



# **NetApp Virtual Storage Console 9.6 deployment procedures**

**FlexPod**

NetApp  
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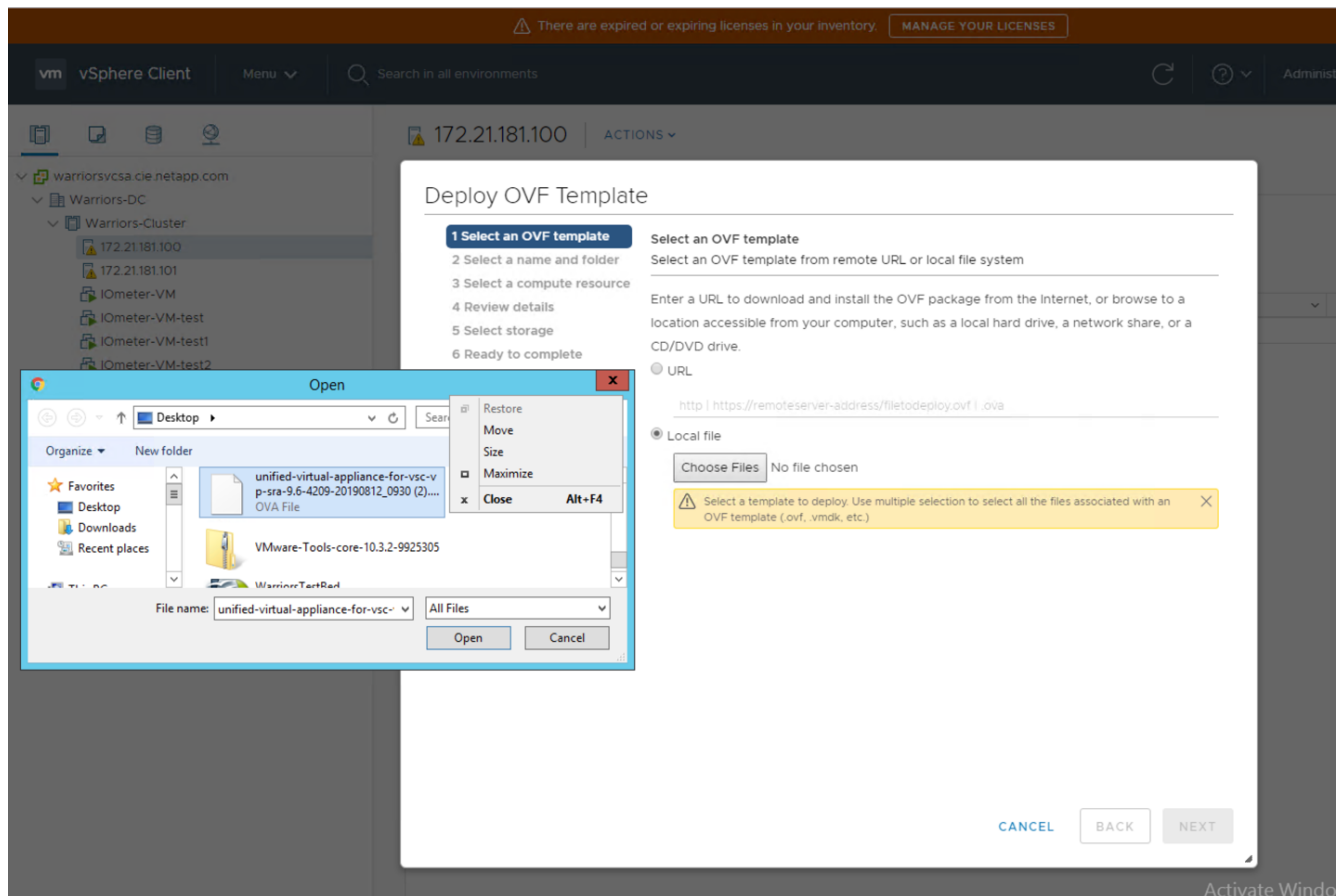
# NetApp Virtual Storage Console 9.6 deployment procedures

This section describes the deployment procedures for the NetApp Virtual Storage Console (VSC).

## Install Virtual Storage Console 9.6

To install the VSC 9.6 software by using an Open Virtualization Format (OVF) deployment, follow these steps:

1. Go to vSphere Web Client > Host Cluster > Deploy OVF Template.
2. Browse to the VSC OVF file downloaded from the NetApp Support site.



3. Enter the VM name and select a datacenter or folder in which to deploy. Click Next.

## Deploy OVF Template



- ✓ 1 Select an OVF template
- ✓ 2 Select a name and folder
- ✓ 3 Select a compute resource
- ✓ 4 Review details
- 5 License agreements
- ✓ 6 Select storage
- 7 Select networks
- 8 Customize template

### Select a name and folder

Specify a unique name and target location

Virtual machine name:

Select a location for the virtual machine.

- ▼  warriorsvcsa.cie.netapp.com
  - >  FlexPod-Datacenter

4. Select the FlexPod-Cluster ESXi cluster and click Next.
5. Review the details and click Next.

## Deploy OVF Template

- ✓ 1 Select an OVF template
- ✓ 2 Select a name and folder
- ✓ 3 Select a compute resource
- ✓ 4 Review details
- 5 License agreements
- 6 Select storage
- 7 Select networks
- 8 Customize template
- 9 Ready to complete

### Review details

Verify the template details.

Publisher	No certificate present
Product	Virtual Appliance - NetApp VSC, VASA Provider and SRA for ONTAP
Version	See appliance for version
Vendor	NetApp Inc.
Description	Virtual Appliance - NetApp VSC, VASA Provider, and SRA virtual appliance for NetApp storage systems. For more information or support please visit <a href="http://www.netapp.com/">http://www.netapp.com/</a>
Download size	1.0 GB
Size on disk	2.1 GB (thin provisioned)
	53.0 GB (thick provisioned)

CANCEL

BACK

NEXT

6. Click Accept to accept the license and click Next.
7. Select the Thin Provision virtual disk format and one of the NFS datastores. Click Next.

## Deploy OVF Template

- ✓ 1 Select an OVF template
- ✓ 2 Select a name and folder
- ✓ 3 Select a compute resource
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- 6 Select storage**
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- 9 Ready to complete

### Select storage

Select the storage for the configuration and disk files

☐ Encrypt this virtual machine (Requires Key Management Server)

Select virtual disk format: Thin Provision

VM Storage Policy: Datastore Default

Name	Capacity	Provisioned	Free	Type
Infra_datastore	75 GB	360 KB	75 GB	NF
Infra_datastore1	475 GB	639.9 GB	276.86 GB	NF
Infra_swap (1)	100 GB	4.98 GB	95.02 GB	NF

### Compatibility

✓ Compatibility checks succeeded.

CANCEL

BACK

NEXT

8. From Select Networks, choose a destination network and click Next.

## Deploy OVF Template

- ✓ 1 Select an OVF template
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- 7 Select networks**
- 8 Customize template
- 9 Ready to complete

### Select networks

Select a destination network for each source network.

Source Network	Destination Network
nat	MGMT-Network
1 items	

### IP Allocation Settings

IP allocation:

Static - Manual

IP protocol:

IPv4

CANCEL

BACK

NEXT

9. From Customize Template, enter the VSC administrator password, vCenter name or IP address, and other configuration details and click Next.

## Deploy OVF Template

✓ 1 Select an OVF template

✓ 2 Select a name and folder

✓ 3 Select a compute resource

✓ 4 Review details

✓ 5 License agreements

✓ 6 Select storage

✓ 7 Select networks

**✓ 8 Customize template**

9 Ready to complete

vCenter Server Address (\*)

Specify the IP address/hostname of an existing vCenter to register to.

172.21.181.105

Port (\*)

Specify the HTTPS port of an existing vCenter to register to.

443

Username (\*)

Specify the username of an existing vCenter to register to.

administrator@vsphere.local

Password (\*)

Specify the password of an existing vCenter to register to.

Password

.....

Confirm Password

.....

✓ Network Properties

8 settings

Host Name

Specify the hostname for the appliance. (Leave blank if DHCP is desired)

CANCEL

BACK

NEXT

10. Review the configuration details entered and click Finish to complete the deployment of NetApp-VSC VM.
11. Power on the NetApp-VSC VM and open the VM console.
12. During the NetApp-VSC VM boot process, you see a prompt to install VMware Tools. From vCenter, select NetApp-VSC VM > Guest OS > Install VMware Tools.

```
Booting VSC, VASA Provider, and SRA virtual appliance...Please wait...
VMware Tools OVF vCenter configuration not found.
VMware Tools OVF vCenter configuration not found.
VMware Tools OVF vCenter configuration not found.
```

VMware Tools installation

Before you can continue the VSC, VASA Provider, and SRA virtual appliance installation, you must install the VMware Tools:

1. Select VM > Guest OS > Install VMware Tools.

OR

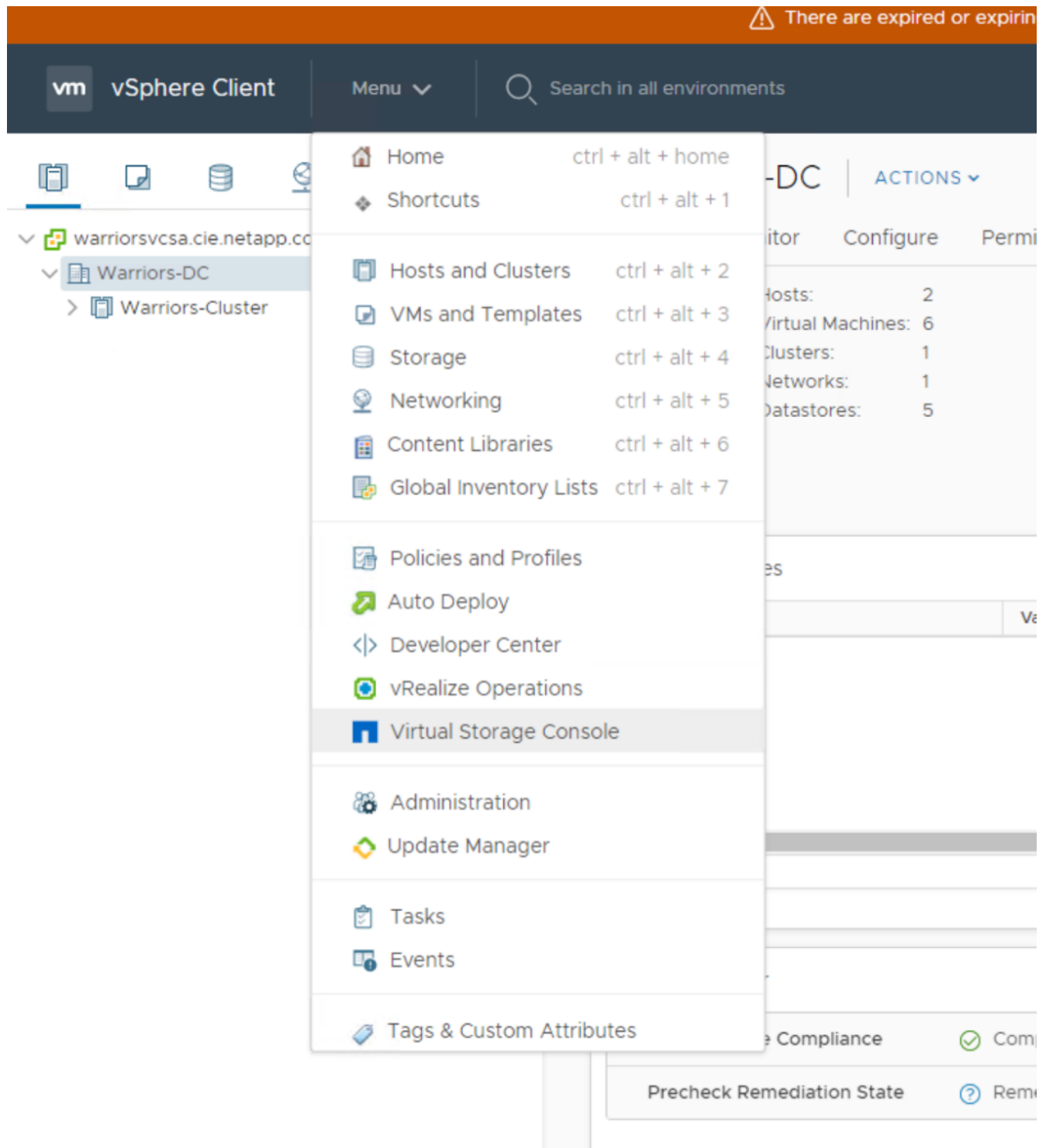
Click on "Install VMware Tools" pop-up box on the vSphere Web Client.

2. Follow the prompts provided by the VMware Tools wizard.

Once you click on mount, the installation process will automatically continue.

13. Networking configuration and vCenter registration information was provided during OVF template customization. Therefore, after the NetApp-VSC VM is running, VSC, vSphere API for Storage Awareness (VASA), and VMware Storage Replication Adapter (SRA) are registered with vCenter.
14. Log out of the vCenter Client and log in again. From the Home menu, confirm that the NetApp VSC is installed.



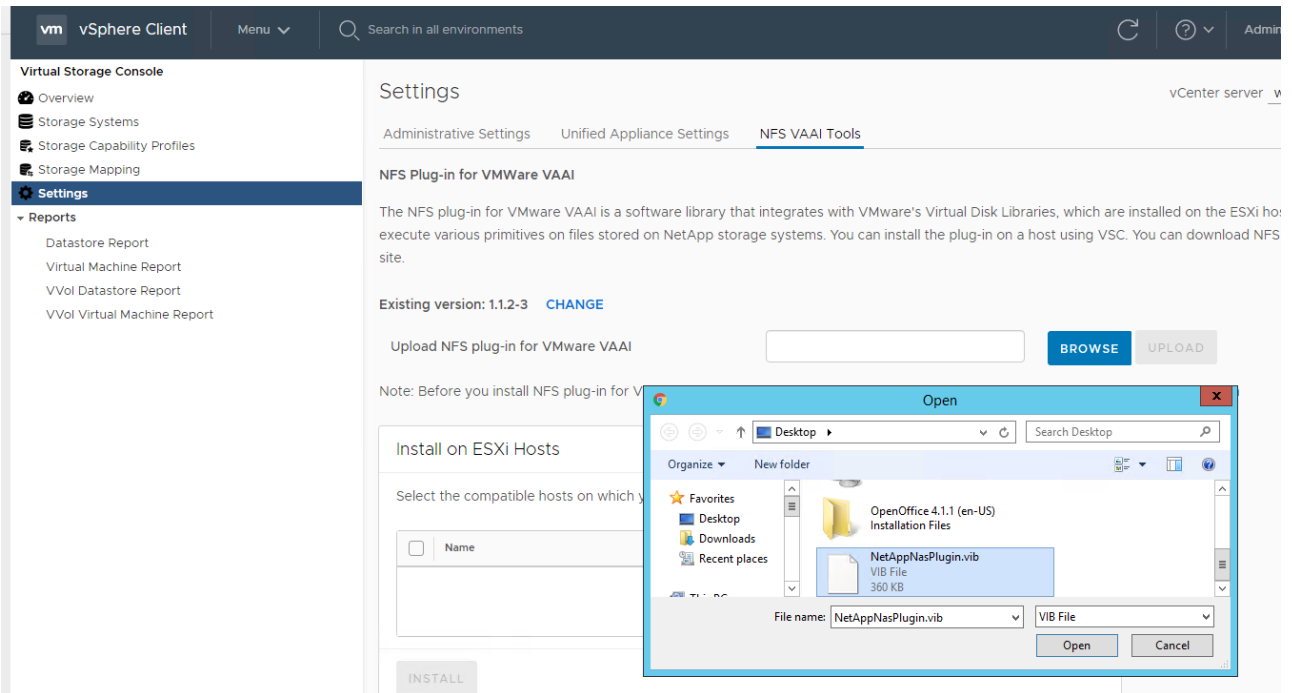


## Download and install the NetApp NFS VAAI Plug-In

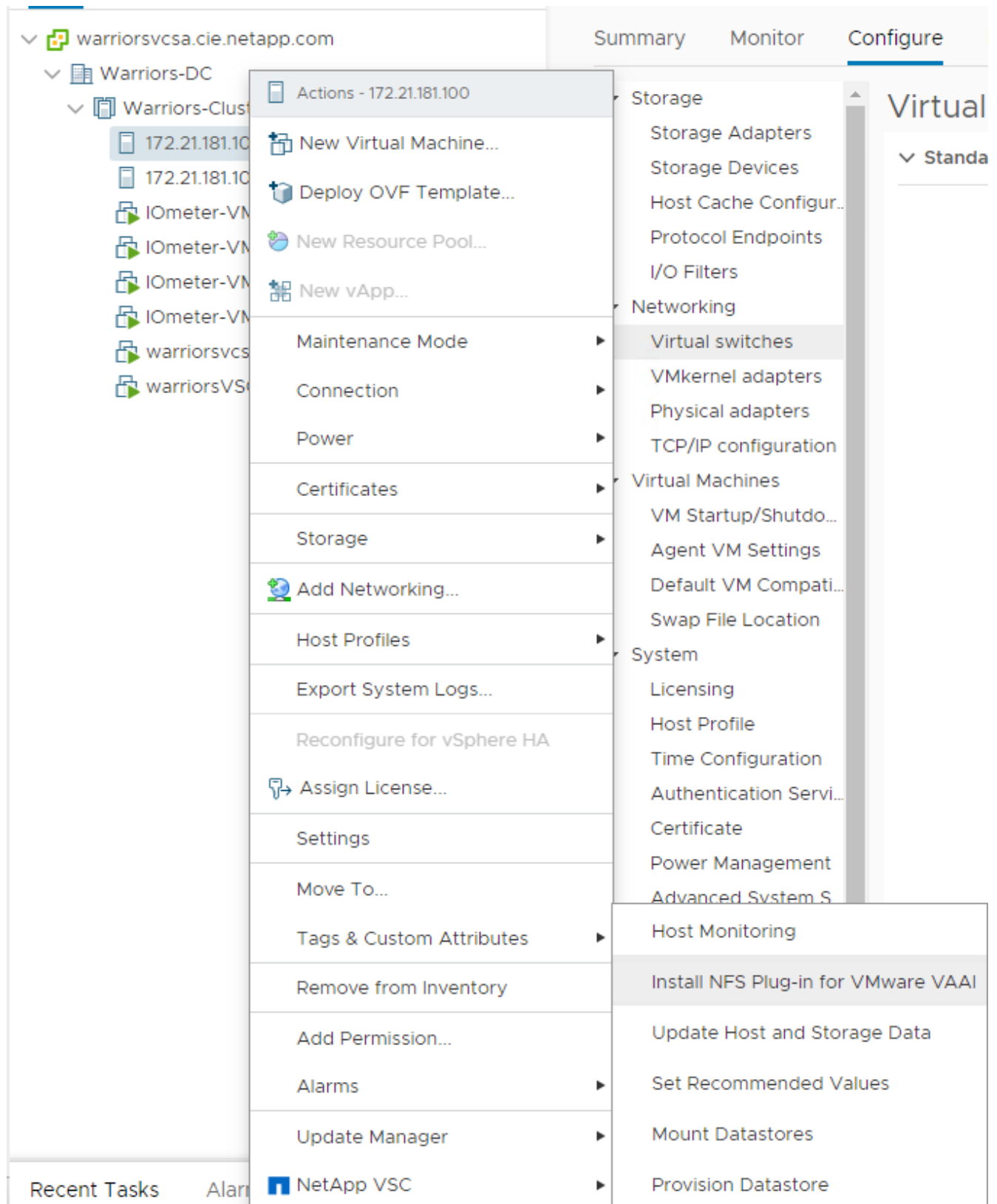
To download and install the NetApp NFS VAAI Plug-In, complete the following steps:

1. Download the NetApp NFS Plug-In 1.1.2 for VMware .vib file from the NFS Plugin Download page and save it to your local machine or admin host.
2. Download the NetApp NFS Plug-in for VMware VAAI:
  - a. Go to the [software download page](#).

- b. Scroll down and click NetApp NFS Plug-in for VMware VAAI.
- c. From the Home screen in the vSphere web client, select Virtual Storage Console.
- d. Under Virtual Storage Console > Settings > NFS VAAI Tools, upload the NFS Plug-in by choosing Select File and browsing to the location where the downloaded plug-in is stored.



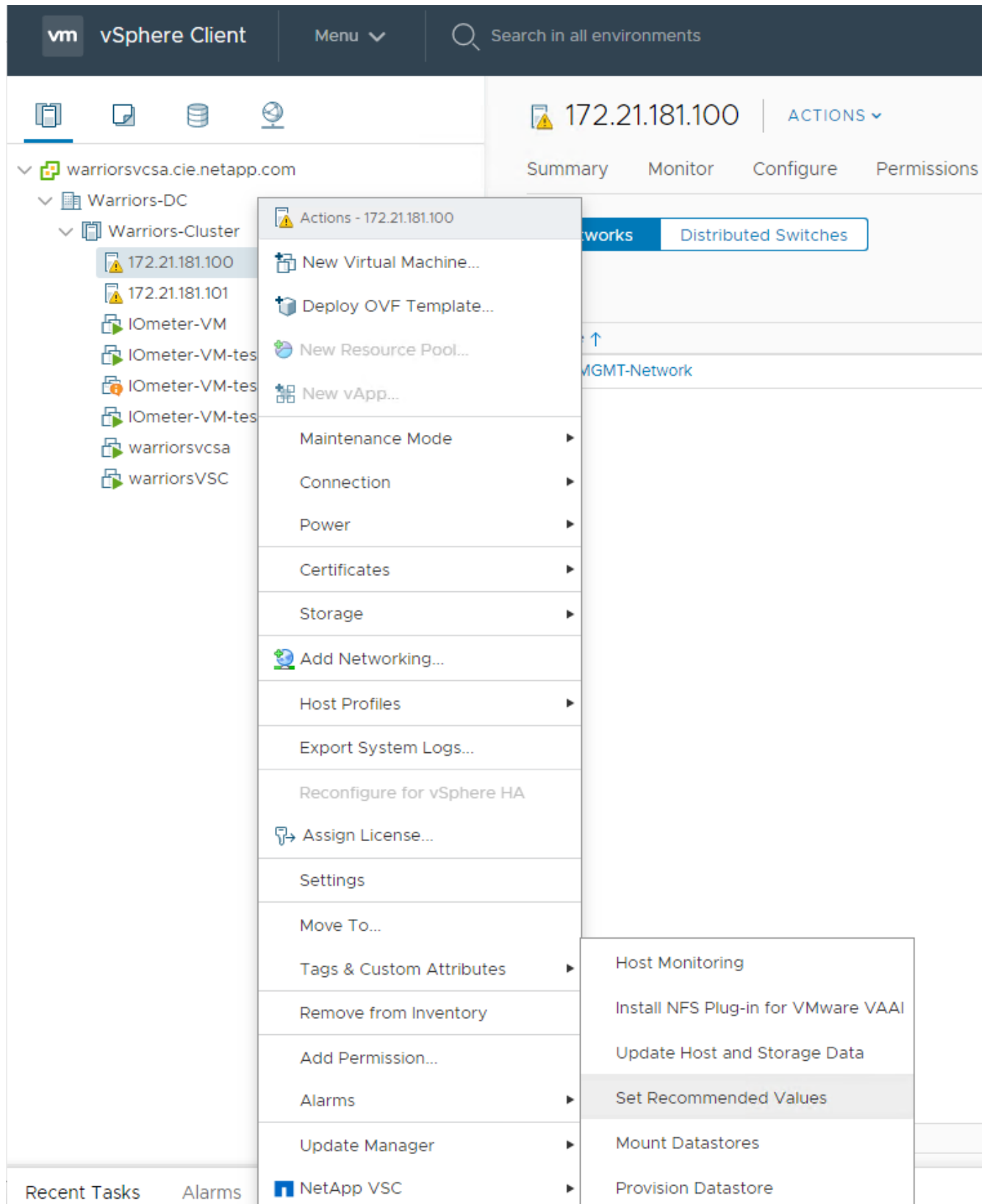
3. Click Upload to transfer the plug-in to vCenter.
4. Select the host and then select NetApp VSC > Install NFS Plug-in for VMware VAAI.



## Use the optimal storage settings for the ESXi hosts

VSC enables the automated configuration of storage-related settings for all ESXi hosts that are connected to NetApp storage controllers. To use these settings, complete the following steps:

1. From the Home screen, select vCenter > Hosts and Clusters. For each ESXi host, right-click and select NetApp VSC > Set Recommended Values.



2. Check the settings that you would like to apply to the selected vSphere hosts. Click OK to apply the settings.

## Set Recommended Values

☒ **HBA/CNA Adapter Settings**

Sets the recommended HBA timeout settings for NetApp storage systems.

☒ **MPIO Settings**

Configures preferred paths for NetApp storage systems. Determines which of the available paths are optimized paths (as opposed to non-optimized paths that traverse the interconnect cable), and sets the preferred path to one of those paths.


☒ **NFS Settings**

Sets the recommended NFS Heartbeat settings for NetApp storage systems.

CANCEL

OK

## Success

 The modified ESXi host settings are reflected only after the subsequent successful storage system discovery.

OK

3. Reboot the ESXi host after these settings are applied.

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