Hyper-V 2.0 Live Migration mit Windows Server 2008 R2

Testumgebung:

Hardware:

Dell Latitude E6400, 2 x 2,8 Ghz, 8 GB RAM, 320 GB HD, 1 x NIC
Noname Midi Tower, 2 x 2,7 Ghz, 8 GB RAM, 160 GB und 250 GB HD, 2 x NIC
Noname Midi Tower, 2 x 3,0 Ghz, 16 GB RAM, 2 x 250 GB HD, 2 x NIC

Software (Hardware Umgebung)

2 x Windows Server 2008 R2 auf den Hyper-V Hosts
1 x Windows Server 2008 mit iSCSI Target von Rocketdivison (v4.1)

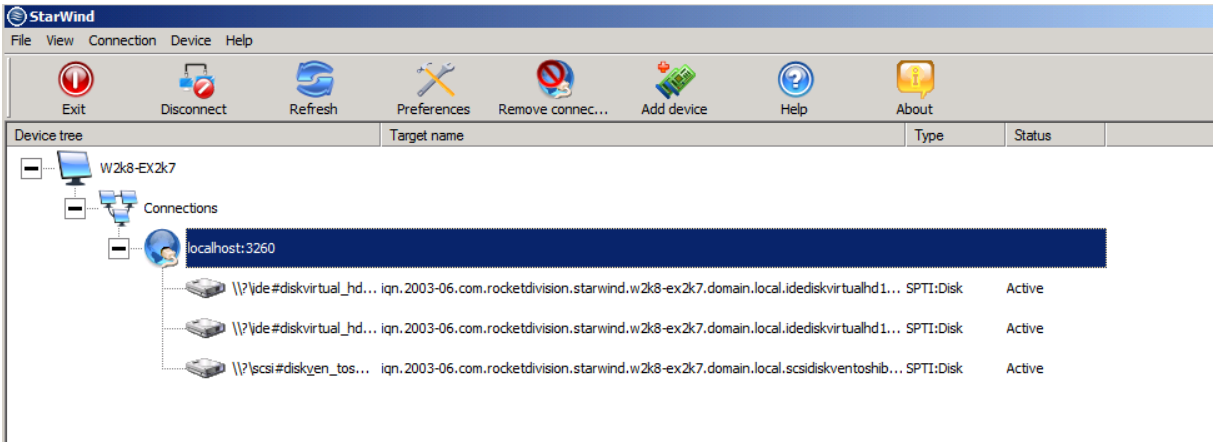
Software (VM Umgebung)

2 x DC Windows Server 2008
2 x Member Server Windows Server 2008 fuer Live Migration Tests

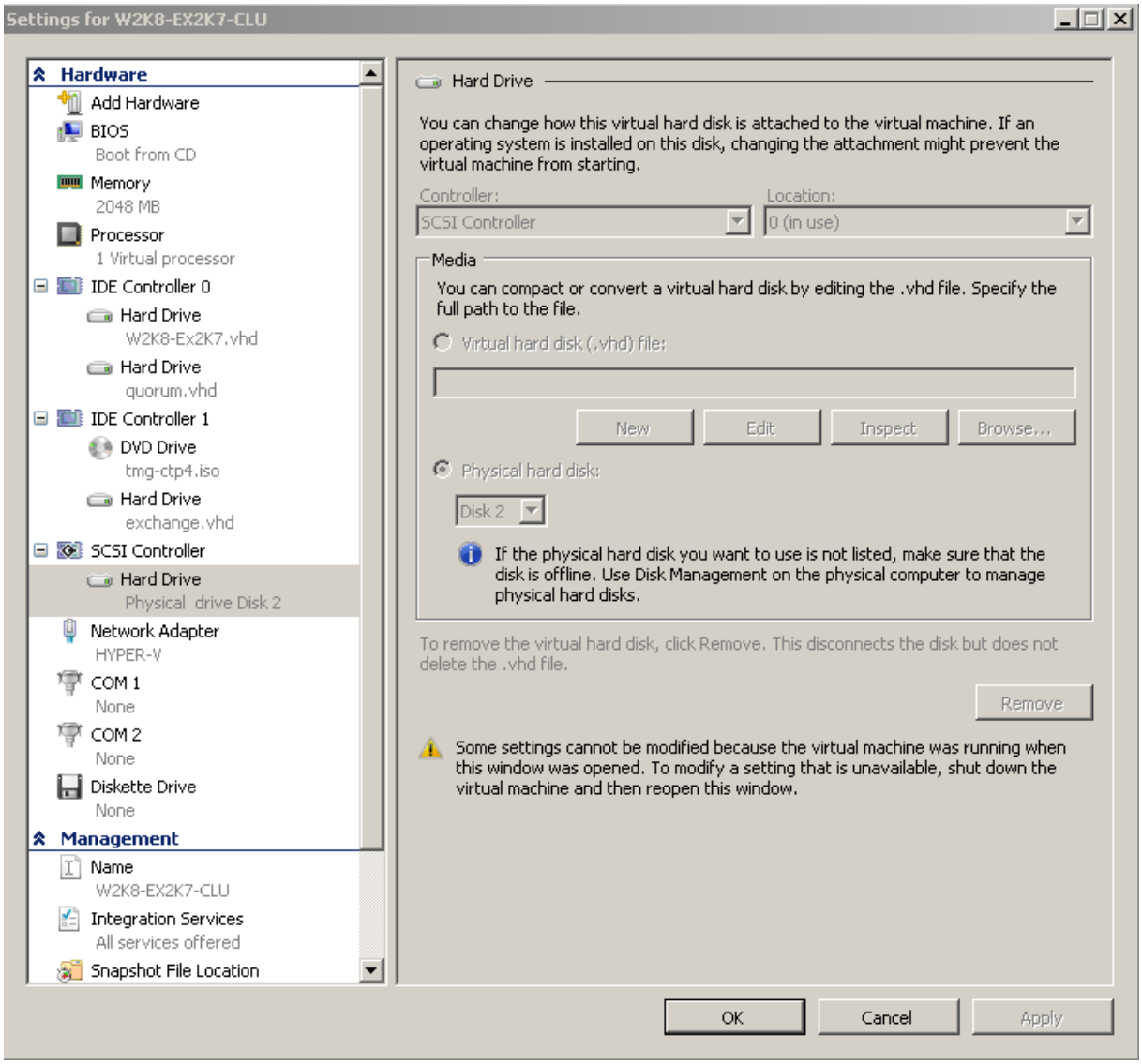
Grober Test-/Installationsablauf

- Installation / Konfiguration der Hardware
- Installation Windows Server 2008 R2 auf die Hyper-V Hosts
- Hyper-V Installation und Konfiguration
- iSCSI Target und iSCSI Initiator Installation
- Windows Server 2008 R2 Failover Cluster Installation
- Installation Cluster Shared Volumes
- Cluster und VM-Konfiguration fuer HA

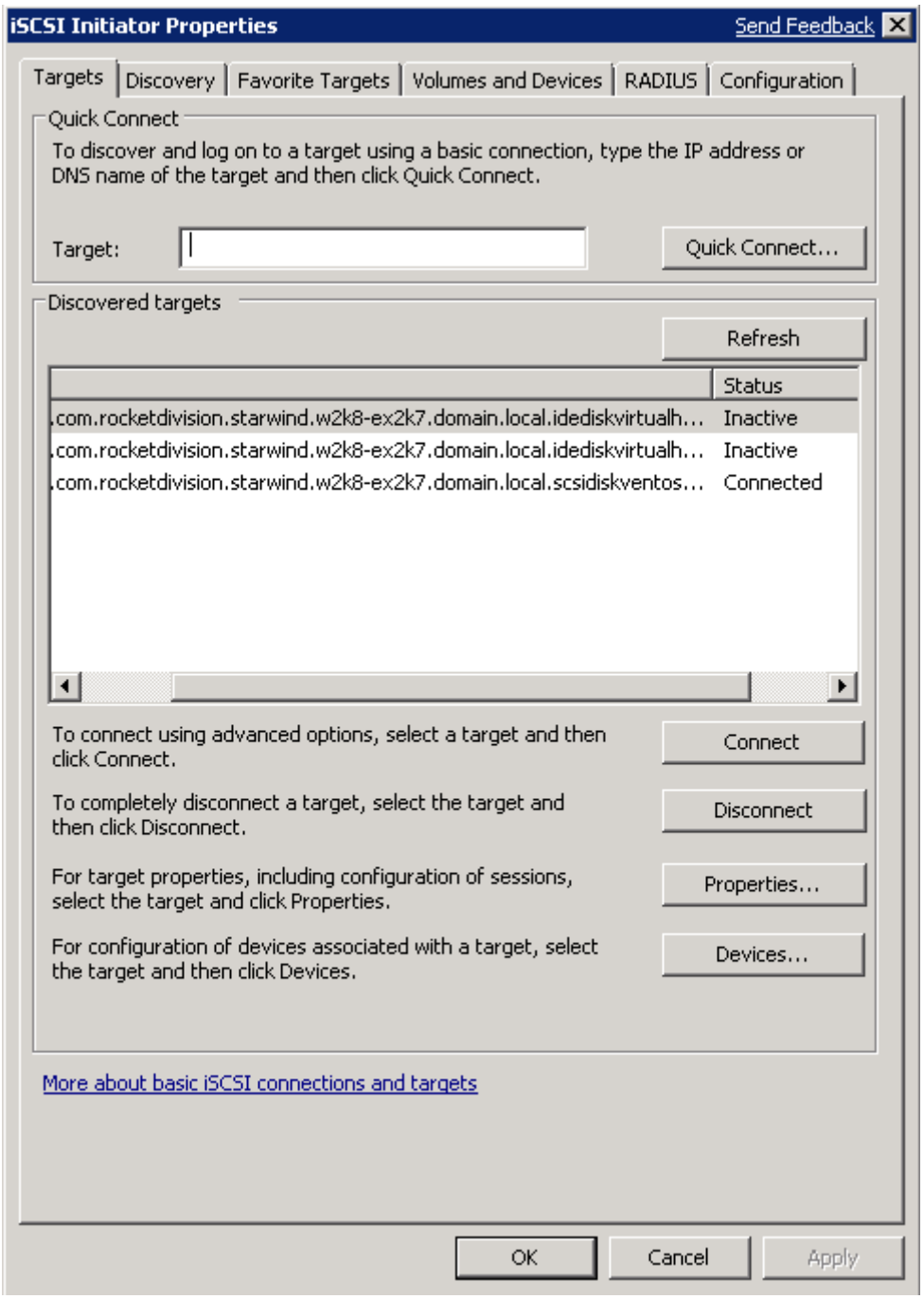
Starwind installieren und HD als Target zur Verfuegung stellen

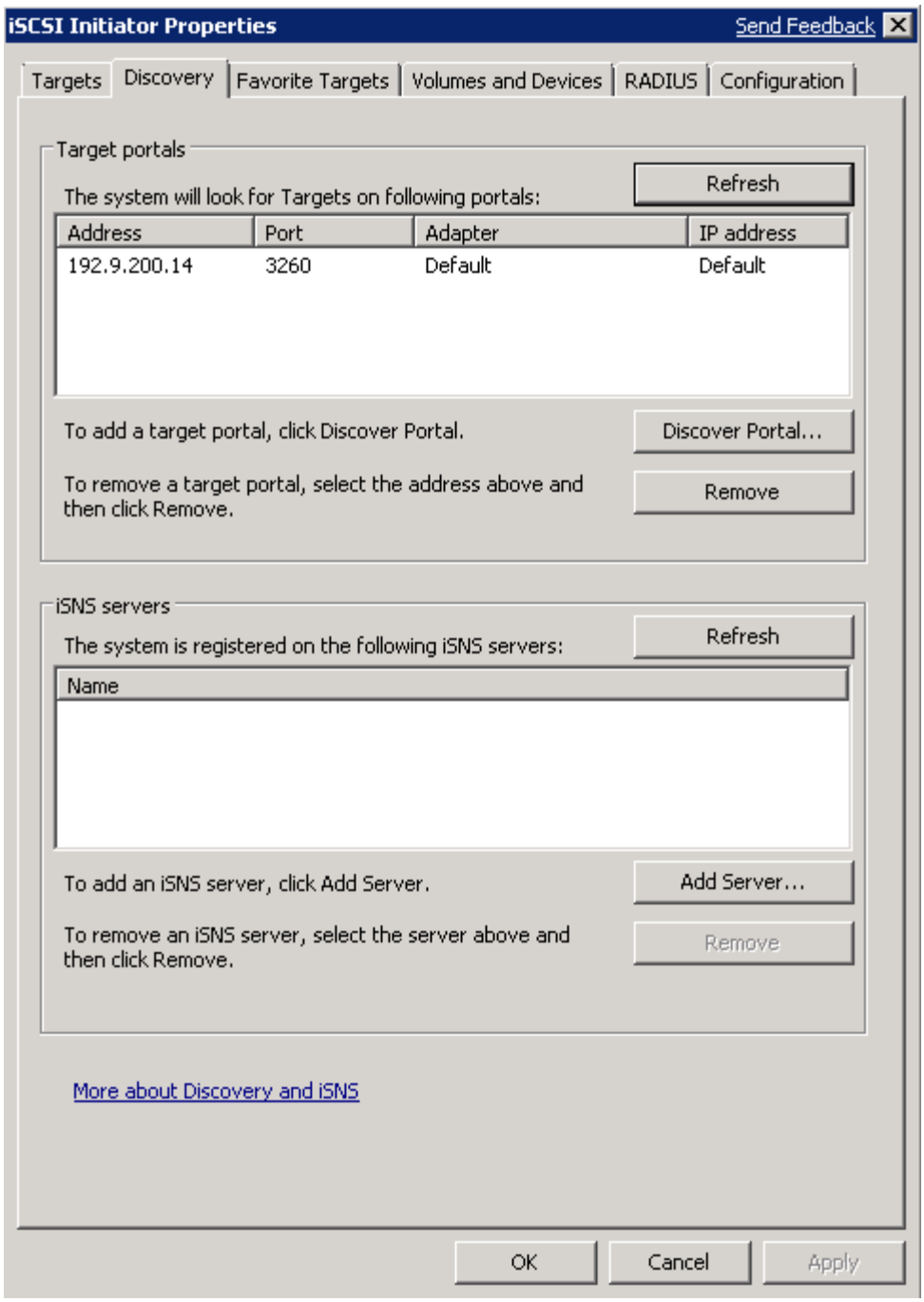


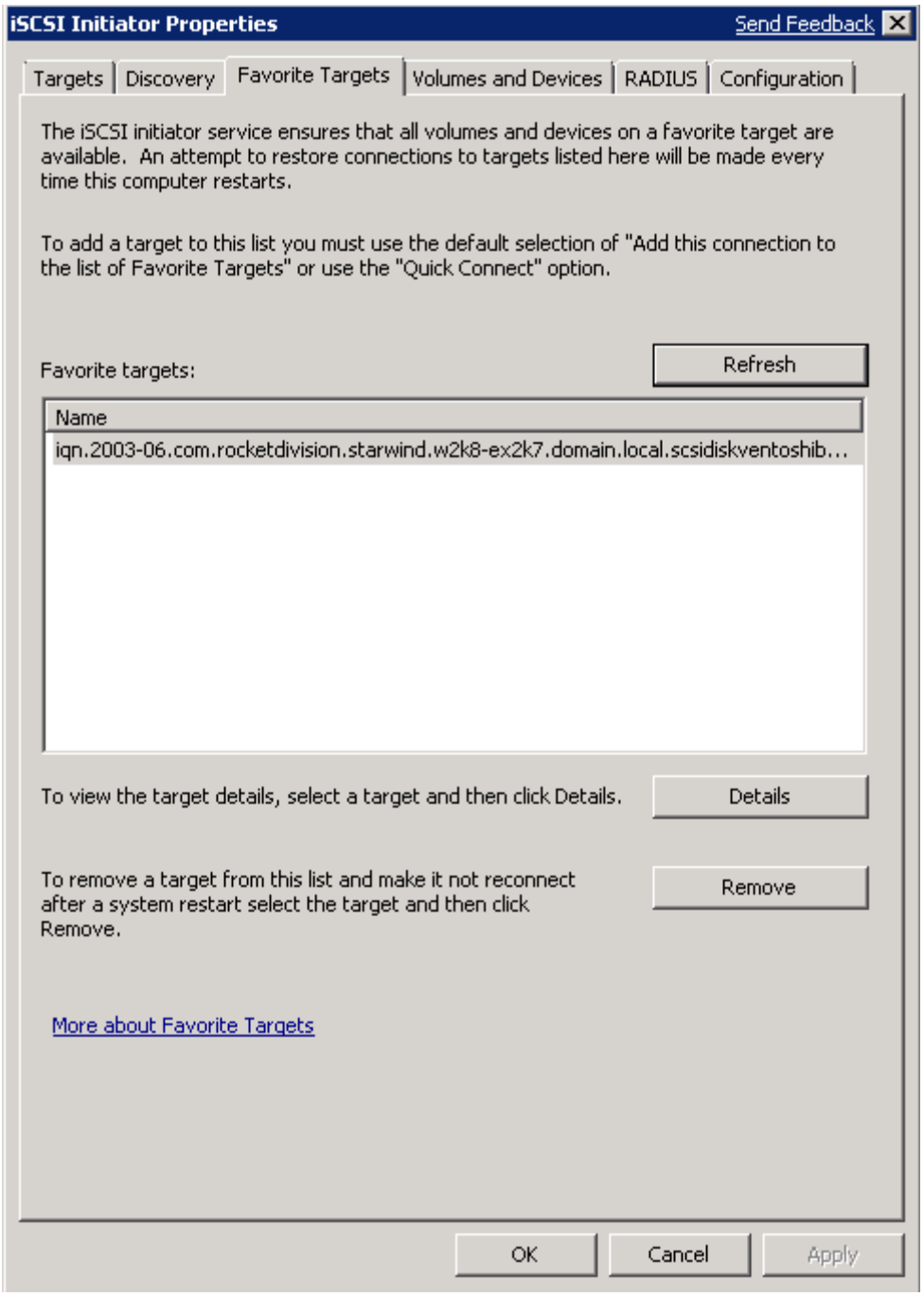
Platte im Hyper-V "einbauen". In diesem Fall als Passthrough Disk



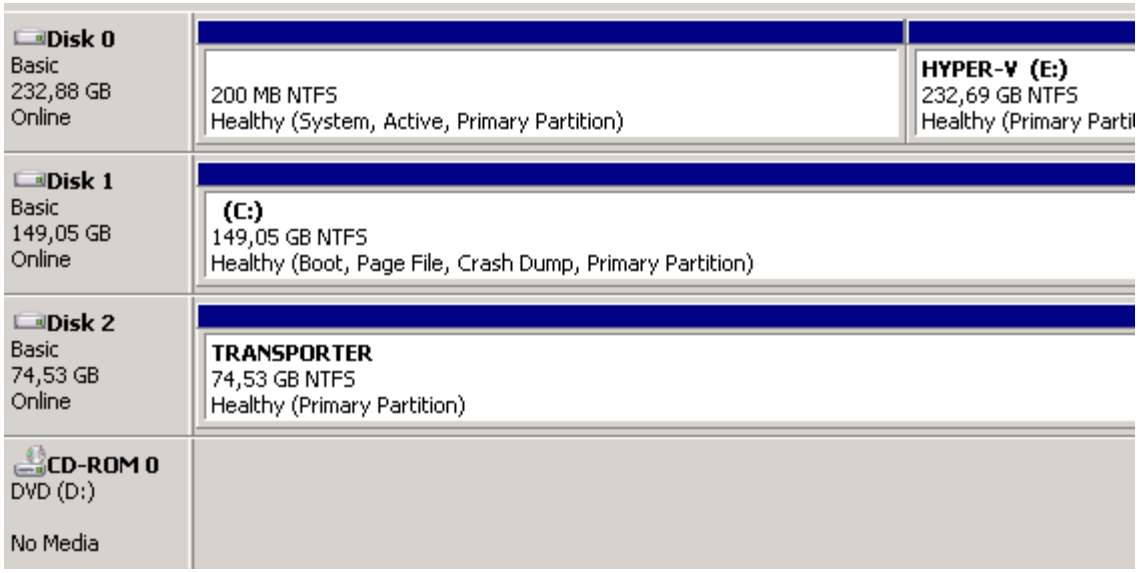
iSCSI Initiator auf den W2K8 R2 Clusternodes einrichten und mit iSCSI Target verbinden


iSCSI Initiator Properties
Send Feedback
Targets
Discovery
Favorite Targets
Volumes and Devices
RADIUS
Configuration
Quick Connect
To discover and log on to a target using a basic connection, type the IP address or DNS name of the target and then click Quick Connect.
Target:
Quick Connect...
Discovered targets
Refresh
Status
.com.rocketdivision.starwind.w2k8-ex2k7.domain.local.idediskvirtualh... Inactive
.com.rocketdivision.starwind.w2k8-ex2k7.domain.local.idediskvirtualh... Inactive
.com.rocketdivision.starwind.w2k8-ex2k7.domain.local.scsidiskventos... Connected
To connect using advanced options, select a target and then click Connect.
Connect
To completely disconnect a target, select the target and then click Disconnect.
Disconnect
For target properties, including configuration of sessions, select the target and click Properties.
Properties...
For configuration of devices associated with a target, select the target and then click Devices.
Devices...
More about basic iSCSI connections and targets
OK
Cancel
Apply

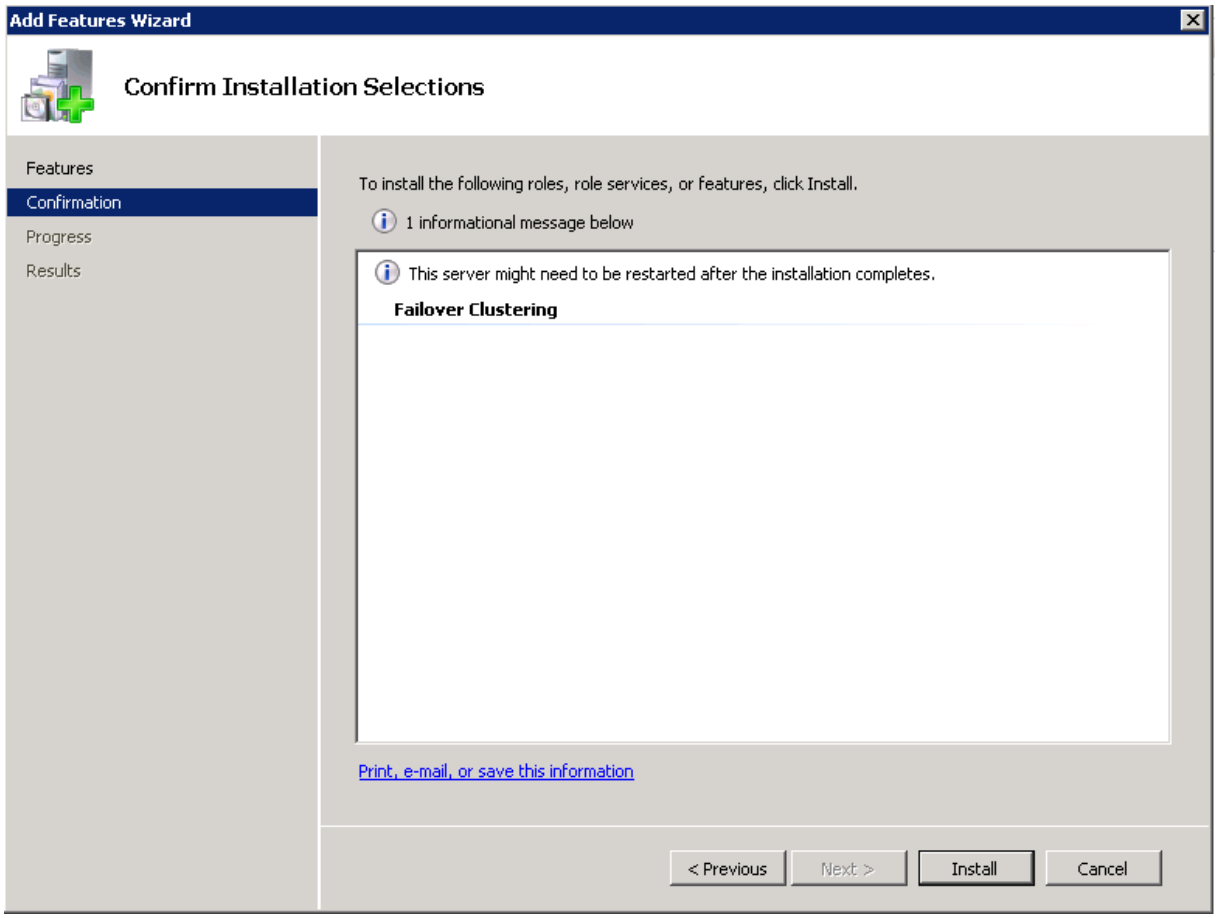

iSCSI Initiator Properties
Send Feedback
Targets
Discovery
Favorite Targets
Volumes and Devices
RADIUS
Configuration
Target portals
The system will look for Targets on following portals:
Refresh
Address
Port
Adapter
IP address
192.9.200.14
3260
Default
Default
To add a target portal, click Discover Portal.
Discover Portal...
To remove a target portal, select the address above and then click Remove.
Remove
iSNS servers
The system is registered on the following iSNS servers:
Refresh
Name
To add an iSNS server, click Add Server.
Add Server...
To remove an iSNS server, select the server above and then click Remove.
Remove
More about Discovery and iSNS
OK
Cancel
Apply



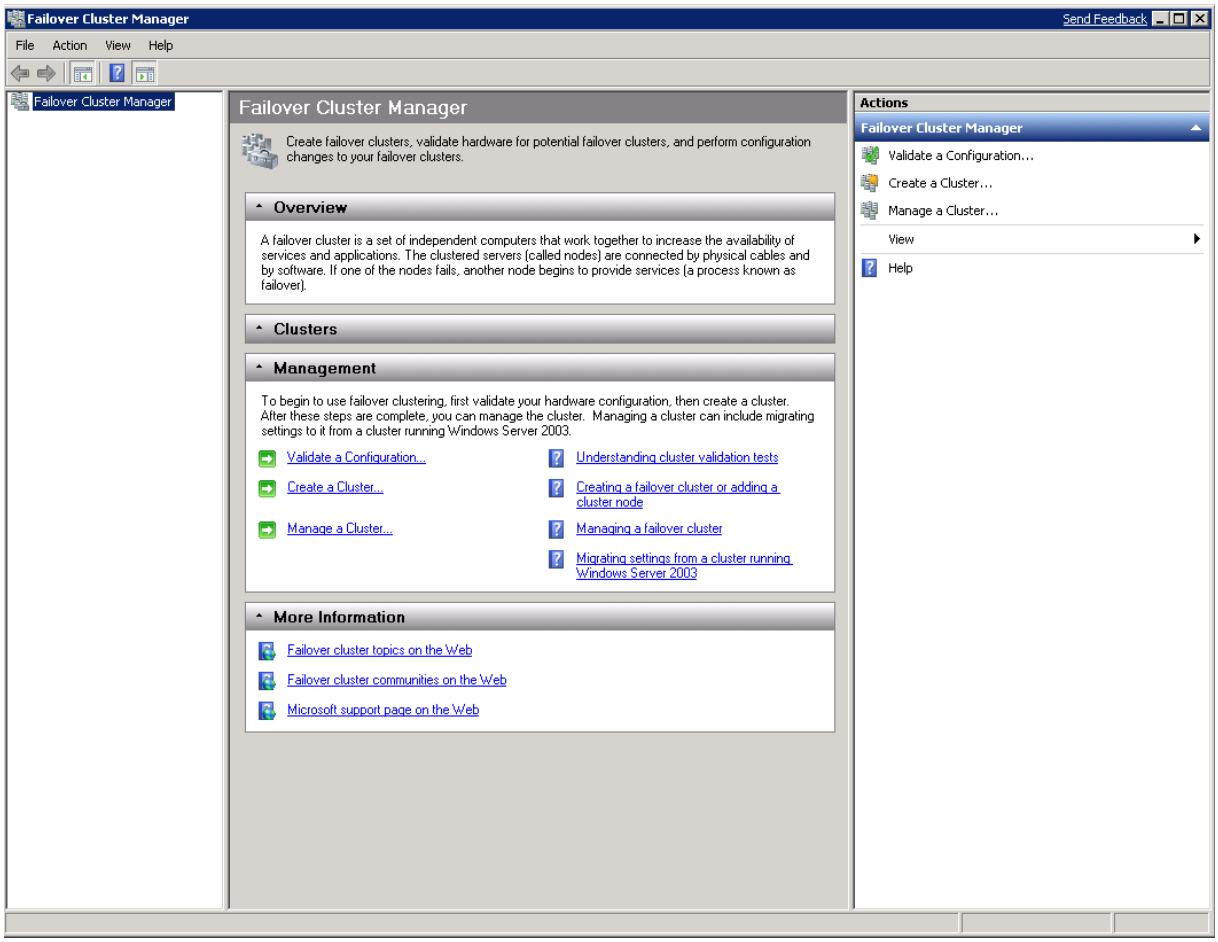
Platten in der HD-Verwaltung "Online" schalten

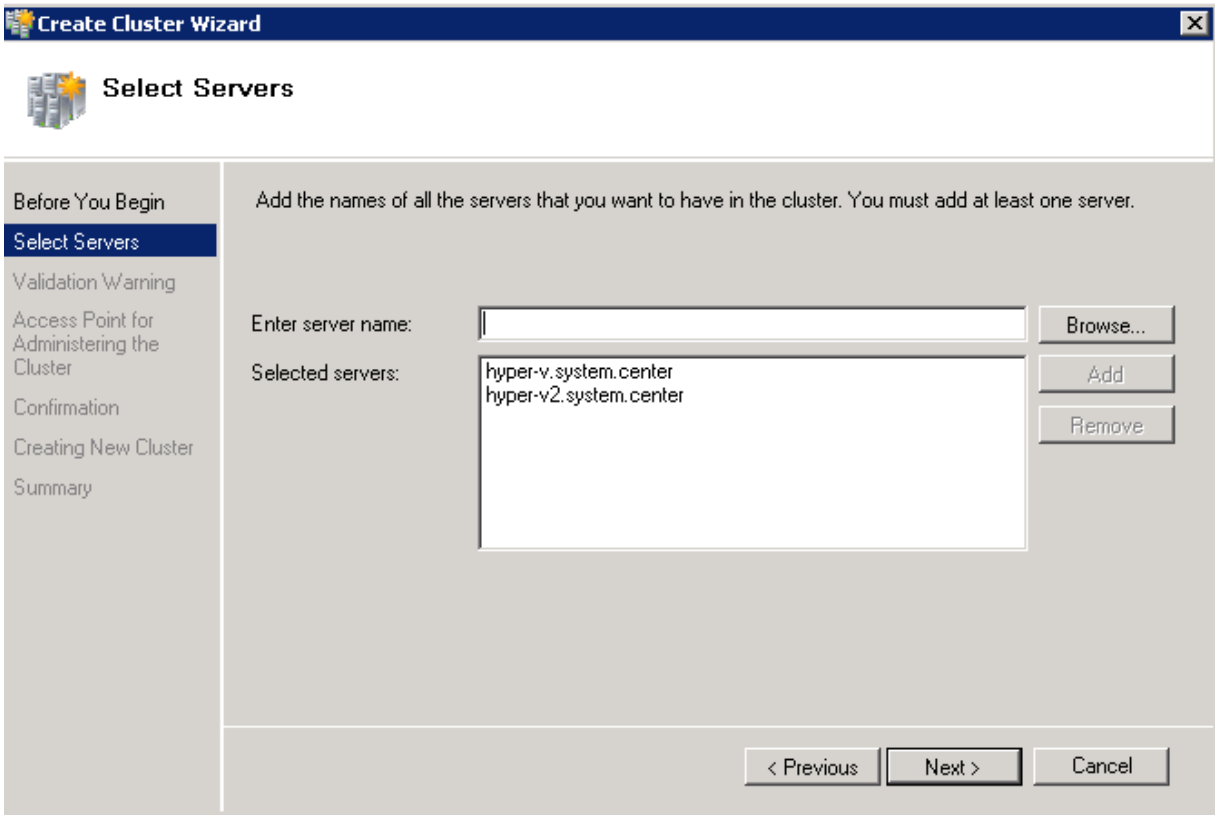


Failover Clustering auf beiden Nodes installieren

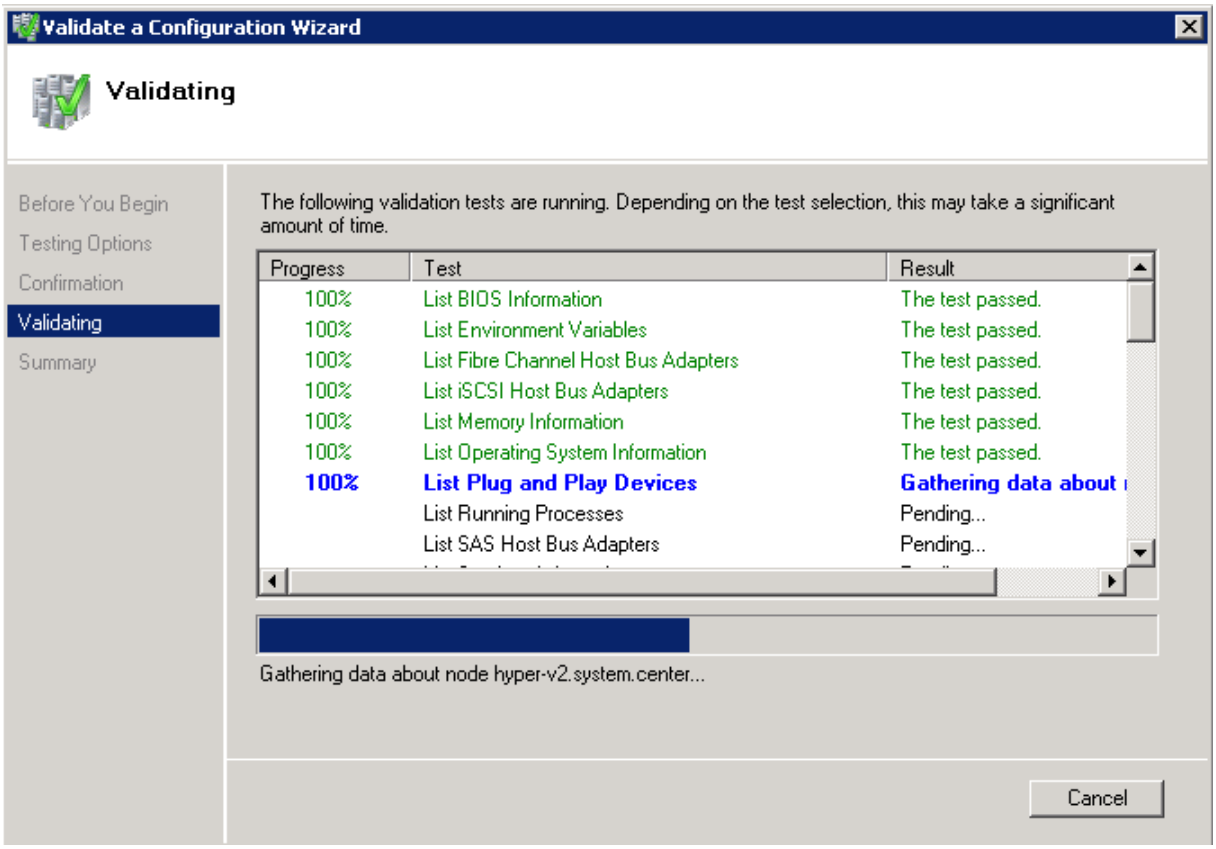


Cluster einrichten

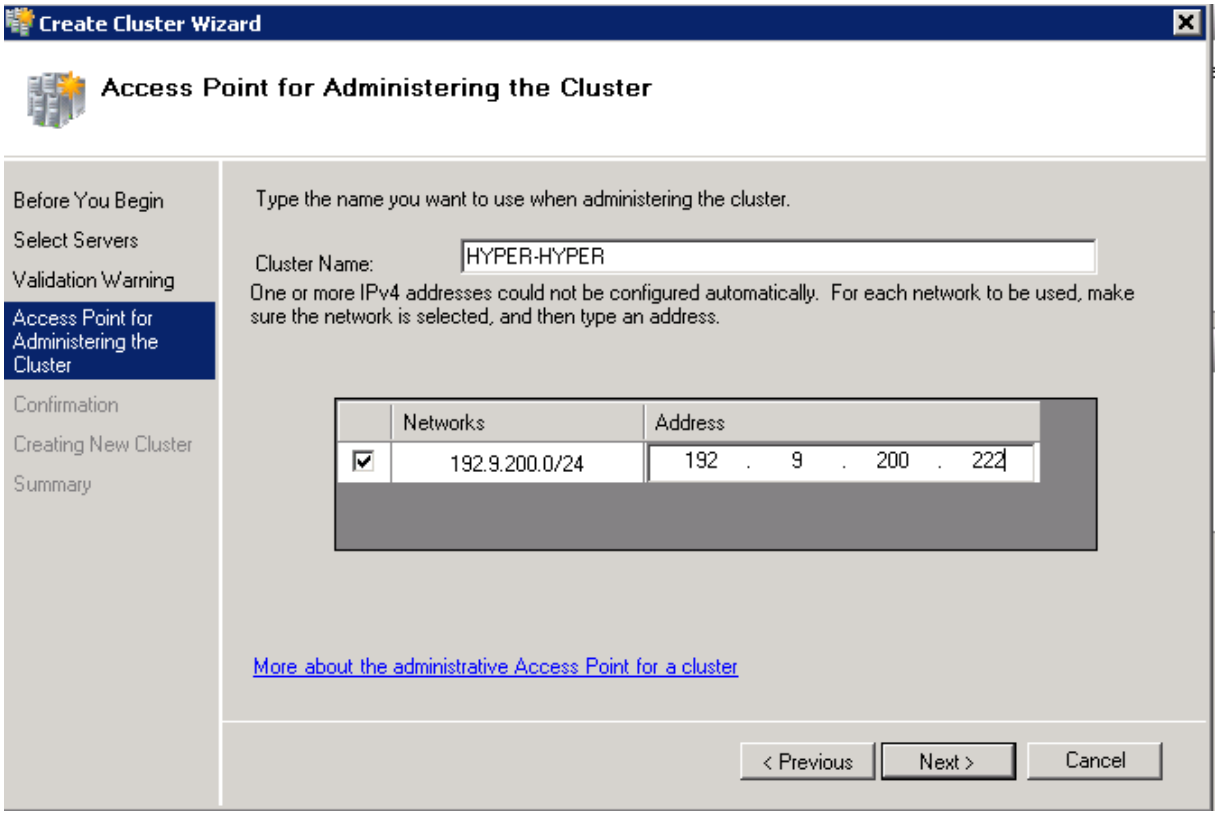


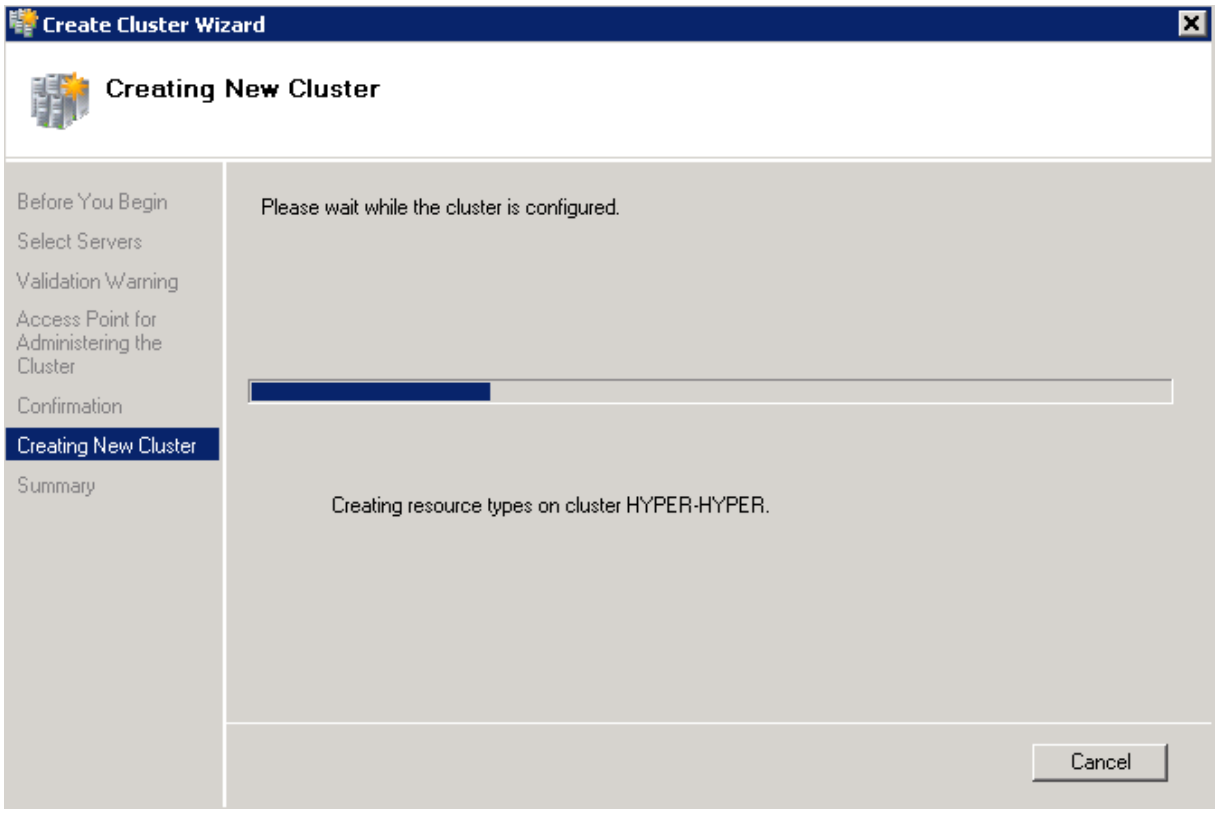


Cluster Validation Test durchfuehren

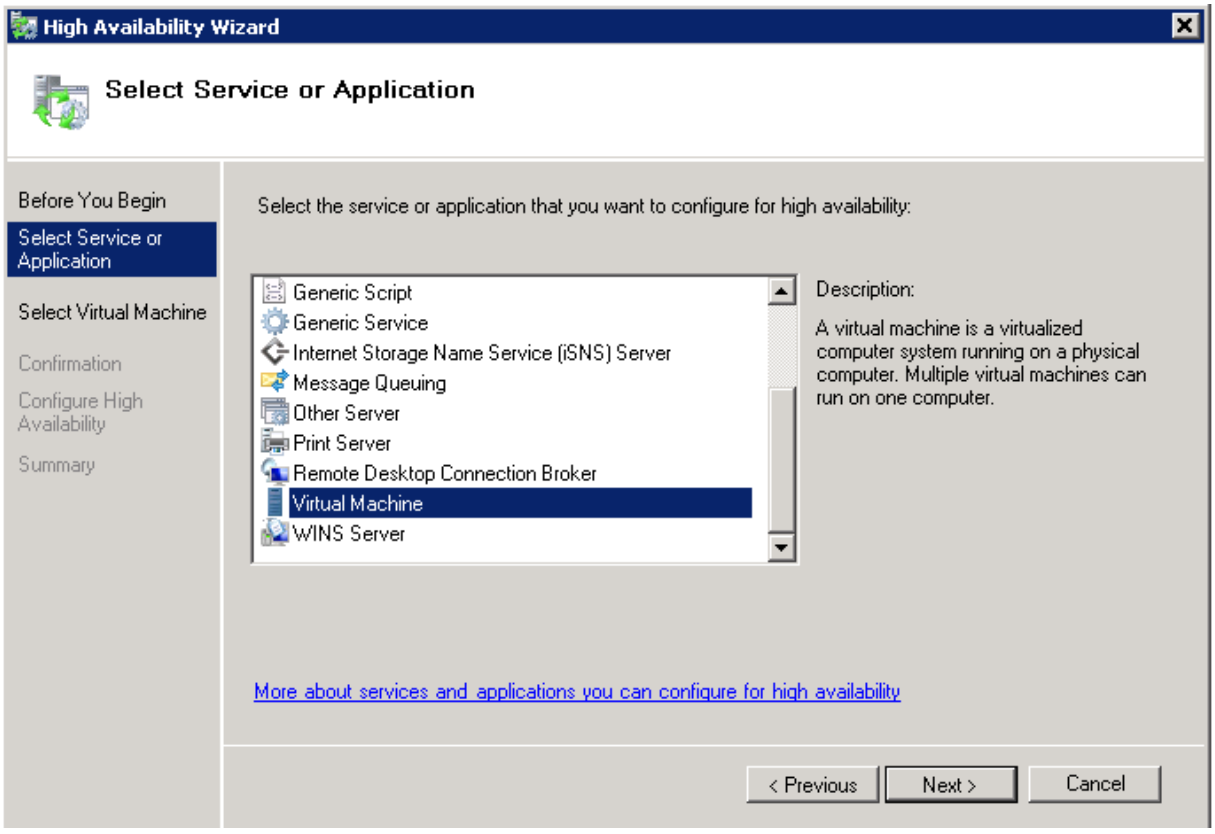


Create a (Kellogs) Cluster

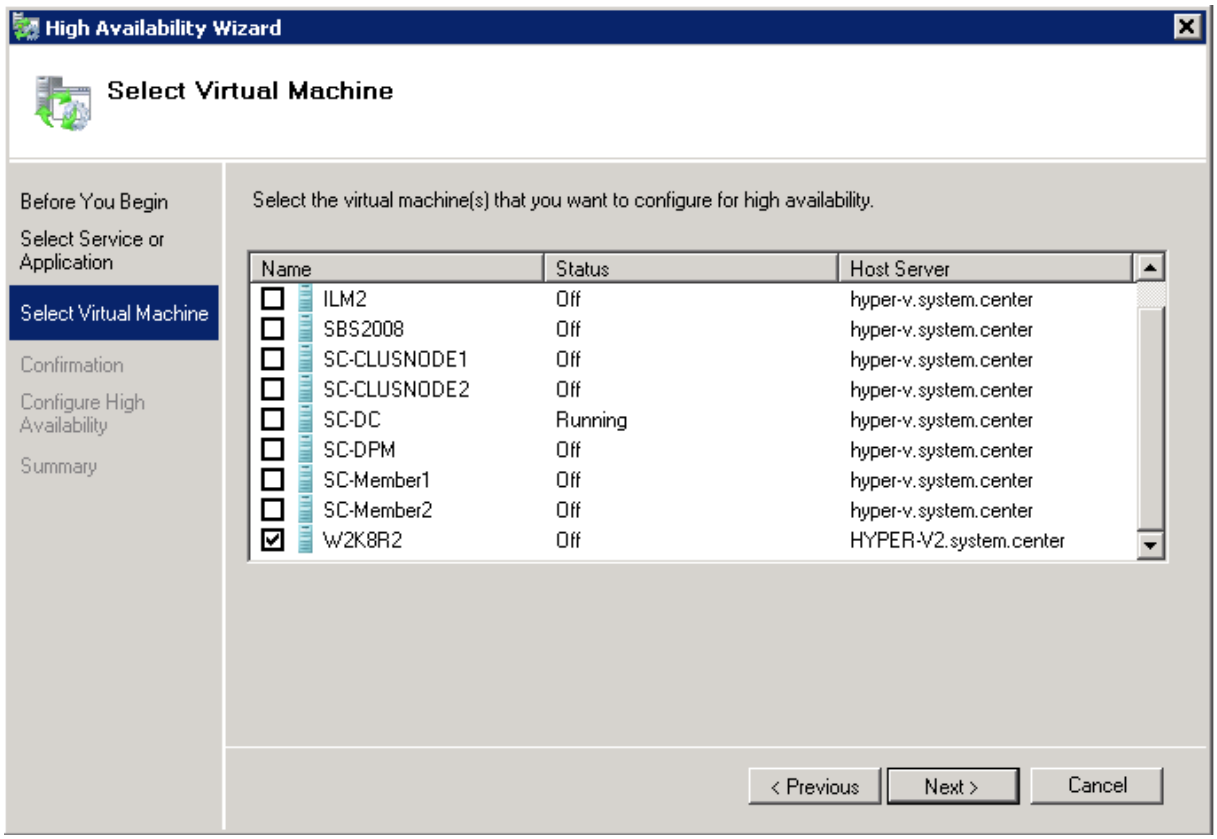




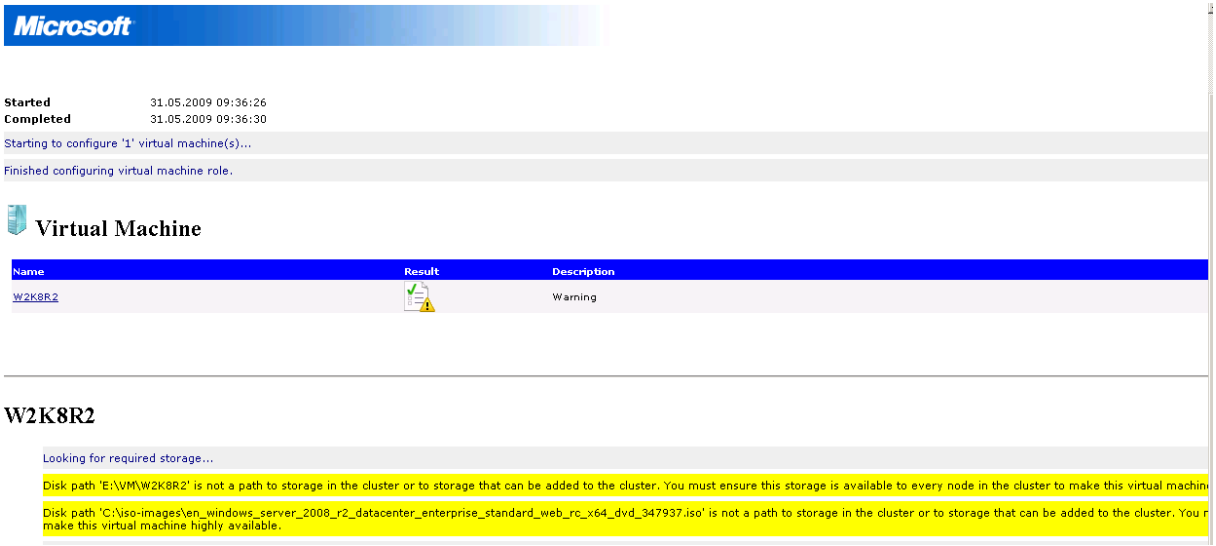
Hochverfuegbarkeit ohne CSV



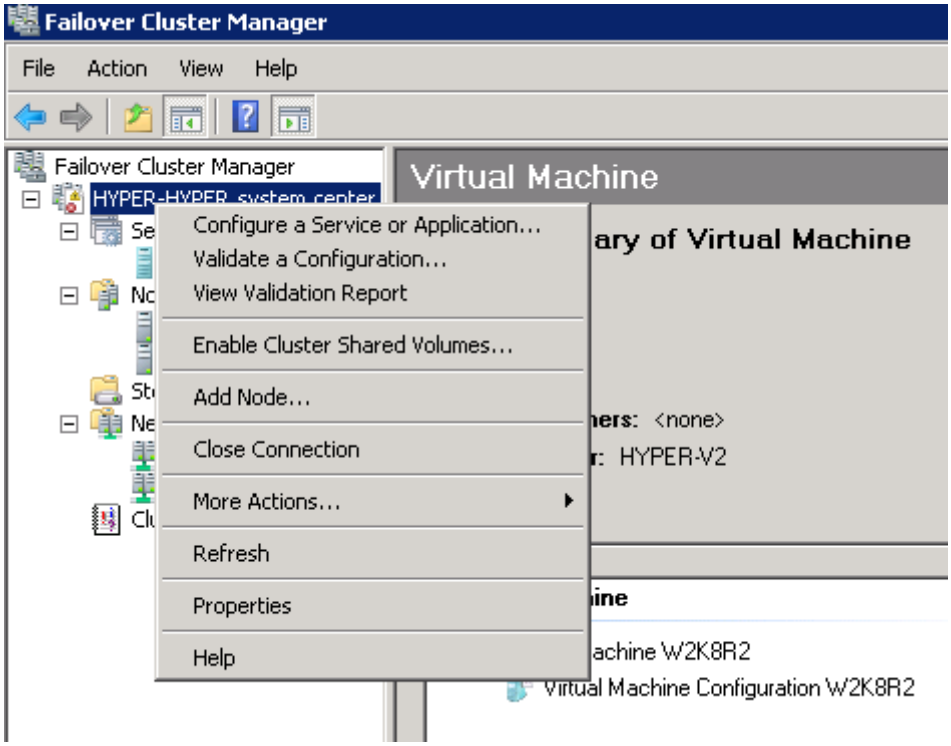
Auflisten aller VM aller Server



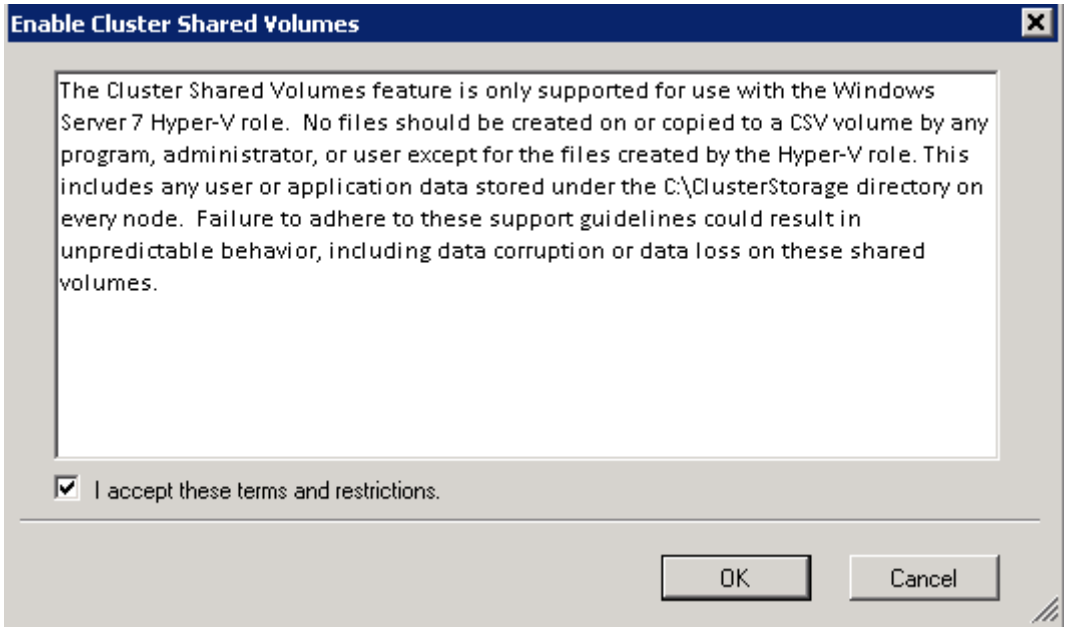
kein SAN, kein Failover



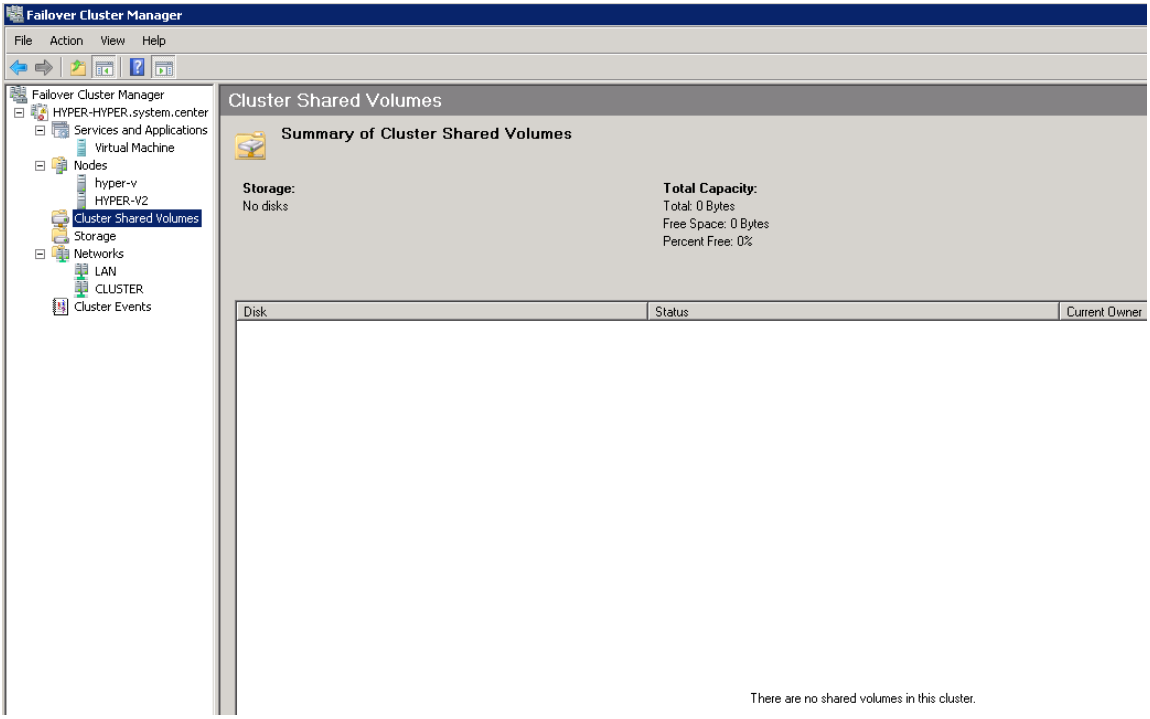
OK, also erstmal CSV aktivieren



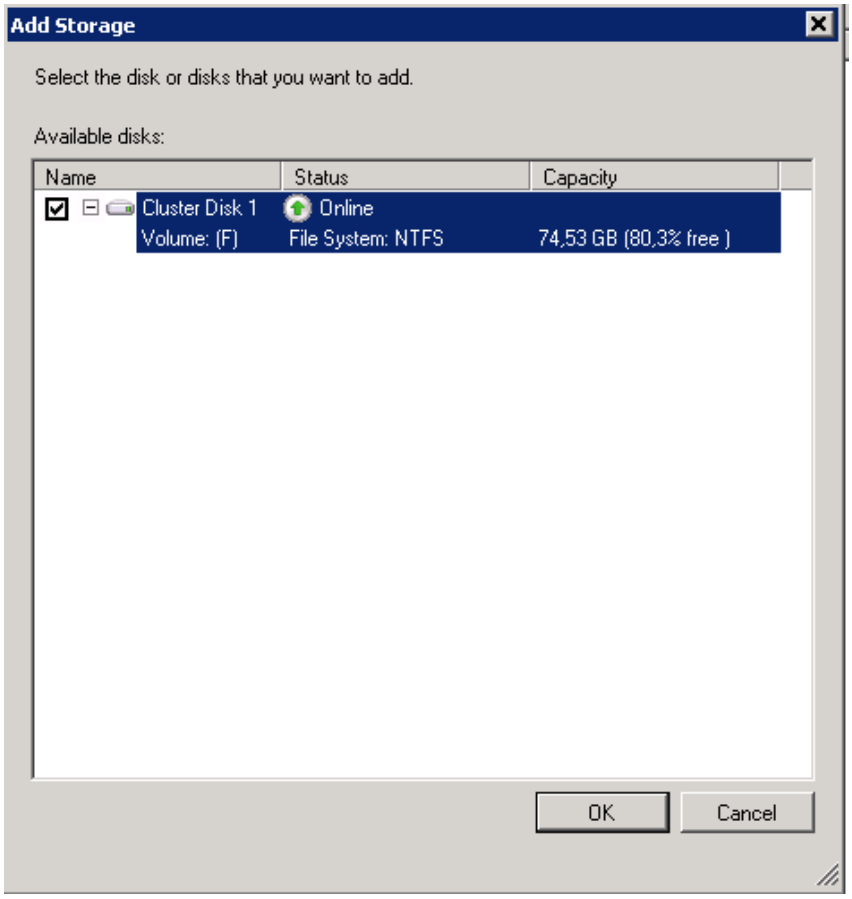
Jawoll, verstanden!



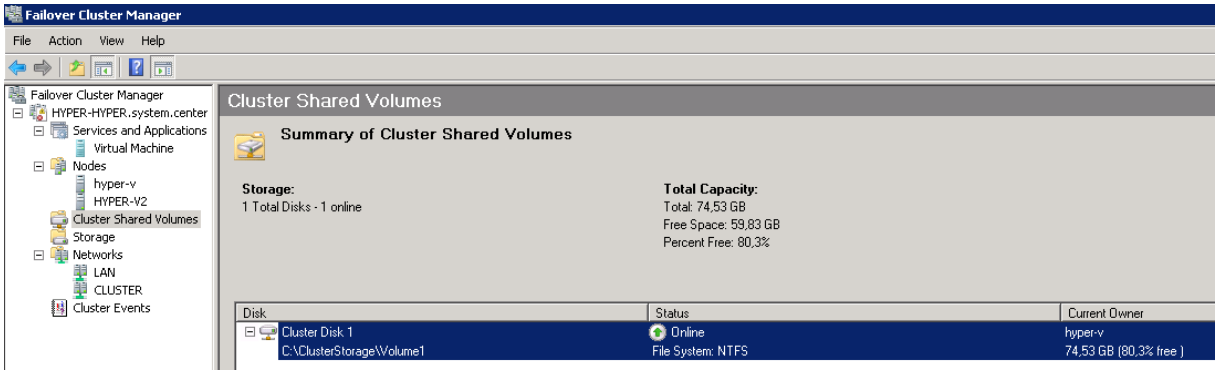
Nix Speicher da:



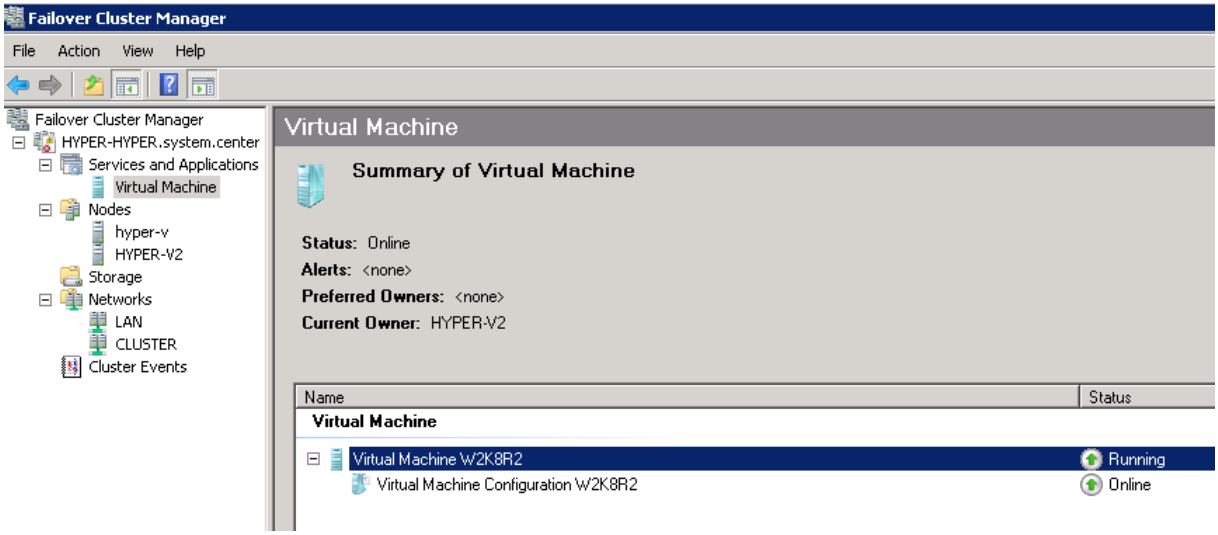
Dann mal was hinzufuegen



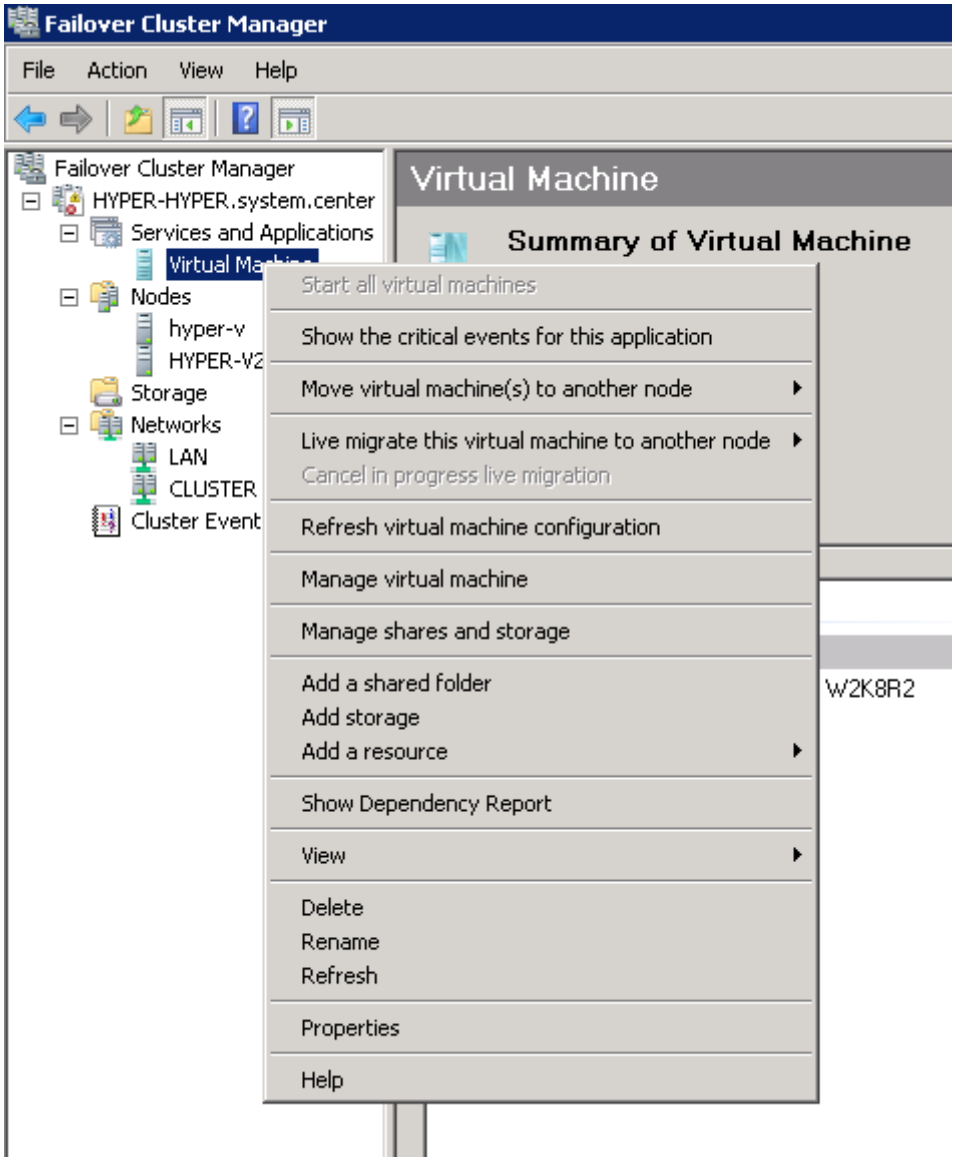
OK, Online!



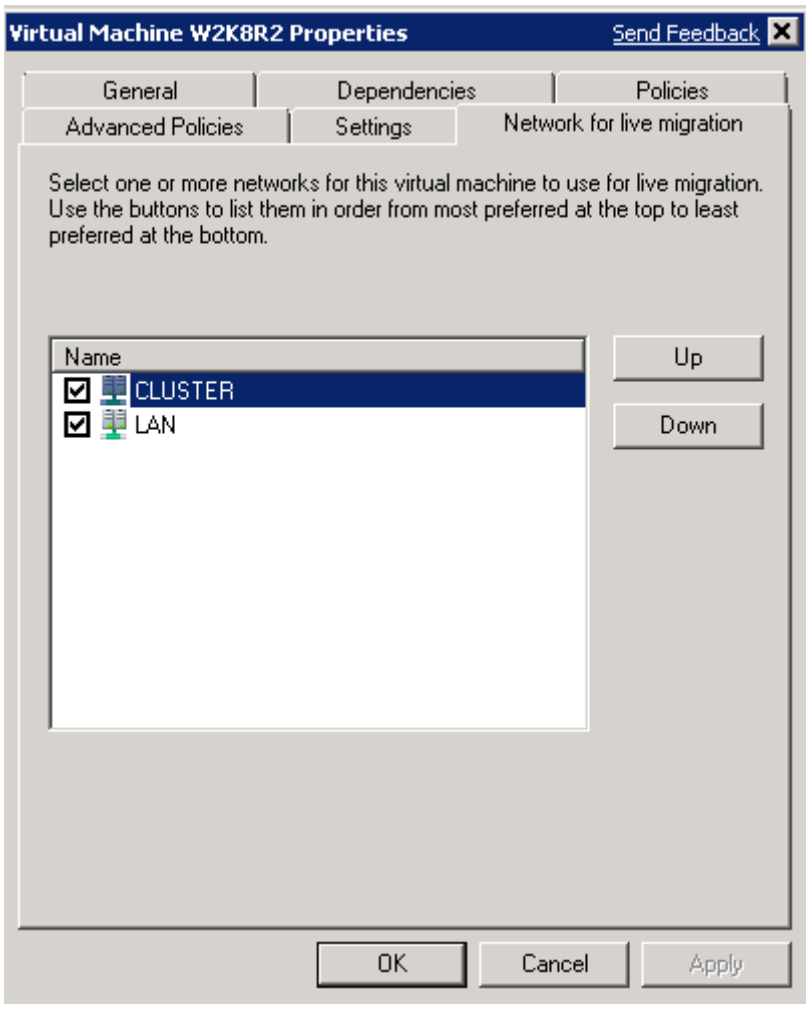
VM Cluster Verwaltung



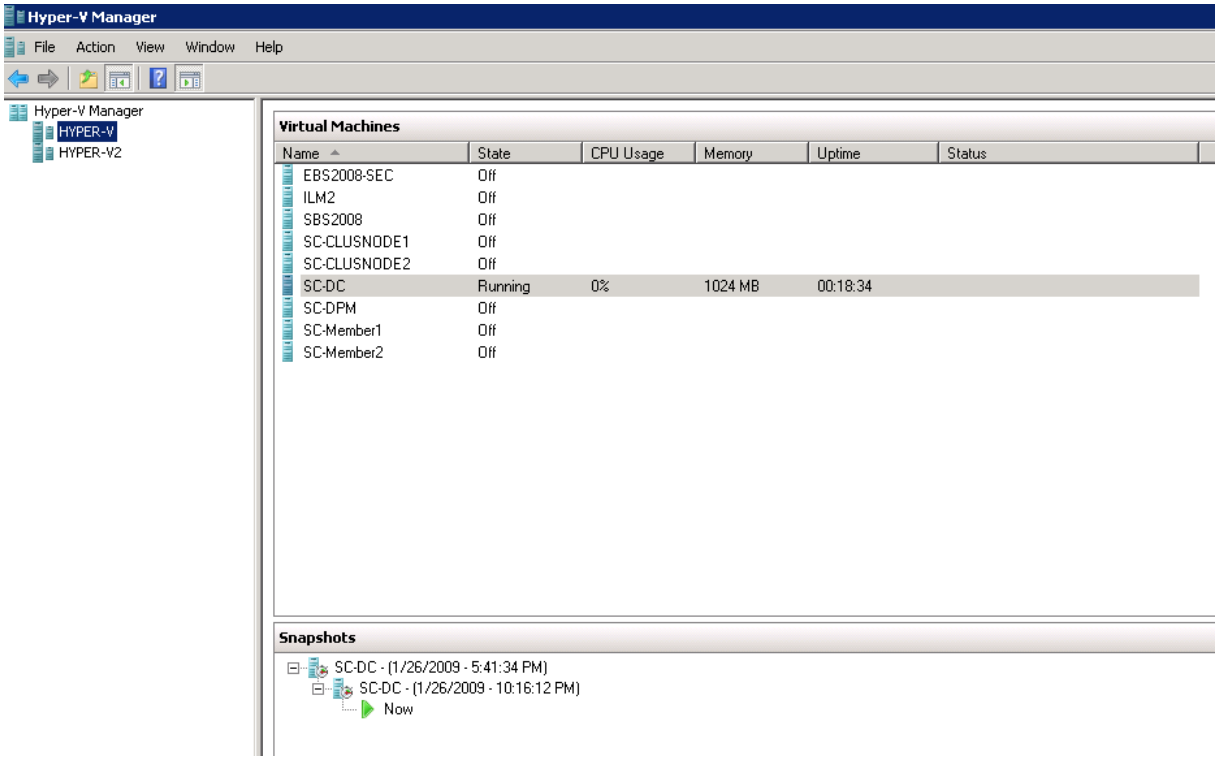
Live is Live



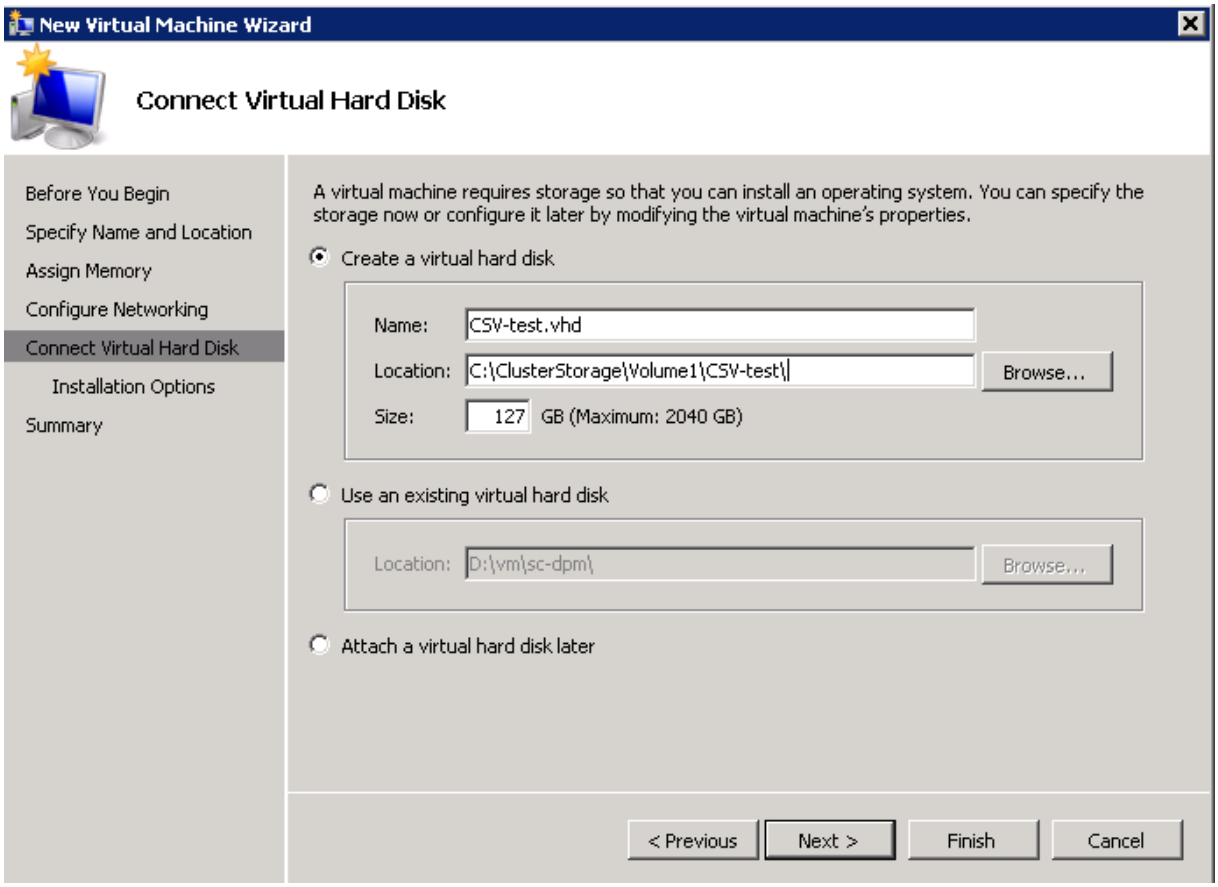
Netzwerk fuer Live Migration



Verwalten der VM ueber den Hyper-V Manager

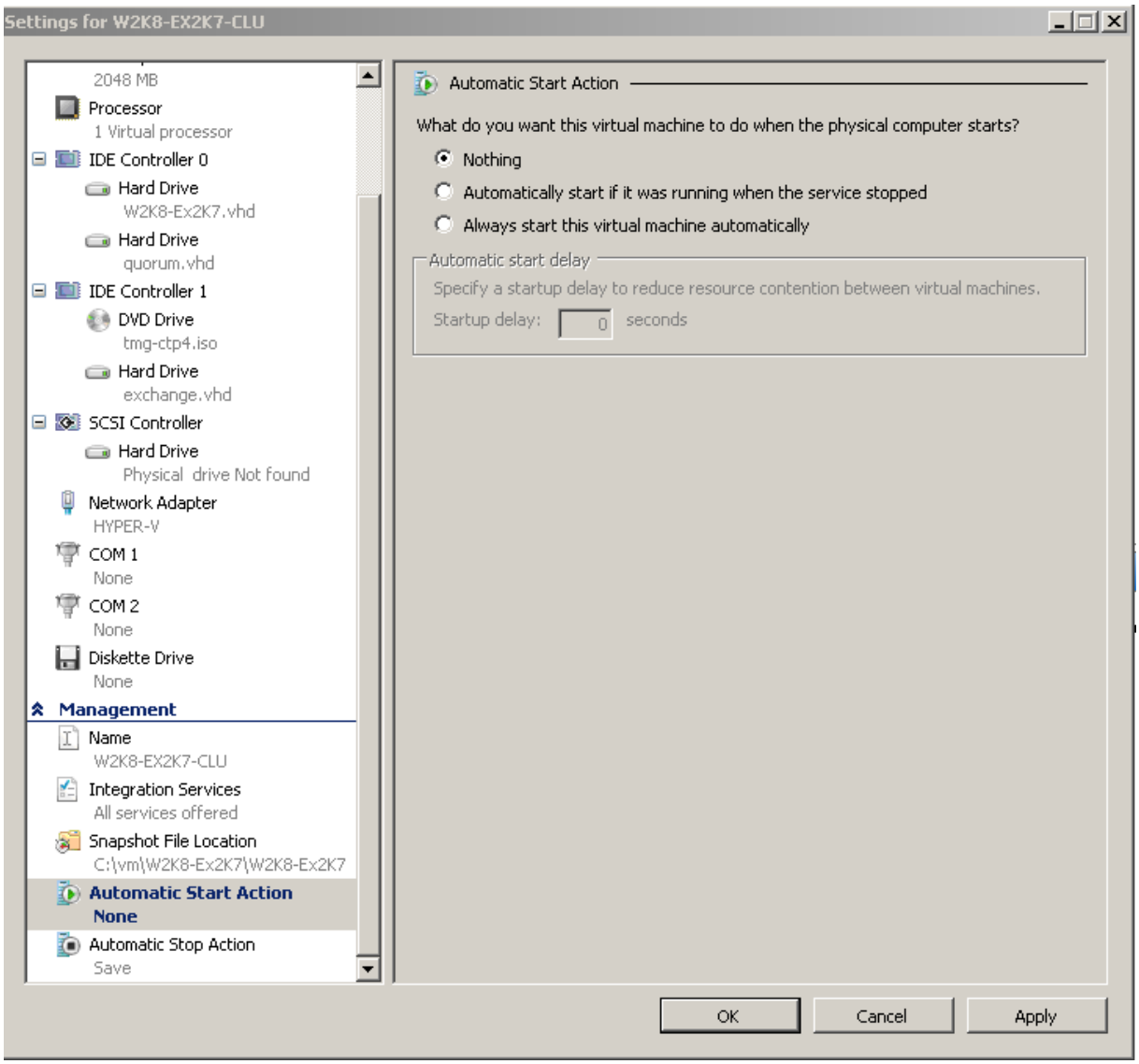


Neue VM einrichten und auf CSV legen



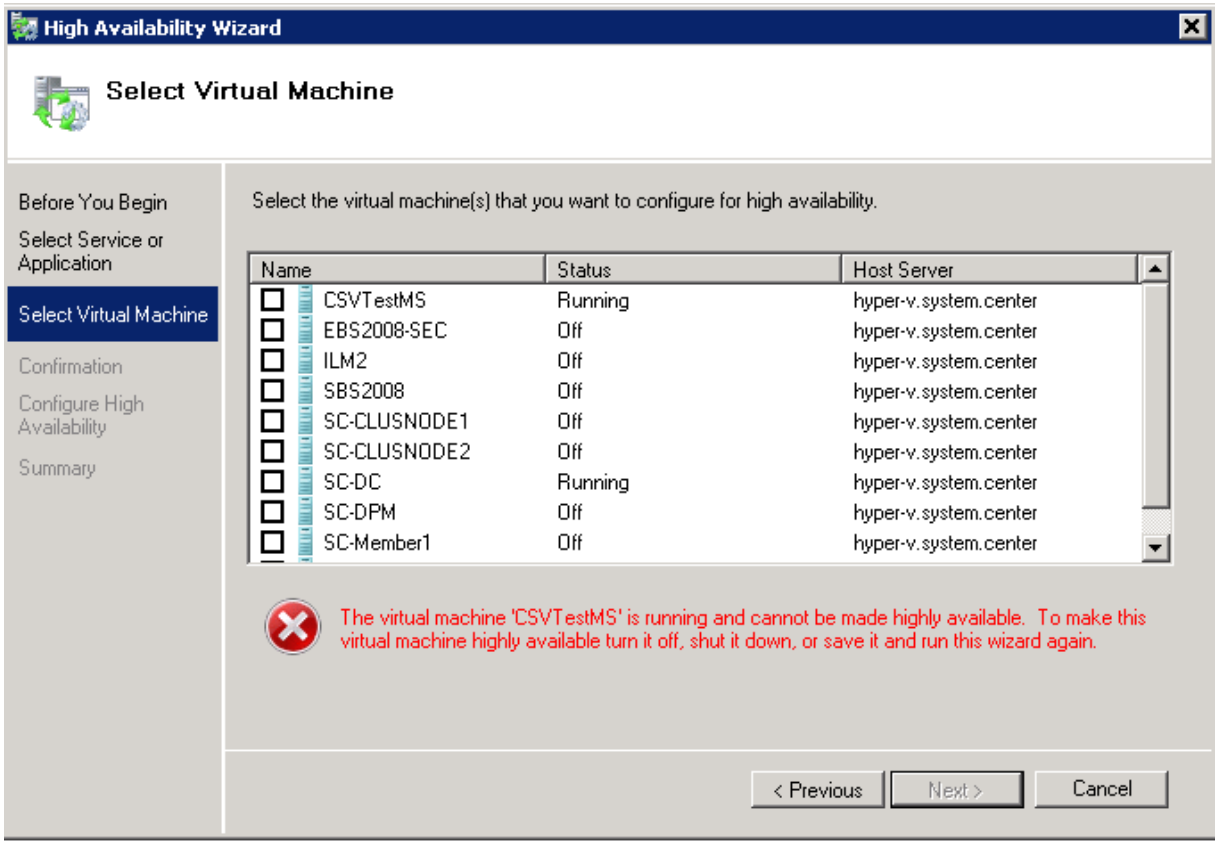
Maschine installieren.

Danach die Starteinstellungen der Maschine auf "keine Aktion" stellen

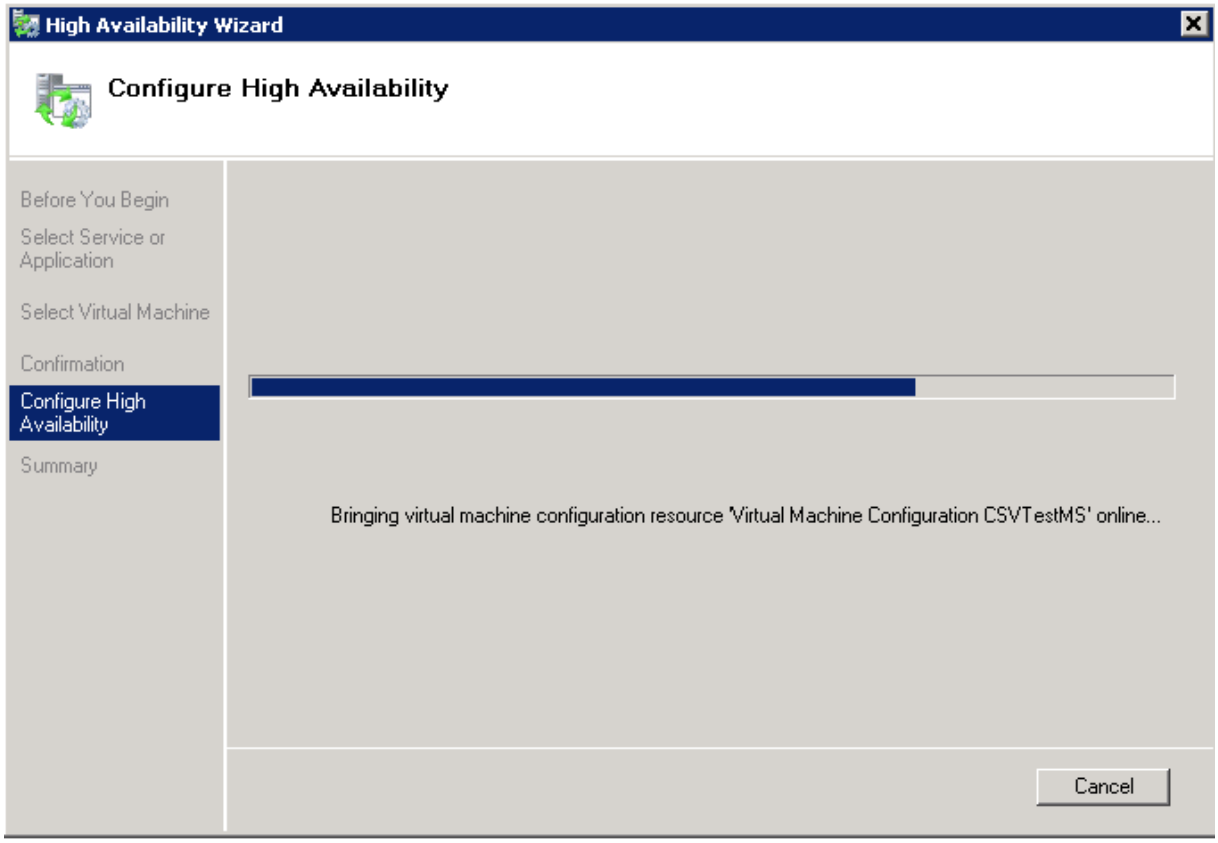


Danach kann die VM in der Failover Verwaltungskonsole hochverfuegbar gemacht werden.

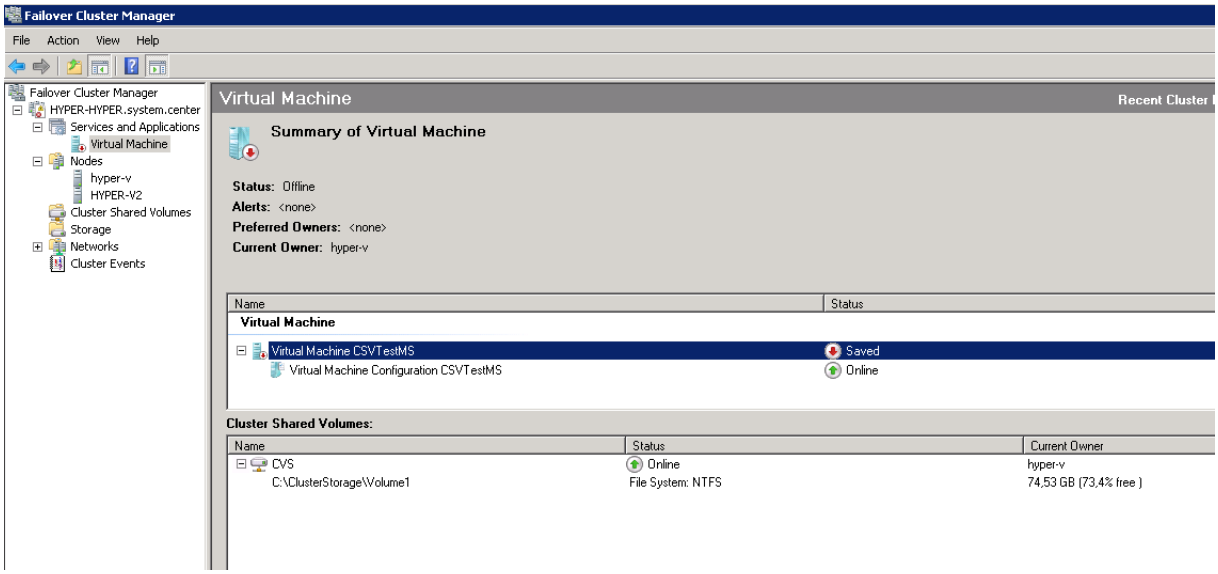
VM muss ausgeschaltet sein


High Availability Wizard
Select Virtual Machine
Before You Begin
Select Service or Application
Select Virtual Machine
Confirmation
Configure High Availability
Summary
Select the virtual machine(s) that you want to configure for high availability.
Name
Status
Host Server
CSVTestMS
Running
hyper-v.system.center
EBS2008-SEC
Off
hyper-v.system.center
ILM2
Off
hyper-v.system.center
SBS2008
Off
hyper-v.system.center
SC-CLUSNODE1
Off
hyper-v.system.center
SC-CLUSNODE2
Off
hyper-v.system.center
SC-DC
Running
hyper-v.system.center
SC-DPM
Off
hyper-v.system.center
SC-Member1
Off
hyper-v.system.center
The virtual machine 'CSVTestMS' is running and cannot be made highly available. To make this virtual machine highly available turn it off, shut it down, or save it and run this wizard again.
< Previous
Next >
Cancel

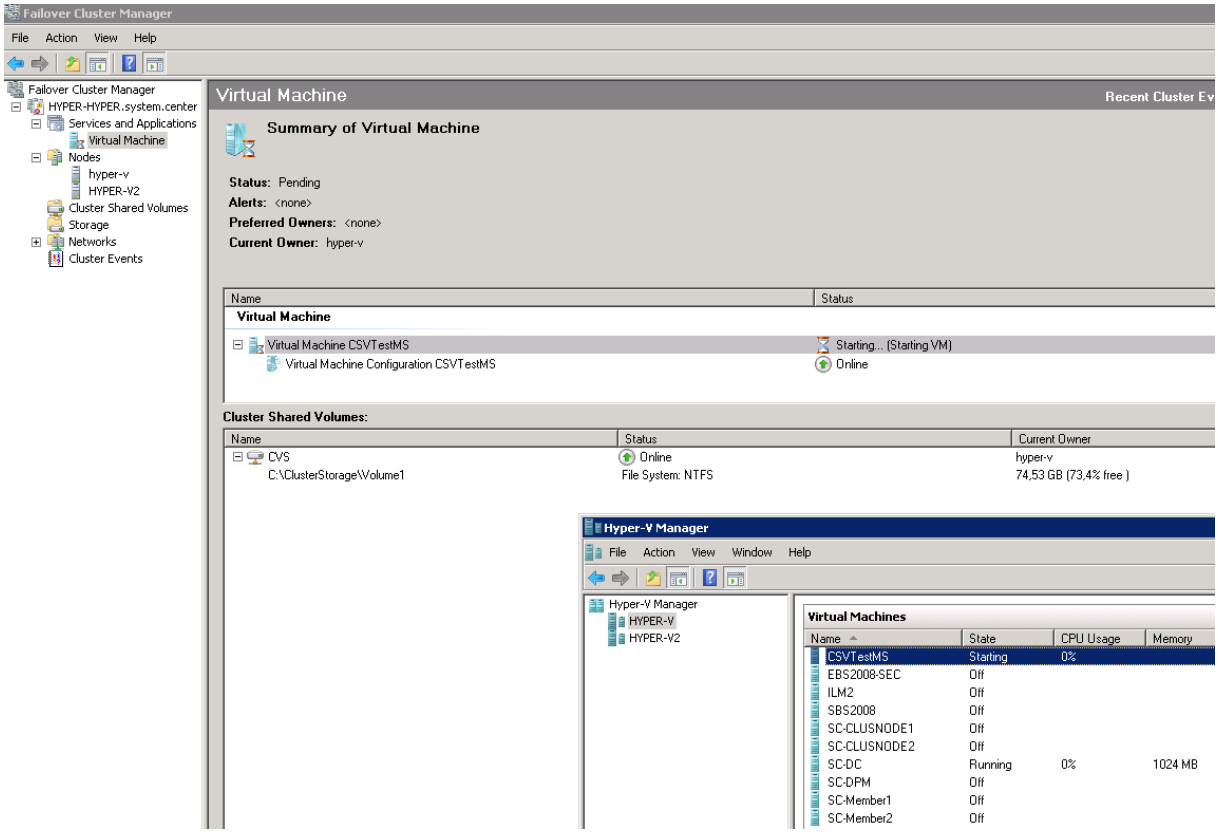
Ab geht's


High Availability Wizard
Configure High Availability
Before You Begin
Select Service or Application
Select Virtual Machine
Confirmation
Configure High Availability
Summary
Bringing virtual machine configuration resource 'Virtual Machine Configuration CSVTestMS' online...
Cancel

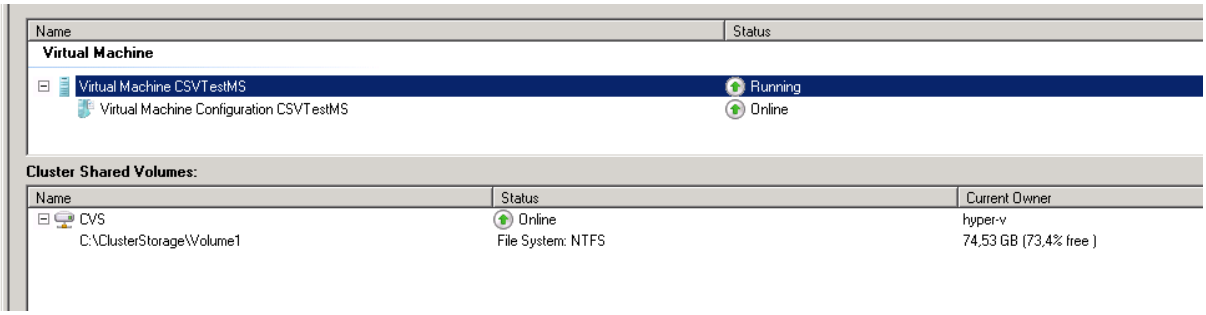
VM im Failover Cluster Manager



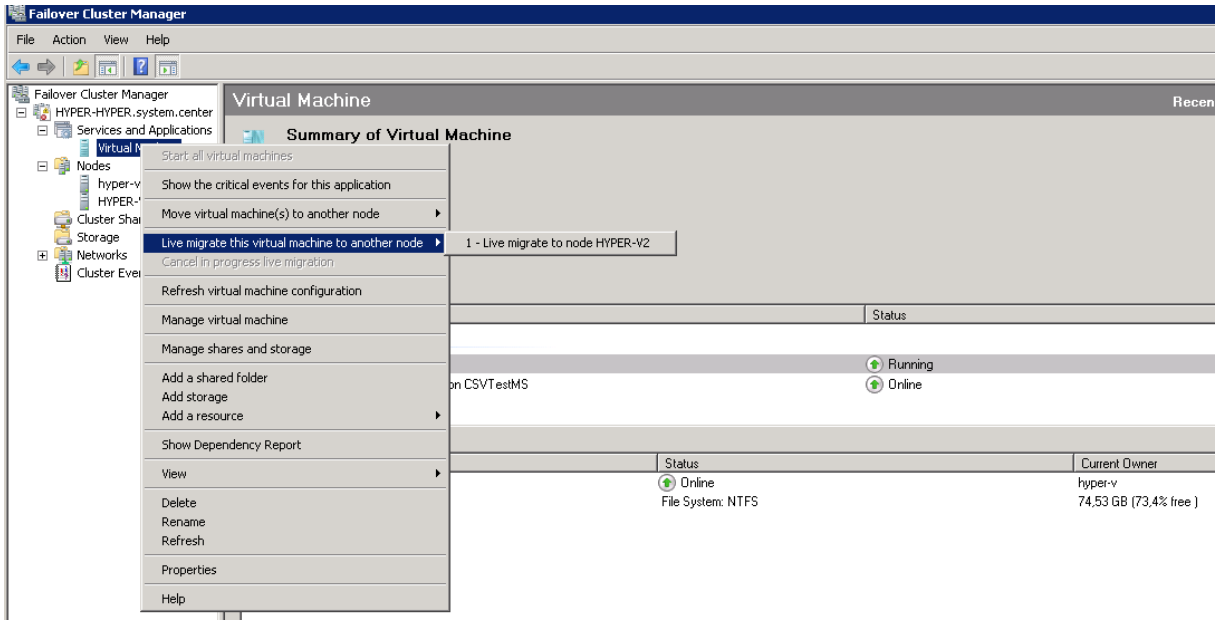
VM wird gestartet

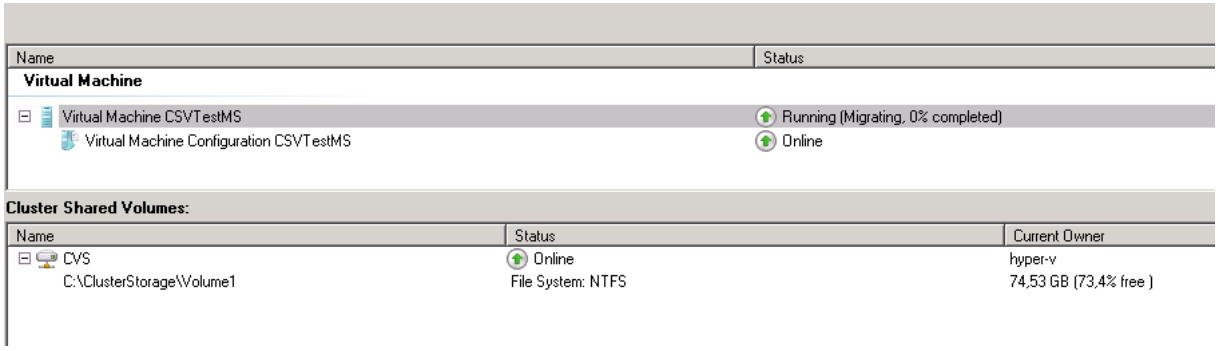


Laeuft

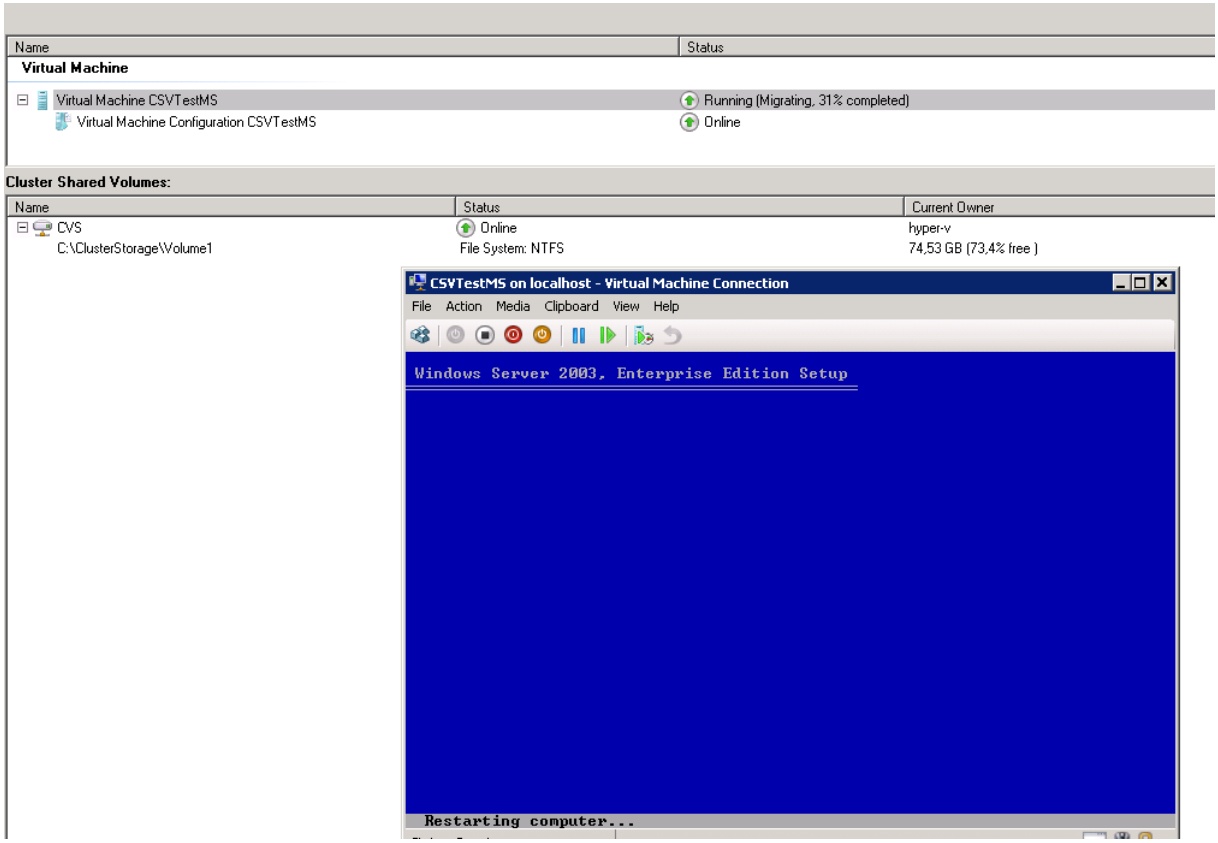


Jetzt mal live migrieren





Dauert etwas, aber alles geht weiter (nicht wundern, ich installierte zu dem Zeitpunkt der Live Migration gerade ein Betriebssystem in der VM)



In meiner Testumgebung hat das ganze eine Weile gedauert, durch die Konstellation iSCSI Target in einer VM auf meinem Notebook welche mit einer USB Passthrough Disk bedient wurde, ist die Performance natuerlich nicht so super!