



# Software Package Management Commands

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# install commit

To make the active software persistent across system reloads, use the **install commit** command in XR EXEC mode.

**install commit** [**synchronous**]

<b>synchronous</b>	(Optional) Applies the changes synchronously.
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**Command Default** Commits the active software set.

**Command Modes** XR EXEC mode

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	Release 7.0.12	This command was introduced.

**Usage Guidelines** To make the current active software persistent across reloads, use the **install commit** command. If the system is restarted before the active software set is saved with the **install commit** command, the previously committed software set is used.

<b>Task ID</b>	<b>Task ID</b>	<b>Operations</b>
	pkg-mgmt	read, write

The following example shows how to make the current active software set persistent:

```
Router# install commit

Install operation 16 'install commit' started by user 'user_b' at 19:18:58 UTC
Sat Apr 08 2006.
Install operation 16 completed successfully at 19:19:01 UTC Sat Apr 08 2006.
```

# show install active

To display active packages, use the **show install active** command in XR EXEC mode.

```
show install active [ all [ location { node-id | all } ] | summary ]
```

Syntax Description	
<b>all location</b>	Displays all the active packages.
<b>location node-id</b>	Displays all packages in a specified location or all locations.
<b>location all</b>	
<b>summary</b>	Displays a summary of active packages along with a list of optional packages.

**Command Default** The command without the **all** keyword just displays the currently active XR packages. It does not display all packages on the system such as OS packages.

**Command Modes** XR EXEC mode

Command History	Release	Modification
	Release 7.0.12	This command was introduced.

**Usage Guidelines** No specific guidelines impact the use of this command.

This example shows how to view all active packages:

```
Router#show install active all
Wed Mar  8 04:57:35.230 UTC

Software Hash: bf46f5add2ea3cd85c91c647a2ca043e1a829c49e5c290baec0c89c937a17429
Package                                               Version
-----
8000-boot-scripts                                   7.8.1.34Iv1.0.0-r0
8000-cpa-setup-x86                                  7.8.1.34Iv1.0.0-r0
8101-32h-cpa-sb-x86                                  7.8.1.34Iv1.0.0-r0
8102-64h-cpa-sb-x86                                  7.8.1.34Iv1.0.0-r0
8111-32eh-cpa-sb-x86                                 7.8.1.34Iv1.0.0-r0
8201-32fh-cpa-sb-x86                                 7.8.1.34Iv1.0.0-r0
8201-cpa-sb-x86                                       7.8.1.34Iv1.0.0-r0
8202-32fh-m-cpa-sb-x86                               7.8.1.34Iv1.0.0-r0
8202-cpa-sb-x86                                       7.8.1.34Iv1.0.0-r0
8203-88h16fh-m-cpa-sb-x86                           7.8.1.34Iv1.0.0-r0
8212-cpa-sb-x86                                       7.8.1.34Iv1.0.0-r0
8608-fb-data-cpa-sb-x86                               7.8.1.34Iv1.0.0-r0
8608-mpa-crevalle-cpa-sb-x86                         7.8.1.34Iv1.0.0-r0
8608-mpa-narwhal-cpa-sb-x86                          7.8.1.34Iv1.0.0-r0
8608-mpa-pinafore-cpa-sb-x86                         7.8.1.34Iv1.0.0-r0
8608-mpa-tiber-cpa-sb-x86                             7.8.1.34Iv1.0.0-r0
8804-fc-data-cpa-sb-x86                               7.8.1.34Iv1.0.0-r0
acl                                                    2.2.52-r0.61
argon                                                  7.8.1.34Iv1.0.0-r0
--More--
```

This example shows how to view all active packages in a specified location:

```
Router#show install active all location 0/RP0/CPU0
Wed Mar  8 04:58:25.254 UTC

Software Hash: ef055dac99b856182211deb7585c02fb812c02d6a04cd5b92b521ccf7b9c6ee5
Package                                               Architecture
Version
-----
8000-boot-scripts                                    corei7_64
7.8.1.34Iv1.0.0-r0
8000-cpa-setup-x86                                   corei7_64
7.8.1.34Iv1.0.0-r0
8101-32h-cpa-sb-x86                                  corei7_64
7.8.1.34Iv1.0.0-r0
8102-64h-cpa-sb-x86                                  corei7_64
7.8.1.34Iv1.0.0-r0
8111-32eh-cpa-sb-x86                                 corei7_64
7.8.1.34Iv1.0.0-r0
8201-32fh-cpa-sb-x86                                 corei7_64
7.8.1.34Iv1.0.0-r0
8201-cpa-sb-x86                                       corei7_64
7.8.1.34Iv1.0.0-r0
8202-32fh-m-cpa-sb-x86                               corei7_64
7.8.1.34Iv1.0.0-r0
8202-cpa-sb-x86                                       corei7_64
7.8.1.34Iv1.0.0-r0
8203-88h16fh-m-cpa-sb-x86                           corei7_64
7.8.1.34Iv1.0.0-r0
8212-cpa-sb-x86                                       corei7_64
7.8.1.34Iv1.0.0-r0
8608-fb-data-cpa-sb-x86                              corei7_64
7.8.1.34Iv1.0.0-r0
8608-mpa-crevalle-cpa-sb-x86                         corei7_64
7.8.1.34Iv1.0.0-r0
8608-mpa-narwhal-cpa-sb-x86                          corei7_64
7.8.1.34Iv1.0.0-r0
8608-mpa-pinafore-cpa-sb-x86                        corei7_64
7.8.1.34Iv1.0.0-r0
8608-mpa-tiber-cpa-sb-x86                            corei7_64
7.8.1.34Iv1.0.0-r0
8804-fc-data-cpa-sb-x86                              corei7_64
7.8.1.34Iv1.0.0-r0
acl                                                    corei7_64
2.2.52-r0.61
argon                                                 wr1sdk_x86
7.8.1.34Iv1.0.0-r0
--More--
```

This example shows how to view the summary of active packages:

```
Router#show install active summary
Wed Mar  8 05:00:29.564 UTC
Active Packages:   XR: 205   All: 1465
Label:             7.8.1.34I-PROD_BUILD_7_8_1_34I_SIT_IMAGE
Software Hash:     bf46f5add2ea3cd85c91c647a2ca043e1a829c49e5c290baec0c89c937a17429

Optional Packages                                     Version
-----
xr-8000-l2mcast                                       7.8.1.34Iv1.0.0-1
xr-8000-mcast                                          7.8.1.34Iv1.0.0-1
xr-8000-netflow                                        7.8.1.34Iv1.0.0-1
xr-bgp                                                 7.8.1.34Iv1.0.0-1
xr-cdp                                                 7.8.1.34Iv1.0.0-1
```

```
xr-ipsla 7.8.1.34Iv1.0.0-1
xr-is-is 7.8.1.34Iv1.0.0-1
xr-k9sec 7.8.1.34Iv1.0.0-1
xr-lldp 7.8.1.34Iv1.0.0-1
xr-mcast 7.8.1.34Iv1.0.0-1
xr-mps-oam 7.8.1.34Iv1.0.0-1
xr-netflow 7.8.1.34Iv1.0.0-1
xr-ospf 7.8.1.34Iv1.0.0-1
xr-perf-meas 7.8.1.34Iv1.0.0-1
xr-perfmgmt 7.8.1.34Iv1.0.0-1
xr-telnet 7.8.1.34Iv1.0.0-1
xr-track 7.8.1.34Iv1.0.0-1
--More--
```

# show install available

To display packages available for installation, use the **show install available** command in XR EXEC mode.

```
show install available [all]
```

<b>Syntax Description</b>	<b>all location</b> (Optional) Displays all packages available to be installed in a system. <i>node-id</i>
---------------------------	---

<b>Command Default</b>	None
------------------------	------

<b>Command Modes</b>	XR EXEC mode
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	Release 7.0.12	This command was introduced.

<b>Usage Guidelines</b>	No specific guidelines impact the use of this command.
-------------------------	--

The following example shows how to view the available packages:

```
Router# show install available all
```

# show install cached

To display cached packages, use the **show install cached** command in XR EXEC mode.

**show install cached**

**Syntax Description** This command has no keywords or arguments.

**Command Default** None

**Command Modes** XR EXEC mode

Command History	Release	Modification
	Release 7.0.12	This command was introduced.

**Usage Guidelines** No specific guidelines impact the use of this command.

The following example shows how to view the cached packages:

```
Router# show install cached
Wed Aug 12 10:00:25.105 UTC

Package                                     Architecture
Version                                     -----
-----
8000-cpa-setup-nos-x86                       corei7_64
7.0.12v1.0.0-r0
8000-cpa-setup-x86                           corei7_64
7.0.12v1.0.0-r0
8201-cpa-sb-x86                               corei7_64
7.0.12v1.0.0-r0
8800-lc-36fh-cpa-sb-x86                       corei7_64
7.0.12v1.0.0-r0
8800-lc-48h-cpa-sb-x86                       corei7_64
7.0.12v1.0.0-r0
8800-rp-cpa-sb-x86                           corei7_64
7.0.12v1.0.0-r0
8808-data-cpa-sb-x86                         corei7_64
7.0.12v1.0.0-r0
8812-data-cpa-sb-x86                         corei7_64
7.0.12v1.0.0-r0
8818-data-cpa-sb-x86                         corei7_64
7.0.12v1.0.0-r0
acl                                           corei7_64
2.2.52-r0.9
at                                           corei7_64
3.1.20-r0.9
attr                                         corei7_64
2.4.47-r0.9
audit                                        corei7_64
2.7-r0.10
auditd                                       corei7_64
```

## show install cached

```
2.7-r0.10
base-files                                wr1sdk_x86
3.0.14-r89.7
base-passwd                              corei7_64
3.5.29-r0.1.9
base-passwd-update                       corei7_64
3.5.29-r0.1.9
bash                                      corei7_64
4.3.30-r0.9
bash-completion                          corei7_64
2.4-r0.9
bash-completion-extra                    corei7_64
2.4-r0.9
```



# show install committed

To display committed packages, use the **show install committed** command in XR EXEC mode.

```
show install committed { all | summary }
```

Syntax Description	all	Displays user-installable XR packages on all locations.
	summary	Displays summary of committed packages (optional and bugfix packages only).

**Command Default** None

**Command Modes** XR EXEC mode

Command History	Release	Modification
	Release 7.0.12	This command was introduced.

**Usage Guidelines** No specific guidelines impact the use of this command.

The following example shows how to view the summary of committed packages:

```
Router#show install committed summary
Wed Jun 28 10:34:18.792 UTC
Committed Packages: XR: 206    All: 1537
Label:              7.10.1.31I
Software Hash:      8ba19933d88a72378955c470a1e07b0742ddded043ec332a72c5640c1ec62c55

Optional Packages                                     Version
-----
xr-8000-l2mcast                                       7.10.1.31Iv1.0.0-1
xr-8000-mcast                                         7.10.1.31Iv1.0.0-1
xr-8000-netflow                                       7.10.1.31Iv1.0.0-1
xr-bgp                                                 7.10.1.31Iv1.0.0-1
xr-ipsla                                              7.10.1.31Iv1.0.0-1
xr-is-is                                              7.10.1.31Iv1.0.0-1
xr-lldp                                               7.10.1.31Iv1.0.0-1
xr-mcast                                              7.10.1.31Iv1.0.0-1
xr-mps-oam                                           7.10.1.31Iv1.0.0-1
xr-netflow                                            7.10.1.31Iv1.0.0-1
xr-ops-script-repo                                   7.10.1.31Iv1.0.0-1
xr-ospf                                               7.10.1.31Iv1.0.0-1
xr-perf-meas                                         7.10.1.31Iv1.0.0-1
xr-perfmgmt                                          7.10.1.31Iv1.0.0-1
xr-track                                              7.10.1.31Iv1.0.0-1
```

# show install fixes

To display bug fixes, use the **show install fixes** command in XR EXEC mode.

**show install fixes** { **active** | **available** | **committed** | **deactivate** } [ **brief** | **bugids** *value* ]

<b>active</b>	Display active bug fixes.
<b>available</b>	Display the list of available bug fixes.
<b>committed</b>	Display committed bug fixes
<b>deactivate</b> <i>bugfix_list</i>	Display information on how to remove a bug fix
<b>brief</b>	(Optional) Displays only the bug IDs and not the relevant packages.
<b>bugids</b> <i>value</i>	(Optional) Displays bug fixes for a specific bug ID. You can choose to view information for more than one bug id seperated by a space.

**Command Default** None

**Command Modes** XR EXEC mode

**Command History**

Release	Modification
Release 7.0.12	This command was introduced.

**Usage Guidelines** No specific guidelines impact the use of this command.

The following example shows how to view the list of available bug fixes:

```
Router# show install fixes available
Bug Id           Packages                               Repository
-----
CSCxx12345      xr-8000-core-7.0.11v1.0.1-1             <repository-name>
                xr-core-7.0.11v1.0.1-1                 <repository-name>
```

The following example shows how to view the information for a active bug ID:

```
Router# show install fixes active bugids CSCxx12345
```

The following example shows how to remove the DDTS CSCwc26944:

```
Router#show install fixes deactivate CSCwc26944
```

```
User-requested DDTSs deactivated by this command: CSCwc26944
```

```
All DDTSs deactivated by this command: CSCvs01738,CSCwc26944
```

```
Package changes:
```

```

xr-8000-core-7.5.2v1.0.5 -> xr-8000-core-7.5.2v1.0.4
xr-8000-fib-ea-7.5.2v1.0.1 -> xr-8000-fib-ea-7.5.2v1.0.0           (missing)
xr-8000-leabaofa-7.5.2v1.0.3 -> xr-8000-leabaofa-7.5.2v1.0.2
xr-8000-mcast-7.5.2v1.0.1 -> xr-8000-mcast-7.5.2v1.0.0         (missing)
xr-8000-utapp-blaze-7.5.2v1.0.2 -> xr-8000-utapp-blaze-7.5.2v1.0.1
xr-fib-7.5.2v1.0.3 -> xr-fib-7.5.2v1.0.2
xr-mcast-7.5.2v1.0.1 -> xr-mcast-7.5.2v1.0.0                   (missing)
xr-ncs5401-core-7.5.2v1.0.14 -> xr-ncs5401-core-7.5.2v1.0.10
xr-ncs5700-core-7.5.2v1.0.14 -> xr-ncs5700-core-7.5.2v1.0.10
xr-ofa-7.5.2v1.0.3 -> xr-ofa-7.5.2v1.0.1
xr-snmp-7.5.2v1.0.1 -> xr-snmp-7.5.2v1.0.0                       (missing)

```

Example install commands:

```

install source any-configured xr-8000-core-7.5.2v1.0.4 xr-8000-fib-ea-7.5.2v1.0.0
xr-8000-leabaofa-7.5.2v1.0.2 xr-8000-mcast-7.5.2v1.0.0 xr-8000-utapp-blaze-7.5.2v1.0.1
xr-fib-7.5.2v1.0.2 xr-mcast-7.5.2v1.0.0 xr-ncs5401-core-7.5.2v1.0.10
xr-ncs5700-core-7.5.2v1.0.10 xr-ofa-7.5.2v1.0.1 xr-snmp-7.5.2v1.0.0
install package downgrade xr-8000-core-7.5.2v1.0.4 xr-8000-fib-ea-7.5.2v1.0.0
xr-8000-leabaofa-7.5.2v1.0.2 xr-8000-mcast-7.5.2v1.0.0 xr-8000-utapp-blaze-7.5.2v1.0.1
xr-fib-7.5.2v1.0.2 xr-mcast-7.5.2v1.0.0 xr-ncs5401-core-7.5.2v1.0.10
xr-ncs5700-core-7.5.2v1.0.10 xr-ofa-7.5.2v1.0.1 xr-snmp-7.5.2v1.0.0

```

**IMPORTANT:** The above commands cannot currently be run because there are missing packages. Put the following packages in an accessible repository.

```

xr-8000-fib-ea-7.5.2v1.0.0
xr-8000-mcast-7.5.2v1.0.0   (optional package)
xr-mcast-7.5.2v1.0.0       (optional package)
xr-snmp-7.5.2v1.0.0

```

**IMPORTANT:** If the optional packages are not available, then they can be completely removed before removing the DDTs using `install package remove xr-8000-mcast-7.5.2v1.0.0 xr-mcast-7.5.2v1.0.0`

# show install history

To display the history of the installation process, use the **show install history** command in XR EXEC mode.

```
show install history { all [ location node-id ] [reverse] [verbose] | table [ ID number
| [ last entries ] [reverse] ] }
```

<b>all</b>	Displays the history of all install operations.
<b>last entries</b>	Displays a last entry of the history information table
<b>location node-id</b>	Displays details of the specified location. The <i>node-id</i> argument is entered in the <code>rack/slot/module</code> notation.
<b>table</b>	Displays a summary table of the install operations.
<b>ID number</b>	Specifies the table ID of the history information.
<b>reverse</b>	Displays entries in reverse order.
<b>verbose</b>	Displays detailed information.

**Command Default** None

**Command Modes** XR EXEC mode

Command History	Release	Modification
	Release 7.0.12	This command was introduced.

**Usage Guidelines** To identify whether a reload is required or only process restart is needed, use **show install history last transaction verbose** command.

When there is insufficient disk space in the root file system, the **show install request** command displays an error message. Use **show install history last package** command to view the details of the packaging operation and any errors that have occurred.

The following example shows how to view the history of the install operation:

```
Router# show install history table
Transaction Atomic Change Packaging Operations
-----
Id Status Id Method Status Id Operation Inputs Status
-----
1 In progress 1 Reload Success 1 Upgrade 1 Success
```

The following example shows how to view history of last transaction:

```
Router# show install history last transaction verbose
2019-09-11 17:01:46 UTC Transaction 3 started
2019-09-11 17:01:46 UTC Atomic change 3.1 started
2019-09-11 17:01:46 UTC Packaging operation 3.1.1 started
2019-09-11 17:16:46 UTC Transaction 3 complete
```

The following example shows how to view the last packaging operation for a specific location:

```
Router# show install history last package location 0/RP0/CPU0 verbose
```

The following example shows how to view the complete details of the last packaging operation, including a failure:

```
Router# show install history last package
Wed Jan  8 13:29:51.586 UTC
2020-01-08 13:25:32 UTC      Packaging operation 3.2.1 started
2020-01-08 13:25:32 UTC      Add
2020-01-08 13:25:32 UTC      xr-telnet
2020-01-08 13:28:26 UTC      Error on 0/1/CPU0: Insufficient disk space to install packages
2020-01-08 13:28:26 UTC      Packaging operation 3.2.1 failed: Disk space check failed
on nodes: 0/1/CPU0
2020-01-08 13:28:26 UTC      Packaging operation 3.2.1 aborted: Automatically recovered
after failure

Location 0/1/CPU0
Last event: Error (Insufficient disk space to install packages)
Disk space pre-check failure:
  Phase: Download
  Required space: 140944B
  Available space: 110623B
```

## show install log

To display the details of installation requests, use the **show install log** command in XR EXEC mode.

```
show install log [all] [detail] [id number] [last number] [reverse]
```

### Syntax Description

<b>all</b>	(Optional) Displays a log for all install operations.
<b>detail</b>	(Optional) Displays details including impact to processes and nodes.
<b>id number</b>	(Optional) Displays the log information for the specified transaction ID.
<b>last number</b>	(Optional) Displays the log information for the last number of transactions.
<b>reverse</b>	(Optional) Displays the logs in reverse order.

### Command Default

None

### Command Modes

XR EXEC mode

### Command History

Release	Modification
Release 7.0.12	This command was introduced.

### Usage Guidelines

Enter the **show install log** command with no arguments to display a summary of all installation operations, including the changes to files and the processes impacted by each request. Specify the **id** argument to display details for a specific operation.

### Task ID

Task ID	Operations
pkg-mgmt	read

The following example shows the log information for a specific transaction ID:

```
Router# show install log detail id 1
```

# show install request

To display the current status of install requests, use the **show install request** command in XR EXEC mode.

```
show install request { brief [monitor] | location node-id [monitor] | { verbose location
node-id [monitor] | monitor location node-id } }
```

Syntax Description	Parameter	Description
	<b>brief</b>	Displays install request information summary.
	<b>location</b> <i>node-id</i>	Displays install information for the designated node. The <i>node-id</i> argument is entered in the <i>rack/slot/module</i> notation.
	<b>verbose</b>	Displays detailed information about the install request.

**Command Default** None

**Command Modes** XR EXEC mode

Command History	Release	Modification
	Release 7.0.12	This command was introduced.
	Release 7.8.1	The keyword <b>monitor</b> was deprecated.

**Usage Guidelines** Cisco IOS XR processes only one installation request per device at a time. The **show install request** command displays any incomplete request that is currently running.



**Note** When the command is running asynchronously, use **show install request** command to monitor the progress.

If the install operation encounters a failure, the **show install request** command, displays an error message. Use the **show install history last package** command to obtain complete details of the failure.

The following example shows sample output from the **show install request** command:

```
Router# show install request
```

```
Install operation 17 'install add /tftp://172.31.255.255/dir/19mcast' started by user
'user_b' at 14:38:45 UTC Thu Mar 30 2006. The operation is 1% complete 2,017KB
downloaded The operation can still be aborted.
```

The following example shows sample output from the **show install request** command when there is insufficient disk space in the root file system. An error message is displayed to indicate the insufficient disk space .

```
Router#show install request
Wed Jan 8 13:29:38.086 UTC
```

```
User request: install replace /harddisk:/replace.iso
Operation ID: 3.2
State:        Failure since 2020-01-08 13:28:26 UTC
Disk space check failed on nodes: 0/1/CPU0. Automatically recovered after failure, ready
for next user request.
```

```
Current activity:  Await user input
Time started:      2020-01-08 13:29:25
```

The following actions are available:

```
install package add
install package remove
install package upgrade
install package downgrade
install package replace
install package rollback
install commit
```



# show install rollback

To display rollback information, use the **show install rollback** command in XR EXEC mode.

```
show install rollback { id number changes | list-ids }
```

Syntax Description	id	number
	Displays information for the specified transaction ID.	
changes	Display changes relative to currently installed packages.	
list-ids	Displays a list of all rollback IDs.	

**Command Default** None

**Command Modes** XR EXEC mode

Command History	Release	Modification
	Release 7.0.12	This command was introduced.

**Usage Guidelines** No specific guidelines impact the use of this command.

The following example shows how to view the valid list of rollback transaction IDs:

```
Router# show install rollback list-ids
```

The following example shows how to view rollback information for a specific transaction ID:

```
Router# show install rollback id 1
```

The following example shows how to view the changes for a specific rollback transaction ID:

```
Router# show install rollback id 1 changes
```

show install rollback