



Take recovery action on storage array status

SANtricity 11.6

NetApp
February 12, 2024

Table of Contents

- Take recovery action on storage array status 1
 - View unreadable sectors log 1
 - Re-enable drive ports 2
 - Clear recovery mode 2

Take recovery action on storage array status

View unreadable sectors log

You can save the unreadable sectors log and send the file to technical support for analysis.

About this task

The unreadable sectors log contains detailed records of unreadable sectors caused by drives reporting unrecoverable media errors. Unreadable sectors are detected during normal I/O and during modification operations, such as reconstructions. When unreadable sectors are detected on a storage array, a Needs Attention alert appears for the storage array. The Recovery Guru distinguishes which unreadable sector condition needs attention. Any data contained in an unreadable sector cannot be recovered and should be considered lost.

The unreadable sectors log can store up to 1,000 unreadable sectors. When the unreadable sectors log reaches 1,000 entries, the following conditions apply:

- If new unreadable sectors are detected during reconstruction, the reconstruction fails, and no entry is logged.
- For new unreadable sectors detected during I/O, the I/O fails, and no entry is logged.



These actions include RAID 5 writes and RAID 6 writes that would have succeeded before the overflow.



Possible loss of data — Recovery from unreadable sectors is a complicated procedure that can involve several different methods. Perform this operation only when instructed to do so by technical support.

Steps

1. Select **Support** > **Support Center** > **Diagnostics** tab.
2. Select **View/Clear Unreadable Sectors**.
3. To save the unreadable sectors log:
 - a. In the first column of the table, you can either select individual volumes for which you want to save the unreadable sectors log (click the check box next to each volume) or select all volumes (select the check box in the table header).

To find particular volumes, you can sort any of the columns or type characters in the **Filter** box.

- b. Click **Save**.

The file is saved in the Downloads folder for your browser with the name `unreadable-sectors.txt`.

4. If technical support instructs you to clear the unreadable sectors log, perform the following steps:
 - a. In the first column of the table, you can either select individual volumes for which you want to clear the unreadable sectors log (click the check box next to each volume) or select all volumes (select the check box in the table header).
 - b. Click **Clear**, and confirm that you want to perform the operation.

Re-enable drive ports

You can indicate to the controller that corrective action has been taken to recover from a mis-wire condition.

Steps

1. Select **Support** > **Support Center** > **Diagnostics** tab.
2. Select **Re-enable Drive Ports**, and confirm that you want to perform the operation.

This option appears only when the storage array has disabled drive ports.

The controller re-enables any SAS ports that were disabled when a mis-wire was detected.

Clear recovery mode

After restoring a storage array configuration, use the Clear Recovery Mode operation to resume I/O on the storage array and return it to normal operations.

Before you begin

- If you want to return the storage array to a previous configuration, you must restore the configuration from the backup before clearing recovery mode.
- You must perform validation checks or check with technical support to make sure that the restore was successful. After determining that the restore was successful, recovery mode can be cleared.

About this task

The storage array contains a configuration database that includes a record of its logical configuration (pools, volume groups, volumes, and so on). If you intentionally clear the storage array configuration or if the configuration database gets corrupted, the storage array enters recovery mode. Recovery mode stops I/O and freezes the configuration database, which gives you time to do one of the following:

- Restore the configuration from the automatic backup that is stored in the controller's flash devices. You must contact technical support to do this.
- Restore the configuration from a previous Save Configuration Database operation. Save Configuration Database operations are performed through the command line interface (CLI).
- Reconfigure the storage array from scratch.

After the storage array configuration has been restored or redefined and you have verified that all is well, you must manually clear recovery mode.



You cannot cancel the Clear Recovery Mode operation after it starts. Clearing recovery mode can take a long time. Perform this operation only when instructed to do so by technical support.

Steps

1. Select **Support** > **Support Center** > **Diagnostics** tab.
2. Select **Clear Recovery Mode**, and confirm that you want to perform this operation.

This option appears only if the storage array is in recovery mode.

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.