

NetworkWorld

**NetWorld+Interop
PLANNER**

Our guide to the show's hot spots. Page 44.

THE NEWSWEEKLY OF ENTERPRISE NETWORK COMPUTING

Special report

Crime: It's just a hot link away



By Ellen Messmer
For years, an Austin, Texas-based crime ring posed as a legitimate business but secretly used the Internet and an elaborate phone scam to sell upward of a million dollars in stolen goods.

The Austin police department and federal investigators finally busted this gang, which disguised itself as Berry Associates. Law enforcement officials found that the gang used public Usenet advertising and private bulletin boards to sell goods stolen from telephone substations and area manufacturers.

Unfortunately, the Berry Associates scam is just part of what Austin-area manufactur-

[See Crime, page 60](#)

KEEPING OUT OF TROUBLE

Daniel Barrett, author of *Bandits on the Information Superhighway*, advises:

- Corporations placing classified ads should use business-focused biz.marketplace newsgroups, not consumer-oriented newsgroups such as misc.forsale.
- When buying, consider using a middleman to hold the money until the merchandise is delivered. The Usenet Marketplace FAQ has more information at www.phoenix.net.

When victimized:

- If you cannot resolve the problem, contact the Federal Trade Commission, the U.S. District Attorney General or the U.S. Postal Service.

It may be immature, but fans claim Java's no jive

But will it be the basis for distributed 'Net apps?

By John Cox

Application developers working with Sun Microsystems, Inc.'s Java language report that it delivers most of what Sun promises. But whether Java will succeed as a foundation for distributed Internet-based applications remains to be seen.

Java is letting developers extend application functions, not just views of documents, out to desktop computers via the Internet and World-Wide Web.

But the other half of this equation — robust server applications linked via middleware with the clients into true distributed systems — is still unproven.

On the plus side, developers said:

■ Java applications have been written on Solaris and ported to Microsoft Corp. Windows NT and Windows 95 in production

[See Java, page 14](#)



"Java Joust" generates hot debate



ERIC SCHMIDT
Sun Microsystems

Java proponents, opponents and other interested parties made our Network World Fusion on-line conference a lively forum for discussing Sun's much-talked-about programming language for Internet applications. [See story, page 14.](#)



BRENT NOORDA
Sun Microsystems

Giants back voice over 'Net

By Joanie Wexler

The group of small phone companies petitioning the FCC to ban phone calls over the 'Net isn't fighting just a bunch of

Internet start-ups anymore.

Intel Corp., Microsoft Corp. and 100 or so corporate allies last week threw their weight behind the emerging market with a plan to let different Internet phone products work together.

The effort could have the small phone companies in America's Carriers Telecommunication Association (ACTA) realizing their worst nightmare: millions of people talking over the Internet to avoid long-distance charges.

ACTA complained to the Federal Communications Commission that Internet phone service is not fair since the companies providing the software and services are not regulated like phone companies (NW, March 11, page 6).

Some observers have said

ONLINE

More info on Network World Fusion, including:

- Links to existing Internet telephone software
- Papers on the protocols Intel and Microsoft plan to bundle into their spec
- A list of the companies participating in the specification effort

Select News+ then Front Page.

IBM battles BackOffice

Big Blue fires off its own server application bundles that target databases, network management and the Internet.

By Michael Cooney

Austin, Texas

The Eagle has landed.

After more than a year of speculation, IBM next week will unveil a series of server software bundles aimed at regaining the applications high ground and putting Microsoft Corp.'s BackOffice suite in its place.

IBM's seven-member Software Server family, formerly code-named Project Eagle, will run on OS/2, AIX and even Microsoft's Windows NT operating system.

And while Microsoft's BackOffice put together a variety of applications into one bundle, IBM has different packages for different uses — everything from the Internet to databases.

Other bundles include systems management, directory and security, transactions and communications.

Besides trying to beat back Microsoft, IBM is looking to simplify the adoption of client/server products and let preconfigured working software suites combine more easily throughout

the enterprise. The IBM packages only include applications software, but hardware and operating systems could be added down the road, according to sources.

[See IBM, page 61](#)

Big Blue blends SNA/LAN data

By Michael Cooney

Anaheim, Calif.

IBM next week will beef up its line of LAN and SNA traffic concentrators, providing customers with what the company says is an even better alternative to branch office routers.

The company will unveil a new edition of its 2217 Nways Multiprotocol [See Big Blue, page 61](#)

LONG WAY TO GO

IBM has some catching up to do in the fast-growing market for SNA/LAN integration products.



Digital ClearVISN to focus on solving management mess

By Jodi Cohen

Call it stepMOM.

Three years after killing off Polycenter Framework — a VAX-centric manager of managers (MOM) — Digital Equipment

suite that goes in another direction. It is designed to let firms more easily manage multivendor nets by eliminating the need for individual element managers.

Digital is partnering with

NEWSPAPER \$5.00

Technology Update

Keeping Up with Network Technologies and Standards

NETWORK HELP DESK

Network World tracks down answers to your questions. Please submit them to Chris Nerney via phone at (800) 622-1103, Ext. 451, the Internet at cnerney@nwu.com or fax at (508) 830-1103.

Occasionally, readers write to us with questions or post queries on Network World Fusion's Help Desk Conference but find the answers before we do. Here is an example:

Recently, Brett Stuart, supervisor of LAN operations for ALLTEL Corp. in Little Rock, Ark., told us that making a change to his Madge Networks, Inc. FDDI network interface cards (NIC) solved a ring operations problem. He says that about every seven days, the FDDI ring would go into a high rate of ring-operations/transitions between the primary and secondary ring.

Originally, his Novell, Inc. NetWare 3.X and 4.X servers used 3Com Corp. single-attach station FDDI cards with the latest drivers, but after the problem started, he changed to Madge's dual-attach station (DAS) cards with that company's latest drivers, which were in beta test at the time.

However, the Madge cards did not cycle correctly in DAS mode, appearing to hang up and never reestablish communications.

After considering changing again to Cisco Systems, Inc. DAS cards, Stuart says using the Madge cards in SAS mode finally stabilized the FDDI ring. The network is running fine now except for occasional problems with NetWare Directory Services.

If you have similar experiences to share, post a message to our Fusion Help Desk Conference at <http://www.nwfusion.com>. Select Forums then Help Desk.

Follow up

After reading how to prevent Microsoft Corp.'s Windows 95 from attaching unwanted printer job language code to PostScript files destined for a Unix print server (NW, Feb. 19, page 33), a reader told us how to avert a similar problem in Windows NT.

The reader says his Windows NT printer driver was attaching Hewlett-Packard Co. escape sequences to the start of print files. To eliminate the problem, he suggests you go into the printer driver configuration and make sure the page independence setting is checked off.

Updated spec provides standard for remotely managing computers

By Paul Ruocchio

If you want to remotely manage networked computers while complying with industry standards, check out products that support the soon-to-be-released updated version of the Desktop Management Interface (DMI).

Version 2.0 of the DMI specification details a standard way for sending management information from remote devices across

management applications. The MIF database defines the standard manageable attributes of PC products.

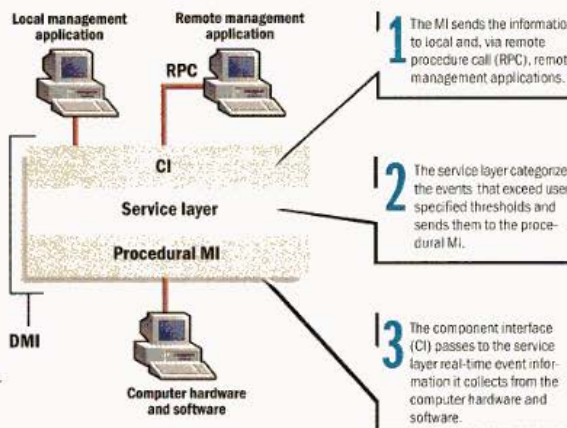
The MI lets DMI-enabled applications access, manage and control desktop computers, components and peripherals, while the CI allows components to be seen and managed by applications that call the DMI service layer. The CI gets real-time

extract relevant management information, the DMI now uses a procedural API composed of several discrete functions. These functions can easily be described using the Open Software Foundation, Inc.'s (OSF) Interface Description Language (IDL).

The use of IDL is important because it allows information to be categorized rather than presented in block form. More sig-

UP CLOSE Desktop Management Interface 2.0 architecture

Release 2.0 of the Desktop Management Interface adds the ability to filter events and changes the block management interface (MI) used in the specification's initial version to a procedural MI, which enables remote access.



the network to a central site. The release also allows managers to define and filter events, such as alarms, sent out by the managed PC products, servers and software.

The Desktop Management Task Force (DMTF), an industry group, plans to release DMI Version 2.0 early next month. The release extends DMI Version 1.0, which established a standard framework for managing networked computers. The DMI is independent of protocol, platform and operating system.

Architectural overview

The DMI architecture includes a service layer, a management information format (MIF) database, a management interface (MI) and a component interface (CI).

The DMI service layer acts as an information broker between manageable products and man-

agement information from manageable products and passes it to the MI via the service layer. It shields component vendors from decisions about management applications, protocols and operating systems, allowing them to focus on providing competitive management for their products.

The DMTF technical committee has fine-tuned the original DMI with two enhancements: a procedural interface and a self-describing event model.

Procedural interface

The DMI Version 1.0 uses a block structure interface with a single API.

With this interface, the service layer has to sift through large amounts of indiscriminate data to access required information. What's more, it has been prone to errors.

To make it easier for users to

significantly, it allows an interface to be used with the OSF's Distributed Computing Environment's remote procedure call function. This makes it possible to use the interface for remote management.

Event model

The DMI Version 1.0 specification incorporates a highly flexible event model. However, two things are missing: a way to describe events and a mechanism for filtering those events before forwarding them to a manager. As a result, management applications receive a plethora of indistinguishable events.

In Release 2.0, the DMI gains the ability to define events within a component's MIF and to set event filters in the service layer. This means managers can establish severity thresholds and determine the types of events for which they receive notification.

Find out more information about the DMTF and its DMI efforts on Network World Fusion Select NetRef Technology Resources then Network Management.



Update impact

Desktop operating systems that recognize products that comply with DMI Version 1.0 can accommodate the updates. The DMI's CI is defined such that new code will be required to accommodate Version 2.0 enhancements.

However, the CI changes will not immediately affect the installed base of DMI-enabled hardware, which can still be accessed at the Version 1.0 functionality level by DMI-enabled management applications.

The DMI and MIFs were developed by a cooperative industry consortium with 122 formal members and technical dialogues with more than 350 companies.

The DMTF's leadership includes Compaq Computer Corp., Dell Computer Corp., Digital Equipment Corp., Hewlett-Packard Co., IBM, Intel Corp., Microsoft Corp., NEC Corp., Novell, Inc., The Santa Cruz Operation, Inc., Symantec Corp. and SunSoft, Inc. Version 2.0 of the DMI further extends the work of these industry leaders to make systems and servers better citizens of the LAN.

Ruocchio is a staff programmer at IBM in Research Triangle Park, N.C., and chairman of the DMTF's technical committee. He can be reached via the Internet at par@raleigh.ibm.com.

Need information?

Let Network World provide a quick primer on an important or emerging technology. If you have an idea for Technology Update, contact Beth Schultz by phone at (312) 283-0213 or via the Internet at bschultz@nwu.com.