Problem determination and troubleshooting

How to perform problem determination actions on the SD650 V3, SD650-I V3, and DW612S

Lenovo

Problem determination and troubleshooting overview

Perform the following actions to determine the cause of problems on the SD650 V3 or SD650-I V3

- Check the system health status on the XCC2 dashboard
- Check the system event log in XCC2
- Check the event log in UEFI
- Check the LEDs on the system
- If applicable, check the external LCD diagnostics handset
- Check SMM2 for the health status of DW612S fans and PSUs

For more information about how to use XCC2, UEFI, or OneCLI to monitor system status and collect logs, refer to the following courses:

- ES51757B – Introducing ThinkSystem tools
  https://lenovoedu.lenovo.com/course/view.php?idnumber=ES51757B
- ES52374 – ThinkSystem tools for the ThinkSystem V3 platform
  https://lenovoedu.lenovo.com/course/view.php?idnumber=ES52374
- ES41759C – Introducing ThinkSystem problem determination
  https://lenovoedu.lenovo.com/course/view.php?idnumber=ES41759C

External LCD diagnostic handset

The SD650 V3 and SD650-I V3 support the optional external LCD diagnostic handset. The panel can be used to quickly access system information, such as active errors, system health status, firmware version, network connection status, and health information. A demo video is available on the course landing page.

External LCD diagnostic handset

GPU status events in XCC2

Use XCC2 to monitor Intel OAM GPUs and GPU board health status – for example, temperature or PCIe link status. A GPU board power issue or GPU temperature issue might cause the GPU node to shut down.

If any GPU or GPU board warning / error events are displayed on the XCC2 Events page, note the Common ID and check the Messages and Codes Reference guide on Lenovo Support for corresponding actions.

If necessary, collect XCC2 service data for further escalation or perform parts replacement actions.

Click the buttons to see example screenshots of GPU warnings or errors.

GPU board power issue

GPU temperature issue

GPU board power issue

Index	Severity	Source	Common ID	Message	Date
0	⊗	System	FQXSPPW0063M	Sensor VF GPU BPOWER has transitioned to critical from a less severe state.	August 1, 2022 5:56:14...
1	⊗	System	FQXSPPW0063M	Sensor SysBrd Vol Fault has transitioned to critical from a less severe state.	August 1, 2022 5:56:13...
2	ⓘ	Power	FQXSPPW0008I	Host Power has been turned off.	August 1, 2022 5:56:11 ...
3	ⓘ	Power	FQXSPPW2008I	Host Power has been turned on.	August 1, 2022 5:56:09...
4	ⓘ	Power	FQXSPPW0008I	Host Power has been turned off.	August 1, 2022 5:54:56...

GPU temperature issue examples

Index	Severity	Source	Common ID	Message	Date
0	Information	Power	FQXSPPW0008I	Host Power has been turned off.	August 8, 2022 5:34:46 PM
1	Warning	System	FQXSPIO4001I	GPU Board Status was changed by VR temp (Tprochot temp 0C) of of index 1 which may cause throttled and performa...	August 8, 2022 5:30:26 PM
2	Warning	System	FQXSPIO4001I	GPU Board Status was changed by VR temp (Tcontrol temp 0C) of of index 1 which may cause throttled and performan...	August 8, 2022 5:30:01 PM

123	Error	System	FQXSPUN0019M	Sensor GPU CPUs has transitioned to critical from a less severe state.	August 1, 2022 6:27:01 PM
124	Error	System	FQXSPUN0019M	Sensor GPU Board has transitioned to critical from a less severe state.	August 1, 2022 6:27:01 PM
125	Warning	System	FQXSPIO4001I	GPU Board Status was changed by throttled of GPU.	August 1, 2022 6:27:01 PM
126	Warning	System	FQXSPIO4001I	GPU Board Status was changed by VR overtemp (soc_die_0 temp 100C) of index 1 .	August 1, 2022 6:27:01 PM