∏ NetApp

cluster image commands
Command reference

NetApp
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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-on-error state. An update can only be canceled if it is 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-on-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.

`[-skip-firmware-update-checks {true|false}]` - Skip Firmware Update Status Checks
  Specifies whether firmware update status check will be skipped or not. By default, firmware update status check will not be skipped.

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|skip-upgrade}] - 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                      Previous
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] (privilege: advanced) }

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
          Time      Dest     Task   Task   Task
Node   TID Stamp     Node     Phase  Name   Status Message
------ --- -------- -------- ------ ------ ------
                              -------------------------
node1  15  3/19/    MUM       ontap- initia ready- Created Task
           2014               update lize   to-run
           13:52:38           s
node1  15  3/19/    MUM       ontap- initia runnin Updated Task Status
           2014               update lize   g
           13:52:38           s
node1  16  3/19/    node1     ontap- do-    ready- Created Task
           2014               update downlo to-run
           13:52:38           s      ad-job
node1  16  3/19/    node1     ontap- do-    runnin Updated Task Status
           2014               update downlo g
           13:52:39           s      ad-job
node1  17  3/19/    node2     ontap- do-    ready- Created Task
           2014               update downlo to-run
           13:52:38           s      ad-job
node2  17  3/19/    node2     ontap- do-    runnin Updated Task Status
           2014               update downlo g
           13:52:38           s      ad-job
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 ]` (privilege: advanced) `}`

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
                        Trans
Phase         Transaction  Id    Component Id     Time Stamp   Status
------------- -----------  ----- ---------------- -----------
--------------
validation    initialize   50    MUM              2/18/2014    completed
                                                  10:32:57

validation    mount-image  51    node1            2/18/2014    completed
                                                  10:32:52

validation    mount-image  52    node2            2/18/2014    completed
                                                  10:32:53

validation    get-health   53    MUM              2/18/2014    completed
                                                  10:32:53

validation    run-scripts  54    node1            2/18/2014    completed
                                                  10:32:53

validation    run-scripts  55    node2            2/18/2014    completed
                                                  10:32:57

validation    unmount-     56    node1            2/18/2014    completed
              image                               10:32:57

validation    unmount-     57    node2            2/18/2014    completed
              image                               10:32:57

validation    complete-    58    MUM              2/18/2014    completed
              validation                          10:32:57

package-      cleanup-     66    node1            3/14/2014    completed
management    package                             09:11:51

package-      cleanup-     67    node2            3/14/2014    completed
management    package                             09:11:51

package-      process-     68    node1            3/14/2014    completed
management    package                             09:13:41

package-      synch-image  69    node2            3/14/2014    completed
management                                        09:14:25

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.The "firmware update" status is reflected in the following states: - not started: The firmware update process has not been initiated. - no change: The firmware update was completed without any changes. - pending: The firmware update is pending. - in progress: The firmware update is currently in progress. - completed: The firmware update is completed with changes. - error: An error occurred during the firmware update process. - aborted: The firmware update process was aborted.

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

    Displays information about progress matching the specified subsystem action.

Examples

The following example shows the cluster image validate progress of two nodes, nodeA and nodeB after executing the cluster image validation command. On the first screen it shows when the pre-update check status is *in-progress* and on the second screen it shows the pre-update checks status changed to *completed*.

```
cluster1::> cluster image show-update-progress
                                        Estimated        Elapsed
pdate Phase          Status            Duration         Duration
------------------   ----------------  ---------------  ---------------
re-update checks     in-progress                 00:10:00         00:00:13

etails:

re-update Check      Status            Error-Action
------------------   ----------------  ------------------------------
```

```
cluster1::> cluster image show-update-progress
pdate Phase          Status                       Duration         Duration
------------------   ----------------  ---------------  ---------------
re-update checks     completed                   00:10:00         00:01:09

etails:

re-update Check      Status         Error-Action
------------------   ----------     --------------------------
```

oot Menu Status	Warning	Warning: bootarg.init.bootmenu is enabled on nodes: nodeA, nodeB. The boot process of the nodes will be delayed. Action: Set the bootarg.init.bootmenu bootarg to false before proceeding with the upgrade.
anual checks	Warning	Warning: Manual validation checks need to be performed. Refer to the Upgrade Advisor Plan or the "What should I verify before I upgrade with or without Upgrade Advisor" section in the "Upgrade ONTAP" documentation for the remaining validation checks that need to be performed before update. Failing to do so can result in an update failure or an I/O disruption. Action: Refer to the Upgrade Advisor Plan or the "What should I verify before I upgrade with or without Upgrade Advisor" section in the "Upgrade ONTAP" documentation for the remaining validation checks that need to be performed before update.
FS mounts	Warning	Warning: This cluster is serving NFS clients. If NFS soft mounts are used, there is a possibility of frequent NFS timeouts and race conditions that can lead to data corruption during the upgrade. Action: Use NFS hard mounts, if possible. To list Vservers running NFS, run the following command: vserver nfs show
odes to update	list Warning	Warning: List of nodes to be upgraded: "nodeA, nodeB." Action: To upgrade all selected nodes, regardless of their current version, set the (privilege: advanced) "-skip-nodes-at-target-version" parameter to "false".

 entries were displayed.

The following example shows the cluster image validate progress of two nodes, nodeA and nodeB after

executing the cluster image validation command along with option show-validation-details. On the first screen it shows when the pre-update check status is *in-progress* . On the second screen it shows the pre-update checks status changed to *completed* .

```
cluster1::> cluster image show-update-progress
                                      Estimated        Elapsed
pdate Phase          Status                Duration        Duration
------------------  ----------------  ---------------  ---------------
re-update checks     in-progress            00:10:00        00:00:13

etails:

re-update Check      Status           Error-Action
------------------  ----------------  ------------------------------
```

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

stimated          Elapsed
pdate Phase          Status                Duration        Duration
------------------  ----------------  ---------------  ---------------
re-update checks     completed              00:10:00        00:01:08

etails:

re-update Check      Status           Error-Action
------------------  ----------------  ------------------------------
MPQ Router and       OK                N/A
roker Config
leanup
ggregate online      OK                N/A
tatus and parity
heck
ggregate plex        OK                N/A
esync status check
pplication           OK                N/A
rovisioning Cleanup
utoboot Bootargs     OK                N/A
tatus
ackend               OK                N/A
onfiguration Status
oot Menu Status      Warning           Warning: bootarg.init.bootmenu is
                                        enabled on nodes: nodeA,
                                        nodeB. The boot process
                                        of the nodes will be delayed.
                                        Action: Set the
```

		bootarg.init.bootmenu bootarg to false before proceeding with the upgrade.
roadcast Domain vailability and niqueness for HA air status	OK	N/A
IFS compatibility tatus check	OK	N/A
LAM quorum online tatus check	OK	N/A
PU Utilization tatus	OK	N/A
apacity licenses nstall status check	OK	N/A
heck For SP/BMC onnectivity To odes	OK	N/A
heck LDAP fastbind sers using nsecure connection.	OK	N/A
heck for unsecure ex algorithm onfigurations.	OK	N/A
heck for unsecure ac configurations.	OK	N/A
loud keymanager onnectivity check	OK	N/A
luster health and ligibility status	OK	N/A
luster quorum tatus check	OK	N/A
luster/management witch check	OK	N/A
ompatible New mage Check	OK	N/A
urrent system ersion check if it s susceptible to ossible outage uring NDU	OK	N/A
ata ONTAP Version nd Previous pgrade Status	OK	N/A
ata aggregates HA olicy check	OK	N/A

isk status check or failed, broken r non-compatibility	OK	N/A
uplicate Initiator heck	OK	N/A
ncryption key igration status heck	OK	N/A
xternal ey-manager with egacy KMIP client heck	OK	N/A
xternal keymanager ey server status heck	OK	N/A
abricpool Object tore Availability	OK	N/A
igh Availability onfiguration tatus check	OK	N/A
nfinite Volume vailibility check	OK	N/A
IF failover apability status heck	OK	N/A
IF health check	OK	N/A
IF load balancing tatus check	OK	N/A
IFs is on home ode status	OK	N/A
ogically over llocated DP olumes check	OK	N/A
anual checks that an be done using pgrade ONTAP ocumentation	Warning	Warning: Manual validation checks need to be performed. Refer to the Upgrade Advisor Plan or the "What should I verify before I upgrade with or without Upgrade Advisor" section in the "Upgrade ONTAP" documentation for the remaining validation checks that need to be performed before update. Failing to do so can result in an update failure or an I/O disruption. Action: Refer to the Upgrade

		Advisor Plan or the "What should I verify before I upgrade with or without Upgrade Advisor" section in the "Upgrade ONTAP" documentation for the remaining validation checks that need to be performed before update.
etroCluster onfiguration tatus check for ompatibility	OK	N/A
inimum number of ggregate disks heck	OK	N/A
ulti-Admin upgrade alidation checks	OK	N/A
AE Aggregate and VE Volume ncryption Check	OK	N/A
DMP sessions check	OK	N/A
FS mounts status heck	Warning	Warning: This cluster is serving NFS clients. If NFS soft mounts are used, there is a possibility of frequent NFS timeouts and race conditions that can lead to data corruption during the upgrade. Action: Use NFS hard mounts, if possible. To list Vservers running NFS, run the following command: vserver nfs show
ame Service onfiguration DNS heck	OK	N/A
ame Service onfiguration LDAP heck	OK	N/A
etwork port eachability check	OK	N/A
ode to SP/BMC onnectivity check	OK	N/A
odes to update list	Warning	Warning: List of nodes to be upgraded: "nodeA, nodeB." Action: To upgrade all selected nodes, regardless of their current version, set the

		(privilege: advanced) "-skip-nodes-at-target-version" parameter to "false".
KM/KMIP enabled ystems - Missing eys check	OK	N/A
NTAP API to REST ransition warning	OK	N/A
NTAP Image apability Status	OK	N/A
penSSL 3.0.x pgrade validation heck	OK	N/A
penssh 7.2 upgrade alidation check	OK	N/A
latform Health onitor check	OK	N/A
re-Update onfiguration erification	OK	N/A
DB Replica Health heck	OK	N/A
eplicated database chema consistency heck	OK	N/A
unning Jobs Status	OK	N/A
AN LIF association tatus check	OK	N/A
AN compatibility or manual onfigurability heck	OK	N/A
AN kernel agent tatus check	OK	N/A
ecure Purge peration Check	OK	N/A
helves and Sensors heck	OK	N/A
napLock Version heck	OK	N/A
napMirror ynchronous elationship status heck	OK	N/A
napMirror ompatibility	OK	N/A

```
tatus check
upported platform    OK                  N/A
heck
arget ONTAP          OK                  N/A
elease support for
iberBridge 7500N
heck
pgrade Version       OK                  N/A
ompatibility Status
erify all bgp        OK                  N/A
eer-groups are in
he up state
erify if a cluster   OK                  N/A
anagement LIF
xists
erify that e0M is    OK                  N/A
ome to no LIFs
ith high speed
ervices.
olume Conversion     OK                  N/A
n Progress Check
olume move           OK                  N/A
rogress status
heck
olume online         OK                  N/A
tatus check
SCSI target portal   OK                  N/A
roups status check
verall Status        Warning             Warning
8 entries were displayed.
```

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        Elapsed
Update Phase        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        Elapsed
Update Phase         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       Error           Error: Cluster is not in quorum.
Status
                                     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        Elapsed
Update Phase         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 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
                   Current                      Installation
Node               Version                      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 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 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 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 MetroCluster configurations updates or two-stage upgrades. The node upgrade sequence does not follow the node order entered in `cluster image update` command

`[-estimate-only <true>]` - Estimate Only

Creates a report of the steps that occur during the update without performing them precisely.

`[-pause-after {none|takeover-giveback|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.

`[-show-validation-details <true>]` - Shows All Validation Details

Specify to display all validation details. Default: do not display all details.

`[-skip-nodes-at-target-version <true>]` - Skip Nodes at Target Version (privilege: advanced)

When this parameter is *true*, only the nodes which are not running the target version are upgraded. Nodes which are currently running the target version are skipped. The default value is *true*. This parameter cannot be set to true in MetroCluster configurations.

Examples

The following example shows the cluster image update operation. configuration having node nodeA and nodeB.

```
cluster1::> cluster image update -version 9.16.1
```

```
Starting validation for this update...

It can take several minutes to complete validation...

WARNING: There are additional manual upgrade validation checks that must
be performed after these automated validation checks have completed
successfully.
Refer to the Upgrade Advisor Plan or the "What should I verify before I
upgrade with or without Upgrade Advisor" section in the "Upgrade ONTAP"
documentation for the remaining manual validation checks that need to be
performed before update.
During ONTAP upgrade, the system firmware (BIOS and LOADER firmware)
in the boot media will be replaced with the system firmware in the target
ONTAP package, only if the ONTAP package contains later versions.
Prior to 9.17.1, system firmware in the boot media was always replaced
with the system firmware in the target ONTAP package.
Upgrade ONTAP documentation available at: https://docs.netapp.com/us-
en/ontap/upgrade/index.html
The list of checks are available at: https://docs.netapp.com/us-
en/ontap/upgrade/task_what_to_check_before_upgrade.html
Failing to do so can result in an update failure or an I/O disruption.
Please use Interoperability Matrix Tool (IMT
http://mysupport.netapp.com/matrix)
to verify host system supportability configuration information.


 Pre-update Check          Status          Error-Action
 ----------------------    --------        ───────────────────────────────
 Boot Menu Status          Warning         Warning: bootarg.init.bootmenu
                                           is enabled on nodes:
                                           nodeA,
                                           nodeB. The boot
                                           process of the nodes will be
                                           delayed.
                                           Action: Set the
                                           bootarg.init.bootmenu bootarg
                                           to false before proceeding with
                                           the upgrade.
 Manual checks             Warning         Warning: Manual validation
                                           need to be performed.
                                           Refer to the Upgrade Advisor
                                           Plan or the "What should I
                                           verify before I upgrade with or
                                           without Upgrade Advisor"
                                           section in the "Upgrade ONTAP"
                                           documentation for the remaining
```

		validation checks that need to be performed before update. Failing to do so can result in an update failure or an I/O disruption. Action: Refer to the Upgrade Advisor Plan or the "What should I verify before I upgrade with or without Upgrade Advisor" section in the "Upgrade ONTAP" documentation for the remaining validation checks that need to be performed before update.
NFS mounts	Warning	Warning: This cluster is serving NFS clients. If NFS soft mounts are used, there is a possibility of frequent NFS timeouts and race conditions that can lead to data corruption during the upgrade. Action: Use NFS hard mounts, if possible. To list Vservers running NFS, run the following command: vserver nfs show
Nodes to update list	Warning	Warning: List of nodes to be upgraded: "nodeA, nodeB." Action: To upgrade all selected nodes, regardless of their current version, set the (privilege: advanced) "-skip-nodes-at-target-version" parameter to "false".
Overall Status	Warning	

5 entries were displayed.
Warning: Validation has reported warnings.

Do you want to continue? {y|n}:
Starting update...
Info: Run the "cluster image show-update-progress" command to check update status.

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 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.

[-show-validation-details <true>] - Shows All Validation Details

Specify to display all validation details. Default: do not display all details.

[-skip-nodes-at-target-version <true>] - Skip Nodes at Target Version (privilege: advanced)

Specifies that the validation will skip the nodes which are already running target version. Default: true.

Examples

The following example shows the validate operation:

```
cluster1::> cluster image validate -version 9.16.1

It can take several minutes to complete validation...

WARNING: There are additional manual upgrade validation checks that must
be performed after these automated validation checks have completed
successfully. Refer to the Upgrade Advisor Plan or the "What should I
verify before I upgrade with or without Upgrade Advisor" section in the
"Upgrade ONTAP" documentation for the remaining manual validation checks
that need to be performed before update.
Upgrade ONTAP documentation available at: https://docs.netapp.com/us-
en/ontap/upgrade/index.html
The list of checks are available at: https://docs.netapp.com/us-
en/ontap/upgrade/task_what_to_check_before_upgrade.html
Failing to do so can result in an update failure or an I/O disruption.
Please use Interoperability Matrix Tool
(IMT  http://mysupport.netapp.com/matrix) to verify host system
supportability configuration information.

Validation checks started. Run the "cluster image show-update-progress"
command to check validation status.
```

The following example shows the validate operation with validation details:

```
cluster1::> cluster image validate -version 9.16.1 -show-validation
-details

It can take several minutes to complete validation...

WARNING: There are additional manual upgrade validation checks that must
be performed after these automated validation checks have completed
successfully.
Refer to the Upgrade Advisor Plan or the "What should I verify before
I upgrade with or without Upgrade Advisor" section in the
"Upgrade ONTAP" documentation for the remaining manual validation
checks that need to be performed before update.
Upgrade ONTAP documentation available at: https://docs.netapp.com/us-
en/ontap/upgrade/index.html
The list of checks are available at: https://docs.netapp.com/us-
en/ontap/upgrade/task_what_to_check_before_upgrade.html
Failing to do so can result in an update failure or an I/O disruption.
Please use Interoperability Matrix Tool
(IMT  http://mysupport.netapp.com/matrix) to verify host system
supportability configuration information.

Validation checks started.  Run the "cluster image show-update-progress"
command to check validation status.
```

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 an 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
```