StorMagic

MIGRATION GUIDE

CISCO HYPERFLEX

How to migrate from Cisco HyperFlex to StorMagic SvSAN

EXECUTIVE SUMMARY

The purpose of this document is to provide basic guidance for resellers and partners who are migrating customers from the Cisco HyperFlex hyperconverged solution, due to end-of-life.

TARGET AUDIENCE

Resellers and Partners – Sales and Technical

STORMAGIC SvSAN

SvSAN presents storage over block iSCSI that can be shared to the same hosts for hyperconverged or to any other iSCSI initiator hosts on the network. This enables a non-disruptive migration path with the VM migration tools included in all hypervisors.

The storage presented through SvSAN as block may not provide the same usable space as via HyperFlex due to deduplication/compression.

SvSAN provides synchronously mirrored storage across two nodes. The storage assigned to SvSAN can be hardware RAID protected, or individual disks passed up through an HBA and protected via software RAID 0, 1 or 10, provided by the VSA.

SvSAN can be run in 2-node, 3-node or 4-node infrastructures with compute nodes free to access the storage.

For more information on 2 versus 3 node, visit: https://support.stormagic.com/hc/en-gb/articles/5809883891613-SvSAN-2x-node-vs-3x-node

MIGRATING TO A NEW HARDWARE/ SOFTWARE PLATFORM

Deploy the new solution of your hardware and hypervisor of choice with SvSAN and migrate the VMs to the new hardware using VMware vCenter or Hyper-V manager. This can be accomplished via compute and storage move operations or by sharing the storage to the existing hypervisor hosts.

- Visit stormagic.com/manual and search for "VMware" or "Hyper-V".
- Add the hosts to the target ACL.
- Add the storage to the hosts: https://stormagic.com/doc/svsan/6-3-P2/en/Content/datastore-create-hv.htm

Once the virtual machine workloads are migrated, the old systems may be powered off and retired.

IN PLACE MIGRATION

SvSAN can present non-mirrored storage that can be converted to mirrored, to enable storage high availability. This enables an in-place migration in the steps in the following pages.

FURTHER HELP

If you require additional assistance in migrating from Cisco Hyperflex to StorMagic SvSAN, please contact presales@stormagic.com and the team will be happy to assist.

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Clearing an existing host of VM compute *(see figures 1 to 2)*

vMotion/Live migrate VMs to the other/another host in the cluster.

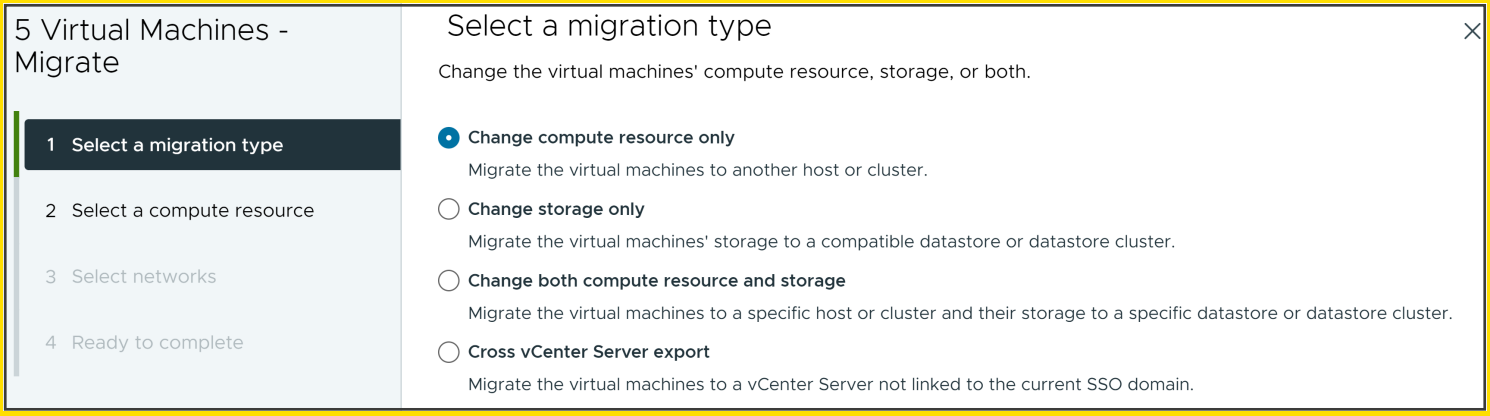

Figure 1 - vMotion guests to one host to clear the other.

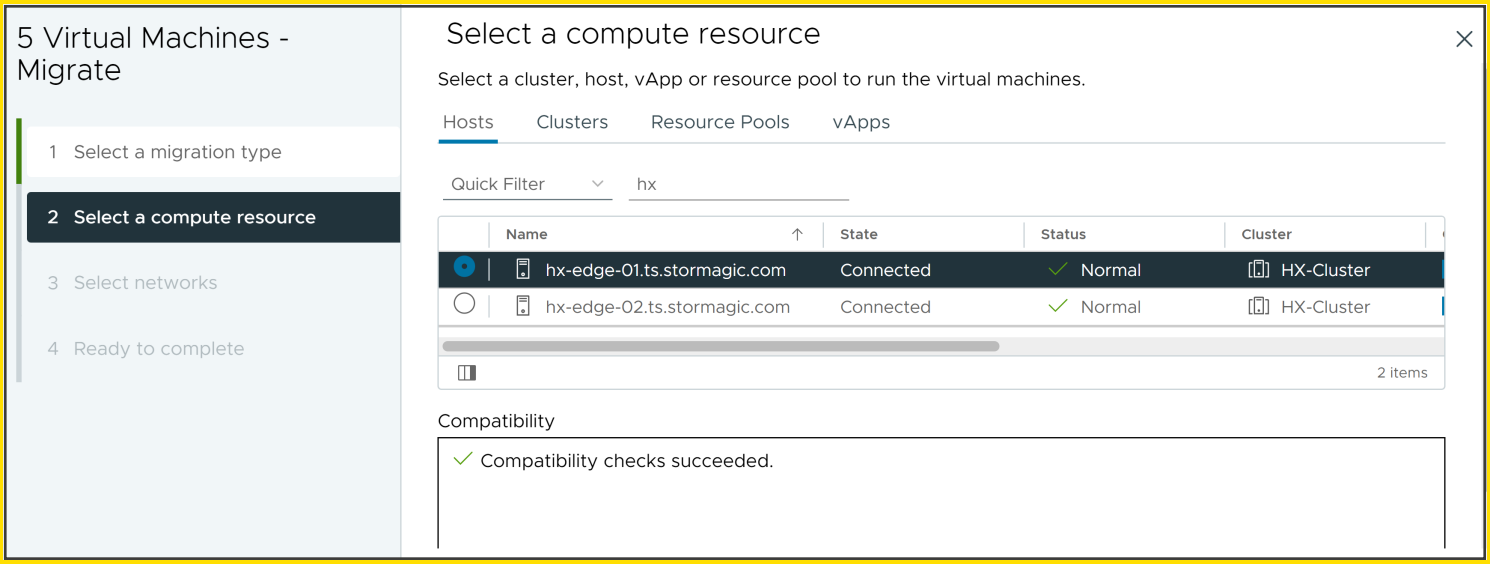

Figure 2 - Select a compute resource to run the VMs.

Break the existing Cisco Hyperflex storage, ensuring the storage will stay live from the surviving Hyperflex storage controller VM.

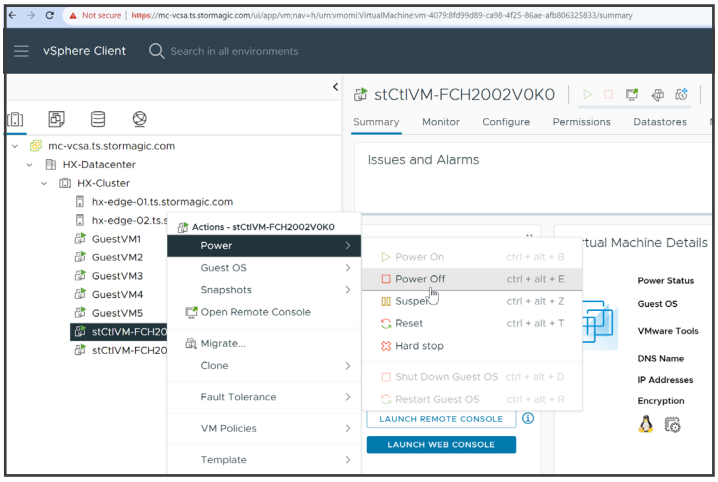

Figure 3 - Storage Controller VM host 1 power off

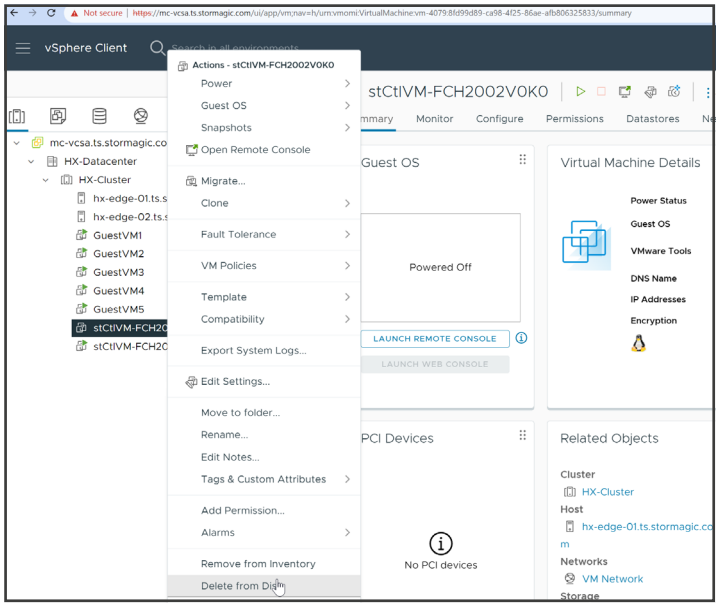

Figure 4 - Storage Controller VM host 1 deletion

Deploy the StorMagic plug-in VM and register to vCenter *(see figure 5)*

Visit **stormagic.com/manual** and search for "Deploy StorMagic plug-in to vCenter".
https://stormagic.com/doc/svsan/6-3-P2/en/Content/vSphere%20Plugin/Plugin_deploy_vsphere.htm

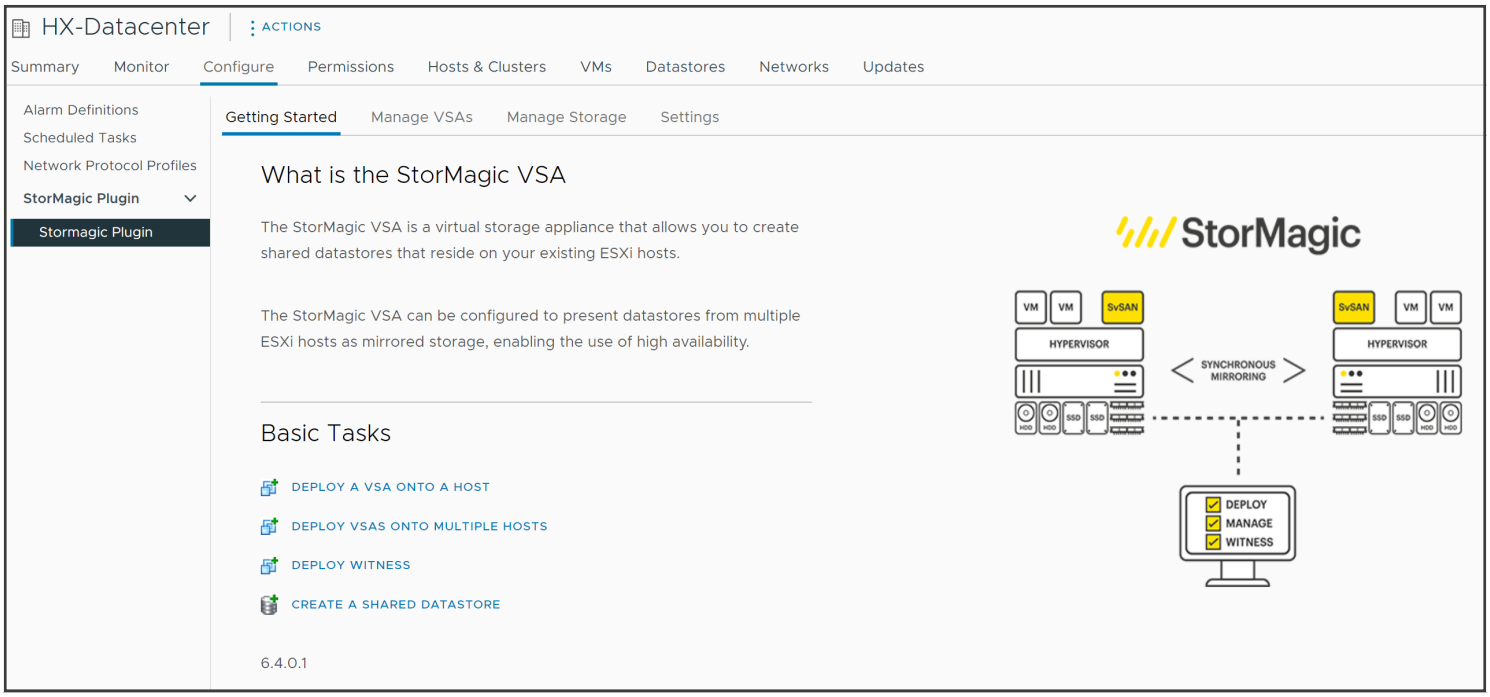

Figure 5 - SvSAN vCenter plug-in

Deploy a StorMagic VSA to the newly cleared host *(see figures 6 to 8)*

https://stormagic.com/doc/svsan/6-3-P2/en/Content/vsa-deploy-vs.htm

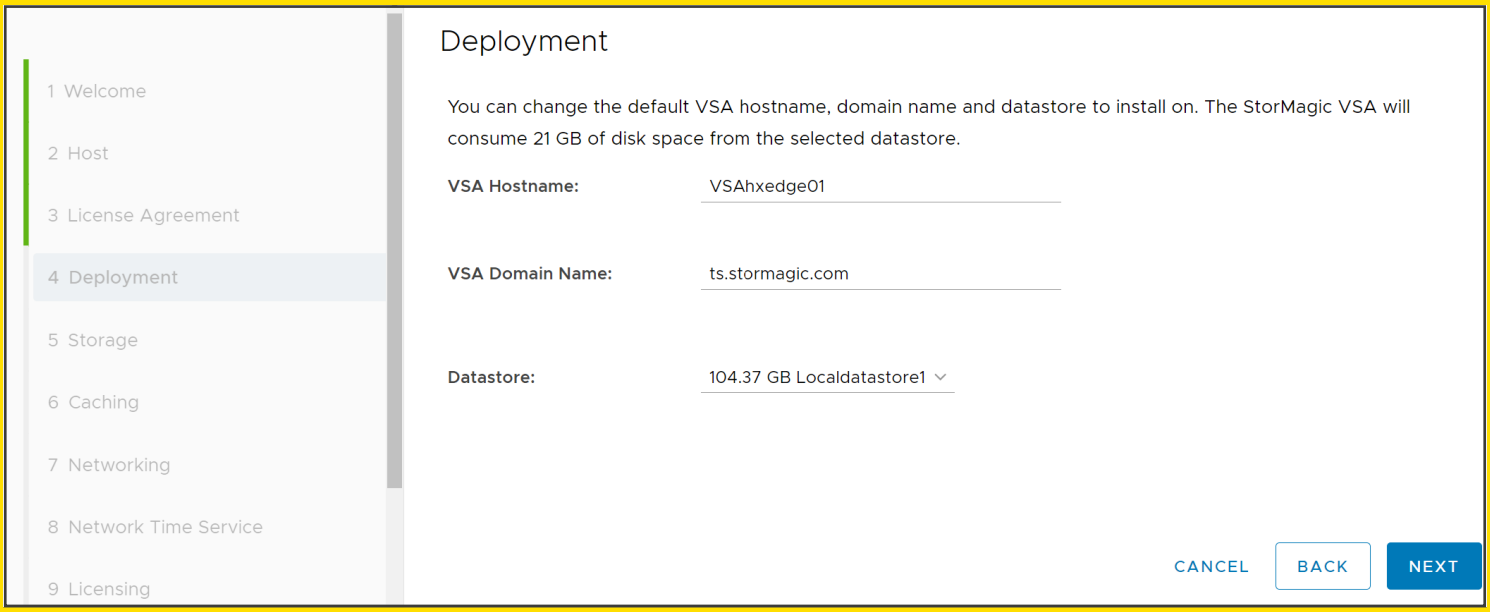

Figure 6 - SvSAN vCenter plug-in deployment wizard

Note that it may be required to clear off existing signatures left on the storage/disks to be managed by SvSAN, as it may not appear as available in the StorMagic plug-in. This can be completed by creating a VMFS datastore on the disk and deleting this to then RDM the storage to SvSAN.

Alternatively using partedUtil via the command line.

NOTE: This is a destructive operation.

```
hx-edge-01.ts.stormagic.com - PuTTY
[root@hx-edge-01:~] ls -lh /vmfs/devices/disks/
total 713024175
-rw-------    1 root     root      240.0G Oct 30 20:13 naa.6000c294dc5a41157190eae3e1d834a4
-rw-------    1 root     root      100.0M Oct 30 20:13 naa.6000c294dc5a41157190eae3e1d834a4:1
-rw-------    1 root     root        4.0G Oct 30 20:13 naa.6000c294dc5a41157190eae3e1d834a4:5
-rw-------    1 root     root        4.0G Oct 30 20:13 naa.6000c294dc5a41157190eae3e1d834a4:6
-rw-------    1 root     root      119.9G Oct 30 20:13 naa.6000c294dc5a41157190eae3e1d834a4:7
-rw-------    1 root     root      112.0G Oct 30 20:13 naa.6000c294dc5a41157190eae3e1d834a4:8
-rw-------    1 root     root      100.0G Oct 30 20:13 naa.6000c29b203dbfe86a3bc58c0b276c70
-rw-------    1 root     root      100.0G Oct 30 20:13 naa.6000c29b203dbfe86a3bc58c0b276c70:1
lrwxrwxrwx    1 root     root          36 Oct 30 20:13 vml.02000000006000c294dc5a41157190eae3e1d834a4566972747561 -> naa.6000c294dc5a41157190eae3e1d834a4
lrwxrwxrwx    1 root     root          38 Oct 30 20:13 vml.02000000006000c294dc5a41157190eae3e1d834a4566972747561:1 -> naa.6000c294dc5a41157190eae3e1d834a4:1
lrwxrwxrwx    1 root     root          38 Oct 30 20:13 vml.02000000006000c294dc5a41157190eae3e1d834a4566972747561:5 -> naa.6000c294dc5a41157190eae3e1d834a4:5
lrwxrwxrwx    1 root     root          38 Oct 30 20:13 vml.02000000006000c294dc5a41157190eae3e1d834a4566972747561:6 -> naa.6000c294dc5a41157190eae3e1d834a4:6
lrwxrwxrwx    1 root     root          38 Oct 30 20:13 vml.02000000006000c294dc5a41157190eae3e1d834a4566972747561:7 -> naa.6000c294dc5a41157190eae3e1d834a4:7
lrwxrwxrwx    1 root     root          38 Oct 30 20:13 vml.02000000006000c294dc5a41157190eae3e1d834a4566972747561:8 -> naa.6000c294dc5a41157190eae3e1d834a4:8
lrwxrwxrwx    1 root     root          36 Oct 30 20:13 vml.02000000006000c29b203dbfe86a3bc58c0b276c70566972747561 -> naa.6000c29b203dbfe86a3bc58c0b276c70
lrwxrwxrwx    1 root     root          38 Oct 30 20:13 vml.02000000006000c29b203dbfe86a3bc58c0b276c70566972747561:1 -> naa.6000c29b203dbfe86a3bc58c0b276c70:1
[root@hx-edge-01:~] partedUtil mklabel /vmfs/devices/disks/naa.6000c29b203dbfe86a3bc58c0b276c70 msdos
[root@hx-edge-01:~] ls -lh /vmfs/devices/disks/
total 608168944
-rw-------    1 root     root      240.0G Oct 30 20:13 naa.6000c294dc5a41157190eae3e1d834a4
-rw-------    1 root     root      100.0M Oct 30 20:13 naa.6000c294dc5a41157190eae3e1d834a4:1
-rw-------    1 root     root        4.0G Oct 30 20:13 naa.6000c294dc5a41157190eae3e1d834a4:5
-rw-------    1 root     root        4.0G Oct 30 20:13 naa.6000c294dc5a41157190eae3e1d834a4:6
-rw-------    1 root     root      119.9G Oct 30 20:13 naa.6000c294dc5a41157190eae3e1d834a4:7
-rw-------    1 root     root      112.0G Oct 30 20:13 naa.6000c294dc5a41157190eae3e1d834a4:8
-rw-------    1 root     root      100.0G Oct 30 20:13 naa.6000c29b203dbfe86a3bc58c0b276c70
lrwxrwxrwx    1 root     root          36 Oct 30 20:13 vml.02000000006000c294dc5a41157190eae3e1d834a4566972747561 -> naa.6000c294dc5a41157190eae3e1d834a4
lrwxrwxrwx    1 root     root          38 Oct 30 20:13 vml.02000000006000c294dc5a41157190eae3e1d834a4566972747561:1 -> naa.6000c294dc5a41157190eae3e1d834a4:1
lrwxrwxrwx    1 root     root          38 Oct 30 20:13 vml.02000000006000c294dc5a41157190eae3e1d834a4566972747561:5 -> naa.6000c294dc5a41157190eae3e1d834a4:5
lrwxrwxrwx    1 root     root          38 Oct 30 20:13 vml.02000000006000c294dc5a41157190eae3e1d834a4566972747561:6 -> naa.6000c294dc5a41157190eae3e1d834a4:6
lrwxrwxrwx    1 root     root          38 Oct 30 20:13 vml.02000000006000c294dc5a41157190eae3e1d834a4566972747561:7 -> naa.6000c294dc5a41157190eae3e1d834a4:7
lrwxrwxrwx    1 root     root          38 Oct 30 20:13 vml.02000000006000c294dc5a41157190eae3e1d834a4566972747561:8 -> naa.6000c294dc5a41157190eae3e1d834a4:8
lrwxrwxrwx    1 root     root          36 Oct 30 20:13 vml.02000000006000c29b203dbfe86a3bc58c0b276c70566972747561 -> naa.6000c29b203dbfe86a3bc58c0b276c70
[root@hx-edge-01:~]
```

Figure 7 - SSH to remove existing partition signatures

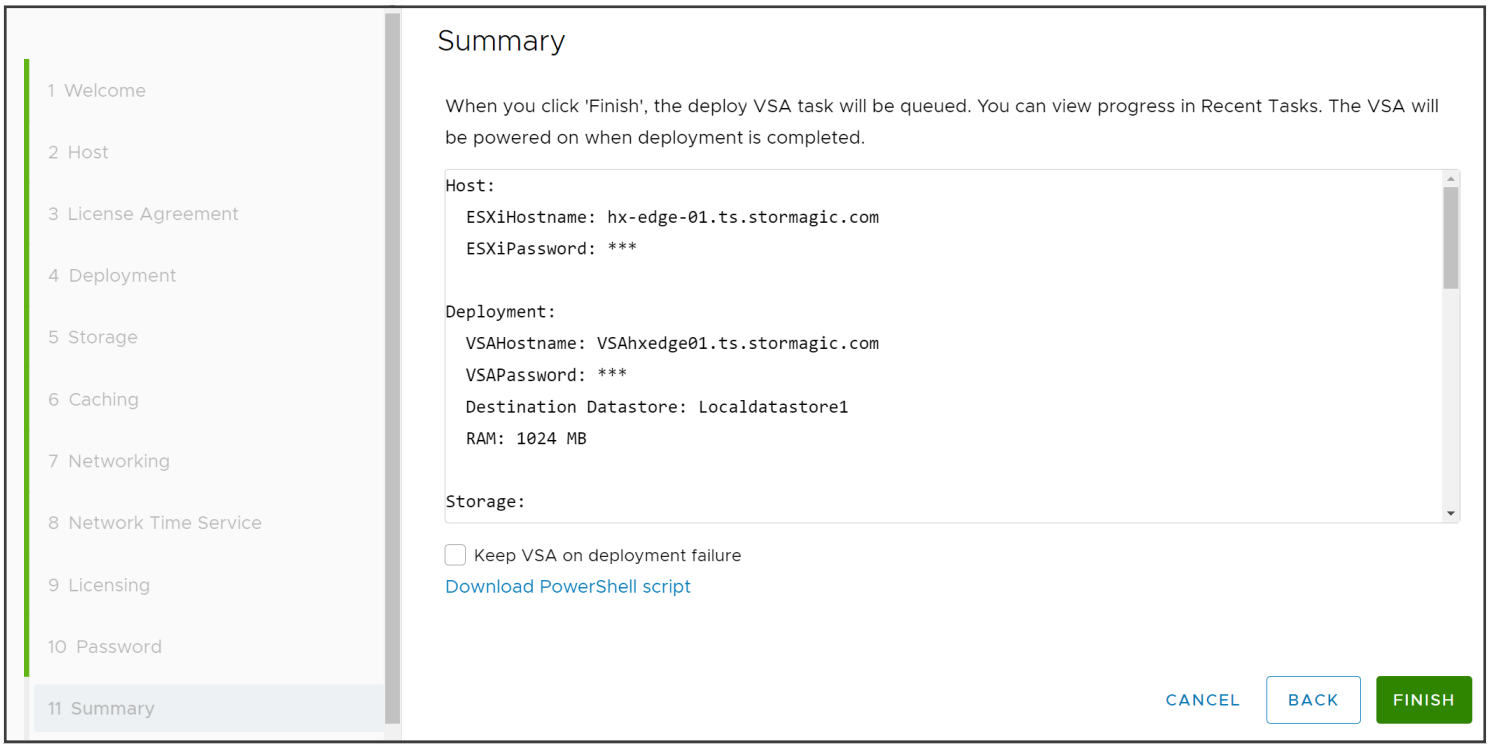

Figure 8 - SvSAN VSA deployment confirmation

Create a non-mirrored datastore *(see figures 9 to 11)*

As per the following documentation select the StorMagic VSA and create a datastore sharing to the VMware ESXi hosts in the cluster.

Visit **stormagic.com/manual** and search for "Create non-mirrored datastore".

https://stormagic.com/doc/svsan/6-3-P2/en/Content/datastore-create-vs.htm

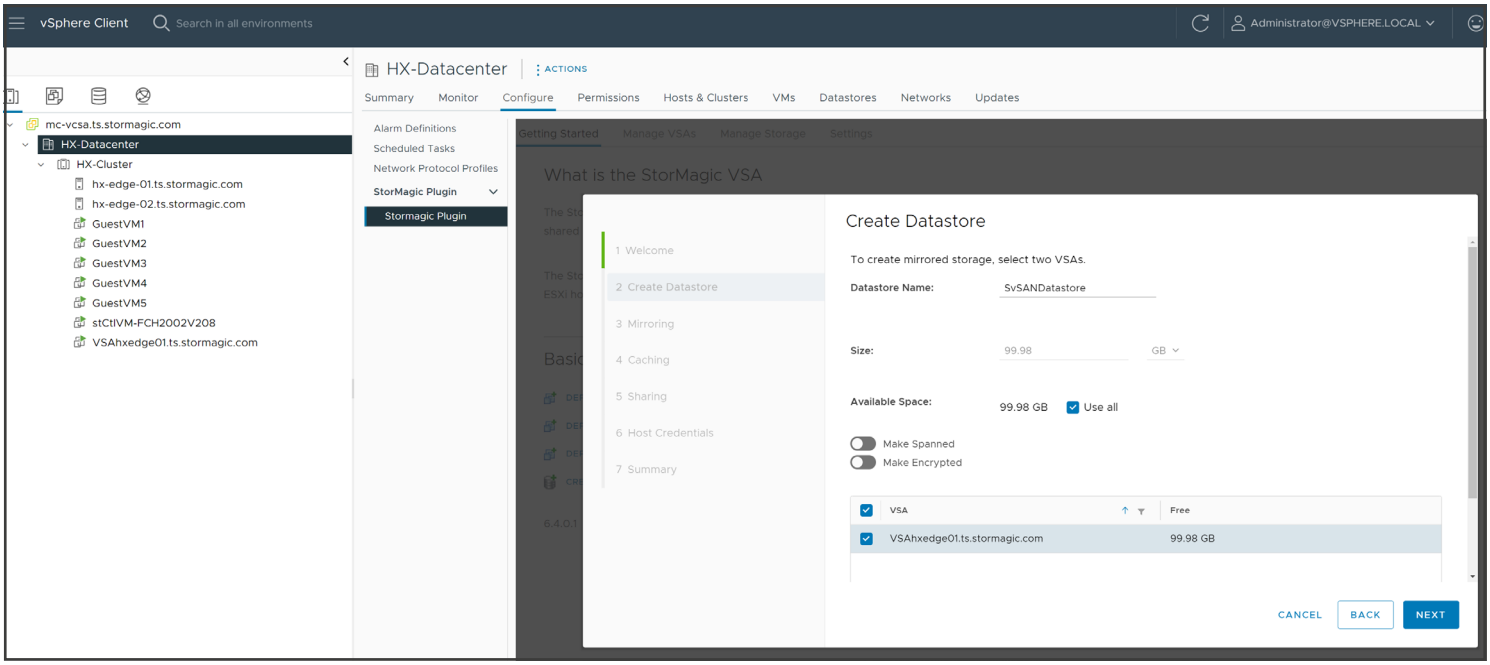

Figure 9 - Datastore creation wizard

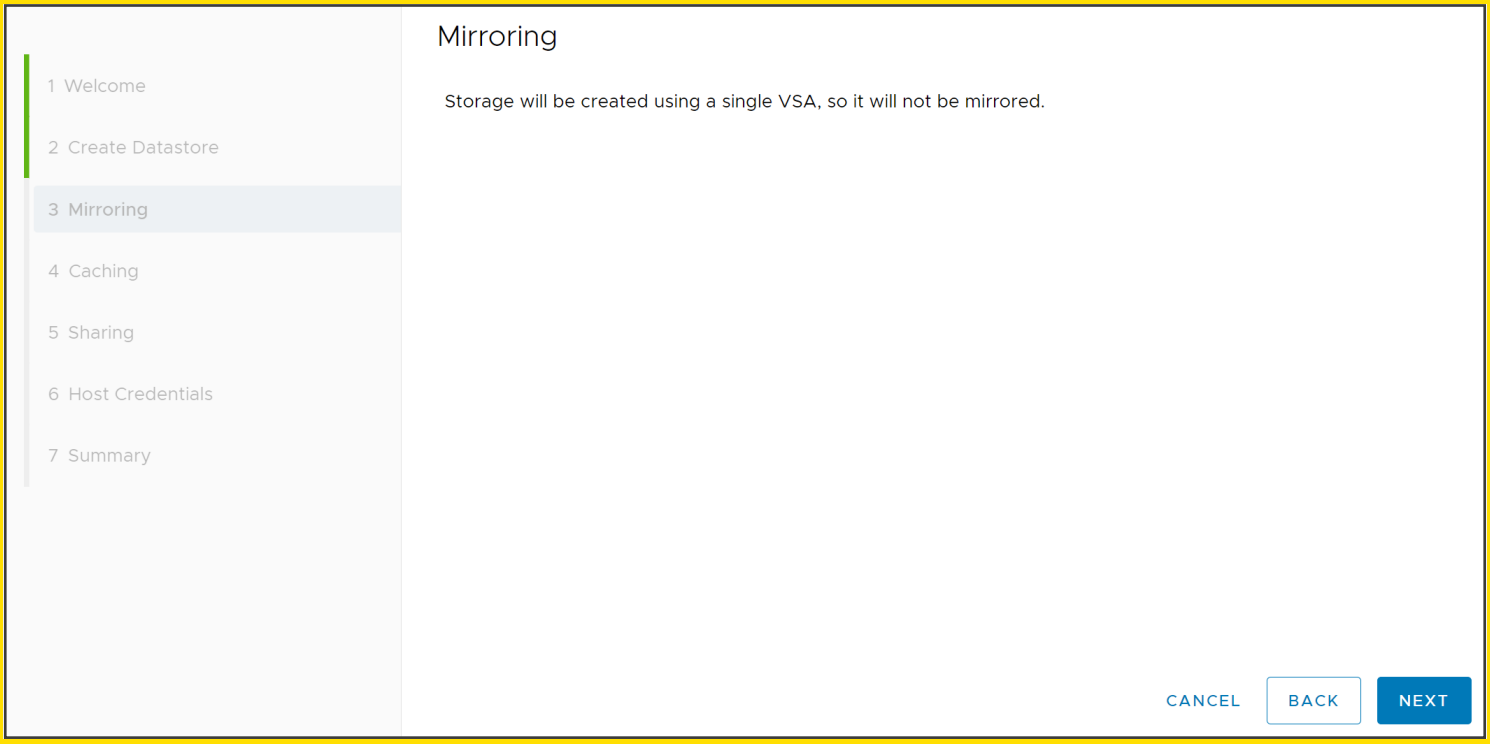

Figure 10 - Non-mirrored storage creation message

Sharing this to both hypervisor hosts.

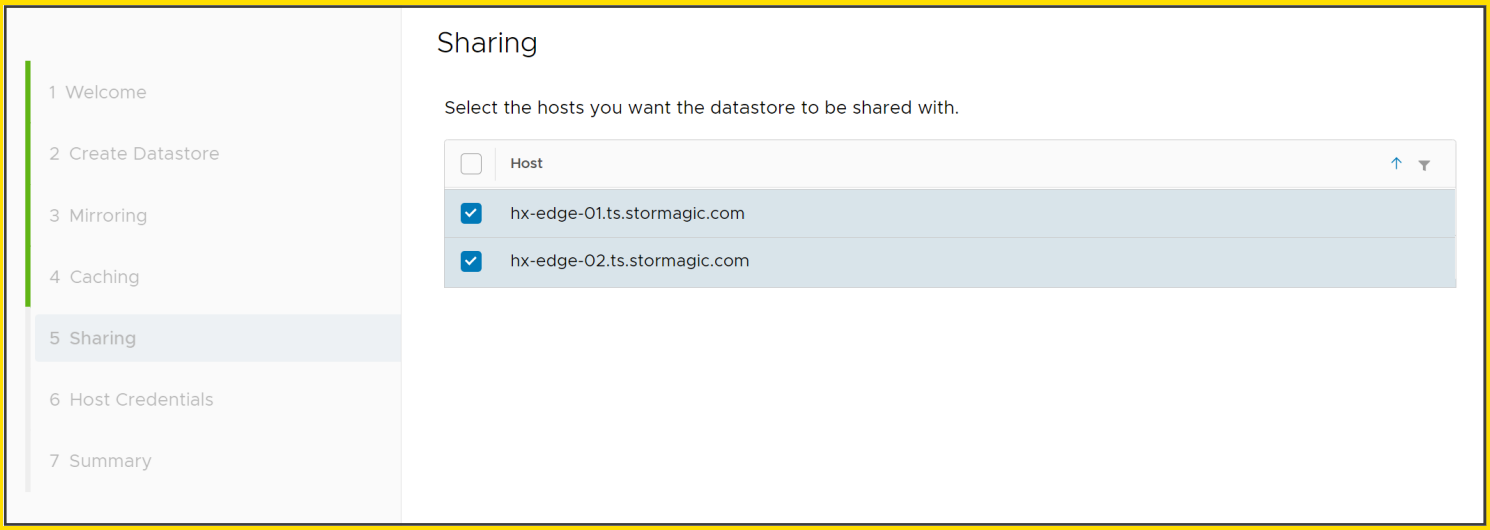

Figure 11 - Datastore creation wizard, hosts to access the storage

Migrate the VM workload virtual drives *(see figures 12 to 13)*

Through VMware vSphere Storage vMotion or other tools migrate the VM disks to the newly presented SvSAN storage.

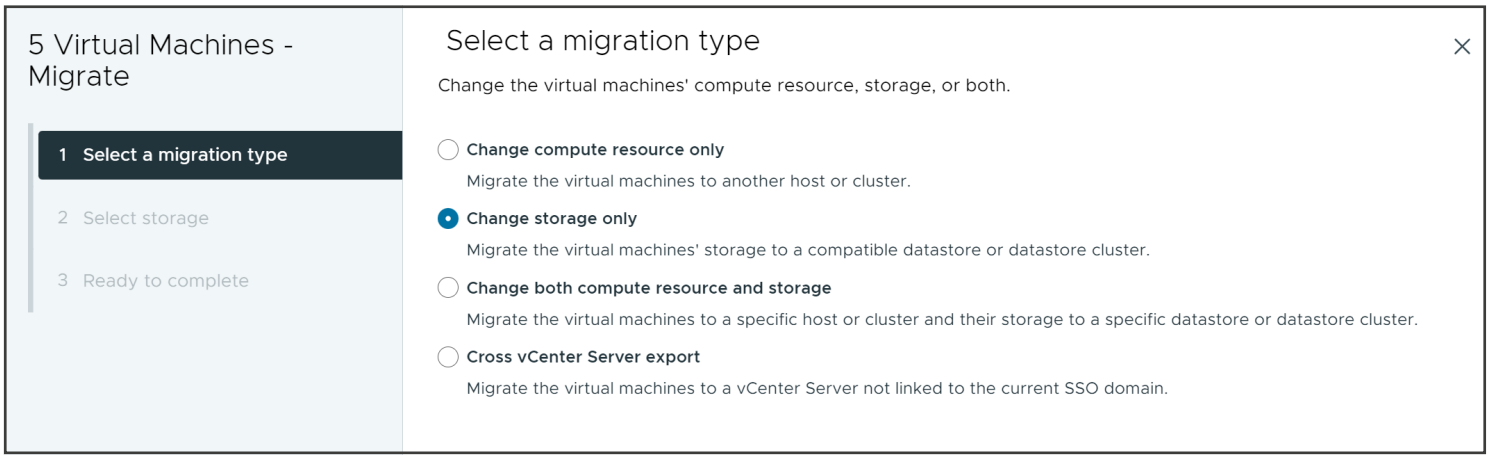

Figure 12 - VM storage migration – storage only

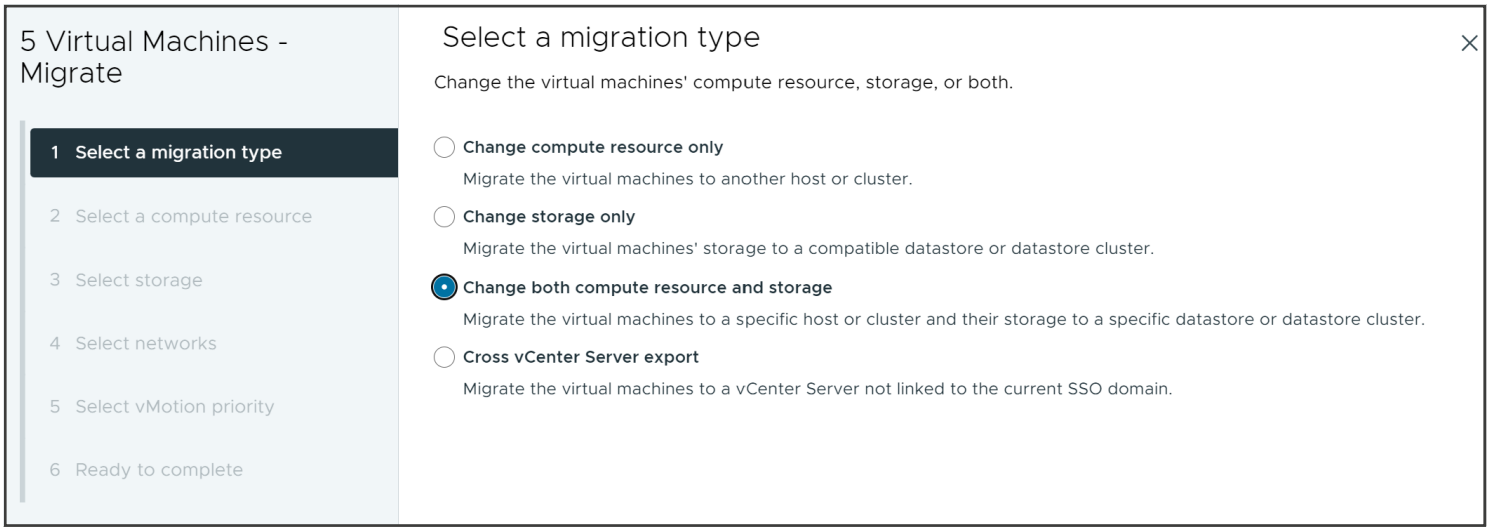

Figure 13 - VM storage migration – compute resource and storage