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INFO WORLD

The Voice of Client/Server in the Enterprise

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Browser power: *Netscape Navigator 3.0 rates high with readers.* **92**

1996 Readers' Choice Awards

#1 Netscape Navigator 3.0
#2 Microsoft Windows NT Workstation 4.0
#3 Iomega Jaz Drive

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The incredible shrinking PC

■ Compaq, Micron working on small-form-factor solutions

By Ephraim Schwartz and Dan Briody

SMALL-FORM-FACTOR PCs will start to appear on desktops later this year as system OEMs look for ways to bring down their total cost of computing and pass the space and dollar savings on to volume buyers.

Two major manufacturers, Compaq and Micron Electronics, are currently at work on a small-form-factor PC.

Compaq's design is about the size of a notebook computer and will use PC Cards for expansion, according to a source familiar with the project.

Too small to accommodate regular add-in boards, the Compaq design will use PC Cards for the LAN and fax/modem interface, the source said. Compaq wants a Card-Bus interface to the network because it needs to offer networking options without a board.

"PC Card options [using Card-Bus] are a bridge from the PC Card to the PCI bus," the source said. "As long as you can talk to the PCI bus, you can do anything." CardBus supports 132MBps performance,

COMPARISON: AUTHENTIC INNER SECURITY

Companies must protect sensitive data from inside jobs as well as from outside invasions. **Passwords are popular, but most people use them imperfectly.** And that can leave your LAN vulnerable to cases of breaking and entering. **Adding easy-to-administer authentication tools, such as tokens or biometrics,** can put increased in-house security at your fingertips, especially if you install a fingerprint reader. **We put our eye on three personal authentication solutions.** *See page 108.*

PC boundaries blur

■ NetPC, PC technologies converge

By Dan Briody

PC EXPO AS NETPCS make their debut this week at PC Expo in New York, the difference between the systems and their PC counterparts is becoming difficult to discern.

Hewlett-Packard's Net Vectra PC, for example, which will be shown at PC Expo, is priced starting at $1,000 and features a 166-MHz or 200-MHz Pentium

133-MHz Pentium chip, 16MB of RAM, a 1GB hard drive, and HP's TopTools management software, costs less than $1,000.

Some industry experts said the NetPC is simply a marketing push.

"Between the two products, you don't have the price differential, manageability will be ubiquitous [across all PCs], and people aren't happy with a sealed

HOT SEAT

Netscape CEO Jim Barksdale maps out his strategy for conquering corporate networks

Eyes on the enterprise

NETSCAPE CEO Jim Barksdale met with *InfoWorld*'s news team to discuss his plans to consolidate the company's position in the enterprise market. (The Netscape Developer

Legacy integration

Document tool will link Notes to IBM big iron

By Amy Doan

IBM IS USING its massive research and development effort in Web technology to build a bridge to legacy systems and integrate Lotus Notes with the rest of its line.

The Electronic Document Management (EDM) suite, set to hit beta testing next quarter, will give companies a single, browser-based point of access to documents across IBM DB2, Lotus Notes databases, and the entire IBM electronic-business platform.

The EDM line of software and services is intended to create a cohesive system for extranet activities, such as billing and customer service. It bundles new components for workflow, imaging, and retrieval, as well as the Lotus Domino.Doc system.

The EDM suite will help IBM

Microsoft tackles OLAP

■ Company readies market entry

By Paul Krill

MICROSOFT, which has watched other vendors establish strong footholds in the online analytical processing (OLAP) market, is getting ready to enter the market with its own offering.

The company this summer will begin beta testing of technology acquired with the purchase of Panorama Software Systems, in Tel Aviv, Israel, last fall, according to Dan Basica, Microsoft's product manager for SQL Server, in Redmond, Wash.

Microsoft's goal is to release an easy-to-use tool integrated with SQL Server but able to access other relational and possibly nonrelational databases, Basica said.

The Panorama technology features a client programming interface and a server component that stores meta data, or information about the data being stored. The technology can store multidimensional cubes of data in its own data store or in a SQL Server database, Basica said.

The OLAP product accesses relational databases via ODBC APIs, and may link with legacy databases via the company's OLE database interface.

Microsoft comes late to data warehousing and decision support, said Dwight Davis, editorial director of *Windows Watcher* newsletter,

in Redmond.

"Microsoft a year ago was a no-show in the data-warehousing market," Davis said.

Panorama will add multidimensional database functions to Microsoft's arsenal, but could leave the company competing with members of its own Alliance for Data Warehousing, Davis said.

Microsoft, in addition to moving into the OLAP space, plans to boost data-warehousing support in two upcoming editions of SQL Server.

The Enterprise Edition of SQL Server 6.5, due by September, will access as many as 3GB of physical memory, exceeding the 2GB limitation in the existing 6.5 release. The Enterprise Edition will also support as many as eight processors, a doubling of the current four-processor limit.

The Sphinx release of SQL Server, due to hit shelves later this year or next, will offer data transformation services, for easier movement of data into SQL Server. Additionally, queries will be spread in parallel across multiple processors. Sphinx will go to beta testing this month.

A parallel function that spreads a query across multiple processors in different machines is expected between 1998 and 1999, Basica said.

Microsoft Corp., in Redmond, is at (206) 882-8080 or http://www.microsoft.com.

Privacy issue unites rivals

By Bob Trott

RIVALS Microsoft and Netscape are teaming up on the Open Profiling Standard (OPS), a format that would allow users to create a standard profile for receiving personalized information via push technology and other Internet-delivery models.

Microsoft signed on to the OPS format plan submitted by Netscape, FireFly, and VeriSign to the World Wide Web Consortium (W3C). The format uses Internet-security mechanisms to let users control which information in their profiles is shared with services.

By more tightly controlling the personal information that businesses collect from Internet users, the companies hope to keep the issue within the industry instead of

"Through the standards body, clearly, we can govern ourselves," said David Fester, product manager for Microsoft Internet Explorer.

Soon, implementations of OPS will be available for Internet Explorer and Netscape's Communicator browser software, Fester said.

Separately, the W3C announced plans to develop the Platform for Privacy Preferences, a system that allows Web sites to inform users about its data collections methods, and allows users to tell the site about their privacy preferences before they enter the site.

FireFly Network Inc., in Cambridge, Mass., is at http://www.firefly.net. Netscape Communications Corp., in Mountain View, Calif., is at http://home.netscape.com. Microsoft Corp., in Redmond,

Industry rallies around SDRAM standard

By Andy Santoni

RESPONDING TO concerns about incompatibilities between synchronous DRAM (SDRAM) modules and the systems that use them, module suppliers are lining up behind an industry standard that aims to overcome problems that could cause major headaches for upgraders.

Problems crop up when IS managers look to upgrade SDRAM-based systems with more memory to accommodate Windows NT, for example. (See "Memory lapses," May 26, page 1.) Due to a lack of standards, users may have trouble finding compatible SDRAM memory modules.

A standard published by the Electronic Industries Association (EIA), in Arlington, Va., aims to eliminate these problems, said Brett Etter, product marketing manager for DRAM at Hitachi Semiconductor. SDRAM dual in-line memory module (DIMM) suppliers such as Hitachi, Mitsubishi, NEC, and Samsung, along with major third-party DIMM suppliers including Kings-

ton Technology, are expected to adhere to the standard, Etter said.

Published by the EIA's Joint Electron Device Engineering Council (JEDEC), the standard eliminates one potential problem by specify-

SDRAM MODULES *such as this Hitachi part ease upgrade problems by meeting industry standards.*

ing that DIMMs have serial presence detect (SPD) circuitry, Etter explained. This solves an incompatibility problem that can occur if a user plugs a module without SPD into a system that requires it.

SDRAM DIMM suppliers can be expected to include SPD because the cost of adding SPD is just about $1, said Cecil Conkle, assistant vice president of marketing at Mitsubishi Electronics America. OEMs

that design some systems without SPD nonetheless will use DIMMs with SPD to save money by minimizing the number of different parts they have to buy and stock.

JEDEC is also working on standards for the electrical performance of SDRAM DIMMs, Conkle said. In the past, industry standards did not address performance issues, he noted.

That has changed with SDRAM because the performance requirements are so much tighter, said George Iwanyc, an industry analyst at Dataquest, in San Jose, Calif. With a window of just 10 nanoseconds for data transfers, even the layout of traces on the DIMM or the PC motherboard can cause reflections and noise that upset memory operations, he noted.

Hitachi America Ltd., in Brisbane, Calif., is at http://www.hitachi.com/. Mitsubishi Electronics America Inc., in Sunnyvale, Calif., is at http://www.mitsubishi.com/.

Microsoft investment could alter cable's future

By Bob Trott and John Wilen

MICROSOFT'S biggest investment ever — a $1 billion stake in Comcast, the nation's fourth-largest cable television operator — shows that the software giant is betting that Internet and TV technologies will soon converge.

The cash deal, an 11.5 percent stake in Comcast for Microsoft, is designed to enhance the integration of broadband pipes and content to expand services offered to consumers.

► Microsoft bought almost 46 million shares of Comcast stock.

"Our vision is one where not only is the PC experience better with a high-speed connection, but of a new generation of TV experience," Microsoft Chairman Bill Gates said last week, pointing to Microsoft's pending $425 million deal to buy WebTV Networks.

Comcast provides cellular telephone service on the East Coast; owns the QVC Network, the cable TV home-shopping network; and is a major investor in @Home, which provides high-speed Internet access over cable systems. @Home plans to offer The Microsoft Network to its subscribers for

that Microsoft is "not in the cable business ourselves," the company is doing all it can to promote the union of computer technology and digital TV, with cable supplanting telephone lines as the pipeline of choice.

The next version of Windows 95, code-named Memphis, is being tooled to add interactive Web pages and data to television broadcasts.

For Comcast, the deal likely will hasten the rollout of its Internet services specifically tailored to businesses. Comcast's commercial strategy includes a telecommuting service, currently in beta testing in New Jersey, and a service to link businesses directly to the Internet.

"We are very close to coming out with a product for Internet access

for small to medium-size businesses," said Mark Coblitz, Comcast's vice president for strategic planning.

In Comcast's existing @Home offerings, customers see data speeds "north of 1Mbps to 1.5Mbps," Coblitz said. "It is possible to get numbers like 4Mbps."

Cable television companies eyeing the data communications market must revamp their back-office systems from the one-way broadcast model of cable TV into the two-way communications model required by businesses and Internet users.

Microsoft Corp., in Redmond, Wash., can be reached at http://www.microsoft.com/.

Comcast Corp., in Philadelphia, can be reached at http://www.comcast.com/.

For the record

The June 9 article "Novell's Marengi out as company faces tough times" (page 19) contained an error. Novell President and Chief Operating Officer Joseph Marengi tendered his resignation and will leave the company at the end of this month.

In the May 26 Help Desk (page 44), NCSA should have been iden-