

NOVELL'S THREE MULTIPROCESSING OPTIONS

NetWare MP extends NetWare 4.x file and application servers across processors symmetrically in three ways:



NetWare MP Targets Server Scalability via New Options

BY PATRICK DRYDEN
Midwest Bureau Chief

Mainstream NetWare users concerned about server scalability should see not one but three options next year for distributing tasks across multiple processors.

Novell Inc. plans to have NetWare run on multiple Intel CPUs within one server, on grouped servers, and across a network—at idle stations, for example.

None of these solutions in-

volves symmetric multiprocessing (SMP), and only the NetWare 4.x platform will support them.

Details about product plans, development partners, and objectives will be coming soon. Novell officials said they are responding to users who want to know how NetWare will scale into the future. But server partners working with Novell on NetWare multiprocessor support (NetWare MP)

continued on page 126—

Novell Enhancements Take DOS to a New Level

BY ERIC HARPER
Associate Reviews Editor

Most of the more than 100 million DOS users on the planet won't consider any supplier but Microsoft Corp. But the adventurous few who explore technological alternatives might want to take a look at the latest release of DR DOS, newly renamed Novell DOS 7.

We recently evaluated a late beta version of the product at the LAN Times Testing Center and

found it to be the most significant upgrade of the DOS platform since MS-DOS 5.0.

Key features include a new level of memory management that could extend the life of DOS by a couple of years.

Peer-to-peer network services are built in, and a universal client lets you log

in to a peer or dedicated NetWare server. Compression, caching, and optimization utilities help

continued on page 128—



Directory Services Tools to Ease 4.x Migration

New software to let net administrators modify, merge directory trees

BY LAURA DIDIO
East Coast Bureau Chief

Bowing to customer demands for help with directory services, Novell Inc. is readying several NetWare 4.0 enhancement tools for first-quarter delivery.

"We have to make some improvements in the tools for administering the directories, and we're doing just that," said Bob Young, vice president of marketing for Novell's NetWare products division.

Specifically, Novell will deliver Directory Services Tools, including Tree Merge (DS Merge),

**New VLM
Release Due**

See story on P. 125

which will let users merge independent directory trees. A second DS tool will let network administrators modify directory trees without recreating every object.

Glen Fund, president of the Boston-area NetWare users group, said such tools are essential if Novell expects to "install a higher level of confidence" in customers who are contemplating an upgrade to NetWare 4.x.

How the directory-services tools will be offered has not been determined. Young said they might be add-on enhancements initially, but will become standard NetWare 4.x features.

continued on page 124—

ALL ABOARD:
GET YOUR
TICKET TO THE
FUTURE

Southern Pacific Rail Corp. switches to LAN-based fax system to maximize its communications and pave the way to future technologies. P. 25.



It's the End of the Line for OS/2 LAN Man

BY WILLIAM BRANDEL
Senior Editor

In an effort to position Windows NT Advanced Server (NTAS) as its premier network operating system platform, Microsoft Corp. is pulling the plug on OS/2 LAN Manager.

Microsoft officials have confirmed rumors in the networking channel that they have no plans to upgrade the OS/2 LAN Manager 2.x series. Microsoft will continue to offer technical support and bug fixes to the OS/2 LAN Manager customer base and may still upgrade the LAN Manager for the UNIX product line.

"We were told LAN Manager was dead," said an individual in 3Com Corp.'s network operating systems group, which had approached Microsoft about LAN Manager upgrade plans. "Microsoft said it wanted us to upgrade

continued on page 130—

WordPerfect Integrates MHS

BY SURUCHI MOHAN
Associate Editor

WordPerfect Corp. early next year will follow the lead of other major messaging vendors when it announces tighter integration with Novell's Message Handling Service (MHS).

WordPerfect Office 4.0 will use an expanded gateway or "agent" to access MHS, but it will not support the transport natively.

"We want to be as native as we can with MHS clients and the messaging transport," said Dave Clare, WordPerfect's senior director of the Office line. "The agent will provide that tight integration" by mapping calls to MHS.

WordPerfect Office will use MHS's directory services and its message-transfer agent, which routes messages to the appropriate post office. But the program will not use the message store or post office, which, according to Clare, are too limited in MHS to

continued on page 128—

IN THIS ISSUE

81 **Special Report**
Addresses E-Mail
Connectivity in
Today's Changing
Workplace

109 **LAN Times**
Explores the
Confusing and
Expanding World
of Lotus Notes

NETWORK PROFESSIONAL



Give Your Network a Tune-Up

Like cars, LANs need checkups to keep them running smoothly

BY RONALD E. KAPLAN
Special to LAN Times

Every time you bring your car in for a tune-up, the mechanics do a safety check of the components that can wear out. Their aim is to prevent accidents and ensure your car runs well. But when was the last time you conducted a LAN safety check? Your LAN needs the same type of attention.

Like your car, LANs dynamically change. On a LAN, parts wear out, software comes and goes, and the number of users changes. Therefore, a LAN's security and ease of use changes over the life of the system.

Your LAN differs from a car, though, because LANs are not mass produced. And the quality-control function—so critical in

the automobile manufacturing process—is absent in the LAN assembly process.

LANs are assembled onsite by a variety of systems integrators with varying skills. The components may have been chosen because they were the best value at the time, or they could have been chosen simply because they were available.

Some of the selections might have been dictated by environmental aspects (for example, cabling) that were in place well before the integrator even became involved.

YOUR LAN'S CHANGING FACE.

Your LAN probably has been up and running for several years, over which time your business has changed: People have come

and gone, software preferences have migrated and expanded, and profits and expenses come from different activities.

Is the configuration of your LAN and its components appropriate for your current operations? If not, the consequences can include:

- poor performance,
- system crashes,
- inadequate system security,
- user dissatisfaction, and
- corrupt data files.

If you are part of a public company, your audit firm probably requires a systems audit every few years. Such an audit should not be confused with a safety check.

Audit firms focus on your system's ability to produce reliable accounting data. The safety check's scope is much broader, and the skills needed to perform one are usually beyond those of an auditor.

FINDING THE RIGHT DOCTOR.

Who should do your checkup? The people who set up your system or those who are responsible for its maintenance are not the best choice. A fresh, independent perspective is critical for this review to be truly valuable.

You don't want actions justified in hindsight or existing opinions to skew the results. Just as when you get a checkup from your doctor, the consultant's familiarity with current developments and technology greatly enhances the review's value.

The consultant should have business knowledge in addition to technical knowledge—and knowledge of your specific line of business is even better, of course. The greater the consultant's experience with LANs, the better. But an appreciation for the dynamics of your business is equally important.

The relative importance of the items on the list in the accompanying sidebar directly relates to your business's priorities and critical functions.

The results of your checkup should be summarized in a report card. Each item is assigned a weight developed with the consultant's and appropriate company personnel's expertise. In the

continued on page 76—



CNE Title Is the Hot Ticket to Corporate America

BY WILLIAM BRANDEL

Senior Editor

With more than 28,000 Certified NetWare Engineers (CNEs) in the LAN industry today, there's little doubt that Novell Inc.'s CNE program has been successful.

The questions that linger are what value that title brings to recipients and what CNEs in turn bring to the companies where they work. Like most questions of value, this one is best answered by the traditional forces of supply and demand.

EVERYONE WANTS ONE. The value of earning CNE certification could be summed up best in a classified advertisement that recently ran in *Boston Globe's* help-wanted section.

The ad stated that the hiring company wanted a network manager "responsible for managing, monitoring, and planning a 100-node NetWare LAN." It went on to state that the firm wanted the candidate to have E-mail and disk-duplexing experience and be familiar with multiple topologies. And "NetWare engineer cert [CNE] is a requirement."

Another view of the CNE as a technical panacea comes from a project director at a Fortune 500 insurance company.

The director lamented the hiring of a LAN manager who could not handle the complexities involved in moving complex imaging services onto the company's PC LAN.

"He wasn't up to technical stuff," the project director said. "What we'd really like is to get our hands on a CNE."

That is, Aetna Insurance's project would have been more successful, it thought, had it hired a CNE from the start.

True or not, the impression that a CNE would ride into Dodge and quickly get the tumbleweeds rolling in the right direction bodes well for CNEs in today's tough job market. Not only do IS departments sing the virtues of the CNE; the CNE program is now a vehicle for "re-engineering" workers for the modern world.

A HOT TICKET. Statistics gathered by Applications Software Group (ASG), a Platinum reseller/NAC in Stoneham, Mass., indicate that the CNE title is a hot ticket in corporate America.

According to ASG, 70 percent of its students hoping to gain CNE status are currently unemployed. Of these unemployed students, 83 percent gain employment after becoming CNEs.

State unemployment agencies are starting to see the merits of the CNE programs as well. In Massachusetts, for instance, a Worker's Assistance Program offers \$3,000 to \$5,000 toward an unemployed worker's CNE education. Similar programs are also under way in Philadelphia and New Jersey.

continued on page 76—

Safety Check

Following is a checklist of some of the items that should be examined during a safety check:

FILE-SERVER CAPACITY CUSHION. NOSes require disk space for ongoing activities, such as printing and maintaining a list of file locations on the disk. If your server runs out of disk space, there is no telling what will be lost or damaged.

COMMUNICATION. Does your UPS communicate to the file server (and users) in a power outage and take the server down orderly? All current UPSes can do this, and using it prevents corrupted files on your server during an extensive power failure.

UPS BATTERIES. UPS batteries have a useful life of only two years. Isn't it a good idea to know your UPS is acting as more than an extension cord?

AUTOLOADING FILES ON YOUR SERVER. On Novell 3.11, are the STARTUP.NCF and the AUTOEXEC.NCF files complete? If the server is rebooted or power goes off longer than the UPS battery life, will the server come up properly unattended?

UNATTENDED BACKUP. Is your backup system triggered automatically? Is the capacity of each tape sufficient to store the results of a backup ses-

sion without a tape change? Do you have a plan for maintaining various generations of backups, with at least one offsite?

MEMORY MANAGEMENT. Are your AUTOEXEC.BAT and CONFIG.SYS files consistent on all workstations? Do you take advantage of the advances in memory management so your apps function efficiently? Are the file contents documented?

SYSTEM AND USER LOGIN SCRIPTS. Centralized administration of login scripts is desirable. Has the number and content of your user login scripts grown unnecessarily?

SECURITY. Who has access to what on the LAN?

APPLICATIONS. Do you have current versions of application programs and print drivers?

DOCUMENTATION. Check if documentation is up-to-date for system parameters and components, systems-administration and user procedures, and workstation configurations (for example, file restoration and downing the server). Is documentation of the wiring layout current? Is custom-configured cable documented?

DISASTER-RECOVERY PLAN. Is it complete? Has it been updated to cover your network's growth?—R.E.K.

CNE TITLE HOT TICKET

—continued from page 73

"People are realizing it isn't just the economy that has made these people unemployed," said Hooman Koohyar, a Certified NetWare Instructor (CNI) at ASG. "These people are the victims of technical trends: downsizing from the minicomputer and mainframe environments. They go to look for another job and find that their technical expertise—almost all of it proprietary—has little value left in today's market."

OBSELETE SKILLS. Upsizing is pushing students into CNE training, too. James Richie, an analyst with Cornerstone Technologies, a consultancy based in Stoneham, Mass., entered the CNE program when he realized his standalone desktop skills were getting obsolete in an increasingly networked world. After gaining his CNE certificate, he said, he is now able to consult with clients on how to set up their LANs.

"I do find myself coming across situa-

tions that I had trained for in the CNE courses," Kichie said. "But in no way do a classroom and books replace what you learn out in the real world. You still have to get your hands dirty."

According to ASG's numbers, you do not even have to do that to land a decent job. A student with no technical expertise can, on average, get a job with a starting salary of \$35,000, according to ASG.

CNEs with some technical background and experience will pull in anywhere between \$52,000 and \$70,000. Not a bad salary when you consider that the cost of CNE training and the tests is between \$5,000 and \$7,000—and you can com-

plete the program in just two months. By comparison, a college education can cost tens of thousands of dollars and takes about four years to complete.

CAN'T COMPARE APPLES & ORANGES. For its part, Novell does not welcome the comparison between a college education and CNE certification.

"This program gives the consumer of network products a form of competent technical support in the form of a CNE," a Novell official said.

Furthermore, Novell does not suggest that the CNE title even guarantees that the CNE can be a good LAN manager. Nor

should the CNE program be considered a replacement for real-world experience, the official said.

However, these warnings do not dampen the glow around the CNE's status in today's market. There are currently 28,500 CNEs in the LAN industry and another 28,000 candidates are in the program. On average, 1,600 candidates enter the system each month.

With companies such as Shearson Lehman Brothers Inc. and Sears, Roebuck and Co. now requiring their networking professionals to be CNEs, it is not too likely that these numbers will fall off anytime soon. ■

IBM Notebook Users Know, "Nobody Ever Got Fired For Buying Xircom."

**NETWORK TUNE-UP**

—continued from page 73

report, each item gets a grade, with explanatory notes when appropriate. With this approach, your company can track its progress over the life of the system. This information also will be valuable when you migrate to a new system.

ANNUAL RITE. This checkup should not be a one-time event. Depending on the rate of change in your company, it should be done at least once a year.

The review can help your company maintain its independence from outside vendors and in-house systems employees. It is a preventative tool that helps you avoid problems. It also helps insulate your LAN administrators from the wrath that often follows a system failure.

You should expect to pay between \$3,000 and \$7,000 for a checkup, depending on your LAN's size and complexity. Other factors that enter into a checkup's cost are your systems personnel's technical competence and their familiarity with the justifications for your current configuration. Don't assign this job to a \$75-an-hour consultant or technician who is not seasoned with LANs and doesn't have up-to-date knowledge of LAN technology.

Does this apply to you and your company? Do you need a checkup? The answer depends on how much you depend on your LAN. If your company's survival is dependent on your LAN's continuous operation, the answers should be obvious.

Hopefully, your system is well-documented, technologically up-to-date, and well-maintained. Then all you will get from the checkup is a few pointers and the peace of mind of knowing everything is in order. ■

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