MARKET APPEAL. Lotus hopes to make Notes 'a single point of reference.'

Lotus Tries to Bring Imaging Into the LAN Mainstream

BY WILLIAM BRANDEL

Imaging on LANs is going prime time. This summer, Lotus Development Corp. is incorporating imaging services into its Notes groupware application. For about $300 per seat, users on a Notes system can scan documents and integrate them into existing personal productivity applications, such as word processing, spreadsheets, graphics, and E-mail.

"Notes is the first mass-market application to try to make the user aware of what imaging can do," said Bruce Silver, an analyst at BIS Strategic Decision (BSD).

The new services reportedly let users scan in documents, receive them via fax, export them via clipboard, and store them as multipage documents. Additionally, users will be able to attach other Notes documents, render them by image processing, and then output them on devices such as printers or fax machines.

THE NEXT FRONTIER. The emergence of an image-enabled Notes is the result of behind-the-scenes development work by Eastman Kodak in conjunction with the Lotus Notes developers.

"Our objective was to expand the capabilities of Notes as the single point of reference for all information, including information stored on paper," said Michael Loria, marketing manager for Eastman Kodak's Desktop Document Imaging group in Billerica, Mass.

The same Kodak engineers have been working simultaneously with Novell to bring the same core imaging functions to

New Core 5-Drive Cached Array Fits Into Server Bay

BY PATRICK DRYDEN

LAN managers who are looking for fault-tolerant, user-serviceable storage they can add into remote servers should find this week at PC Expo a five-drive array module that fits inside a single drive bay.

Core International plans to introduce MicroArray, a SCSI subsystem that fits the 5.25-inch form factor of a single drive yet offers five hot-swap drives in a Redundant Array of Inexpensive Disks (RAID) configuration.

Each MicroArray offers 520MB of available storage, using a RAID 5 scheme to spread parity across the five IDE drives for recovery after disk failure. Non-technical users at a field office or remote department can remove and replace a failed

drive. MicroArray then automatically begins background rebuild, all without server shutdown.

Scheduled to ship in July, MicroArray starts at $6,499. Its

NetLAN Offers Harried Managers a Helping Hand

BY LAURA DIDIO

NEW YORK—The scenario is a familiar one. An office manager, accountant, secretary, clerk, lawyer, district sales manager—you name it—happens to be the person in his or her organization who shows some affinity for computers. The next thing you know, this individual is thrust into the role of network administrator with little or no preparation and training.

More often than not, these "Not Ready for Prime Time Technical Wizards" are expected to safeguard and troubleshoot LANs and WANs while still discharging their other duties, with no raise in pay, minimal resources to call upon, and no formal training forthcoming.

The challenge: How do you hold onto your job(s), keep the network up and running, and still maintaining your sanity?

There's no one right answer.

IN SEARCH OF. The quest for information has spawned its own Holy Grail subculture among network administrators as they search for the *savoir-faire* to keep their networks trouble-free and secure. And, of course, they must somehow find time to try and keep abreast of rapid advances in technology.

Some network administrators join various vendor-specific user groups, others surreptitiously call 900 telephone support lines, and there are even those who content

Kodak, Novell Plan 'Image Enabled Novell'
Upcoming 3-prong product suite will reduce implementation costs

BY LAURA DIDIO

Kodak and Novell's forthcoming "Image Enabled NetWare" product suite consists of three separate components that won't all ship at the same time.

The foundation of Image Enabled NetWare—and the part users will glimpse first—is the so-called High Capacity Storage System (HCSS). It will be part of NetWare 4.0, scheduled for release by the end of the year.

Two other components— Image Management Service and Document Management Service (which comes with the Mass Storage Service)—are a series of

optional NLMs designed to extend the NetWare architecture's ability to support image and document-aware applications.

Pricing and availability have not yet been determined for either the Document Management Service or Image Management Service NLMs. A Novell spokesman added, these are internal names subject to change upon release of the products.

The forthcoming HCSS and the two NLMs are supposed to reduce both the heretofore prohibitive costs of implementing imaging applications on networks and the amount of time and effort that it takes for independent software vendors to build imaging applications and get them to market. Image Enabled NetWare will also increase user productivity and enhance data integrity and security across the network, company officials said.

In a recent interview with

technology update

Radio Link Between Ethernet Networks Jumps to 15 miles

BY PATRICK DRYDEN

Campus and crosstown Ethernet LANs requiring full-speed connection can join up to 15 miles apart through an enhanced radio bridge shipping this week from Microwave Bypass Systems.

The pioneer in full-bandwidth microwave LAN connectivity also now adds SNMP support to its radio interface for monitoring, testing, and troubleshooting the point-to-point wireless links.

Originally a single interLAN connection required both Ethernet and microwave repeaters to extend beyond a 4.3 mile limitation, set by the round-trip Ethernet propagation delay. A duplex-like configuration developed with Cisco Systems Inc. adjusted timing between the transceiver and router at each end to extend distances to 8.6 miles, said David Theodore, founder and president of Microwave Bypass Systems.

Now a pure duplex bridge called LAN-LINK 1000-D extends transmission distances to 15 miles. It splits the transmit and receive paths through two Intel 32-bit Ethernet controllers, coordinated by a Motorola 68020 CPU. Three AUI ports connect to the LAN and to the transmit and receive ports on the companion Etherwave Transceiver. Separating paths through the bridge avoids collisions and improves performance, Theodore said.

The only distance-limiting factors become the transmit power of the LAN radio and the time before network time-out due to lack of response, according to Theodore. That time-out can range from milliseconds to seconds, unlike the round-trip Ethernet propagation budget which is conservatively figured at 46.4 microseconds, Theodore said.

Such a full-speed pipeline appears to each LAN as a wire link. To improve integration within spreading networks, the Braintree, Mass., company expects to ship next month SNMP support in its Etherwave Transceiver. This interface joins an 802.3-compatible bridge, router, or repeater to the microwave radio.

Network managers will be able to remotely query each end of the point-to-point link for statistics on packet transmission and errors. They can ping test packets between Etherwave Transceivers as well, to test the radio link from each end.

Theodore expects SNMP support to help users dispel radio mystery and accept the alternative to T1 leased lines and fiber-optic installation. Microwave Bypass Systems also can independently check its microwave links for users.

Future management options include an SNMP board within the microwave radio unit itself to provide information on signal strength, transmit power, baseband voltages, frequency, and other operational data.

Contact Microwave Bypass Systems at (617) 843-8260; fax (617) 843-6021. ■
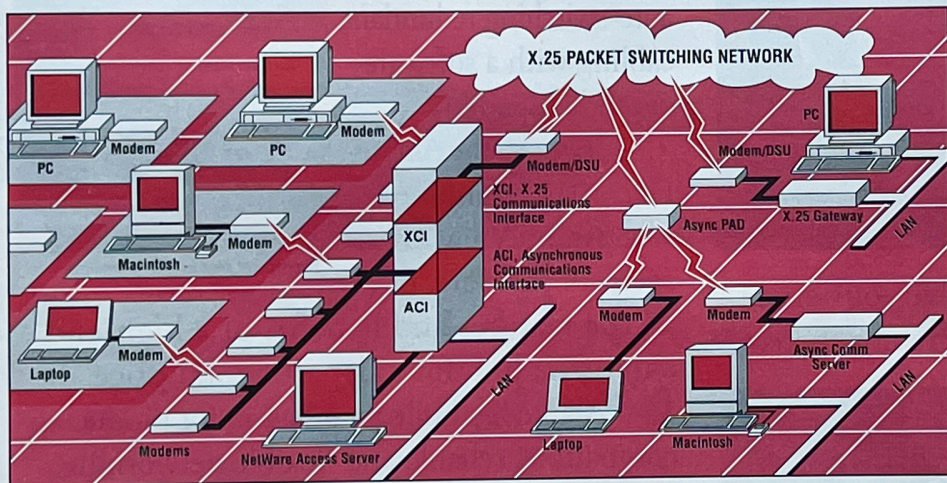
Newport Systems Solutions' XCI & ACI Communications Interfaces provide all the flexibility you need for your NetWare v1.2 Access Server.

PACKETS

Microtest added a token-ring version of its LANMODEM remote access server for NetWare LANs.

The V.42bis modem plugs onto a 4- or 16Mbps ring and supports IBM source routing. A second serial port lets users attach an external modem for additional dial-in/dial-out access. The token-ring LANMODEM is available now for $2,595.

Users of it and Ethernet models can get a free Windows upgrade next week, said David Bolles, president. The new dial-out driver redirects the Windows terminal emulator to a LANMODEM, while remote users get a cleaner interface when they call in to work on the NetWare LAN, Bolles said. Contact (602) 971-6464; fax (602) 971-6963.

Token-ring sites with traffic from imaging, graphics, and hefty file transfers may be interested in a bridge claimed to link rings at wire speed.

Netronix Inc. revamped its Token-Master 2000 local bridge with modifications it calls the Interface Accelerator. Now the bridge achieves 15.4Mbps speeds to improve response time for users who run applications generating large packets, officials stated.

The source-routing bridge. It supports SNA, IPX, and DECnet with management via SNMP or IBM LAN Manager/NetView. TokenMaster 2000 with the large-packet enhancement is available now for $4,690. Contact Netronix at (707) 769-3300; fax (707) 763-6291.