

# ESXi - Nutanix - Build Information

1. Add hosts to vCenter
  - a. vCenter 7.0 allows for multiple hosts to be added at a time
    - i. Right click on your new cluster and select "Add hosts" and follow the prompts
2. Check to validate all NICs are in an up state with the speed being defined
  - a. Should an adapter be in an Auto-Negotiate state, contact network support

ps2pe1007537.express-scripts.com | ACTIONS ▾

Summary Monitor **Configure** Permissions VMs Resource Pools Datastores Networks Up

▼ Storage

- Storage Adapters
- Storage Devices
- Host Cache Configur...
- Protocol Endpoints
- I/O Filters
- ▼ Networking
  - Virtual switches
  - VMkernel adapters
  - Physical adapters**
  - TCP/IP configuration
  - ▼ Virtual Machines

### Physical adapters

Add Networking... Refresh Edit...

Device	Actual Speed	Configured Speed	Switch
vmnic0	Down	Auto negotiate	--
vmnic1	Down	Auto negotiate	--
vmnic2	25 Gbit/s	Auto negotiate	vSwitch0
vmnic3	25 Gbit/s	Auto negotiate	vSwitch0
vmnic4	25 Gbit/s	25 Gbit/s	vSwitch0
vmnic5	25 Gbit/s	25 Gbit/s	vSwitch0
vusb0	100 Mbit/s	100 Mbit/s	--

3. Place hosts into Maintenance Mode
  - a. This will require powering down the CVM VMs if powered on
4. Nutanix nodes come with a two standard switches, one for backend storage and another for everything else (mgmt, vmotion, VM traffic)

### Virtual switches

ADD NETWORKING

▼ Standard Switch: vSwitch0

ADD NETWORKING EDIT MANAGE PHYSICAL ADAPTERS ...

Backplane Network

VLAN ID: --

> Virtual Machines (1)

Management Network

VLAN ID: 3948

▼ VMkernel Ports (1)

vmk2: 10.220.228.29

Vlan3945 - NTNX-CVM

VLAN ID: 3945

> Virtual Machines (1)

Vlan3945 - STORAGE

VLAN ID: 3945

▼ VMkernel Ports (1)

vmk0: 10.220.81.29

Physical Adapters

- vmnic2 25000 Full
- vmnic3 25000 Full
- vmnic4 25000 Full
- vmnic5 25000 Full

▼ Standard Switch: vSwitchNutanix

ADD NETWORKING EDIT MANAGE PHYSICAL ADAPTERS ...

svm-iscsi-pg

VLAN ID: --

▼ Virtual Machines (1)

NTNX-J1014H60-A-CVM

vmk-svm-iscsi-pg

VLAN ID: --

▼ VMkernel Ports (1)

vmk1: 192.168.5.1

Physical Adapters

No physical network adapters

- a.
- b. **\*\*\*DO NOT TOUCH THE SWITCH LABELED "vSwitchNutanix"\*\*\***
5. Add hosts to dVswitches
  - a. Hosts should be added to:
    - i. Nutanix\_INFRA
      1. vmnic2 & vmnic4
    - ii. ACI\_Nutanix\_VDI
      1. vmnic3 & vmnic5
  - b. VMKernels should be added as
    - i. vmk0 (Storage vmk) - **CH3** - dvPG-VLAN2945 | **PS2** - dvPG-VLAN3945
    - ii. vmk1 (Nutanix vmk) - **SKIP** and leave on vSwitchNutanix standard switch (This will have no uplinks)
    - iii. vmk2 (MGMT vmk) - **CH3** - dvPG-VLAN2948 | **PS2** - dvPG-VLAN3948
    - iv. vmk3 (vMotion vmk) - **CH3** - dvPG-VLAN916 | **PS2** - dvPG-VLAN816

## NUTANIX\_INFRA - Add and Manage Hosts

- ✓ 1 Select task
- ✓ 2 Select hosts
- ✓ 3 Manage physical adapters
- ✓ 4 Manage VMkernel adapt...
- 5 Migrate VM networking
- 6 Ready to complete

### Manage VMkernel adapters

Manage and assign VMkernel network adapters to the distributed switch.

Assign port group Reset changes View settings

Host/VMkernel Network Adapters	In Use by Switch	Source Port Group	Destination Port Gr...
ch3pe1012977.express-scripts.c...			
On this switch			
vmk0 (Reassigned)	vSwitch0	Vlan2945 - STORA...	dvPG-VLAN2945...
vmk2 (Reassigned)	vSwitch0	Management Net...	dvPG-VLAN2948...
vmk3 (Reassigned)	vSwitch0	VMotion	dvPG-VLAN916-1...
On other switches/unclaimed			
vmk1	vSwitchNutanix	vmk-svm-iscsi-pg	Do not migrate
ch3pe1012978.express-scripts.c...			
On this switch			
vmk0 (Reassigned)	vSwitch0	Vlan2945 - STORA...	dvPG-VLAN2945...
vmk2 (Reassigned)	vSwitch0	Management Net...	dvPG-VLAN2948...
vmk3 (Reassigned)	vSwitch0	VMotion	dvPG-VLAN916-1...

CANCEL

BACK

NEXT

v.

### c. Migrate Virtual Machine Networking of CVMs

- i. Network Adapter 1 - Assign to Port Group **CH3** - dvPG - VLAN2945 | **PS2** - dvPG-VLAN3945
- ii. Network Adapter 2 - Do not Migrate
- iii. Network Adapter 3 - Assign to Port Group **CH3** - dvPG - VLAN2945 | **PS2** - dvPG-VLAN3945

## NUTANIX\_INFRA - Add and Manage Hosts

- ✓ 1 Select task
- ✓ 2 Select hosts
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### Migrate VM networking

Select virtual machines or network adapters to migrate to the distributed switch.

Migrate virtual machine networking

Assign port group Reset changes View settings

Host/Virtual Machine/Network Adapter	NIC Count	Source Port Group	Destination Port Group
ch3pe1012977.express-scripts.c...			
NTNX-J101X9G2-A-CVM	3		Reassigned
Network adapter 1		Vlan2945 - NTNXC...	dvPG-VLAN2945-10...
Network adapter 2		svm-iscsi-pg	Do not migrate
Network adapter 3		Backplane Network	dvPG-VLAN2945-10...
ch3pe1012978.express-scripts.c...			
ch3pe1012979.express-scripts.c...			

iv.

6. Move the hosts into their designated cluster(s)
  - a. If adding hosts to multiple clusters, the hosts must be balanced across racks to prevent SPOF
7. Launch Powercli or Powershell from your desktop
  - a. run the following commands:
    - i. connect-viserver <VC-FQDN>
      1. Enter credentials
8. Configure syslog from Powercli
  - a. Get-Cluster <NameofNewCluster> | Get-VMHost | Set-VMHostSysLogServer -SysLogServer 'udp://10.222.226.31:514'
9. Configure NTP from Powercli
  - a. Get-Cluster <NameofNewCluster> | Get-VMHost | Add-VMHostNtpServer -NtpServer 10.222.11.100, 10.221.11.100
  - b. Apply Host profile
  - c. Validate the Coredump, Syslog, and power settings
10. Create Nutanix Cluster
  - a. This will require all CVM IPs
    - i. Example: cluster --svm\_ips=10.220.80.60,10.220.80.58,10.220.80.50,10.220.80.70,10.220.80.71 --redundancy\_factor=3 create
11. Configure Cluster settings (Name, VIP, NTP, DNS)
12. Join Prism Element to vCenter
13. Join Prism Element to Prism Central
14. Upgrade AOS if applicable
  - a. Perform NCC upgrade as well
15. License the cluster
  - a. This is done via the Nutanix portal
16. Delete the default storage container
17. Enable encryption
  - a. Download the encryption key and add to CIFS share
  - b. \\ps2nas\Microsoft Server Support\Nutanix
18. Create the Storage container
19. Set Password standards

- a. Change all CVM passwords to standard
- b. Change all ESXi passwords to standard