

Re: How expand domain subnet?

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<http://www.tech-archive.net/Archive/Windows/microsoft.public.windows.server.networking/2006-09/msg00394.html>

- *From:* Newell White <NewellWhite@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Wed, 20 Sep 2006 03:32:02 -0700
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Thanks for advice on best practice, and correcting my IP terminology.

But if my LAN was going to contain less than 200 Ethernet nodes, would my proposed scheme work, and with reasonable efficiency?

—
Newell White

"Bill Grant" wrote:

As an aside, that would be a 22-bit subnet, not a 26-bit. A 26-bit subnet would reduce the number of possible clients to 62 .

192.168.1.0/24 represents the subnet containing the addresses 192.168.1.1 through 192.168.1.254 . The 24-bit subnet mask is 255.255.255.0 .. 192.168.1.0/26 represents the subnet containing the addresses 192.168.1.1 through 192.168.1.62 . The subnet mask is 255.255.255.192 . An address like 192.168.1.73 would be in the next IP subnet of 192.168.1.64/26 .

I agree with Phillip. Stay with /24 . If you want groups of machines to use different gateways, put them in their own 24-bit subnet and point them to a gateway in that subnet. If you want these groups to see each other, route between the segments/subnets.

"Phillip Windell" <@.> wrote in message news:uHyB7iC3GHA.3944@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx

No.

Add a new segment. Don't create segments larger than /24. Keep the maximum number of hosts per segment to 250-300,...which is what the /24 does with 254 hosts. Ethernet begins to lose efficiency with too many hosts.

If you need more, create a new segment and place a LAN Router between the segments.

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Phillip Windell [MCP, MVP, CCNA]
www.wandtv.com

"Newell White" <NewellWhite@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message
news:666F68C3-FA7C-4ED1-8D1C-A6F7157DD064@xxxxxxxxxxxxxxxxxxxx

We currently have a 192.168.1/24 LAN with 2 fixed-IP Win2K3 DCs (AD integrated, both WINS and DHCP), a fixed-IP PIX firewall, and dynamic-IP XP workstations, and VPN clients (managed by PIX firewall).

I want to expand this to a 192.168.0/26 LAN, and believe the necessary steps are:

- 1) Configure the primary DC TCP/IP to use 255.255.252.0 mask, repeat for secondary DC.
- 2) Configure DHCP on each DC to use 192.168.0/26 scope, with non-overlapping lease pools (192.168.2/24, 192.168.3/24)
- 3) Expand inside subnet of PIX firewall to 192.168.0/26

Is it this simple, or have I overlooked something?

Later I wish to add further firewalls, each with own ADSL link. To assign users to a particular firewall, I assume easiest method is to assign them to OUs with different logon scripts, which overwrite the DHCP-assigned gateway by means of a 'route add 0.0.0.0' command.

TIA,
—
Newell White

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