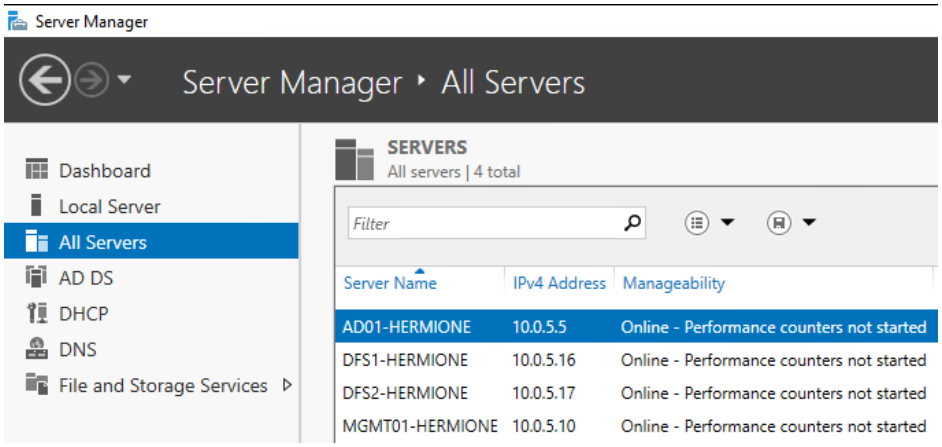
File Services Lab: DFS

Prerequisites

There are two new Server Core 2019 VMs in your environment. So, you know what that means: provision them, joined to the domain, and viewable via MGMT01. You may pick your own available LAN-based IP addresses for these systems, from .25 down. And as always, parse through the lab thoroughly.

> 💡Did you know that if you are very careful and use sconfig or powershell to join the domain, you can change the IP, change the hostname and join the domain with only 1 reboot. See if you can figure out how!

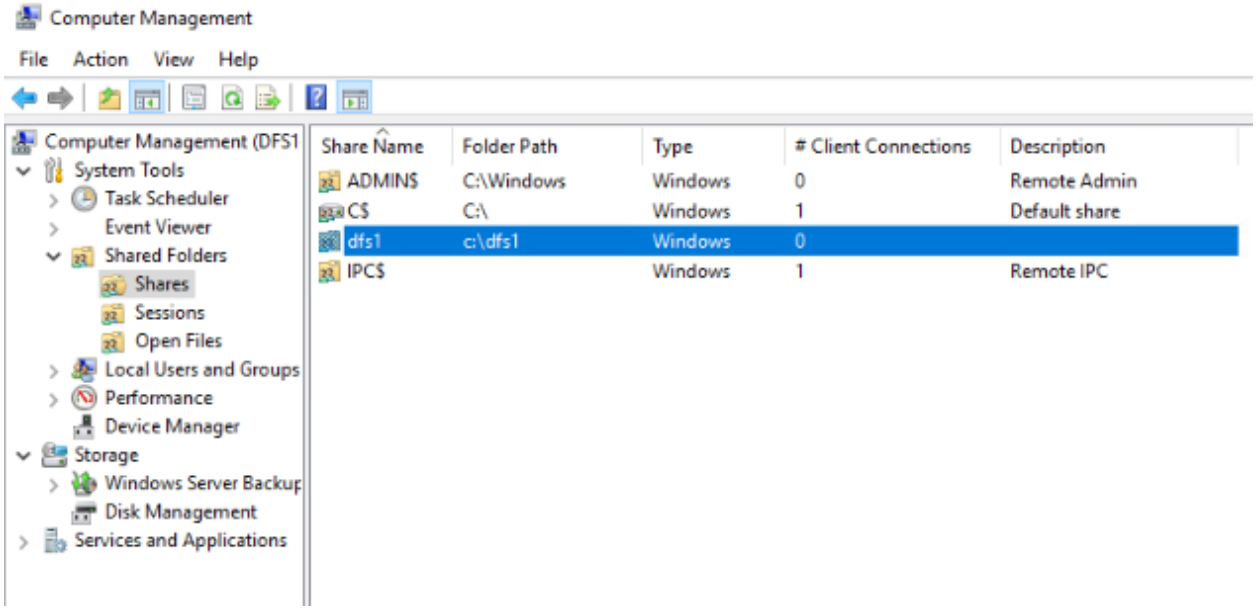


File Server Role

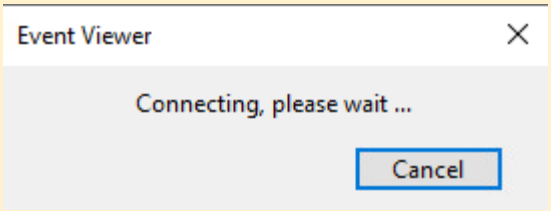
Make sure to install the file server role on both DFS1 and DFS2

Create 2 shared folders

Via Computer Management on DFS1, create a new Share named ‘dfs1’ with a folder path of C:\dfs1 which allows Domain Admins full access & others read-only access.



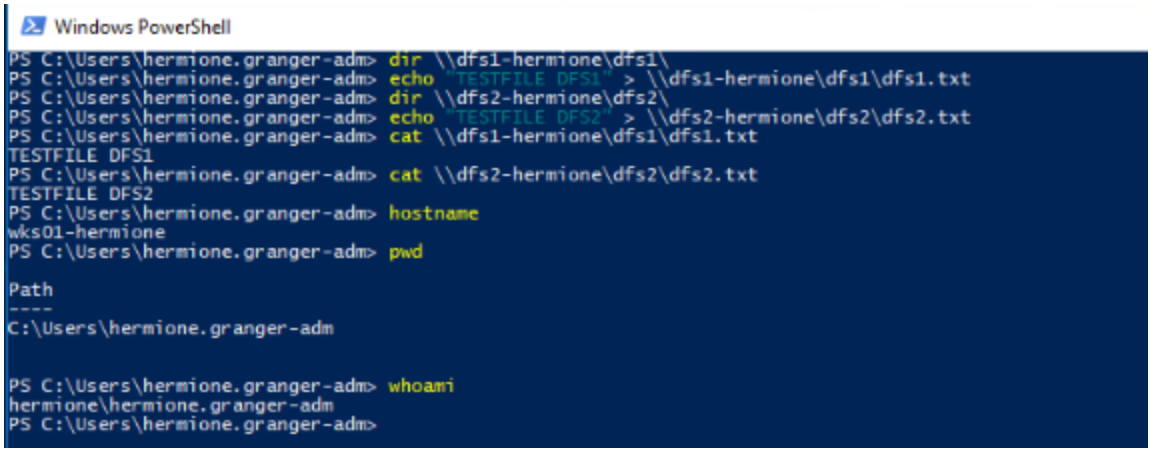
If you get a message that looks like this:



or a firewall message, cancel and press on. Computer Management should open up afterwards.

Do the same for DFS2, changing the server and path names as appropriate.

On WKS01 under your AD named-adm account, you should be able to access the two new shares. Create a file in each similar to that shown below.



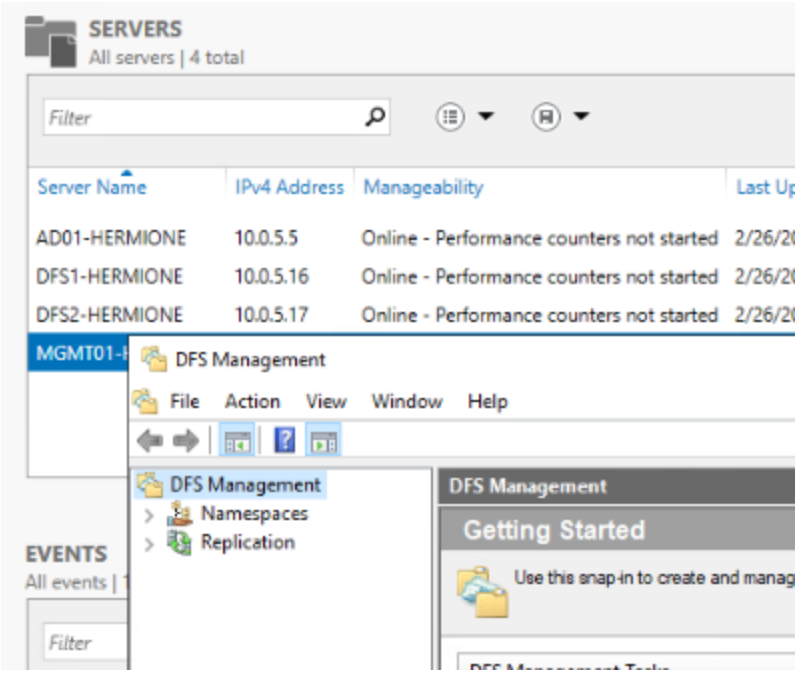
`Deliverable 1. Screenshot showing WKS01 accessing two new shares and files as above alternatively you can show GUI screenshots.`

Install DFS

Install DFS Management Tools feature as a Remote Server Admin tool for file services on MGMT01.

Add the two server roles DFS Namespace and DFS Replication for file and storage services on MGMT01.

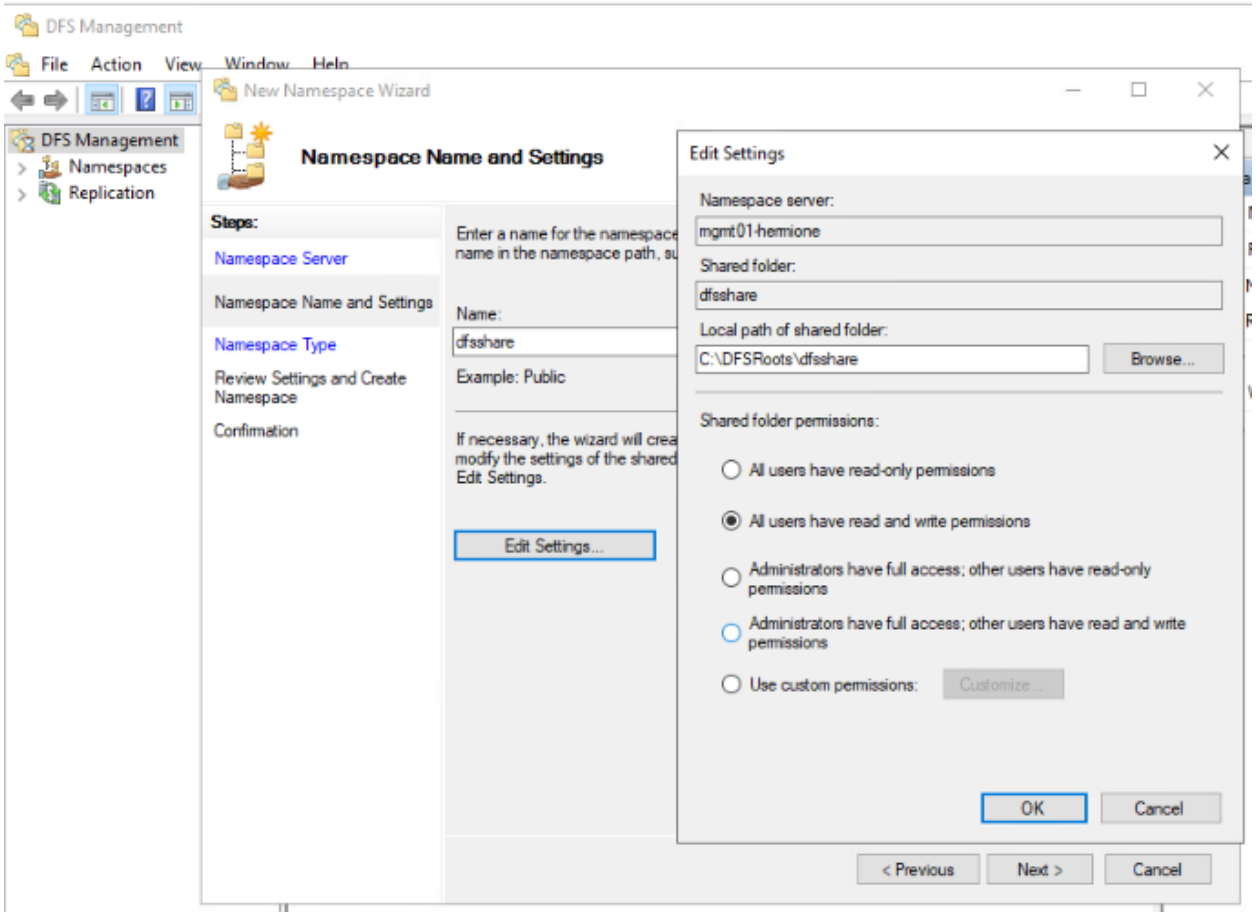
Add DFS Replication server role to both DFS1 and DFS2. Open the DFS Management Console under file & storage services on MGMT01.



Configure DFS Namespace

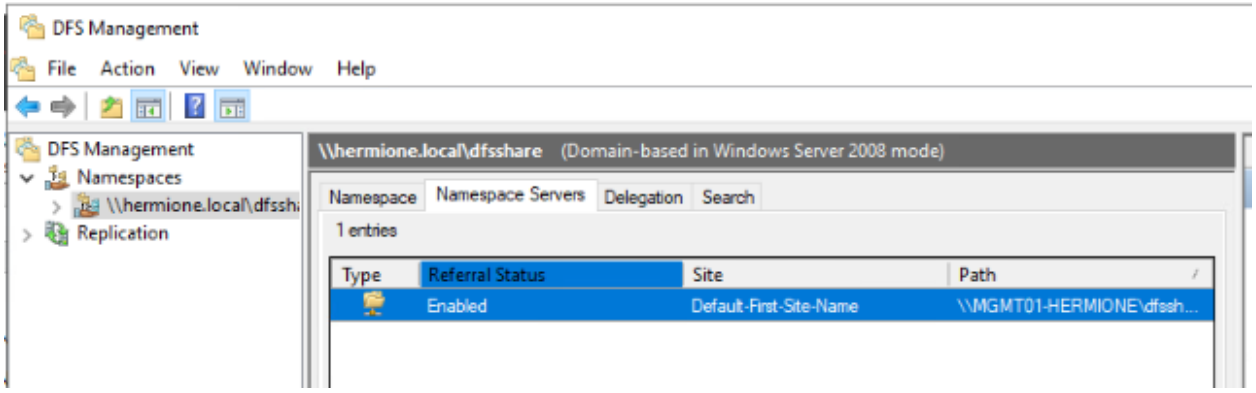
Create a new DFS Namespace on MGMT01, making it a namespace server.

Name the namespace “dfsshare”, editing the share permissions to allow all users read & write to a local path of C:\DFSRoots\dfshare for a domain-based namespace. See screenshot below.



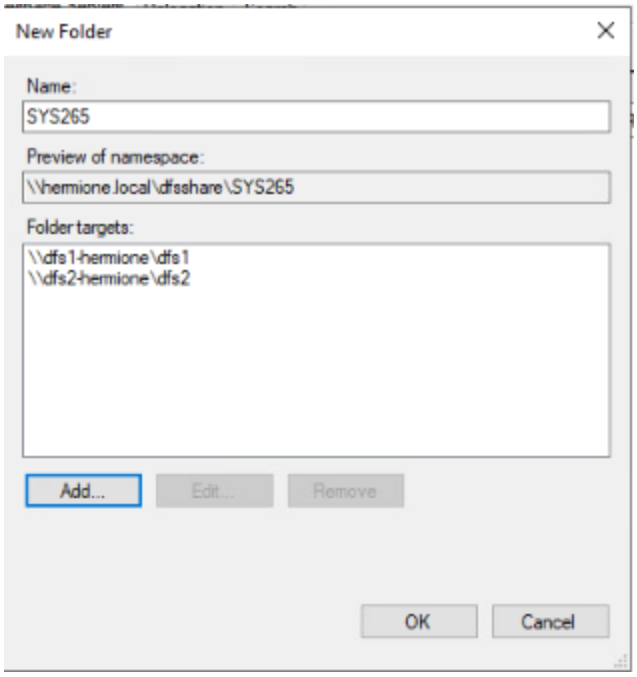
Select a domain-based namespace to create. When finished, your domain-based DFS Namespace should look like below:

`Deliverable 2. Screenshot showing your domain-based DFS namespace with MGMT01 as a nameserver.`

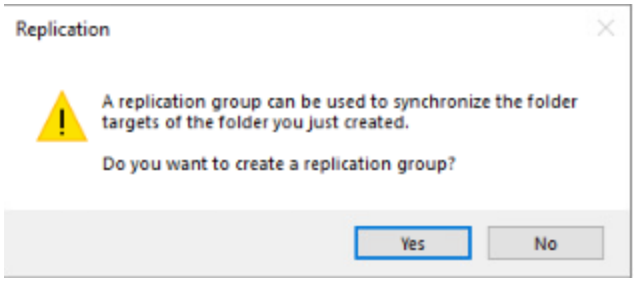


Creating a folder in the DFS Namespace

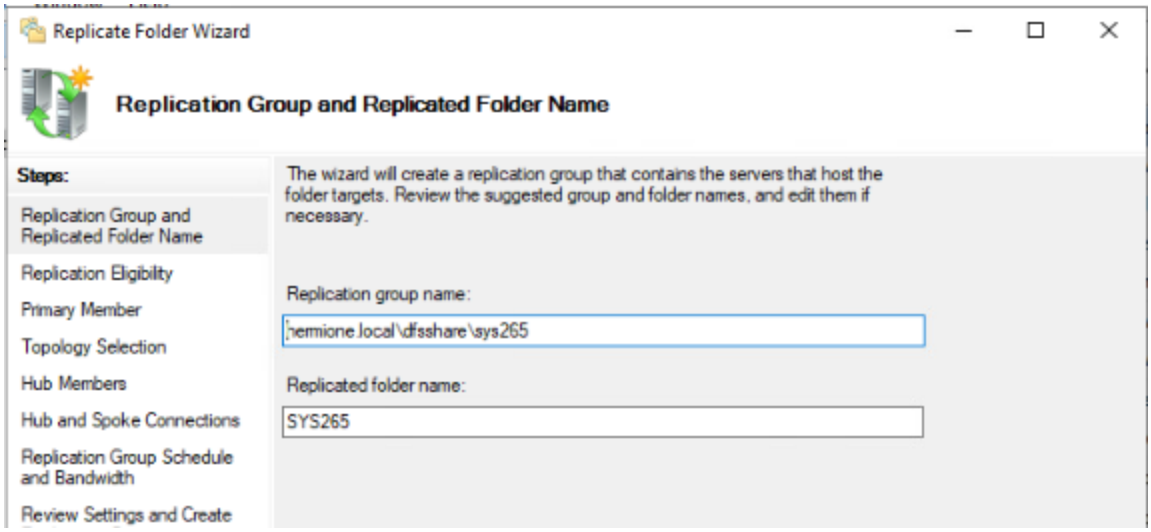
Create a new folder in your DFS Namespace called “SYS265”, and add Folder Targets from DFS1 and DFS2.



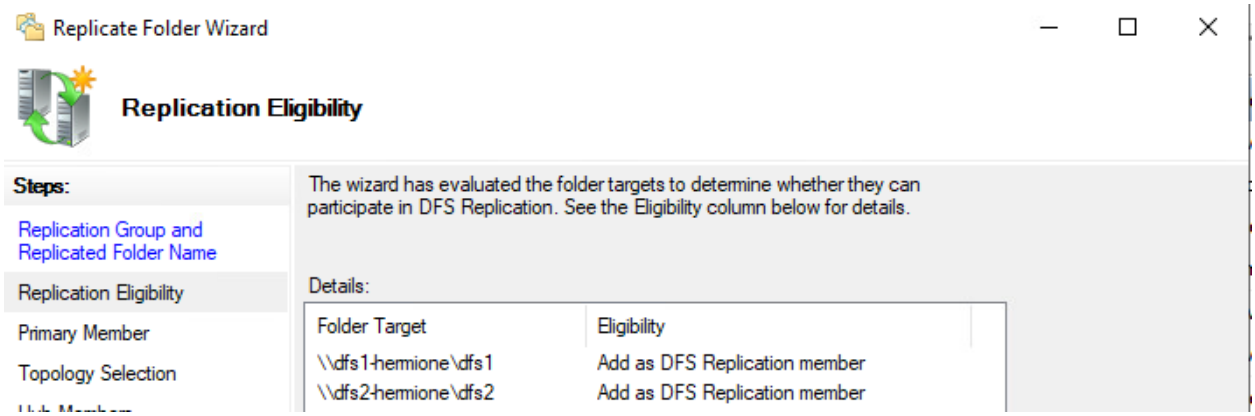
Yes, you will want to create a replication group to sync the folder targets.

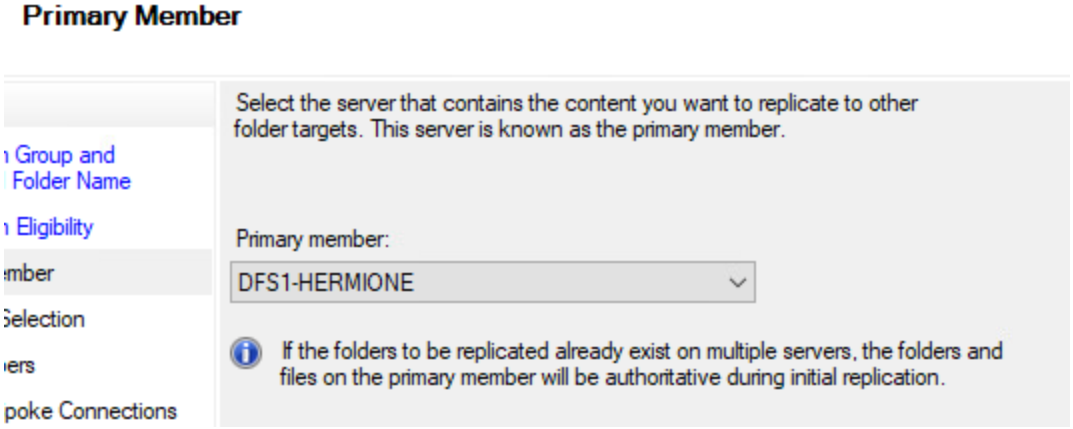


Which then prompts to create a Replicate Folder for DFS Replication:



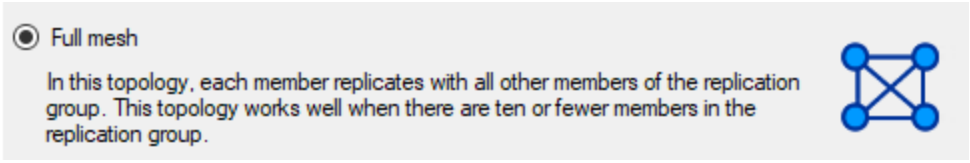
Make certain to add both DFS1 & DFS2 to the DFS Replication Group:



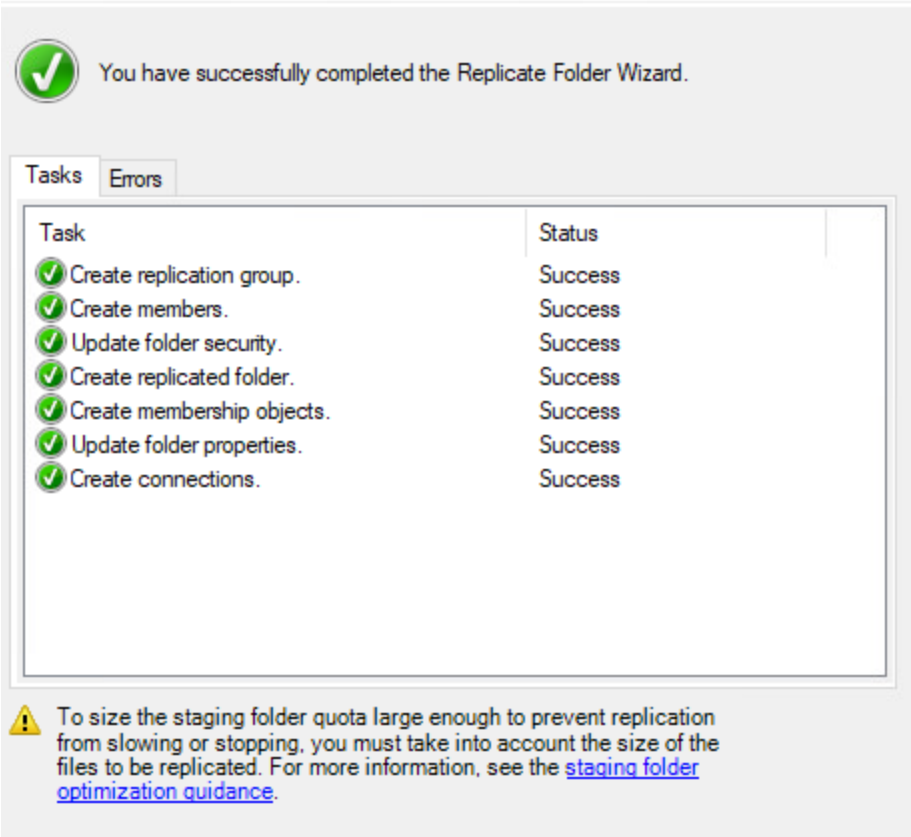


💡 Please read the part re: primary member. Now, read it again and then write that down on your arm for good luck.

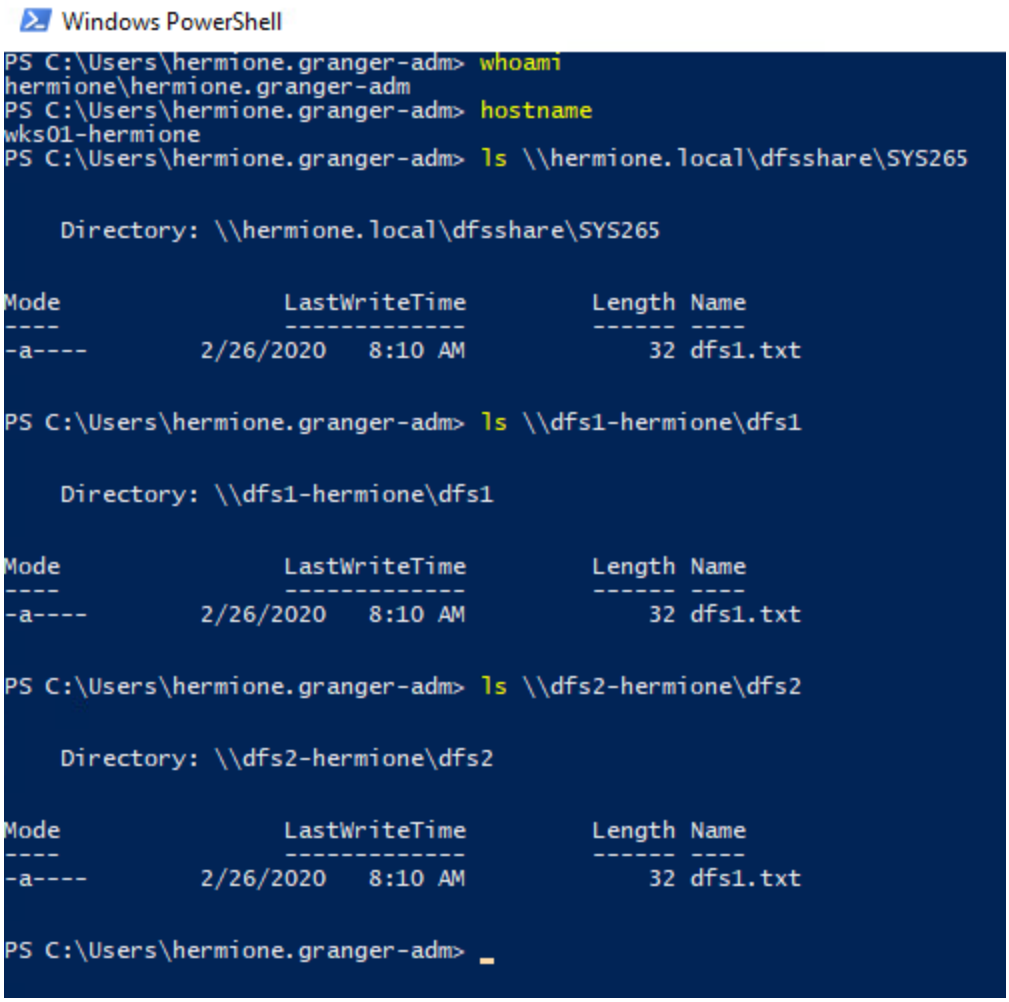
Full Mesh with default settings to connect all DFS parties involved.



All things in life should be green with checkmarks:



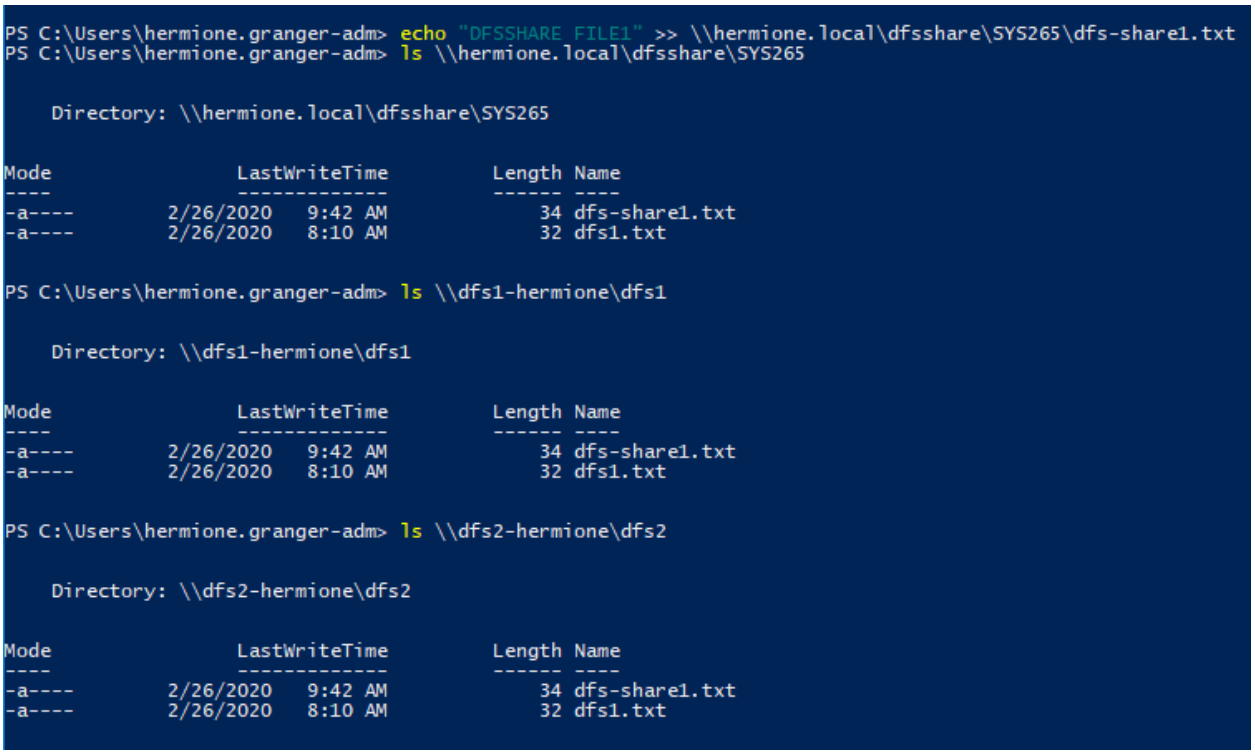
Back on WKS01, you should be able to access the test file three ways: DFS1's share, DFS2's share, and via the new SYS265 DFS share:



💣Hey, what happened to dfs2.txt on dfs2?!

Create dfs-share1.txt on \\your name.local\dfs share\SYS265

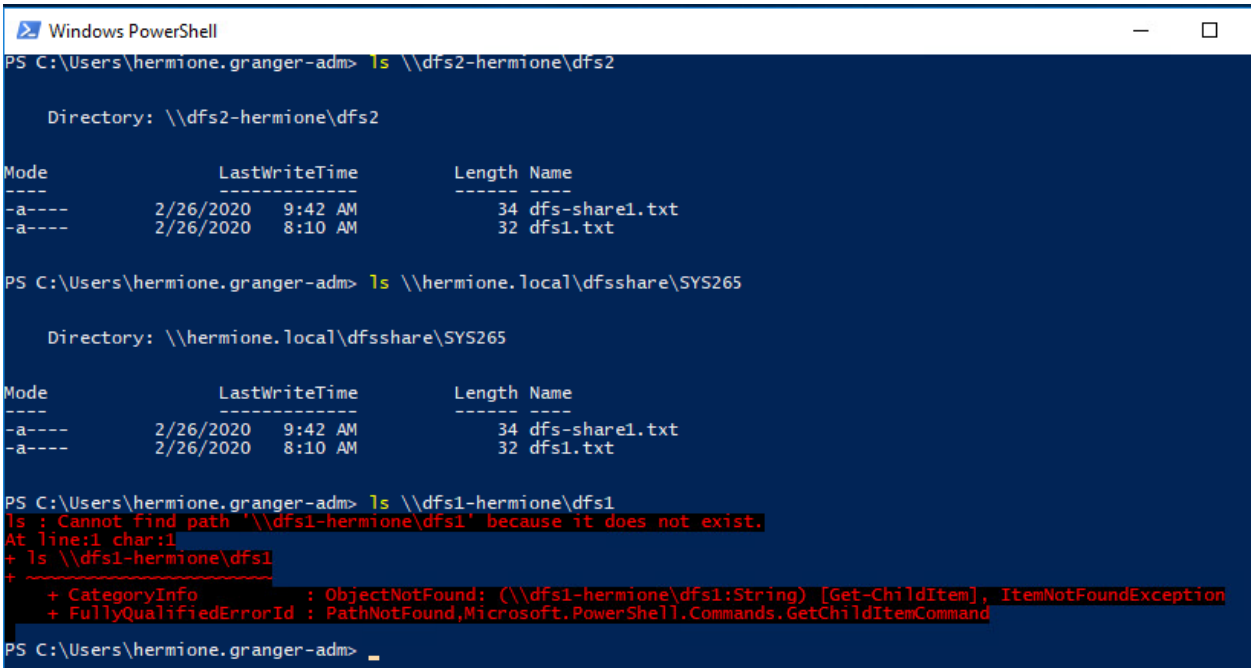
Deliverable 3. Screenshot of WKS01 showing creation and access to dfs-share1.txt using three shared paths: DFS1's share, DFS2's share, and via the new DFS share.



Time to Break Things

In vSphere, disable the Network on DFS1. Then on WKS01, attempt to access the same 3 shares through file explorer or powershell:

Deliverable 4. Screenshot showing DFS1 down while DFS2's share and the DFS share available.



Deliverable 5. a) Explain briefly why DFS1's local share is down and DFS2's share & the DFS share are online? b) Also briefly explain why when the dfs share is initially assessed that only one of your test files appears?

Conduct the following tests.

- With DFS1 still down, add a file to \\dfs2\dfs2 called dfs2-test2.txt
- Re-run the ls test above on both \\dfs2\dfs2 and on \\yourname.local\dfsshare\sys265
- Reconnect DFS1 and do the ls test on \\dfs1\dfs1

Deliverable 6. Provide a screenshot that illustrates this test