



## **cluster image commands**

### **ONTAP 9.5 commands**

NetApp

February 11, 2024

# Table of Contents

- cluster image commands . . . . . 1
  - cluster image cancel-update . . . . . 1
  - cluster image pause-update . . . . . 1
  - cluster image resume-update . . . . . 2
  - cluster image show-update-history . . . . . 2
  - cluster image show-update-log-detail . . . . . 4
  - cluster image show-update-log . . . . . 6
  - cluster image show-update-progress . . . . . 9
  - cluster image show . . . . . 13
  - cluster image update . . . . . 14
  - cluster image validate . . . . . 16
  - cluster image package delete . . . . . 17
  - cluster image package get . . . . . 18
  - cluster image package show-repository . . . . . 18

# cluster image commands

## cluster image cancel-update

Cancel an update

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

### Description

The `cluster image cancel-update` command is used to cancel an update that is in either paused-by-user or paused-by-error state. The update cannot be canceled if it is not in a paused state.

### Examples

The following example displays a cancel-update operation:

```
cluster1::> cluster image cancel-update

Warning: The cancel operation can result in a mixed version
         cluster and/or mixed version HA pair. The cancel
         operation can take several minutes to complete.
Do you want to proceed with the cancel operation? {y|n}: y

Info: Canceling update. It may take a few minutes to finish canceling the
update
```

## cluster image pause-update

Pause an update

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

### Description

The `cluster image pause-update` command is used to pause a currently running update. The update pauses at the next predefined pause point (for example, after validation, download to the boot device, takeover completion, or giveback completion) which might take some time to reach. When the update reaches the pause point, it transitions into the pause-by-user state.

### Examples

The following example displays pause-update operation:

```
cluster1::> cluster image pause-update
```

```
Info: Pausing update. It may take a few minutes to finish pausing the
update
```

## cluster image resume-update

Resume an update

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

### Description

The `cluster image resume-update` command is used to resume an update that is currently paused in paused-by-user or paused-by-error state. If the update is not paused then an error is returned.

### Parameters

**`[-ignore-post-update-checks-failures {true|false}]` - Ignore Post-update-checks Phase Failures (privilege: advanced)**

Specifies whether the post update checks phase warnings and/or errors should be ignored. The default value is false.

### Examples

The following example shows an resume-update operation:

```
cluster1::> cluster image resume-update
```

```
Info: Resuming update...
```

## cluster image show-update-history

Display the update history

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

### Description

The `cluster image show-update-history` command displays the update history for each node. By default, the command displays the following information:

- Status
- Package version
- Start time

- Completion time
- Component ID
- Previous version
- Updated version

## Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>`, ... parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-component-id <text>] - Component ID**

Displays updates for the specified component.

**[-start-time <MM/DD/YYYY HH:MM:SS>] - Start Time**

Displays updates with the specified start time.

**[-package-version <text>] - Package Version**

Displays updates for the specified package version.

**[-status {successful|canceled|back-out}] - Status**

Displays updates that completed with the specified status.

**[-completion-time <MM/DD/YYYY HH:MM:SS>] - Completion Time**

Displays updates with the specified completion time.

**[-previous-version <text>] - Previous Version**

Displays updates with the specified previous version.

**[-updated-version <text>] - Updated Version**

Displays updates with the specified updated version.

## Examples

The following example displays history of automated nondisruptive updates:

```

cluster1::> cluster image show-update-history
Package      Start      Completion
Updated
Status      Version    Time        Time        Component ID  Version
Version
-----
-----
canceled    8.3        2/11/2014   2/11/2014   ssan-3240-    8.3        8.3
              12:05:51   12:05:51   55a
successful  8.3        2/11/2014   2/11/2014   ssan-3240-    8.3        8.3
              14:23:58   15:02:19   55a
successful  8.3        2/13/2014   2/18/2014   ssan-3240-    8.3        8.3
              16:48:42   09:45:30   55a
successful  8.3        2/18/2014   2/18/2014   ssan-3240-    8.3        8.3
              10:33:10   11:02:45   55a
canceled    8.3        2/11/2014   2/11/2014   ssan-3240-    8.3        8.3
              12:05:51   12:05:51   55b
successful  8.3        2/11/2014   2/11/2014   ssan-3240-    8.3        8.3
              14:23:58   15:54:43   55b
successful  8.3        2/13/2014   2/18/2014   ssan-3240-    8.3        8.3
              16:48:42   10:05:02   55b
successful  8.3        2/18/2014   2/18/2014   ssan-3240-    8.3        8.3
              10:33:10   11:22:02   55b
8 entries were displayed.

```

## cluster image show-update-log-detail

Display detailed information about nondisruptive update events

**Availability:** This command is available to *cluster* administrators at the *advanced* privilege level.

### Description

The `cluster image show-update-log-detail` command displays detailed information about the currently running and previously run nondisruptive update events. By default, the command displays the following information:

- Node
- Transaction ID
- Time stamp
- Destination node
- Task phase
- Task name
- Task status

- Message

## Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>`, ... parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-node {<nodename>|local}] - Node (privilege: advanced)**

Displays information only for the specified node.

**[-task-id <integer>] - Task Id (privilege: advanced)**

Displays information only for the specified task ID.

**[-posted-time <MM/DD/YYYY HH:MM:SS>] - Posted Time (privilege: advanced)**

Displays information that occurred at the specified time.

**[-msg-seq-no <integer>] - Message Sequence (privilege: advanced)**

Displays information only for the specified message sequence number.

**[-current-pid <integer>] - Process ID (privilege: advanced)**

Displays information only for the specified process ID.

**[-destination <text>] - Task Target node (privilege: advanced)**

Displays information only for the specified destination node.

**[-ndu-phase {validation|prereq-updates|ontap-updates|package-management|default-phase|post-update-checks}] - Update phase (privilege: advanced)**

Displays information only for the specified phase.

**[-task-name {initialize|mount-image|restart-hm|get-health|run-scripts|unmount-image|clear-alert|post-restart-hm|cleanup-rd|synch-image|do-download-job|do-failover-job|do-giveback-job|check-progress|complete-validation|invalid-task|default-task|do-postupdate-checks-task}] - Task Name (privilege: advanced)**

Displays information only for the specified task name.

**[-status {created|ready-to-run|running|completed|failed|pause\_req|paused|paused-error|cancel\_req|canceled|resume\_req|default\_status}] - Status Of Task (privilege: advanced)**

Displays information only for items with the specified status.

**[-message <text>] - Update Log Message (privilege: advanced)**

Displays information only for items with the specified message.

**[-msg-type <text>] - Type of Message (privilege: advanced)**

Displays information only for items with the specified message type.

## **[-src-info <text>] - Source Information (privilege: advanced)**

Displays information only for items for the specified source.

## **Examples**

The following example displays detailed information automated nondisruptive updates:

```
cluster1::*> cluster image show-update-log-detail
```

Node	TID	Time Stamp	Dest Node	Task Phase	Task Name	Task Status	Message
node1	15	3/19/2014 13:52:38	MUM	ontap-update s	initialize	ready-to-run	Created Task
node1	15	3/19/2014 13:52:38	MUM	ontap-update s	initialize	running	Updated Task Status
node1	16	3/19/2014 13:52:38	node1	ontap-update s	download ad-job	ready-to-run	Created Task
node1	16	3/19/2014 13:52:39	node1	ontap-update s	download ad-job	running	Updated Task Status
node1	17	3/19/2014 13:52:38	node2	ontap-update s	download ad-job	ready-to-run	Created Task
node2	17	3/19/2014 13:52:38	node2	ontap-update s	download ad-job	running	Updated Task Status

6 entries were displayed.

## **cluster image show-update-log**

Display the update transaction log

**Availability:** This command is available to *cluster* administrators at the *advanced* privilege level.

## **Description**

The `cluster image show-update-log` command displays detailed information about the currently running, or previously run nondisruptive updates. By default, the command displays the following information:

- Phase
- Transaction
- Transaction ID



- Component ID
- Time stamp
- Status

## Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>`, ... parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-trans-id <integer>] - Transaction ID (privilege: advanced)**

Displays information for the step associated with the specified transaction ID.

**[-component-id {<nodename>|local}] - Component ID (privilege: advanced)**

Displays information for steps associated with the specified component.

**[-phase {validation|prereq-updates|ontap-updates|package-management|default-phase|post-update-checks}] - Transaction Phase (privilege: advanced)**

Displays information for steps associated with the specified update phase.

**[-trans-name {initialize|mount-image|restart-hm|get-health|run-scripts|unmount-image|clear-alert|post-restart-hm|cleanup-rd|synch-image|do-download-job|do-failover-job|do-giveback-job|check-progress|complete-validation|invalid-task|default-task|do-postupdate-checks-task}] - Transaction Name (privilege: advanced)**

Displays information for steps associated with the specified transaction.

**[-timestamp <MM/DD/YYYY HH:MM:SS>] - Timestamp (privilege: advanced)**

Displays information for steps associated with the specified timestamp.

**[-status {waiting|started|completed|paused-on-error|paused-by-user|pause-pending|cancel-pending|canceled|failed}] - Status (privilege: advanced)**

Displays information for steps matching the specified status.

## Examples

The following example displays information about automated nondisruptive update events:

```
cluster1::*> cluster image show-update-log
```

Phase	Transaction	Trans Id	Component Id	Time Stamp	Status
-----	-----	----	-----	-----	
validation	initialize	50	MUM	2/18/2014 10:32:57	completed
validation	mount-image	51	node1	2/18/2014 10:32:52	completed
validation	mount-image	52	node2	2/18/2014 10:32:53	completed
validation	get-health	53	MUM	2/18/2014 10:32:53	completed
validation	run-scripts	54	node1	2/18/2014 10:32:53	completed
validation	run-scripts	55	node2	2/18/2014 10:32:57	completed
validation	unmount- image	56	node1	2/18/2014 10:32:57	completed
validation	unmount- image	57	node2	2/18/2014 10:32:57	completed
validation	complete- validation	58	MUM	2/18/2014 10:32:57	completed
package- management	cleanup- package	66	node1	3/14/2014 09:11:51	completed
package- management	cleanup- package	67	node2	3/14/2014 09:11:51	completed
package- management	process- package	68	node1	3/14/2014 09:13:41	completed
package- management	synch-image	69	node2	3/14/2014 09:14:25	completed

```
13 entries were displayed.
```

# cluster image show-update-progress

Display the update progress

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

## Description

The `cluster image show-update-progress` command displays information about the current state of an update. By default, the command displays the following information:

- Update phase
- Status
- Estimated Duration
- Elapsed Duration

## Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>, ...` parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-ndu-phase {validation|prereq-updates|ontap-updates|package-management|default-phase|post-update-checks}] - Update Phase**

Displays information about the specified update phase.

**[-phase-status {in-progress|waiting|paused-by-user|paused-on-error|completed|canceled|failed|pause-pending|cancel-pending}] - Phase Status**

Displays information about progress matching the specified phase status.

**[-phase-duration <text>] - Phase Duration**

Displays information about progress matching the specified phase duration.

**[-phase-comments <text>] - Phase Comments**

Displays information about progress matching the specified phase comments.

**[-elapsed-duration {<seconds>| [<d> days] <hh>:<mm>[:<ss>]}] - Elapsed duration of the phase**

Displays information about progress matching the specified elapsed duration.

**[-estimated-duration {<seconds>| [<d> days] <hh>:<mm>[:<ss>]}] - Estimated duration of the phase**

Displays information about progress matching the specified estimated duration.

### **[`-phase-description <text>`] - Phase Description**

Displays information about progress matching the specified phase description.

### **[`-subsystem-name <text>`] - Subsystem Name**

Displays information about progress matching the specified subsystem name.

### **[`-subsystem-status <text>`] - Subsystem Status**

Displays information about progress matching the specified subsystem status.

### **[`-subsystem-details <text>`] - Subsystem Details**

Displays information about progress matching the specified subsystem details.

### **[`-subsystem-action <text>`] - Subsystem Action**

Displays information about progress matching the specified subsystem action.

## **Examples**

The following example shows the automated nondisruptive update of two nodes, nodeA and nodeB. In this case, nodeA's update is waiting, nodeB's update is in progress. nodeB's giveback operation is in progress.

```
cluster1::> cluster image show-update-progress
Estimated      Elapsed
Update Phase    Status              Duration           Duration
-----
Pre-update checks    completed           00:10:00           00:00:02
Data ONTAP updates  in-progress         01:23:00           00:32:07

Details:

Node name          Status              Status Description
-----
nodeA              waiting
nodeB              in-progress         Performing giveback operation.
3 entries were displayed.

cluster1::>
```

The following example shows the automated nondisruptive update of two nodes, nodeA and nodeB. In this case, automated nondisruptive update is paused-on-error in "Data ONTAP updates" phase. nodeA's update is waiting, nodeB's update is failed. "Status Description" show nodeB's error and action.

```
cluster1:> cluster image show-update-progress
```

Estimated Update Phase	Elapsed Status	Duration	Duration
Pre-update checks	completed	00:10:00	00:00:02
Data ONTAP updates	paused-on-error	00:49:00	00:05:21

Details:

Node name	Status	Status Description
nodeA	waiting	
nodeB	failed	Error: Takeover of node "nodeB" is not possible. Action: Use the "storage failover show" command to view the cause of the failure.

2 entries were displayed.

Status: Paused - An error occurred in "Data ONTAP updates" phase. The non-disruptive update cannot continue until the error has been resolved. Resolve all issues, then use the "cluster image resume-update" command to resume the update.

```
cluster1:>
```

The following example shows that the automated nondisruptive update is paused-on-error in "Post-update checks" update phase and "Status Description" shows the error and action.

```
cluster1::> cluster image show-update-progress
```

Estimated Update Phase	Elapsed Status	Duration	Duration
Data ONTAP updates	completed	02:19:00	00:00:03
Post-update checks	paused-on-error	00:10:00	00:00:02

Details:

Post-update Check	Status	Error-Action
Cluster Quorum Status	Error	Error: Cluster is not in quorum.  Action: Use the (privilege: advanced) "cluster ring show" command to verify all replication unit details.

5 entries were displayed.

Status: Paused - An error occurred in "Post-update checks" phase. The non-disruptive update cannot continue until the error has been resolved. Resolve all issues, then use the "cluster image resume-update" command to resume the update.

```
cluster1::>
```

The following example shows that the automated nondisruptive update is completed on nodeA and nodeB.

```
cluster1::> cluster image show-update-progress
```

Estimated Update Phase	Elapsed Status	Duration	Duration
Pre-update checks	completed	00:10:00	00:00:13
Data ONTAP updates	completed	01:23:00	01:15:11
Post-update checks	completed	00:10:00	00:00:02

3 entries were displayed.

Updated nodes: nodeA, nodeB.

```
cluster1:>
```

The following example shows the automated update of two-node MetroCluster configuration having clusters cluster\_A and cluster\_B. In this case, cluster\_A's update is waiting and cluster\_B's update is in progress. cluster\_B's switchback operation is in progress.

```
cluster_A::> cluster image show-update-progress
Estimated      Elapsed
Cluster                Duration      Duration      Status
-----
cluster_A                00:00:00      00:00:00      waiting
cluster_B                00:00:00      00:06:42      in-
progress

Details: Switchback in progress.

Waiting for partner cluster "sti60-vsim-ucs134f_siteB" to be up.

cluster_A::>
```

The following example shows that the automated update is completed on both cluster\_A and cluster\_B in two-node MetroCluster configuration.

```
cluster_A::> cluster image show-update-progress
Estimated      Elapsed
Cluster                Duration      Duration      Status
-----
cluster_A                00:00:00      00:20:44      completed
cluster_B                00:00:00      00:10:43      completed

Details: MetroCluster updated successfully.

cluster_A::>
```

## cluster image show

Display currently running image information

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

### Description

The `cluster image show` command displays information about the version of Data ONTAP that is running on each node and the date/time when it was installed. By default, the command displays the following information:

- Node name
- Current version

- Installation date and time

## Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>`, ... parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-node {<nodename>|local}] - Node**

Displays information about the specified node.

**[-version <text>] - Current Version**

Displays information about the nodes running the specified version.

**[-date <MM/DD/YYYY HH:MM:SS>] - Date Installed**

Displays information about the nodes with the specified installation date.

## Examples

The following example displays information about currently running images on all nodes of the cluster:

```
cluster1::> cluster image show
```

Node	Current Version	Installation Date
node1	8.3	-
node2	8.3	-

2 entries were displayed.

## cluster image update

### Manage an update

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

### Description

The `cluster image update` command is used to initiate a Data ONTAP update. The update is preceded by a validation of the cluster to ensure that any issues that might affect the update are identified. There are two types of updates of a cluster. A rolling update updates Data ONTAP one HA pair at a time. This type of update is performed for clusters with fewer than eight nodes or when the `-force-rolling` option is specified for clusters with eight or more nodes. A batch update is used for clusters of eight or more nodes, and performs updates of multiple HA pairs at the same time.

There are predefined points in the update when the update can be paused (either by the user or by an error).



These pause points occur after validation, after download to the boot device, after takeover has completed, and after giveback has completed.

## Parameters

### **-version <text> - Update Version**

Specifies the Data ONTAP version to use to update the cluster.

### **[-nodes {<nodename>|local}] - Node**

Specifies the nodes that are to be updated. This parameter is not supported for updates of MetroCluster configurations and for two-stage upgrades.

### **[-estimate-only <true>] - Estimate Only**

Creates a report of the steps that occur during the update without actually doing them.

### **[-pause-after {none|all}] - Update Pause**

Specifies that the update should pause at each predefined pause points (for example, after validation, after download to the boot device, after takeover, and after giveback) during the update.

### **[-ignore-validation-warning {true|false}] - Ignore Validation**

Specifies that the update should proceed even if the validation reports warnings.

### **[-skip-confirmation {true|false}] - Skip Confirmation**

Specifies that a validation that does not detect any error issues should not ask the user to confirm the update but simply proceed with the update.

### **[-force-rolling <true>] - Force Rolling Update**

This option is used for clusters with eight or more nodes to specify that a rolling update (one HA pair at a time) should be done. This parameter is not supported for single-node cluster and two-node MetroCluster.

### **[-stabilize-minutes <integer>] - Minutes to stabilize**

Specifies the number of minutes that the update should wait after a takeover or giveback is completed. This allows time for the clients to recover from the pause in I/O that occurs during takeover and giveback. This parameter is not supported for single-node cluster.

## Examples

The following example shows the update operation:

```
cluster1::> cluster image update -version 8.3
```

It can take several minutes to complete validation...

Pre-update Check	Status	Error-Action
------------------	--------	--------------

-----	-----	
-------	-------	--

CIFS status	OK	
-------------	----	--

Cluster health status	OK	
-----------------------	----	--

Cluster quorum status	OK	
-----------------------	----	--

Disk status	OK	
-------------	----	--

High Availability	OK	
-------------------	----	--

status		
--------	--	--

LIF status	OK	
------------	----	--

LIFs on home node	OK	
-------------------	----	--

status		
--------	--	--

MetroCluster	OK	
--------------	----	--

configuration status		
----------------------	--	--

SnapMirror status	OK	
-------------------	----	--

Overall Status	OK	
----------------	----	--

10 entries were displayed.

Do you want to continue? {y|n}: y

Starting update...

## cluster image validate

Validates the cluster's update eligibility

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

### Description

The `cluster image validate` command checks for issues within the cluster that might lead to problems during the update.

### Parameters

**[`-fields <fieldname>,...`]**

If you specify the `-fields <fieldname>, ...` parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**[`-version <text>`] - Update Version**

Specifies the Data ONTAP version to use to validate the cluster.

**[`-rolling <true>`] - Rolling Update**

Specify this optional parameter on a cluster with eight or more nodes to perform a rolling-update check. The default is to perform a batch-update check.



This parameter is only supported on a cluster with eight or more nodes, and is not supported for two-node MetroCluster.

### **[`-nodes {<nodename>|local}`]] - Nodes**

Specifies the nodes that are to be validated. This parameter is not supported for MetroCluster configurations and for two-stage upgrades.

## **Examples**

The following example shows the validate operation:

```
cluster1::> cluster image validate -version 8.3
```

It can take several minutes to complete validation...

Pre-update Check	Status	Error-Action
------------------	--------	--------------

-----	-----	
-------	-------	--

CIFS status	OK	
Cluster health status	OK	
Cluster quorum status	OK	
Disk status	OK	
High Availability status	OK	
LIF status	OK	
LIFs on home node	OK	
MetroCluster configuration status	OK	
SnapMirror status	OK	
Overall Status	OK	
10 entries were displayed.		

## **cluster image package delete**

Remove a package from the cluster image package repository

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

### **Description**

The `cluster image package delete` command deletes the specified version of the package from the package repository. The associated information about the package is also deleted from the update database.

### **Parameters**

#### **`-version <text>` - Version To Be Deleted**

Specifies the package version that is to be deleted.

## Examples

The following example deletes the package with version 8.3:

```
cluster1::> cluster image package delete -version 8.3
```

```
Package Delete Operation Completed Successfully
```

## cluster image package get

Fetch a package file from a URL into the cluster image package repository

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

### Description

The `cluster image package get` command fetches a Data ONTAP package file specified by the URL into the cluster. The package is stored in the cluster package repository and the information from the package is stored in the update database.

### Parameters

**-url <text> - Package URL**

Specifies the URL from which to get the package.

## Examples

The following example displays how to get a package from a URL:

```
cluster1::> cluster image package get -url http://example.com/image.tgz
```

## cluster image package show-repository

Display information about packages available in the cluster image package repository

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

### Description

The `cluster image package show-repository` command displays the package versions that are in the cluster package repository. By default, the command displays the following information:

- Package version

### Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>, ...` parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-detail ]**

This parameter specifies that detailed information should be displayed.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-download-ver <text>] - Downloaded Version**

Displays packages with the specified download version.

**[-component-name <text>,...] - Component Name**

Displays packages for the specified component.

**[-component-version <text>,...] - Component Version**

Displays packages with the specified component version.

**[-package-build-time <MM/DD/YYYY HH:MM:SS>] - Package Build Time**

Displays packages with the specified build time.

## Examples

The following example displays the packages in the cluster package repository:

```
cluster1::> cluster image package show-repository
Package Version Package Build Time
-----
8.3          9/12/2014 10:27:33
```

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