

# RE: Metaphysical question about DFS

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*Source:*

<http://www.tech-archive.net/Archive/Windows/microsoft.public.windows.server.general/2006-10/msg00253.html>

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- *From:* steve\_t <[stevet@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:stevet@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Wed, 4 Oct 2006 09:08:03 -0700
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It's been quite some time since I played w/DFS, but from what I've found, it appears that you are correct regarding the site designation – that is, clients will select any available DFS server in the site, and since all of your locations will be in a single site, there doesn't appear to be any way to link to a subnet instead of a site. The following is from "How DFS Works":

<http://technet2.microsoft.com/WindowsServer/en/library/a9096e88-1634-4da6-b820-537341d349061033.mspx?mfr>

## How Target Selection Works

When a client computer attempts to access a root or link in the namespace, a domain controller or root server provides a referral to the client. The referral contains a list of target servers, and this list is sorted according to the currently configured target selection method.

## Default Target Selection

By default, DFS places target servers in the referral in the following order:

1. Targets in the same site as the client are listed in random order at the top of the referral.
2. Targets outside of the client's site are listed in random order.

The question I would ask is what benefit will your organization gain by placing all of your locations into a single AD site? What justification did the consultant give for making this change to your infrastructure?

Steve

"ThOF" wrote:

Hi all the group;

I've a a little "complex" question about DFS working in Windows 2003 and I'd need your help and comments about it

At present, in my enterprise, we work with a network topology divided in five sites, everyone of them with its own GC/DC (one site can be one main office or branch-office)

## RE: Metaphysical question about DFS

A consultant firm has come to take a look to our present situation and they have proposed to merge all the sites in only one new site, due to the fact that our WAN links are very fast (10 –100 Mbps). So, by performing that change, we would have all the GC/DCs logically located in the same site (of course, the physical location won't change).

In fact, I've to confirm that our WAN links are quite good (fast and reliable) as we work with MPLS technologie and fiber optic from end to end

The thing is, we have already implemented DFS some months ago, so access to shared resources is transparent to the users, no matter their physical location (the user will always access to, for example, \\mycorporation.com\Data no matter they are working today in Madrid or tomorrow in Barcelona, because the XP clients will always connect to a local DFS server –target server– located in the same site as the user is.

This is to say that every main office/branch–office will keep having its own subnet in 'Active Directory & Services', so this is not going to change (for example, Barcelona offices will keep its 192.168.1.0/24 subnet range, Madrid will continue having 192.168.2.0/24, and so on)

What we're afraid is that, when we merge all the sites into the new one, all the network subnets will belong, of course, to the same site (192.168.1.0/24, 192.168.2.0/24, ...); in other words, all the network subnets will be preserved and they will belong to the new 'MyEnterprise' site but... what about DFS behaviour from that moment on?

I've readed that, when working with DFS, the DFS client –this is, the Windows XP PC– when starting the network session and logging into the domain, it will always look first for a target DFS server located in the same site as the user is (based in the pair IP–subnet) but nowhere in the FAQs nor white papers it is specified anything about looking first one target server in the same SUBNET, too (I mean, this is not clear if the DFS client only looks first for a target server in the same site OR also in the same subnet)

For example, if the client PC has an 192.168.1.25 IP address, then I'm not very sure about the DFS client looking first for a target server also located in the 192.168.1.0/24 subnet or, on the contrary, it will only search for any alive DFS server no matter the client IP matches or not)

If the last happens, it could occur that, for example, an user located in Madrid would sometimes/always connect against a DFS server in Barcelona, or vice versa

We're a little worried about this possible issue, because we don't want that, when merging sites, the user DFS experience gets worse (OK, our WAN lines can be fast enough, but you will have to agree with me that there is no point in the users connecting to a "remote" server when there is another one located locally and where they can connect to with a speed of 1 Gpbs, so is not the desired situacion)

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I've also readed that starting with Windows 2K3 SP1, new DFS features and improvements have been added (for example, more available options when using the 'dfsutil' tool). Now it is possible to define some kind of "priority", so we can define an ordered list with the preferred DFS servers in one site (high, low or normal priority) but I'm afraid this new stuff wouldn't solve our problem, because as all the servers will be located in the same site, defining priorities won't help (if I define the Barcelona server as the one with the highest priority, then I guess it is for sure that all the rest of clients located in remote offices will always connect to Barcelona, which is not desired)

Well, I don't know if I explained myself in a clear way. I hope so.

Any feedback or comments about the subject will be highly appreciated.

Regards and many thanks in advance.