

# Schedule Installation

# Available Install Actions

- **Pre-Upgrade**
  - Establishes initial device connection.
  - Records running software version.
  - Backup the running configuration and stores it on CSM Server internal repository.
  - Checks the state of all nodes on the system.
  - Verifies server repository reachability.
  - Records inactive, active, committed package list.
- **Install Add**
  - Copies software packages to the device.
- **Activate**
  - Activates packages on the device.
- **Post-Upgrade**
  - Checks node status, standby role status, configuration failure, software package states, etc.
  - Verifies error/tracebacks/core files.
- **Commit**
  - Executes Install Commit on the device
- **ALL**
  - CSM Server will create Pre-Upgrade, Install Add, Activate, Post-Upgrade, and Commit installation actions with the successor depending on the predecessor. Until the predecessor has executed successfully, the successor will not run.
- **Rollback**
  - Rollback to the last committed point. Only applicable to ASR9K, CRS, and XR12K.
- **Remove**
  - Removes selected inactive packages on the device.
- **Remove All Inactive**
  - Removes all inactive packages on the device.



# Available Install Actions – Continue

- **Deactivate**
  - Deactivates active packages on the device.
- **FPD-Upgrade**
  - Upgrade all the FPDs which require upgrades.

# Schedule an Install


Schedule Install > Region: SJ Labs > Host: R2 (ASR9K-5.3.3)


**Install Action**

**Select From**  Server Repository  CCO

**Software Packages**

asr9k-px-5.3.3.CSCuy67256.pie  
asr9k-px-5.3.3.CSCvb36458.pie  
asr9k-px-5.3.3.CSCuz84486.pie

Server Repository: James Server 2 

**Scheduled Time**  

**Dependency**

- Invoked from the Host Dashboard's Action menu.
- Select an install action. Multiple install actions may be selected at once.
- Depending on the selected install action, software packages can be selected from Server Repository, CCO, Inactive Packages, or Install History.
- If a dependency is selected, the scheduled installation will not proceed until the dependency is completed successfully. The dependency can only be specified when only one install action is selected (not available for batch installations or when multiple install actions are specified).
- Click the Calendar icon to change the scheduled time. By default, it is the current date and time.

# Browse Server Repository

Select Software Packages > Host: R2 (ASR9K-5.3.3)

Server Repository

TME FTP

Server Directory

↑

×

Target Software Release

4.3.2

Auto Select

Available Packages - showing 121

Filter

asr9k-px-5.3.3.CSCuy57467.txt  
asr9k-px-5.3.3.CSCuy67366.pie  
asr9k-px-5.3.3.CSCuy67366.txt  
asr9k-px-5.3.3.CSCuy81837.pie  
asr9k-px-5.3.3.CSCuy81837.txt  
asr9k-px-5.3.3.CSCuz01814.pie  
asr9k-px-5.3.3.CSCuz01814.txt  
asr9k-px-5.3.3.CSCuz58091.pie  
asr9k-px-5.3.3.CSCuz58091.txt  
asr9k-px-5.3.3.CSCuz96978.pie  
asr9k-px-5.3.3.CSCuz96978.txt

≡ >

>

<

< ≡

Selected Packages - showing 0

Filter

Save

Cancel

- Invoked by clicking the Server Repository icon on the Schedule Install page.
- Select a server repository.
- Use the Server Directory selector to navigate to the desired directory on the server repository. The software packages in the selected directory will be displayed in the dual list box.
- For Software upgrade, enter the target software release and click Auto Select. This will select all packages from the Available Packages list box that match the device software packages.
- Only server types that support file browsing will be able to use this dialog. Others will have to have packages manually entered in the Schedule Install dialog.

© Cisco Systems, Inc. All rights reserved.

5

# Browse CCO

Browse CCO ▾

▼

Optimal

×

Server Repository

FTP SERVER

Server Directory

↑

×

Posted Within a Week

Installed Packages

☐ Filter Installed Packages

ASR9K-PX-4.3.4 > SMUs 60

Service Packs 1

100 ▾ records per page

Search:

<input type="checkbox"/>	Posted Date ▾	SMU ID ▾	DDTS	Type	Description
<input type="checkbox"/>	08/31/2015	AA10302	CSCun46616	Optional	Power module I2C failure handling (V1 mostly)
<input type="checkbox"/>	08/28/2015	AA10272	CSCuv80890	PSIRT	Umbrella DDTS for a separate LPTS entry for DHCP
<input type="checkbox"/>	08/15/2015	AA10041	CSCul84303	Optional	Huge Counters on Bundle-ether Sub interface
<input type="checkbox"/>	08/03/2015	AA10030	CSCuo31977	Optional	CPP Driver LOCKDOWN & LC reload with control w
<input type="checkbox"/>	06/25/2015	AA09949	CSCuu53372	Optional	Umbrella SMU for CSCug92264 and CSCut69575
<input type="checkbox"/>	06/11/2015	AA09903	CSCuq31566	Optional	telnetd crash when receiving malformed telnet pack
<input type="checkbox"/>	06/05/2015	AA09769	CSCue32438	Optional	Enhancement to support the ability to increase VQI

- Invoked by clicking the CCO icon on the Schedule Install page.
- Use the Browse CCO button to navigate to the desired platform and release.
- Select the server repository where the downloaded files should be stored.
- If you are scheduling an installation for a single host, the Filter Installed Packages checkbox will be shown and checked by default. CSM Server filters out all packages already installed on the host (i.e. Active Packages) from the display list.
- If Filter Installed Packages checkbox is unchecked, the installed packages will be displayed in green highlight.

# Browse Inactive Packages


Install Action: Activate

Host

ASR9K-PE1-R0

Last Successful Retrieval

11h 3m 15s ago



Target Software Release



5.1.3


Auto Select


Available Inactive-Packages - showing 75



Filter

asr9k-9000v-nV-px-5.1.3  
asr9k-9000v-nV-px-5.3.1  
asr9k-asr901-nV-px-5.1.3  
asr9k-asr901-nV-px-5.3.1  
asr9k-asr903-nV-px-5.1.3  
asr9k-asr903-nV-px-5.3.1  
asr9k-bng-px-5.1.3  
asr9k-bng-px-5.3.1  
asr9k-doc-px-5.1.0  
asr9k-fpd-px-5.1.0





Selected Inactive-Packages - showing 6

Filter

asr9k-doc-px-5.1.3  
asr9k-k9sec-px-5.1.3  
asr9k-mcast-px-5.1.3  
asr9k-mgbl-px-5.1.3  
asr9k-mini-px-5.1.3  
asr9k-optic-px-5.1.3

Save

Cancel

- Invoked by clicking the Inactive Pkgs icon on the Schedule Install page.
- The Last Successful Retrieval text field displays the elapsed time since the software packages were last successfully retrieved.
- Click the Retrieve Latest Software icon to retrieve latest software if necessary.

© Cisco Systems, Inc. All rights reserved.

7

# Browse Install History

**Select from Install History** X

**Host** ASR9K-PE1-R0

100 records per page Search:

Packages	Installed Time	Installed By
<input type="checkbox"/> 4_3_4_smu.tar	09/11/2015 12:57 AM	root
<input type="checkbox"/> asr9k-doc-px.pie-5.1.3	09/07/2015 10:29 AM	root
<input type="checkbox"/> asr9k-px-5.1.0.CSCut30136.pie asr9k-px-5.1.0.CSCul26794.pie asr9k-px-5.1.0.CSCul19600.pie	08/23/2015 08:46 PM	root
<input type="checkbox"/> XR510FCS.tar	08/10/2015 04:12 AM	root

Showing 1 to 51 of 51 entries ← Previous 1 Next →

Save Cancel

- Invoked by clicking the Browse Install History icon on the Schedule Install page.
- Select the packages from one of the successful Install Add operations.



# Schedule Install – Prerequisite Checks

Following pre-requisite(s) were not selected, but should be included. ✕

asr9k-px-4.3.1.CSCui38382.pie - 431 C-SMU1  
asr9k-px-4.3.1.CSCug87873.pie - Support TE link Extended Admin Group and higher SRLG scale  
asr9k-px-4.3.1.CSCun74284.pie - qos\_ea and qos\_ma consume high CPU in 4.3  
asr9k-px-4.3.1.CSCug88702.pie - Excessive Punt Flow Trap does not police bad actor traffic  
asr9k-px-4.3.1.CSCuh09480.pie - IPv6 ND is broken when MLD is enabled on the interface.  
asr9k-px-4.3.1.CSCuj55425.pie - Chkpt treats current Active node as a Stby node(chkpt\_register fails)  
asr9k-px-4.3.1.CSCuf77118.pie - Serial DS3 - stays up when looped in HDLC - down-when-looped configured  
asr9k-px-4.3.1.CSCuh55354.pie - 4.3.1.CCO: ASR9K POS int with HDLS encap flap when oversubscribe  
asr9k-px-4.3.1.CSCuh40754.pie - Umbrella SMU for CSCug17684, CSCug83539, CSCuh02594

[Include Pre-requisites](#) [Ignore](#) [Cancel](#)

Following files are missing on the server repository. Those that are identified as 'Downloadable' ✕  
can be downloaded from CCO. If there is an scheduled installation that depends on these files, it  
will not proceed until the files are successfully downloaded and copied to the server repository.


asr9k-px-4.3.1.CSCuj55425.pie (Downloadable) - Chkpt treats current Active node as a Stby node(chkpt\_register fails)  
asr9k-px-4.3.1.CSCug88702.pie (Downloadable) - Excessive Punt Flow Trap does not police bad actor traffic  
asr9k-px-4.3.1.CSCuh40754.pie (Downloadable) - Umbrella SMU for CSCug17684, CSCug83539, CSCuh02594  
asr9k-px-4.3.1.CSCuh55354.pie (Downloadable) - 4.3.1.CCO: ASR9K POS int with HDLS encap flap when oversubscribe  
asr9k-px-4.3.1.CSCui38382.pie (Downloadable) - 431 C-SMU1  
asr9k-px-4.3.1.CSCuf77118.pie (Downloadable) - Serial DS3 - stays up when looped in HDLC - down-when-looped configured  
asr9k-px-4.3.1.CSCuh09480.pie (Downloadable) - IPv6 ND is broken when MLD is enabled on the interface. ✕  
asr9k-px-4.3.1.CSCul42259.pie (Downloadable) - XR520:BFD packets getting dropped at NPU in Asr9k for FLEX LSP/MPLS-TP  
asr9k-px-4.3.1.CSCun74284.pie (Downloadable) - qos\_ea and qos\_ma consume high CPU in 4.3  
asr9k-px-4.3.1.CSCut52232.pie (Downloadable) - Production SMU for SAM post Oct 2015.  
asr9k-px-4.3.1.CSCug87873.pie (Downloadable) - Support TE link Extended Admin Group and higher SRLG scale

[Download](#) [Ignore](#) [Cancel](#)

After clicking the Schedule button, CSM Server performs the following functions:

- It checks for missing pre-requisites on selected software packages.
- It determines whether selected software packages are on the server repository. If they are not, CSM Server prompts the user to download them.
- The scheduled install will not proceed at its scheduled time until the software packages are successfully downloaded and copied to the server repository.

# Installation Dependency

**Scheduled Time** 10/08/2015 11:58 AM 

**Dependency** ✓ None  
Pre-Upgrade - 10/15/2015 10:30 AM  
Install Add - 10/15/2015 10:30 AM  
Activate - 10/15/2015 10:30 AM  
Post-Upgrade - 10/15/2015 10:30 AM  
Commit - 10/15/2015 10:30 AM

Scheduled **5** In Progress **0** Failed **0** Completed

10 records per page

Hostname	Install Action	Dependency
ASR9K-PE1-R0	Pre-Upgrade	
ASR9K-PE1-R0	Install Add	Another Installation
ASR9K-PE1-R0	Activate	Another Installation
ASR9K-PE1-R0	Post-Upgrade	Another Installation

- A dependency can be specified when creating a scheduled install. For example, Install Activate should not be performed unless Install Add is successful.
- If an installation fails, any scheduled install that is dependent on the failed installation will not execute.
- When multiple install actions or 'ALL' is selected, CSM Server will create the dependencies automatically.
- Deleting a scheduled install will also delete all scheduled installs dependent on it.

# Schedule Batch Installations

# Schedule Batch Installations

Schedule Batch Installations

SELECT HOSTS

SELECT INSTALL ACTION

Platform

ASR9K

Software Version

5.3.4

Region

Role

Retrieve

Available Hosts - showing 0

Filter

Selected Hosts - showing 2

Filter

RO  
vkg2

Next

- Invoked by clicking the Schedule Batch Installations link on the home page or the Action button on the Install Dashboard page.
- Select a platform, software version, region, or role to filter managed hosts.
- Click the Retrieve button to retrieve hosts that satisfied the selected criteria.
- Use the dual list box to select multiple hosts for the same scheduled installation.

# Schedule Batch Installations – Continue

Schedule Batch Installations


SELECT HOSTS


SELECT INSTALL ACTION

Install Action

✕ Add

Select From


 Server Repository

 CCO

Software Packages

Scheduled Time

2017-03-13 19:42:00



Dependency

None

▾

Previous

Finish

- Select an install action. Multiple install actions can be selected.
- Click the Calendar icon to change the scheduled time. By default, it is the current date and time.
- The dependency displays all available install action strings for selection. When selected, CSM Server will lookup the latest scheduled install job that matches the selected install action for the same host and create a dependency relationship. If no appropriate job is found, no dependency will be created.

# Session Logs

# Session Logs

## Session Logs - Hostname: L2PSI-PE2


**Warnings / Errors** +


WARNING: [Install Add Plugin] ! Package "asr9k-eigrp-x64-1.0.0.0-r63212I.x86\_64.rpm" is invalid: asr9k-eigrp-x64


WARNING: [Install Add Plugin] !! failed while handling validate reply

ERROR:[Install Add Plugin] Operation 323 failed

**Session Logs** +

 **Log Files**

 [172\\_25\\_144\\_211-2017\\_10\\_09\\_23\\_44\\_42-9778/condoor.log](#)

 [172\\_25\\_144\\_211-2017\\_10\\_09\\_23\\_44\\_42-9778/plugins.log](#)

 [172\\_25\\_144\\_211-2017\\_10\\_09\\_23\\_44\\_42-9778/session.log](#)

- Various log files are created during the installation operation. The three main logs are condoor.log, plugins.log, and session.log.
- The condoor.log file contains information on the connection between CSM Server and the device.
- The plugins.log contains information on each plugin as it executes specific logics on the device.
- The session.log file provides valuable insights on the commands sent by CSM to the router.
- These three log files may contain information on why installations fail and can be useful for troubleshooting.
- Click the download icons to the left of the files to download the log files individually, or the download icon at the top to download all log files at once.

# Session Logs – Continue



172\_20\_163\_39-2017\_03\_29\_22\_47\_03-34/show-running-config.txt



## File Compare



File 1: show-running-config.txt (created on 03/29/2017 03:24 PM)  
File 2: show-running-config.txt (created on 03/29/2017 03:47 PM)

Insertions: 9      Deletions: 8

Load for five secs: 2%/01%; one minute: 23%; five minutes: 2%  
No time source, \*15:04:14.38127:26.607 UTC Wed Mar 29 2017

Building configuration...

Current configuration : 4887918 bytes

!

version 15.65

no service pad

service timestamps debug datetime msec

service timestamps log datetime msec

no platform punt-keepalive disable-kernel-core

platform bfd-debug-trace 1

platform tcam-parity-error enable

platform tcam-threshold alarm-frequency 1

!

hostname CSG-5502-ASR920

- During the Post-Upgrade operation, CSM Server scans all the output files generated by the Pre-Upgrade operation. If there are output differences, a new red icon will appear next to the output file.
- Clicking the red icon will open a File Compare dialog which displays the file output differences between the Pre-Upgrade and Post-Upgrade. The numbers of insertions and deletions are indicated on the dialog.
- The file compare feature also applies to output files generated by the custom command profile selected for the Pre/Post-Upgrade operations.