



cluster kernel-service commands

ONTAP 9.13.1 commands

NetApp
February 11, 2024

Table of Contents

- cluster kernel-service commands 1
 - cluster kernel-service show 1
 - cluster kernel-service config modify 2
 - cluster kernel-service config show 3

cluster kernel-service commands

cluster kernel-service show

Display cluster service state in the kernel

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

Description

The ``cluster kernel-service show`` command displays the following information from the master node for each node in the cluster:

- Node name
- The quorum status of that node
- The availability status of that node
- The operational status of that node

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.

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

The node in the cluster where the information be being reported from. If this parameter is not specified, the command displays information about all nodes in the cluster.

[-cluster-node <text>] - Cluster Node (privilege: advanced)

The node in the cluster that the information listed is regarding. If this parameter is specified, the command displays information only about the nodes with the specified state value.

[-status-quorum {out-of-quorum|in-quorum}] - Quorum Status (privilege: advanced)

The quorum status of the node specified by `-cluster-node` . If this parameter is specified, the command displays information only about the nodes with the specified state value.

[-status-avail {false|true|unknown}] - Availability Status (privilege: advanced)

The availability status of the node specified by `-cluster-node` . If this parameter is specified, the command displays information only about the nodes with the specified state value.

[-status-oper {unknown|operational|not-operational}] - Operational Status (privilege: advanced)

The operational status of the node specified by `-cluster-node` . If this parameter is specified, the

command displays information only about the nodes with the specified state value.

Examples

The following example displays information about all nodes in the cluster:

```
cluster1::*> cluster kernel-service show
Master          Cluster          Quorum          Availability
Operational
Node            Node            Status          Status          Status
-----
cluster1-01     cluster1-01     in-quorum       true
operational
cluster1-02     cluster1-02     in-quorum       true
operational
2 entries were displayed.

cluster1::*> cluster kernel-service show -instance
Master Node: cluster1-01
      Cluster Node: cluster1-01
      Quorum Status: in-quorum
Availability Status: true
Operational Status: operational
Master Node: cluster1-01
      Cluster Node: cluster1-02
      Quorum Status: in-quorum
Availability Status: true
Operational Status: operational
2 entries were displayed.
```

cluster kernel-service config modify

Modify cluster service state in the kernel

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

Description

The `cluster kernel-service config modify` used to manage the cluster kernel-service subsystem for a node.

Parameters

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

The node in the cluster where the configuration is being modified.

`[-kcs-enable-takeover {true|false}]` - Initiated Takeover Enabled (privilege: advanced)

This indicates whether the kernel service subsystem for this node will initiate a takeover of any node determined to be *out of quorum* if allowed by the HA subsystem.

Examples

```
cluster1::*> cluster kernel-service config modify -node cluster1-01 -kcs
-enable-core false
```

cluster kernel-service config show

Display cluster service state in the kernel

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

Description

The `cluster kernel-service config show` is used to display the configuration of the cluster kernel service subsystem for one or more nodes.

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)

The node in the cluster where the information be being reported from. If this parameter is not specified, the command displays information about all nodes in the cluster.

`[-clam-master-id <integer>]` - CLAM Master Node ID (privilege: advanced)

The node ID of the master node for the cluster. If this parameter is specified, the command displays information only about the nodes with the specified state value.

`[-kcs-enable-takeover {true|false}]` - Initiated Takeover Enabled (privilege: advanced)

Indicates if the distributed kernel service subsystem will initiate a takeover of any node determined to be *out of quorum* if the HA subsystem allows it. If this parameter is specified, the command displays information only about the nodes with the specified state value.

`[-kcs-enabled {true|false}]` - KCS Enabled (privilege: advanced)

The state of the kernel service subsystem on the specified node. If this parameter is specified, the command displays information only about the nodes with the specified state value.

[-quorum-epoch <integer>] - Quorum Epoch (privilege: advanced)

The number of quorum changes for this node.

Examples

```
cluster1::*> cluster kernel-service config show
Node                               Failover Core   Master          FSM
                                Enabled Enabled Enabled Node      State
-----
cluster1-01      true      false   false   cluster1-01   Master:
Waiting for heartbeat timeout
cluster1-02      true      false   false   cluster1-01   Non-Master:
Waiting for backoff timeout
2 entries were displayed.

cluster1::*> cluster kernel-service config show -instance
Node: cluster1-01
                Master Node: cluster1-01
                Master Node ID: 1000
                Enabled: true
                Initiated Takeover Enabled: false
Initiated Core on Takeover Enabled: false
                Current FSM State: Master: Waiting for heartbeat timeout
                Running Version: 1
                Quorum Epoch: 115
                Voting Status: false
                CHAAQ Enabled: true
Node: cluster1-02
                Master Node: cluster1-01
                Master Node ID: 1000
                Enabled: true
                Initiated Takeover Enabled: false
Initiated Core on Takeover Enabled: false
                Current FSM State: Non-Master: Waiting for backoff
timeout
                Running Version: 1
                Quorum Epoch: 115
                Voting Status: false
                CHAAQ Enabled: true

2 entries were displayed.
```

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.