



NOS news is good news

We may get Microsoft's new NT 5.0 Beta 3 earlier than expected. Bob Walder reviews the promised new features, based on Beta 2.

With new shipping dates for Microsoft's NT 5.0 network operating system (NOS), I thought I would take a look at some of the promised features (based on what is in the current Beta 2 version). Given the nature of the NOS (to connect devices together) I am amazed how difficult it is to perform this most basic of tasks.

With NT 5.0, the introduction of the Network Connection Wizard allows NT Workstation users to take some of the pain out of the process. Running the Wizard [Fig 1] provides a number of straightforward options including simple dialup, creation of a Virtual Private Network (VPN) link, or connecting directly to another computer via a serial cable or infra-red link.

Higher performance is evident in the networking and communications area with faster stacks and support for Gigabit media, ATM and DSL. Quality of Service support is included, with parameters set and enforced via Active Directory. Standards-based security is in evidence,

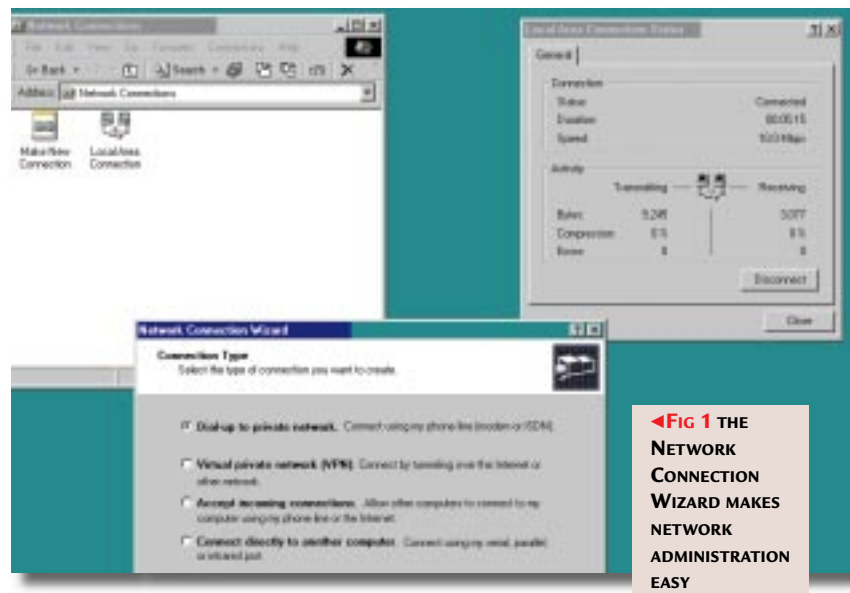


FIG 1 THE NETWORK CONNECTION WIZARD MAKES NETWORK ADMINISTRATION EASY

too [Fig 2] with support for PPTP, IPSec and L2TP. Active Directory also provides us with policy-controlled security, with system-enforced encryption.

Comms and goes

Per-connection settings remove much of the frustration with today's systems where we use communications devices to connect to different networks. At present, each device can carry only one set of communications parameters,

meaning constant reconfiguration when moving from network to network. Under NT 5.0, multiple settings can be stored against each device, allowing the user to choose their connection type and have the computer apply appropriate settings. Help for the mobile user is a persistent theme throughout NT 5.0 and nowhere is that more

evident than in support for data synchronisation. User data can be mirrored via "offline folders", ensuring that data is always available, whether or not the PC is connected to the network, and whether or not the host server is available. Changes to data, wherever they are made, are automatically synchronised the next time a network connection is established.

At the application level, NT 5.0 plays a more active part in managing the installation process, with a new installer service built in to the OS. This manages all aspects of install and uninstall, as well as catering for shared components (you only ever install one version of the spell-checker, which is then shared between multiple apps). Using Intellimirror technology, user applications and personal settings will follow them automatically from desktop to desktop.

BOB's your uncle

Finding and storing files has been improved no end, with enhanced file open and save dialogs and the inclusion of the Distributed File System. Also available for NT 4.0, this is a means for uniting files on different physical servers into a single logical name space. Users continue to browse a share known as BOB, oblivious to the fact that the files contained within that share are actually

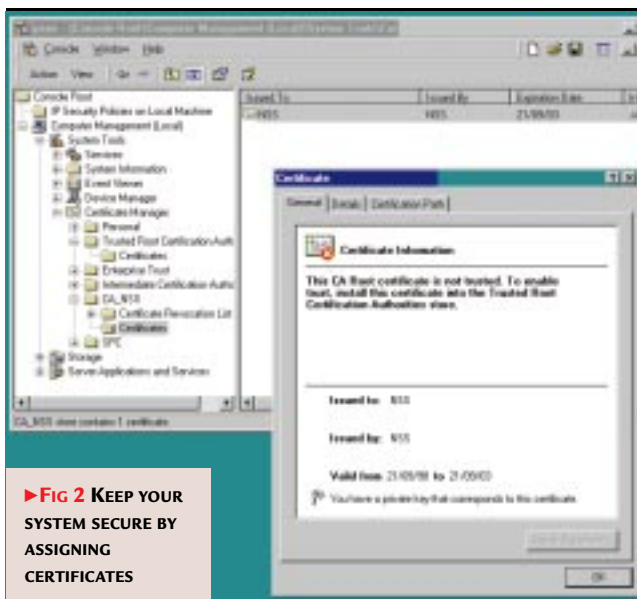


FIG 2 KEEP YOUR SYSTEM SECURE BY ASSIGNING CERTIFICATES



spread across numerous servers. Unattended installations have been streamlined and there will be the ability to slipstream Service Packs into the installation, removing a tedious additional step.

The whole issue of Service Pack handling has been addressed and it is no longer necessary to reapply a Service Pack after changing the system state. Automatic migration is provided from both Windows 95 and 98, and machine cloning using third-party utilities such as Ghost is now supported officially. It is even aided by a Microsoft utility called SYSPREP. Once the system is installed and running, you want it to stay that way, and it's nice to see a huge reduction in the number of required reboots and reinstallations. Reboots are no longer required following operations such as changing settings on PCI and other PnP hardware, volume management, or configuring network protocols, for instance. Nor is it necessary to reinstall the OS after upgrading the server to be a Domain Controller.

At the time of writing, performance of the system still has a long way to go, so we have to take Microsoft's word for it when it tells us that performance has been enhanced through improved memory allocation, reduced resource contention, increased file system cache, and the use of "Fibers" (mini-threads). Scalability has been improved by clustering, although this still has a long way to go before it passes most people's definition of clustering,

and a larger physical memory space (up to 32Gb on Alpha, or 64Gb on Intel Xeon).

One of the biggest new features within NT 5.0 is the one that could well make or break NT in large corporate environments. Active Directory (AD) is a big step forward, replacing the trusted domain naming system which was a legacy of the old LAN Manager days. It provides a logical central repository in which can be stored details of all network resources such as users, groups and printers, as well as the security permissions for those objects. The schema is also extensible, allowing ISVs to populate it with their own custom objects (fax servers or network scanners, for instance).

I say "logical" central repository, because it can actually be partitioned and replicated across multiple servers throughout an enterprise to improve both performance and fault tolerance. Active Directory is based around internet standard DNS domain names and has a fully-integrated DNS server and native LDAP support.

➤ The waiting game

What about those new shipping dates? With Beta 2 having only recently shipped at the time of writing, we are now hearing rumours that we will see Beta 3 by mid-November (you will be able to confirm its accuracy by the time you read this) and a manufacturing date of the end of March 1999. This is a good six to nine months before we were expecting it. Apparently, all serious

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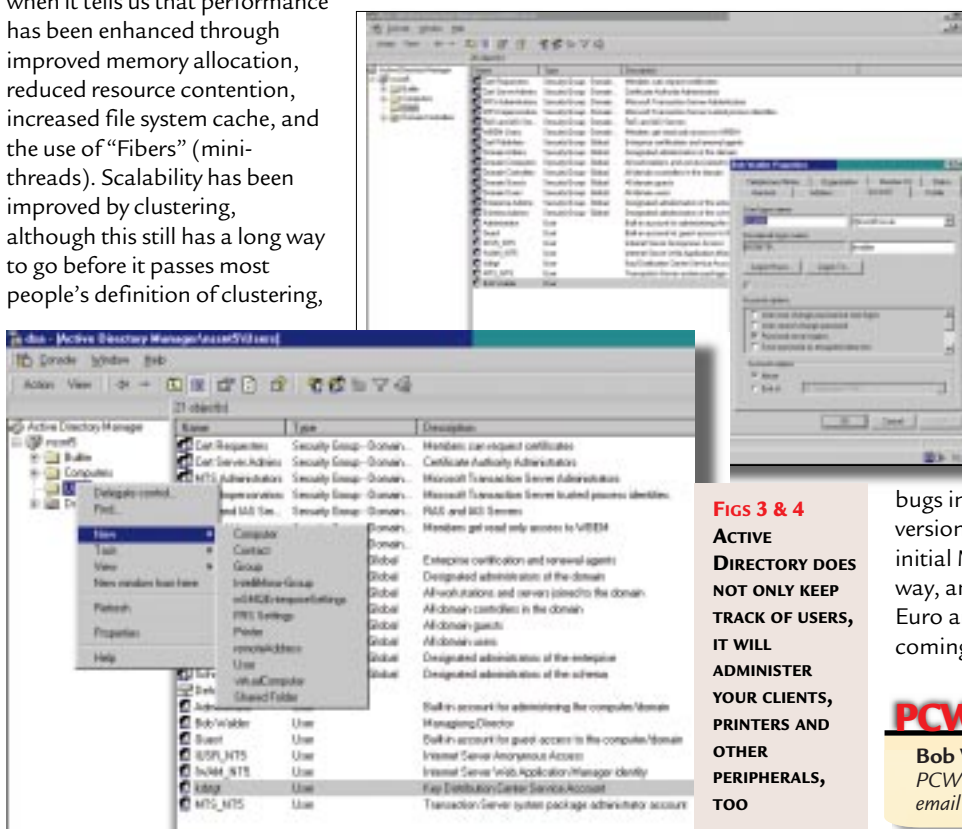
developers of NT 5.0 software have received a letter stating that it should be ready by 1st March, which would imply that Microsoft means business. Just to add more fuel to the fire, we also hear of an NT 5.1 Beta 1 for July 1999, with a release date of version 5.1 in early 2000.

Given all the wonderful features in 5.0, how come the shipping dates, having slipped time and again, are suddenly being brought forward? I don't believe that Microsoft has had such wonderful feedback from Beta 2 that it thinks it has got it about right. My guess is that we won't see anything like a full-featured release with v5.0.

Microsoft has stated repeatedly that it is "betting the farm" on NT 5.0. It seems that the initial commitment to ship "only when the customer tells us it is ready" has been replaced by the "get a roughly working version out the door as soon as possible and fix it later" attitude. Microsoft could well take the view that it wouldn't matter how good NT 5.0 was, it would be heavily criticised anyway. By stripping out non-essential features Microsoft can release the product, take the inevitable flak, fix a few

bugs in Service Pack 1 and release version 5.1 after everyone had got the initial Microsoft-bashing out of the way, and also about the time when the Euro and Year 2000 projects are coming to a close, too. Smart move.

FIGS 3 & 4
ACTIVE DIRECTORY DOES NOT ONLY KEEP TRACK OF USERS, IT WILL ADMINISTER YOUR CLIENTS, PRINTERS AND OTHER PERIPHERALS, TOO



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