autobalance commands
ONTAP 9.13.1 commands

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autobalance aggregate show-aggregate-state

Display the Auto Balance Aggregate state for an aggregate

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

**Description**

The `autobalance aggregate show-aggregate-state` command displays information about an aggregate state that is considered by the Auto Balance Aggregate feature.

**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 Name (privilege: advanced)
  If this parameter is specified, the display will be limited to only those aggregates with a node that matches the specified value.

|-aggregate <aggregate name>] - Name of the Aggregate (privilege: advanced)
  If this parameter is specified, the display will be limited to only that aggregate with a name that matches the specified value.

|-total-size {<integer>[KB|MB|GB|TB|PB]} - Total Size of the Aggregate (privilege: advanced)
  If this parameter is specified, the display will be limited to only those aggregates with a total-size that matches the specified value.

|-used-size {<integer>[KB|MB|GB|TB|PB]} - Used Size of the Aggregate (privilege: advanced)
  If this parameter is specified, the display will be limited to only those aggregates with a used-size that matches the specified value.

|-aggregate-unbalanced-threshold {<integer>[KB|MB|GB|TB|PB]} - Threshold When Aggregate Is Considered Unbalanced (privilege: advanced)
  If this parameter is specified, the display will be limited to only those aggregates with a threshold that matches the specified value.

|-outgoing-size {<integer>[KB|MB|GB|TB|PB]} - Size of Outgoing Volumes in the Aggregate (privilege: advanced)
  If this parameter is specified, the display will be limited to only those aggregates with an outgoing-size that matches the specified value. Outgoing size will be equal to the total size of the volumes that move away from each one of those aggregate.
If this parameter is specified, the display will be limited to only those aggregates with an incoming-size that matches the specified value. Incoming size will be equal to the total size of the volumes that move towards each one of those aggregates.

If this parameter is specified, the display will be limited to only those aggregates with a raidtype that matches the specified value.

If this parameter is specified, the display will be limited to only those aggregates with a home-cluster ID that matches the specified value.

If this parameter is specified as true, the display will be limited to only hybrid aggregates. If the parameter is specified as false, the display will be limited to only non-hybrid aggregates.

When you use thin provisioning for a volume, it can run out of space even if it has not yet consumed its nominal size and you should carefully monitor space utilization to avoid unexpected errors due to the volume running out of space. If this parameter is specified as true, the display will be limited to only those aggregates which are the target of a move of thin volume. If the parameter is specified as false, the display will be limited to only those aggregates which are not the target of a move of thin volume.

If this parameter is specified as true, the display will be limited to only balanceable aggregates. If the parameter is specified as false, the display will be limited to only non-balanceable aggregates.

If this parameter is specified as true, the display will be limited to only those aggregates which are target of a volume move. If the parameter is specified as false, the display will be limited to only those aggregates which are not the target of a volume move.

If this parameter is specified, the display will be limited to only those aggregates with attributes that matches the specified values.

If this parameter is specified, the display will be limited to only those aggregates which meet the specified threshold to be considered as balanced.

**Examples**

The following example displays information about the state for all aggregates in the cluster.
cluster1::*> autobalance aggregate show-aggregate-state
    Aggregate: aggr0
    Total Size: 4.78GB
    Used Size: 4.56GB
    Outgoing Size: 0B
    Incoming Size: 0B
    Aggregate Used Space Threshold: 3.34GB
    Aggregate Available Space Threshold: 1.91GB
    RAID Type: raid_dp
    Home Cluster ID: edf0379b-16da-11e6-aa3c-0050568558c2
    Attributes: CFO
                Excluded
                Mroot

Aggregate: aggr_1
    Total Size: 12.61GB
    Used Size: 111.6MB
    Outgoing Size: 0B
    Incoming Size: 0B
    Aggregate Used Space Threshold: 8.83GB
    Aggregate Available Space Threshold: 5.04GB
    RAID Type: raid4
    Home Cluster ID: edf0379b-16da-11e6-aa3c-0050568558c2
    Attributes: Excluded

The following example displays information about all entries of the aggregate state, for all aggregates in the cluster.


<table>
<thead>
<tr>
<th>Node Name</th>
<th>Name of the Aggregate</th>
<th>Total Size of the Aggregate</th>
<th>Used Size of the Aggregate</th>
<th>Threshold When Aggregate Is Considered Unbalanced</th>
<th>Size of Outgoing Volumes in the Aggregate</th>
<th>Size of Incoming Volumes in the Aggregate</th>
<th>RAID Type</th>
<th>Home Cluster ID</th>
<th>Aggregate Is a Hybrid</th>
<th>An Incoming Volume Is Thin</th>
<th>Is Balanceable</th>
<th>Aggregate Is a Volume Move Target</th>
<th>Aggregate Attributes</th>
<th>Threshold When Aggregate Is Considered Balanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>cluster-1-01</td>
<td>aggr0</td>
<td>4.78GB</td>
<td>4.56GB</td>
<td>3.34GB</td>
<td>0B</td>
<td>0B</td>
<td>raid_dp</td>
<td>edf0379b-16da-1le6-aa3c-0050568558c2</td>
<td>false</td>
<td>false</td>
<td>false</td>
<td>false</td>
<td>false</td>
<td>CFO, Excluded, Mroot</td>
</tr>
<tr>
<td>cluster-1-01</td>
<td>aggr_1</td>
<td>12.61GB</td>
<td>111.6MB</td>
<td>8.83GB</td>
<td>0B</td>
<td>0B</td>
<td>raid4</td>
<td>edf0379b-16da-1le6-aa3c-0050568558c2</td>
<td>false</td>
<td>false</td>
<td>false</td>
<td>false</td>
<td>false</td>
<td>Excluded</td>
</tr>
</tbody>
</table>

**autobalance aggregate show-unbalanced-volume-state**

Display the Auto Balance Aggregate state for a volume

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

**Description**

The **autobalance aggregate show-unbalanced-volume-state** command displays information about a volume that is considered by the Auto Balance Aggregate feature.
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 Name (privilege: advanced)
If this parameter is specified, the display will be limited to only those volumes with a node that matches the specified value.

-DSID <integer>] - DSID of the Last Volume Queried (privilege: advanced)
If this parameter is specified, the display will be limited to only those volumes with a DSID that matches the specified value.

-aggregate <aggregate name>] - Aggregate (privilege: advanced)
If this parameter is specified, the display will be limited to only those volumes with an aggregate name that matches the specified value.

-volume-name <text>] - Name of the Volume (privilege: advanced)
If this parameter is specified, the display will be limited to only that volume with a name that matches the specified value.

If this parameter is specified, the display will be limited to only those volumes with a threshold crossing time that matches the specified value.

-last-placed-time <MM/DD/YYYY HH:MM:SS>] - Last Time Volume Was Moved (privilege: advanced)
If this parameter is specified, the display will be limited to only those volumes with a last time they have been moved that matches the specified value.

-is-moving {true|false}] - Is Volume Currently Moving (privilege: advanced)
If this parameter is specified as true, the display will be limited to only the moving volumes. If the parameter is specified as false, the display will be limited to only the non-moving volumes.

-is-quiesced {true|false}] - Is Volume Quiesced (privilege: advanced)
If this parameter is specified as true, the display will be limited to only the quiesced volumes. If the parameter is specified as false, the display will be limited to only the non-quiesced volumes.

-total-footprint (<integer>[KB|MB|GB|TB|PB])] - Total Size of the Volume (privilege: advanced)
If this parameter is specified, the display will be limited to only those volumes with a total footprint that matches the specified value.

-attributes <text>,…] - Volume's Attributes (privilege: advanced)
If this parameter is specified, the display will be limited to only those volumes with attributes that matches the specified value.
[-last-checked <MM/DD/YYYY HH:MM:SS>] - Last Time Volume State Was Checked (privilege: advanced)

If this parameter is specified, the display will be limited to only those volumes with a last time their state was checked that matches the specified value.

Examples

The following example display information about all of the unbalanced volumes that the Auto Balance Aggregate feature is aware of.

```
cluster1::*> autobalance aggregate show-unbalanced-volume-state
    Last Checked On: 3/13/2014 14:32:01
Volume: ro10
    Footprint: 20.20MB
Last Time Over IOPS Threshold: 3/12/2014 16:20:18
    Last Placed: 3/11/2014 10:16:04
    Attributes: Over IOPS Threshold
                Stabilizing
Volume: test
    Footprint: 20.20MB
Last Time Over IOPS Threshold: 3/12/2014 16:20:18
    Last Placed: 3/11/2014 10:16:42
    Attributes: Over IOPS Threshold
                In Mirror
                Stabilizing
```

The following example displays all of the information that the Auto Balance Aggregate feature has collected for all of the unbalanced volumes it is aware of.
autobalance aggregate config modify

Modify the Auto Balance Aggregate feature configuration

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

Description

The autobalance aggregate config modify command allows the user to customize the parameters that determine when volumes should be considered for automatic move or recommendation by the Auto Balance Aggregate feature.

Parameters

[-is-enabled {true|false}] - Is the Auto Balance Aggregate Feature Enabled (privilege: advanced)

This specifies whether the Auto Balance Aggregate feature is enabled and running.
[-aggregate-unbalanced-threshold-percent <integer>] - Threshold When Aggregate Is Considered Unbalanced (%) (privilege: advanced)

This specifies the space used threshold percentage that will cause the Auto Balance Aggregate feature to consider an aggregate as unbalanced.

[-aggregate-available-threshold-percent <integer>] - Threshold When Aggregate Is Considered Balanced (%) (privilege: advanced)

This specifies the threshold percentage which will determine if an aggregate is a target destination for a move. The Auto Balance Aggregate feature will attempt to move volumes from an unbalanced aggregate until it is under this percentage.

Examples

The following example displays a modification for the default configuration of the Auto Balance Aggregate feature

```
cluster1::*> autobalance aggregate config show
    Is the Auto Balance Aggregate Feature Enabled: false
    Threshold When Aggregate Is Considered Unbalanced (%): 70
    Threshold When Aggregate Is Considered Balanced (%): 40
cluster1::*> autobalance aggregate config modify -is-enabled true
cluster1::*> autobalance aggregate config show
    Is the Auto Balance Aggregate Feature Enabled: true
    Threshold When Aggregate Is Considered Unbalanced (%): 70
    Threshold When Aggregate Is Considered Balanced (%): 40
```

autobalance aggregate config show

Display the Auto Balance Aggregate feature configuration

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

Description

The autobalance aggregate config show command displays information about parameters that determine when volumes should be considered for automatic move or recommendation by the Auto Balance Aggregate feature.

Examples

The following example displays the default configuration for the Auto Balance Aggregate feature

```
cluster1::*> autobalance aggregate config show
    Is the Auto Balance Aggregate Feature Enabled: false
    Threshold When Aggregate Is Considered Unbalanced (%): 70
    Threshold When Aggregate Is Considered Balanced (%): 40
```