


# Réalisation Infrastructure de stockage – Partie 1 – DataCore

Portfolio de fin d'année – Mathéo  
SOUBIROUS

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## Tableau excel des différentes tâches à vérifier et à faire sur DataCore et VMware

YM_NAME	TAG SAUVEGARDE	DATE_MIGRATION	HORAIRE_MIGRATION	UTILISATEUR_A_PREVENIR	ESX_COMPUTE	DS_NAME	N° LUN	TAILLE STOCKAGE CIBLE (GB)	STOCKAGE CIBLE OK	1 - CREATION DU LUN
SRV-DIGN-	SAUVEGARDE-FQ-RTJ	27/11/2024	à partir de 14h-15h	BLOC	ESXI-DIGN-PROD1	DS-SRV-DIGN-	25	200	OUI	OUI
SRV-DIGN-	SAUVEGARDE-FQ-RTJ	27/11/2024	à partir de 14h-15h	BLOC	ESXI-DIGN-PROD2	DS-SRV-DIGN-	44	300	OUI	OUI
SRV-DIGN-	SAUVEGARDE-FQ-RTJ	27/11/2024	à partir de 14h-15h	BLOC	ESXI-DIGN-PROD1	DS-SRV-DIGN-	43	200	OUI	OUI
SRV-DIGN-	SAUVEGARDE-FQ-RTJ	27/11/2024		SAMU	ESXI-DIGN-PROD2	DS-SRV-DIGN-	32	170	OUI	OUI
SRV-	SAUVEGARDE-FQ-RTJ	27/11/2024			ESXI-DIGN-PROD1	DS-SRV-	29	330	OUI	OUI
SRV-	SAUVEGARDE-FQ-RTJ	27/11/2024			ESXI-DIGN-PROD2	DS-SRV-	26	330	OUI	OUI
SRV-	SAUVEGARDE-FQ-RTJ	27/11/2024			ESXI-DIGN-PROD1	DS-SRV-	28	650	OUI	OUI
SRV-	SAUVEGARDE-FQ-RTJ	27/11/2024		PAIE DRH	ESXI-DIGN-PROD2	DS-SRV-	24	170	OUI	OUI
SRV-	SAUVEGARDE-FQ-RTJ	27/11/2024		ST ELEC	ESXI-DIGN-PROD1	DS-SRV-	30	160	OUI	OUI
SRV-	SAUVEGARDE-FQ-RTJ	27/11/2024		SAMU	ESXI-DIGN-PROD2	DS-SRV-	31	30	OUI	OUI
SRV-	SAUVEGARDE-FQ-RTJ	27/11/2024		SAMU	ESXI-DIGN-PROD1	DS-SRV-	32	170	OUI	OUI
SRV-	SAUVEGARDE-FQ-RTJ	27/11/2024		SAMU	ESXI-DIGN-PROD2	DS-SRV-	33	210	OUI	OUI

[illegible]

## Interface de DataCore où l'on peut voir un des DataStores

The screenshot displays the DataCore Management Console interface. At the top, the title bar reads "DataCore™ Management Console" with a "Regular license (1635 days remaining)" status. The main navigation bar includes "Home", "Common Actions", and "Virtual Disk Actions". Below this, a toolbar contains icons for "Serve to Hosts", "Start Reclamation", "Abort Reclamation", "Delete", "Create Rollback", "Create Snapshot", and "Create Replication".

The left sidebar contains three main sections:

- Server Group Connections:** Lists "Server Group - 172.16" and "Server Group - 172.16" with a "Connect to Server Group" link.
- DataCore Servers:** A tree view showing "SRV-DIGN-DC1" with sub-items for "Physical Disks", "Capacity Optimization", "DataCore Disks", and "Virtual Disks". The "Virtual Disks" item is selected, showing a "DS" with a size of "80 GB".
- Hosts:** A tree view showing "BDD" and "PROD" with sub-items for "esx-dign" and "172.16".

The main content area is titled "Virtual Disk DS" and shows the following details:

- Description:** Size: 80 GB, Sector size: 512 B
- Mirrored (Write-through):** Reserved space: 0 B
- Storage profile:** Normal
- Host(s):** esx-dign, esx-dign

Below the details, there is a tabbed interface with tabs for "Info", "Settings", "Paths", "Snapshots", "Rollbacks", "Replication", "Owned By", "Performance", and "Events". The "Info" tab is active, showing the following information:

- SRV-DIGN-DC2 (Running):** Member role: First [Parent]
- Data status:** Up to date
- Host access:** Read/Write
- Storage source:** 47,63 GB allocated (Online) Replace Move
- Continuous data protection:** Enabled
- Retention period:** 57 minute(s)
- History log:** 4,25 GB used / 5,50 GB allocated
- SRV-DIGN-DC1 (Running):** Member role: Second [Mirror]
- Data status:** Up to date
- Host access:** Read/Write
- Storage source:** 47,38 GB allocated (Online) Replace Move

## Première étape de la création d'un DataStore : les Propriétés

Les nom utilisé sont DS-LE-NOM-DU-SERVEUR

La taille du DataStore est choisie par rapport à la taille max de le VM X 1.5

### Step 1 of 3: Set Virtual Disk Properties

Configure one or more virtual disks with the same characteristics. Mirrored virtual disks require two storage servers in the server group. Dual virtual disks require a shared pool or pass-through disk. Reserved size is free space reserved in the pool for exclusive use by the virtual disk.

Name: Virtual disk 1

Description:

Type: ☐ Single

One DataCore Server with a single storage source.

☐ Dual

Two DataCore Servers with a shared storage source. Provides fault tolerance at the server level.

☒ Mirrored

Two DataCore Servers with two mirrored storage sources. Provides fault tolerance at the server and storage level.

Size: 2150 GiB

Reserved space: 0 GiB

Quantity: 1

Sector size: 512 B

☐ Encrypted

Storage profile: Normal

☐ Assign ownership to me

Capacity Optimization:

☐ Inline Deduplication

☐ Inline Compression


## Deuxième étape de la création d'un DataStore :

### Choix du Stockage

#### Step 2 of 3: Set Storage Source

Choose the server, source type, and storage source to use for each side of the mirrored virtual disk. Source type can be disk pool or pass-through disk (a physical disk that is not in a pool). If encryption is selected, only supported storage sources will be listed. Encryption is supported on licensed servers running Windows 2016 and later.



First DataCore Server:		SRV-DIGN-DC1	Data locality: SALLE INFO		Source type: Disk pool								
Pool Name	▲	DataCore Server(s)	Size	Status	Capacity Optimizati...	SAU Size	Sector Size	Available Storage	Single Virtual Disk Count	Multi-copy Virtual Di...	Dual Virtual Disk Co...	Oversubscription	Usage
 DC1-DP1		SRV-DIGN-DC1	33,51 TiB	Running	Disabled	128 MiB	512 B	16,29 TiB	0	130	0	8,77 TiB	52 %

[Create Disk Pool](#)

1 item

Second DataCore Server:		SRV-DIGN-DC2	Data locality: SALLE MCO		Source type: Disk pool								
Pool Name	▲	DataCore Server(s)	Size	Status	Capacity Optimizati...	SAU Size	Sector Size	Available Storage	Single Virtual Disk Count	Multi-copy Virtual Di...	Dual Virtual Disk Co...	Oversubscription	Usage
 DC2-DP1		SRV-DIGN-DC2	33,51 TiB	Running	Disabled	128 MiB	512 B	14,42 TiB	0	130	0	10,62 TiB	57 %

[Create Disk Pool](#)

Troisième étape est un récapitulatif des choix

### Step 3 of 3: Summary



#### Virtual disk 1

Type: Mirrored	Reserved space: 0 B
Quantity: 1 / 2, 10 TiB	Sector size: 512 B
Storage profile: Normal	Encrypted: False
DataCore Server: SRV-DIGN-DC1	DataCore Server: SRV-DIGN-DC2
Storage source: DC1-DP1 (Disk pool)	Storage source: DC2-DP1 (Disk pool)
Capacity Optimization: Disabled	

⊞ Advanced Options

## Première étape de la connexion du DataStore aux serveurs ESX

### Step 1 of 3: Select Hosts

Select one or more hosts to serve the virtual disks to.

Name	Description	State	Type	Multipath
8DD				
PROD				
esx-dign	VMware ESXi 8.0.3 build-24280767	Connected	VMware ESX	Yes
esx-dign	VMware ESXi 8.0.3 build-24280767	Connected	VMware ESX	Yes
SRV-DIGN		Running	DataCore Server	Yes
SRV-DIGN		Running	DataCore Server	Yes

[Register Host](#)

## Deuxième étape choix de la méthode du chemin ici en redondance

### Step 2 of 3: Select Paths

Select the path mode to use. Redundant paths for hosts with multipathing, creates two paths from the host to each DataCore Server and the ports are automatically selected. Single paths can be customized.

Path mode:

- ☐ Single path
- ☒ Redundant path



In redundant path mode, two paths will be created from the Host to each DataCore Server. The ports will be chosen automatically.

LUN selection

Starting LUN:



Troisième étape la sélection de paramètres avancés ici on utilisera le mapping policy par défaut et la création d'un VMFS à la découverte du DataStore par les serveurs.

C'est un système de stockage pour les différents fichier de la VM dans VMware

### Step 3 of 3: Select Advanced VMware options

Chooses from options available when serving virtual disks to VMware hosts and virtual machines.



☒ Use the default mapping policy


Path selection policy: Most recently used 

☒ Create a VMFS datastore on the discovered disk(s).

Select this option if you wish to create a VMFS datastore spanning the whole disk on each discovered disk. The datastores will be named after the virtual disks.

# Réalisation Infrastructure de stockage - Partie 2 - Migration des VM de l'hôpital

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# Numéro de LUN

Avant de pouvoir migrer les différentes VM vers le nouveau serveur VMware il faut vérifier que chaque DataStore est un numéro de LUN comme ceci

LUN	
15	↕
15	↕
15	↕
15	↕
15	↕
15	↕
15	↕
15	↕

Migration du stockage des VMs se fait en 2 étapes et un récapitulatif.

D'abord il faut choisir de migrer seulement le stockage de la VM  
et ensuite il faut choisir dans quel stockage envoyer le stockage de la VM

Migrate | SRV-DIGN-RAINBOW

1 Select a migration type

2 Select storage

3 Ready to complete

Select a migration type

Change the virtual machines' compute resource, storage, or both.

VM ORIGIN ⓘ

☐ Change compute resource only

Migrate the virtual machines to another host or cluster.

☒ Change storage only

Migrate the virtual machines' storage to a compatible datastore or datastore cluster.

☐ Change both compute resource and storage

Migrate the virtual machines to a specific host or cluster and their storage to a specific datastore or datastore cluster.

☐ Cross vCenter Server export

Migrate the virtual machines to a vCenter Server not linked to the current SSO domain.

CANCEL

NEXT

Migrate | SRV-DIGN-RAINBOW

1 Select a migration type

2 Select storage

3 Ready to complete

Select storage

Select the destination storage for the virtual machine migration.

VM ORIGIN ⓘ

BATCH CONFIGURE

CONFIGURE PER DISK

Select virtual disk format

Same format as source

VM Storage Policy

Keep existing VM storage policies

☐ Disable Storage DRS for this virtual machine

	Name	Storage Compatibility	Capacity	Provisioned	Free	Type
+	DS-SRV-DIGN-	--	19.75 GB	7.51 GB	12.24 GB	VM

Manage Columns

Items per page 10 1 item

Compatibility

✓ Compatibility checks succeeded.

CANCEL

BACK

NEXT

Il faut ensuite éteindre la VM et la désenregistrer

Après avoir fait les étapes précédentes il faut réenregistrer la VM sur le nouveau serveur VMware

ssd-000217 ACTIONS

Summary Monitor Configure Permissions **Files** Hosts VMs

Search

ssd-000217

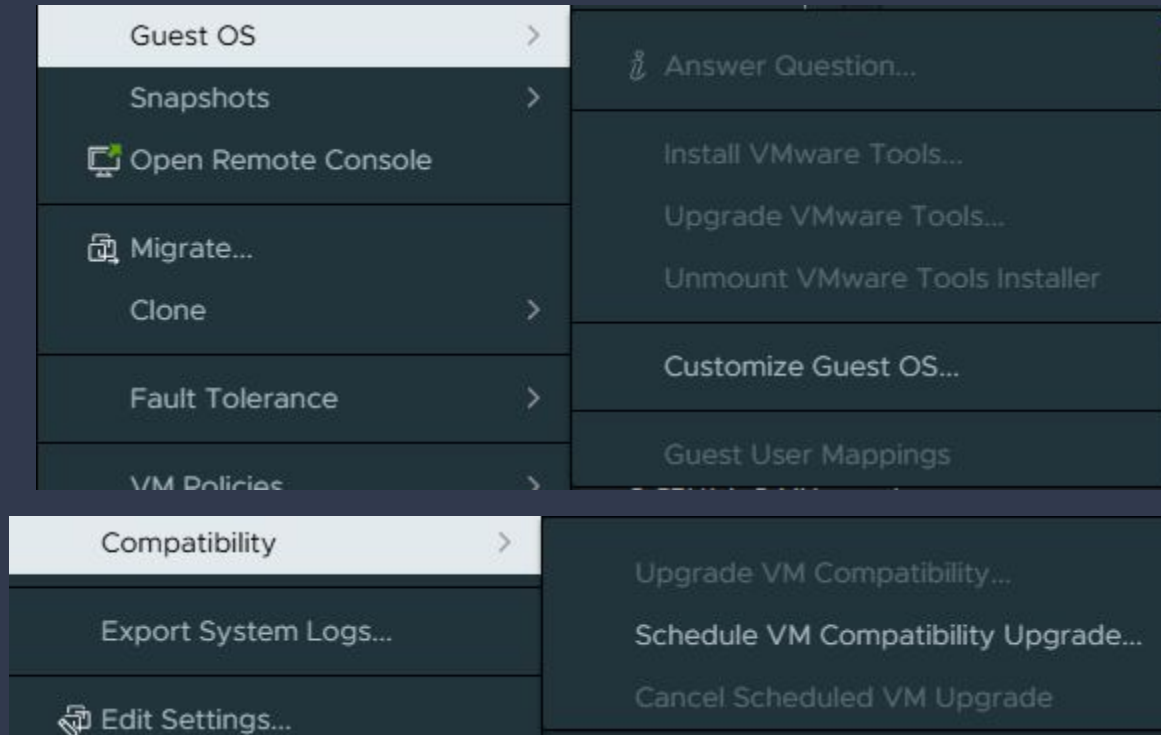
- > dvsData
- > vSphere-HA
- > zfs
- > CENTOS7
- > DEBIAN10
- > **MyVM**
- > upload-vpn

New Folder Upload Files Upload Folder **Register VM...** Download Copy to Move to Rename to Delete Inflate

Name	Size	Modified	Type	Path
MyVM-6db6c7fe.hlog	0.34 KB	03/23/2021, 11:04:07 AM	File	[ssd-000217] MyVM/MyVM-6d...
MyVM-ctk.vmdk	1,024.5 KB	03/23/2021, 11:04:06 AM	File	[ssd-000217] MyVM/MyVM-ctk...
MyVM.nvram	72.49 KB	03/23/2021, 11:04:06 AM	Non-volatile Memory File	[ssd-000217] MyVM/MyVM.nvr...
MyVM.vmdk	666,448.5 KB	03/23/2021, 11:04:06 AM	Virtual Disk	[ssd-000217] MyVM/MyVM.vm...
MyVM.vmsd	0 KB	03/23/2021, 11:04:07 AM	File	[ssd-000217] MyVM/MyVM.vm...
<b>MyVM.vmx</b>	2.93 KB	03/23/2021, 11:04:07 AM	Virtual Machine	[ssd-000217] MyVM/MyVM.vmx
vmware.log	6,369.69 KB	03/23/2021, 11:04:07 AM	VM Log File	[ssd-000217] MyVM/vmware.log

7 items

Après avoir enregistré la VM sur la nouvelle prod, il faut démarrer la VM et faire l'upgrade VMware Tools et upgrade VM Compatibility et ensuite redémarrer la VM



Et pour finir il suffit de mettre la balise de sauvegarde

## Assign Tag | iometer



ADD TAG

<input type="checkbox"/>	Tag Name	Category	Description
<input type="checkbox"/>	SAUVEGARDE-FQ-R7J	SAUVEGARDES	SAUVEGARDE FREQUENCE QUOTIDIEN RETENTION 7 JOURS
<input type="checkbox"/>	SAUVEGARDE-FH-R4S	SAUVEGARDES	SAUVEGARDE FREQUENCE HEBDOMADAIRE RETENTION 4 SEMAINES
<input type="checkbox"/>	SAUVEGARDE-FQ-R31J	SAUVEGARDES	SAUVEGARDE FREQUENCE QUOTIDIEN RETENTION 31 JOURS
Manage Columns		Deselect All	3 items

CANCEL

ASSIGN