NetworkWorld

SUN RISES TO 'NET CHALLENGE
Scott McNealy outlines Sun's new Internet and intranet wares. Coverage of this and Java news, page 122.

Net managers play point role in intranet migration

By John Cox

Even as you read this, somewhere in your company, someone, with no help from MIS, has in all likelihood just done something pretty astounding: He's made the cafeteria menu available to anyone with a Web browser.

Or maybe it's the corporate policy for buying PC equipment. Or notes from yesterday's managers' meeting. Whatever it may be, it's corporate information that has never before been so easily accessible, all because of something called an intranet — an internal corporate network that uses Internet and World-Wide Web technologies.

It is this ability to easily publish all kinds of information and access it that is fueling the explosion of intranets in many companies. Most companies are still only experimenting that

See Intranet, page 124

Turn to Intranets & the 'Net for the latest tips, tools and techniques; page 59. The WANs & Internetworking section brings sense to telecommunications reform with a new feature: Carrier Services; page 37.

Intranets & the 'Net

In-Site

Motorola's new life without routers

By Jim Duffy
Austin, Texas

Score one for the "death of the router" pundits.

Citing dissatisfaction with routers and its primary vendor, Motorola, Inc.'s semiconductor group is embarking on a massive and audacious project to replace up to 80 Cisco Systems, Inc. backbone routers with Cabletron Systems, Inc. switches. Motorola will replace 75% of the routers over the next three to five years at a cost of about $10 million, and it may eventually discard all but remote-site routers.

Inadequate network performance and

See Motorola, page 125

Motorola's *Rick Armstrong* says his company had "bad luck with Cisco routers."

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Access Network World Fusion using the number in yellow. See page 5 for details.

IBM enlists ATM aid

Cascade to fill out high end of IBM WAN switching line.

By Michael Cooney and Tim Greene
Raleigh, N.C.

In what amounts to a reversal of IBM's ATM doctrine, the company last week turned to an outsider — Cascade Communications Corp. — to help fill out its switching line.

Cascade, a company that has developed a reputation for

See IBM, page 124

Get more info on Network World Fusion, including:
- Cascade B-STDX switch overview
- An analysis of IBM's ATM strategy

Select News+ then Front Page.

http://www.nwfusion.com

Digital adopts IP over ATM

By Jim Duffy
Las Vegas

Digital Equipment Corp. this week will announce a broad technology-sharing agreement with start-up Ipsilon Networks, Inc. intended to help Digital leap ahead of the switched internetworking pack.

Under the arrangement, which will be disclosed at NetWorld+Interop 96, Digital will license technology from Ipsilon that enables users to build networks combining the intelligence of IP routing with the power of Asynchronous Transfer Mode switch-

See Digital, page 124

More NetWorld+Interop coverage

Show highlights, pages 6-14.

- Microsoft to explain TCP/IP snafu. Page 6.
- MCI adds twist to SMDS. Page 6.
- Pentium Pro servers debut. Page 8.
- HP whips up Tornado management system. Page 10.

Caution: IP hijackers are on the loose

By Ellen Messmer

Imagine waking up one day to find your Internet domain name has been taken away, leaving you and your business stranded on the information superhighway.

That is what recently happened to computer security expert Tsutomu Shimomura when a prankster cast him temporarily adrift in cyberspace. And, experts warn, it could happen to you.

It's called IP hijacking, and it can happen through sabotage or, more often, as the result of bungling by the name registration service managed by the Internet Network Information Center (InterNIC).

Other culprits are service providers that all too easily get the InterNIC to make unauthorized changes.

Most ominous, though, is sabotage by 'Net hackers who counterfeit electronic mail messages to the InterNIC — messages that make it seem that you authorized the name change yourself.

See IP hijackers, page 123

WHAT DO YOU DO IF YOU'RE HIJACKED?
If your organization's domain name gets taken away:
- Immediately contact your service provider to see if it or another ISP has mistakenly requested a change.
- Inform the InterNIC of the problem by both E-mail and phone.
- Launch an investigation. A disgruntled employee or cybercrooks skilled in counterfeiting routed mail could be the culprit.

Cabletron invades Bay turf

Rival readying switch module for Bay's System 5000 hub.

By Jodi Cohen
Las Vegas

Cabletron Systems, Inc. this week will launch an attack on Bay Networks, Inc. with the introduction of a high-end switching module for Bay's LattisSystem 5000 hub.

Cabletron confirmed it has tweaked its Ethernet and FDDI SmartSwitch module, designed for its Multi Media Access Center

See Cabletron, page 125

CABLETRON LAUNCHES BAY ATTACK
Cabletron hopes to infiltrate Bay's large installed base by offering its SmartSwitch module for use in Bay's System 5000 hub. 1995 worldwide modular hub port shipments:

Digital: 7%
Bay: 25%
Cabletron: 35%
Other (including 3Com/Chipcom, ODS): 33%
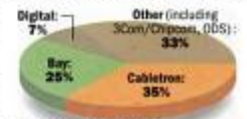
Total ports shipped: 11,096

SOURCE: DELL'ORO GROUP, MENLO PARK, CALIF.

NetWorld+Interop briefs, April 1, 1996

Here comes Exchange

■ Microsoft Corp. Chairman and Chief Executive Officer Bill Gates tomorrow will unveil the long-awaited and delayed Exchange Server, its enterprise messaging/integrated groupware product that shipped to distribution channels on March 23. Client access licenses cost $54, based on 50 seats, and server licenses are priced at $529, based on a three-server purchase. A Microsoft Mail/Exchange connector costs $377, an Internet mail connector is $377 and an X.400 connector is $757. The Exchange Server Enterprise Edition, which includes the whole package, sells for $1,970.

Separately, Lotus Development Corp. will announce the maintenance release for its Notes groupware. The new 4.1 version will feature additional platform support, including Windows NT on Digital Equipment Corp.'s Alpha.

Microsoft's Chairman and CEO Gates

IBM adding switch strength

■ IBM this week will introduce a 16-port token-ring switch, doubling the capacity of its existing device. The 8272 Nways Token-Ring LAN Switch Model 216 offers 16 fixed token-ring ports that support twisted-pair media and provides up to 384M bit/sec aggregate bandwidth. IBM will also add a 100Base-Fx Universal Feature Card to its 8271 Ethernet switch.

Security force

■ PSINet, Inc. intends to announce a comprehensive Internet security consulting, management, products and service package this week. Dubbed Secure Enterprise, the $1,600-a-month offering pulls together multiple security components, beginning with extensive corporate policy planning.

Bay soups up System 5000

■ Bay Networks, Inc. this week will show off the 5380 and 5580 routing subsystems for its System 5000 switching hub. The 5380 and 5580 are Ethernet and token-ring modules, respectively, that each support four backplane interfaces and two expansion slots on the front panel for synchronous and ISDN WAN ports, or additional LAN interfaces. Each module routes 50,000 packet/sec, and as many as four modules can fit into the 5000 chassis. The 5380 and 5580 are priced from $13,000 to $23,000 and will be available in the second quarter.

RAD takes inverse route

■ RAD Data Communications, Inc. this week will announce an inverse multiplexer, dubbed the IMX-4T1, that allows customers to bond as many as four T-1 lines. The device gives customers a way to run broadband point-to-point links larger than a T-1 without having to buy a full T-3 connection. The device can handle Asynchronous Transfer Mode traffic and, in that application, would replace a data service unit/channel service unit. IMX-4T1 starts at $6,500 and is available immediately.

Seagate has some NerveCenter

■ Seagate Software's Enterprise LAN Management Group this week will unveil a distributed management architecture for its Seagate NerveCenter product. The product will be extended to enable management over the Internet. Seagate will also announce its 32-bit Windows point product strategy based on the Seagate Frye Utilities for Networks product line.

It's a toss-up

■ If you're looking to pick up a couple of bucks in Las Vegas this week, drop by Enigma Logic, Inc.'s (ELI) booth No. 632 in the North Hall of the Las Vegas Convention Center. Rather than giving away Frisbees or other cliched vendor graft, ELI staffers will reportedly throw wads of several hundred dollars in cash into the crowd several times a day. Not all the logistical difficulties have been worked out, but if the company can get the bucks blowing smoothly from a giant fan, attendees will have an enriching experience.

MCI debuts 'toll-free' SMDS

By David Rohde
Las Vegas

MCI Communications Corp. this week will introduce a way for big corporations to establish secure, fast-packet interenterprise nets . . . with a toll-free flair.

At the NetWorld+Interop 96 show here, MCI will announce Toll-Free Addressing for its HyperStream Switched Multimegabit Data Service. The idea is to take the concept of toll-free calling — really reverse billing — and apply it to the one broadband service that most closely approximates data dial tone.

As a connectionless cell relay service, SMDS differs from current implementations of Asynchronous Transfer Mode and frame relay in that it does not require preestablished permanent virtual circuits (PVC). SMDS has struggled to find a mass market, but analysts consider it optimized for interenterprise networking.

In fact, MCI is the only interexchange carrier (IXC) that offers SMDS. "MCI wants to continue to drive the market for SMDS for certain vertical [industries] when the companies don't want to use something insecure like the Internet," said Christine Heckart, senior broadband analyst for TeleChoice, Inc., a consulting firm in Verona, N.J.

HyperStream SMDS is usually billed on a simplex basis, meaning that two parties could be simultaneously communicating with each other but each pays for the usage it originates, explained Ray Kang, MCI's director of broadband marketing.

Under Toll-Free Addressing, the main company is charged for usage in both directions, while the partner company pays no usage charges, Kang said. The partner company still must obtain a local access line to the HyperStream network and a port on MCI's SMDS switch, he added, although the main firm could choose to reimburse this cost.

Bell Atlantic also bucks up SMDS.

Other IXCs and their customers could try to design frame relay nets to mimic an interenterprise net that is, in effect, toll-free to a big company's distributors, suppliers or customers, Heckart said. "But somebody has to pay for the PVC," she added. "You could agree to have one person pay for it one way and one the other way, but what if one person is using it 90% of the time?"

In addition, SMDS scales from 56K to 34M bit/sec, giving it a wider bandwidth range at the low end than ATM and a wider range at the high end than most frame relay offerings.

MCI is also the only IXC that offers usage-based pricing for all of its fast-packet services. This, and the ability to track SMDS data on a call-by-call basis, will also allow it to introduce here another SMDS option called Value-Added Addressing.

Under this plan, the partner companies are charged on a pay-per-call basis, meaning they pay for the usage in both directions, including usage originated by the main firm. ■

Microsoft tool kits mess up development of TCP/IP apps

By Kevin Fogarty and Peggy Watt
San Jose, Calif.

Microsoft Corp., perhaps unwittingly, has been shipping developer tool kits that build applications that break when they run with non-Microsoft TCP/IP stacks, the company admitted last week.

The new problem has a familiar ring to Microsoft observers. Over the years, Microsoft has weathered a series of accusations that it has been underhanded in the way it competes, including charges that it uses undocumented calls in Windows to give its applications an edge. It also had earlier problems with the TCP/IP stack in Windows 95 that made it difficult to install browsers that compete with Explorer.

Now an independent testing firm has confirmed that Microsoft has included proprietary calls in its Win32 developers' kit that are so badly documented that even Microsoft developers did not know they were there. As a result, Microsoft itself built applications that break when run with TCP/IP stacks from competitors.

The calls, which added new functions to WinSock's use of the TCP/IP stack in Windows 95 and Win-

Stardust's Karen Milne says the proprietary calls were not the problem.

CORRECTIONS

Due to a printer's error, photos of IBM's John M. Thompson and Microsoft's Paul Maritz were swapped and ran with the wrong stories on March 25. The IBM story should have had a photo of John W. Thompson, general manager of IBM's Personal Software Division.

Clarification:

A front-page article on March 25 stated that Compaq Computer Corp. will add the ability to use Insight Manager remotely. The software already can be used to manage Compaq servers, but the company will add remote management of its switches and hubs, and other vendors' net devices.

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