Changes to ThinkSystem tools

Details of the April 2019 changes to ThinkSystem tools

Lenovo

UEFI option changes

Click each number in turn to see more information about UEFI option changes.

1 2 3 4 5 6

Lenovo

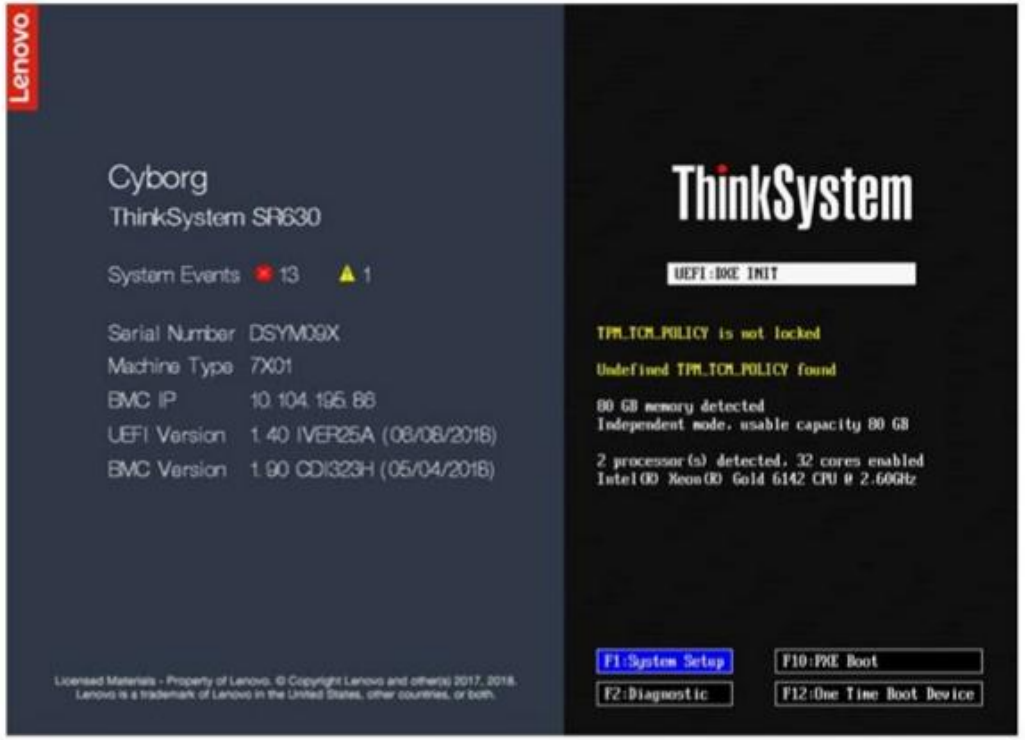
UEFI option changes

New options in boot menu

The latest version of LXPM supports two new options in the system boot menu:

- F2: Diagnostic
  - Press F2 to access the LXPM diagnostic menu
- F10: PXE boot

Click the image to enlarge.



Lenovo

UEFI option changes

No boot device and no bootable OS messages

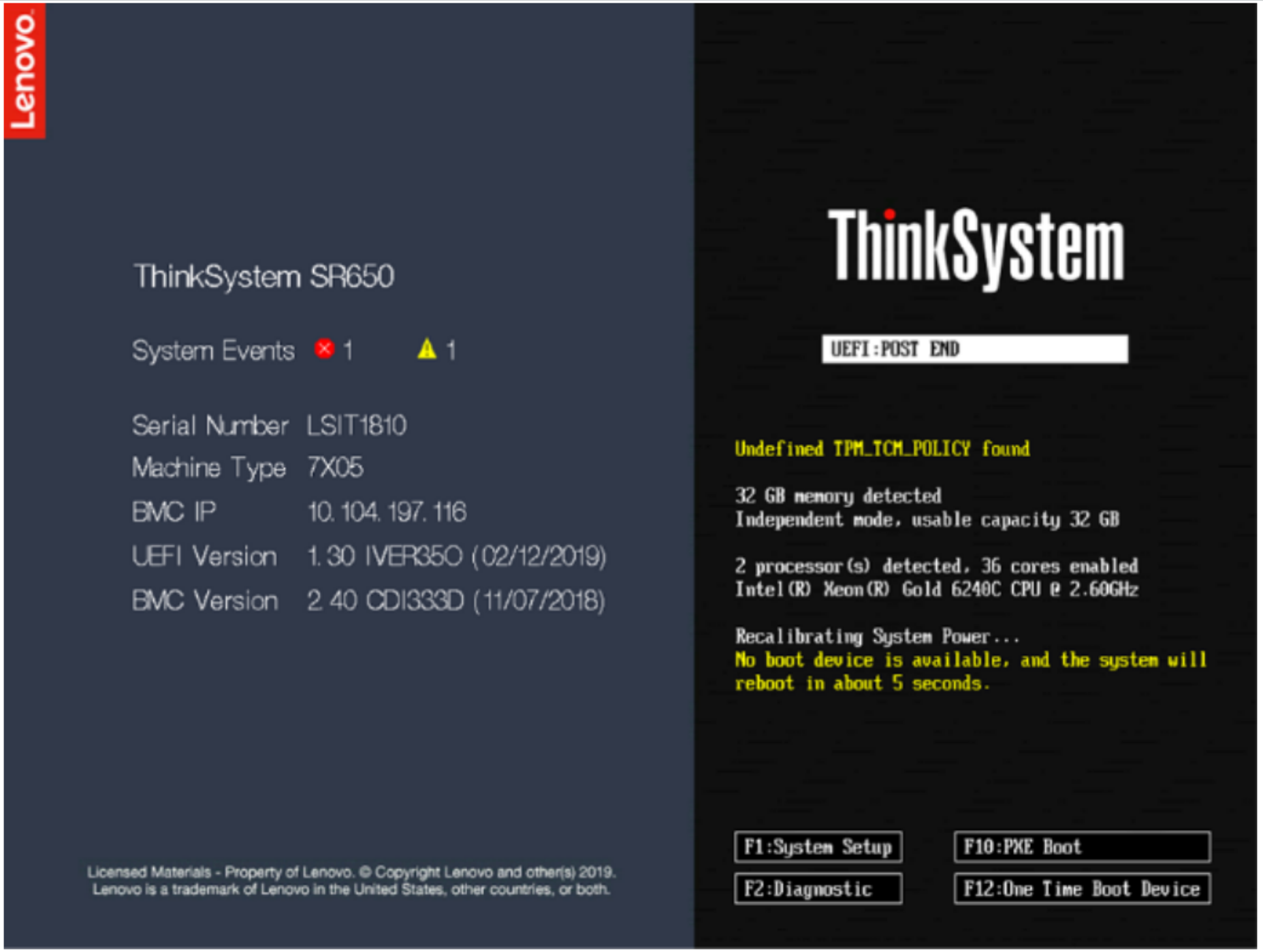
If the system cannot find a boot device or bootable OS, the UEFI will display a **No boot device** message.

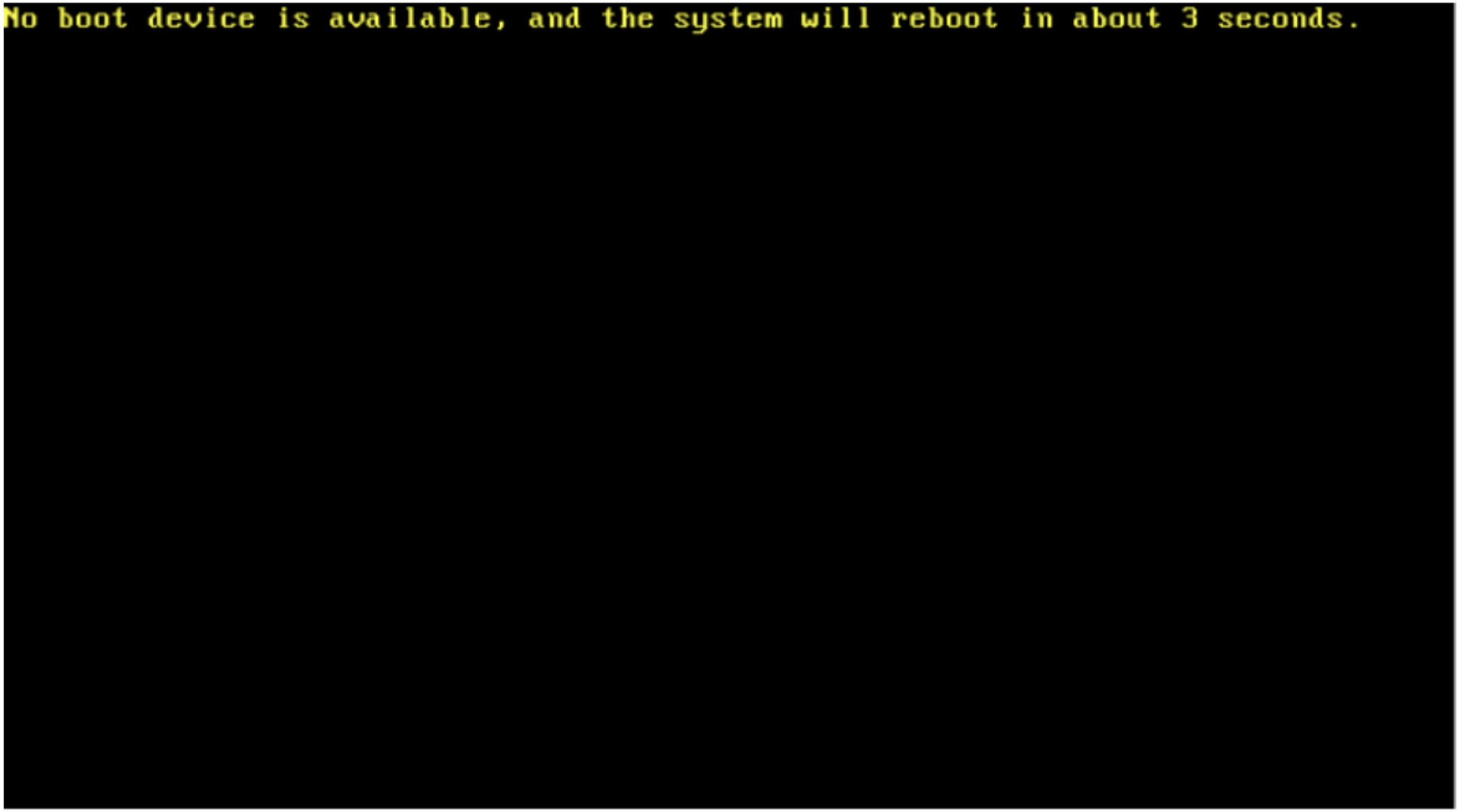
Click the buttons to see screenshots.

No boot device

No bootable OS

Lenovo


Lenovo
ThinkSystem SR650
System Events 1 1
Serial Number LSIT1810
Machine Type 7X05
BMC IP 10.104.197.116
UEFI Version 1.30 IVER350 (02/12/2019)
BMC Version 2.40 CDI333D (11/07/2018)
Licensed Materials - Property of Lenovo. © Copyright Lenovo and other(s) 2019.
Lenovo is a trademark of Lenovo in the United States, other countries, or both.
ThinkSystem
UEFI:POST END
Undefined TPM_TCM_POLICY found
32 GB memory detected
Independent mode, usable capacity 32 GB
2 processor(s) detected, 36 cores enabled
Intel(R) Xeon(R) Gold 6240C CPU @ 2.60GHz
Recalibrating System Power...
No boot device is available, and the system will reboot in about 5 seconds.
F1:System Setup
F10:PXE Boot
F2:Diagnostic
F12:One Time Boot Device


No boot device is available, and the system will reboot in about 3 seconds.

UEFI option changes

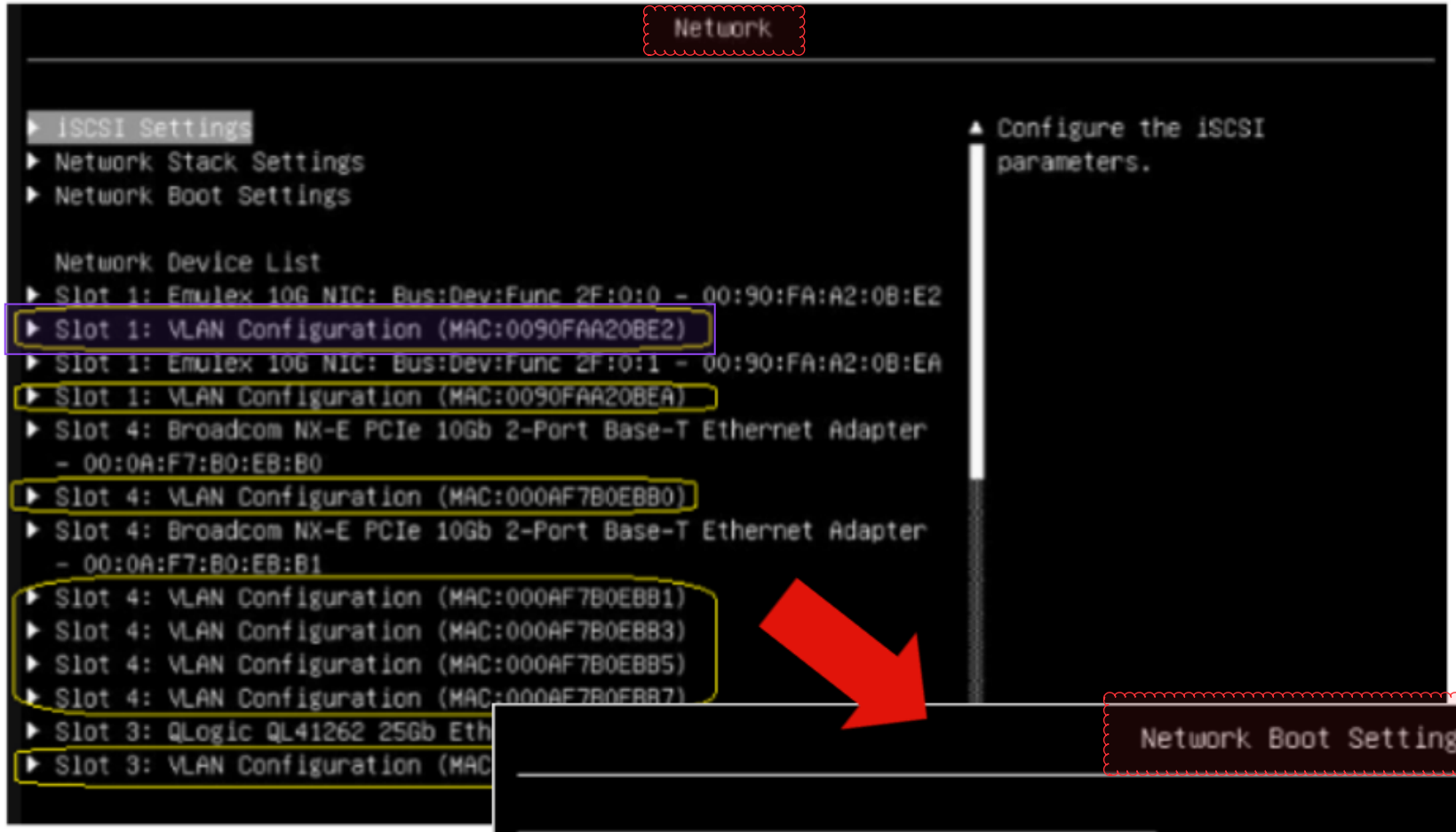
VLAN configuration in Network Boot settings

In the past, the VLAN configuration options were listed on the Network page. In the latest UEFI, the VLAN configuration options are listed on the Network Boot Settings page.

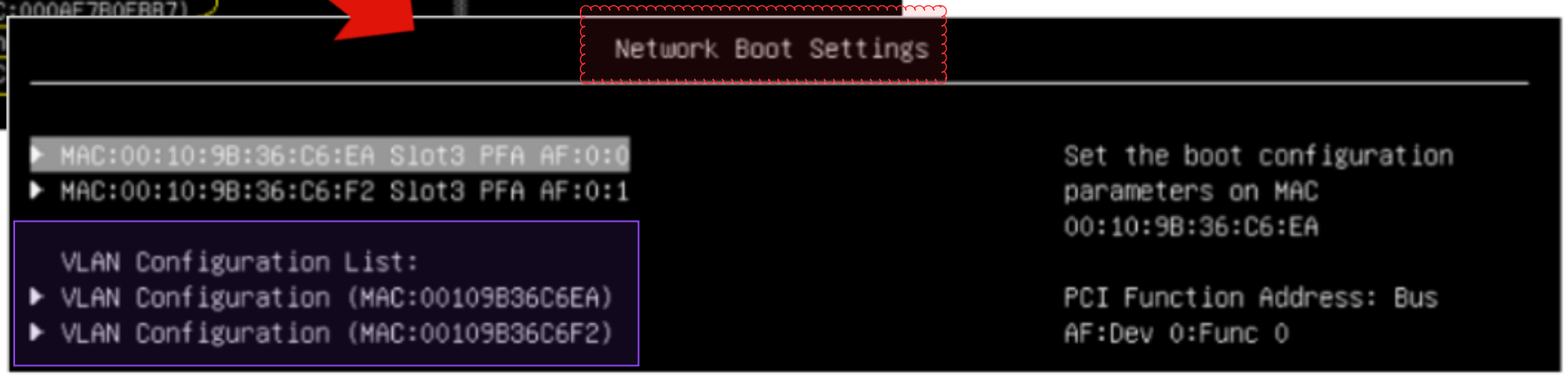
Click HERE to see screenshots.

Lenovo

Past


Network
iSCSI Settings
Network Stack Settings
Network Boot Settings
Network Device List
Slot 1: Emulex 10G NIC: Bus:Dev:Func 2F:0:0 - 00:90:FA:A2:0B:E2
Slot 1: VLAN Configuration (MAC:0090FAA20BE2)
Slot 1: Emulex 10G NIC: Bus:Dev:Func 2F:0:1 - 00:90:FA:A2:0B:EA
Slot 1: VLAN Configuration (MAC:0090FAA20BEA)
Slot 4: Broadcom NX-E PCIe 10Gb 2-Port Base-T Ethernet Adapter - 00:0A:F7:B0:EB:B0
Slot 4: VLAN Configuration (MAC:000AF7B0EBB0)
Slot 4: Broadcom NX-E PCIe 10Gb 2-Port Base-T Ethernet Adapter - 00:0A:F7:B0:EB:B1
Slot 4: VLAN Configuration (MAC:000AF7B0EBB1)
Slot 4: VLAN Configuration (MAC:000AF7B0EBB3)
Slot 4: VLAN Configuration (MAC:000AF7B0EBB5)
Slot 4: VLAN Configuration (MAC:000AF7B0EBB7)
Slot 3: QLogic QL41262 25Gb Eth
Slot 3: VLAN Configuration (MAC
Configure the iSCSI parameters.

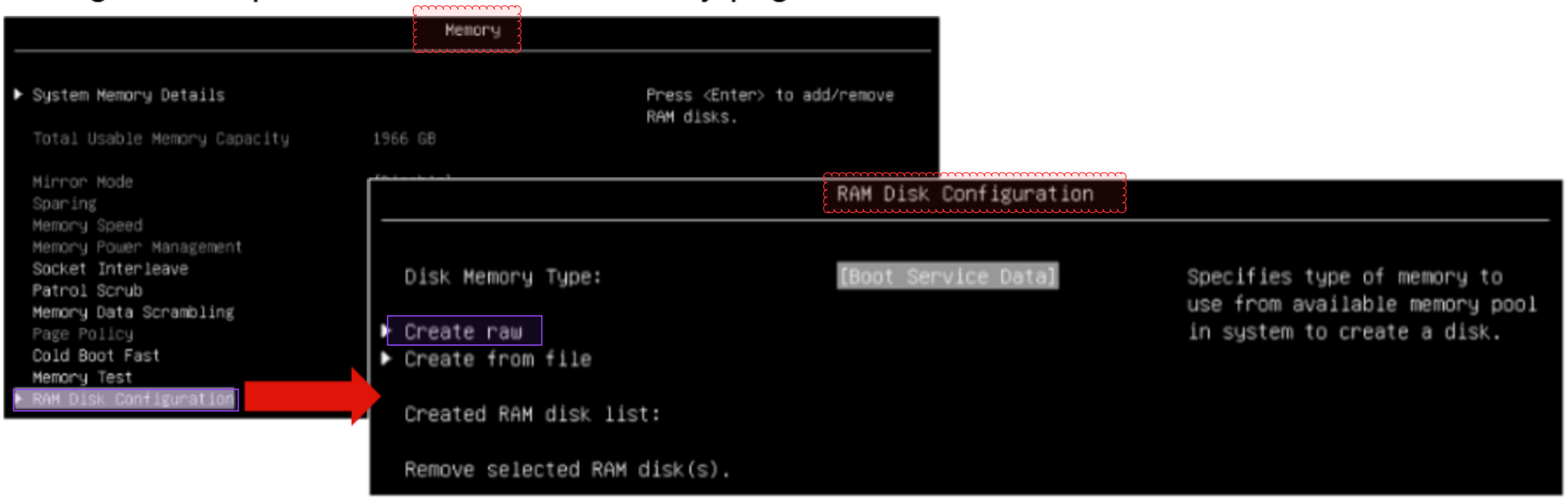
New


Network Boot Settings
MAC:00:10:9B:36:C6:EA Slot3 PFA AF:0:0
MAC:00:10:9B:36:C6:F2 Slot3 PFA AF:0:1
VLAN Configuration List:
VLAN Configuration (MAC:00109B36C6EA)
VLAN Configuration (MAC:00109B36C6F2)
Set the boot configuration parameters on MAC 00:10:9B:36:C6:EA
PCI Function Address: Bus AF:Dev 0:Func 0

UEFI option changes

RAW disk function

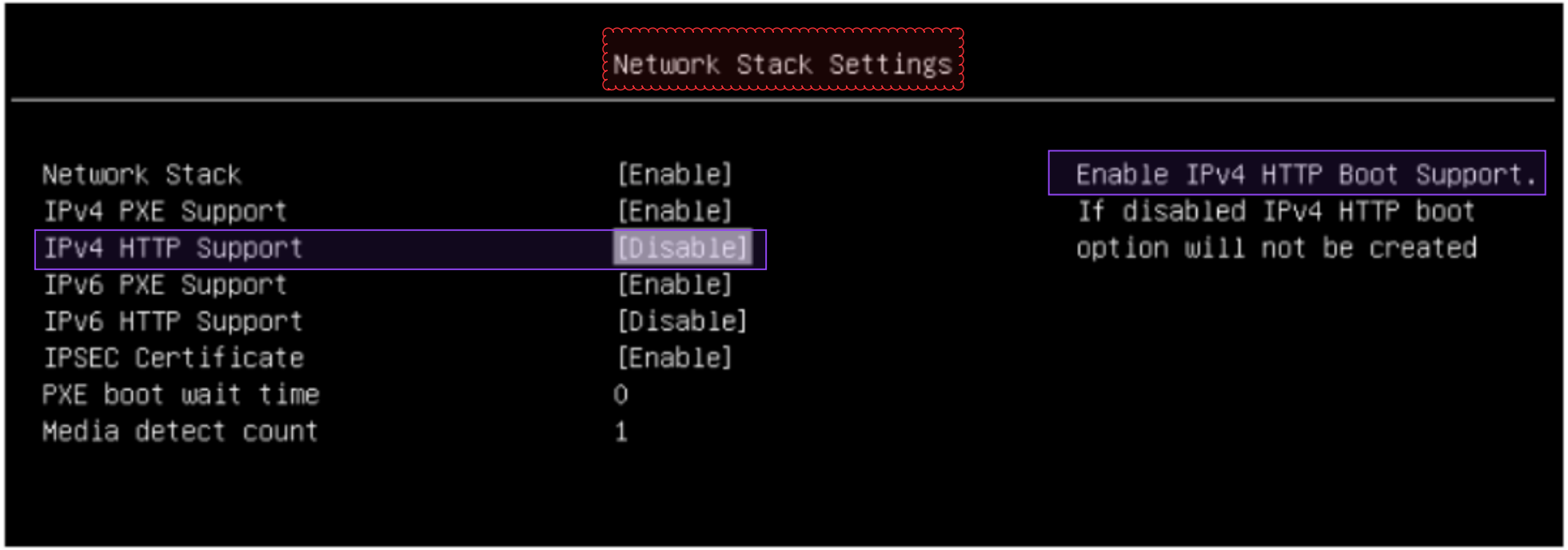
Users can now set up their RAW disk configuration through the UEFI. The RAW Disk Configuration option is listed on the Memory page.

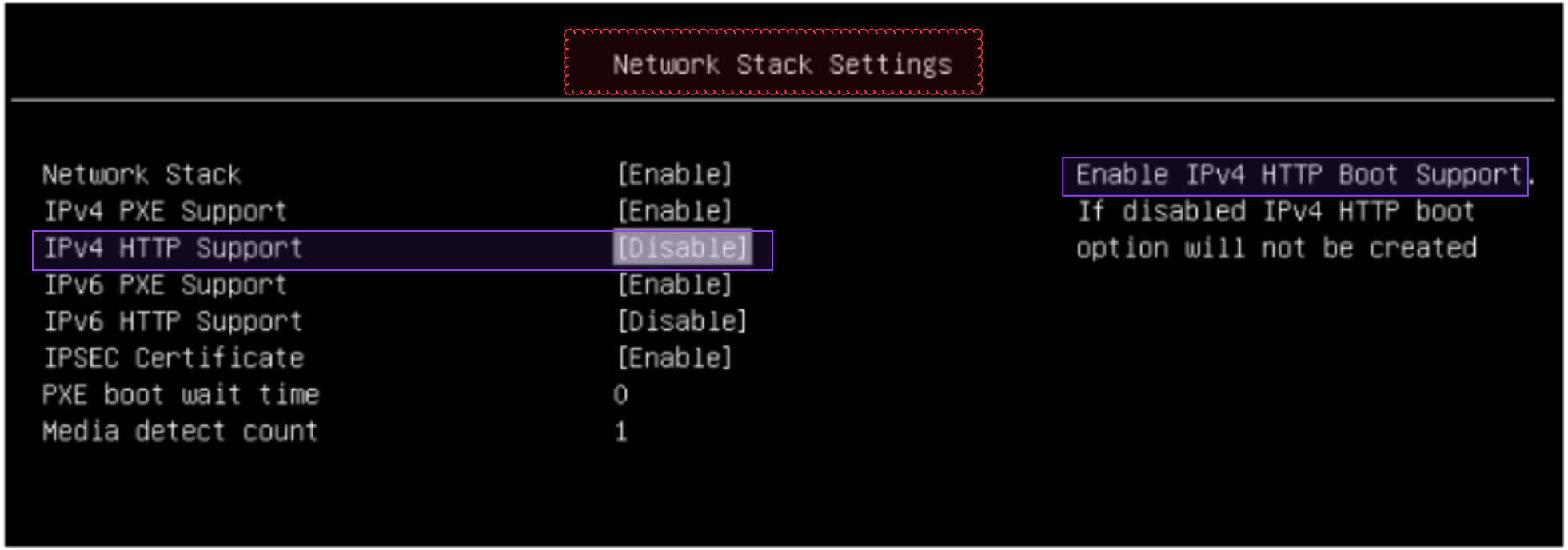


UEFI option changes

HTTP Boot

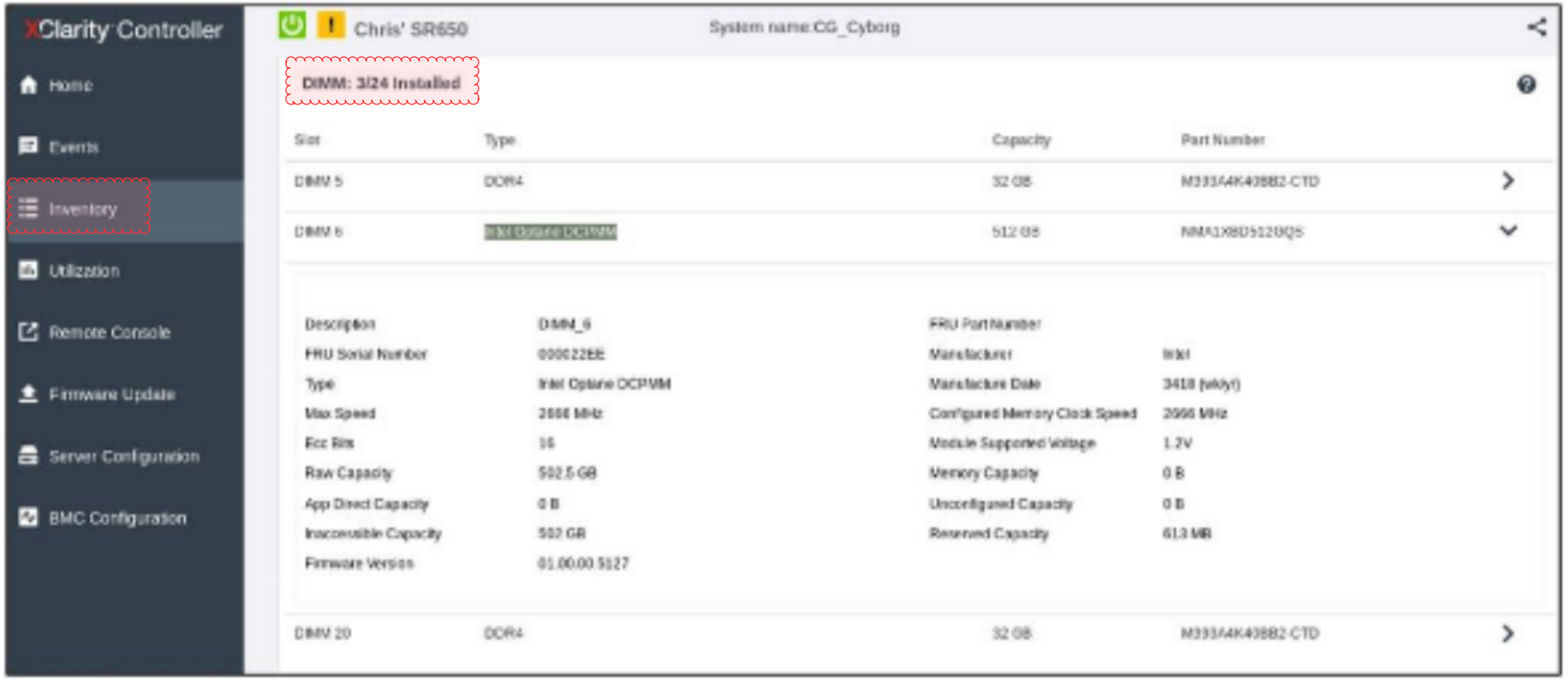
The HTTP boot configuration and TLS authorization configuration options are listed on the Network page. Users can enable or disable HTTP boot on the Network → Network Stacking Configuration page. Click HERE to see a screenshot.


Network Stack Settings
Network Stack [Enable]
IPv4 PXE Support [Enable]
IPv4 HTTP Support [Disable]
IPv6 PXE Support [Enable]
IPv6 HTTP Support [Disable]
IPSEC Certificate [Enable]
PXE boot wait time 0
Media detect count 1
Enable IPv4 HTTP Boot Support.
If disabled IPv4 HTTP boot
option will not be created


Network Stack Settings
Network Stack [Enable]
IPv4 PXE Support [Enable]
IPv4 HTTP Support [Disable]
IPv6 PXE Support [Enable]
IPv6 HTTP Support [Disable]
IPSEC Certificate [Enable]
PXE boot wait time 0
Media detect count 1
Enable IPv4 HTTP Boot Support.
If disabled IPv4 HTTP boot
option will not be created

XCC changes

The latest version of XCC only supports inventory information for DCPMMs. Users cannot perform any other configuration actions on DCPMMs, such as changing operating mode or security states, through the XCC.



Lenovo XClarity Essentials changes

Click the buttons to see the changes for each XClarity Essentials tool.

UpdateXpress

BoMC

OneCLI

UpdateXpress

- Supports firmware updates for ThinkSystem servers with second-generation Xeon Scalable processors [No Title]
- Supports DCPMM firmware updates

Lenovo XClarity Essentials changes

Click the buttons to see the changes for each XClarity Essentials tool.

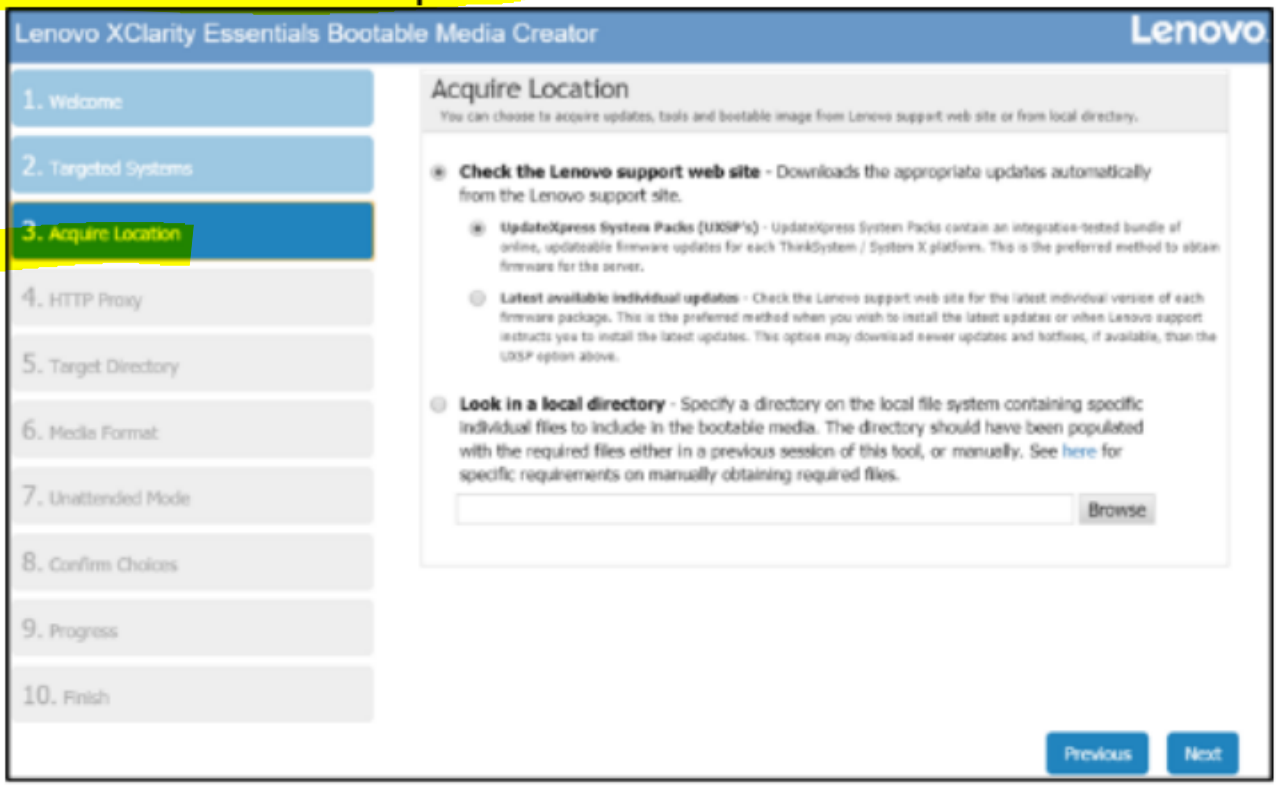
UpdateXpress

BoMC

OneCLI

BoMC

- Supports ThinkSystem servers with second-generation Xeon Scalable processors
- Supports DCPMM firmware updates



Lenovo XClarity Essentials changes

Click the buttons to see the changes for each XClarity Essentials tool.

UpdateXpress

BoMC

OneCLI

OneCLI

- For the latest OneCLI user guide, go to the OneCLI Lenovo Support Web site: https://datacentersupport.lenovo.com/tw/en/solutions/lnvo-tcli.
- Supports remote batch firmware updates (`multiflash` command). For more information, refer to the *OneCLI User Guide – Updating firmware for multiple BMC servers remotely* section.
- Supports software RAID configuration with Intel RSTe Software on Linux. The software RAID configuration with Intel RSTe Software supports the following commands: `show`, `add`, and `clear`. For more information, refer to the *OneCLI User Guide – raid command* section.
- Supports DCPMM firmware updates and inventory functions. For more information, refer to
  ES51965 – Introducing the Intel DC Persistent memory module
  https://lenovoedu.lenovo.com/course/view.php?idnumber=ES51965.

Lenovo XClarity Provisioning Manager changes

Click each number in turn to see more information about the Lenovo XClarity Provisioning Manager (LXPM) changes.

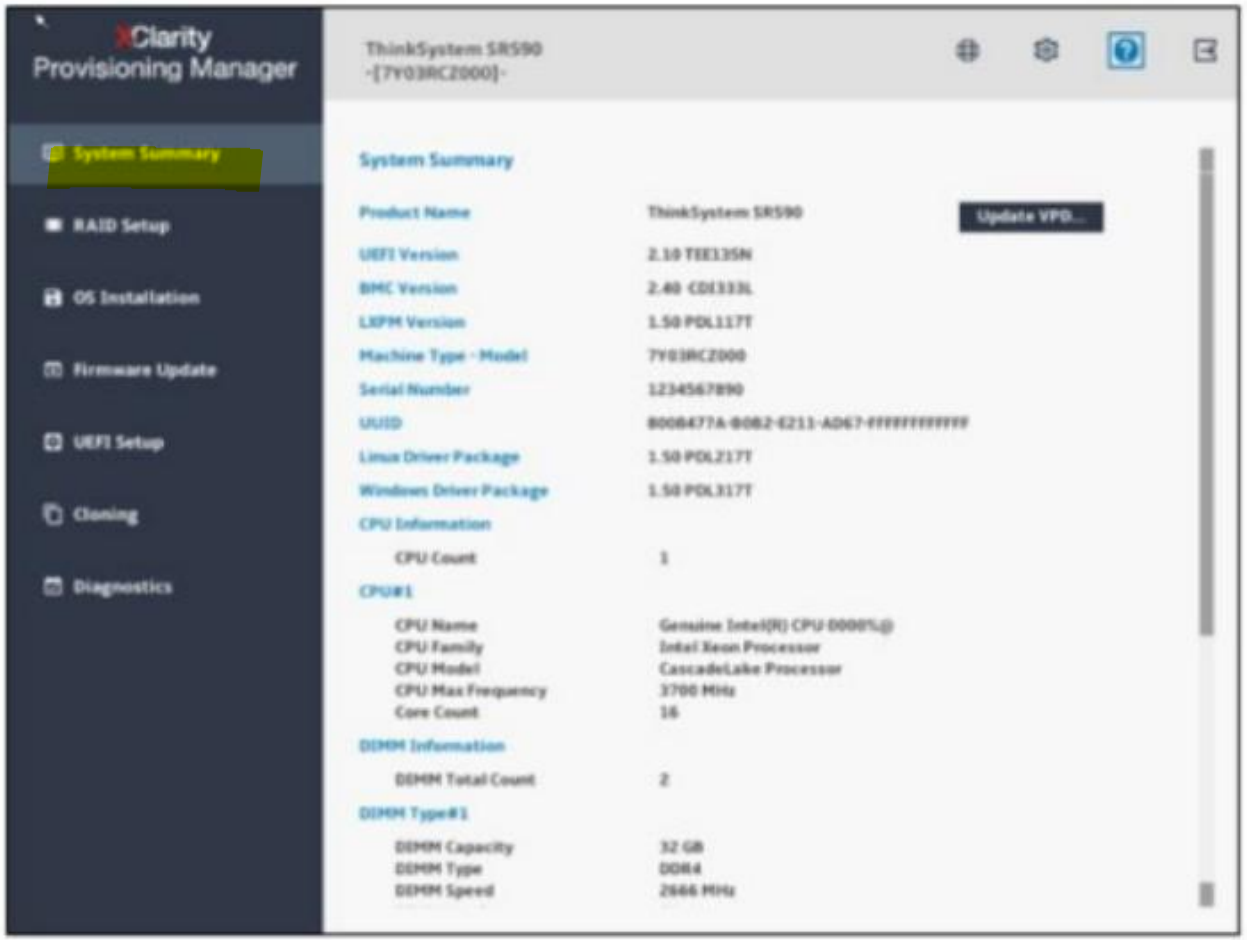
1 2 3 4 5 6

Lenovo

Lenovo XClarity Provisioning Manager changes

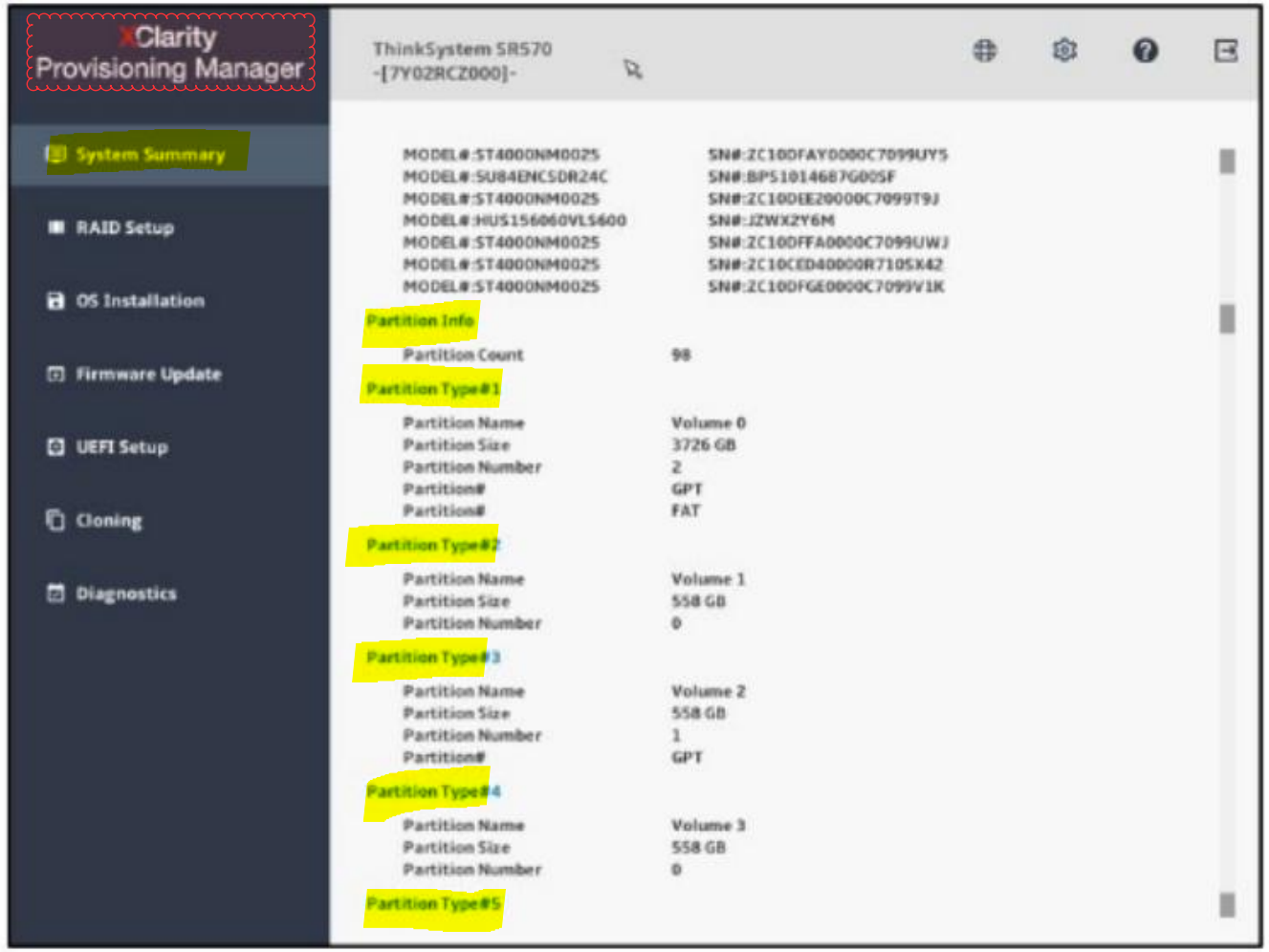
System summary: LXPM can now display Xeon Scalable processor inventory information.

Click the image to enlarge.



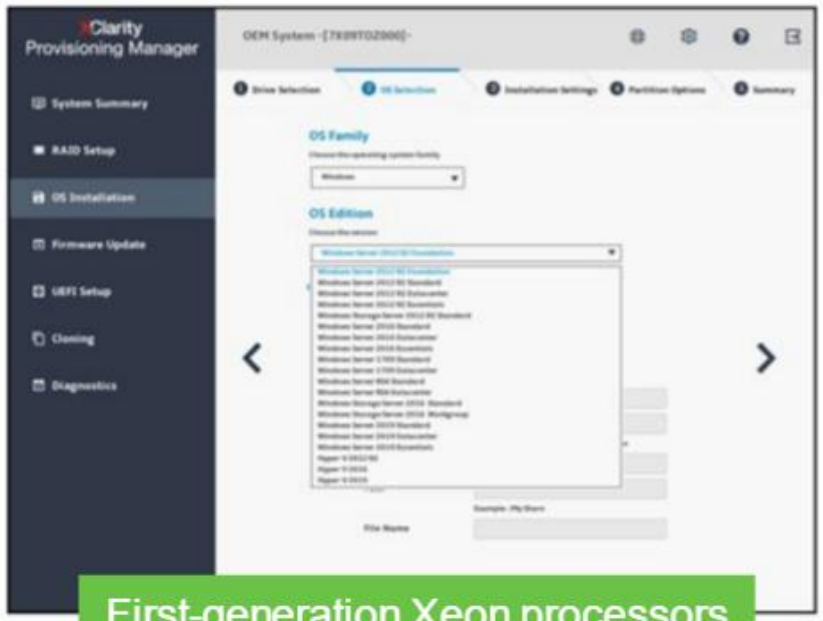
Lenovo XClarity Provisioning Manager changes

Partition info: The LXPM system summary can also display system partition information.

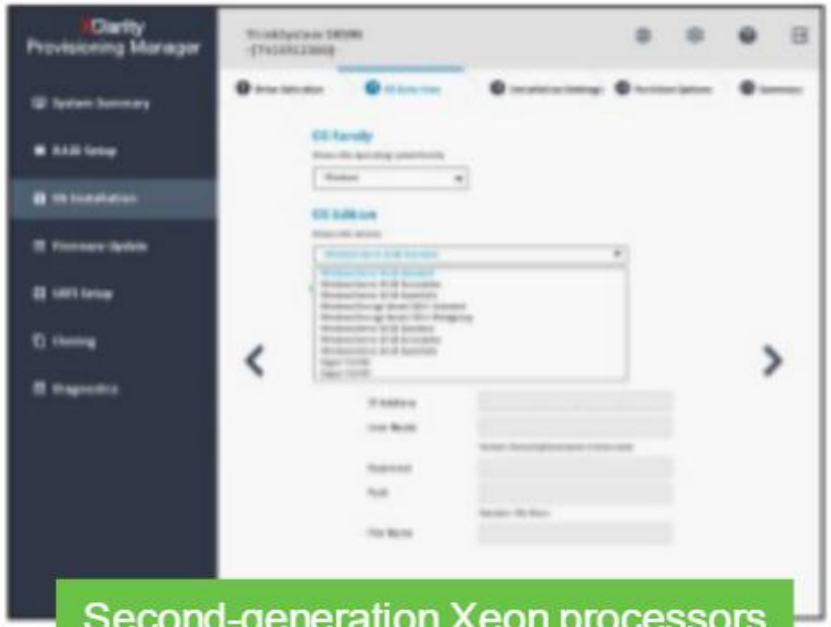


Lenovo XClarity Provisioning Manager changes

OS installation: The latest version of LXPM supports new OSs for ThinkSystem servers with first- and second-generation Xeon processors. Click the images to enlarge.



First-generation Xeon processors



Second-generation Xeon processors

Lenovo

Lenovo XClarity Provisioning Manager changes

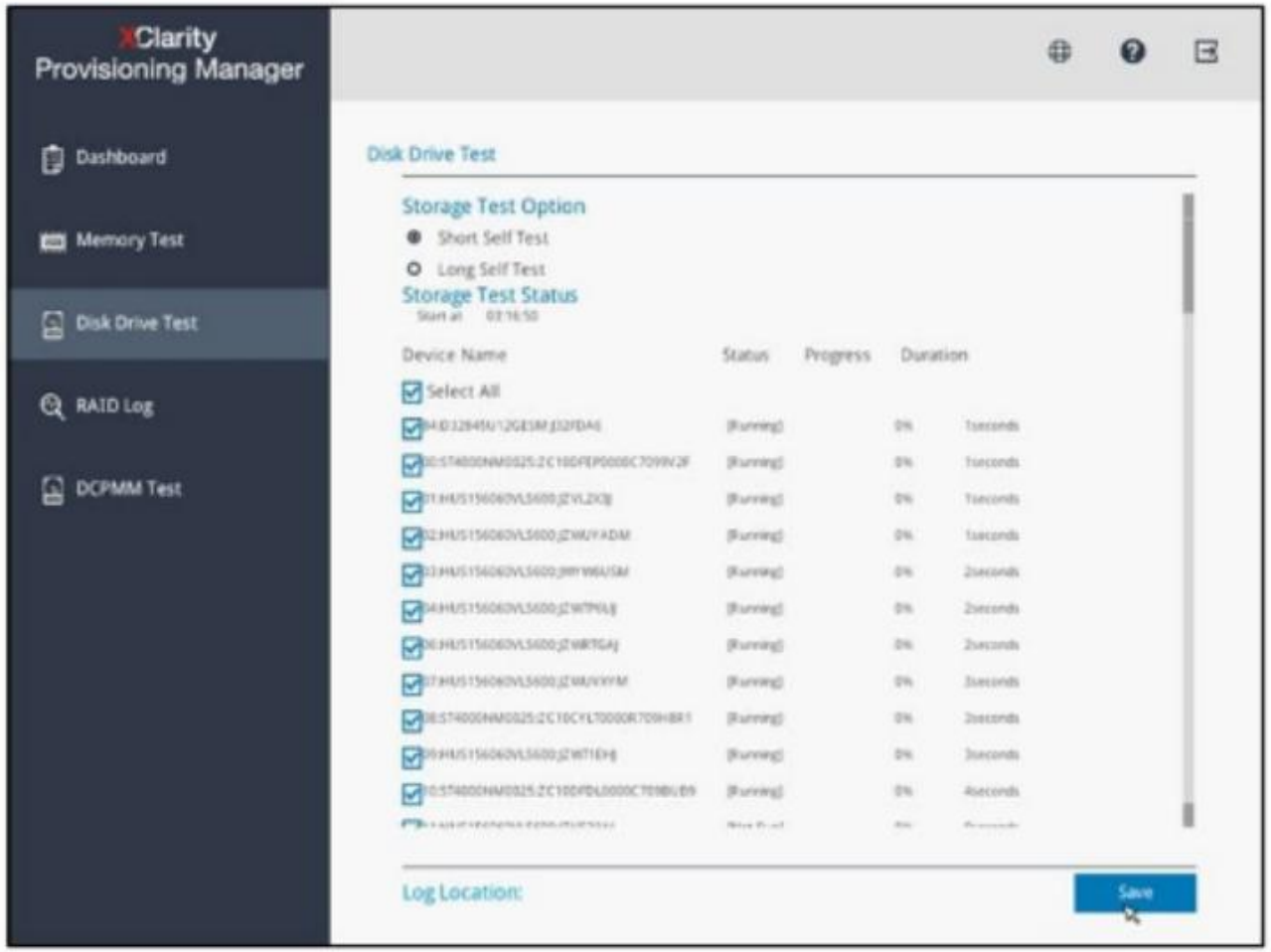
Disk drive test

LXPM diagnostics now supports the SMART drive test. Users can run the SMART test through the LXPM and then click Save to export the log file.

Click the buttons for disk drive test log result samples.

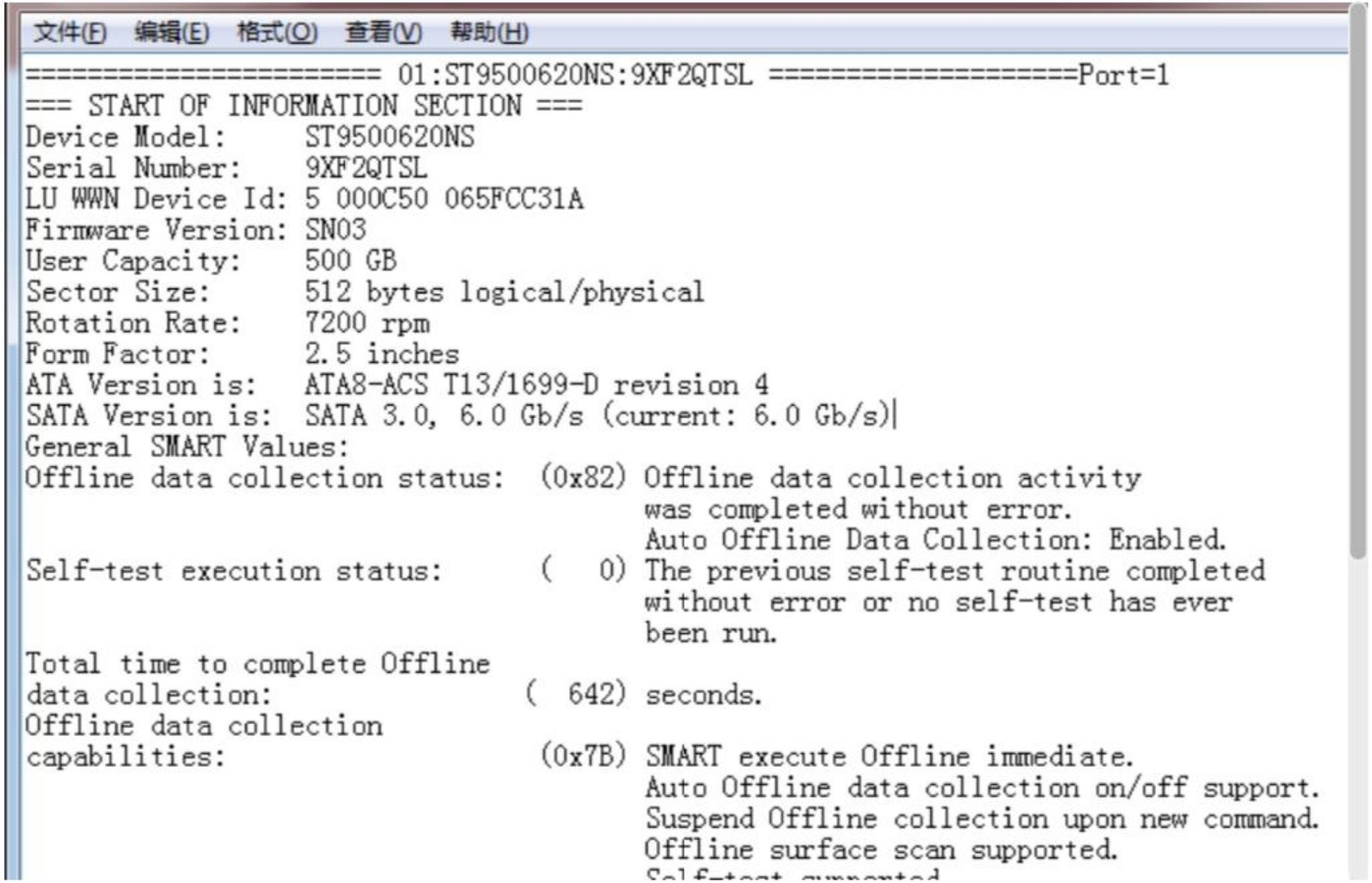
SAS/SATA drive log

NVMe drive log



Lenovo

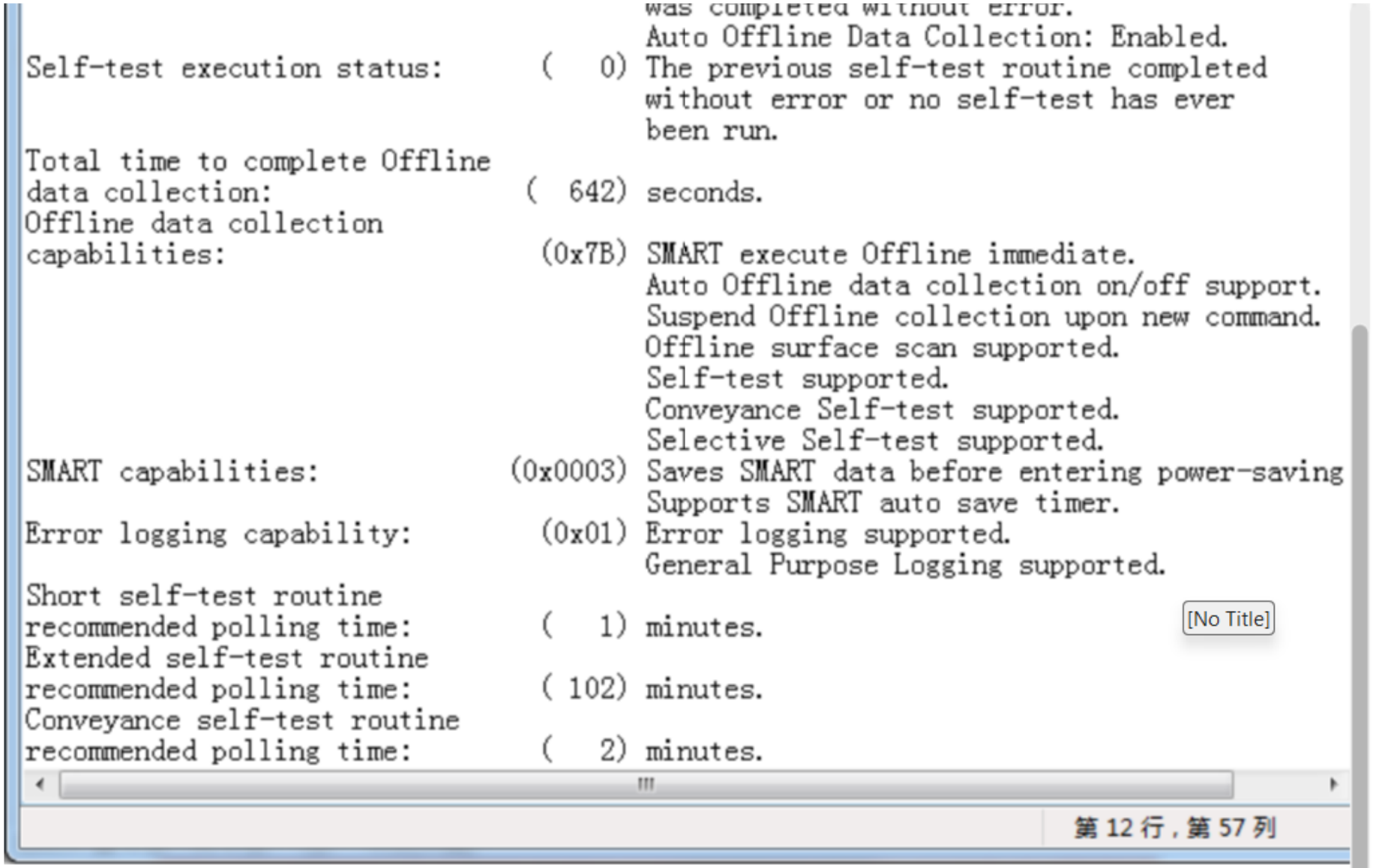
Scroll down for more information.



文件(F) 编辑(E) 格式(O) 查看(V) 帮助(H)

```
====================== 01:ST9500620NS:9XF2QTSL ==================Port=1
=== START OF INFORMATION SECTION ===
Device Model:     ST9500620NS
Serial Number:    9XF2QTSL
LU WWN Device Id: 5 000C50 065FCC31A
Firmware Version: SN03
User Capacity:    500 GB
Sector Size:      512 bytes logical/physical
Rotation Rate:    7200 rpm
Form Factor:      2.5 inches
ATA Version is:   ATA8-ACS T13/1699-D revision 4
SATA Version is:  SATA 3.0, 6.0 Gb/s (current: 6.0 Gb/s)
General SMART Values:
Offline data collection status:  (0x82) Offline data collection activity
                                        was completed without error.
                                        Auto Offline Data Collection: Enabled.
Self-test execution status:      (   0) The previous self-test routine completed
                                        without error or no self-test has ever
                                        been run.
Total time to complete Offline
data collection:                ( 642) seconds.
Offline data collection
capabilities:                    (0x7B) SMART execute Offline immediate.
                                        Auto Offline data collection on/off support.
                                        Suspend Offline collection upon new command.
                                        Offline surface scan supported.
                                        Self-test supported.
```

Scroll down for more information.



```
                                        was completed without error.
                                        Auto Offline Data Collection: Enabled.
Self-test execution status:      (   0) The previous self-test routine completed
                                        without error or no self-test has ever
                                        been run.
Total time to complete Offline
data collection:                 (  642) seconds.
Offline data collection
capabilities:                    (0x7B) SMART execute Offline immediate.
                                        Auto Offline data collection on/off support.
                                        Suspend Offline collection upon new command.
                                        Offline surface scan supported.
                                        Self-test supported.
                                        Conveyance Self-test supported.
                                        Selective Self-test supported.
SMART capabilities:              (0x0003) Saves SMART data before entering power-saving
                                        Supports SMART auto save timer.
Error logging capability:        (0x01) Error logging supported.
                                        General Purpose Logging supported.
Short self-test routine
recommended polling time:        (   1) minutes.
Extended self-test routine
recommended polling time:        ( 102) minutes.
Conveyance self-test routine
recommended polling time:        (   2) minutes.
```

[No Title]

第 12 行，第 57 列

Scroll down for more information.

文件(F) 编辑(E) 格式(O) 查看(V) 帮助(H)

```
====================== 00:SSDPE2KE016T7L:BTLE821008EZ1P6CGN ==================Port=0
NVMe ctrl=913940A8
=== START OF INFORMATION SECTION ===
Model Number:                       SSDPE2KE016T7L
Serial Number:                      BTLE821008EZ1P6CGN
Firmware Version:                   QDV1LV45
PCI Vendor ID:                      0x8086
PCI Vendor Subsystem ID:            0x1D49
IEEE OUI Identifier:                0x5CD2E4
Controller ID:                      0
=== START OF SMART DATA SECTION ===
SMART overall-health self-assessment test result: PASSED

Critical Warning:                   0x00
Temperature:                        47 Celsius
Available Spare:                    100%
Available Spare Threshold:          10%
Percentage Used:                    0%
Data Units Read:                    1 [512KB]
Data Units Written:                 0
Host Read Commands:                 278
Host Write Commands:                0
Controller Busy Time:               0
Power Cycles:                       18
Power On Hours:                     8
Unsafe Shutdowns:                   16
Media and Data Integrity Errors:    0
Error Information Log Entries:      0
Warning  Comp. Temperature Time:    0
Critical Comp. Temperature Time:    0
```

Scroll down for more information.

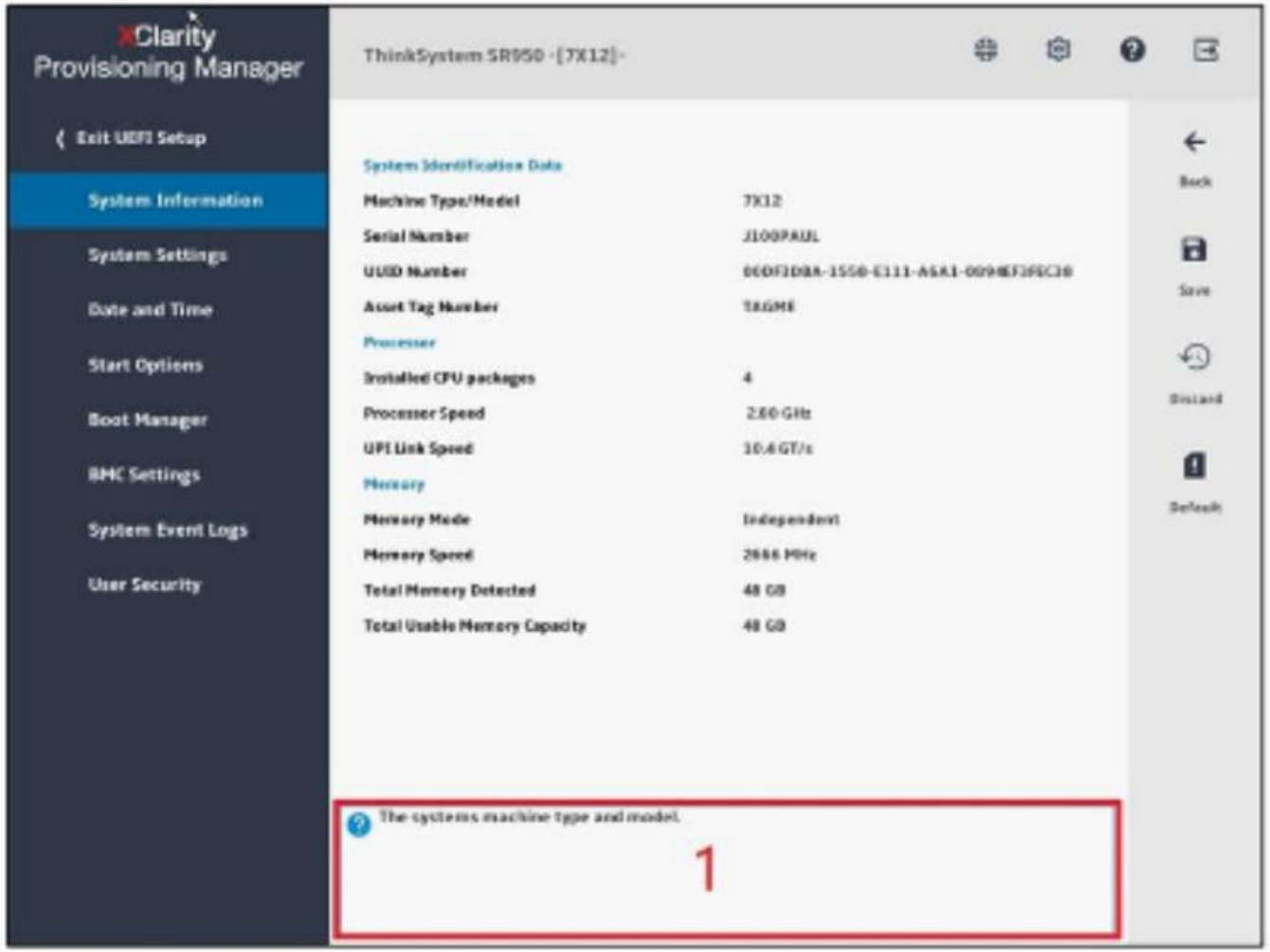
```
SMART overall-health self-assessment test result: PASSED

Critical Warning:                   0x00
Temperature:                        47 Celsius
Available Spare:                    100%
Available Spare Threshold:          10%
Percentage Used:                    0%
Data Units Read:                    1 [512KB]
Data Units Written:                 0
Host Read Commands:                 278
Host Write Commands:                0
Controller Busy Time:               0
Power Cycles:                       18
Power On Hours:                     8
Unsafe Shutdowns:                   16
Media and Data Integrity Errors:    0
Error Information Log Entries:      0
Warning  Comp. Temperature Time:    0
Critical Comp. Temperature Time:    0
Error Information Log Entries:      0
Error Information Log Entries:      0
Error Information Log Entries:      0
Error Information Log Entries:      0
Error Information Log Entries:      0
Error Information Log Entries:      0
Error Information Log Entries:      0
Error Information Log Entries:      0
Error Information Log Entries:      0
Thermal Temp. 1 Transition Count:   0
```

Lenovo XClarity Provisioning Manager changes

UEFI setup

In the UEFI setup menu, LXPM can now display a help message for each option. These help messages are the same as the messages in the UEFI setup text mode.

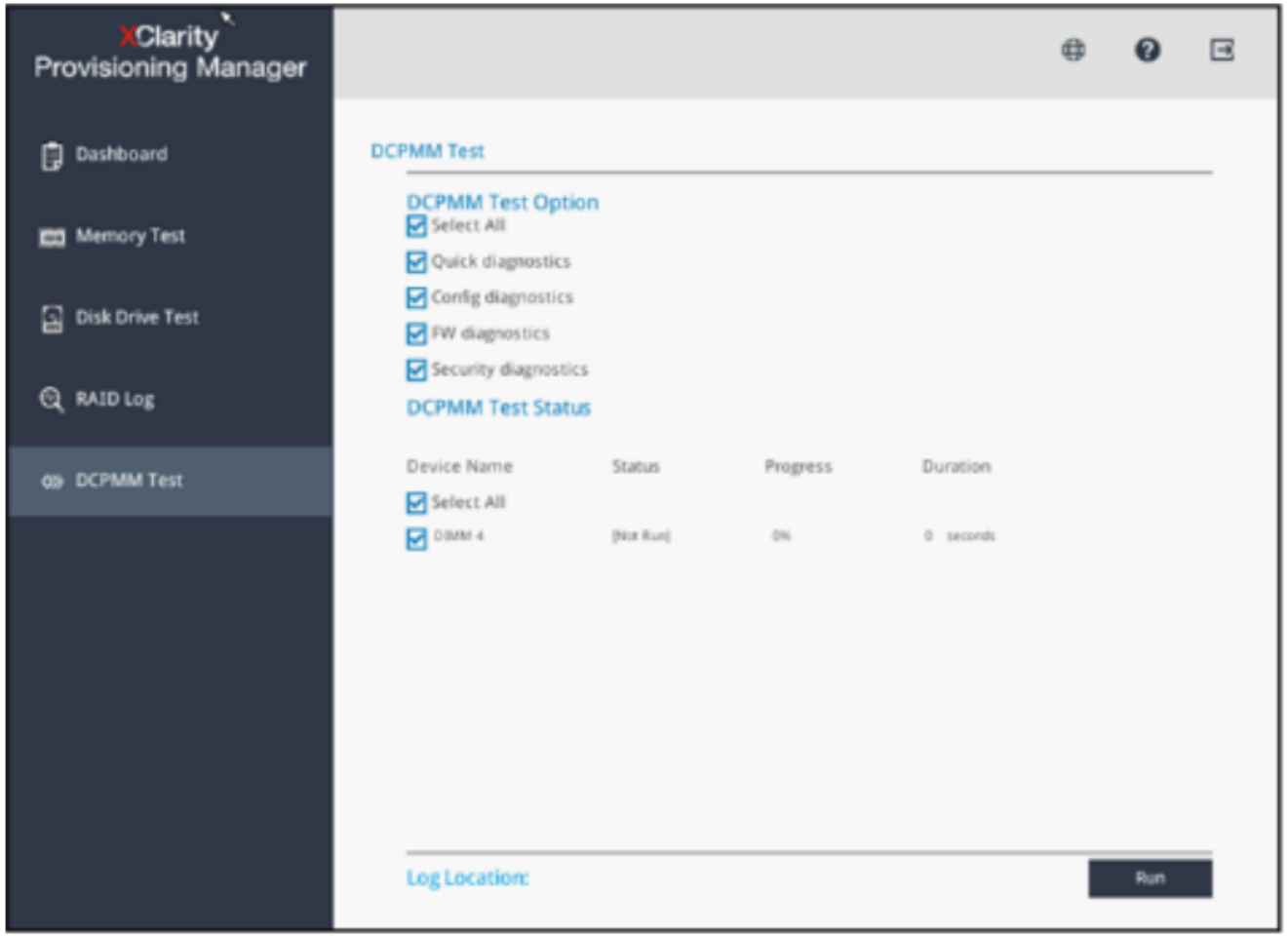


Lenovo XClarity Provisioning Manager changes

DCPMM test

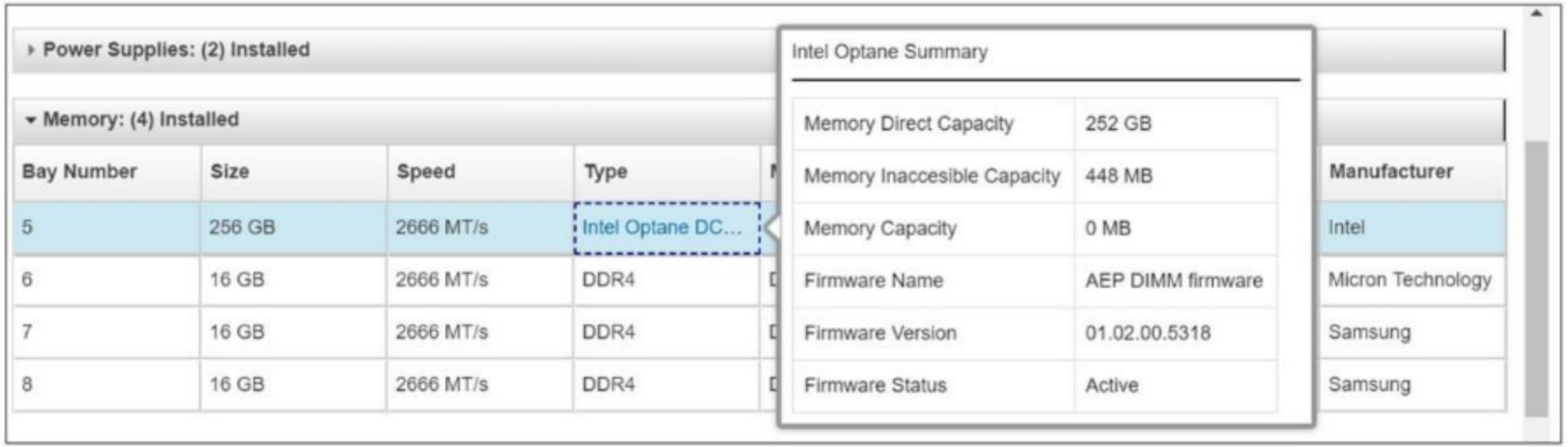
If the DCPMMs on the system are set to App Direct mode or Mixed Memory mode, users can run a DCPMM test for DCPMM hardware diagnostics.

If the DCPMMs are provisioned for Memory mode, use a Memory Test for both DIMM and DCPMM hardware diagnostics. For more information, refer to ES51965 – Introducing the Intel DC Persistent memory module https://lenovoedu.lenovo.com/course/view.php?idnumber=ES51965.



Lenovo XClarity Administrator changes

The latest version of XClarity Administrator supports DCPMM inventory monitoring and security operation settings. For more information, refer to ES51965 – Introducing the Intel DC Persistent memory module https://lenovoedu.lenovo.com/course/view.php?idnumber=ES51965.



Summary

This course enabled you to:

- Describe the features of Intel second-generation Xeon Scalable processors
- Describe the updated ThinkSystem server specifications
- Describe the updated ThinkSystem tool features