Technical Notes

Dell EMC VxFlex OS

Version 2.x

VxFlex OS Log Collection

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This document describes how to retrieve and view log files in VxFlex OS, VxFlex Ready Node, and VxRack Node 100 Series systems.

Unless specified, the log retrieval procedures apply to all systems.

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DELL EMC

Preface

As part of an effort to improve its product lines, Dell EMC periodically releases revisions of its software and hardware. Therefore, some functions described in this document might not be supported by all versions of the software or hardware currently in use. The product release notes provide the most up-to-date information on product features.

Contact your Dell EMC technical support professional if a product does not function properly or does not function as described in this document.

Note

This document was accurate at publication time. Go to Dell EMC Online Support (https://support.emc.com) to ensure that you are using the latest version of this document.

Previous versions of Dell EMC VxFlex OS were marketed under the name Dell EMC ScaleIO.

Similarly, previous versions of Dell EMC VxFlex Ready Node were marketed under the name Dell EMC ScaleIO Ready Node.

References to the old names in the product, documentation, or software, etc. will change over time.

Note

Software and technical aspects apply equally, regardless of the branding of the product.

Related documentation

The release notes for your version includes the latest information for your product.

The following Dell EMC publication sets provide information about your VxFlex OS or VxFlex Ready Node product:

- VxFlex OS software (downloadable as VxFlex OS Software <version> Documentation set)
- VxFlex Ready Node with AMS (downloadable as VxFlex Ready Node with AMS Documentation set)
- VxFlex Ready Node no AMS (downloadable as VxFlex Ready Node no AMS Documentation set)
- VxRack Node 100 Series (downloadable as VxRack Node 100 Series Documentation set)

You can download the release notes, the document sets, and other related documentation from Dell EMC Online Support.

Typographical conventions

Dell EMC uses the following type style conventions in this document:

Bold	Used for names of interface elements, such as names of windows, dialog boxes, buttons, fields, tab names, key names, and menu paths (what the user specifically selects or clicks)
Italic	Used for full titles of publications referenced in text

`Monospace`	Used for: • System code • System output, such as an error message or script • Pathnames, filenames, prompts, and syntax • Commands and options
Monospace italic	Used for variables
`Monospace bold`	Used for user input
[ ]	Square brackets enclose optional values
|	Vertical bar indicates alternate selections - the bar means "or"
{ }	Braces enclose content that the user must specify, such as x or y or z
...	Ellipses indicate nonessential information omitted from the example

Where to get help

Dell EMC support, product, and licensing information can be obtained as follows:

Product information

For documentation, release notes, software updates, or information about Dell EMC products, go to Dell EMC Online Support at https://support.emc.com.

Technical support

Go to Dell EMC Online Support and click Service Center. You will see several options for contacting Dell EMC Technical Support. Note that to open a service request, you must have a valid support agreement. Contact your Dell EMC sales representative for details about obtaining a valid support agreement or with questions about your account.

Your comments

Your suggestions will help us continue to improve the accuracy, organization, and overall quality of the user publications. Send your opinions of this document to techpubcomments@emc.com.

Retrieving VxFlex OS GUI logs

Retrieve the VxFlex OS GUI logs in VxFlex OS.

Before you begin

Ensure that you have access to the PC that runs the VxFlex OS GUI.

When the VxFlex OS GUI is started, the VxFlex OS GUI logs are collected in a system-defined folder on the local drive.

Procedure

1. Log in to the PC that runs the VxFlex OS GUI whose logs you want to collect.
2. Retrieve the log files (one `text` file and the rest `ZIP` files) from the following folder:

   `C:\Users\<user_used_to_install_gui>\AppData\Roaming\EMC\scaleio\logs`

   For example:

```
C:\Users\Administrator\AppData\Roaming\EMC\scaleio\logs
```

VxFlex OS offline GUI

The VxFlex OS offline GUI provides you easy and quick access to VxFlex OS topology and enables you to analyze the data available in the `get_info` log files in ZIP or TGZ formats.

The `get_info` log file displays the snapshot of system topology at a given point in time and helps you debug the issues in the system, without accessing the system. To access the VxFlex OS offline GUI, you need to use the file path of the log files, not the server access credentials.

To view the VxFlex OS offline GUI, first retrieve the log file (with the CLI or the VxFlex OS Installation Manager).

Retrieving the VxFlex OS offline GUI log file using the CLI

Retrieve VxFlex OS component logs automatically using the CLI in both Linux- and Windows-based systems.

Before you begin

Ensure that you have access to:

- VxFlex OS
- `get_info.tgz` script

This procedure collects VxFlex OS component logs in TGZ format on all nodes in the system.

Procedure

1. Use SSH to connect to the Master MDM.

   The `get_info.tgz` file, which includes the snapshot of system topology, resides on the Master MDM in a default location, unless a different location is configured. To run the script from a specific location, change the directory to: `/opt/emc/scaleio/mdm/diag`

2. Run the following command:

   ```
   ./get_info.sh -u admin -p Password1 -r
   ```

   When the operation completes successfully, a message similar to the following is displayed:

   ```
   /tmp/scaleio-getinfo/getInfoDump.tgz created successfully
   ```

3. Copy `getInfoDump.tgz` to the server that hosts the standard VxFlex OS GUI.
4. Retrieve the log file from the directory that holds the `getInfoDump.tgz` file and send it to Customer Support for analysis.

Retrieving the VxFlex OS offline GUI log file using the VxFlex OS Installation Manager

Retrieve VxFlex OS component logs automatically using the VxFlex OS Installation Manager in Linux- and Windows-based systems.

Before you begin

Ensure that you have the following credentials:

- Master MDM IP address, username, and password
- LIA password
- VxFlex OS Installation Manager username and password

This procedure collects the VxFlex OS component logs in a ZIP file on all nodes in the system.

Procedure

1. In a web browser, go to https://*<IM_Server_IP>* where *<IM_Server_IP>* is the IP address of the VxFlex OS Gateway server with the VxFlex OS Gateway/Installation Manager package installed on it.
2. In the VxFlex OS Installation Manager **Welcome** screen, enter the default VxFlex OS Installation Manager credentials.
3. From the VxFlex OS Installation Manager main menu, select **Maintain**.
4. Enter the login credentials and click **Retrieve system topology**.
5. In the **Maintenance operation** screen, click **Collect Logs**.
6. Enter the MDM admin password.
7. Select an option other than **Collect exceptions only**, or do not select any of the options.
8. Click **Collect Logs**.

   Note

   This operation may take some time to complete, depending on your system topology. Once started, this operation cannot be rolled back, though you may abort it.

9. Select the **Monitor** tab to view the progress status of log collection.
10. When the Get Info operation completes, click **Download logs** to download the log files.

    A ZIP file containing all VxFlex OS component logs is downloaded to your computer.
11. Click **Mark operation completed** to clear the log files from the VxFlex OS Installation Manager and enable it to be available for other operations.
12. Send the ZIP log file to Customer Support for analysis.

Viewing the VxFlex OS offline GUI

View the VxFlex OS offline GUI snapshot.

Before you begin

Ensure that you have access to:

- The VxFlex OS GUI on your server
- The ZIP or TGZ log file in the local drive of your server

Procedure

1. Open the VxFlex OS GUI.
2. In the login window, select a log file to display:
   - Press CTRL-O to browse to a log file.
   - In the **IP Address / Name** field, type `file://` followed by the full file path of the ZIP or TGZ log file, then click **Connect**.
     Example:

     file:`//C:\Users\ploni\offline_gui.zip`

Results

The VxFlex OS offline GUI is displayed.

VxFlex OS offline GUI does not display

The VxFlex OS offline GUI cannot be displayed.

You view the VxFlex OS offline GUI by logging in to the VxFlex OS GUI with the name of the customer log file (in ZIP format), preceded by its file path, as user credentials (for example, `file://C:\Users\almogs2\Downloads\get_info.zip`).

If the **Collect exceptions only** option was selected when creating the log file, the VxFlex OS Offline GUI screen will not be displayed. Ensure that any option other than **Collect exceptions only** is selected, or do not select any of the options.

Retrieving operating system logs

This section describes how to retrieve the operating system logs for servers in VxFlex OS.

Proceed to the section that matches your operating system environment:

- Retrieve ESXi operating system logs on page 6
- Retrieve Linux operating system logs on page 7
- Retrieve Windows operating system logs on page 7

Retrieve ESXi operating system logs

This topic describes how to retrieve the operating system logs from an ESXi server in VxFlex OS.

Before you begin

Ensure that you have access to the following:

- IP address of the node
- Password for the root user

When the OS is started, the ESXi operating system logs are collected in the system-defined folders `/var/log` and `/scratch/log/` on the local drive.

Procedure

1. Log in to the VxFlex OS node.

2. From ESXi, run the `scp` command to collect the ESXi operating system logs from the following folders on the local drive:
   - `/var/log`
   - `/scratch/log/`

   For additional data, see *VMware KB-653: Collecting diagnostic information for VMware ESX/ESXi* (https://kb.vmware.com/kb/653).

Retrieve Linux operating system logs

This topic describes how to retrieve the operating system logs from a Linux server in VxFlex OS.

Before you begin

Ensure that you have access to the following:

- IP address of the node
- Password for the root user
- Grab Utility, downloadable from the Support portal (https://support.emc.com)

When the Linux server is started, the Linux logs are collected in the system-defined directory `/var/log`, on the local drive.

Procedure

1. Log in to the VxFlex OS node.
2. Run the `scp` command to collect the Linux operating system logs from the `/var/log` directory on the local drive.

   The `/var/log` folder provides logs for preliminary system investigation.
3. To retrieve full logs, including customer- and OS-related information, run the Grab utility.

Retrieve Windows operating system logs

This topic describes how to retrieve the operating system logs from a Windows server in VxFlex OS.

Before you begin

Ensure that you have access to the following:

- IP address of the node
- Password for the administrator user
- Grab Utility, downloadable from Online Support portal (https://support.emc.com)

Procedure

1. Log in to the VxFlex OS node.
2. Run the Windows Event Viewer.

   The **Event Viewer** screen displays **Event Viewer (Local)** as the root node.
3. In the navigation pane, drill down to the **Windows Logs** node and select the **System** sub node.

   The **Actions** pane is displayed on the right side of the screen.

4. From the **Actions** pane, click **Save All Events As**.

   The navigation tree with your local folders is displayed.
5. Browse to the intended location on your local drive, give the file an appropriate name, and select the file format.
6. Click **Save**.

   The Windows OS-related log files are saved on your local drive.
   The file on the local drive provides logs for preliminary system investigation.
7. To retrieve full logs, including customer- and OS-related information, run the Grab utility.

Retrieving VxFlex OS component logs

You can retrieve the log files for VxFlex OS components in the system manually or automatically. You can collect the logs of one component at a time, or of all system components at one time. You can also enable automatic log collection that collects logs automatically when triggered by system alerts.

Retrieve VxFlex OS component logs manually

You can retrieve the VxFlex OS component logs manually, directly from the component server, one node at a time.

Before you begin

Ensure that you have the following user login credentials:

- IP address of the node
- Password for the root user in ESXi- and Linux-based systems and the administrator user in Windows-based systems

The VxFlex OS logs relate to specific components (MDM, SDS, or LIA) on each server node and their OS environment.

Procedure

1. SSH or RDP to the VxFlex OS node.

   In ESXi-based VxFlex OS, log in to the SVM (which is Linux based).
2. Run the script for the VxFlex OS component (the script is OS dependent).

Operating System	Run this script
ESXi or Linux	`/opt/emc/scaleio/<VxFlex OS component>/diag/get_info.sh -f` where the value of VxFlex OS component is mdm, sds, or lia
Windows	`"C:\Program Files\EMC\scaleio\<VxFlex OS component>\diag\get_info.bat" -f` where the value VxFlex OS component is mdm, sds, or lia

The get_info syntax is explained fully in get_info on page 9.

- If the selected node is the Master MDM, use the flags `-u <MDMuser> -p <MDMpassword>`, instead of `-f`.
- If the selected node contains more than one VxFlex OS component, running any script will gather logs for all components on that node.

3. Verify that you get an output similar to the following, which shows that the process of log collection has completed successfully:

```
Archive c:\Windows\Temp\ScaleIO-getinfo\getInfoDump.zip created
successfully.
```

Note

The script can generate numerous lines of output. Therefore look for this particular line in the output.

4. When the log collection process completes, a `ZIP` file, containing the logs of all VxFlex OS components in the node, is created under `c:\Windows\Temp\ScaleIO-getinfo\`.
5. Retrieve the log file.

get_info

Collects logs for EMC Technical Support analysis.

Syntax

```
./get_info.sh [-help | Options]
```

Options:

`-h, --help`
Display help documentation.

`-d <PATH>`
Specify the path to receive all the collected information.

`-c`
Generate SDS and/or MDM core dump. Available only when one or more of the components are running.

`-r`
Collect repository files.

`-e`
Collect exception files only.

`-l`
Light version. Copy only trc.0 and exp.0 from the logs directory and repository files.

`-u <USERNAME>`
MDM username, which must be supplied with a password.

`-p <PASSWORD>`
MDM password, which must be supplied with a username.

-b
Collect MDM, SDS, LIA binaries and core dumps.

-g
Collect MDM, SDS, LIA binaries and valgrind core dumps.

-s
Collect SDBG output.

-f
Skip querying CLI info, when you do not have credentials.

-a
Collect all info.

-n
Connect to the MDM in nonsecure mode.

-k <Num>
Collect Num core files from each component. This flag implies -b.

-i <Input_file_name>
Extended configuration file.

Automatically collect logs

You can enable the Auto Collect Logs feature to automatically collect VxFlex OS component logs when an alert of severity 3 or higher is issued.

The Auto Collect Logs feature allows you to retrieve VxFlex OS component logs that are collected in response to a system alert, even when you are not actively monitoring VxFlex OS. Auto Collect Logs is disabled by default and can be enabled using the VxFlex OS Installation Manager. Once enabled, any time an alert of severity 3 or higher is issued, logs are collected for all VxFlex OS components. In order to use the Auto Collect Logs feature, a Lockbox must be configured with the MDM and LIA credentials saved in it, and the VxFlex OS Gateway service restarted.

A new file is created at the following location every time Auto Collect Logs is triggered:

- Linux: `/opt/emc/scaleio/gateway/temp/scaleio-auto-collect-logs/`
- Windows: `C:\Program Files\EMC\ScaleIO\Gateway\Temp\scaleio-auto-collect-logs\`

Each log collection is saved in a `ZIP` file. The file name is a concatenation of the alert that triggered the log collection and a timestamp from when the log collection started.

The total capacity available for logs that are saved by the Auto Collect Logs feature is 1024 MB. When the log directory reaches 95% of its capacity, log deletion is initiated. Logs are deleted in a first-in, first-out manner, such that the oldest log file is deleted first. Log deletion stops when 20% of the capacity is available.

Once an automated log collection finishes, the Auto Collect Logs feature enters a cool-down period for 10 minutes. During this time, no logs are automatically collected, even if an alert of severity 3 or higher is issued. During automated log collection, the VxFlex OS Installation Manager is not available for any other actions, including manual

log collection. When necessary, it is possible to abort an automated log collection from the **Monitor** tab in the VxFlex OS Installation Manager.

Note

The Auto Collect Logs feature is currently not supported in environments with SDCs running on ESXis.

Retrieving VxFlex OS component logs using the VxFlex OS Installation Manager

Use the VxFlex OS Installation Manager to automatically retrieve the VxFlex OS component logs. This procedure collects the VxFlex OS component logs on all the nodes in the system. You can also enable the Auto Collect Logs feature to automatically collect logs when triggered by a system alert of severity 3 or higher.

Before you begin

Ensure that you have the following credentials for retrieving the system topology and accessing the VxFlex OS Installation Manager server:

- Master MDM IP address
- MDM username
- MDM password
- LIA password
- Password for the admin user for accessing the VxFlex OS Installation Manager

To enable the Auto Collect Logs feature, ensure that a has been configured, the MDM and LIA credentials saved in it, and the VxFlex OS Gateway service restarted. If a lockbox has not previously been configured, see the *Deployment Guide* for instructions on creating a lockbox using FOSGWTool.

You must approve the LIA certificate prior to enabling Auto Collect Logs.

Procedure

1. Log in to the VxFlex OS Installation Manager:

Operating System	Steps
Windows- and Linux-based system	a. From Internet Explorer, browse to `https://<IM_Server_IP>`, where *<IM_Server_IP>* is the IP address of the VxFlex OS Gateway server, with the VxFlex OS Gateway/Installation Manager package installed on it. b. From the VxFlex OS Installation Manager **Welcome** screen, enter the VxFlex OS Installation Manager credentials.
ESXi-based system	a. From the vSphere plug-in **VxFlex OS Systems** screen, right-click the system for which you want to collect the logs. b. Select **Open VxFlex OS Gateway**. **Note** Opening the VxFlex OS Gateway can take some time.

Operating System	Steps
	c. From the VxFlex OS Installation Manager **Welcome** screen, enter the VxFlex OS Installation Manager credentials.

2. From the VxFlex OS Installation Manager main menu, select **Maintain**.
3. Enter the login credentials and click **Retrieve system topology**.

   The **Maintenance operation** screen displays the system topology.
4. Click **System Logs & Analysis** and select the appropriate option:
   - To enable Auto Collect Logs, from the list box, select **Enable Auto Collect Logs**. Once enabled, you can disable it from the same list box.

     Note

     While the logs are being collected, the VxFlex OS Installation Manager is unavailable for other actions. The automated log collection can be aborted from the **Monitor** tab.
   - To automatically collect component logs, select **Collect Logs** and proceed with the following steps.
5. Enter the **MDM admin** password and select one of the following options:
   - **Copy repositories**
     Besides full logs, includes the MDM repository from installed components.

     Usual size for the repository is ~306 MB
   - **Collect exceptions only**
     Instead of full logs, collects the VxFlex OS Core dumps only.

     By default, VxFlex OS Core dumps are disabled. Customer Support will instruct you if VxFlex OS Core dumps need to be enabled.
   - **Last version**
     Instead of full logs, collects the most recently-created log file from each component.
6. Click **System Logs & Analysis**.
7. From the list box, select **Collect Logs**.

   The Get Info operation, the log collection function of the VxFlex OS Installation Manager, begins.
   This operation may take some time to complete, depending on your system topology. Once started, this operation can be rolled back.
8. Select the **Monitor** tab. Log collection progress is displayed.
9. When the Get Info operation completes, click **Download logs** to download the log files.

   A `ZIP` file, containing all VxFlex OS component logs, is downloaded.
10. Click **Mark operation completed** to clear the log files from the VxFlex OS Installation Manager and enable it to be available for other operations.

Access RAID controller logs

You can retrieve the RAID controller logs from ESXi-, Linux-, and Windows-based servers in a VxRack Node 100 Series or VxFlex Ready Node system.

Retrieving RAID controller logs from VxRack Node 100 Series systems

This topic describes how to retrieve the RAID controller logs from ESXi-, Linux-, and Windows-based servers in a VxRack Node 100 Series system.

Before you begin

Ensure that you have access to the following:

- IP address of the node
- Password for the root user in ESXi- and Linux-based systems and the administrator user in Windows-based systems
- The RAID controller utility, in enable mode (for details, refer to *Hardware Configuration and Operating System Installation Guide* of your system)

Procedure

1. SSH or RDP to the VxFlex OS node.
2. Retrieve the controller information:

Operating System	Run this command

ESXi	`/opt/lsi/storcli/storcli /call show all > <file_name>`
	Example:
	`/opt/lsi/storcli/storcli /call show all > /var/tmp/store/RAIDinfo.txt`

Linux	`/opt/MegaRAID/storcli/storcli64 /call show all > <file_name>`
	Example:
	`/opt/MegaRAID/storcli/storcli64 /call show all > /var/tmp/store/RAIDinfo.txt`

Windows	`storcli64 /call show all > <file_name>`

Operating System	Run this command
	Example: `storcli64 /call show all > C: \RAIDinfo.txt`

3. Retrieve the `Show Events` log file:

Operating System	Run this command

ESXi	`/opt/lsi/storcli/storcli /call show events file=<file_name>`
	Example:
	`/opt/lsi/storcli/storcli /call show events file=/var/tmp/store/RAIDevents.txt`

Linux	`/opt/MegaRAID/storcli/storcli64 /call show events file=<file_name>`
	Example:
	`/opt/MegaRAID/storcli/storcli64 /call show events file=/var/tmp/store/RAIDevents.txt`

Windows	`storcli64 /call show events file=<file_name>`
	Example:
	`storcli64 /call show events file=C:\RAIDevents.txt`

You can retrieve the `RAIDevents.txt` file from your local drive.

4. Retrieve the `Termlog` log file:

Operating System	Run this command
ESXi	`/opt/lsi/storcli/storcli /call show termlog file=<file_name>`

Operating System	Run this command
	Example: `/opt/lsi/storcli/storcli /call show termlog file=/var/tmp/store/RAIDtermlog.txt`

Linux	`/opt/MegaRAID/storcli/storcli64 /call show termlog file=<file_name>`
	Example:
	`/opt/MegaRAID/storcli/storcli64 /call show termlog file=/var/tmp/store/RAIDtermlog.txt`

Windows	`storcli64 /call show termlog file=<file_name>`
	Example:
	`storcli64 /call show termlog file=C:\RAIDtermlog.txt`

You can retrieve the `RAIDtermlog.txt` file from your local drive.

Retrieving RAID controller logs from VxFlex Ready Node systems

This topic describes how to retrieve the RAID controller logs from ESXi-, Linux-, and Windows-based servers in a VxFlex Ready Node system.

Before you begin

Ensure that you have access to the following:

- IP address of the node
- Password for the root user in ESXi- and Linux-based systems and the administrator user in Windows-based systems
- The RAID controller utility, which is enabled (for details, refer to *Hardware Configuration and Operating System Installation Guide* of your system)

Procedure

1. SSH or RDP to the VxFlex OS node.
2. Retrieve the controller information:

Operating System	Run this command
ESXi	`/opt/lsi/perccli/perccli /call show all > <file_name>`

Operating System	Run this command
	Example: `/opt/lsi/perccli/perccli /call show all > /var/tmp/store/RAIDinfo.txt`

Linux	`/opt/MegaRAID/perccli/perccli64 /call show all > <file_name>`
	Example:
	`/opt/MegaRAID/perccli/perccli64 /call show all > /var/tmp/store/RAIDinfo.txt`

Windows	`perccli64 /call show all > <file_name>`
	Example:
	`perccli64 /call show all > C:\RAIDinfo.txt`

3. Retrieve the `Show Events` log file:

Operating System	Run this command

ESXi	`/opt/lsi/perccli/perccli /call show events file=<file_name>`
	Example:
	`/opt/lsi/perccli/perccli /call show events file=/var/tmp/store/RAIDevents.txt`

Linux	`/opt/MegaRAID/perccli/perccli64 /call show events file=<file_name>`
	Example:
	`/opt/MegaRAID/perccli/perccli64 /call show events file=/var/tmp/store/RAIDevents.txt`

Windows	`perccli64 /call show events file=<file_name>`

Operating System	Run this command
	Example: `perccli64 /call show events file=C:\RAIDevents.txt`

You can retrieve the `RAIDevents.txt` file from your local drive.

4. Retrieve the `Termlog` log file:

Operating System	Run this command

ESXi	`/opt/lsi/perccli/perccli /call show termlog file=<file_name>`
	Example:
	`/opt/lsi/perccli/perccli /call show termlog file=/var/tmp/store/RAIDtermlog.txt`

Linux	`/opt/MegaRAID/perccli/perccli64 /call show termlog file=<file_name>`
	Example:
	`/opt/MegaRAID/perccli/perccli64 /call show termlog file=/var/tmp/store/RAIDtermlog.txt`

Windows	`perccli64 /call show termlog file=<file_name>`
	Example:
	`perccli64 /call show termlog file=C:\RAIDtermlog.txt`

You can retrieve the `RAIDtermlog.txt` file from your local drive.

Configuring and retrieving the operating system crash dumps

This section describes how to configure and retrieve the operating system crash dumps.

Before you begin

Ensure that you have access to a web browser.

Procedure

1. Open your web browser.
2. Configure and retrieve the crash dumps.

   To see the procedure, click an appropriate link that matches with your operating system:

Operating System	Link for crash dump configuration procedure
ESXi	http://kb.vmware.com/kb/1000328
Linux (RedHat)	https://access.redhat.com/solutions/6038
Linux (SLES)	https://www.suse.com/support/kb/doc?id=3374462
Windows	https://support.microsoft.com/en-ie/kb/969028

3. Analyze the crash dumps.

   To see the procedure, click an appropriate link that matches with your operating system:

Operating System	Link for crash dump configuration procedure
ESXi	http://kb.vmware.com/kb/1006796 or http://kb.vmware.com/kb/1004128
Linux (RedHat)	https://access.redhat.com/solutions/2121
Linux (SLES)	https://www.suse.com/support/kb/doc.php?id=7010484
Windows	https://support.microsoft.com/en-ie/kb/315263

Retrieve vSphere web plug-in logs

This topic describes how to retrieve the vSphere web plug-in logs from ESXi-based servers in VxFlex OS.

Before you begin

Ensure that you have access to the following:

- IP address of the vCenter where the web plug-in is installed
- Login credentials for the vCenter

Procedure

1. SSH or RDP to the vCenter server.
2. Retrieve all the files from the following folders, depending on the vCenter server's OS:

Operating System	vCenter 6.0 log folders
Linux	• `/var/log/vmware/vsphere-client/logs` • `/etc/vmware/vsphere-client/vc-packages/scaleio`

Operating System	vCenter 6.0 log folders
	• `/etc/vmware/vsphere-client/vc-packages/vsphere-client-serenity`
Windows	• `C:\ProgramData\VMWare\vCenterServer\logs\vsphere-client\logs` • `C:\Users\vspherewebclientsvc\AppData\Roaming\VMware\scaleio` • `C:\ProgramData\VMware\vCenterServer\cfg\vsphere-client\vc-packages\vsphere-client-serenity`

Retrieving VxFlex OS Installation Manager logs

Retrieve the VxFlex OS Installation Manager log files, which are downloaded in a single ZIP file.

Before you begin

Ensure that you have access to:

- The admin-level user password for accessing the VxFlex OS Installation Manager
- IP address of the VxFlex OS Installation Manager server

Procedure

1. From a web browser, go to `https://<IM_Server_IP>`.

   where *<IM_Server_IP>* is the IP address of the VxFlex OS Gateway server, with the VxFlex OS Gateway/Installation Manager package installed on it.

2. From the **Installation Manager** main menu, select **Maintain**.

   The **Maintenance operation** screen appears.

3. Click the **Download Installation Manager logs** link.

   The VxFlex OS Installation Manager logs are collected as a single ZIP file in the browser-configured location.

Access system event logs

You can access the system event logs (SEL) in a VxRack Node 100 Series or a VxFlex Ready Node server.

Retrieving system event logs in VxRack Node 100 Series servers

This topic describes how to access the system event logs (SEL) in a VxRack Node 100 Series server.

Before you begin

Ensure that you have access to the following:

- IP address of the BMC port

- Login credentials for the BMC (admin/admin as default user name/password)

Procedure

1. From a web browser, go to `http://<IP_address_BMC_port>`.
2. In the **Console Login** window, type the user name and password, then click **Login**.
3. To view events in the **Dashboard**, select **Server Health** > **Event log**.

   The **Event Log** is displayed with color-coded severity levels.
4. Click **Download Event Logs** to save the event logs.

   The event logs are saved in a `.TXT` file.
   The power supply- and fan-related errors in **Event Log** may be intermittent in nature, and therefore may display repetitive events for one module. For such errors, it is recommended that you remove the module and replace it in its socket. This might be a connection-related issue.

Retrieving system event logs in VxFlex Ready Node servers

This topic describes how to access the system events logs (SEL) in a VxFlex Ready Node server.

Before you begin

Ensure that you have access to the following:

- IP address of the BMC port
- Login credentials for the BMC (admin/admin as default user name/password)

Procedure

1. From a web browser, go to `http://<IP_address_BMC_port>`.
2. In the **Console Login** window, type the user name and password, then click **Login**.
3. To view the event log, select **View Logs** in the **Quick Launch Tasks** pane.

   The **System Event Log** is displayed with color-coded severity levels.
4. To save the event log, click the **Save As** button at the bottom of the table.

   The event log is saved in a `.CSV` file.
   The power supply- and fan-related errors in **Event Log** may be intermittent in nature, and therefore may display repetitive events for one module. For such errors, it is recommended that you remove the module and replace it in its socket. This might be a connection-related issue.

Retrieving DAS cache logs from a Linux server

This topic describes how to retrieve DAS cache logs of a VxFlex OS node from Linux server.

Both the VxFlex OS server and VxFlex OS VM (SVM) run on Linux. Therefore, the procedure of collecting DAS Cache logs from a Linux VxFlex OS server applies to the Storage VM as well.

Procedure

1. SSH to the VxFlex OS node (for Linux environment) or SVM (for ESXi environment).

2. Retrieve the log information:

Operating System	Run the command

SVM in ESXi environment	a. From the SVM shell, run the following command:
	`/sbin/fio_collect_logs.sh -c -f sio`
	Output, similar to the one shown after this table, appears.
	b. Collect the output logs from the following `.txt` file:
	`ls -l /dev/disks/by-path/* > <output file>.txt >`

VxFlex OS node in Linux environment	a. From the SVM Node shell, run the following command:
	`/sbin/fio_collect_logs.sh -c -f sio`
	Output, shown after this table, appears.
	b. Collect the output logs from the following `.txt` file:
	`ls -l /dev/disks/by-path/* > <output file>.txt >`

Output example:

```
[root@sio-dcoe-92H-9 ~]# /sbin/fio_collect_logs.sh -c -f sio
WARNING: fscli was not found in default location of /sbin
Continuing with collection
Basic collection is being generated
Now gathering Caching logs
No cache stats found.
/etc/fio/
/etc/fio/check_distro.sh
/etc/fio/config
/etc/fio/fioctl.sh
/etc/fio/fiolicense.bin
/etc/fio/md-fioctl.sh
/etc/fio/perc-fioctl.sh
/etc/fio/SR_sio_FSlogs_20160616154246.tar.gz
/etc/fio/SR_sio_FSlogs_20160616154246.tar.gz.md5
/etc/fio/disks.conf
Done gathering Caching logs. Now checking for corefiles
No corefiles were detected on your system
Basic collection is done
No SSD Sections were detected or Stats was not requested.
Bypassing Stats collection
Compressing log bundle. . . Please wait.
Log compression has completed.
Now cleaning up temp files
Done cleaning up temp files
** Completed. Please send SR_sio_FSlogs_20160626084508.tar.gz
and its md5sum to Support. ***
```

Both `SR_sio_FSlogs_20160626084508.tar.gz` and `SR_sio_FSlogs_20160626084508.tar.gz.md5` files are saved in your working directory.

Retrieving DAS cache logs from a Windows server

This topic describes how to retrieve DAS cache logs of a VxFlex OS server from a Windows server.

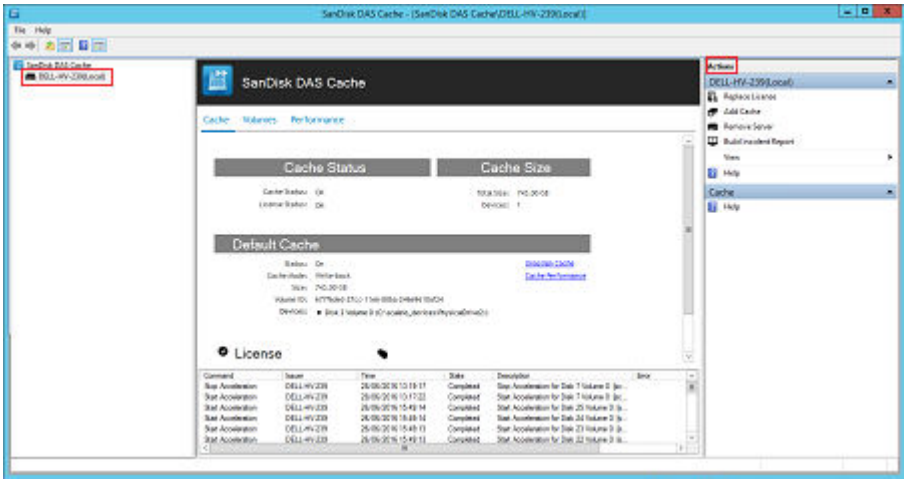
Before you begin

Ensure that DAS Cache is configured on your computer.

Procedure

1. RDP to the VxFlex OS server.
2. Open the DAS Cache management utility by clicking **SanDisk DAS Cache** ( ).

   The **DAS Cache Management** window is displayed, with **DELL-HV238(Local)** as a default node selection in the navigation tree and a separate **Actions** pane.

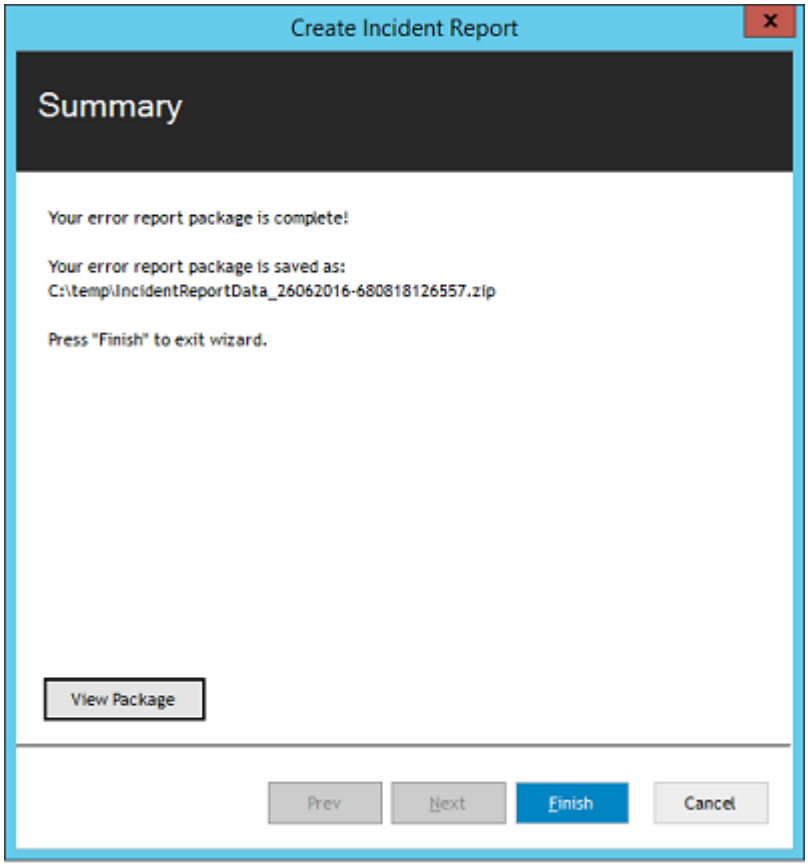
   

3. In the **Actions** pane, click **Build Incident Report**.

   The **Create Incident Report - Contact and Incident Information** window is displayed.

4. Do the following:
   - **Problem Description** field: Enter a short description of the issue.
   - **Collect system information** checkbox (default selection): Select the checkbox to collect the parameters listed underneath, besides the DAS Cache logs.
   - **Save Incident Report to** field: Displays the folder location that you browse on your local drive for log file storage.
   - **Browse** button: Enables you to select the folder on your local drive for log file storage.
   - **Time of Occurrence**: Displays the system-defined time stamp of collection of log file.
5. Click **Next**.

   The log collection process begins.
   When the log collection process is completed, the **Create Incident Report - Summary** window is displayed, showing the location of the log file (in `ZIP` format) on your local drive:



6. Click the **View Package** button to display the content of the `ZIP` file.
7. Click **Finish** to stop the process.

Collecting VxFlex Ready Node AMS logs

You can collect VxFlex Ready Node AMS logs using the VxFlex OS GUI, the AMS CLI, or the REST API.

In the VxFlex Ready Node AMS environment, you can collect the MDM, SDS, AMS, iDRAC, RAID controller, and OS (including ESXi VM-support) logs. Logs are collected in ZIP format, which you can download for viewing.

The log collection process has the following stages:

1. Generate the logs on the local nodes.
2. Transfer the log files to the AMS server.
3. Download the logs.

In each management client, you can customize the collection type as well as which nodes are included in the query:

- Log types:
  - Default Logs (MDM and SDS)
    Generate SDS and/or MDM core dump. Available only when one or more of the components are running.
  - Copy Repositories
    Collect repository files.

  - Exceptions Only
    Collect exception files only.
  - Lite Version
    Copy only trc.0 and exp.0 from the logs directory and repository files.
  - Copy Binaries
    Collect MDM, SDS, LIA binaries and core dumps.
  - AMS (cannot be unselected)
  - BMC (iDRAC)
- Node selection:
  - All nodes (default)
  - Filter - to select specific nodes

Collecting AMS logs using the VxFlex OS GUI

Use the VxFlex OS GUI to collect VxFlex Ready Node logs.

Before you begin

Ensure you can access the AMS using the VxFlex OS GUI.

This procedure collects logs from the AMS, MDM, SDS, and LIA components.

Note

In some cases, log collection may not include information from all servers.

Procedure

1. From the VxFlex OS GUI, log in to the AMS.
2. From the **System Settings** menu, select **Log Collection**.

   The **Log Collection** window is displayed. By default, the MDM, SDS, AMS, and BMC logs are selected to be collected from all nodes.
3. You can change the default log type and node selections.
4. Click **Collect**.
5. When log collection is complete, click **Transfer** to bring the log files from the AMS server to the local computer.
6. To download the file, click **Download.**

   The file download process begins, which may take several minutes.
7. When the file download is complete, click **Clean** (to enable a new collection), then click **Close**.

Results

The log file (in ZIP format) is saved on your local server.

Collecting AMS logs using the AMS CLI

Use the AMS CLI to collect VxFlex Ready Node logs.

This section summarizes the AMS CLI commands that can be used to collect logs from the AMS, MDM, SDS, and LIA components. For full information on the command and how to use the AMS CLI, see the *VxFlex Ready Node CLI Reference Guide.*

Note

In some cases, log collection may not include information from all servers.

Before you begin, ensure that you can access the AMS CLI.

The following table summarizes the AMS CLI commands:

Action	Command	Arguments
Start the log collection process	--start_log_collection	(--node_ids <node-ids>|allNodes) [copyRepositories] [collectExceptionOnly] [liteVersion] [copyBinaries] [collectScaleIOLogs] [collectBmcLogs]
Download the collected logs to AMS	--download_logs_to_ams	(<node-ids>|allNodes)
Query the status of the current log collection	--get_log_collection_status	N/A
Download the collected logs from the AMS	--download_logs_to_client	N/A

To collect AMS logs only, run the command without additional parameters.

Collecting AMS logs using the REST API

Use the REST API to collect VxFlex Ready Node logs.

This section summarizes the REST API commands that can be used to collect logs from the AMS, MDM, SDS, and LIA components. For information on how to use the REST API, see the *VxFlex Ready Node User Guide.*

Note

In some cases, log collection may not include information from all servers.

Before you begin, ensure that you can access the REST API.

The following table summarizes the REST API commands:

Action	Command
Start the log collection process	/api/instances/System/action/startLogCollection
Download the collected logs to AMS	/api/instances/System/action/startLogDownloadToAms
Query the status of the current log collection	/api/instances/System/action/getCurrentLogCollection
Download the collected logs from the AMS	/api/instances/System/action/downloadCollectedLogs

To collect AMS logs only, run the start command without additional parameters.

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