

Downgrading Orchestrator Deployments in VMware ESX

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Downgrading Guidelines and Limitations

Note This chapter describes how to downgrade Multi-Site Orchestrator that was deployed without using Cisco Application Service Engine. If you deployed the Orchestrator inside Application Service Engine, follow the downgrade instructions described in Upgrading or Downgrading Orchestrator Deployments in Application Service Engine instead.

The following list describes the guidelines and limitations for downgrading the Cisco ACI Multi-Site Orchestrator:

- If you have Cloud APIC sites with Infra Tenant configuration, you must restore from the older configuration backup after downgrading your Multi-Site Orchestrator.

  Due to Infra Tenant VRF changes, stateful downgrade from Release 3.1(1) is not supported. If you ever downgrade from Release 3.1(1), you will need to restore your configuration from the backup.

- If you plan to downgrade the Cisco APIC as well, you must downgrade Cisco ACI Multi-Site Orchestrator first.

- This release of Cisco ACI Multi-Site Orchestrator, can be downgraded to any Release 1.2(1) or later. If you plan to downgrade to an earlier release, you must first downgrade to a 1.2(x) release, then follow the instructions described in Downgrading Cisco ACI Multi-Site, Release 1.2(x) to downgrade further.

- When downgrading to a release prior to Release 2.1(1), you must remove any Cisco Cloud APIC sites you may have added to your Cisco ACI Multi-Site Orchestrator. Failing to remove the cloud sites will cause the downgrade to terminate.

- If you have configured any read-only user roles and are downgrading to a release prior to Release 2.1(2), the read-only roles will be removed from all users. This means that any user that has **only** read-only roles

will have no roles assigned to them and a Power User or User Manager will need to re-assign them new read-write roles.

In addition, if you used an external authentication server to configure the read-only user roles, you must reconfigure the authentication servers and remove those read-only user roles. The read-only user roles use a different format attribute-value (AV) string to specify read-write and read-only permissions and failing to update the configuration will cause those users to not authenticate correctly.

Additional details about external authentication servers configuration steps are described in the *Cisco ACI Multi-Site Configuration Guide*, but in short, you must update any user configuration strings from:

`cisco-av-pair=shell:msc-roles=writeRole1|writeRole2/readRole1|readRole2`

to:

`cisco-av-pair=shell:msc-roles=role1,role2`

- If you are downgrading to a release prior to Release 2.1(2), ensure that all users have the `Phone Number` field filled out. The field was required in earlier releases and any user created in Release 2.1(2) or later without a phone number provided will be unable to log into the GUI if the Orchestrator is downgraded to Release 2.1(1) or earlier. A Power User or User Manager can also update the field for any user after the downgrade.
- If you are downgrading to a release prior to Release 2.1(1), you will need to update all passwords stored by the Orchestrator, such as the passwords for all sites and authentication providers.
- Before you downgrade the Cisco ACI Multi-Site Orchestrator, remove the configuration of all features that are not supported in the release to which you are downgrading.

Downgrading Multi-Site Orchestrator

This section describes how to downgrade the Cisco ACI Multi-Site Orchestrator.

Before you begin

You must complete all the prerequisites detailed in Downgrading Guidelines and Limitations, on page 1.



Note If you have Cloud APIC sites with Infra Tenant configuration, you must have a configuration backup from the release to which you are downgrading. Due to Infra Tenant VRF changes, stateful downgrade from Release 3.1(1) is not supported. After you downgrade your Multi-Site Orchestrator, you will need to restore your configuration from the backup.

When downgrading to a release prior to Release 2.1(1), you must remove any Cisco Cloud APIC sites you may have added to your Cisco ACI Multi-Site Orchestrator. Failing to remove the cloud sites will cause the downgrade to terminate.

Procedure

Step 1 Download the Cisco ACI Multi-Site Orchestrator downgrade (target) image.

a) Go to the Software Download link:

https://software.cisco.com/download/home/285968390/type

b) Click **ACI Multi-Site Software**.
c) Choose the Cisco ACI Multi-Site Orchestrator release version.
d) Download the *ACI Multi-Site Upgrade Image* file (`msc-<version>.tar.gz`) for the release.

Step 2 Copy the downgrade image to each node.

Copy the `msc-<version>.tar.gz` file you downloaded to the `/opt/cisco/msc/builds/` directory on each node. You can use SCP or SFTP to transfer the file.

Example:

SFTP:

```
# sftp root@<node-ip>sftp> cd /opt/cisco/msc/builds/sftp> put msc-<version>.tar.gzsftp> quit
```

Example:

SCP:

```
# scp ./msc-<version>.tar.gz  root@<node-ip>:/opt/cisco/msc/builds/
```

Step 3 On each node, extract the file.

Example:

```
# cd /opt/cisco/msc/builds/# tar –xvzf msc-<version>.tar.gz
```

Step 4 On `node2` and `node3`, load the downgrade image.

On `node2` and `node3` only, run the following commands, replacing:

- <*current-version*> with the currently installed Cisco ACI Multi-Site Orchestrator release, for example *msc_2.2.1c*
- <*downgrade-version*> with the target downgrade version you downloaded and extracted in previous steps, for example *msc_1.2.1h*

Example:

```
# cd /opt/cisco/msc/builds/<current-version>/downgrade/# ./downgrade.sh <downgrade-version>
```

Step 5 From `node1`, downgrade Cisco ACI Multi-Site Orchestrator cluster.

On `node1` only, run the following commands, replacing:

- <*current-version*> with the currently installed Cisco ACI Multi-Site Orchestrator release
- <*node2-ip*> with the IP address of node2
- <*node2-password*> with the root user password for node2
- <*node3-ip*> with the IP address of node3
- <*node3-password*> with the root user password for node3
- <*downgrade-version*> with the version you are downgrading to

Note
If you leave the IP and password arguments out, the script will prompt you to enter them.

Example:

```
# cd /opt/cisco/msc/builds/<current-version>/downgrade/# ./downgrade.sh -1 <node2-ip> -2
<node2-password> -3 <node3-ip> -4 <node3-password> <downgrade-version>
```

It may take several minutes for the downgrade to complete. After the downgrade is complete, you can verify that it was successful and the Cisco ACI Multi-Site Orchestrator cluster is ready for use by accessing the Orchestrator GUI.

Step 6 If necessary, update stored passwords.

Starting with Release 2.1(1), Multi-Site Orchestrator encrypts all stored passwords, such as each site's APIC passwords and the external authentication provider passwords. As a result, when downgrading to a release prior to Release 2.1(1), you must re-enter all the password after the Orchestrator downgrade is completed.

To update APIC passwords:

a) Log in to the Orchestrator after the downgrade.
b) From the main navigation menu, select **Sites**.
c) For each site, edit its properties and re-enter its APIC password.

To update external authentication passwords

a) Login into the Orchestrator after the downgrade.
b) From the navigation menu, select **Admin** > **Providers**.
c) For each authentication provider, edit its properties and re-enter its password.

Step 7 If you had Cloud APIC sites with Infra Tenant configuration, restore the configuration from backup.

If you had Cloud APIC sites with Infra Tenant configuration, you will see schemas in an error state due to Infra Tenant VRF changes in Release 3.1(1). You will need to restore your configuration from the backup as you typically would to resolve these issues.