



# **ONTAP Select Deploy**

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# ONTAP Select Deploy

## ONTAP Select Deploy general requirements and planning

There are several general requirements that you should consider as part of planning to install the ONTAP Select Deploy administration utility.

### Pairing the Deploy utility with the ONTAP Select clusters

You have several options when pairing an instance of the Deploy utility with the ONTAP Select clusters.



In all deployment scenarios, a single ONTAP Select cluster and the nodes in the cluster can be managed by only one instance of the Deploy administration utility. A cluster cannot be managed by two or more different instances of the Deploy utility.

#### One instance of the utility for each ONTAP Select cluster

You can deploy and manage each ONTAP Select cluster using a dedicated instance of the Deploy utility. With this one-to-one configuration, there is a clear separation between each of the utility-to-cluster pairings. This configuration provides a high level of isolation with smaller failure domains.

#### One instance of the utility for multiple ONTAP Select clusters

You can deploy and manage multiple ONTAP Select clusters in your organization using a single instance of the Deploy utility. With this one-to-many configuration, all processing and configuration data is managed by the same instance of the Deploy utility.



One instance of the Deploy utility can administer up to 400 ONTAP Select nodes or 100 clusters.

### Authentication using the credential store

The ONTAP Select Deploy credential store is a database holding account information. Deploy uses the account credentials to perform host authentication as part of cluster creation and management. You should be aware of how the credential store is used as part of planning an ONTAP Select deployment.



The account information is stored securely in the database using the AES encryption algorithm and SHA-256 hashing algorithm.

#### Types of credentials

The following types of credentials are supported:

- Host  
Used to authenticate a hypervisor host as part of deploying an ONTAP Select node directly to VMware ESXi
- vCenter  
Used to authenticate a vCenter server as part of deploying an ONTAP Select node to ESXi when the host is managed by VMware vCenter

#### Access

The credential store is accessed internally as part of performing normal administrative tasks using Deploy,

such as adding a hypervisor host. You can also manage the credential store directly through the Deploy web user interface and CLI.

## VMware hypervisor environment

There are several requirements and restrictions specific to the VMware environment that you should consider before installing the ONTAP Select Deploy utility in a VMware environment.

### ESXi host server hardware requirements

There are several minimum resource requirements that your ESXi hypervisor host must meet. You should make sure that the hosts where ONTAP Select is deployed meet the following basic requirements:

- ESXi server:
  - Hardware and software must be 64-bit
  - Must adhere to the same supported versions as defined for an ONTAP Select node
- Virtual CPUs (2)
- Virtual memory (4 GB)
- Storage (40 GB)
- DHCP enabled (can also assign a static IP address)

### Network connectivity

You must make sure that the ONTAP Select Deploy virtual machine network interface is configured and has a single management IP address. You can use DHCP to dynamically assign an IP address or manually configure a static IP address.

Depending on your deployment decisions, the Deploy VM must be able to connect to the vCenter server, ESXi hypervisor hosts, and ONTAP Select nodes it manages. You must configure your firewalls to allow the required traffic.

Deploy uses the VMware VIX API to communicate with the vCenter server and ESXi hosts. Initially, it establishes a connection using SOAP over SSL on TCP port 443. After this, a connection is opened using SSL on port 902. In addition, Deploy issues PING commands to verify there is an ESXi host at the IP address you specify.

Deploy must also be able to communicate with the ONTAP Select node and cluster management IP addresses using the following protocols:

- PING command (ICMP)
- SSH (port 22)
- SSL (port 443)

### Support for IP version 4

ONTAP Select Deploy only supports IP version 4 (IPv4). IP version 6 (IPv6) is not supported. This restriction affects ONTAP Select in the following ways:

- You must assign an IPv4 address to the management LIF of the Deploy virtual machine.
- Deploy cannot create ONTAP Select nodes configured to use IPv6 on the ONTAP LIFs.

### **VMware vCenter language restriction**

If you use ONTAP Select Deploy to create a cluster running on ESXi with vCenter on a Windows Server, you must use an English language version. ONTAP Select Deploy does not support vCenter on non-English versions of Windows.

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