Silent Roll Package Upgrade

About the Silent Roll Package Upgrade or Downgrade

Cisco APIC release 4.1(2) introduces the silent roll package upgrade (SR upgrade) feature. An SR upgrade enables you to manually perform an internal package upgrade for ACI switch hardware SDK, drivers, and so on, without upgrading the entire ACI switch software OS. Typically, you do not need to perform an SR upgrade because upgrading the ACI switch software OS takes care of internal packages as well.

As of Cisco APIC release 4.1(2), the SR upgrade feature supports the following two switches:

- N9K-C93216TC-FX2

- N9K-C93360YC-FX2

Configuring a Silent Roll Package Upgrade or Downgrade Using the Cisco APIC GUI

Before you begin

- Wait until all the controllers are upgraded to the new firmware version before proceeding to upgrade or downgrade the switch firmware.

- Download a SR package (ex. aci-srpkg-dk9.1.0.0.bin) to use for the SR package upgrade, if necessary, using the procedures provided in Downloading APIC and Switch Images on APICs.

- Review the information in Workflow to Upgrade or Downgrade the Cisco ACI Fabric for the recommended steps for a successful upgrade with minimum disruption.

Procedure

Step 1	Verify that all the controllers are upgraded to the new firmware version before proceeding. Do not upgrade the switch firmware until all the controllers are upgraded to the new firmware version first.
Step 2	On the menu bar, choose **Admin** > **Firmware**.
Step 3	From the Work pane, click **Infrastructure** > **Nodes**.
Step 4	Click **Actions**, choose **Schedule Node Upgrade**, and perform the following actions:

a) In the **Group Type** field, choose **Switch**.

b) In the **Upgrade Group** field, choose either **Existing** or **New**, if this field is available.

- **Existing**—Enables you to schedule the node upgrade on an existing upgrade group.

- **New**—Enables you to create a new upgrade group.

c) In the **Upgrade Group Name** field, either choose an existing upgrade group using the options provided in the drop-down menu, or enter a name to create a new upgrade group.

For releases prior to 4.1(2), to create a new upgrade group, click the **x** in the corner of the field to clear out the field then enter a name for the new upgrade group.

Note that if you choose an existing POD maintenance group, fields associated with that maintenance group are automatically filled in.

d) Click to place a check mark in the **Manual Silent Roll Package Upgrade** check box.

> **Note** When **Manual Silent Roll Package Upgrade** is chosen:
>
> - The **Silent Roll Package Version** drop-down list appears with a list of SR upgrade package versions.
>
> - The following fields are disabled:
>
>   - **Target Firmware Version**
>
>   - **Ignore Compatibility Check**
>
>   - **Graceful Maintenance**

e) Click the **Silent Roll Package Version** drop-down list to choose the package for the SR package upgrade.

f) In the **Run Mode** field, choose the run mode to proceed automatically to the next set of nodes once the set of nodes has gone through the maintenance process successfully.

The options are:

- **Do not pause on failure and do not wait on cluster health**

- **Pause only Upon Upgrade Failure**

The default is **Pause only Upon Upgrade Failure**.

g) In the **Upgrade Start Time** field, select either **Now** or **Schedule for Later**.

If you select **Schedule for Later**, select the trigger value using the Scheduler scroll-down menu.

h) Click the plus icon at the right of the **All Nodes** table.

The **Add Nodes to Upgrade Group** page appears.

i) In the **Add Nodes to Upgrade Group** page , choose one of the following:

- **Range**—Enter the range in the **Group Node Ids** field.

- **Manual**—When chosen, a list of available leaf switches and spine switches appears in the All Nodes area. Select the nodes that you want to include in this upgrade.

    Note that the nodes displayed are physical leaf switches and spine switches.

j) Click **Submit**.

Step 5 To remove nodes from the upgrade group:

a) Choose the nodes in the table that you want to remove from the upgrade group.
b) Click the trashcan icon at the right of the **All Nodes** table.
c) Click **Submit**.

Configuring a Silent Roll Package Upgrade or Downgrade Using the CLI

This section demonstrates how to configure and unconfigure an SR package upgrade or downgrade and how to trigger the upgrade or downgrade after configuring the SR package upgrade or downgrade and SR package version using the CLI.

For more information about SR package upgrades or downgrades, see About the Silent Roll Package Upgrade or Downgrade , on page 1.

Procedure

Step 1 To configure the SR package upgrade:

```
Switch# configure
Switch(config)# firmware
Switch(config-firmware)# switch-group new
Switch(config-firmware-switch)# sr-version aci-srpkg-dk9.1.0.0.bin
Switch(config-firmware-switch)# sr-upgrade
Switch(config-firmware-switch)# show running-config
# Command: show running-config firmware switch-group new
# Time: Wed Mar 13 15:55:59 2019
  firmware
    switch-group new
      sr-version aci-srpkg-dk9.1.0.0.bin
      sr-upgrade
      exit
    exit
```

Step 2 To unconfigure the SR package upgrade:

```
Switch# configure
Switch(config)# firmware
Switch(config-firmware)# switch-group new
Switch(config-firmware-switch)# no sr-upgrade
Switch(config-firmware-switch)# show running-config
# Command: show running-config firmware switch-group new
# Time: Wed Mar 13 16:17:01 2019
  firmware
    switch-group new
      sr-version aci-srpkg-dk9.1.0.0.bin
      exit
    exit
```

Step 3   To trigger the upgrade after configuring the SR package version and SR package upgrade:

Note   When the SR package upgrade is configured, the SR package version should not be empty for triggering the upgrade. And if the SR package upgrade is not configured, the firmware version (switch version) should not be empty.

```
Switch# firmware upgrade switch-group new
```

Configuring a Silent Roll Package Upgrade or Downgrade Using the REST API

This section demonstrates how to configure an SR package upgrade or downgrade using the REST API.

For more information about SR package upgrades, see About the Silent Roll Package Upgrade or Downgrade , on page 1.

Procedure

To configure the SR package upgrade:

```
<fabricInst>
            <maintMaintP
            srVersion="srpkg-1.0(1)"
            srUpgrade="yes"
            name="m1"
            runMode="pauseOnlyOnFailures">
            </maintMaintP>
            <maintMaintGrp name="m1">
            <fabricNodeBlk name="Blk101"
            from_="101" to_="101">
            </fabricNodeBlk>
            <maintRsMgrpp
            tnMaintMaintPName="m1">
            </maintRsMgrpp>
            </maintMaintGrp>
</fabricInst>
```