The data management marketplace has seen tremendous growth and transformation during the last decade. Relative ease of communication through the Internet has created the demand for a much tighter integration of business processes and applications, which in turn has created demand for information integration within and across enterprises.

Enterprises have acquired many vertically integrated application packages, resulting in a multiplicity of databases and applications. For example, crucial customer information and the associated financial records are often scattered across databases and applications, making it impossible to ascertain a customer's net worth in real time. Information integration plays a crucial role in solving this problem.

Business process integration, within or across enterprises, ties many applications together, pushing forward the globalization of applications and the globalization of information needed by the applications. New applications demand a global and consistent view of information.

Web services and XML are promising technologies that allow customers to standardize interactions among application islands and to benefit from readily available rapid development environments. More and more, XML objects flow between applications within or across enterprises. Databases continue to play a key role in storing, searching, and retrieving XML objects. Advances in industry-standard XML query languages allow users to fully exploit the power of XML databases. XQuery provides a language for native XML users, and the SQL/XML hyprid language, by bridging to XQuery, extends the reach of SQL users to native XML.

Business intelligence applications are undergoing a fundamental change as users demand real-time analytics, particularly in the context of dynamic business processes. Increasingly, analytics are becoming an integral part of both real-time business processes and the XML objects that applications work with. A single query can form an up-to-the-second XML view, consisting of relational data about customer service and the history of customer transactions in the form of an OLAP cube.

This issue of the *IBM Systems Journal* shows some of the important technology assets that IBM has accumulated, which provide a strong base for IBM products, such as DB2®, content management, and WebSphere®.

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