



Upgrading Firmware in Cisco UCS Domains through Cisco UCS Central

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Firmware Upgrades for Cisco UCS Domains

You can deploy infrastructure and server firmware upgrades for registered Cisco UCS domains from Cisco UCS Central.

If desired, you can upgrade the Cisco UCS domains in each domain group with different versions of firmware. Cisco UCS Central also provides you the option to acknowledge the fabric interconnect reboot globally from Cisco UCS Central or individually from each Cisco UCS domain.

Scheduling an Infrastructure Firmware Policy Update for UCS Domains

Procedure

	Command or Action	Purpose
Step 1	UCSC# connect policy-mgr	Enters policy manager mode.
Step 2	UCSC(policy-mgr) # scope domain-group <i>domain-group</i>	Enters domain group root mode and (optionally) enters a domain group under the domain group root. To enter the domain group root mode, type / as the <i>domain-group</i> .
Step 3	UCSC(policy-mgr) /domain-group # scope fw-infra-pack name	Enters the infrastructure firmware policy mode in the domain group.
Step 4	UCSC(policy-mgr) /domain-group/fw-infra-pack # set infrabundleversion	Specifies the infrastructure policy version for the update.
Step 5	UCSC(policy-mgr) /domain-group/fw-infra-pack # commit-buffer	Commits the transaction to the system.

The following example shows how to schedule an infrastructure firmware policy update for a domain group from Cisco UCS Central CLI:

```
UCSC# connect policy-mgr
UCSC(policy-mgr) # scope domain-group
UCSC(policy-mgr) /domain-group # scope fw-infra-pack default
UCSC(policy-mgr) /domain-group/fw-infra-pack # set infrabundleversion 2.1(0.475)T
UCSC(policy-mgr) /domain-group/fw-infra-pack* # commit-buffer
UCSC(policy-mgr) /domain-group/fw-infra-pack #
```

Acknowledging a Pending Activity

This procedure describes the process to acknowledge an fabric interconnect reboot pending activity from Cisco UCS Central CLI.

Procedure

	Command or Action	Purpose
Step 1	UCSC# connect operation-mgr	Enters operations manager mode.
Step 2	UCSC(ops-mgr)# scope domain-group Marketing	Enters the domain group.

	Command or Action	Purpose
Step 3	UCSC(ops-mgr) /domain-group # scope schedule fi-reboot	Enters the scheduled task mode.
Step 4	UCSC(ops-mgr) /domain-group/schedule # show token-request	Displays the pending activities in the system.
Step 5	UCSC(ops-mgr) /domain-group/schedule # scope token-request id sys-fw-system-ack	Finds the pending activity.
Step 6	UCSC(ops-mgr) /domain-group/schedule/token-request # acknowledge token-request	Acknowledges the specified pending activity.
Step 7	UCSC(ops-mgr) /domain-group/schedule/token-request* # commit-buffer	Commits the transaction to the system.

The following example shows how to acknowledge a pending activity in Cisco UCS Central CLI:

```
UCSC# connect operation-mgr
UCSC(ops-mgr) # scope domain-group Marketing
UCSC(ops-mgr) /domain-group # scope schedule fi-reboot
UCSC(ops-mgr) /domain-group/schedule # show token-request
Token Request:
ID      Name      Client IP      Admin State      Oper State
-----
1033 sys-fw-system-ack 10.193.23.150 Auto Scheduled Pending Ack
UCSC(ops-mgr) /domain-group/schedule # scope token-request id sys-fw-system-ack
UCSC(ops-mgr) /domain-group/schedule/token-request # acknowledge token-request
UCSC(ops-mgr) /domain-group/schedule/token-request* # commit-buffer
UCSC(ops-mgr) /domain-group/schedule/token-request #
```

Viewing Infrastructure Firmware Packages

Procedure

	Command or Action	Purpose
Step 1	UCSC# connect policy-mgr	Enters policy manager mode.
Step 2	UCSC(policy-mgr) # scope domain-group domain-group	Enters domain group root mode and (optionally) enters a domain group under the domain group root. To enter the domain group root mode, type / as the <i>domain-group</i> .
Step 3	UCSC(policy-mgr) /domain-group # scope fw-infra-pack name	Enters the infrastructure firmware policy mode in the domain group.
Step 4	UCSC(policy-mgr) /domain-group/fw-infra-pack # show	Displays the infrastructure firmware packages available in the system.

The following example shows how to view the available infrastructure packages using Cisco UCS Central CLI:

```
UCSC# connect policy-mgr
UCSC(policy-mgr)# scope domain-group
UCSC(policy-mgr) /domain-group # scope fw-infra-pack default
UCSC(policy-mgr) /domain-group/fw-infra-pack # show
Infra Pack:
Name                               Mode      Infra Bundle Version
-----
root/default                       Staged    2.1(0.480)A
UCSC(policy-mgr) /domain-group/fw-infra-pack #
```

Creating a Host Firmware Package

Procedure

	Command or Action	Purpose
Step 1	UCSC# connect policy-mgr	Enters policy manager mode.
Step 2	UCSC(policy-mgr) # scope domain-group <i>domain-group</i>	Enters domain group root mode and (optionally) enters a domain group under the domain group root. To enter the domain group root mode, type / as the <i>domain-group</i> .
Step 3	UCSC(policy-mgr) /domain-group # create fw-host-pack <i>policy name</i>	Creates the specified host firmware pack.
Step 4	UCSC(policy-mgr) /domain-group/fw-host-pack* # set descr <i>description</i>	Specifies the description for the host firmware policy.
Step 5	UCSC(policy-mgr) /domain-group/fw-host-pack* # set bladebundleversion <i>version number</i>	Specifies the blade server bundle version for the host firmware policy.
Step 6	UCSC(policy-mgr) /domain-group/fw-host-pack* # set rackbundleversion <i>version number</i>	Specifies the rack server bundle version for the host firmware policy.
Step 7	UCSC(policy-mgr) /domain-group/fw-host-pack* # commit-buffer	Commits the transaction to the system.

The following example shows how to create a host firmware pack in Cisco UCS Central CLI:

```
UCSC# connect policy-mgr
UCSC(policy-mgr)# scope domain-group
UCSC(policy-mgr) /domain-group # create fw-host-pack Policy name
UCSC(policy-mgr) /domain-group/fw-host-pack* # set
bladebundleversion
descr
rackbundleversion
```

```
UCSC(policy-mgr) /domain-group/fw-host-pack* # commit-buffer
UCSC(policy-mgr) /domain-group/fw-host-pack* #
```

Viewing Host Firmware Packages

Procedure

	Command or Action	Purpose
Step 1	UCSC# connect policy-mgr	Enters policy manager mode.
Step 2	UCSC(policy-mgr) # scope domain-group domain-group	Enters domain group root mode and (optionally) enters a domain group under the domain group root. To enter the domain group root mode, type / as the <i>domain-group</i> .
Step 3	UCSC(policy-mgr)/domain-group # show fw-host-pack detail	Displays a list of host firmware packages.

The following example shows how to display available host firmware packages in Cisco UCS Central CLI:

```
UCSC# connect policy-mgr
UCSC(policy-mgr) # scope domain-group
UCSC(policy-mgr) /domain-group # show fw-host-pack detail
Compute Host Pack:

Name: root/Default
Mode: Staged
Blade Bundle Version: 2.1(0.469)B
Rack Bundle Version: 2.1(0.469)C
Description: UCSC

Name: root/default
Mode: Staged
Blade Bundle Version: 2.1(0.474)B
Rack Bundle Version: 2.1(0.474)C
Description: default from UCSC

Name: root/latest
Mode: Staged
Blade Bundle Version: 2.1(0.469)B
Rack Bundle Version: 2.1(0.469)C
Description: latest

Name: root/Marketing/mytest
Mode: Staged
Blade Bundle Version: 2.1(0.469)B
Rack Bundle Version: 2.1(0.469)C
Description: Test
UCSC(policy-mgr) /domain-group #
```

Scheduling Firmware Upgrades

Firmware Upgrade Schedules

To upgrade firmware by domain groups in registered Cisco UCS domains, you can schedule upgrades from Cisco UCS Central in the following ways:

- As a one time occurrence
- As a recurring occurrence that recurs at designated intervals

If you configure the schedules for user acknowledgment, the fabric interconnect will not reboot without explicit acknowledgment.

Creating a One Time Occurrence Schedule

Procedure

	Command or Action	Purpose
Step 1	UCSC# connect policy-mgr	Enters policy manager mode.
Step 2	UCSC(policy-mgr) # scope domain-group <i>domain-group</i>	Enters domain group root mode and (optionally) enters a domain group under the domain group root. To enter the domain group root mode, type / as the <i>domain-group</i> .
Step 3	UCSC(policy-mgr) /domain-group # create schedule onetime	Creates a one time occurrence schedule.
Step 4	UCSC(policy-mgr) /domain-group/schedule* # set admin-state user-ack	Specifies user acknowledgment for the specified one time update task.
Step 5	UCSC(policy-mgr) /domain-group/schedule # create occurrence one-time <i>name</i>	Specifies the time for one time occurrence.
Step 6	UCSC(policy-mgr) /domain-group/schedule/one-time* # set	<ol style="list-style-type: none"> concur-tasks <i>Maximum number of concurrent tasks</i> date <i>Start Date</i> max-duration <i>Max Duration (dd:hh:mm:ss)</i> min-interval <i>Minimum Interval Between Tasks Execution</i> proc-cap <i>Maximum Number of Tasks to Execute</i> Sets other related details for one time occurrence.

	Command or Action	Purpose
Step 7	UCSC(policy-mgr) /domain-group/schedule/one-time* # commit-buffer	Commits the transaction to the system.

The following example shows how to schedule a one time occurrence firmware update in Cisco UCS Central CLI:

```
UCSC# connect policy-mgr
UCSC(policy-mgr) # scope domain-group
UCSC(policy-mgr) /domain-group # create schedule onetime
UCSC(policy-mgr) /domain-group/schedule* # set admin-state user-ack
UCSC(policy-mgr) /domain-group/schedule* # commit-buffer
UCSC(policy-mgr) /domain-group/schedule # create occurrence one-time Nov172012
UCSC(policy-mgr) /domain-group/schedule/one-time* # set
concur-tasks Maximum Number of Concurrent Tasks
date Start Date
max-duration Max Duration (dd:hh:mm:ss)
min-interval Minimum Interval Between Tasks Execution
proc-cap Maximum Number of Tasks to Execute
UCSC(policy-mgr) /domain-group/schedule/one-time* # set date nov 17 2012 16 00 00
UCSC(policy-mgr) /domain-group/schedule/one-time* # commit-buffer
UCSC(policy-mgr) /domain-group/schedule/one-time* #
```

Viewing One Time Occurrence Schedule

Procedure

	Command or Action	Purpose
Step 1	UCSC# connect policy-mgr	Enters policy manager mode.
Step 2	UCSC(policy-mgr) # scope domain-group <i>domain-group</i>	Enters domain group root mode and (optionally) enters a domain group under the domain group root. To enter the domain group root mode, type / as the <i>domain-group</i> .
Step 3	UCSC(policy-mgr) /domain-group/schedule* # scope schedule one-time	Enters the schedule mode.
Step 4	UCSC(policy-mgr) /domain-group/schedule/one-time # show detail	Displays the one-time schedule.

The following example shows how to display the scheduled one time occurrence in Cisco UCS Central CLI:

```
UCSC#connect policy-mgr
UCSC(policy-mgr) # scope domain-group
UCSC(policy-mgr) /domain-group # scope schedule onetime
UCSC(policy-mgr) /domain-group/schedule/one-time # show detail
One-Time Occurrence:
Name: Friday
Start Date: 2012-11-17T16:00:00.000
```

```
Max Duration (dd:hh:mm:ss): None
Max Concur Tasks: Unlimited
Max Tasks: Unlimited
Min Interval (dd:hh:mm:ss): None
Executed Tasks: 0
UCSC(policy-mgr) /domain-group/schedule/one-time #
```