



Migrate ONTAP tools for VMware vSphere 9.xx to 10.4

ONTAP tools for VMware vSphere 10

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Migrate ONTAP tools for VMware vSphere 9.xx to 10.4

Migrate from ONTAP tools for VMware vSphere 9.xx to 10.4

Moving the NetApp ONTAP tools for VMware vSphere setup from version 9.xx to 10.x necessitates a migration process because of the significant product updates and enhancements across the versions.

You can migrate from ONTAP tools for VMware vSphere 9.12D1, 9.13D2, and 9.13P2 releases to ONTAP tools for VMware vSphere 10.4.

If you have NFS and VMFS datastores and no vVols datastores in your setup, simply uninstall ONTAP tools 9.xx and deploy ONTAP tools 10.x. However, if your setup contains vVols datastores, you'll have to go through a process of migrating the VASA Provider and the SRA.

The following table outlines the migration process in these two different scenarios.

If the setup has vVols datastores	If the setup contains only NFS and VMFS datastores
<p>Steps:</p> <ol style="list-style-type: none">1. Migrate the VASA Provider2. Create VM storage policies	<p>Steps:</p> <ol style="list-style-type: none">1. Remove ONTAP tools 9.xx from your environment. Refer to How to remove OTV 9.xx from your environment NetApp Knowledge Base article.2. Deploy and configure ONTAP tools for VMware vSphere 10.43. Update the SRA4. Create VM storage policies



After migrating from ONTAP tools for VMware vSphere 9.xx to 10.4, vVols datastores using the NVMe/FC protocol become non-operational because ONTAP tools 10.4 supports the NVMe-oF protocol only with VMFS datastores.

Migrate the VASA Provider and update the SRA

Follow the steps in this section to migrate the VASA Provider from ONTAP tools for VMware vSphere 9.xx to ONTAP tools for VMware vSphere 10.4 and update the Storage Replication Adapter (SRA) on the VMware Live Site Recovery appliance.

Steps to migrate the VASA Provider

1. To enable Derby PORT 1527 on the existing ONTAP tools for VMware vSphere, enable the root user and log in to the CLI through SSH. Then, run the following command:

```
iptables -I INPUT 1 -p tcp --dport 1527 -j ACCEPT
```

2. Deploy OVA for ONTAP tools for VMware vSphere 10.4.
3. Add the vCenter Server instance you want to migrate to ONTAP tools for VMware vSphere 10.4 release. Refer to [Add a vCenter Server instance](#) for more information.
4. Onboard the storage backend locally from the vCenter server APIs for the ONTAP tools plug-in. Refer to [Add a storage backend using the vSphere client interface](#) for more information.
5. Obtain an access token to authenticate REST API requests. Use the following example, replacing the variables with values specific to your environment.

+

```
curl --request POST \  
--location "https://$FQDN_IP_PORT/virtualization/api/v1/auth/login" \  
--header "Content-Type: application/json" \  
--header "Accept: */*" \  
-d '{"username": "$MYUSER", "password": "$MYPASSWORD}"
```

Copy and save the access token returned in the response. . Issue the following API from Swagger or in Postman to migrate.

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```
curl -X POST \  
`https://xx.xx.xx.xx:8443/virtualization/api/v1/vcenters/{vcguid}/migration-jobs`
```

+ You can access Swagger through this URL: `https://$FQDN_IP_PORT/`, for example: `https://10.67.25.33:8443/`.

+

HTTP method and endpoint

This REST API call uses the following method and endpoint.

HTTP method	Path
POST	/api/v1

Processing type

Asynchronous

Curl example

```
curl -X POST 'https://<OTV-NG-IP>:8443/virtualization/api/v1/vcenters/<vcguid>/migration-jobs' \
--header 'x-auth: <auth_token>' \
--header 'Content-Type: application/json' \
--data '{
  "otv_ip": "xx.xx.xx.xx",
  "vasa_provider_credentials": {
    "username": "xxxxx",
    "password": "*****"
  },
  "database_password": "*****"
}'
```

Request body for other release migration:

```
{
  "otv_ip": "xx.xx.xx.xx",
  "vasa_provider_credentials": {
    "username": "xxxxx",
    "password": "*****"
  }
}
```

JSON output example

The system returns a job object. Save the job identifier to use it in the next step.

```
{
  "id": 123,
  "migration_id": "d50073ce-35b4-4c51-9d2e-4ce66f802c35",
  "status": "running"
}
```

1. Use the following URI in Swagger to check the status:

```
curl
`https://xx.xx.xx.xxx:8443/virtualization/api/jobmanager/v2/jobs/<migration_id>?includeSubJobsAndTasks=true`
```

After the job completes, review the migration report in the job response.

2. Add the ONTAP tools for VMware vSphere storage provider to the vCenter Server.
3. Register the VASA Provider with ONTAP tools for VMware vSphere. For instructions, see [Register the VASA Provider](#).
4. After registration, verify the name of the VASA Provider and its status in the vSphere Client under **Storage Providers**. The VASA Provider should appear online, confirming successful registration.
5. [Enable VASA Provider](#) service on ONTAP tools for VMware vSphere 10.4.
6. Stop ONTAP tools for VMware vSphere storage provider 9.10/9.11/9.12/9.13 VASA Provider service using these steps:
 - a. In ONTAP tools 9.x, open the web console.
 - b. Access the maintenance console.
 - c. Enter 1 to select the **Application Configuration** menu.
 - d. Enter 5 to stop the VASA Provider and SRA services.
 - e. In the vSphere Client, navigate to **Inventory > Storage Providers**.
 - f. Select the ONTAP tools 9.x VASA Provider from the storage backend and click **Remove**.

After the old VASA Provider is stopped, the vCenter Server fails over to ONTAP tools for VMware vSphere. All the datastores and VMs become accessible and are served from ONTAP tools for VMware vSphere.

7. Migrated NFS and VMFS datastores appear in ONTAP tools for VMware vSphere 10.4 after the datastore discovery job, which may take up to 30 minutes. Check their visibility on the overview page.
8. Perform the patch migration using the following API in Swagger or in Postman:

HTTP method and endpoint

This REST API call uses the following method and endpoint.

HTTP method	Path
PATCH	/api/v1

Processing type

Asynchronous

Use the following URI in Swagger:

```
curl -X PATCH
`https://xx.xx.xx.xx:8443/virtualization/api/v1/vcenters/<vcenter_id>/migration-jobs/<migration_id>`
```

Curl example

```
curl -X PATCH
`https://xx.xx.xx.xx:8443/virtualization/api/v1/vcenters/56d373bd-4163-44f9-a872-9adabb008ca9/migration-jobs/d50073ce-35b4-4c51-9d2e-4ce66f802c35`
```

JSON output example

A job object is returned. You should save the job identifier to use it in the next step.

```
{
  "id": 123,
  "migration_id": "d50073ce-35b4-4c51-9d2e-4ce66f802c35",
  "status": "running"
}
```

The request body is empty for patch operation.



UUID is the migration UUID returned in response to the post-migrate API.

After running the patch migration API, all VMs comply with the storage policy.

What's next

After completing the migration and registering ONTAP tools 10.4 to the vCenter Server, follow these steps:

- Wait for **Discovery** to complete, and the system refreshes the certificates automatically on all the hosts.

- Wait before starting datastore and virtual machine operations. The waiting time depends on the number of hosts, datastores, and virtual machines. If you do not wait, you might see occasional failures.

After upgrading, if the virtual machine's compliance state is outdated, reapply the storage policy using the following steps:

1. Go to the datastore and select **Summary > VM Storage policies**.

The system shows the compliance status under **VM storage policy compliance** as **Out-of-date**.

2. Select the Storage VM policy and the corresponding VM.
3. Select **Apply**.

The compliance status under **VM storage policy compliance** shows as compliant. .Related information

- [Learn about ONTAP tools for VMware vSphere 10 RBAC](#)
- [Upgrade from ONTAP tools for VMware vSphere 10.x to 10.4](#)

Steps to update the storage replication adaptor(SRA)

Before you begin

In the recovery plan, the protected site refers to the location where the VMs are currently running, while the recovery site is where the VMs will be recovered. The SRM interface displays the state of the recovery plan with details about the protected and the recovery sites. In the recovery plan, the **CleanupP** and **Reprotect** buttons are disabled, whereas the TEST and RUN buttons remain enabled. This indicates that the site is prepared for data recovery. Before migrating the SRA, verify that one site is in the protected state and the other is in the recovery state.



Do not begin migration if the failover has been completed but the re-protection is pending. Ensure that the re-protection process is completed before proceeding with the migration. If a test failover is in progress, clean up the test failover and start the migration.

1. Follow these steps to delete the ONTAP tools SRA adapter for VMware vSphere 9.xx in VMware Site Recovery:
 - a. Go to VMware Live Site Recovery configuration management page
 - b. Go to the **Storage Replication Adapter** section.
 - c. From the ellipsis menu select **Reset configuration**.
 - d. From the ellipsis menu select **Delete**.
2. Perform these steps on both protection and recovery sites.
 - a. [Enable ONTAP tools for VMware vSphere services](#)
 - b. Install ONTAP tools for VMware vSphere 10.4 SRA adapter using the steps in [Configure SRA on the VMware Live Site Recovery appliance](#).
 - c. On the VMware Live Site Recovery user interface page, perform the **Discover Arrays** and **Discover Devices** operations and confirm that the devices are displayed as before the migration.

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