ONTAP® Select 9 Quick Start Guide: Deploying an Evaluation Single-Node Cluster
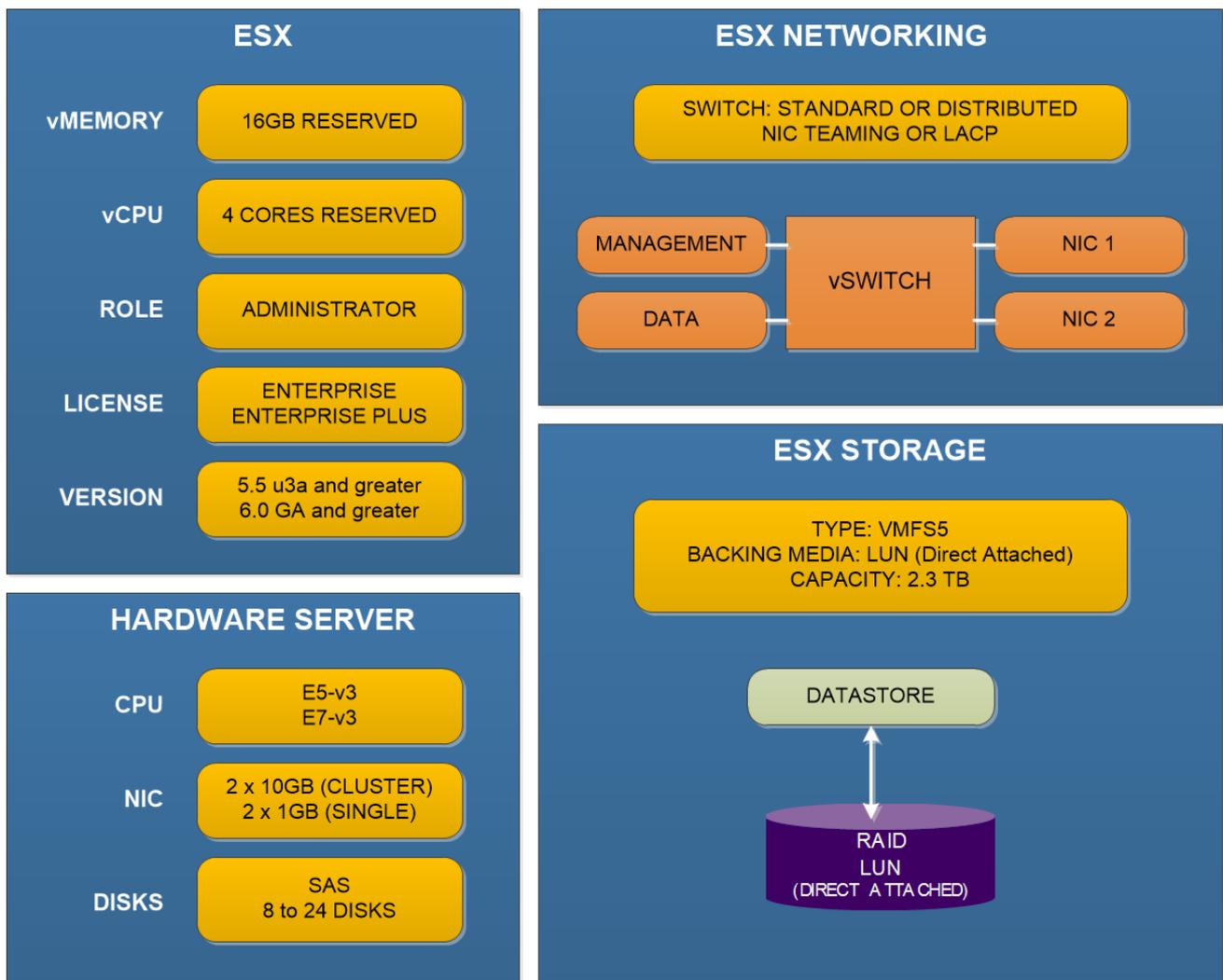
The *ONTAP Select 9 Quick Start Guide: Deploying an Evaluation Single-Node Cluster* describes how to quickly deploy a 90-day evaluation instance of a single-node ONTAP Select cluster.

- Up to 2 TB of storage can be used at each node

- You do not need a serial number or storage capacity license from NetApp

- You cannot upgrade the node from an evaluation license to a purchased license

You must first install the ONTAP Select Deploy administration utility and then use the utility to deploy a single-node ONTAP Select cluster. The ONTAP Select Deploy utility provides both a web and CLI user interface for deploying ONTAP Select clusters.

Preparing the ONTAP Select cluster host

Use the following requirements to prepare the ESXi host where the ONTAP Select cluster will be deployed.

ESX

vMEMORY	16GB RESERVED
vCPU	4 CORES RESERVED
ROLE	ADMINISTRATOR
LICENSE	ENTERPRISE ENTERPRISE PLUS
VERSION	5.5 u3a and greater 6.0 GA and greater

HARDWARE SERVER

CPU	E5-v3 E7-v3
NIC	2 x 10GB (CLUSTER) 2 x 1GB (SINGLE)
DISKS	SAS 8 to 24 DISKS

ESX NETWORKING

SWITCH: STANDARD OR DISTRIBUTED
NIC TEAMING OR LACP

MANAGEMENT — vSWITCH — NIC 1

DATA — vSWITCH — NIC 2

ESX STORAGE

TYPE: VMFS5
BACKING MEDIA: LUN (Direct Attached)
CAPACITY: 2.3 TB

DATASTORE

RAID
LUN
(DIRECT ATTACHED)

Preparing the ONTAP Select Deploy utility host

The ESXi host where the ONTAP Select Deploy administration utility is installed must meet the following configuration requirements:

- Both hardware and software are 64-bit
- ESXi version 5.5 u3a and greater or version 6.0 GA and greater
- Virtual CPUs (2)
- Virtual memory (4 GB)
- Storage (40 GB)
- DHCP-enabled

In addition, you must have all the information needed to deploy the virtual machine using vSphere, including the name of the virtual machine and datastore.

Installing ONTAP Select Deploy utility

Complete the following steps on a supported 64-bit ESXi host server with DHCP enabled:

1. Download the ONTAP Select Deploy utility virtual machine image from the [NetApp Support Site](#) to your local workstation.
2. In the VMware vSphere client, select **File > Deploy OVF Template** and complete the wizard. Select Thin Provisioned for the VM disk format and use DHCP to set up the networking. You must define the password for the administrator account (**admin**).
3. Power on the new virtual machine and sign in to the Deploy utility using SSH with the administrator account (**admin**) and management IP address.

   Note: If you are installing on a version of ESXi prior to 6.0 (for example, ESXi 5.5), you must use the default password (admin123), instead of the password you assigned during the installation of the VM. After signing in, you are prompted to change the password.

4. Make sure there is network connectivity between the Deploy VM and the ESXi host where the ONTAP Select cluster will run, and that you have a vCenter account with administrative privileges to deploy the cluster.

Deploying a single-node ONTAP Select cluster using the web user interface

You can use the ONTAP Select Deploy web user interface to deploy a single-node cluster.

1. Sign in to the Deploy utility through the web interface using the IP address of the Deploy virtual machine and administrator account.

2. Confirm that you have met the requirements and prerequisites as described in the **Before you start!** section of the page and select the acknowledgement checkbox.

3. Under **Getting Started**, define a hypervisor host and click **Add**. You can either add the ESXi host directly or by connecting to a vCenter server.

4. Click **Create Cluster** at the bottom of the page to begin the multi-step cluster creation process.

5. On the **Cluster Details** page, provide the required information about the cluster.

6. On the **Host and Network** page:

    a. Select single-node as the size of the cluster

    b. Select the host that will be part of the cluster from the table

    c. Configure the host by selecting the management and data networks

7. On the **Host Licenses** page, select **Evaluation** to define the licensing model for the node in the cluster.

8. On the **Cluster Network** page provide the IP addresses for the management LIF and node LIFs as well as the netmask and gateway.

    There are two ways you can specify the IP addresses. If you specify a range of addresses, the Deploy utility selects the required IP addresses from the range. You can also specify the addresses in CSV format.

9. Click **Apply and View** to assign the IP addresses to the LIFs. You should review the address assignments.

10. Type the company name that will be used for AutoSupport. You can optionally configure the DNS and NTP servers.

11. Click **View Summary** to review the details of the cluster before you create it.

12. Click **Create Cluster** to begin the cluster creation process and then click **OK** in the **Initiated Successfully** popup window. It can take up to 30 minutes for the cluster to be created.

13. On the **Clusters** page, click the new cluster and monitor the four-step cluster creation process.

    The page is automatically refreshed at regular intervals. Also notice that three tabs are now available at the top of the page: **Clusters**, **Hypervisor Hosts**, **Administration**.

Deploying a single-node ONTAP Select cluster using the command line interface

Alternatively, you can use the ONTAP Select Deploy CLI to deploy a single-node cluster.

1. Sign in to the Deploy utility CLI using SSH with the administrator account.

2. Add the host where the cluster will run:

    host add --host-id *FQDN_hostname* --username *vcenter_username* --password *password* --vcenter *vcenter_hostname*

    Example:
    host add --host-id shost01.select.mycompany.com --username admin@vsphere.local --password mypwd --vcenter vc01.select.mycompany.com

3. Verify the host status is authenticated:

    host show-all

4. Configure the host you have added:

    **host configure --host-id *hostname* --location *location*
    --storage-pool *name* --management-network *name*
    --data-network *name* --eval**

    Example:
    host configure --host-id shost01.select.mycompany.com
    --location coco --storage-pool shost01_1 --management-network shost01_network
    --data-network shost01_network --eval

5. Verify the host status is configured:

    host show-all

6. Create the single-node cluster:

    **cluster create --name *cluster_name* --cluster-mgmt-ip *address*
    --node-mgmt-ips *address* --netmask *mask* --gateway *address*
    --node-hosts *hostname***

    Example:
    cluster create --name my-cluster01 --cluster-mgmt-ip 10.96.141.17
    --node-mgmt-ips 10.96.141.25 --netmask 255.255.248.0 --gateway 10.96.141.1 --node-hosts
    shost01.select.mycompany.com

7. Display the ONTAP Select cluster and verify all settings:

    cluster show-all

Support for evaluation deployments

You should refer to the *NetApp Community* site for support. Click **ONTAP Select** to start a
discussion and to see all the postings related to ONTAP Select.

For more information
- *ONTAP Select Resources portal*
- *NetApp Community*