

Know the difference between Active Directory and Windows NT 4 domains

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Microsoft moved Windows 2000 to extended support in June, pushing the elderly Windows NT operating system one step closer to the software graveyard. While more than a few organizations are still holding on to the OS, sooner or later, something has to give.

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In NT 4, there are primary domain controllers (PDCs) and backup domain controllers (BDCs). Only one PDC can exist per domain. The PDC hosts a read/write copy of the domain database, and the BDCs each house a read-only version of the same information, thus providing some measure of redundancy and infrastructure scalability.

But in the event of a loss of the PDC, you can't make changes to the domain until you replace it. However, users can continue to log in using a BDC.

In Active Directory, with the exception of specific roles (i.e., Flexible Single Master Operations, or FSMO), all domain controllers function equally. The system replicates changes made to read/write versions of the domain database to all other domain controllers, resulting in a much more robust and scalable infrastructure. A single domain controller does serve the FSMO roles, but you can move these roles to any other domain controller at will.

Another key difference between NT and Active Directory is the process by which a server becomes a domain controller. In NT, once a server is a PDC or a BDC, only reinstalling Windows can downgrade it to a member server (and vice versa). But in Windows 2000 and Windows Server 2003, you use the DCPromo utility to handle this process. This utility can upgrade and downgrade servers to and from domain controllers and member servers.

Of course, keep in mind that these differences are really just the tip of the iceberg.