# Knowledge is Power

IBM's DB2 Universal Database has come a long way since the term "universal database" was first introduced in September 1997. Starting in 1983 with DB2 for MVS and in 1993 with DB2 on UNIX, Windows and OS/2, DB2 Universal Database has been driven by market forces including e-business, business intelligence and content management.

DB2 Universal DatabaseVersion 7.1, scheduled to ship in June 2000 on UNIX, Windows and OS/2 platforms, meets the requirements for high availability, extensibility and federation. It offers integrated distributed query access to the DB2 Universal Databasefamily, OLE DB data sources, and Oracle databases. It provides spatial analysis with the DB2 Spatial Extender, jointly developed with ESRI, along with high-speed in-memory text search with the DB2 Net Search Extender, data warehouse creation and management with the standard Data Warehouse Center and the optional DB2 Warehouse Manager. There are new integrated OLAP capa-bilities, including aggregation built-in functions, a standard DB2 OLAP Starter Kit and new V7.1 of DB2 OLAP Server, the latter two features built on Hyperion Essbase V6.

DB2 Universal Database V7.1 also uniquely addresses the needs of application service providers (ASPs) inseveral ways. An industry-first pricing structure allows ASPs to purchase DB2 Universal Database at a minimum investment. IBM – in marked contrast to Oracle – gives these companies the flexibility to pay for their database, and develop a pricing strategy that allows them to pay as they grow. In return, IBM receives a percentage of the revenue ASPs receive based on a "per subscriber" or "per transaction" model.

Data Warehouse Center simplifies warehouse creation and management
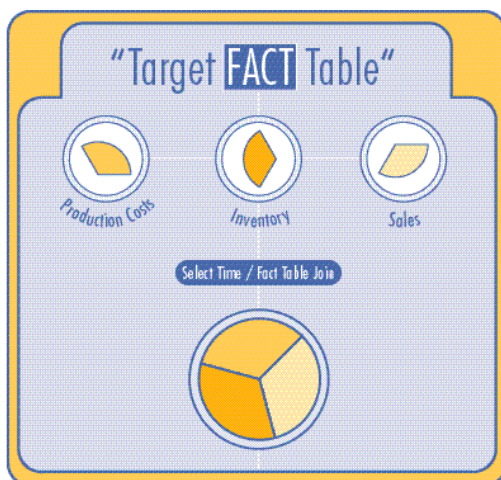
Announced

For more information on IBM data management software announcements go to ibm.com/software/data and click on News in blue on the left.

IBM DB2 OLAP Server Provides Powerful Tools to e-businesses

IBM DB2 OLAP Server Version 7.1 for UNIX, OS/2 and Windows will be available in June 2000. This new version allows developers to choose by application whether to store OLAP information in a multidimensional store or in DB2 Universal Database tables. Available now on OS/390 is DB2 OLAP Server Version 1.1, and under development through a partnership with ShowCase Corporation is DB2 OLAP Server Version 1.1 for AS/400. To make OLAP analysis accessible to a broader range of customers, IBM will also ship the DB2 OLAP Starter Kit as part of DB2 Universal Database Version 7.1 in June. It provides complete Essbase OLAP support for a small number of users, and it is a standard feature of DB2 Universal Database V7.1. Scaling to DB2 OLAP Server can be done easily as data or usage grows. DB2 OLAP Server is a result of a development partnership with Hyperion. IBM continues to extend DB2 Universal Database itself with additional OLAP capabilities. New in Version 7.1 are moving aggregate functions based on the OLAP Addendum to the SQL-99 standard. Examples are the moving average and moving sum functions that allow arithmetic to be performed across values in a number of rows. For more information about DB2 OLAP Server, go to ibm.com/software/data/db2/db2olap and www.showcasecorp.com/whatsnew/newsrels/news00/00030900.html.

IBM Redefines Data Management with Delivery of Content Manager Version 6.1

IBM Content Manager is a first-of-its-kind content management solution designed to help customers manage the full spectrum of digital information generated in today's e-business world. With Content Manager, you can create, capture, store, manage, distribute, and integrate digital content for your entire enterprise. Now a single solution can handle e-business content such as e-commerce transaction documents, mixed format customer relationship information, corporate training or marketing multimedia elements. Historically, this breadth required content-specific solutions for media asset management, integrated document management, or Web content management. Content Manager, along with the IBM Enterprise Information Portal, can also provide rapid application development, web enablement with a thin client, and full text search. In April 2000, Content Manager received the "Best of AIIM 2000" award by *Image & Document Solutions Magazine*. For more information go to ibm.com/software/data/cm.

DB2 Universal Database for NUMA-Q Servers Provides Advanced e-business Support

IBM recently announced general availability of DB2 Universal Database V6.1 Enterprise Edition and Enterprise-Extended Edition for its NUMA-Q servers and the PTX operating system. It addresses the needs of e-business and business intelligence solutions requiring very high performance for multi-terabyte databases. V7.1 for PTX is expected to be available in September 2000. For more information, go to ibm.com/software/data/db2/udb/numa-q.

Q&A

Jim Kelly, Vice President, IBM Data Management Marketing

What is the significance of the DB2 Universal Database V7.1 announcement?

With DB2 Universal Database V7.1, IBM is raising the competitive bar for e-business database standards. This latest release makes it simpler for dot.coms and large corporations conducting business-to-business (B2B) e-commerce on the Web to gain competitive insight about their customers, cut application deployment time in half and perform Internet searches more than 10 times faster than traditional database search engines. IBM is also introducing a first-of-its-kind pricing structure, allowing application service providers (ASPs) to purchase DB2 Universal Database at a minimal investment. And the product enables companies to migrate to DB2 Universal Database faster and easier.

How is IBM competing in the dot.com and ASP markets?

DB2 Universal Database V7.1 offers integrated support for XML, newly integrated in-memory high-speed text search capabilities, new business intelligence, and data warehousing capabilities. All of this makes IBM the only company capable of delivering true end-to-end data management solutions to dot.coms and ASPs. In addition, through startup financing and venture capital, IBM is reaching out to Internet startups with novel incubator programs. On the ASP front, IBM is the first company to take the revolutionary step of creating database-pricing options that are specifically geared toward the needs of the ASP market.

How do these pricing options work?

IBM will receive a percentage of the revenue ASPs receive from their customers once the solution is implemented, based on a "per subscriber" or "per transaction" pricing model. IBM also offers a program called ASP Prime, which helps ASPs make their applications ready as a service to their clients, and another program called Host Advantage, where IBM provides hardware and software infrastructure support to ASPs.

How does this offering compete with other products currently on the market?

Competitors, like Oracle and Microsoft, haven't been able to match what IBM offers – a complete end-to-end, one-stop-shop e-business infrastructure. DB2 Universal Database Version 7.1 features integrated e-business and business intelligence capabilities at a third of the total cost of ownership of Oracle. IBM also delivers the industry's simplest pricing and ordering scheme. Reflecting the e-business marketplace, pricing for DB2 Universal Database is determined on a per processor basis instead of per user. Last year we saw a 70 percent increase in customers migrating to DB2 Universal Database. To help this process, we've incorporated a migration toolkit with DB2 Universal Database Version 7.1 to help customers migrate from Oracle, Microsoft, Sybase and other databases quickly and easily. The partnership commitments being made by SAP, Siebel, Ariba, i2 and other companies is a strong testimonial to DB2 Universal Database's superiority.

Customer Scenarios

HostLogic Among First to Use New Pricing Models

HostLogic has morphed from being an application service provider (ASP) into a managed application provider (MAP) to pioneer a new role in working with companies. HostLogic was one of the first companies to work with IBM in arriving at "per subscriber," and "per transaction" pricing models. HostLogic has also partnered with IBM to develop, host and manage specialized SAP applications for clients in vertical markets, and deliver them via the Internet.

Muze Uses DB2 Universal Database to Meet Its Storage Needs

Muze, a leading provider of business-to-business merchandising solutions for brick-and-mortar and online entertainment retailers, has chosen DB2 Universal Database for AIX to store its large collection of information on books, music and video titles including reviews, clips and classifications. Customers of Muze include Amazon.com, Yahoo!, Snap, Tower, Virgin Megastore, Barnes and Noble, and Borders. Its track record for scalability and reliability, as well as its support for XML and Java, were among the reasons Muze chose DB2 Universal Database.

DB2 Universal Database Drives German Postal Customers Online

The German Postal System, Deutsche Post AG, used the power of IBM DB2 Universal Database to help expand its business to an online outsourcing service to e-tailers for retail and distribution called Smartonline. Deutsche Post worked with Germany-based IBM business partner G.U.S. AG & Co, which developed an integrated end-to-end logistics and administration e-commerce solution that also incorporated IBM SecureWay, WebSphere and AS/400. The solution enables stock inquiries, order tracking, invoicing and e-payments.

Facts Versus Fiction

- IBM Data Management Solutions software continues its streak of rapid sales growth, particularly on UNIX and Windows NT. 1Q00 marks the tenth consecutive quarter of dramatic revenue growth. Comparing revenue from 1Q00 to revenue from 1Q99, DB2 Universal Database for UNIX has grown 120% and DB2 Universal Database for Windows NT has grown 145%. This follows full year growth, comparing 1998 revenue with 1999 revenue, of 69% for DB2 Universal Database for UNIX and 131% for DB2 Universal Database for Windows NT.

- IBM now has more than 9,500 business partners and more than 16,300 applications built on DB2 Universal Database. There are more than 3,700 database applications for Windows NT alone. SAP and Siebel, the industry's premiere ERP and CRM vendors, have each embraced DB2 Universal Database as the ideal foundation for e-business applications. Also recognizing the strength DB2 Universal Database provides as a foundation for e-business, Ariba and i2 partnered with IBM to provide business-to-business e-commerce solutions.

- Between February 15 and May 11, 2000, seven sets of audited record-breaking benchmark results using DB2 Universal Database have been publicly posted. DB2 Universal Database has raised the performance bar with applications from SAP, PeopleSoft, Baan and Lawson Software, and two editions of the industry standard benchmark TPC-H for ad hoc queries. Results were achieved using IBM RS/6000 and IBM NUMA-Q servers using DB2 Universal Database V6.1 and V7.1. Specific details on DB2 Universal Database benchmarks are available at *ibm.com/software/data/db2/benchmarks* Complete details on TPC-H benchmark results are available at *www.tpc.org*.

- IBM has invested an additional $30 million in its DB2 Scholars Program to help meet a 35% increase in demand, bringing the total to $80 million. Nearly 3,400 colleges and universities worldwide are participating in this program. More than 22,000 students have been trained via IBM Learning Services in IBM's data management solutions.