

Further analysis

Collecting event logs and service data (FFDC) for further investigation

Lenovo

Further analysis workflow

Servicers need to collect system event logs and/or service data, and then upload the logs to Lenovo System Care, where logs will be parsed for further analysis. Service data is also known as First Failure Data Capture (FFDC).



Event logs


Light path diagnostic LEDs do not always give servicers enough information for troubleshooting. In these cases, it will often be necessary to collect event logs from the failing system to complete a diagnosis. Event logs contain alerts generated by Lenovo XClarity Controller (XCC) or by UEFI in the servers. If the server is managed by the Chassis Management Module (CMM) or by Lenovo XClarity Administrator (LXCA), alerts are automatically forwarded to those management applications.

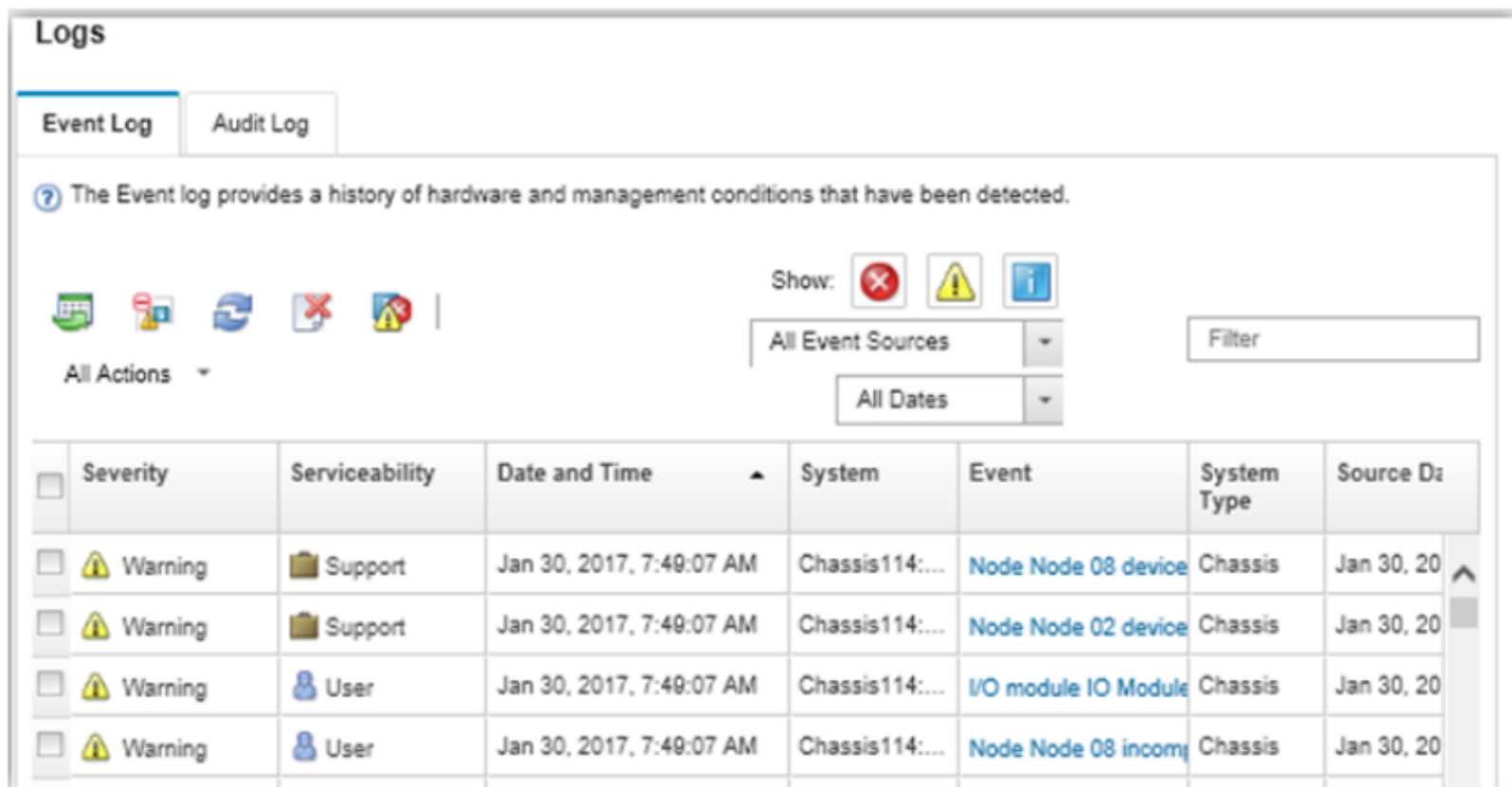
Users can find event logs at following locations:

- LXCA event log
- CMM event log
- XCC event log
- Lenovo XClarity Orchestrator (LXCO) events
- System Management Module (SMM) event log (only available for the ThinkSystem D2 enclosure)

LXCA event log

If LXCA is being used to manage servers, networks, and storage hardware, the tool can be used to check the events for all managed devices. To see the event log, select **Monitoring** → **Event Logs** from the LXCA menu bar, and then click the **Event Log** tab.

Attention: Users can export the event log to ensure that they have a complete record of all hardware and management events. To export the event log, click the Export as CSV icon .



The screenshot shows the 'Logs' window in LXCA. The 'Event Log' tab is selected. A help message states: 'The Event log provides a history of hardware and management conditions that have been detected.' Below this, there are icons for 'All Actions' and a 'Show:' section with icons for error, warning, and info. There are also dropdowns for 'All Event Sources' and 'All Dates', and a 'Filter' input field. The main area contains a table of event logs.

<input type="checkbox"/>	Severity	Serviceability	Date and Time	System	Event	System Type	Source D
<input type="checkbox"/>	Warning	Support	Jan 30, 2017, 7:49:07 AM	Chassis114:...	Node Node 08 device	Chassis	Jan 30, 20
<input type="checkbox"/>	Warning	Support	Jan 30, 2017, 7:49:07 AM	Chassis114:...	Node Node 02 device	Chassis	Jan 30, 20
<input type="checkbox"/>	Warning	User	Jan 30, 2017, 7:49:07 AM	Chassis114:...	I/O module IO Module	Chassis	Jan 30, 20
<input type="checkbox"/>	Warning	User	Jan 30, 2017, 7:49:07 AM	Chassis114:...	Node Node 08 incom	Chassis	Jan 30, 20

CMM event log

The CMM event log contains all the events received by the CMM from all the components in the chassis including switch modules, compute nodes, fans, and power supplies. To access the CMM event log and configure event recipient notifications in the CMM web interface, select **Event Log** from the **Events** menu.

The screenshot displays the Chassis Management Module (CMM) web interface for a Flex System Enterprise Chassis. The top navigation bar includes the title "Chassis Management Module - Flex System Enterprise Chassis" and the chassis identifier "Chassis 4 | Chassis4". Below the navigation bar, a series of tabs are visible: "System Status", "Multi-Chassis Monitor", "Events", "Service and Support", "Chassis Management", "Mgt Module Management", and a search icon. The "Events" tab is currently selected, and its dropdown menu is open, showing two options: "Event Log" (described as "Full log history of all events") and "Event Recipients" (described as "Add and modify E-Mail, SNMP, and Syslog recipients"). The "Event Log" option is highlighted. Below the navigation bar, the "Event Recipients" section is visible, featuring a heading "Event Recipients" and a subheading "Please click on the entry in the Name column to edit the recipient or highlight the row to delete the entry." Below this, there are five buttons: "Create", "Delete", "Global Settings", "Syslog Settings", and "Generate Test Event". At the bottom, a table with four columns is shown: "Name", "Notification Method", "Events to Receive", and "Status". The table is currently empty, displaying the message "No Data Available".

Chassis Management Module - Flex System Enterprise Chassis Chassis 4 | Chassis4

System Status Multi-Chassis Monitor Events Service and Support Chassis Management Mgt Module Management

Event Log Full log history of all events

Event Recipients Add and modify E-Mail, SNMP, and Syslog recipients

Event Recipients

Please click on the entry in the Name column to edit the recipient or highlight the row to delete the entry.

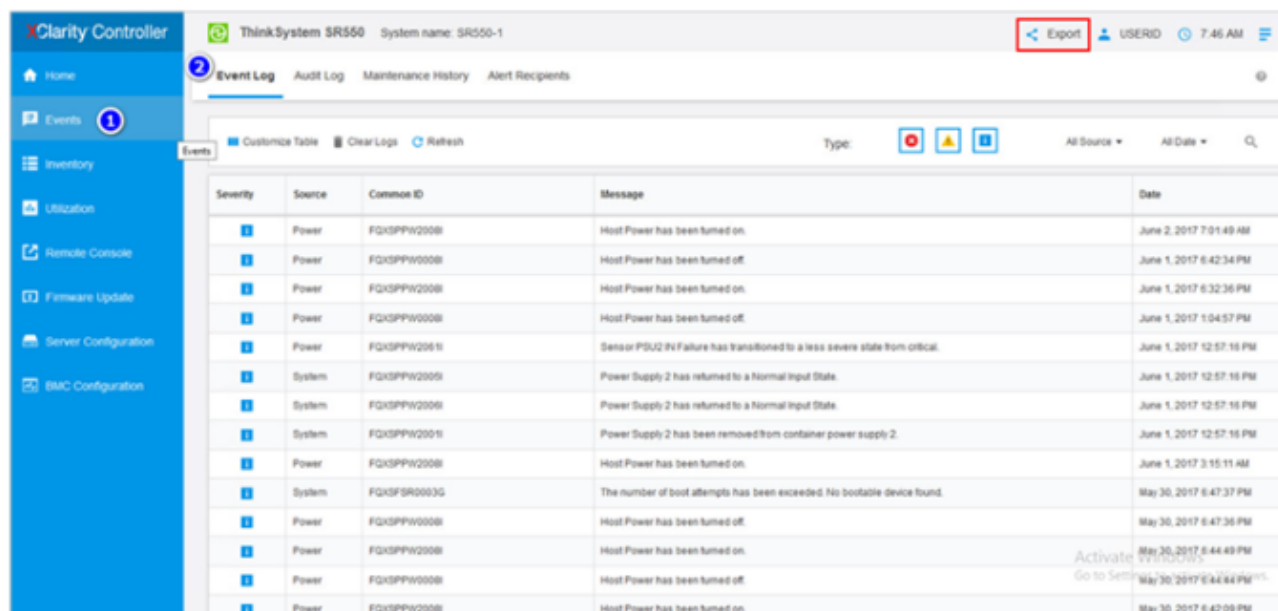
Create Delete Global Settings Syslog Settings Generate Test Event

Name	Notification Method	Events to Receive	Status
No Data Available			

XCC event log

XCC monitors the physical state of the server and its components using sensors that measure internal physical variables such as temperature, power-supply voltages, fan speeds, and component status. The events are then posted in the XCC event log.

To access the XCC event log from the XCC web interface, select **Events** and then click **Event Log**.



The screenshot shows the XCC web interface for a ThinkSystem SR550 server. The 'Event Log' tab is selected, displaying a table of events. The 'Export' button is highlighted in the top right corner.

Severity	Source	Common ID	Message	Date
1	Power	FGXSPW2008	Host Power has been turned on.	June 2, 2017 7:01:49 AM
1	Power	FGXSPW2008	Host Power has been turned off.	June 1, 2017 6:42:34 PM
1	Power	FGXSPW2008	Host Power has been turned on.	June 1, 2017 6:32:36 PM
1	Power	FGXSPW2008	Host Power has been turned off.	June 1, 2017 1:04:57 PM
1	Power	FGXSPW2061i	Sensor PDU2 IV Failure has transitioned to a less severe state from critical.	June 1, 2017 12:57:16 PM
1	System	FGXSPW2005i	Power Supply 2 has returned to a Normal Input State.	June 1, 2017 12:57:16 PM
1	System	FGXSPW2005i	Power Supply 2 has returned to a Normal Input State.	June 1, 2017 12:57:16 PM
1	System	FGXSPW2005i	Power Supply 2 has been removed from container power supply 2.	June 1, 2017 12:57:16 PM
1	Power	FGXSPW2008	Host Power has been turned on.	June 1, 2017 3:15:11 AM
1	System	FGXSPR0003G	The number of boot attempts has been exceeded. No bootable device found.	May 30, 2017 6:47:37 PM
1	Power	FGXSPW2008	Host Power has been turned off.	May 30, 2017 6:47:36 PM
1	Power	FGXSPW2008	Host Power has been turned on.	May 30, 2017 6:44:49 PM
1	Power	FGXSPW2008	Host Power has been turned off.	May 30, 2017 6:44:44 PM
1	Power	FGXSPW2008	Host Power has been turned on.	May 30, 2017 6:42:09 PM

Click the image to enlarge.

XCC event log



Clarity Controller

ThinkSystem SR550 System name: SR550-1

Export USERID 7:46 AM

2 Event Log Audit Log Maintenance History Alert Recipients

Events

Customize Table Clear Logs Refresh

Type: [Error] [Warning] [Info]

All Source All Date

Severity	Source	Common ID	Message	Date
[Info]	Power	FQXSPPW2008I	Host Power has been turned on.	June 2, 2017 7:01:49 AM
[Info]	Power	FQXSPPW0008I	Host Power has been turned off.	June 1, 2017 6:42:34 PM
[Info]	Power	FQXSPPW2008I	Host Power has been turned on.	June 1, 2017 6:32:36 PM
[Info]	Power	FQXSPPW0008I	Host Power has been turned off.	June 1, 2017 1:04:57 PM
[Info]	Power	FQXSPPW2061I	Sensor PSU2 IN Failure has transitioned to a less severe state from critical.	June 1, 2017 12:57:16 PM
[Info]	System	FQXSPPW2005I	Power Supply 2 has returned to a Normal Input State.	June 1, 2017 12:57:16 PM
[Info]	System	FQXSPPW2006I	Power Supply 2 has returned to a Normal Input State.	June 1, 2017 12:57:16 PM
[Info]	System	FQXSPPW2001I	Power Supply 2 has been removed from container power supply 2.	June 1, 2017 12:57:16 PM
[Info]	Power	FQXSPPW2008I	Host Power has been turned on.	June 1, 2017 3:15:11 AM
[Info]	System	FQXSFSR0003G	The number of boot attempts has been exceeded. No bootable device found.	May 30, 2017 6:47:37 PM
[Info]	Power	FQXSPPW0008I	Host Power has been turned off.	May 30, 2017 6:47:36 PM
[Info]	Power	FQXSPPW2008I	Host Power has been turned on.	May 30, 2017 6:44:49 PM
[Info]	Power	FQXSPPW0008I	Host Power has been turned off.	May 30, 2017 6:44:44 PM
[Info]	Power	FQXSPPW2008I	Host Power has been turned on.	May 30, 2017 6:42:09 PM

Activate Windows
Go to Settings to activate Windows.

How to export the event log from XCC

Users can export the event log to ensure that they have a complete record of all hardware and management events.

Click each number in turn to see the procedure.

Step



How to export the event log from XCC

From the XCC web interface, open the **Event Log** page and click **Export**.

Clarity Controller

ThinkSystem SR550 System name: SR550-1

USERID 7:46 AM

2 Event Log Audit Log Maintenance History Alert Recipients

Events 1

Customize Table Clear Logs Refresh

Type: All Source All Date

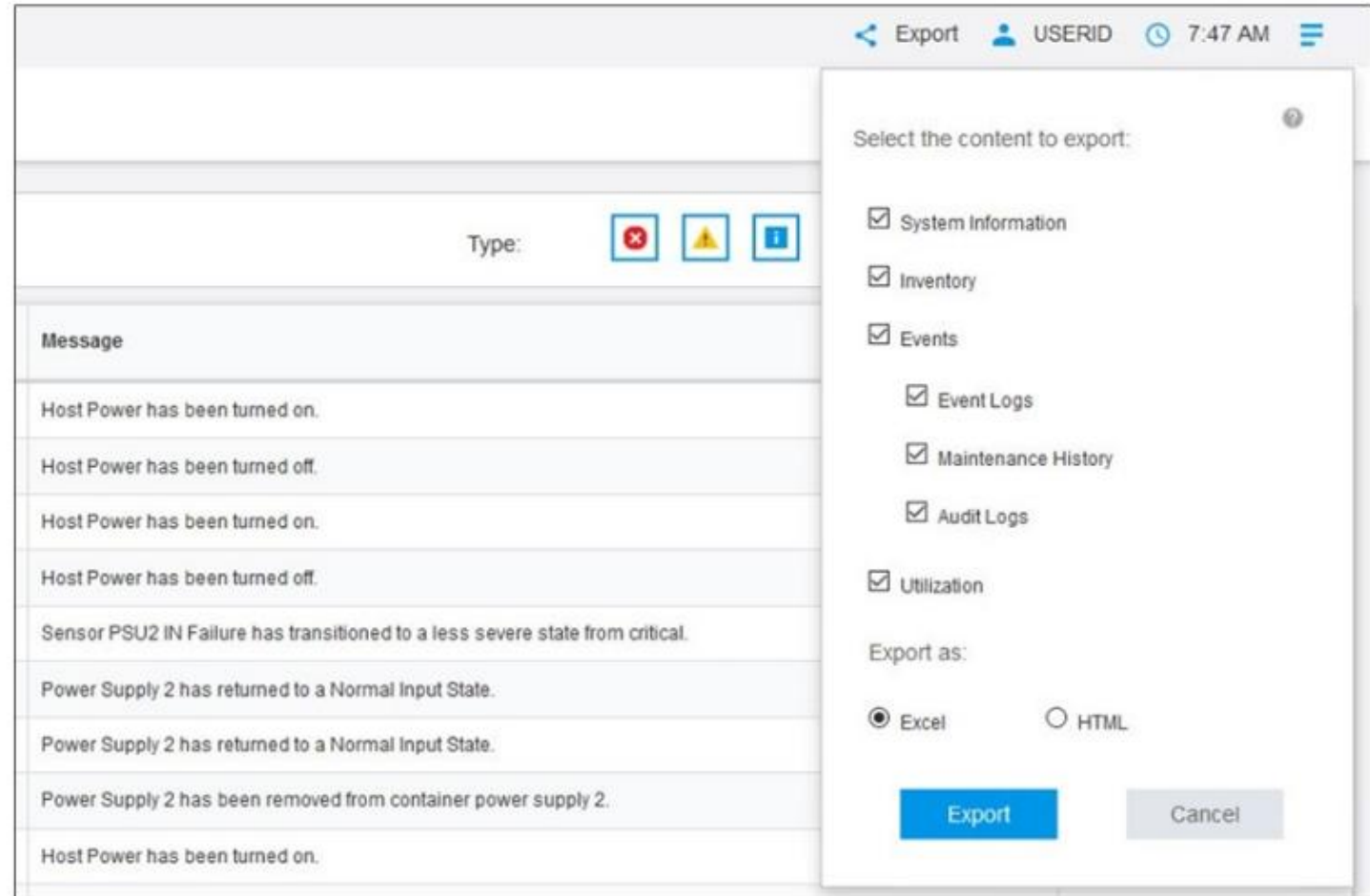
Severity	Source	Common ID	Message	Date
1	Power	FQXSPPW2008I	Host Power has been turned on.	June 2, 2017 7:01:49 AM
1	Power	FQXSPPW0008I	Host Power has been turned off.	June 1, 2017 6:42:34 PM
1	Power	FQXSPPW2008I	Host Power has been turned on.	June 1, 2017 6:32:36 PM
1	Power	FQXSPPW0008I	Host Power has been turned off.	June 1, 2017 1:04:57 PM
1	Power	FQXSPPW2061I	Sensor PSU2 IN Failure has transitioned to a less severe state from critical.	June 1, 2017 12:57:16 PM
1	System	FQXSPPW2005I	Power Supply 2 has returned to a Normal Input State.	June 1, 2017 12:57:16 PM
1	System	FQXSPPW2006I	Power Supply 2 has returned to a Normal Input State.	June 1, 2017 12:57:16 PM
1	System	FQXSPPW2001I	Power Supply 2 has been removed from container power supply 2.	June 1, 2017 12:57:16 PM
1	Power	FQXSPPW2008I	Host Power has been turned on.	June 1, 2017 3:15:11 AM
1	System	FQXFSR0003G	The number of boot attempts has been exceeded. No bootable device found.	May 30, 2017 6:47:37 PM
1	Power	FQXSPPW0008I	Host Power has been turned off.	May 30, 2017 6:47:36 PM
1	Power	FQXSPPW2008I	Host Power has been turned on.	May 30, 2017 6:44:49 PM
1	Power	FQXSPPW0008I	Host Power has been turned off.	May 30, 2017 6:44:44 PM
1	Power	FQXSPPW2008I	Host Power has been turned on.	May 30, 2017 6:42:09 PM

Step 1 — 2 — 3



How to export the event log from XCC

Select the content you want to export. Select an export file type, **Excel** or **HTML**, and then click **Export**.



Step **1**—**2**—**3**



Further analysis

How to export the event log from XCC

Save the file.

The screenshot shows the XClarity Controller web interface for a ThinkSystem SR550 system. The left sidebar contains navigation links: Home, Events, Inventory, Utilization, Remote Console, Firmware Update, and Server Configuration. The main content area is titled 'Event Log' and includes tabs for Audit Log, Maintenance History, and Alert Recipients. Below the tabs are buttons for 'Customize Table' and 'Clear Logs'. A table of events is displayed with columns for Severity, Source, and Common ID. A Firefox download dialog is open in the foreground, showing the file 'bmc_export_20170605_074818.tgz' (40.9 KB) and offering the option to 'Save File'.

XClarity Controller

ThinkSystem SR550 System name: SR550-1

Event Log Audit Log Maintenance History Alert Recipients

Customize Table Clear Logs

Severity	Source	Common ID
i	Power	FQXSPW2
i	Power	FQXSPW0
i	Power	FQXSPW2
i	Power	FQXSPW0
i	Power	FQXSPW2

Opening bmc_export_20170605_074818.tgz

You have chosen to open:

☐ bmc_export_20170605_074818.tgz
which is: tgz File (40.9 KB)
from: blob:

What should Firefox do with this file?

☐ Open with

☒ Save File

☐ Do this automatically for files like this from now on.

Step

1 — 2 — 3



LXPM event log

LXPM is a UEFI application embedded in all ThinkSystem servers as the default F1 System Setup.

LXPM provides system inventory information, the graphical UEFI Setup, a platform update function, and the RAID Setup wizard. It also enables users to install the supported operating systems and associated device drivers, run diagnostics, see the event log, and collect service data.

Click each number in turn to see the procedure.

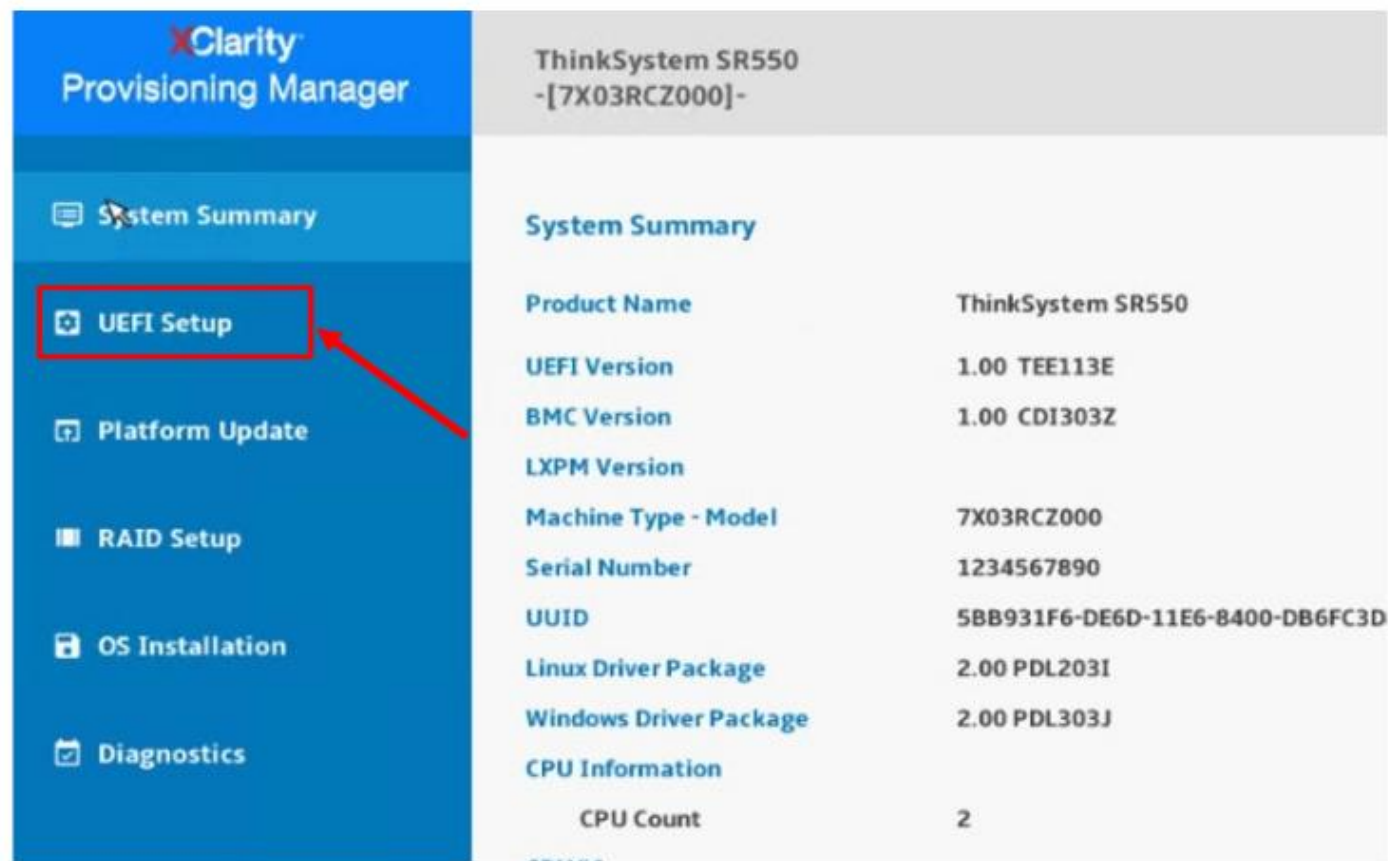
Step



Further analysis

LXPM event log

Select **UEFI Setup**.



XClarity Provisioning Manager

ThinkSystem SR550
-[7X03RCZ000]-

System Summary

Product Name	ThinkSystem SR550
UEFI Version	1.00 TEE113E
BMC Version	1.00 CDI303Z
LXPM Version	
Machine Type - Model	7X03RCZ000
Serial Number	1234567890
UUID	5BB931F6-DE6D-11E6-8400-DB6FC3D
Linux Driver Package	2.00 PDL203I
Windows Driver Package	2.00 PDL303J
CPU Information	
CPU Count	2

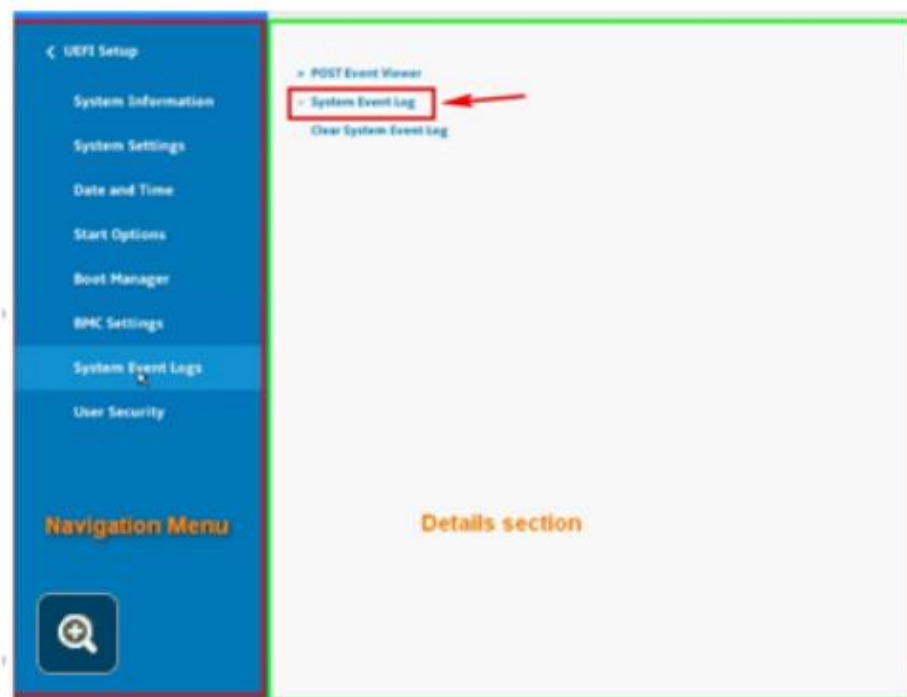
Step



LXPM event log

Select **System Event Logs** from the navigation menu on the left.

In the details section on the right, users can then select to either view or clear the system event logs



Step



LXPM event log

If **System Event Log** is selected in the details section, the system event logs will be displayed.

XClarity
Provisioning Manager

< UEFI Setup

System Information

System Settings

Date and Time

Start Options

Boot Manager

BMC Settings

System Event Logs

User Security

ThinkSystem SR550 -[7X03RCZ000]-

Total SEL entries

198

[1] Firmware Progress

[2] Firmware Progress

[3] Power Unit

[4] Power Unit

[5] Power Unit

[6] Firmware Progress

[7] Firmware Progress

[8] Power Unit

[9] Power Unit

[10] Firmware Progress

[11] Firmware Progress

[12] Power Unit

[12] Power Unit

Step



SMM event log

The SMM event log is only available for the ThinkSystem D2 enclosure.

The SMM network is disabled by default. To adjust the SMM network settings, issue the following IPMI commands to XCC.

Note: The `<XCC's IP>` is the XCC's IP address

- To query:
– `ipmitool -I lanplus -H <XCC's IP> -U USERID -P PASSWORD raw 0x3A 0xF1 0x00`
- To enable:
– `ipmitool -I lanplus -H <XCC's IP> -U USERID -P PASSWORD raw 0x3A 0xF1 0x01`
- To disable:
– `ipmitool -I lanplus -H <XCC's IP> -U USERID -P PASSWORD raw 0x3A 0xF1 0x02`

Click each number in turn to see the procedure for accessing the SMM log.

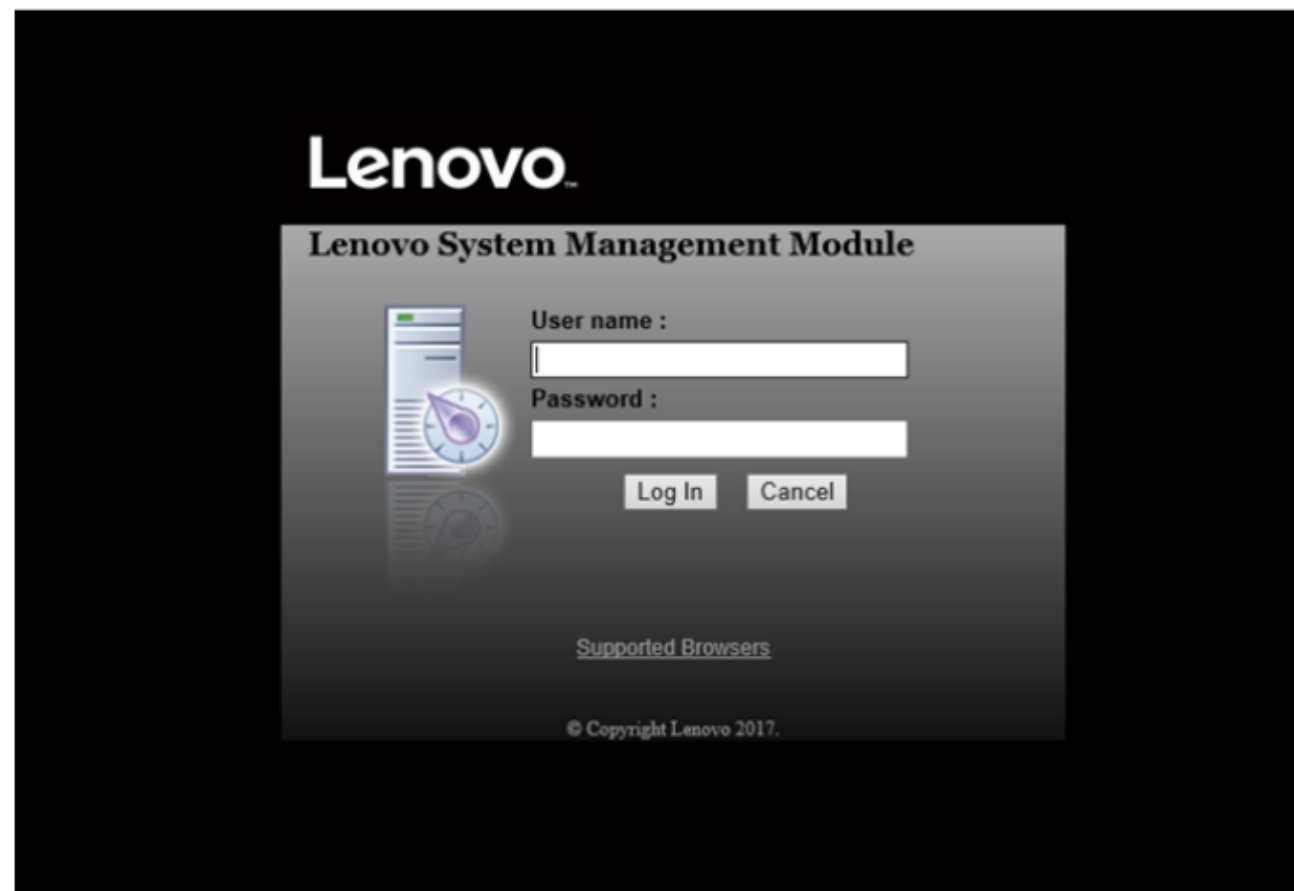
Step



SMM event log

Log in to SMM.

When SMM has been enabled, users can connect to the SMM web interface by using DHCP or static IP. The default static IP will be 192.168.70.100. The default user ID will be USERID, and the default password will be PASSWORD (zero, not an uppercase o).



Step ①—②—③



SMM event log

Select **Event Log**.

Lenovo System Management Module

Welcome USERID (Administrator) | [Log Out](#) | **Lenovo**

Mon Mar 20 2000 18:34:32 (UTC+0000)

Summary

Power and Cooling

System Information


Event Log

Configuration

Enclosure Front Overview

Enclosure Rear Overview

Refresh



Node	Height	Status	Reset / Reseat	Node	Height	Status	Reset / Reseat
03	1 U	Power Off	Reset Reseat	04	1 U	Power Off	Reset Reseat
		10.241.69.64	Launch XCC			10.241.69.215	Launch XCC
01	0 U	Not Present	Reset Reseat	02	1 U	Power On	Reset Reseat
		N/A	Launch XCC			10.241.69.225	Launch XCC

Note:

Please manually refresh 'Enclosure Front Overview' page 5 minutes after SMM or node XCC is reset to get updated node status.

Please use the refresh button on the web, refresh via browser or F5 will cause logout.

The 'Launch XCC' buttons still are able to launch XCC websites when the SMM session expires.

Step



SMM event log

The **Event Log** page will be displayed. The log can be refreshed, saved, or cleared.

Lenovo System Management Module

Welcome USERID (Administrator) | [Log Out](#) | **Lenovo**

Mon Mar 20 2000 18:37:15 (UTC+0000)

Event Log

Summary

Power and Cooling

System Information

Event Log

Configuration

Event Log

Refresh Save Log Clear Log

To sort system event logs, click the 'Date/Time'. System Event Count (Current / Maximum) 819 / 4090

Event ID	Severity	Date/Time ↓	Description
0x21880140	✓	2000-03-20 17:40:46 (UTC+0000)	NODE1_PRESENT: Slot Or Connector sensor, Device Inserted / Device Present was deasserted
0x21080140	✓	2000-03-20 17:20:07 (UTC+0000)	NODE1_PRESENT: Slot Or Connector sensor, Device Inserted / Device Present was asserted
0x21880140	✓	2000-03-20 17:20:04 (UTC+0000)	NODE1_PRESENT: Slot Or Connector sensor, Device Inserted / Device Present was deasserted
0x21080140	✓	2000-03-20 17:20:03 (UTC+0000)	NODE1_PRESENT: Slot Or Connector sensor, Device Inserted / Device Present was asserted
0x21880140	✓	2000-03-20 17:08:37 (UTC+0000)	NODE1_PRESENT: Slot Or Connector sensor, Device Inserted / Device Present was deasserted
0x21070150	!	2000-03-20 16:50:42 (UTC+0000)	NODE1_1ST_NOPERM: Slot Or Connector sensor, transition to Non-Critical from OK was asserted
0x21080140	✓	2000-03-20 16:49:07 (UTC+0000)	NODE1_PRESENT: Slot Or Connector sensor, Device Inserted / Device Present was asserted
0x21880140	✓	2000-03-20 16:46:52 (UTC+0000)	NODE1_PRESENT: Slot Or Connector sensor, Device Inserted / Device Present was deasserted
0x21080140	✓	2000-03-20 16:21:46 (UTC+0000)	NODE1_PRESENT: Slot Or Connector sensor, Device Inserted / Device Present was asserted
0x21880140	✓	2000-03-20 15:36:45 (UTC+0000)	NODE1_PRESENT: Slot Or Connector sensor, Device Inserted / Device Present was deasserted

Step



Service data

Service data is also known as First Failure Data Capture (FFDC).

To clearly identify the root cause of a server issue, users might need to collect service data that can be used for further analysis. Service data includes information such as event logs and hardware inventory. Service data can be collected using the following tools:

- LXCA
- XCC
- LXPM
- Lenovo XClarity Essentials CLI (OneCLI)
- Lenovo XClarity Orchestrator (LXCO)

Collecting service data – XCC web interface

The XCC web interface can be used to collect service data for the server, and the file can be saved and sent to Lenovo Support.

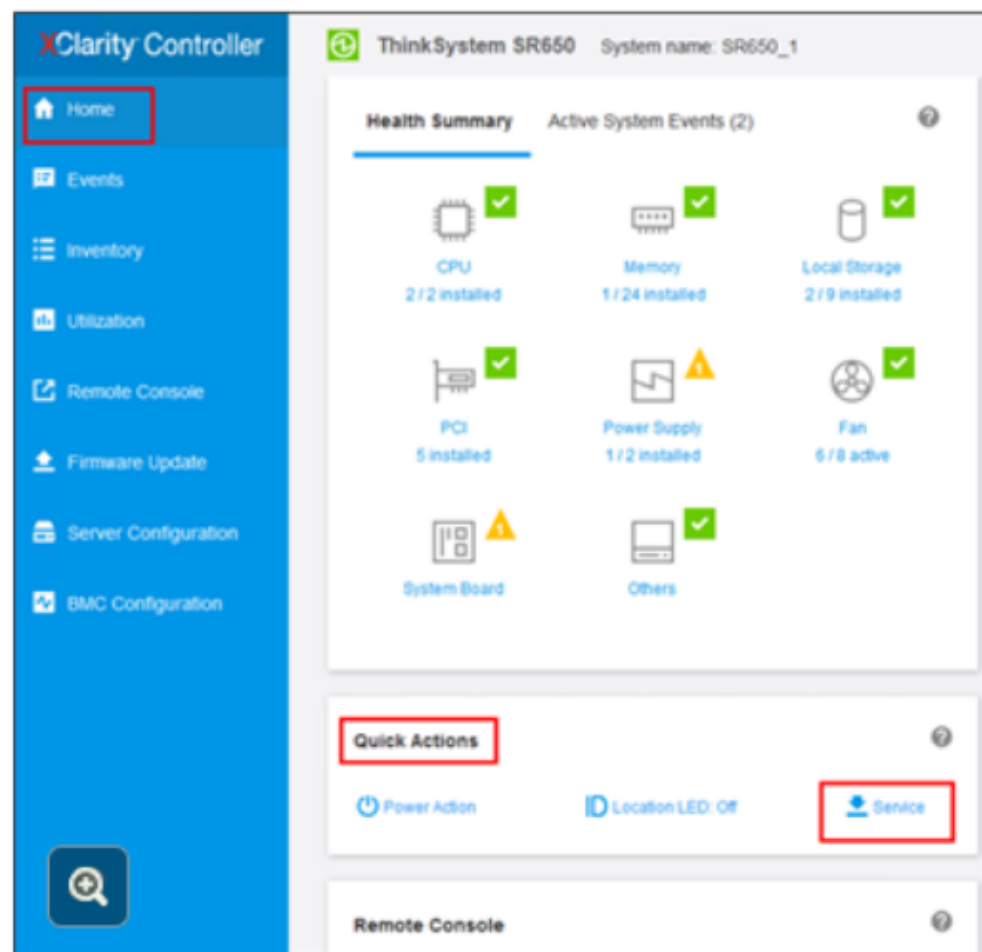
Click each number in turn to see the procedure.

Step



Collecting service data – XCC web interface

Log in to the XCC web interface. On the **Home** tab, select **Service** from the **Quick Actions** section.

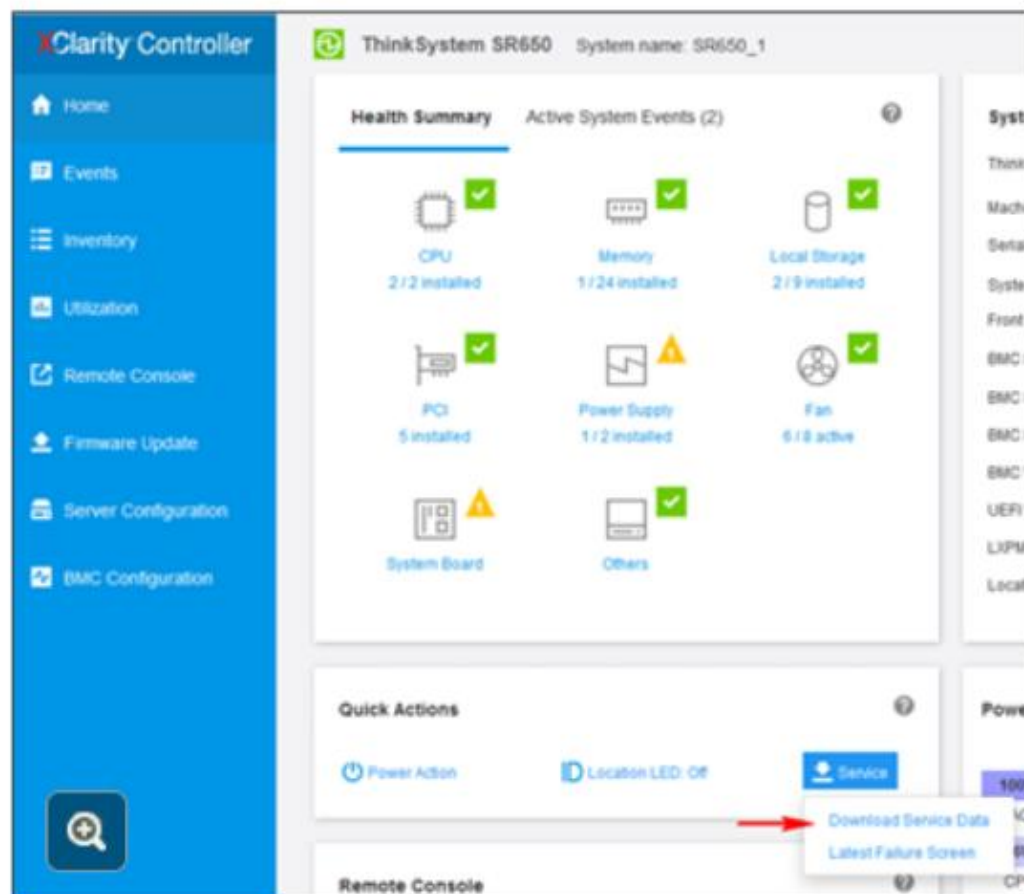


Step



Collecting service data – XCC web interface

Select **Download Service Data**.

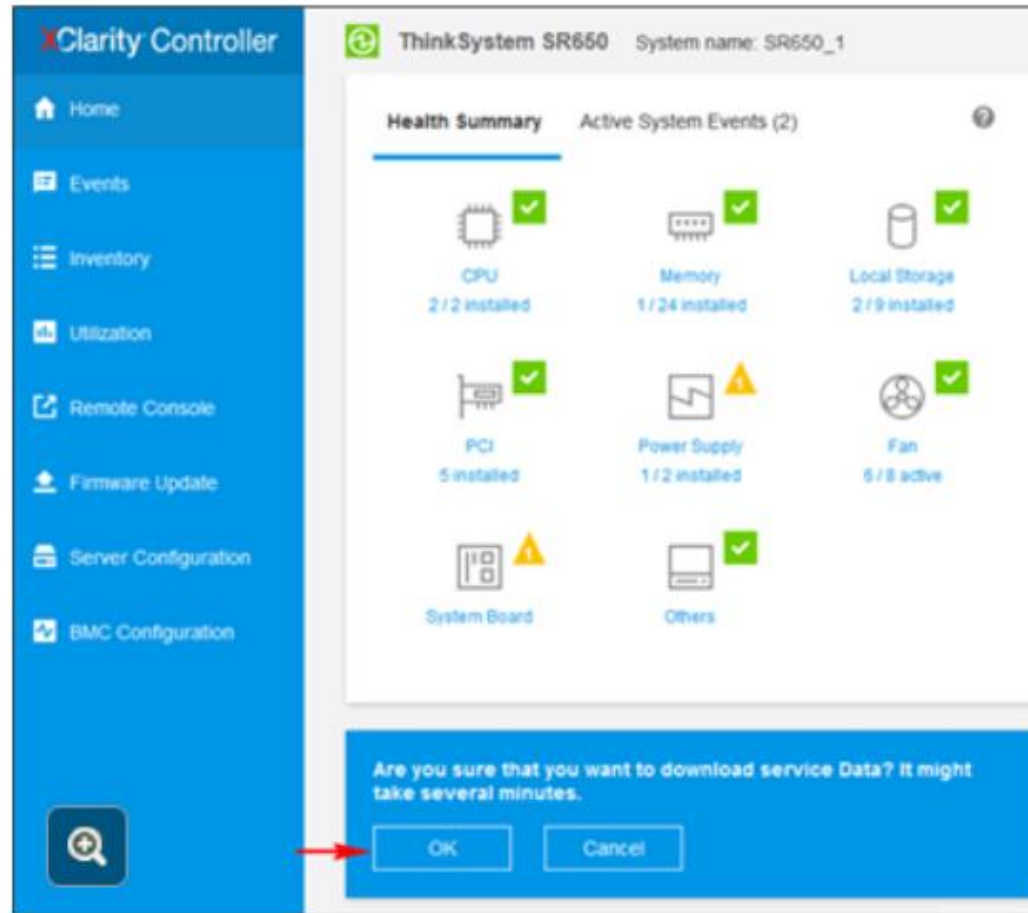


Step

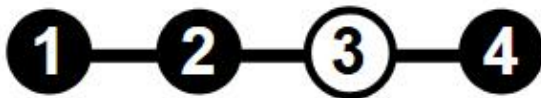


Collecting service data – XCC web interface

A prompt window will be displayed. Click **OK**.



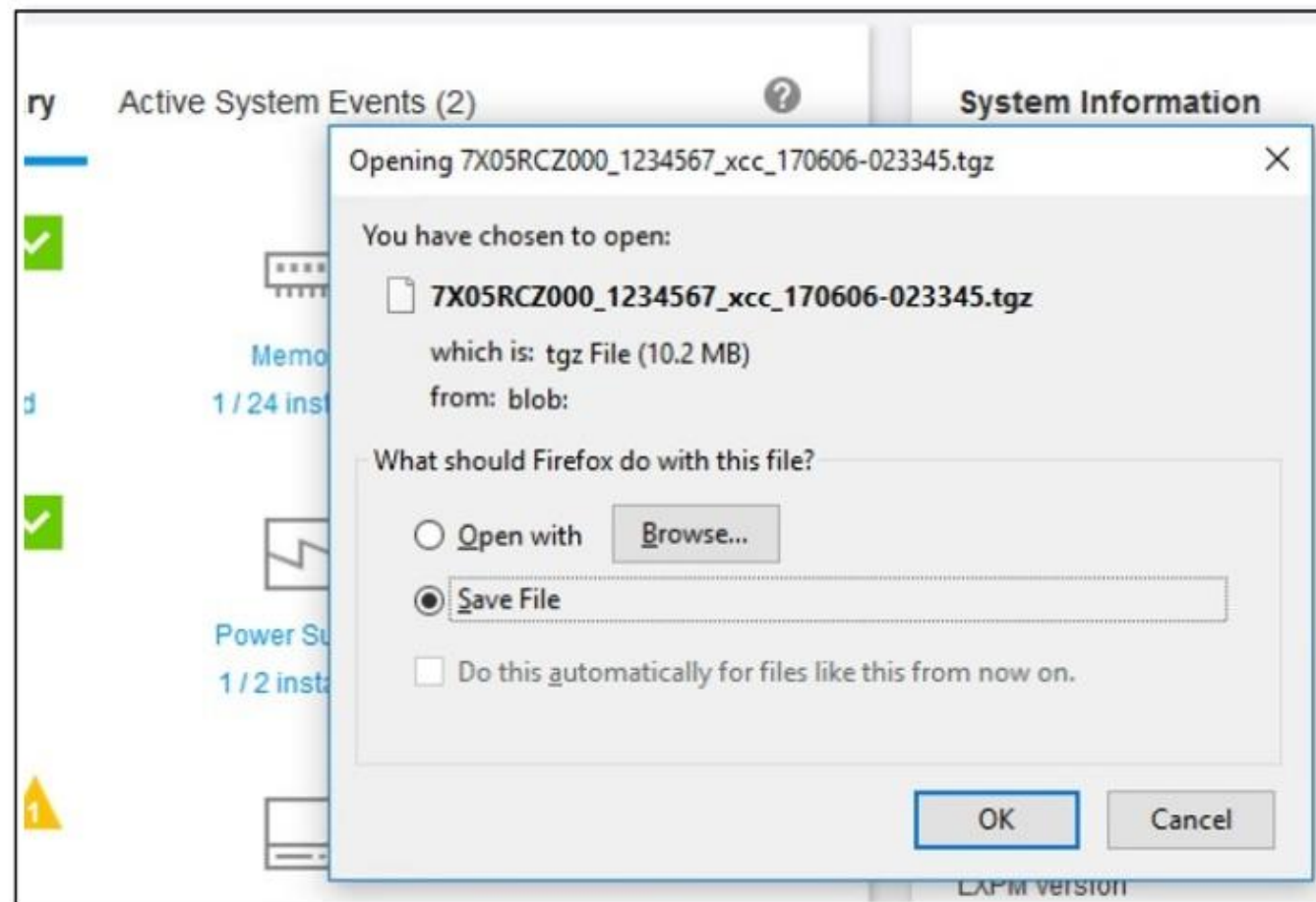
Step



Collecting service data – XCC web interface

Save the service data to the local system.

Step **1**—**2**—**3**—**4**



Collecting service data – LXCA

To download the LXCA service files, work through the following procedure.

Click each number in turn to see the procedure.

Step



Collecting service data – LXCA

Select **Service and Support** from the **Administration** drop-down menu.



Step



Collecting service data – LXCA

Click the **Device Actions** tab.




The screenshot shows the Lenovo XClarity Administrator web interface. The top navigation bar includes 'Dashboard', 'Hardware', 'Provisioning', 'Monitoring', and 'Administration'. The 'Service and Support' section is active, displaying a message: 'From this page, you can download diagnostic files and collect diagnostics from managed devices.' Below this, there are four tabs: 'Management Server Files', 'Endpoint Service Data', 'Device Actions' (highlighted with a red box), and 'Call Home Configuration'. Under the 'Device Actions' tab, there are two buttons: 'Perform Call Home Test' and 'Perform Manual Call Home', followed by several icons for file operations. A table below lists managed systems:

<input type="checkbox"/>	Systems	Status	Pro
<input type="checkbox"/>	SR530-2	Critical	Thin
<input type="checkbox"/>	sd350-4	Normal	Thin

Step



Collecting service data – LXCA

Select the device or devices you want to collect service data from, and then click the Collect Service Data icon ().

Lenovo XClarity Administrator

Dashboard

Hardware

Provisioning

Monitoring

Administration

Service and Support

From this page, you can download diagnostic files and collect diagnostics from managed devices. You can also view the status of the devices and the results of the diagnostics.

Management Server Files


Endpoint Service Data


Device Actions


Call Home Configuration


Perform Call Home Test


Perform Manual Call Home














<input type="checkbox"/> Systems	Status	Collect Service Data	Product
<input checked="" type="checkbox"/> SR530-2	 Critical	<input type="checkbox"/>	ThinkPad
<input type="checkbox"/> sd350-4	 Normal	<input type="checkbox"/>	ThinkPad
<input type="checkbox"/> sd350-1	 Normal	<input type="checkbox"/>	ThinkPad

Step

1

2

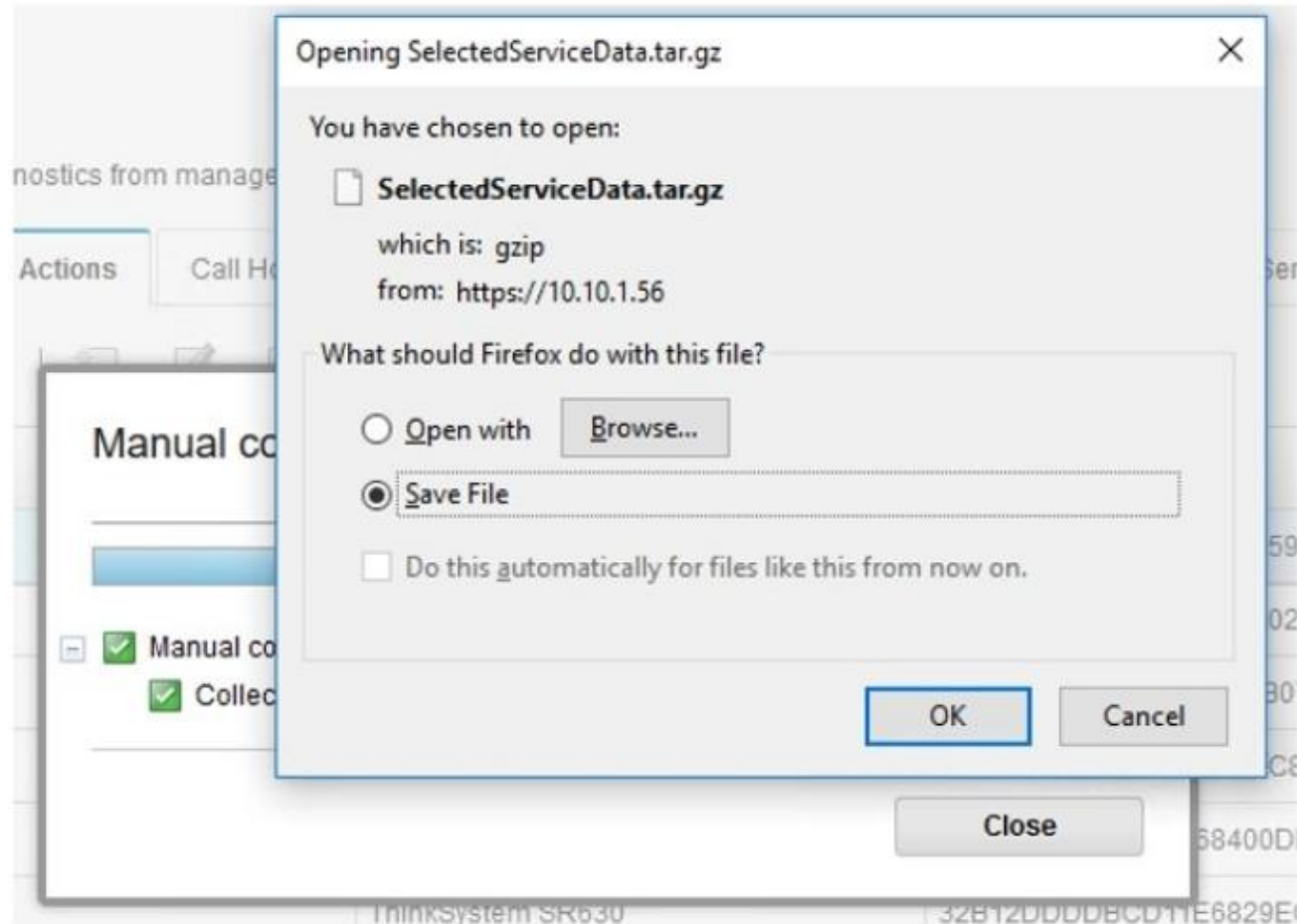
3

4



Collecting service data – LXCA

Save the service data to the local system.



Step **1**—**2**—**3**—**4**



Collecting service data – LXPM

Using the Collect Service Data function on LXPM, users can collect existing system service data logs or run diagnostic tests to collect new data.

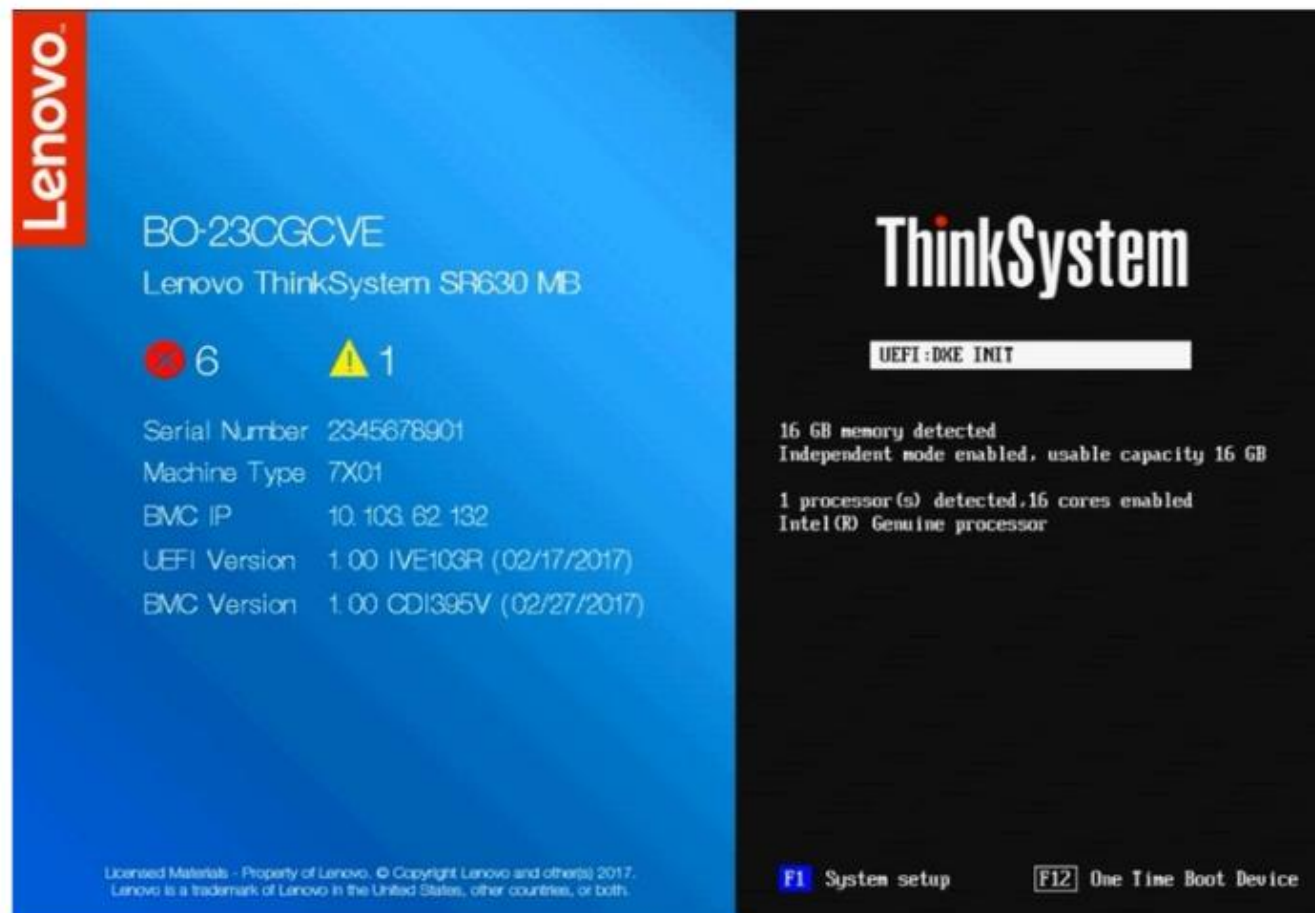
Click each number in turn to see the procedure.

Step



Collecting service data – LXPM

Press **F1** during POST, and LXPM will be launched by default.

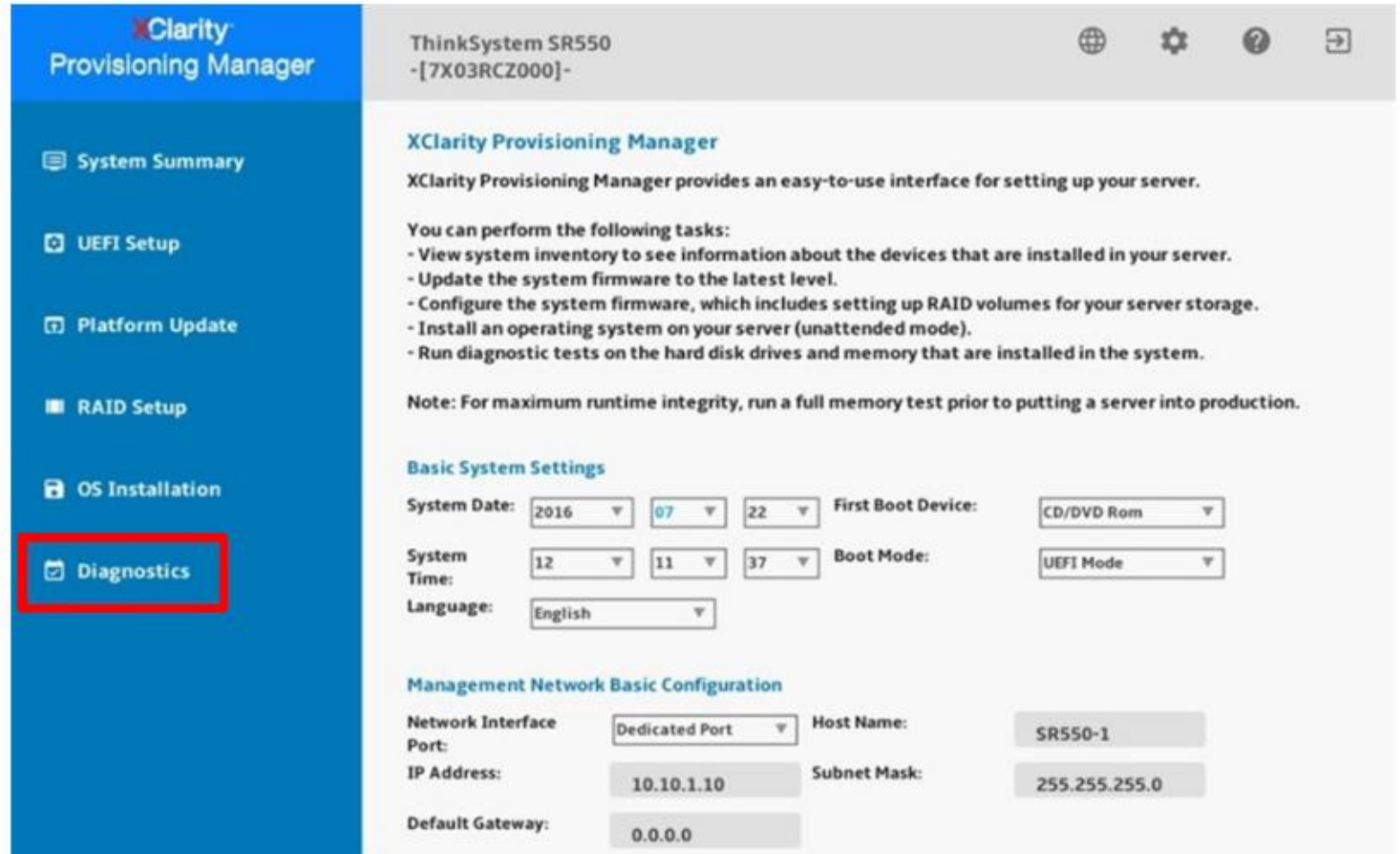


Step ①—②—③—④—⑤



Collecting service data – LXPM

Select **Diagnostics** from the Navigation menu.



XClarity Provisioning Manager

ThinkSystem SR550
-[7X03RCZ000]-

XClarity Provisioning Manager

XClarity Provisioning Manager provides an easy-to-use interface for setting up your server.

You can perform the following tasks:

- View system inventory to see information about the devices that are installed in your server.
- Update the system firmware to the latest level.
- Configure the system firmware, which includes setting up RAID volumes for your server storage.
- Install an operating system on your server (unattended mode).
- Run diagnostic tests on the hard disk drives and memory that are installed in the system.

Note: For maximum runtime integrity, run a full memory test prior to putting a server into production.

Basic System Settings

System Date: 2016 07 22 First Boot Device: CD/DVD Rom

System Time: 12 11 37 Boot Mode: UEFI Mode

Language: English

Management Network Basic Configuration

Network Interface Port: Dedicated Port Host Name: SR550-1

IP Address: 10.10.1.10 Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

Step



Collecting service data – LXPM

Select **Collect Service Data**, and then click the blue arrow.

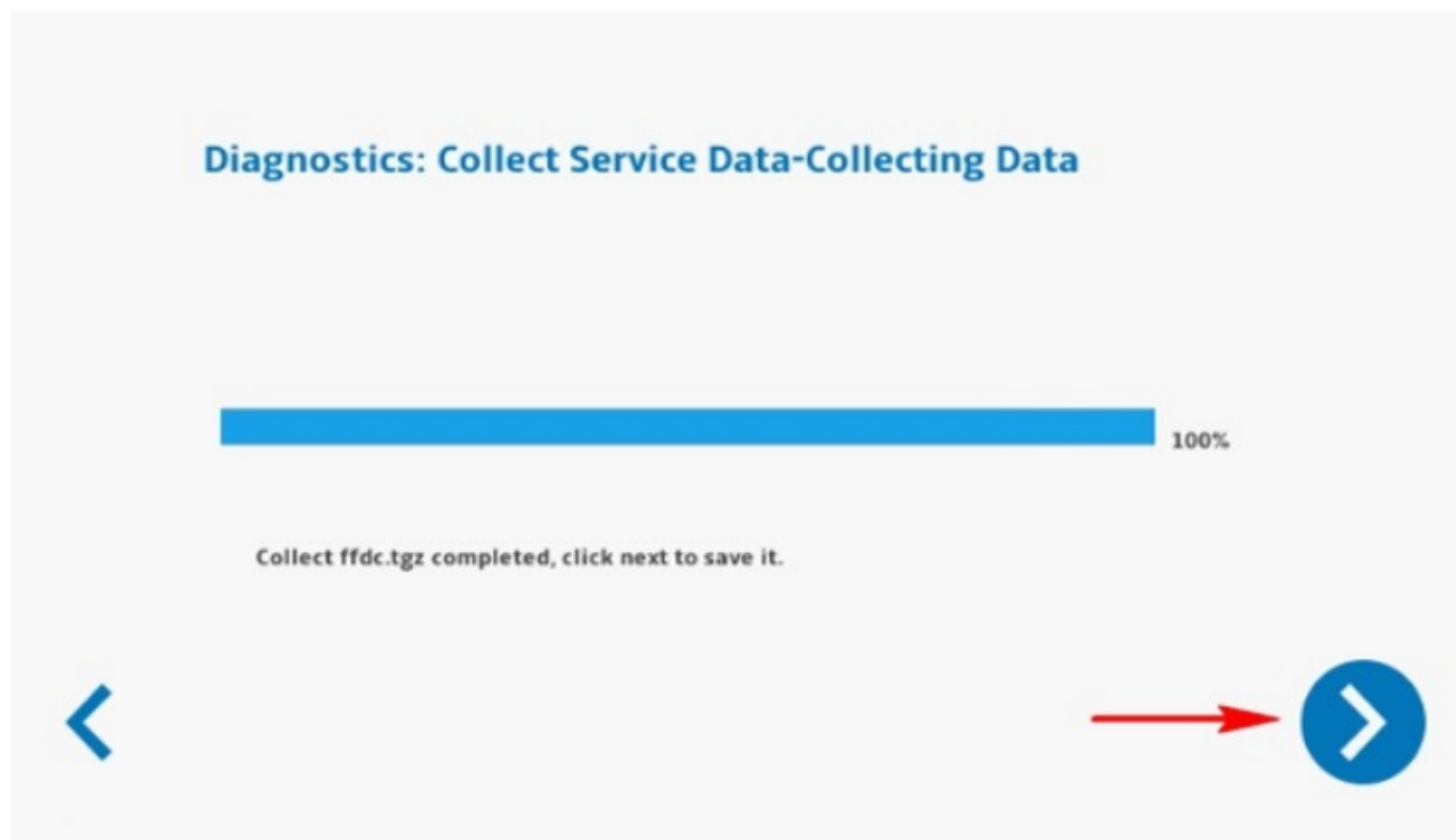


Step



Collecting service data – LXPM

LXPM will begin to collect and package the service data into an archive file named `ffdc.tgz`. When the progress bar reaches 100%, click the blue arrow on the right to go to the next step.



Step



Collecting service data – LXPM

Specify the location (USB drive or network folder) where the service data package should be saved.

Diagnostics: Collect Service Data-Save Data

Choose the location where the .tgz file will be saved.

Saved in :\\ffdc.tgz



Step **1**—**2**—**3**—**4**—**5**



Collecting service data – OneCLI

OneCLI can be run in-band from the operating system. In addition to hardware service data, OneCLI can collect operating system information, such as the operating system event log.

- Use the following command to save the HTML output report to the c:\onecli\log folder.
 - `onecli inventory getinfor --htmlreport --output c:\onecli\log`

Note: This report also contains the OS event logs.

- Use the following command to save the FFDC log to the c:\onecli\log folder.
 - `onecli inventory getinfor --ffdc --output c:\onecli\log`

Note: This report will not contain OS event logs.

OneCLI can also collect hardware service data from a remote server.


- Assuming the remote server IP address is 10.240.252.102, the user ID is USERID, and the password is PASSWORD (zero not capital O), use the following commands to save the HTML output report to the c:\onecli\log folder.
 - `onecli inventory getinfor --htmlreport --bmc USERID:PASSWORD@10.240.252.102 --output c:\onecli\log`
 - `onecli inventory getinfor --ffdc --bmc USERID:PASSWORD@10.240.252.102 --output c:\onecli\log`

Note: For more information regarding examples of OneCLI commands, download the [OneCLI User Guide from](#)

Collecting service data – LXCO

Users can manually collect service data from LXCO and then save the information to the local system in tar.gz format.

Click each number in turn to see the procedure.

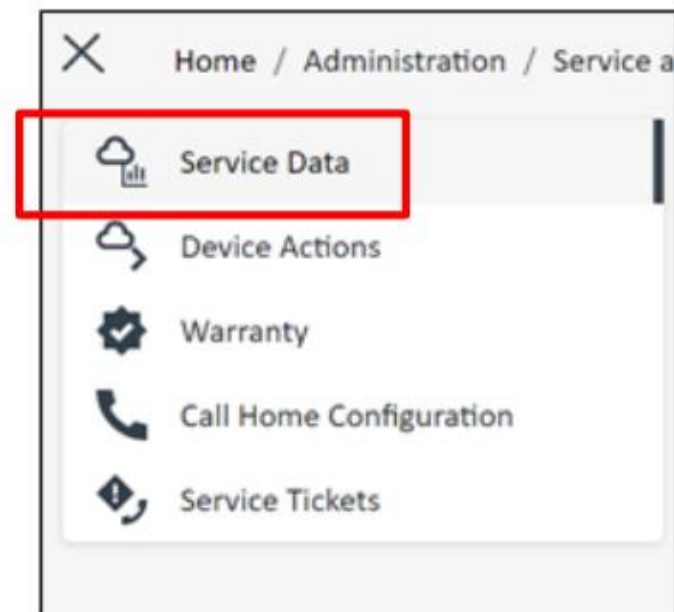
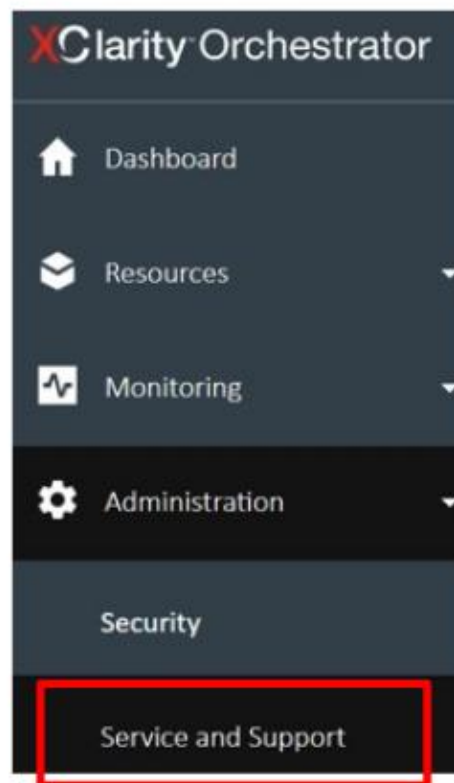
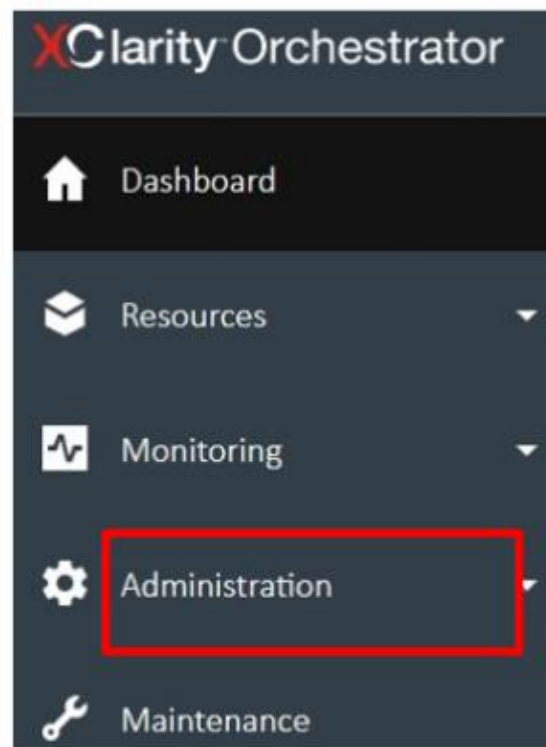


Step



Collecting service data – LXCO

After logging in to LXCO, select **Administration** → **Service and Support** → **Service Data**.

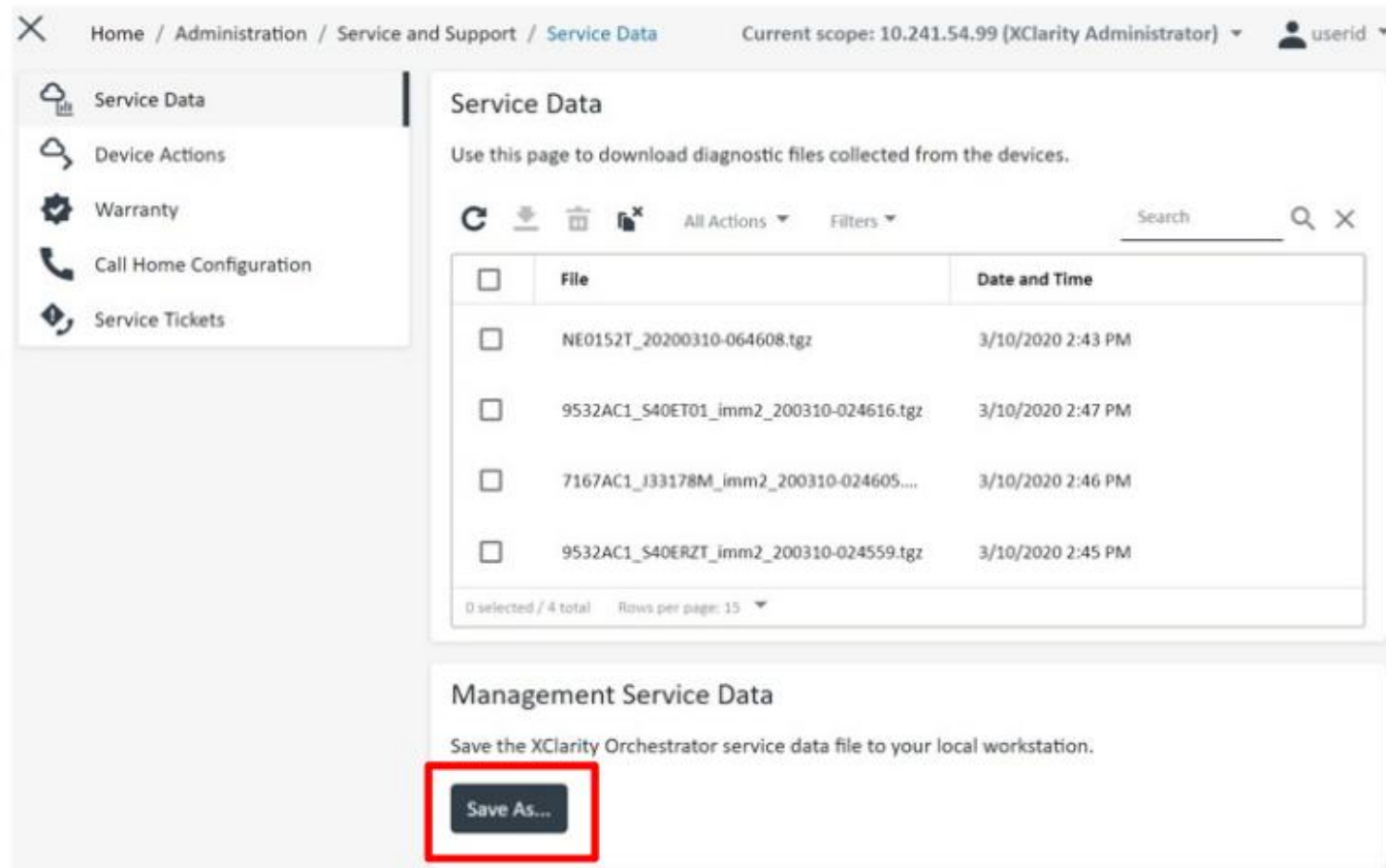


Step ①—②



Collecting service data – LXCO

The **Service Data** page contains service data archives for all managed devices and for specific resources. Click **Save As** to save the service data file to your local workstation.



Home / Administration / Service and Support / Service Data

Current scope: 10.241.54.99 (XClarity Administrator) | userid

Service Data

Use this page to download diagnostic files collected from the devices.

Refresh Download Upload X All Actions Filters Search X

<input type="checkbox"/>	File	Date and Time
<input type="checkbox"/>	NE0152T_20200310-064608.tgz	3/10/2020 2:43 PM
<input type="checkbox"/>	9532AC1_S40ET01_imm2_200310-024616.tgz	3/10/2020 2:47 PM
<input type="checkbox"/>	7167AC1_J33178M_imm2_200310-024605....	3/10/2020 2:46 PM
<input type="checkbox"/>	9532AC1_S40ERZT_imm2_200310-024559.tgz	3/10/2020 2:45 PM

0 selected / 4 total Rows per page: 15

Management Service Data

Save the XClarity Orchestrator service data file to your local workstation.

Save As...

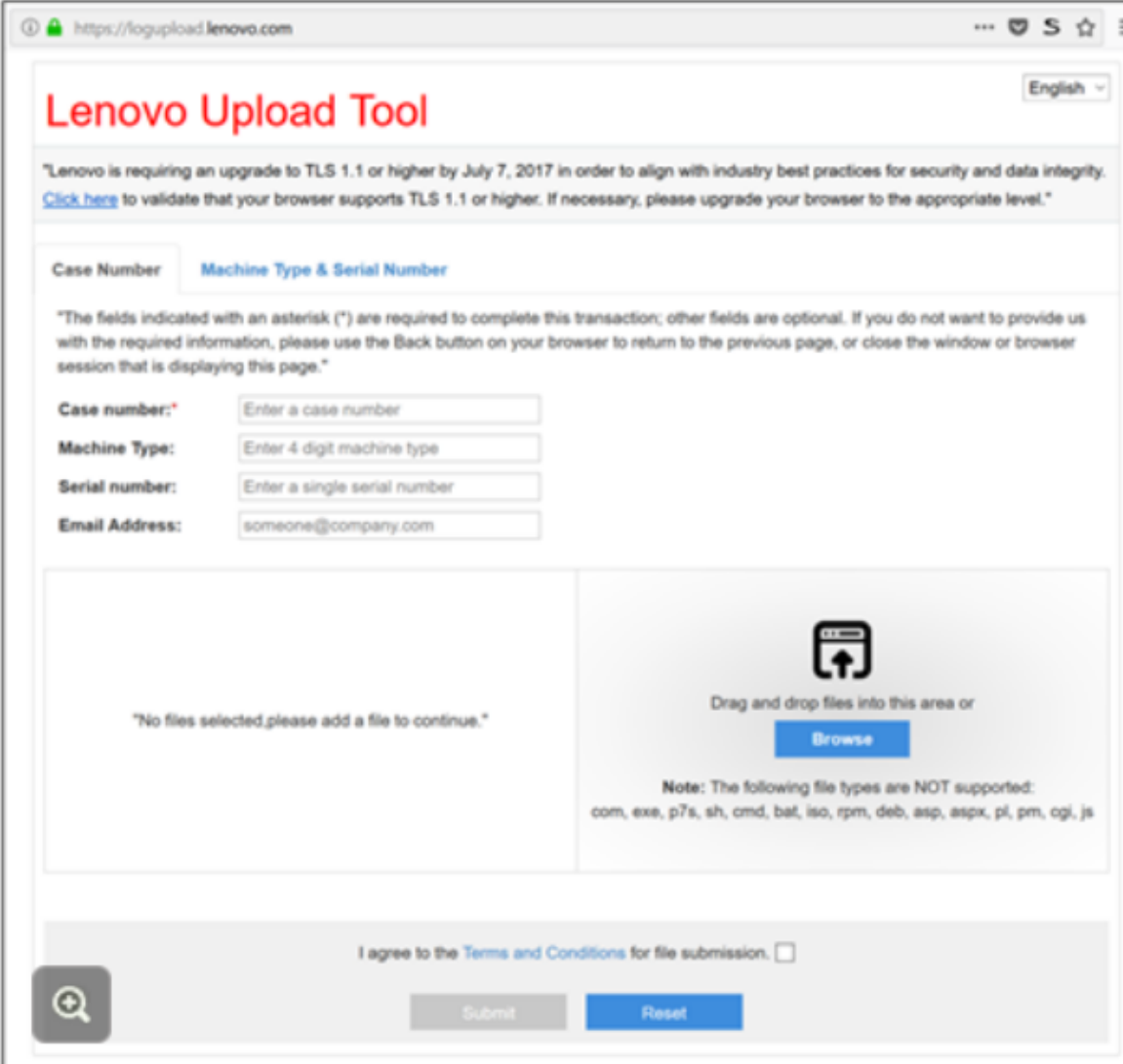
Step 1—2



Uploading files to Lenovo Upload Tool

After collecting logs from the server, the servicer, agents, or users can follow the steps set out below to upload files using [Lenovo Upload Tool](#):

1. Select either the **Case Number** tab or **Machine Type & Serial Number** tab.
2. Enter the necessary information, and then select the files to be uploaded.
3. Agree to the Terms and Conditions by clicking the check box.
4. Click **Submit**.
5. The files will be visible in Customer Logs when they have been uploaded.



The screenshot shows the Lenovo Upload Tool web interface in a browser. The URL bar shows <https://logupload.lenovo.com>. The page title is "Lenovo Upload Tool" in red. A notice at the top states: "Lenovo is requiring an upgrade to TLS 1.1 or higher by July 7, 2017 in order to align with industry best practices for security and data integrity. [Click here](#) to validate that your browser supports TLS 1.1 or higher. If necessary, please upgrade your browser to the appropriate level." Below this, there are two tabs: "Case Number" and "Machine Type & Serial Number". A disclaimer reads: "The fields indicated with an asterisk (*) are required to complete this transaction; other fields are optional. If you do not want to provide us with the required information, please use the Back button on your browser to return to the previous page, or close the window or browser session that is displaying this page." The form contains the following fields: "Case number:" with a placeholder "Enter a case number", "Machine Type:" with a placeholder "Enter 4 digit machine type", "Serial number:" with a placeholder "Enter a single serial number", and "Email Address:" with a placeholder "someone@company.com". Below the form is a large area for file upload. On the left, it says "No files selected, please add a file to continue." On the right, there is a "Browse" button and a note: "Note: The following file types are NOT supported: com, exe, p7s, sh, cmd, bat, iso, rpm, deb, asp, aspx, pl, pm, cgi, js". At the bottom, there is a checkbox for "I agree to the [Terms and Conditions](#) for file submission." and two buttons: "Submit" and "Reset".

Lenovo Systems CARE

[Lenovo Systems CARE](#) is a web-based application suite designed to help with problem resolution for Enterprise x86 customers. It is used in over 60 countries around the world.

When a customer calls for technical support, Systems CARE will



- Help with problem determination by analyzing system information
- Provide multiple tools to quickly parse logs, analyze the data, identify potential problems, and generate action plans
- Highlight any firmware that needs to be updated or any mismatched firmware within a system
- Provide visual aids to quickly identify potential problem areas

Refer to the GLOSSE [Lenovo Systems CARE Tools](#) page to learn how to register for a Systems CARE user ID, and how to use the tools within the application suite.

Lenovo Systems CARE – Customer Logs

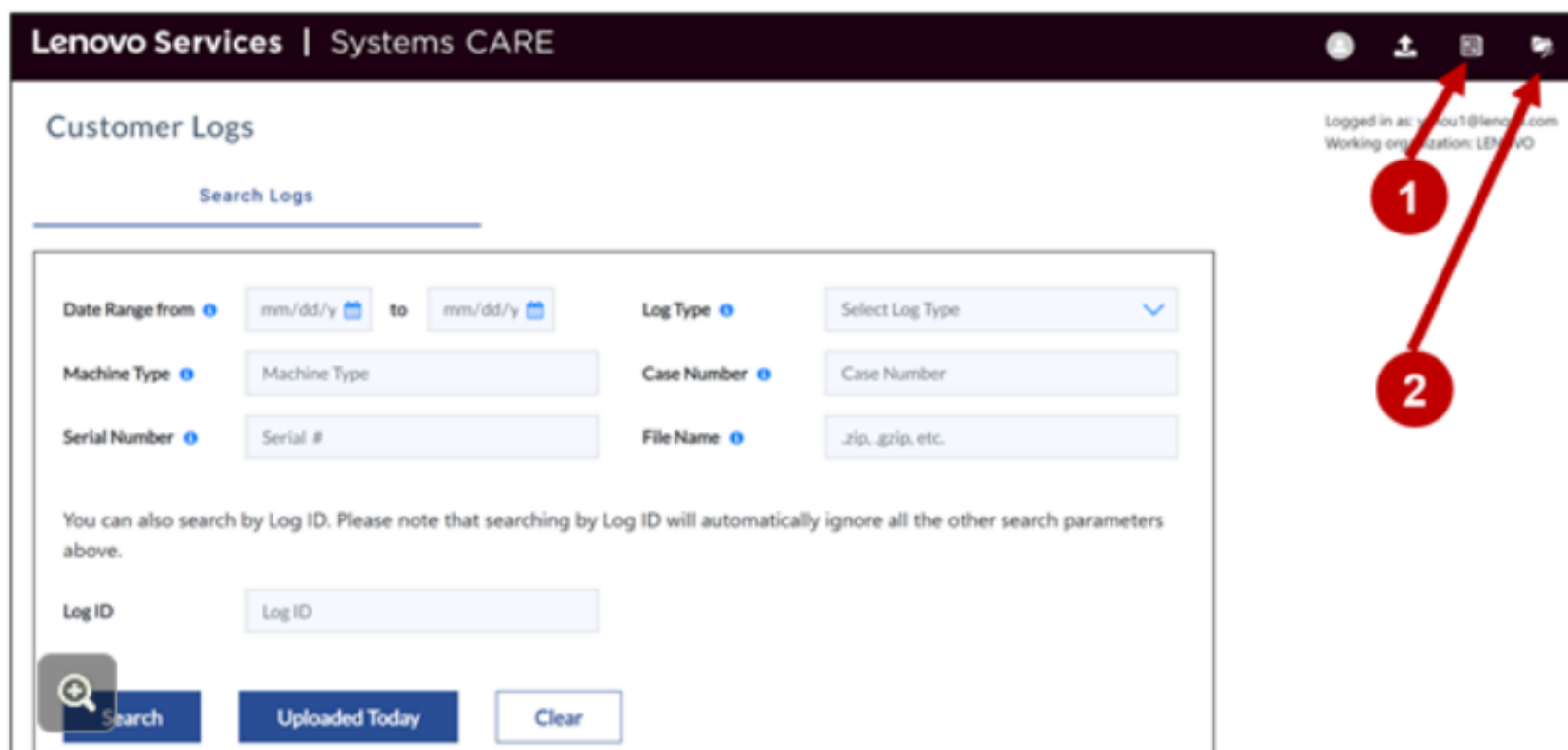
On the **Customer Logs** page, you can locate uploaded files and parse file collections to see the log information in an easy-to-read HTML format.

The following buttons can be found in the top right corner:

1.  [Latest Tech Tips link](#)
 2.  [Published Tech Tips link](#)
- (Click the items for screenshots)

Note: For more information about the parsing of files, refer to the following GLOSSE links:

- [Parsing a DSA File](#)
- [Parsing an AMM/CMM File](#)
- [Parsing an IMM or XCC File](#)



Lenovo Services | Systems CARE

Customer Logs

Search Logs


Date Range from to Log Type

Machine Type Case Number

Serial Number File Name

You can also search by Log ID. Please note that searching by Log ID will automatically ignore all the other search parameters above.

Log ID

 Search

Logged in as: you1@lenovo.com
Working organization: Lenovo

IMM/XCC service data on Systems CARE – example

Fill in either the **Case Number** or **Machine Type** and **Serial** fields to search for a customer log.

After locating the log, users can select from the following Action menu options for further analysis:

- Download File
- IMM FFDC Parser
- Log Insight
- Universal Parser

Note: The log analysis tool has not been fully developed for Intel v4 machines.

The screenshot displays the 'Customer Logs' interface. At the top right, it shows 'Logged in as: ychou1@lenovo.com' and 'Working organization: LENOVO'. Below this is a 'Search Logs' section with various filters. Two red boxes highlight the 'Machine Type' and 'Case Number' fields. The 'Machine Type' field contains 'Machine Type' and the 'Case Number' field contains 'Case Number'. Below these are fields for 'Serial Number' (containing 'J6003Z21') and 'File Name' (containing '.zip, .gzip, etc.'). A note states: 'You can also search by Log ID. Please note that searching by Log ID will automatically ignore all the other search parameters above.' Below this is a 'Log ID' field. At the bottom of the search section are 'Search', 'Uploaded Today', and 'Clear' buttons. The 'Search Results' section shows a table with columns: 'Log ID', 'Date/Time', 'Case', 'Machine', 'Serial Number', 'Log Type', 'File Name', 'File Size', and 'Actions'. The first row shows a log with ID '30297683', date '2024-09-26 05:16', machine '7D4M', serial 'J6003Z21', log type 'IMM / XCC Service Data', file name '7D4MCT01WW_J6003Z21_xcc_240926-124052.tzz', and file size '13.02 MB'. A red circle highlights the 'Actions' column for this log. A red arrow points from this circle to a separate box on the right that lists the available actions: 'Download File', 'IMM FFDC Parser', 'Log Insight', and 'Universal Parser'.

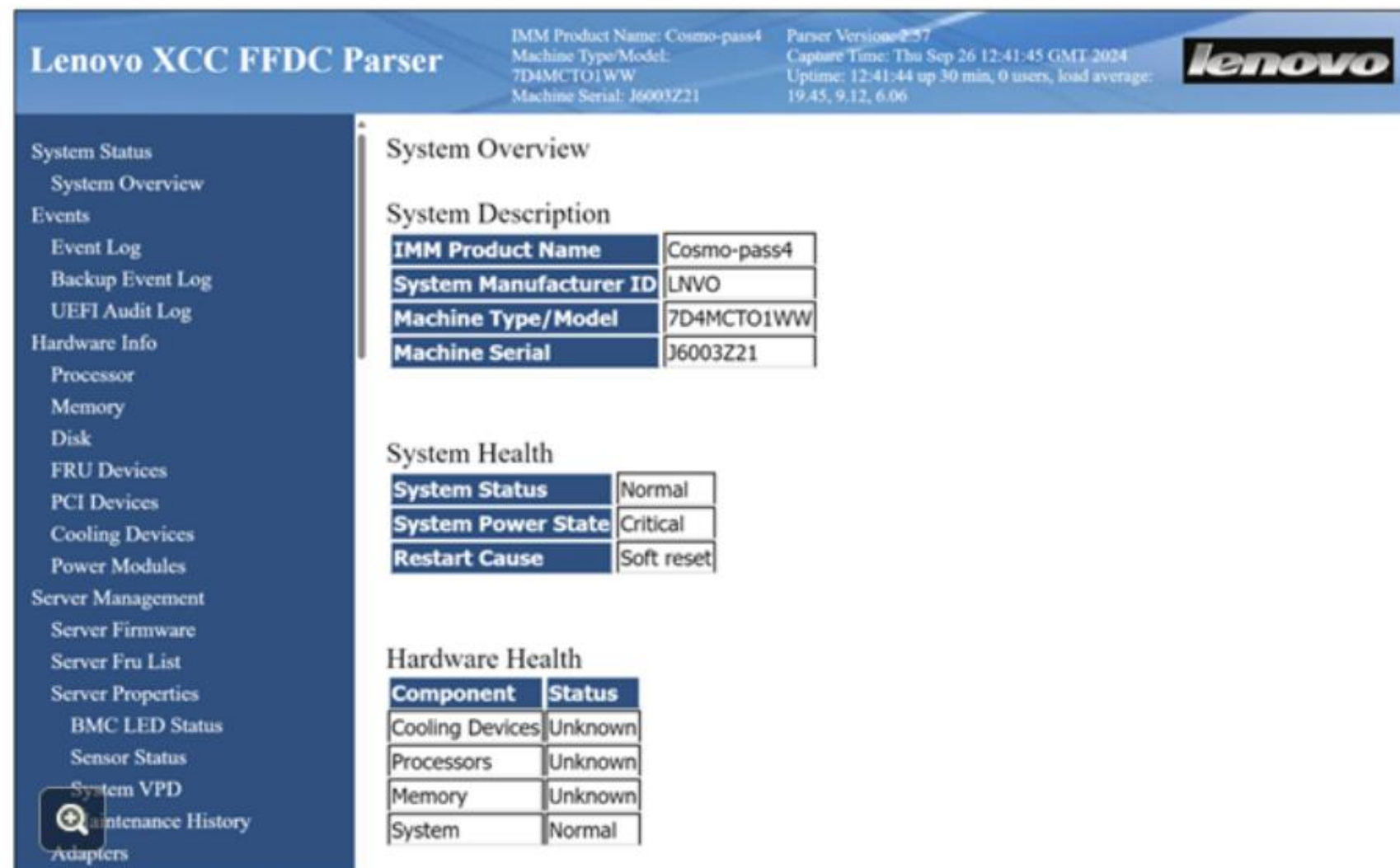
Log ID	Date/Time	Case	Machine	Serial Number	Log Type	File Name	File Size	Actions
30297683	2024-09-26 05:16		7D4M	J6003Z21	IMM / XCC Service Data	7D4MCT01WW_J6003Z21_xcc_240926-124052.tzz	13.02 MB	[Menu]

Further analysis

IMM FFDC Parser tool in Systems CARE

Wait for the log to be parsed, which might take up to three minutes.

A new window containing a system summary will be opened. Users can then select files from the left menu.



The screenshot displays the 'Lenovo XCC FFDC Parser' application. The top header bar includes the title 'Lenovo XCC FFDC Parser' on the left, system metadata in the center (IMM Product Name: Cosmo-pass4, Machine Type/Model: 7D4MCTO1WW, Machine Serial: J6003Z21), parser version and capture time on the right (Parser Version: P37, Capture Time: Thu Sep 26 12:41:45 GMT 2024), and the uptime (Uptime: 12:41:44 up 30 min, 0 users, load average: 19.45, 9.12, 6.06). The Lenovo logo is in the top right corner.

A left-hand navigation menu lists various system components: System Status, System Overview, Events, Event Log, Backup Event Log, UEFI Audit Log, Hardware Info, Processor, Memory, Disk, FRU Devices, PCI Devices, Cooling Devices, Power Modules, Server Management, Server Firmware, Server Fru List, Server Properties, BMC LED Status, Sensor Status, System VPD, Maintenance History, and Adapters.

The main content area is titled 'System Overview' and contains two sections:

- System Description**: A table with the following data:

IMM Product Name	Cosmo-pass4
System Manufacturer ID	LNVO
Machine Type/Model	7D4MCTO1WW
Machine Serial	J6003Z21
- System Health**: A table with the following data:

System Status	Normal
System Power State	Critical
Restart Cause	Soft reset

Below these is the **Hardware Health** section, which includes a table:

Component	Status
Cooling Devices	Unknown
Processors	Unknown
Memory	Unknown
System	Normal

Log Insight in Systems CARE

Log Insight is a server problem determination tool that uses AI analytics.

After a server log has been submitted, the tool will complete an analysis and then provide the following information:

- Overall Report
- Hardware Diagnosis
- Firmware Diagnosis
- Advisory Analysis
- Others

The screenshot displays the 'Lenovo Services | Log Insight v1.3.14' interface. The top navigation bar includes tabs for 'Overall', 'Hardware', 'Firmware', 'Tips', and 'Others'. The main content area is divided into several sections:

- Suggestions:** A table with two rows: 'Actions' showing '0 action plan for 1 active system event.' and 'Updates' showing 'Update XCC firmware to version 5.48 for enhancements & fixes.'
- Warranty:** A status box indicating 'The warranty information for machines shipped to China are not supported yet.'
- Basic Information:** A table with columns for 'Log File', 'Analysis Start Time', 'Analysis End Time', and 'Operating System'. The log file is '7D4MCTO1WW_J6003Z21_xcc_240926-124052.tzz'. The analysis times are '2024-09-26 05:17:22' and '2024-09-26 05:18:14'. The operating system is 'Windows Boot Manager'.
- Analysis Result:** A table with three rows: 'Hardware Status', 'Firmware Status', and 'Security Status'.
 - Hardware Status:** - Active events: 0 error, 1 warning; - Last 30 days' events: 12 errors, 5 warnings; - LED Status: 0 anomaly; - Inventory: 0 anomaly.
 - Firmware Status:** - 0 UEFI release behind. Latest updated on 2024-09-13 10:47:56; - 2 XCC releases behind. Latest updated on 2023-06-28 20:29:54.
 - Security Status:** - 0 critical CVE found; - 0 high CVE found.

The interface also features a 'Feedback' button on the right side and a search icon in the bottom left corner.

Time stamp mismatch after parsing a log

The server of the LSC parser is located in the UTC time zone. When a customer log comes from a different time zone, the time stamp in the **Critical Event Log Entries** section will be different to the actual time in the customer's time zone.

The screenshot displays the 'Lenovo XCC FFDC Parser' application. The top right corner shows the 'IMM Product Name: Anarky-pass7' and a red box highlighting the 'Capture Time: Mon Sep 30 09:37:55 JST 2024'. The left sidebar contains a list of log categories, with 'Parsing Log' highlighted in a red box. The main area shows a log entry with a timestamp of '2024/09/30 01:24:51 INFO> FFDCParser.pm:186 FFDCParser::parseFFDC - Parsing FFDC done!'. A red box highlights this timestamp. A blue callout box points to the timestamp, stating 'Log was captured in the JST time zone'. Another blue callout box points to the 'Parsing Log' in the sidebar, stating 'Click Parsing Log to see the parsing process.' A third blue callout box points to the timestamp, stating 'The time stamp here is from the UTC time zone'.

LSC tech tips search tool



The tech tips search tool provides access to all the available, active, published tech tips about Lenovo x86 systems. It is suggested that you check tech tips to see if your case is a known issue that already has a solution.

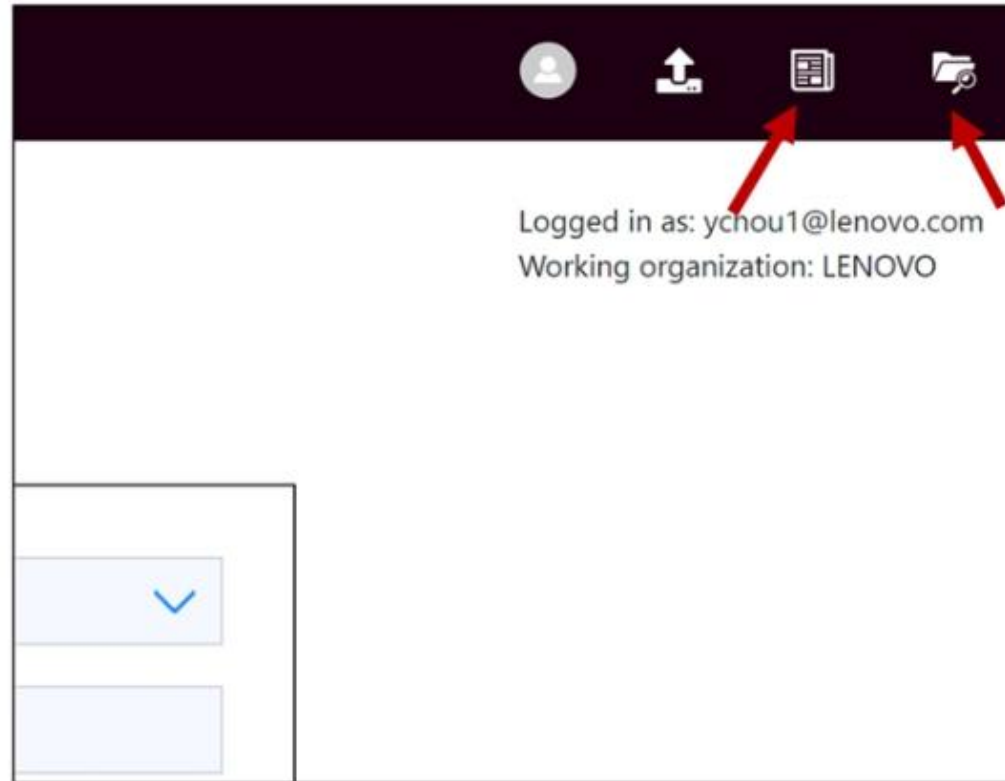
Click each number in turn to see the procedure.

Step



LSC tech tips search tool

Select  **Techtips Latest** to see the latest tech tips, or select  **Techtips Search** and then enter the necessary information to search for relevant tips.



Step



Further analysis

LSC tech tips search tool

If **Tech Tips Latest** is selected, the latest tech tips will be shown. Enter terms in the **Search** field to narrow down your search.

Lenovo Systems **CARE**
Service Troubleshooting Application Suite

Latest Tech Tips (restricted) Updated 25 Sep 2024

Search

Note: If you receive an access error when trying to view any of these tips on the Lenovo support site, you need to request restricted access for your Lenovo ID. Instructions can be found on the [Lenovo Support Portal Service Access page](#).

[Talking Points and FAQs for Meltdown and Spectre security advisories](#) Updated 10 Jan 2018

Within 14 days	Published Date	Abstract	Systems CARE Tip Search	Datacenter Support Link	Classification
Published month - 2024-09					
*** New ***	2024-09-24	Yellow bangs for Ethernet Controller in device manager after installing Windows 2025 with LXPM - Lenovo ThinkEdge SE350 V2 and SE360 V2 Affected types: SE350V2 SE360V2	IT2525	IT2525	Public / Unclassified
*** New ***	2024-09-24	SR655 V3 server may not power on with the T-shape performance heat sink - Lenovo ThinkSystem SR655 V3 Affected types: 7D9E 7D9F	IT2500	IT2500	Service Provider / Internal
*** New ***	2024-09-24	DE series - SAS Port Degraded due to faulty controller - Lenovo Storage Affected types: THINKSYSTEM-DE6000F DE6400F THINKSYSTEM-DE120S THINKSYSTEM-DE4000H DE6600F THINKSYSTEM-DE6000H THINKSYSTEM-DE600S DE6600H THINKSYSTEM-DE240S THINKSYSTEM-DE2000H THINKSYSTEM-DE4000F DE6400H	IT2243	IT2243	Call Center / Confidential
*** New ***	2024-09-24	Lenovo ThinkSystem RAID 540/940 RAID controller reverses order of virtual drives after virtual drive creation - Lenovo ThinkSystem Affected types: 7Y51 7X69 7Y00 7D2V 7D2W 7X10 7X04 7Z22 7Y50 7Z71 7Y36 7D32 7Z23 7Y45 7X07 7D2X 7Z01 7X09 7Z60	MTS14334	MTS14334	Public / Unclassified

Step



Further analysis

LSC tech tips search tool

In this example, “SR650” was entered, so the latest SR650 tips have been displayed.

Lenovo Systems **CARE**
Service Troubleshooting Application Suite

Latest Tech Tips (restricted) Updated 29 Sep 2024

SR650 V3

Note: If you receive an access error when trying to view any of these tips on the Lenovo support site, you need to request restricted access for your Lenovo ID. Instructions can be found on the [Lenovo Support Portal Services Access page](#).

[Talking Points and FAQs for Meltdown and Spectre security advisories](#) Updated 10 Jan 2018

Within 14 days	Published Date	Abstract	Systems CARE Tip Search	Datacenter Support Link	Classification
*** New ***	2024-09-27	Intermittently, the XCC may not see E810 NIC firmware information for 10 minutes after AC cycle - Lenovo ThinkSystem Affected types: SR950V3 ST650V3 SR850V3 ST250V3 ST58V3 SR635V3 7DD9 SD535V3 HS350XV3 SR645V3 SR250V3 ST45V3 SR665V3 7D9E ST658V3 SD555V3 SR685AV3 SR258V3 7D9F SR630V3 SD650V3 SR655V3 SR860V3 SR675V3 ST50V3 SD550V3 ST258V3 SD530V3 SR650V3 SR780AV3 SR680AV3 SD650NV3 HR355MV3 7D76 7D75 7DD2	IT2530	IT2530	Public / Unclassified
*** New ***	2024-09-23	Drive firmware update via LXUM fails when drives are in VROC array - Lenovo ThinkSystem Affected types: SR950V3 SR850V3 SR860V2 SD650V3 SR670V2 SD630V2 SR850V2 SR650V2 SD650V2 SR630V2 SR630V3 SD650V3 SR860V3 SD650-N-V2 SR650V3	IT1480	IT1480	Public / Unclassified
	2024-09-20	VROC NVME SSD are exposed in the UEFI Storage list Affected types: SR950V3 ST650V3 SR850V3 SD650V3 ST658V3 SR630V3 SD650V3 SR860V3 SD550V3 SD530V3 SR650V3	IT2488	IT2488	Public / Unclassified
	2024-09-20	Redfish service validator test problems - Lenovo ThinkSystem Affected types: SR950V3 ST650V3 SR850V3 ST250V3 ST58V3 SR635V3 SD535V3 SD650V3 SR645V3 SR250V3 ST45V3 SR665V3 SD665NV3 SD665-V3 ST658V3 SD555V3 SR685AV3	IT2412	IT2412	Public /

Step



LSC tech tips search tool

Select **Tech Tips Search** to search through all the available, active, published tech tips. In this example, “SR650 M.2” was entered in the search field.

The screenshot shows the 'Lenovo Systems CARE' interface with the title 'Published Tech Tips for Lenovo DCG – Updated 8 Jul 2020'. A search bar at the top right contains the text 'SR650 M.2', with a red arrow pointing to it. Below the search bar, there are tabs for 'Content' and 'Search Results', with 'Search Results' being the active tab. On the left side, there is a list of tech tips, each preceded by a document icon. The list includes titles such as 'Preface', 'HT510108 - LXCA SHOWS PROFILE NO...', 'HT510753 - LXCA FAILS TO UPDATE LEI...', and many others. The main content area on the right is titled 'Preface' and contains a 'Contact' section with the name 'Dennis N Brown' and an email address '<dbrown@lenovo.com>'. Below this is a 'Notice' section stating that if an access error occurs, users need to request restricted access for their Lenovo ID, with a link to the 'GLOSSE Lenovo Support Portal Service Access page'. There is also a 'Notes' section explaining the intent of the document and a 'Search Hints' section providing information about logical operators and a sample search: '7141 and boot not raid and dsa'.

Step



LSC tech tips search tool

Every tip related to the SR650 M.2 adapter/drive will be listed on the **Search Results** tab. Check the tips to see if any match your issue.

Lenovo Systems CARE
Service Troubleshooting Application Suite

Published Tech Tips for Lenovo DCG – Updated 8 Jul 2020

SR650 M.2

Content Search Results

21 document(s) found for SR650 M.2

[Published Tech Tips for Lenovo DCG - Updated 8 Jul 2020](#) ★★★★★

[HT510211 - VMWARE ESXi QUICK BOOT SUPPORT FOR LENOV0 THINKSYSTEM SR650](#) ★☆☆☆☆

[HT505743 - THE MICRON 480GB M.2 MAY THROTTLE IN SR650](#) ★☆☆☆☆

[HT504903 - SYSTEM HANGS AFTER DISABLING M.2 SLOT WHEN M.2 RAID BOOT ADAPTER IS INSTALLED](#) ★☆☆☆☆

[HT507627 - ONECLI 2.4.0 FAILS TO PARSE INVENTORY XML REPORT TO HTML WHEN M.2 SSD ATTACHED TO SERVER](#) ★☆☆☆☆

[HT507401 - M.2 + MIRROR KIT RAID 1 SPLITS INTO 2 FOREIGN RAID 1 DRIVES WITH POSSIBLE REBUILD FAILURE](#) ★☆☆☆☆

[HT507307 - MICRON M.2 & SSD DRIVE MAY CAUSE REBUILDS TO FAIL AND REPORT OTHER ERRORS](#) ★☆☆☆☆

Preface

Contact

Dennis N Brown
djbrown@lenovo.com

Lenovo Services - Systems CARE Team
Morrisville, North Carolina, USA

Notice: If you receive an access error when trying to view any of these tips on the Lenovo support site, you need to request restricted access for your Lenovo ID. Instructions can be found on the [GLOSSE Lenovo Support Portal Servicer Access page](#).

Notes

The intent of this document is to provide a list of all active published Tech Tips.

In all cases the Lenovo support site should be considered the authoritative source of Tech Tip information.

This is a development tool, not a production tool. In order to push improvements to the "real" Lenovo support site, we need you to continue to use the actual documented tips on (support.lenovo.com)... a link is provided at the top of each result page to allow you to link the "official" document. This will allow us to capture linking statistics, so please use those links.

Search Hints

This tool supports the logical operators (and, or, not) with the default operator "and" here is a sample search:

`7141 and boot not raid and dsa`

Since the default operator is "and", a search like this:

`null pointer exception`

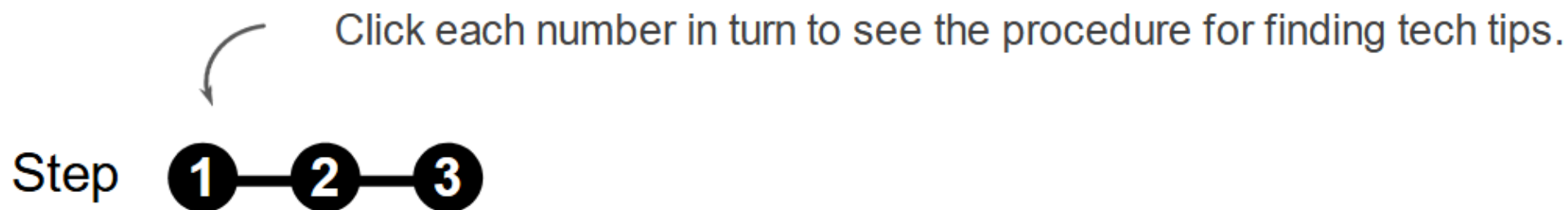
will actually conduct the search.

Step



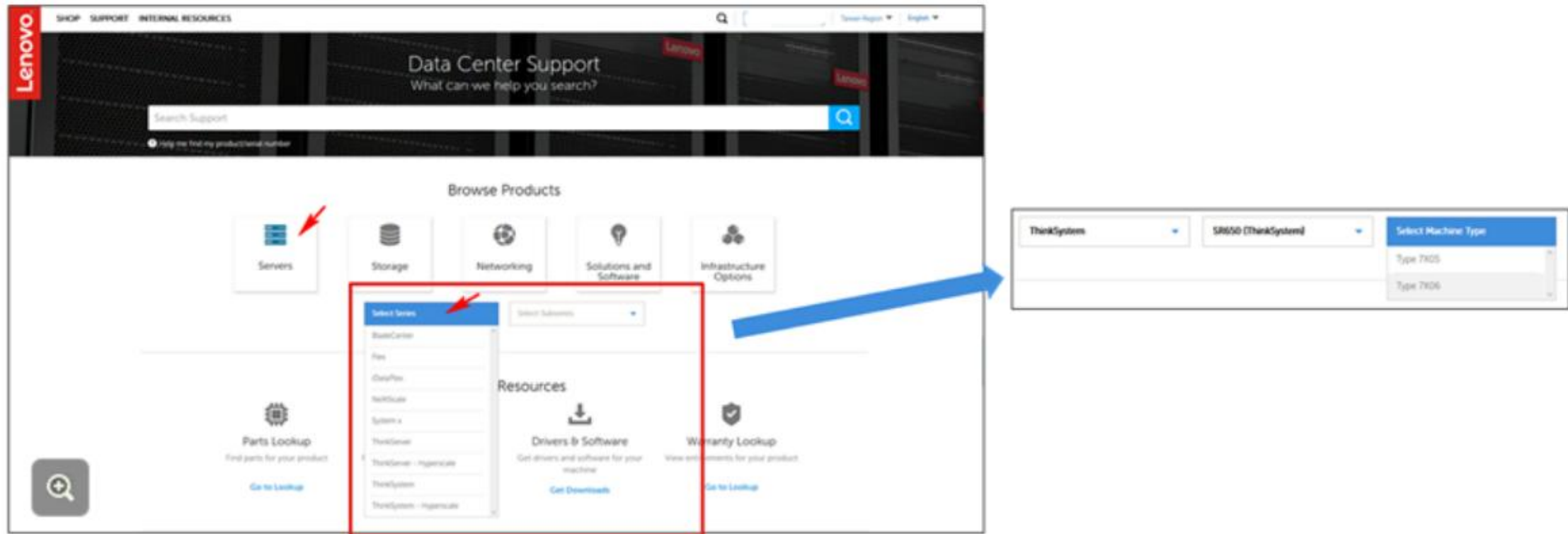
Searching for tech tips on the Lenovo Data Center Support website

Lenovo continually updates the Support website with the latest tips and techniques that users can implement to solve issues with their servers. These tips include workaround procedures for issues related to the operation of servers.



Searching for tech tips on the Lenovo Data Center Support website

Go to the Lenovo [Data Center Support](#) website and click **Servers**. Select a product type and enter the necessary information to find tips related to any specific machine. In this example, a ThinkSystem SR650 is being searched for.



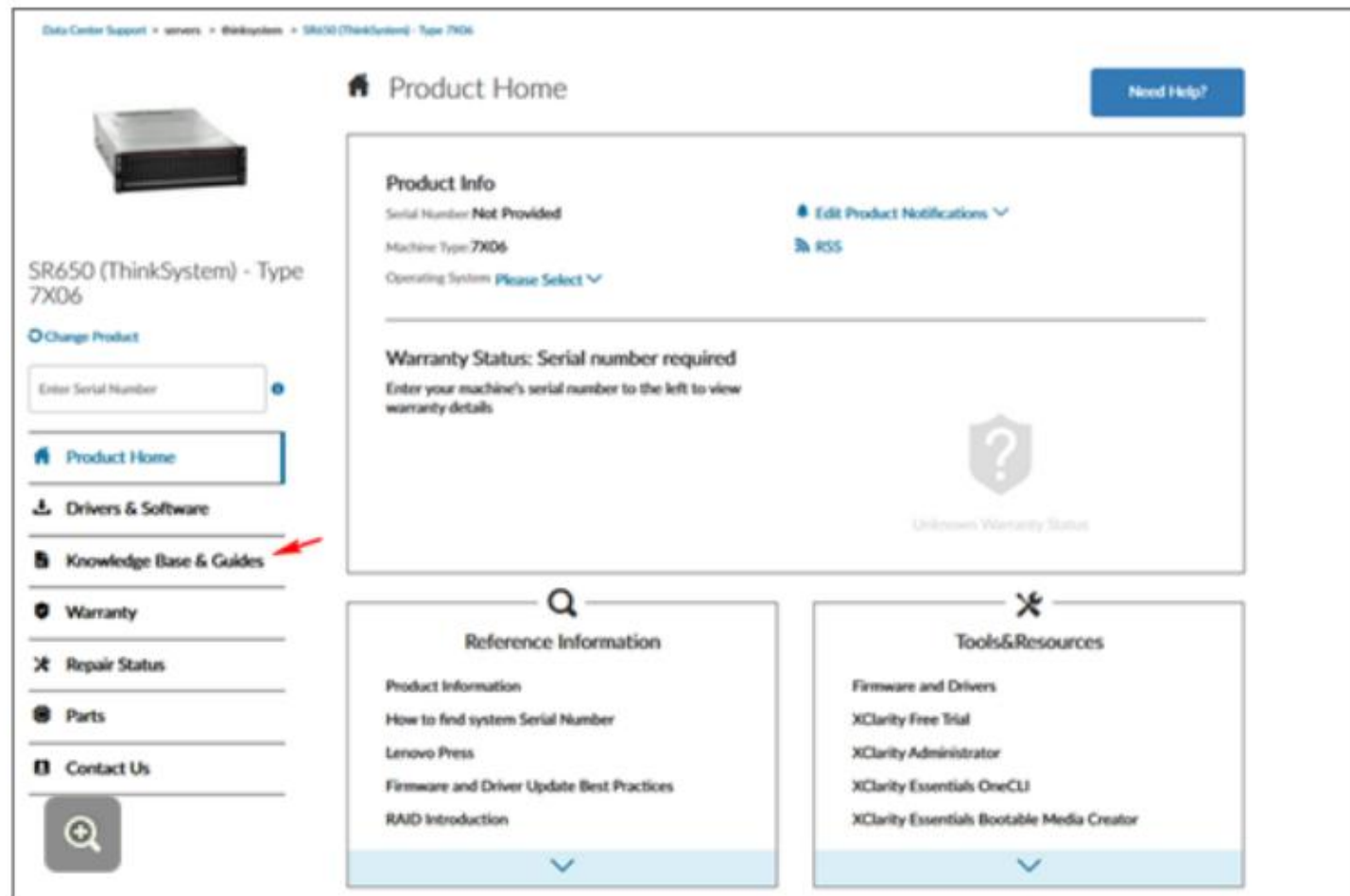
Step ①—②—③



Further analysis

Searching for tech tips on the Lenovo Data Center Support website

Select **Knowledge Base & Guides**.



Step

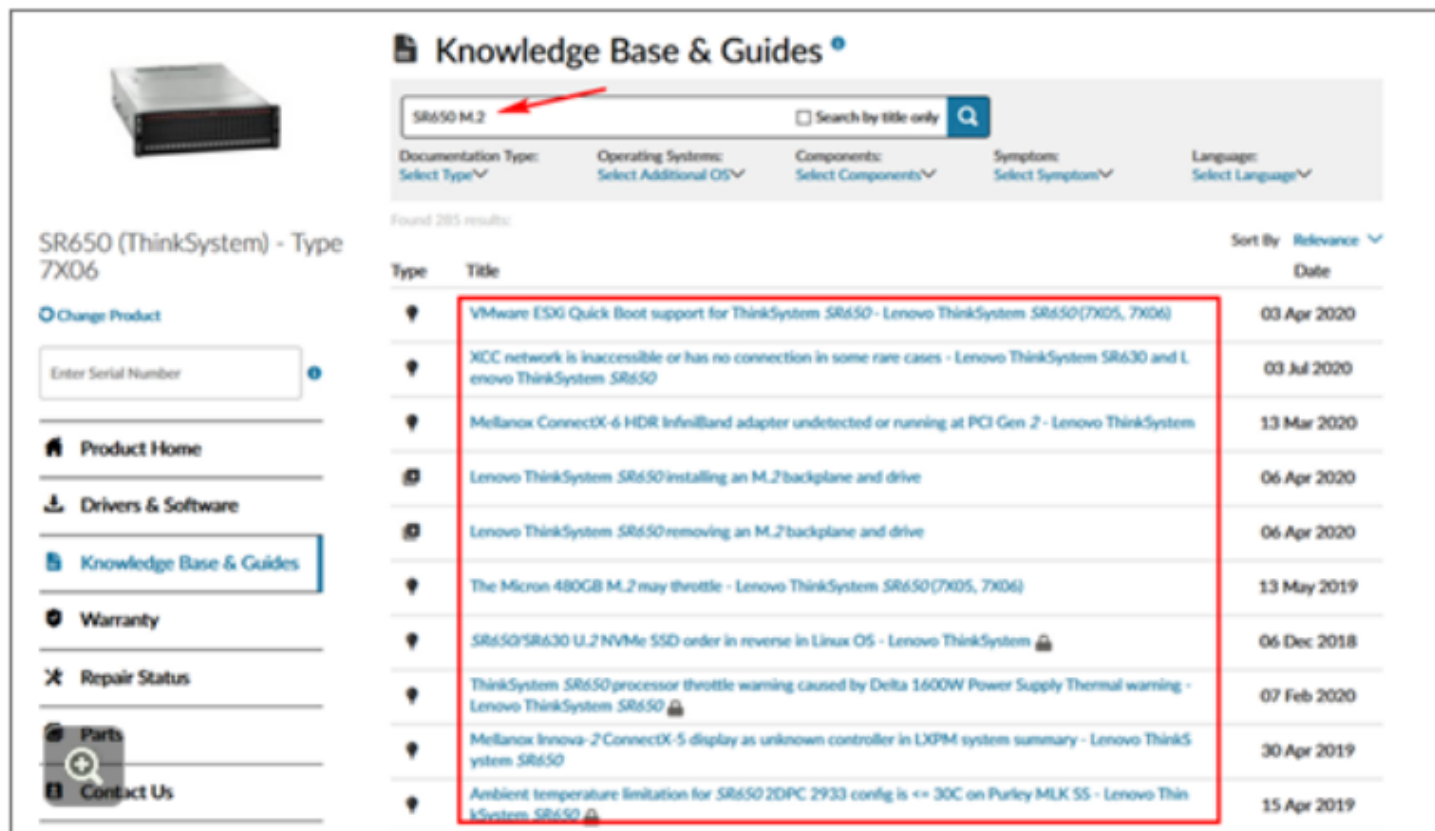


Further analysis

Searching for tech tips on the Lenovo Data Center Support website

Enter your keywords in the search field, and related tips will be displayed.

In this example, "SR650 M.2" has been entered.



The screenshot shows the Lenovo Knowledge Base & Guides search interface. The search bar contains "SR650 M.2" with a red arrow pointing to it. Below the search bar, there are filters for Documentation Type, Operating Systems, Components, Symptoms, and Language. The search results are displayed in a table with columns for Type, Title, and Date. The first result is highlighted with a red box.

Type	Title	Date
🔗	VMware ESXi Quick Boot support for ThinkSystem SR650 - Lenovo ThinkSystem SR650(7X05, 7X06)	03 Apr 2020
🔗	XICC network is inaccessible or has no connection in some rare cases - Lenovo ThinkSystem SR630 and L enovo ThinkSystem SR650	03 Jul 2020
🔗	Mellanox ConnectX-6 HDR InfiniBand adapter undetected or running at PCI Gen 2 - Lenovo ThinkSystem	13 Mar 2020
🔗	Lenovo ThinkSystem SR650 installing an M.2 backplane and drive	06 Apr 2020
🔗	Lenovo ThinkSystem SR650 removing an M.2 backplane and drive	06 Apr 2020
🔗	The Micron 480GB M.2 may throttle - Lenovo ThinkSystem SR650(7X05, 7X06)	13 May 2019
🔗	SR650/SR630 U.2 NVMe SSD order in reverse in Linux OS - Lenovo ThinkSystem	06 Dec 2018
🔗	ThinkSystem SR650 processor throttle warning caused by Delta 1600W Power Supply Thermal warning - Lenovo ThinkSystem SR650	07 Feb 2020
🔗	Mellanox Innova-2 ConnectX-5 display as unknown controller in LXP system summary - Lenovo ThinkS ystem SR650	30 Apr 2019
🔗	Ambient temperature limitation for SR650 2DPC 2933 config is <= 30C on Purley MLK SS - Lenovo Thin kSystem SR650	15 Apr 2019

Step



Quiz

Q: Which tool does not contain server log information?

Lenovo XClarity Controller (XCC)

Lenovo XClarity Administrator (LXCA)

Lenovo Capacity Planner (LCP)