



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**]

synchronous	(Optional) Applies the changes synchronously.
--------------------	---

Command Default Commits the active software set.

Command Modes XR EXEC mode

Command History	Release	Modification
	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.

Task ID	Task ID	Operations
	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

all location	Displays all the active packages.
location node-id	Displays all packages in a specified location or all locations.
location all	
summary	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]
```

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

Command Default	None
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Command Modes	XR EXEC mode
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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 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*]

active	Display active bug fixes.
available	Display the list of available bug fixes.
committed	Display committed bug fixes
deactivate <i>bugfix_list</i>	Display information on how to remove a bug fix
brief	(Optional) Displays only the bug IDs and not the relevant packages.
bugids <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] ] }
```

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

all	(Optional) Displays a log for all install operations.
detail	(Optional) Displays details including impact to processes and nodes.
id number	(Optional) Displays the log information for the specified transaction ID.
last number	(Optional) Displays the log information for the last number of transactions.
reverse	(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
	brief	Displays install request information summary.
	location <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.
	verbose	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 monitor 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