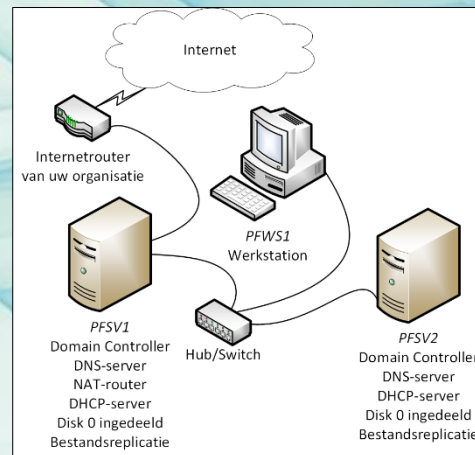
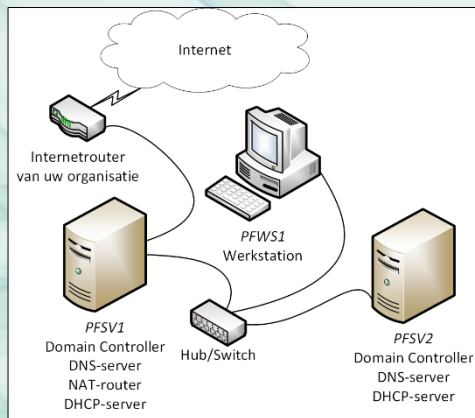


Hoofdstuk 6

Schijvenbeheer

In dit hoofdstuk

- Fysieke serverschijf inrichten
- Bestandsrepletatie installeren en configureren
- Kennis
- Vaardigheden



Begrippen

- Partities:
- Primaire partities
- De extended partitie
- Totaal maximaal 4 waarvan 1 de extended partitie
- Logische stations in de extended partitie
- Volume
- Basic disk
- Dynamic disk
- Fouttolerantie
- RAID
- NAS
- SAN

Disk Management; bij aanvang

The screenshot shows the Windows Computer Management console, specifically the Disk Management section. It displays a table of volumes and a detailed view of Disk 0 and Disk 1.

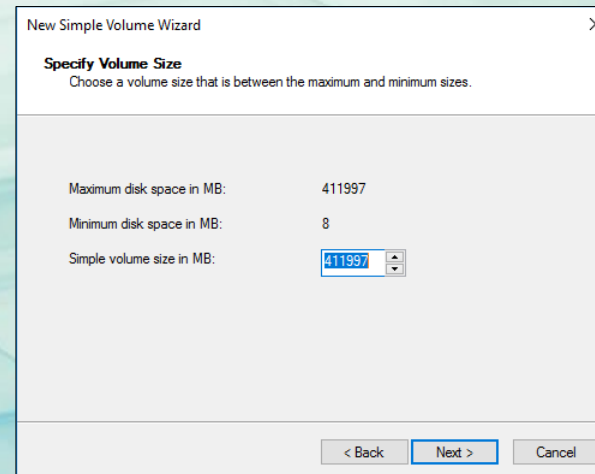
Volume	Layout	Type	File System	Status	Capacity	Free Space	% Free
(C:)	Simple	Basic	NTFS	Healthy (Boot, Page File, Crash Dump, Primary Partition)	97,17 GB	87,42 GB	90 %
System Reserved	Simple	Basic	NTFS	Healthy (System, Active, Primary Partition)	500 MB	169 MB	34 %
VBOXADDITIONS_5_ (D:)	Simple	Basic	CDFS	Healthy (Primary Partition)	57 MB	0 MB	0 %

Disk	Layout	Type	File System	Status	Capacity	Free Space	% Free
Disk 0	System Reserved	(C:)					
Disk 1							

Legend: ■ Unallocated ■ Primary partition

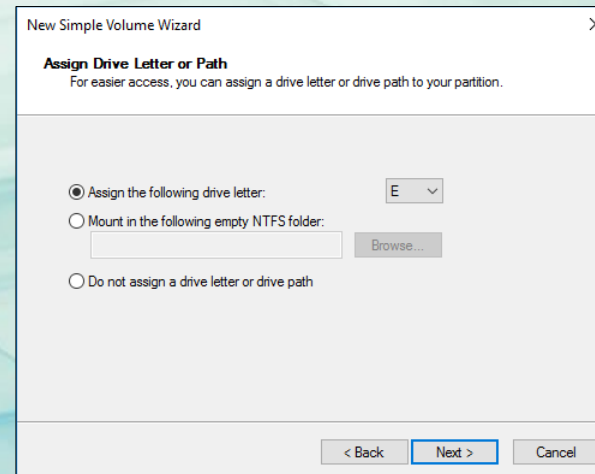
Een volume aanmaken (1)

- Start de New Simple Volume Wizard
- Geef de volumegrootte in



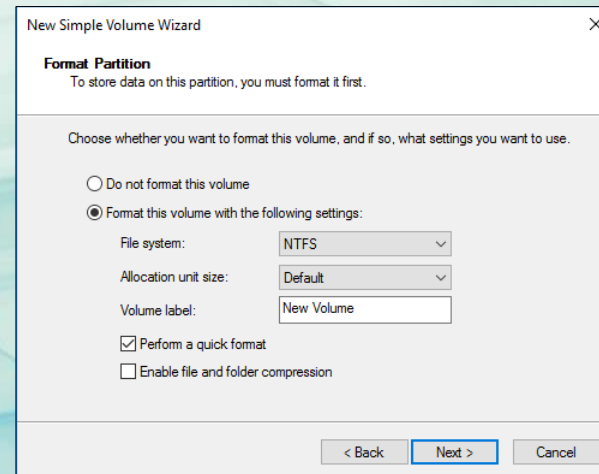
Een volume aanmaken (2)

- Ken een driveletter toe



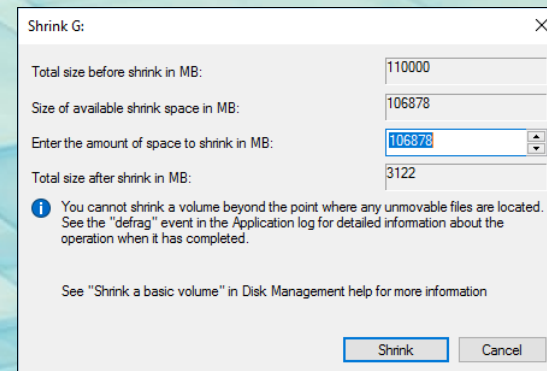
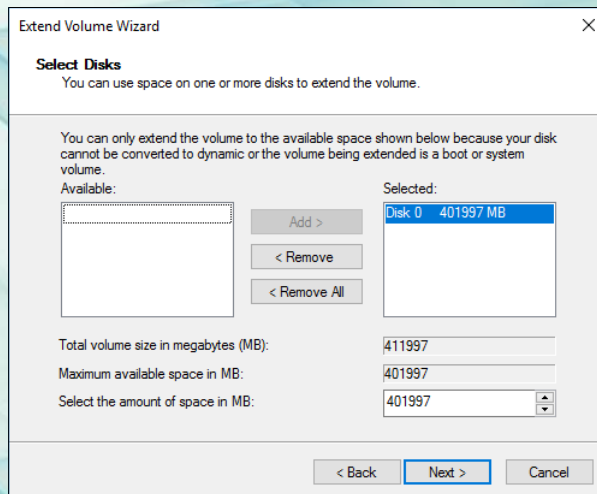
Een volume aanmaken (3)

- Formateer:
- File system
- FAT32
- NTFS
- ReFS
- Allocation unit size
- Volume label
- Perform a quick format
- Enable file and folder compression

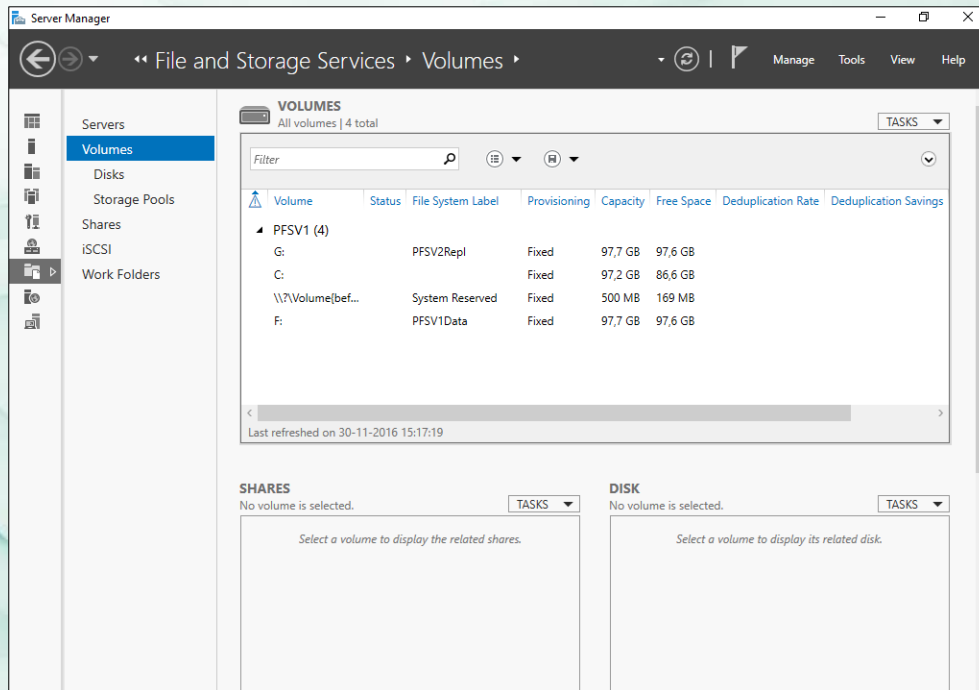


De volumegrootte aanpassen

- Onder condities:
- Uitbreiden
- Inkrimpen



Volume aanmaken kan ook via Server Manager



Converteren naar NTFS

- Alleen van FAT32 naar NTFS en niet omgekeerd
- Via een commando

```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>Convert i: /fs:ntfs
The type of the file system is FAT32.
Enter current volume label for drive I: pfsv1test
Volume PFSV1TEST created 30-11-2016 15:31
Volume Serial Number is E464-DF77
Windows is verifying files and folders...
File and folder verification is complete.

Windows has scanned the file system and found no problems.
No further action is required.
 10.227.712 KB total disk space.
 10.227.704 KB are available.

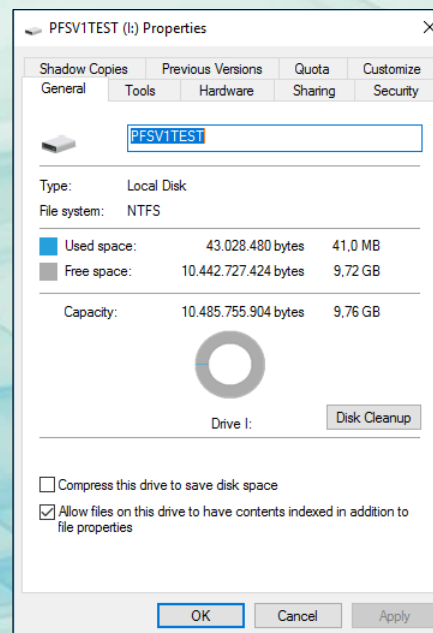
   8.192 bytes in each allocation unit.
 1.278.464 total allocation units on disk.
 1.278.463 allocation units available on disk.

Determining disk space required for file system conversion...
Total disk space:      10240000 KB
Free space on volume:  10227704 KB
Space required for conversion: 27128 KB
Converting file system
Conversion complete

C:\Users\Administrator>
```

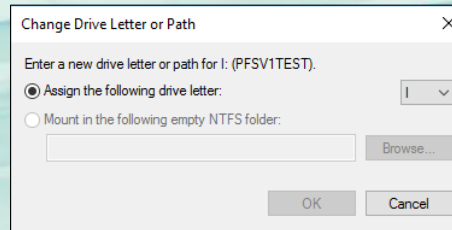
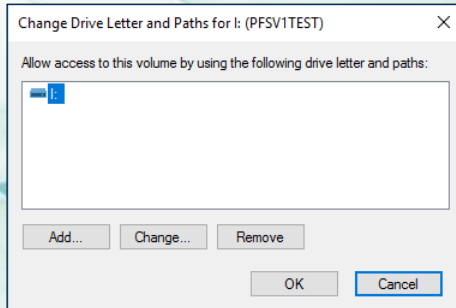
De eigenschappen (General)

- Volume label ingeven of aanpassen
- Bestandssysteem
- Gebruikte en vrije ruimte
- Compressie in- of uitschakelen
- Alleen voor het volume
- Voor het volume en alle files en folders die er op voorkomen



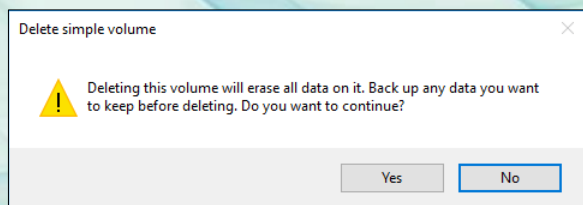
Veranderen van driveletter

- Alleen als het niet anders kan



Een volume verwijderen

- Alles op het volume gaat verloren
- De vrijkomende ruimte wordt toegevoegd aan:
 - De ruimte *Unallocated* als het volume een primaire partitie was
 - De ruimte *Free space* in de extended partitie als het volume een logisch station was



Disk Management; na afloop

The screenshot shows the Windows Computer Management console, specifically the Disk Management section. It displays a table of volumes and a graphical representation of the disk layout.

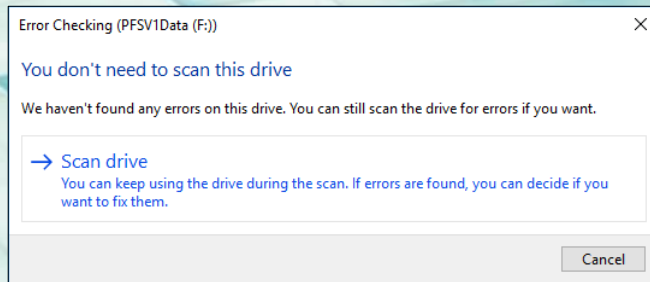
Volume	Layout	Type	File System	Status	Capacity	Free Space	% Free
PFSV1Appl (H:)	Simple	Basic	NTFS	Healthy (Logical Drive)	50,00 GB	49,90 GB	100 %
PFSV1Data (F:)	Simple	Basic	NTFS	Healthy (Primary Partition)	97,66 GB	97,60 GB	100 %
PFSV1Repl (G:)	Simple	Basic	NTFS	Healthy (Logical Drive)	97,66 GB	97,55 GB	100 %
PFSV1Syst (C:)	Simple	Basic	NTFS	Healthy (Boot, Page File, Crash Dump, Primary Partition)	97,17 GB	83,55 GB	86 %
System Reserved	Simple	Basic	NTFS	Healthy (System, Active, Primary Partition)	500 MB	154 MB	31 %
VBOXADDITIONS_5_ (D:)	Simple	Basic	CDFS	Healthy (Primary Partition)	57 MB	0 MB	0 %

Disk	Partition	Capacity	File System	Status
Disk 0 Basic 500,00 GB Online	System F	500 MB	NTFS	Healthy
	PFSV1Syst (C:)	97,17 GB	NTFS	Healthy (Boot, Page)
	PFSV1Data (F:)	97,66 GB	NTFS	Healthy (Primary Pa)
	PFSV1Repl (G:)	97,66 GB	NTFS	Healthy (Logical Dr)
	PFSV1Appl (H:)	50,00 GB	NTFS	Healthy (Logical D)
	Free space	157,03 GB		
Disk 1 Basic 500,00 GB Online	Unallocated	500,00 GB		
CD-ROM 0 CD-ROM 57 MB Online	VBOXADDITIONS_5_ (D:)	57 MB	CDFS	Healthy (Primary Partition)

Legend: ■ Unallocated ■ Primary partition ■ Extended partition ■ Free space ■ Logical drive

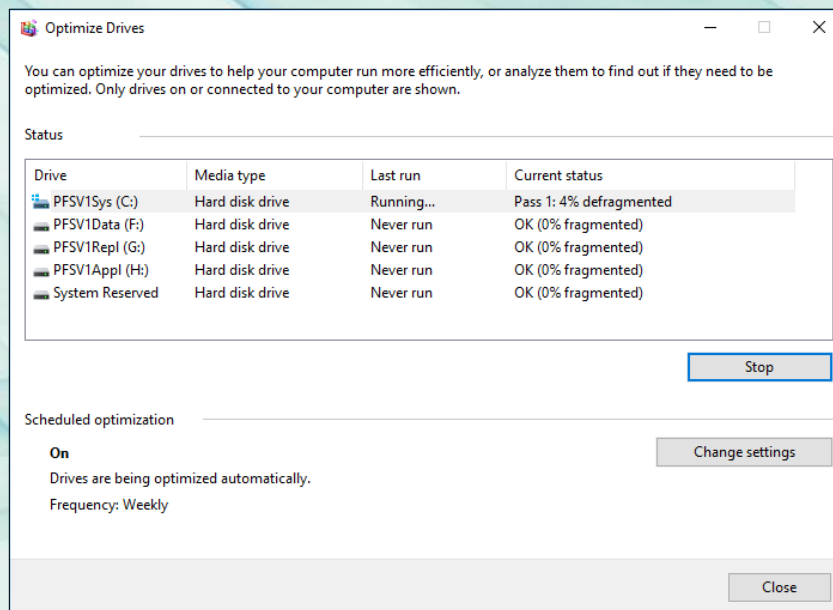
Schijfcontrole

- Windows Server 2016 is voorzien van File System Check
- Kan altijd nog handmatig



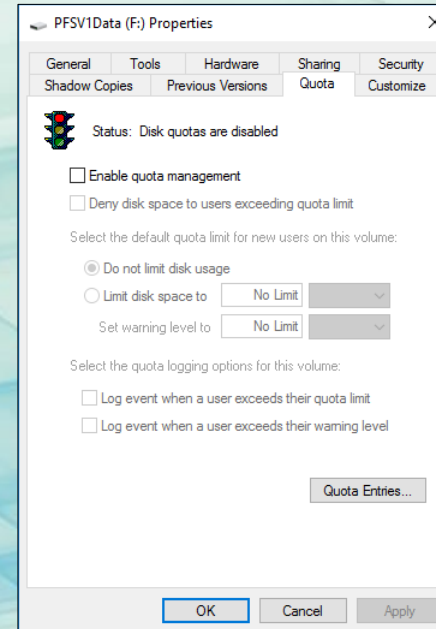
Defragmenteren

- Clusters die door een bestand worden gebruikt bij elkaar brengen
 - Analyseren
 - Defragmenteren
 - Geagendeerd defragmenteren

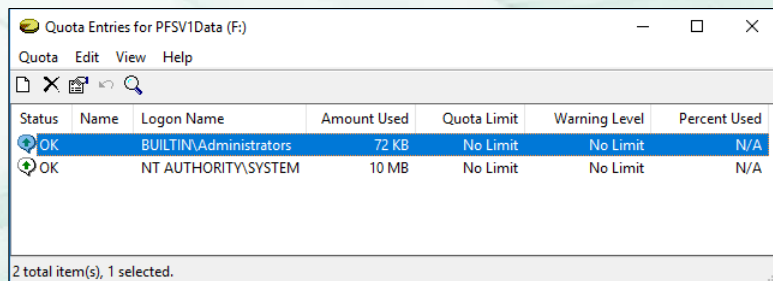


Diskquota

- Dwingt spaarzaam gebruik van schijfruimte af
- Tabblad *Quota* van het eigenschappenvenster
- Alleen op NTFS-volumes
- Beschikbaar gestelde ruimte
- Waarschuwingsniveau
- Gebeurtenissen schrijven



Standaard quotumingen



Status	Name	Logon Name	Amount Used	Quota Limit	Warning Level	Percent Used
OK	BUILTIN\Administrators	BUILTIN\Administrators	72 KB	No Limit	No Limit	N/A
OK	NT AUTHORITY\SYSTEM	NT AUTHORITY\SYSTEM	10 MB	No Limit	No Limit	N/A

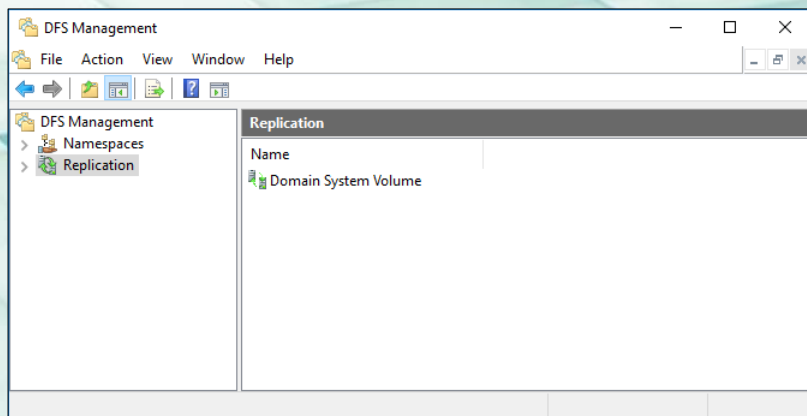
2 total item(s), 1 selected.

Bestandsrepliatie

- Zorgt voor een fouttolerante bestandsopslag
- Op alle replicatiepartners DFS installeren
- Op de file server met het origineel aangeven wat u wilt repliceren
- Voldoende ruimte op de replicatiepartners
- Bij transport compressie via RDC

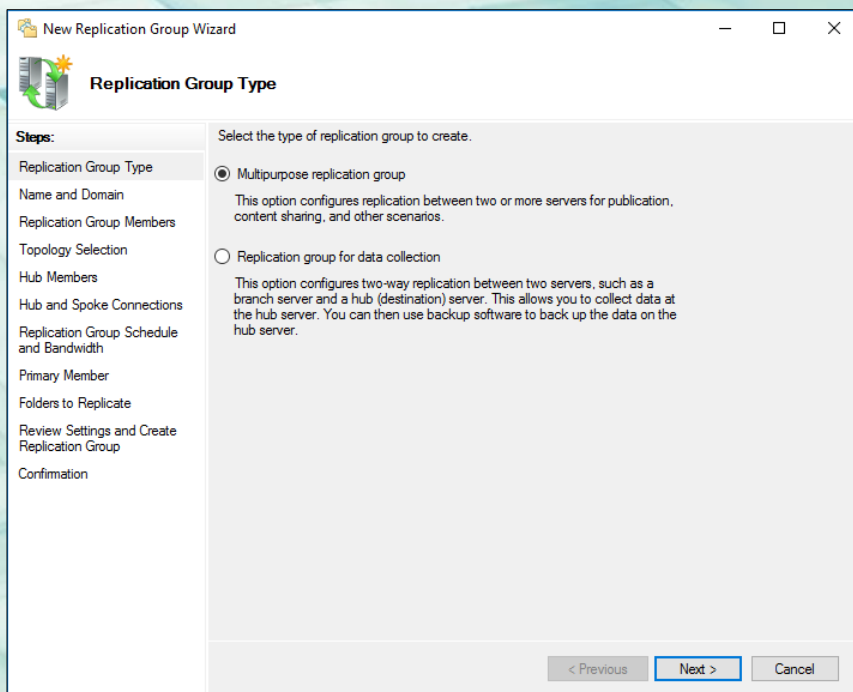
DFS installeren

- Installeer de role service *DFS Replication* van de service role *File and Storage Services* inclusief de beheertool



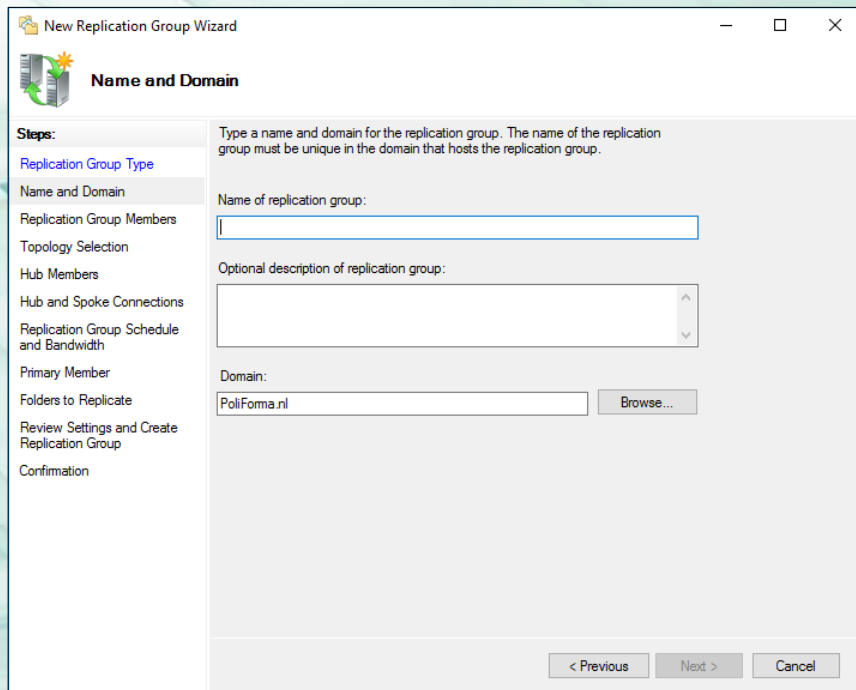
Replicatiegroep (1)

- Wizard starten
- Type instellen



Replicatiegroep (2)

- Naam en domain



The screenshot shows the 'New Replication Group Wizard' dialog box, specifically the 'Name and Domain' step. The window title is 'New Replication Group Wizard'. The left sidebar lists the steps: 'Replication Group Type' (selected), 'Name and Domain', 'Replication Group Members', 'Topology Selection', 'Hub Members', 'Hub and Spoke Connections', 'Replication Group Schedule and Bandwidth', 'Primary Member', 'Folders to Replicate', 'Review Settings and Create Replication Group', and 'Confirmation'. The main area contains the following fields and instructions:

Type a name and domain for the replication group. The name of the replication group must be unique in the domain that hosts the replication group.

Name of replication group:

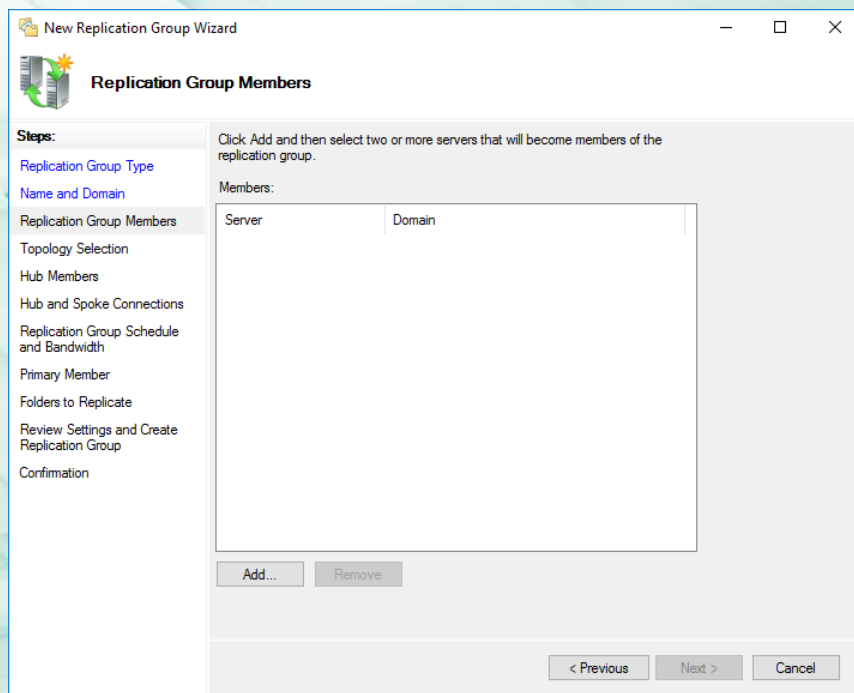
Optional description of replication group:

Domain:

At the bottom, there are three buttons: '< Previous', 'Next >', and 'Cancel'.

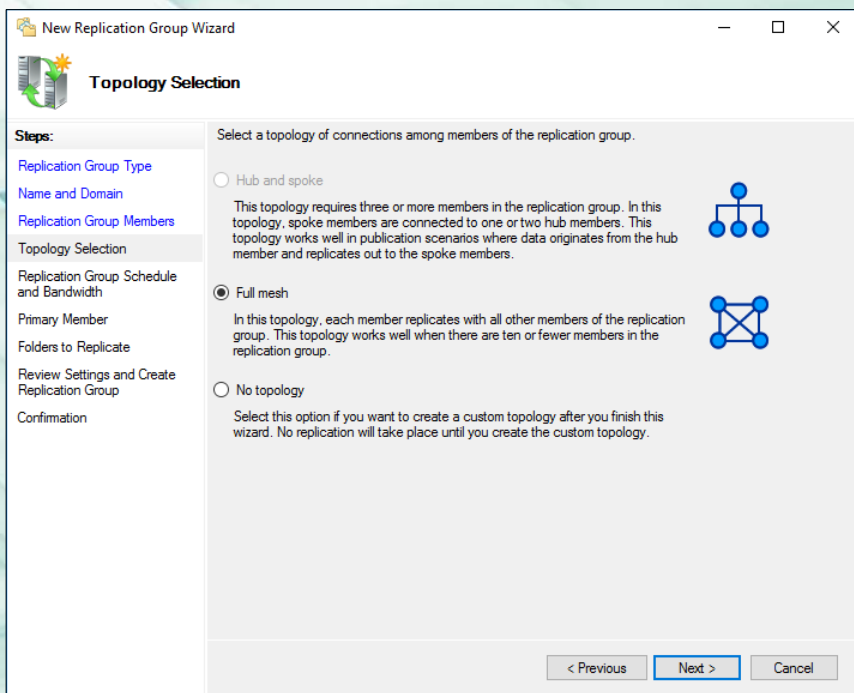
Replicatiegroep (3)

- Welke servers doen mee



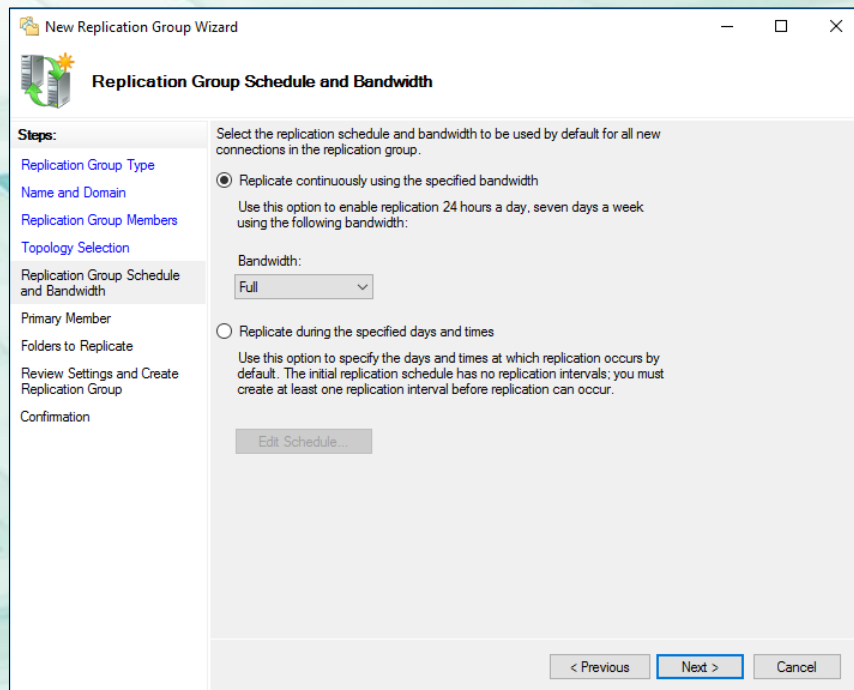
Replicatiegroep (4)

- Een topologie kiezen



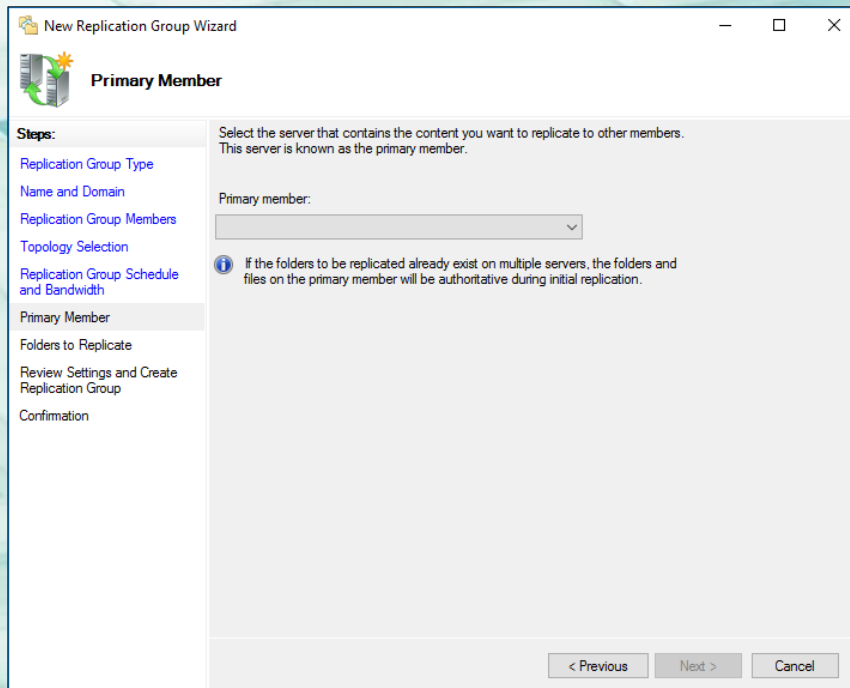
Replicatiegroep (5)

- Het tijdvak en de bandbreedte instellen



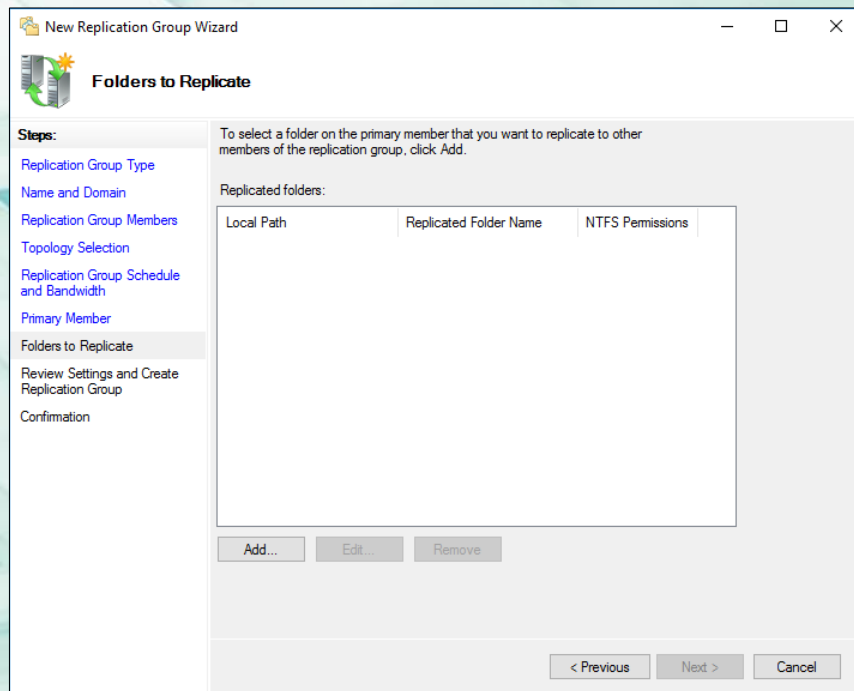
Replicatiegroep (6)

- De server met het oorspronkelijke origineel aangeven (*Primary member*)



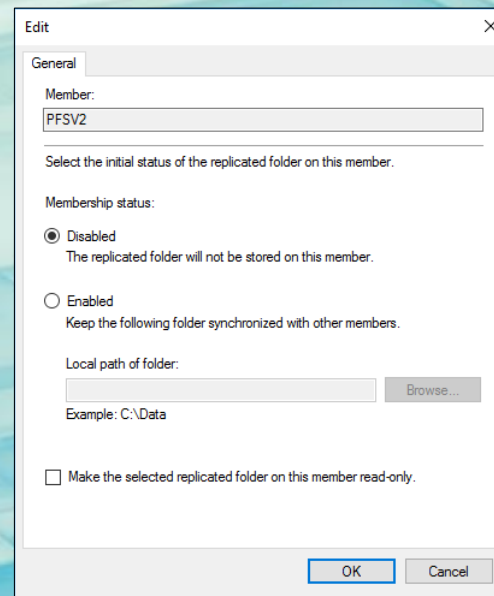
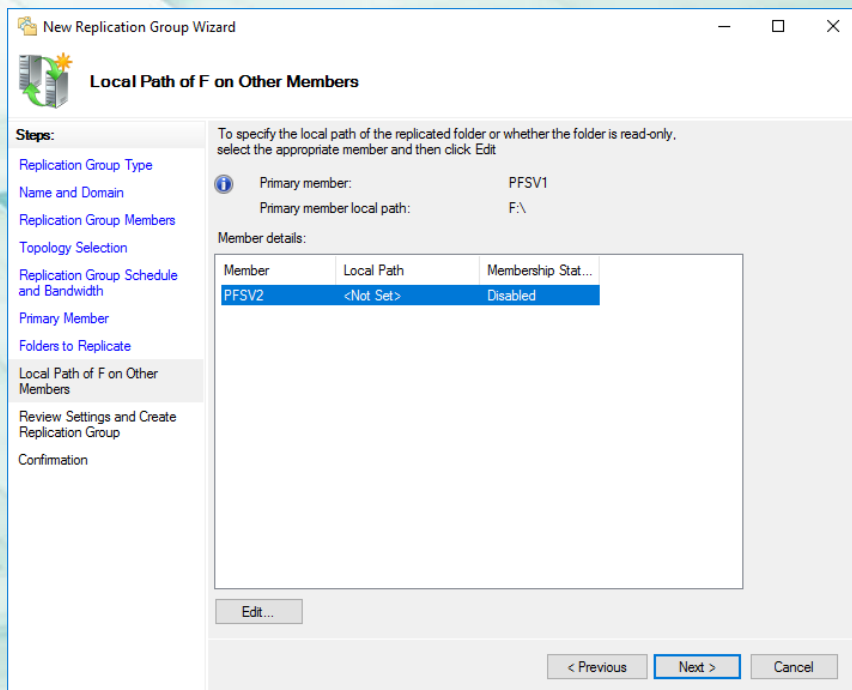
Replicatiegroep (6)

- De map aangeven op het oorspronkelijke origineel



Replicatiegroep (7)

- Op elke andere server inschakelen en aangeven waar op te slaan



Replicatiegroepen in bedrijf

