Virtual Storage Console, VASA Provider, and Storage Replication Adapter 9.6
Quick Start Guide

Virtual Storage Console (VSC) for VMware vSphere is a single vCenter Server plug-in that is bundled with VASA Provider and Storage Replication Adapter (SRA) extensions. VSC is recommended for all ONTAP vSphere environments as it configures ESXi host settings and provisions ONTAP storage using best practices. The VASA Provider is required for virtual volume (VVol) support, and SRA works together with VMware Site Recovery Manager.

Preparing for installation

You deploy the plug-in as a virtual appliance, which reduces your effort of installing and registering each product separately with the vCenter Server.

Deployment requirements

The virtual appliance for VSC, VASA Provider, and SRA can be deployed either on a Windows vCenter Server or on a VMware vCenter Server Virtual Appliance (vCSA). You must not deploy the virtual appliance for VSC, VASA Provider, and SRA on a client system.

Space and host sizing requirements

System	Minimum requirements
Operating System	Linux server (64-bit)
Space	• 2.1 GB for thin provisioned installations • 54.0 GB for thick provisioned installations
Host sizing	• Recommended memory: 12 GB • Recommended CPUs: 2

License requirements

License	Description
SnapMirror	(optional) Required for performing failover operations for SRA.
FlexClone	(optional) Required for performing test failover operations for SRA and for VVol operations of VASA Provider.

Additional requirements

Default port number	Description
9083	When enabled, both VASA Provider and SRA use this port to communicate with the vCenter Server. This port is also required for obtaining the TCP/IP settings.
443	Depending on how you have configured your credentials, the VMware vCenter Server and the storage systems listen for secure communications on this port.
8143	VSC listens for secure communications on this port.

Storage, host, and applications	Version requirements
ONTAP	ONTAP 9.1, 9.3, 9.4, 9.5, or 9.6
VMware vSphere, vCenter server, ESXi hosts, Site Recovery Manager (SRM), plug-in applications, and databases	See the Interoperability Matrix Tool: Interoperability Matrix Tool: VSC 9.6 Interoperability Matrix Tool: VASA Provider 9.6 Interoperability Matrix Tool: SRA 9.6

Virtual appliance for VSC, VASA Provider, and SRA requirements
You must have: • Configured and set up your vCenter Server environment. • Downloaded the .ova file. • The login credentials for your vCenter Server instance. • Logged out of and closed all of the browser sessions of vSphere Web Client, and deleted the browser cache to avoid any browser cache issue during the deployment of the virtual appliance for VSC, VASA Provider, and SRA. • Configured the default gateway to be used by the virtual appliance to respond to ICMP pings. • A valid DNS hostname for the virtual appliance. • Downloaded and installed OnCommand API Services if you want to view the VASA Provider for ONTAP dashboard.

Optional requirements for SRA
You must have: • Downloaded the .*msi* file for the SRA plug-in only if you want to configure the Site Recovery Manager (SRM) disaster recovery solution.

Deploying the virtual appliance for VSC, VASA Provider, and SRA

1. Download the *.ova* file from the [NetApp Support Site](#) to a vSphere Client system to deploy the virtual appliance for VSC, VASA Provider, and SRA.
   You must deploy the *.ova* file on both the source and destination sites.
2. Log in to the vSphere Web Client, select **Home** > **Host & Clusters**.
3. Right-click the required datacenter, and then click **Deploy OVA template**.
4. You can either enter the URL for the *.ova* file or browse to the folder where the *.ova* file is saved, and then click **Next**.
5. Enter the required details to complete the deployment.
   You can view the progress of the deployment from the Tasks tab, and wait for deployment to complete.
6. Right-click the deployed virtual appliance for VSC, VASA Provider, and SRA, and then click **Install VMware tools**.

Installing SRA plug-in on SRM server

1. Download the *.msi* installer for the SRA plug-in from the [NetApp Support Site](#).
2. Double-click the downloaded *.msi* installer for the SRA plug-in and follow the on-screen instructions.
3. Enter the IP address and password of your deployed virtual appliance to complete the installation of the SRA plug-in on the SRM server.

Enabling VASA Provider and SRA

1. Log in to the vSphere web client by using the IP address that you specified during deployment.
2. Click the Virtual Storage Console icon, and enter the username and password specified during deployment, click **Sign In**.
3. In the left pane of VSC, **Settings > Administrative Settings> Manage Capabilities,** and enable the required capabilities.

Note: From the 9.6 release of virtual appliance for VSC, VASA Provider, and SRA, VASA Provider is enabled by default.

4. Enter the IP address of the virtual appliance for VSC, VASA Provider, and SRA and the administrator password, and then click **Apply**.

You can refer to the *Virtual Storage Console, VASA Provider, and Storage Replication Adapter for VMware vSphere Deployment and Setup Guide* for details on additional configuration, adding storage systems, and setting up role-based access control for your vSphere objects.

Where to find additional information

- [Virtual Storage Console, VASA Provider, and Storage Replication Adapter for VMware vSphere Resources page](#)
- [Virtual Storage Console, VASA Provider, and Storage Replication Adapter for VMware vSphere Documentation](#)
- [Oncommand API Services installation information](#)
- [RBAC User Creator Tool](#)