Collect diagnostic data

SANtricity 11.7

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Collect support data manually

You can gather various types of inventory, status, and performance data about your storage array in a single file. Technical support can use the file for troubleshooting and further analysis.

About this task

If the AutoSupport feature is enabled, you can also collect this data by going to the **AutoSupport** tab and selecting **Send AutoSupport Dispatch**.

You can run only one collection operation at a time. If you try to start another operation, you receive an error message.

Perform this operation only when instructed to do so by technical support.

Steps

1. Select **Support › Support Center › Diagnostics** tab.
2. Select **Collect Support Data**.
3. Click **Collect**.

   The file is saved in the Downloads folder for your browser with the name `support-data.7z`. If your shelf contains drawers, the diagnostic data for that shelf is archived in a separate zipped file named `tray-component-state-capture.7z`.

4. Follow the instructions provided by technical support to send the file to them.

Collect configuration data

You can save RAID configuration data from the controller, which includes all data for volume groups and disk pools. You can then contact technical support for assistance with restoring the data.

About this task

This task describes how to save the current state of the RAID configuration database. This data is retrieved from the RPA memory location of the controller.

The Collect Configuration Data feature saves the same information as the CLI command for `save storageArray dbmDatabase`.

You should only perform this task when instructed by a Recovery Guru operation or by technical support.

Steps

1. Select **Support › Support Center › Diagnostics** tab.

2. Select **Collect Configuration Data**.
3. In the dialog box, click **Collect**.

   The file, `configurationData-<arrayName>-<dateTime>.7z`, is saved in the Downloads folder for your browser.

4. Contact technical support for more information about sending the file to them, and for loading the data back into the system.

Retrieve recovery support files

Technical support can use recovery support files to troubleshoot issues. System Manager automatically saves these files.

Before you begin

Technical support has requested that you send them additional files for troubleshooting.

About this task

Recovery support files include these types of files:

- Support data files
- AutoSupport history
- AutoSupport log
- SAS/RLS diagnostics files
- Recovery profile data
- Database capture files

Steps

1. Select **Support › Support Center › Diagnostics** tab.
2. Select **Retrieve Recovery Support Files**.

   A dialog box lists all the recovery support files that your storage array has collected. To find particular files, you can sort any of the columns or type characters in the **Filter** box.

3. Select a file, and then click **Download**.

   The file is saved in the Downloads folder for your browser.

4. If you need to save additional files, repeat the previous step.
5. Click **Close**.
6. Follow the instructions provided by technical support to send the file to them.

Retrieve trace buffers

You can retrieve the trace buffers from the controllers and send the file to technical support for analysis.

About this task

The firmware uses the trace buffers to record processing, especially exception conditions, that might be useful for debugging. You can retrieve trace buffers without interrupting the operation of the storage array and with minimal effect on performance.

Perform this operation only when instructed to do so by technical support.

Steps

1. Select **Support › Support Center › Diagnostics** tab.
2. Select **Retrieve Trace Buffers**.
3. Select the check box next to each controller for which you want to retrieve trace buffers.

   You can select one or both controllers. If the controller status message to the right of a check box is Failed or Disabled, the check box is disabled.

4. Click **Yes**.

   The file is saved in the Downloads folder for your browser with the filename `trace-buffers.7z`.

5. Follow the instructions provided by technical support to send the file to them.

Collect I/O path statistics

You can save the I/O path statistics file and send it to technical support for analysis.

About this task

Technical support uses the I/O path statistics to help diagnose performance issues. Application performance issues can be caused by memory utilization, CPU utilization, network latency, I/O latency, or other issues. The I/O path statistics are collected automatically during support data collection or you can collect them manually. In addition, if you have AutoSupport turned on, the I/O path statistics are automatically collected and sent to technical support.

The counters for the I/O path statistics are reset after you confirm that you want to collect the I/O path statistics. The counters are reset even if you subsequently cancel the operation. The counters are also reset when the controller resets (reboots).

Perform this operation only when instructed to do so by technical support.

Steps

1. Select **Support › Support Center › Diagnostics** tab.
2. Select **Collect I/O Path Statistics**.
3. Confirm that you want to perform the operation by typing `collect`, and then click **Collect**.

   The file is saved in the Downloads folder for your browser with the filename `io-path-statistics.7z`.

4. Follow the instructions provided by technical support to send the file to them.

Retrieve health image

You can review a health image for the controller. A health image is a raw data dump of

the controller's processor memory that technical support can use to diagnose a problem with a controller.

About this task

The firmware automatically generates a health image when it detects certain errors. After a health image is generated, the controller that had the error reboots and an event is logged in the event log.

If you have AutoSupport turned on, the health image is automatically sent to technical support. If you do not have AutoSupport turned on, you need to contact technical support for instructions on retrieving the health image and sending it to them for analysis.

Perform this operation only when instructed to do so by technical support.

Steps

1. Select **Support › Support Center › Diagnostics** tab.
2. Select **Retrieve Health Image**.

   You can look at the details section to see the size of the health image before downloading the file.
3. Click **Collect**.

   The file is saved in the Downloads folder for your browser with the name `health-image.7z`.
4. Follow the instructions provided by technical support to send the file to them.

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