Performing diagnostic actions for volume offline conditions

OnCommand Unified Manager 9.5

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After navigating to the Health/Volume details page of a volume reported to be offline, you can search for additional information helpful to diagnosing the volume offline condition.

Before you begin

You must have the Operator, OnCommand Administrator, or Storage Administrator role.

About this task

If the volume that is reported offline was not taken offline deliberately, that volume might be offline for several reasons.

Starting at the offline volume's Health/Volume details page, you can navigate to other pages and panes to confirm or eliminate possible causes:

Choices

- Click **Health/Volume** details page links to determine if the volume is offline because its host node is down and storage failover to its HA pair partner has failed also.

  See Determining if a volume offline condition is caused by a down node.

- Click **Health/Volume** details page links to determine if the volume is offline and its host storage virtual machine (SVM) is stopped because the node hosting the root volume of that SVM is down.

  See Determining if a volume is offline and SVM is stopped because a node is down.

- Click **Health/Volume** details page links to determine if the volume is offline because of broken disks in its host aggregate.

  See Determining if a volume is offline because of broken disks in an aggregate.

Determining if a volume is offline because its host node is down

You can use the Unified Manager web UI to confirm or eliminate the possibility that a volume is offline because its host node is down and that storage failover to its HA pair partner is unsuccessful.

Before you begin

You must have the Operator, OnCommand Administrator, or Storage Administrator role.

About this task

To determine if the volume offline condition is caused by failure of the hosting node and subsequent unsuccessful storage failover, perform the following actions:

Steps

1. Locate and click the hypertext link displayed under SVM in the **Related Devices** pane of the offline volume's **Health/Volume** details page.

   The Health/Storage Virtual Machine details page displays information about the offline volume's hosting storage virtual machine (SVM).

2. In the **Related Devices** pane of the **Health/Storage Virtual Machine** details page, locate and click hypertext link displayed under Volumes.

   The Health/Volumes inventory page displays a table of information about all the volumes hosted by the SVM.

3. On the **Health/Volumes** inventory page State column header, click the filter symbol , and then select the option **Offline**.

   Only the SVM volumes that are in offline state are listed.

4. On the **Health/Volumes** inventory page, click the grid symbol , and then select the option **Cluster Nodes**.

   You might need to scroll in the grid selection box to locate the **Cluster Nodes** option.

   The Cluster Nodes column is added to the volumes inventory and displays the name of the node that hosts each offline volume.

5. On the **Health/Volumes** inventory page, locate the listing for the offline volume and, in its Cluster Node column, click the name of its hosting node.

   The Nodes tab on the Health/Cluster details page displays the state of the HA pair of nodes to which the hosting node belongs. The state of the hosting node and the success of any cluster failover operation is indicated in the display.

After you finish

After you confirm that the volume offline condition exists because its host node is down and storage failover to the HA pair partner has failed, contact the appropriate administrator or operator to manually restart the down node and fix the storage failover problem.

Determining if a volume is offline and its SVM is stopped because a node is down

You can use the Unified Manager web UI to confirm or eliminate the possibility that a volume is offline because its host storage virtual machine (SVM) is stopped due to the node hosting the root volume of that SVM being down.

Before you begin

You must have the Operator, OnCommand Administrator, or Storage Administrator role.

About this task

To determine if the volume offline condition is caused its host SVM being stopped because the node hosting the root volume of that SVM is down, perform the following actions:

Steps

1. Locate and click the hypertext link displayed under SVM in the **Related Devices** pane of the offline volume's **Health/Volume** details page.
2. Locate and click the hypertext link displayed under the SVM in the **Related Devices** pane of the offline volume's **Health/Volume** details page.

   The Health/Storage Virtual Machine details page displays the "running" or the "stopped" status of the hosting SVM. If the SVM status is running, then the volume offline condition is not caused by the node hosting the root volume of that SVM being down.

3. If the SVM status is stopped, then click **View SVMs** to further identify the cause of the hosting SVM being stopped.
4. On the **Health/Storage Virtual Machines** inventory pageSVM column header, click the filter symbol and then type the name of the stopped SVM.

   The information for that SVM is shown in a table.

5. On the**Health/Storage Virtual Machines** inventory page, click and then select the option **Root Volume**.

   The Root Volume column is added to the SVM inventory and displays the name of the root volume of the stopped SVM.

6. In the Root Volume column, click the name of the root volume to display the **Health/Storage Virtual Machine** details page for that volume.

   If the status of the SVM root volume is (Online), then the original volume offline condition is not caused because the node hosting the root volume of that SVM is down.

7. If the status of the SVM root volume is (Offline), then locate and click the hypertext link displayed under Aggregate in the **Related Devices** pane of the SVM root volume's **Health/Volume** details page.
8. Locate and click the hypertext link displayed under Node in the **Related Devices** pane of the Aggregate's **Health/Aggregate** details page.

   The Nodes tab on the Health/Cluster details page displays the state of the HA pair of nodes to which the SVM root volume's hosting node belongs. The state of the node is indicated in the display.

After you finish

After you confirm that the volume offline condition is caused by that volume's host SVM offline condition, which itself is caused by the node that hosts the root volume of that SVM being down, contact the appropriate administrator or operator to manually restart the down node.

Determining if a volume is offline because of broken disks in an aggregate

You can use the Unified Manager web UI to confirm or eliminate the possibility that a volume is offline because RAID disk problems have taken its host aggregate offline.

Before you begin

You must have the Operator, OnCommand Administrator, or Storage Administrator role.

About this task

To determine if the volume offline condition is caused by RAID disk problems that are taking the hosting aggregate offline, perform the following actions:

Steps

1. Locate and click the hypertext link displayed under Aggregate in the **Related Devices** pane of the **Health/Volume** details page.

   The Health/Aggregate details page displays the online or offline status of the hosting aggregate. If the aggregate status is online, then RAID disk problems are not the cause of the volume being offline.

2. If the aggregate status is offline, then click **Disk Information** and look for broken disk events in the **Events** list on the **Disk Information** tab.
3. To further identify the broken disks, click the hypertext link displayed under Cluster in the **Related Devices** pane.

   The Health/Cluster details page is displayed.

4. Click **Disks**, and then select **Broken** in the **Filters** pane to list all disks in the broken state.

   If the disks in the broken state caused the offline state of the host aggregate, the name of the aggregate is displayed in the Impacted Aggregate column.

After you finish

After confirming that the volume offline condition is caused by broken RAID disks and the consequent offline host aggregate, contact the appropriate administrator or operator to manually replace the broken disks and put the aggregate back online.

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