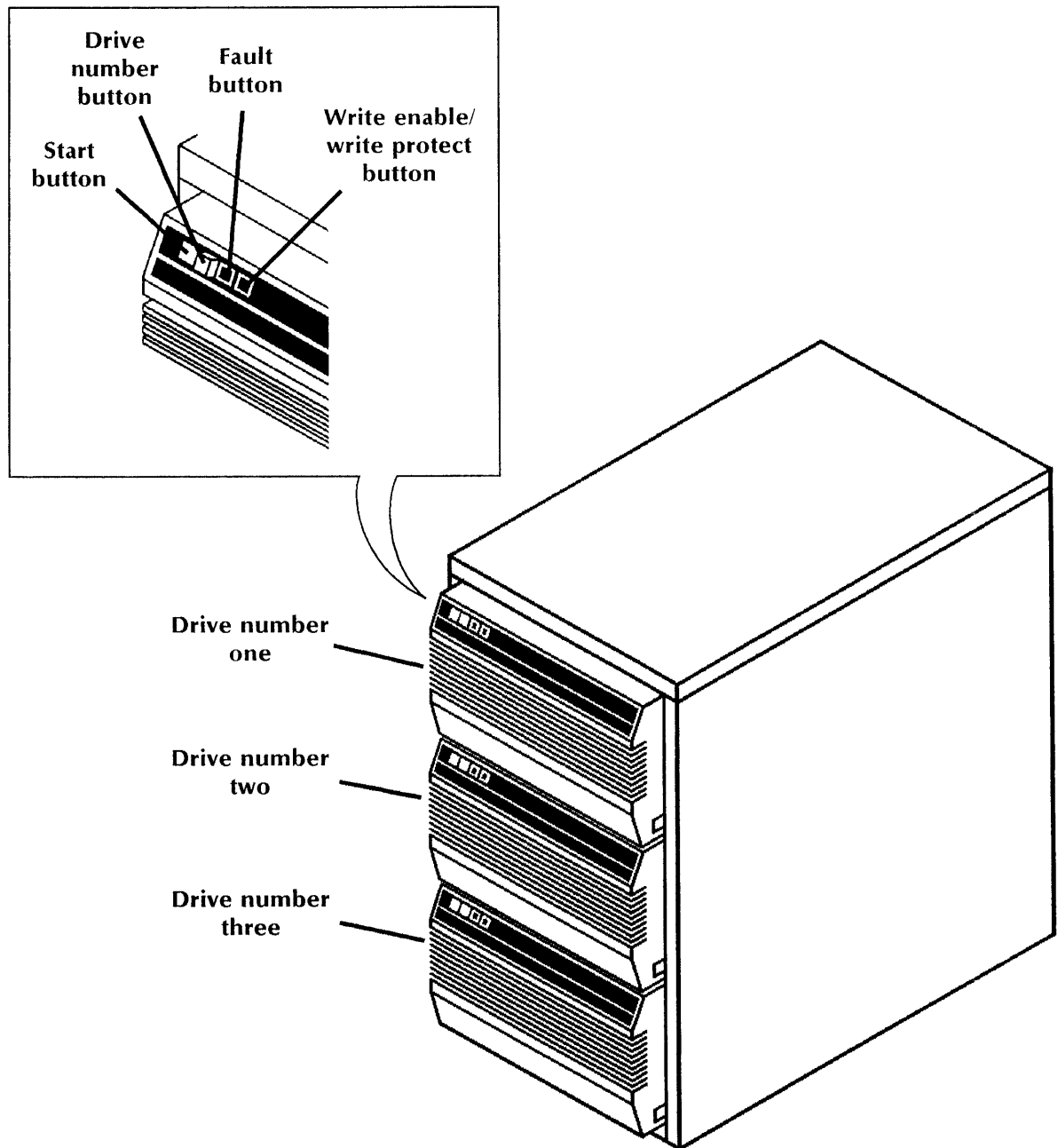


External drives

You can attach up to four external disk drives to each 8000 server. The disk drives can be any combination of fixed 300 Mb rigid disk drives, or 80 or 300Mb removable disk drives.

Figure A-8 shows the front of three 300Mb fixed rigid disk drives housed in one cabinet.

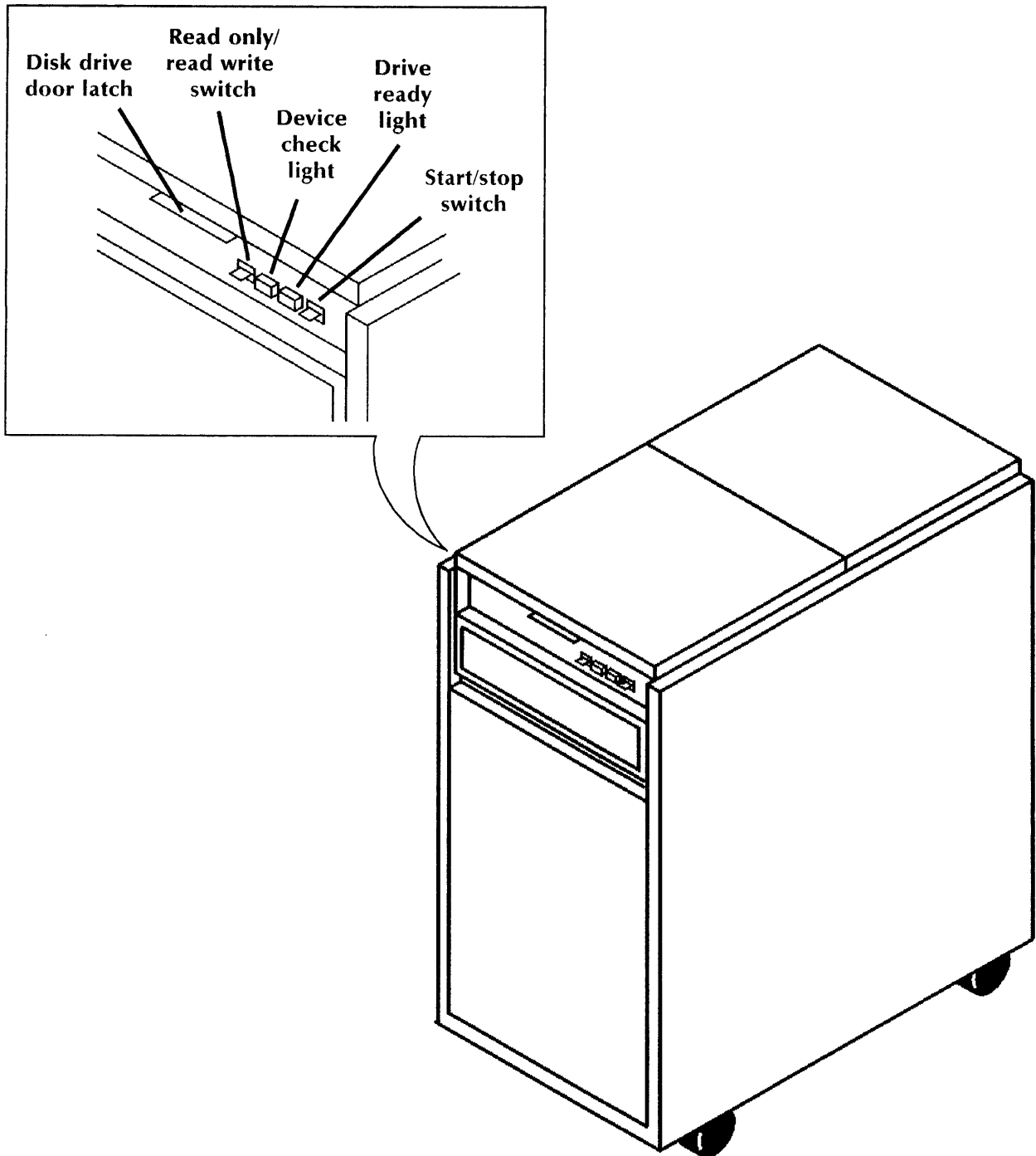
Figure A-7. 8000 fixed rigid disk drive



	The control panel of the fixed rigid disk drive has these features:
Start button	Starts and stops the disk drive.
Drive number button	Indicates the drive number.
Fault button	Lights when there is a problem with the disk.
Write protect button	Used to write enable the disk. You can write protect a 300 MB fixed rigid disk.

Figure A-9 shows the front of one removable disk drive.

Figure A-8. 8000 removable disk drive



The control panel of the removable rigid disk drive has these features:

- | | |
|------------------------------------|---|
| Disk drive door latch | Locks the drive door in place. |
| Read only/Read Write switch | With the switch in the read only position, the information on the disk can be used but not changed in any way. To change or add information, you must move the switch to the read write position. |

- Device check light** Lights when a problem exists with the disk.
- Drive ready light** Lights when the disk drive is started.
- Start/stop switch** Starts and stops the disk drive.

Table A-2 lists the environmental requirements to consider when using the 8000 server system.

Table A-3. **8000 environmental requirements**

Device	Temperature	Relative humidity	Heat dissipation value
Terminal	50° to 90° F (10° to 32° C)	15% to 85%	200 BTU and hour
Server	50° to 90° F (10° to 32° C)	15% to 85%	2048 BTU an hour
Fixed disk drive	50° to 104° F (10° to 40° C)	10% to 90%	1990 BTU an hour
Removable disk drive	60° to 10° F (16° to 38° C)	10% to 80%	3500 BTU an hour

Storage media

Depending on your hardware configuration, the 8000 server uses floppy disks, fixed rigid disks, and removable rigid disks. Figure A-10 illustrates the floppy disk and removable rigid disk. The fixed disk cannot be seen in or removed from its disk drive.

Each floppy disk has a notch you use to write protect or write enable the disk. When a disk is write-protected, you can read the files it contains but you cannot change or overwrite their contents. To write-protect a floppy disk, do not cover the notch.

To store new data on the floppy disk, or to delete or overwrite existing information, cover the notch with an adhesive tab included with the box of disks.

You use the read only switch to write protect fixed or removable rigid disks. Refer to the fixed and rigid disks procedures later in this appendix for information on how to enable or disable write protection.

To protect floppy disks or removable rigid disks that are not in use, always store them in their protective covers in a secure and clean environment.

Figure A-9. Floppy disk and removable disk pack assembly

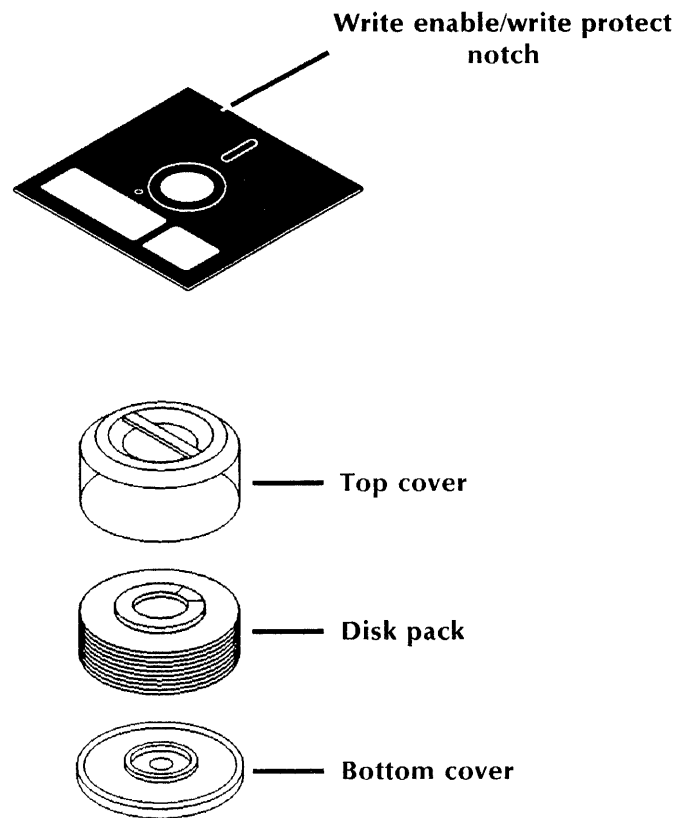


Table A-3 lists the environmental requirements for using floppy disks and removable rigid disks.

Table A-4. 8000 media environmental requirements

Device	Temperature	Humidity
Floppy disk	60° to 100° F (16° to 38° C)	10% to 80%
Disk pack	50° to 104° F (10° to 40° C)	10% to 90%

A cleaning kit is available for the floppy disk drive. To order this kit and floppy disks or removable disk packs, ask your Xerox representative for the toll-free telephone number of the Xerox Supply-net. Use the reorder numbers on the outside of the floppy disk box or removable disk pack shipping box when placing your order.

8000 floppy disk procedures

This section contains these floppy disk procedures:

Inserting a floppy disk

Use this procedure to insert a floppy disk.

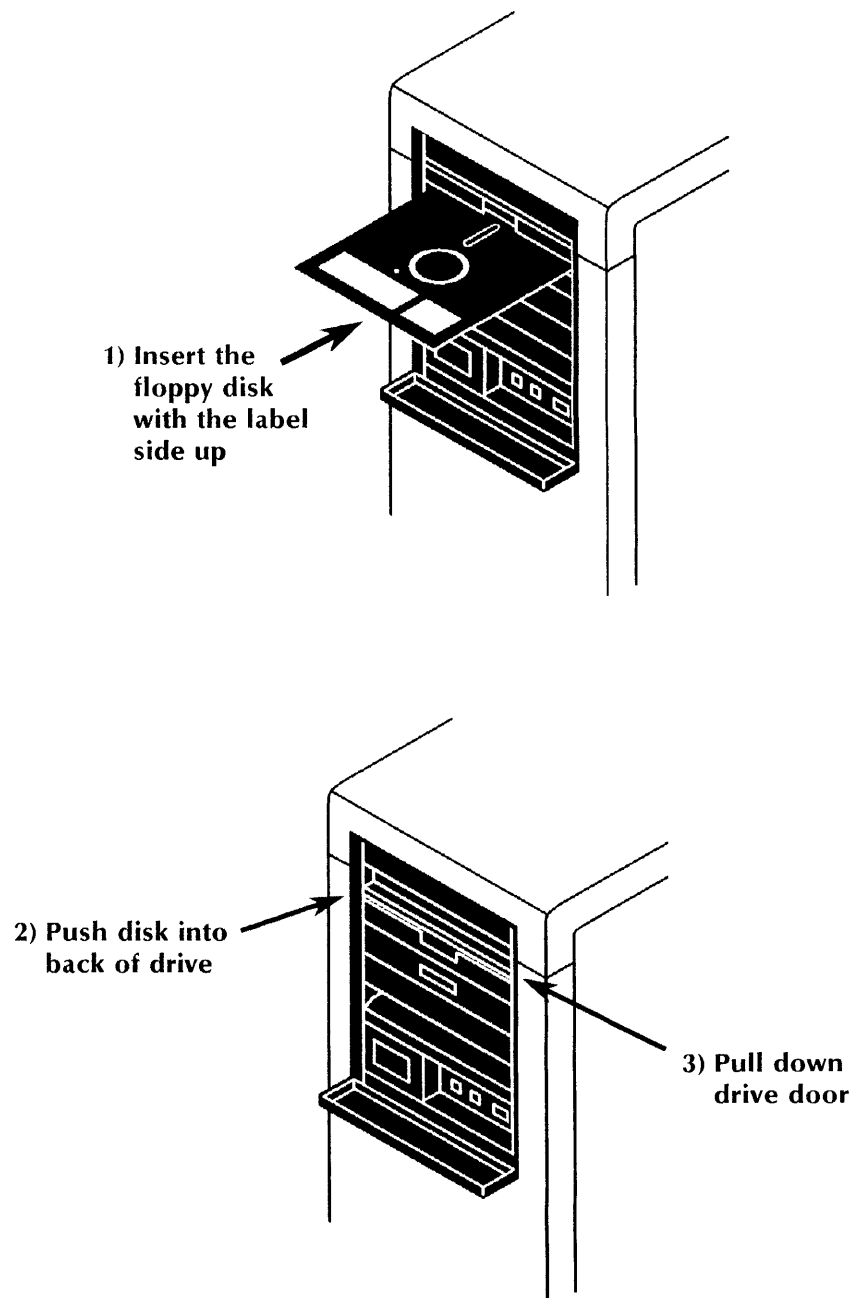
Removing a floppy disk

Use this procedure to remove a floppy disk.

Inserting a floppy disk

Use this procedure to insert a floppy disk. Figure A-11 shows how to insert a floppy disk.

Figure A-10. **Inserting a floppy disk**



Prerequisites

- To write information on the disk, place a tab over the notch.
- To write protect the disk, remove the tab.

Step-by-step

1. Insert the floppy disk with the label side up as shown.
2. Push the disk into the drive until it stays in place.
3. Pull down the floppy drive door until it locks in place.

Removing a floppy disk

Use this procedure to remove a floppy disk.

Step-by-step

1. Push the floppy drive door release button until the door opens.
2. Pull the disk out of the drive.
3. Label the disk, if necessary.
4. Insert the disk into its protective jacket and store it in a safe location.

8000 rigid disk procedures

This section contains these procedures to use fixed and removable rigid disks:

Setting write protect on a fixed rigid disk

Use this procedure to prepare a fixed rigid disk drive for read and write operations.

Setting write protect on a removable rigid disk

Use this procedure to prepare a removable rigid disk drive for read and write operations.

Loading a removable disk pack

Use this procedure to load a removable disk pack into a removable disk drive.

Unloading a removable disk pack

Use this procedure to unload a removable disk pack into a removable disk drive.

Setting write protect on a fixed rigid disk

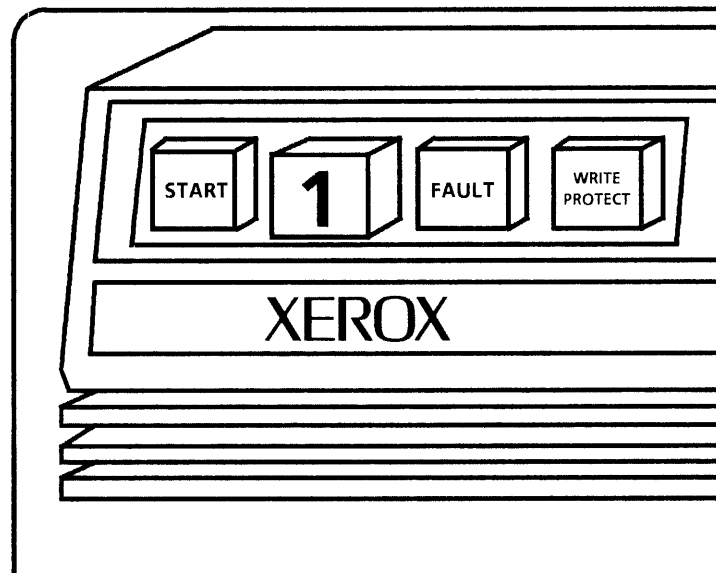
Perform this procedure whenever you want to write enable a fixed rigid disk drive.

Prerequisites

The disk drive must be started.

Step-by-step

Figure A-11. Panel control buttons



To write enable the disk drive, place the WRITE PROTECT button in the out position.



CAUTION: Do not leave the WRITE PROTECT button in the read-only position. The system crashes if you try to perform any operations other than diagnostics while this button is in the read-only position.

Setting write protect on a removable rigid disk

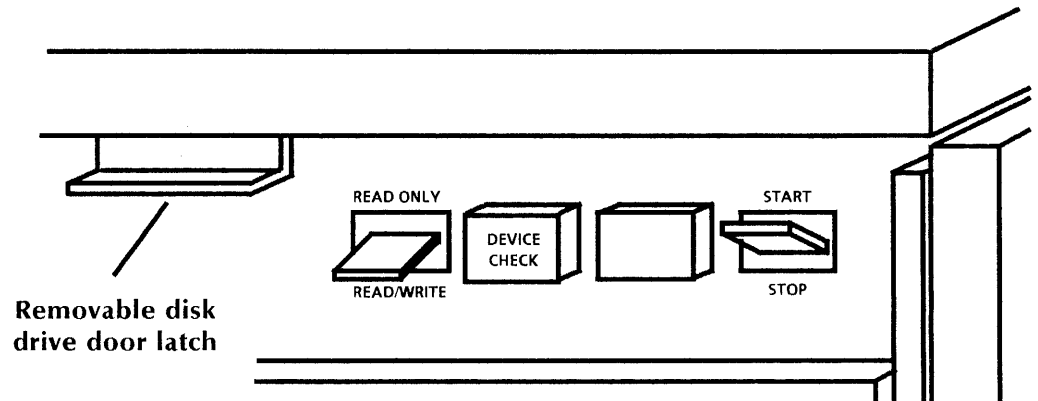
Perform this procedure whenever you want to write protect or write enable a removable rigid disk drive.

Prerequisites

The disk drive must be started.

Step-by-step

Figure A-12. Panel control buttons, removable disk drive



1. To write enable the disk drive, move the READ ONLY/READ WRITE switch down to the READ/WRITE position.



CAUTION: Do not leave this switch in the READ ONLY position. The system crashes if you try to perform any operations other than diagnostics while this switch is in the READ ONLY position.

Loading a removable disk pack

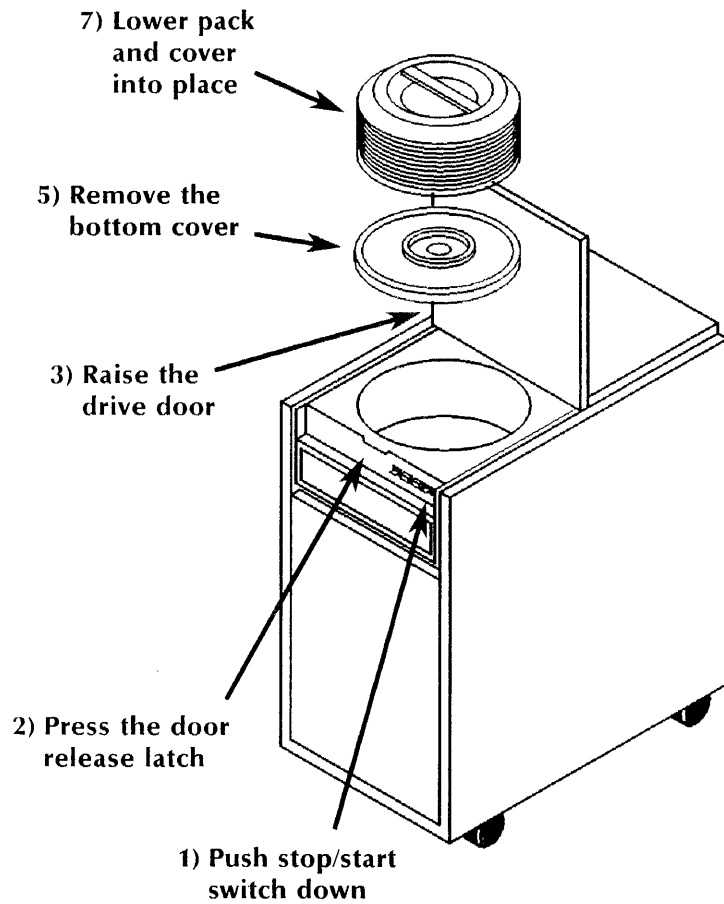
Perform this procedure whenever you need to load a removable disk pack into a removable disk drive.

Prerequisites

- Have handy the removable disk pack you want to insert.
- Ensure that the READ ONLY/ READ/WRITE switch on the drive is in the READ/WRITE position.

Step-by-step

Figure A-13. Inserting a removable disk pack

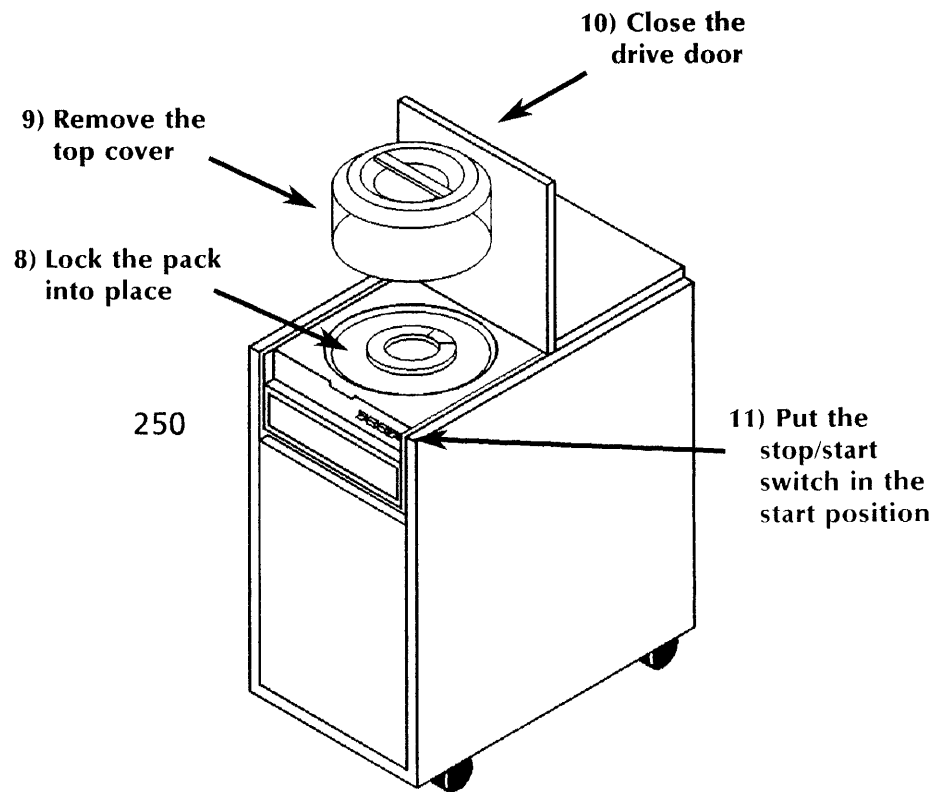


1. Position down the stop/start switch in the stop position. This stops the drive from spinning.
2. When the blinking drive ready light goes out, pull up the door release latch to unlock the disk drive door.
3. Raise the door all the way. If a pack is in the drive, perform the procedure for unloading a removable disk pack.
4. Hold the disk pack by its top handle.
5. Squeeze both sides of the bottom latch to remove the bottom cover of the disk pack.
6. Place the bottom cover nearby for use when you remove this disk pack.
7. Hold the disk pack in a level position and using the top handle, carefully lower it into the disk drive.



CAUTION: Never allow the disk pack to come into contact with the read/write heads at the back of the drive.

Figure A-14. Inserting a removable disk pack - continued



8. Use the cover handle to lock the pack in place by turning the pack and cover clockwise until they stop.
9. Turn the cover handle counterclockwise 1/8th of a rotation to unlock the cover from the disk pack. Lift the top of the cover up out of the drive.
10. Lower the disk drive door until it latches in place.
11. Position the stop/start switch in the start position. The drive ready light starts blinking when you raise the switch. When the pack reaches full spin speed, the light stays on continuously.
12. Store the pack cover near the removable disk drive.

Unloading a removable disk pack

Use this procedure to unload a removable disk pack from its drive.

Step-by-step

1. Position the stop/start switch in the stop position.
2. When the blinking drive ready light goes out, pull up the drive door release latch.
3. Open the drive door all the way.

4. Lower the top part of the disk pack cover straight down over the pack in the drive.
5. Lock the pack into the cover by turning the top handle counterclockwise until you hear a clicking sound.
6. Pull the pack and top cover straight out of the drive.



CAUTION: Avoid contact with the read/write heads at the back of the disk drive.

7. Position the cover bottom under the pack and squeeze both sides of the bottom latch cover to lock the cover in place.
9. Lower the drive door drive until it locks in place.
10. Label the pack and store it in a safe location.

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