Are you ready for Windows .NET Server?

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Two years after the long-awaited release of Microsoft's flagship network operating system, Windows 2000 Server, the company is now busy grooming its successor, Windows .NET Server. Scheduled to be released this summer, Windows .NET Server is definitely an incremental NOS upgrade that's not nearly as revolutionary as the move from Windows NT Server 4.0 to Windows 2000 Server.

Nevertheless, Windows .NET Server does contain some notable changes—some for the better and some for the worse. In this article, we'll review the versions of .NET Server that Microsoft will be releasing this year and take a closer look at the product's changes, based on the Beta 3 release.

Versions of Windows .NET Server

Let's start with the semantics. Microsoft has divided Windows .NET Server into four versions. (Windows 2000 Server, if you remember, has three, and Windows NT Server 4.0 had two.) The new versions are:

- **Windows .NET Standard Server:** This version is essentially the same as Windows 2000 Server. It supports up to two processors and up to 4 GB of RAM and is aimed at running basic services for smaller environments.
- **Windows .NET Enterprise Server:** This one succeeds Windows 2000 Advanced Server. It supports up to eight processors, 32 GB of RAM (Win2K AS supports only 8 GB), and clustering up to four nodes. This is Microsoft's industrial-strength NOS workhorse, meant to run in medium to large environments and to provide the backbone for robust application services, such as SQL Server and Exchange. There will also be a 64-bit version of Enterprise Server aimed mostly at supporting Intel's Itanium processor. That version will support up to 64 GB of RAM.
- **Windows .NET Datacenter Server:** Obviously, this product is the successor to Windows 2000 Datacenter Server, the widely touted but little-used high-end version of the Windows NOS. This version supports up to 32 processors (and requires a minimum of eight), 64 GB of RAM, and clustering up to eight nodes, and it provides native support for load balancing. It, too, will have a special 64-bit version aimed at Itanium servers, but it will support up to 128 GB of RAM.
- **Windows .NET Web Server:** This is the newest addition to the Windows NOS family. It's basically a scaled-down version of the NOS that is meant to run one primary application: Internet Information Services (IIS) 6.0. Presumably, Microsoft is going to market this server as a quick and easy way to deploy a front-end Web server and establish an Internet presence. It will also provide a ready platform for deploying .NET Web services components. This version supports up to two processors and up to 2 GB of RAM. It lacks many of the built-in features of Standard Server and Enterprise Server, such as Remote

Installation Services (RIS), Services for Macintosh, Windows Media Services, SharePoint Team Services, and Terminal Services.

Kudos and caveats

There are certainly some things to like about the feature changes made to Windows .NET Server. And, of course, there are some changes that leave something to be desired. Let's take a look.

IIS6 gets an overhaul

Arguably the best and most important change to .NET Server was to make the default installation of the IIS Web server much more secure. There's no secret formula involved here. Microsoft simply followed the model of most Linux/UNIX software by scaling down the default IIS install to a minimal package with no extras. This basically forces the administrator to consciously add the extras, if they're needed. Many of these little extras, such as Active Server Pages and automatically installed sample scripts, are security hazards that admins didn't account for when installing previous versions of IIS.

Kudos to Microsoft for getting serious about IIS security and making this important change. Granted, it needed to take some serious action after IIS became a favorite target for hackers in 2001 with the startling spread of Code Red and Nimda. Nevertheless, this change, along with the IIS Security Lockdown Wizard, which runs the first time you open the IIS 6.0 console, should help Windows .NET Server to provide much more secure Web server installs.

Active Directory changes

Windows .NET Server also includes an important upgrade to Active Directory Services (ADS). Some of the ADS improvements include the ability to rename domains (even the root-level domain), to create forest-level trusts, and to delete schema extensions. There are also improvements to group membership replication and intersite replication topology. (For more on the changes to ADS in Windows .NET Server, check out this article.)

Microsoft has made various improvements to ADS based on customer feedback and ADS deployment experiences. However, these changes essentially make domain controllers running Windows .NET Server incompatible with DCs running Windows 2000 Server. Thus, if a Windows .NET Server becomes a DC in an environment where it detects Win2K DCs, it automatically deactivates its new features and basically drops down to a Win2K DC mode.

This is a problem because companies deploying ADS will now basically have to choose between the Windows 2000 version or the Windows .NET version. I doubt that those who have already deployed ADS on Win2K will want to upgrade all their domain controllers to .NET Server. Although the changes to ADS in .NET Server are good, there's just not enough of a business benefit to justify an upgrade.

For this reason, I think Microsoft should change gears and offer ADS as a separate product from its NOS, in the same way that Novell offers its directory services product as a separate package. That way, companies that have already invested in Windows 2000 could simply upgrade their ADS and take advantage of the new benefits and features without having to engage in the laborious process of an entire NOS upgrade.

Luna interface

Microsoft has also added the new Luna interface (á la Windows XP) to Windows .NET Server. Luckily, this is easy to turn off. Nevertheless, other than marketing reasons and wanting to standardize the NOS interface with the client OS interface, I see no reason for including the Luna interface. In fact, I can't think of a single instance when an administrator would *not* want to

deactivate the interface, which is a serious memory and system resource hog.

It would have been better to release .NET Server with a scaled-down version of the Windows 2000 user interface that does not include the 3D OpenGL screen savers or the high-resolution graphics options, which can consume valuable server resources. Admins need the server GUI to be fast and functional and not flashy and colorful. Above all, it needs to consume minimal resources so that its valuable memory and processor cycles can be devoted to delivering its services.

Product activation

Finally, we come to the onerous issue of product activation, which has drawn a great deal of criticism with the release of Office XP and Windows XP. Microsoft has also decided to include product activation as a part of .NET Server, which means that any retail copies of .NET Server, as well as many copies that are preloaded on OEM-purchased servers, will require activation via the Internet or by phone. Software copies purchased through volume licensing do not require activation.

While this was a major annoyance for desktop software, it is unacceptable for NOS software. First, a lot fewer copies of NOS software are in use, so I doubt that much money will be saved with this draconian approach to fighting piracy. Second, I don't expect any savings recouped by Microsoft from this antipiracy strategy to be passed on to IT departments in the form of lower software prices. Yet it is IT departments that will be most inconvenienced by this policy. Third, and most important, I still don't trust this amorphous protocol that transfers information from my systems to Microsoft, and on a server—where confidential and mission-critical data is stored—that is a much more serious concern than on a desktop machine.

End sum

Ultimately, the upgrade to Windows .NET Server will be much more important for Microsoft, as it tries to advance its Web services strategy, than it will be for IT departments, many of whom are already working to consolidate their respective infrastructures around Windows 2000 and who are currently feeling the burden of Microsoft upgrade fatigue.

Organizations that have not yet moved from Windows NT to Windows 2000 may want to wait for Windows .NET Server if they're also planning to deploy Active Directory, because of the many improvements to AD in .NET Server. However, if you go that route, make sure that you purchase .NET Server using one of Microsoft's volume licensing options, which start with as few as five copies. And by all means, turn off the Luna interface.

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