



snapmirror mediator commands

ONTAP 9.15.1 commands

NetApp
December 18, 2024

Table of Contents

- snapmirror mediator commands 1
 - snapmirror mediator add 1
 - snapmirror mediator remove 2
 - snapmirror mediator show 2
 - snapmirror mediator primary-bias show 3
 - snapmirror mediator primary-bias history show 5
 - snapmirror mediator tba-history show 6

snapmirror mediator commands

snapmirror mediator add

Create mediator config entry

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

Description

The `snapmirror mediator add` command configures the connection between a pair of clusters and an ONTAP Mediator. It is mandatory to initialize the ONTAP Mediator on one of the cluster peers before the SnapMirror active sync relation with policy type *automated-failover* performs a planned or an unplanned failover. You can initialize the ONTAP Mediator from either cluster. When you issue the ONTAP Mediator add command on one cluster, the ONTAP Mediator is automatically added on the other cluster.

Parameters

-mediator-address <IP Address> - Mediator Ip Address

Specifies the IP address of the mediator.

-peer-cluster <text> - Peer cluster

Peer cluster with AutomatedFailOver SnapMirror relationships.

-username <text> - Username

User account at the mediator.

[-port-number <integer>] - Port Number

This optional parameter specifies the mediator service port number to communicate with the mediator. The port number must be in the range 1025 to 65535 inclusive. The default port number is 31784.

Examples

The following example configures the connection between a mediator and a pair of clusters.

```
clusA::> snapmirror mediator add -mediator-address 10.234.102.227 -peer
-cluster clusB -username admin
Notice: Enter the mediator password.
Enter the password:
        Enter the password again:
Info: [Job: 114] 'mediator add' job queued
```

snapmirror mediator remove

Remove mediator config entry

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

Description

The `snapmirror mediator remove` command deletes a mediator configuration entry.

Parameters

-mediator-address <IP Address> - Mediator Ip Address

Specifies the IP address of the mediator.

-peer-cluster <text> - Peer cluster

Peer cluster with AutomatedFailOver SnapMirror relationships.

Examples

The following example removes a mediator configuration entry.

```
clusA::> snapmirror mediator remove -mediator-address 10.140.102.227 -peer
-cluster clusB
Info: [Job 36] 'mediator remove' job queued
```

snapmirror mediator show

Show mediator information

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

Description

The `snapmirror mediator show` command shows the status of the ONTAP Mediator configuration.

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.

[-mediator-address <IP Address>] - Mediator IP Address

Ip address of the mediator.

[-peer-cluster <text>] - Peer Cluster Name

Peer cluster name.

[-connection-status

{connected|unreachable|suspended|unusable|misconfigured|removing|not-configured|unknown|adding}] - Connection Status

Connection status of the cluster with the mediator.

[-quorum-status {unknown|true|false}] - Mediator Quorum Status

Shows whether the SnapMirror Consistency Group relationships are synchronized with mediator.

[-health-fetch-timeout <integer>] - Peer Health Fetch Timeout

Timeout value (in seconds) for peer-cluster health fetch via mediator.

[-connection-timeout <integer>] - Connection Timeout

Timeout value (in seconds) for mediator connection.

Examples

The following example shows the list of mediator configurations.

```
clusA::*> snapmirror mediator show
  Mediator Address Peer Cluster      Connection Status Quorum Status
  -----
  10.140.102.227  clusB          unreachable         true
clusA::*> snapmirror mediator show -instance
Mediator Uuid: 416fbdee-c982-11e9-9034-005056a7124c
Mediator IP Address: 10.140.102.227
Peer Cluster: clusB
Peer Cluster Uuid: 771d9b13-c973-11e9-928e-005056a7a882
Connection Status: unreachable
Quorum Status: true
Health Fetch Timeout: 5
Connection Timeout: 5
```

snapmirror mediator primary-bias show

Show Primary Bias Status

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

Description

The `snapmirror mediator primary-bias show` command shows the status of primary-bias. This command is applicable when mediator status is shown as unreachable/misconfigured from both primary and secondary cluster.

This will also show the state corresponding to each CG endpoint residing on the given cluster. Slave CG endpoints will show the state of "Failover disabled". Master CG endpoints will show the state of Primary-bias activation.

The status of primary-bias can be one of the following. + primary-bias-activated - represents the state that allows master endpoints to assume the I/O serving authority + primary-bias-not-activated - represents the state that mediator is reachable from primary and secondary clusters and IO serving authority set to default + mediator-engaged-for-failover - represents the state that mediator is engaged and Failover on slave endpoints is possible + mediator-disengaged-for-failover - represents the setting of the intermediate state preventing Failover on slave endpoints of a CG +

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.

[-cg-path

{<[vserver:] [volume]>|<[[cluster:]//vserver/]volume>|<hostip:/lun/name>|<hostip:/share/share-name>|<[vserver:]/cg/[app-cgname]>}} - Cg Path

CG path.

[-cg-role {destination|source}] - Role

Indicates if CG is primary or secondary on local cluster.

[-mb-state {Primary bias activated. Mediator Disengaged|Primary bias not-activated. Mediator engaged|Mediator disengaged for failover|Mediator engaged for failover}] - MB state

Primary bias State.

Examples

The following example shows the status of primary bias

```
cluster1:> snapmirror mediator primary-bias show
CG Path           Role           Status
-----
vs1:/cg/dcg       destination    mediator-engaged-for-failover
```

snapmirror mediator primary-bias history show

Show Primary Bias History

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

Description

The `snapmirror mediator primary-bias history show` command shows the history of Primary bias events.

The setting/clearing of the Primary Bias states (including the intermediate state) will be logged as event history per CG endpoint in the "snapmirror mediator primary bias history" command. The "mediator-engaged/disengaged-for-failover" actions will represent the setting/clearing of the intermediate state preventing Failover on slave endpoints of a CG. The "primary-bias-activated/not-activated" will represent the state that allows master endpoints to assume the I/O serving authority.

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.

`[-cg-path`

`<[vserver:] [volume]>|<[[cluster:]//vserver/]volume>|<hostip:/lun/name>|<hostip:/share/share-name>|<[vserver:]/cg/[app-cgname]>}] - Cg Path`

CG path.

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

Time of event

`[-action {Primary bias activated. Mediator Disengaged|Primary bias not-activated. Mediator engaged|Mediator disengaged for failover|Mediator engaged for failover}]`

- Event

Primary bias event.

Examples

The following example shows the history output

```

C1_sti7-vsimgucs569m_cluster::*> snapmirror mediator primary-bias history
show -cg-path vs0:/cg/scg
  CG Path          Time                Action
  -----
vs0:/cg/scg      7/25/2022 10:33:28
                  primary-bias-activated
vs0:/cg/scg      7/25/2022 22:42:33
                  primary-bias-not-activated
  2 entries were displayed.
C1_sti7-vsimgucs569m_cluster::*>

```

snapmirror mediator tba-history show

Show Mediator Agent Event History

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

Description

The `snapmirror mediator tba-history show` command shows the history of the ONTAP Mediator Agent events..

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.

[-cg-rel-uuid <UUID>] - Cg Relationship Uuid

Cg Relationship Uuid.

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

Mediator Agent Task Start Time.

[-token-num <integer>] - Token Number

Token Number.

[-cg-path

{<[vserver:] [volume]>|<[[cluster:]//vserver/]volume>|<hostip:/lun/name>|<hostip:/share/share-name>|<[vserver:]/cg/[app-cgname]>} - Cg Path

Cg Path.

[-aux-generation-num <integer>] - Auxillary Generation Number

Auxillary Generation Number.

[-cg-rel-task <text>] - TBA Task Type

Mediator Agent Task Type.

[-cg-rel-state {invalid-state|waiting|task-processing|task-complete}] - Cg Management State

Cg Management State.

[-end-time <MM/DD/YYYY HH:MM:SS>] - TBA Task End Time

Mediator Agent Task End Time.

[-cg-rel-action {invalid|none|continue|stop|failover-incapable|auto-failover|success|failed|mismatch|retry|success-pending|stop-pending|continue-pending|failover-incapable-pending|try-failover-incapable-ic|try-failover-incapable-med|try-auto-failover}] - Cg Management Action

Cg Management Action.

[-errCode <integer>] - Error Code for Task Failure

Error Code for Task Failure.

Examples

The following example shows the list of mediator configurations.

```

C1_sti89-vsim-ucs525q_cluster::> snapmirror mediator tba-history show
      (snapmirror mediator tba-history show)
      Path          Token API   Event   Start Time  State      End Time
Action
-----
vs0:/cg/cg1_src 5   4      Process Set Resync Context 4/28/2021
11:09:52 task-complete 4/28/2021 11:09:52 continue
vs0:/cg/cg1_src 6   1      Process Master InSync 4/28/2021 11:10:08
task-complete 4/28/2021 11:10:08 success
2 entries were displayed.
C1_sti89-vsim-ucs525q_cluster::> snapmirror mediator tba-history
show -instance
Cg Relationship Uuid: ad49a4f1-a833-11eb-9846-005056a7c906
      Mediator Agent Task Start Time: 4/28/2021 11:09:52
      Token Number: 5
      Cg Path: vs0:/cg/cg1_src
Auxillary Generation Number: 4
      Mediator Agent Task Type: Process Set Resync Context
      Cg Management State: task-complete
Mediator Agent Task End Time: 4/28/2021 11:09:52
      Cg Management Action: continue
Error Code for Task Failure: 0
Cg Relationship Uuid: ad49a4f1-a833-11eb-9846-005056a7c906
      Mediator Agent Task Start Time: 4/28/2021 11:10:08
      Token Number: 6
      Cg Path: vs0:/cg/cg1_src
Auxillary Generation Number: 1
      Mediator Agent Task Type: Process Master InSync
      Cg Management State: task-complete
Mediator Agent Task End Time: 4/28/2021 11:10:08
      Cg Management Action: success
Error Code for Task Failure: 0

```

Copyright information

Copyright © 2024 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.