



Lenovo XClarity Provisioning Manager Lite v2 User Guide



Server Models

Following are server models supported by LXPM Lite V2:

- Lenovo ThinkSystem: SR635 and SR655

Third Edition (March 2021)

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Chapter 1. Deciding whether to use the Lenovo XClarity Provisioning Manager Lite V2 User Guide

The Lenovo XClarity Provisioning Manager Lite V2 (LXPM v2) guide describes Lenovo XClarity Provisioning Manager Lite V2 interfaces provided with AMD servers. You can use the Lenovo XClarity Provisioning Manager Lite V2 to administer AMD servers, including configuring Redundant Array of Independent Disks (RAID), updating firmware, installing operating systems and associated device drivers, cloning settings from one server to another, and running diagnostics.

Chapter 2. Understanding Lenovo XClarity Provisioning Manager Lite V2

This chapter provides detailed description about Lenovo XClarity Provisioning Manager Lite V2, including main interfaces, buttons, and keyboard navigation.

Main interface

The Lenovo XClarity Provisioning Manager Lite V2 main interface is divided into two panels. Click the tabs in the left panel to enter corresponding interfaces in the right panel.

System Summary	
Product Name	ThinkSystem SR655
UEFI Version	CFE101X
BMC Version	AMBT03A
LXPM Lite Version	2.00 L4Y751S
Machine Type - Model	7Y98XXXXXX
Serial Number	0123456789
UUID	BA813AD1-6E8B-E911-A9F0-AC2F816BEF89
Linux Driver Package	L0L201N
Windows Driver Package	L0L301O
CPU Information	
CPU Count	1
CPU#1	
CPU Name	AMD Eng Sample: Z51711E3V1VG5_24/17_N
CPU Family	AMD Processor
CPU Model	AMD Processor
CPU Max Frequency	2400 MHz
Core Count	32
DIMM Information	
DIMM Total Count	1
DIMM Type#1	
DIMM Capacity	8 GB
DIMM Type	DDR4

Tabs in the left panel

The following lists provide information about each tab in the left panel of Lenovo XClarity Provisioning Manager Lite V2.

- **System Summary**

View basic information about the server, including CPU information, DIMM information, PCI device information, and disk drive information.

- **RAID Setup**

Configure RAID and disk setting.

- **OS Installation**

Follow the wizard to install an operating system and associated device drivers.

- **Firmware update**

Update applications, firmware, and drivers for your server.

- **Cloning**







Export the response file or import the response file.

- **Diagnostics**

Collect service data and run diagnostics of memory, HDD, and RAID.

Buttons on the Lenovo XClarity Provisioning Manager Lite V2 interfaces

The following table details the buttons on the Lenovo XClarity Provisioning Manager Lite V2 interfaces:

Button	Description
	Select the language to be displayed.
	Display the Network Settings window.
	Click this button to display the following items: <ul style="list-style-type: none">• Help: View context-sensitive help information for each interface.• HotKey: View keyboard navigation information.• License Agreement: View Lenovo license agreement.• Third-party Licenses: View the third-party licenses.• About: View the LXPM Lite V2 version, copyright, and trademark information.
	Exit LXPM Lite V2 or the current interface.
	Return to the previous step.
	Go to the next step.

Keyboard navigation

Lenovo XClarity Provisioning Manager Lite V2 supports navigation by using either mouse or keyboard. The following are the keys used for keyboard navigation:

- Ctrl+Tab: Toggles between the left panel (menu) and the right panel.
- Tab: Move forward to the next selectable item in the active panel.
- Shift+Tab: Move backward to the previous selectable item in the active panel.
- Space: Same as click when a button is active.
- Up arrow: Scroll up.
- Down arrow: Scroll down.
- Ctrl+L: Same as click **Languages** button.
- Ctrl+N: Same as click **Network Settings** button.
- Ctrl+H: Same as click **Help** button
- Ctrl+X: Same as click **Exit** button.


Note: Only United States layout keyboard is applicable in Lenovo XClarity Provisioning Manager Lite V2 user interface.

Chapter 3. Using Lenovo XClarity Provisioning Manager Lite V2

This chapter explains how to use the Lenovo XClarity Provisioning Manager Lite V2, from program startup to detailed utilization of each tab in the left panel.


Lenovo XClarity Provisioning Manager Lite V2 startup

To start Lenovo XClarity Provisioning Manager Lite V2, do the following

- Step 1. Power on the server.
- Step 2. Press F11 when the logo screen is displayed.
- Step 3. Wait for several seconds. Lenovo XClarity Provisioning Manager Lite V2 opens.
- Step 4. Click  to select the language. Then, you can start to use the program.

Configuring network settings

To configure the network settings, do the following:

1. Click  on the top right corner of the Lenovo XClarity Provisioning Manager Lite V2 main interface. The following Network Settings window is displayed.

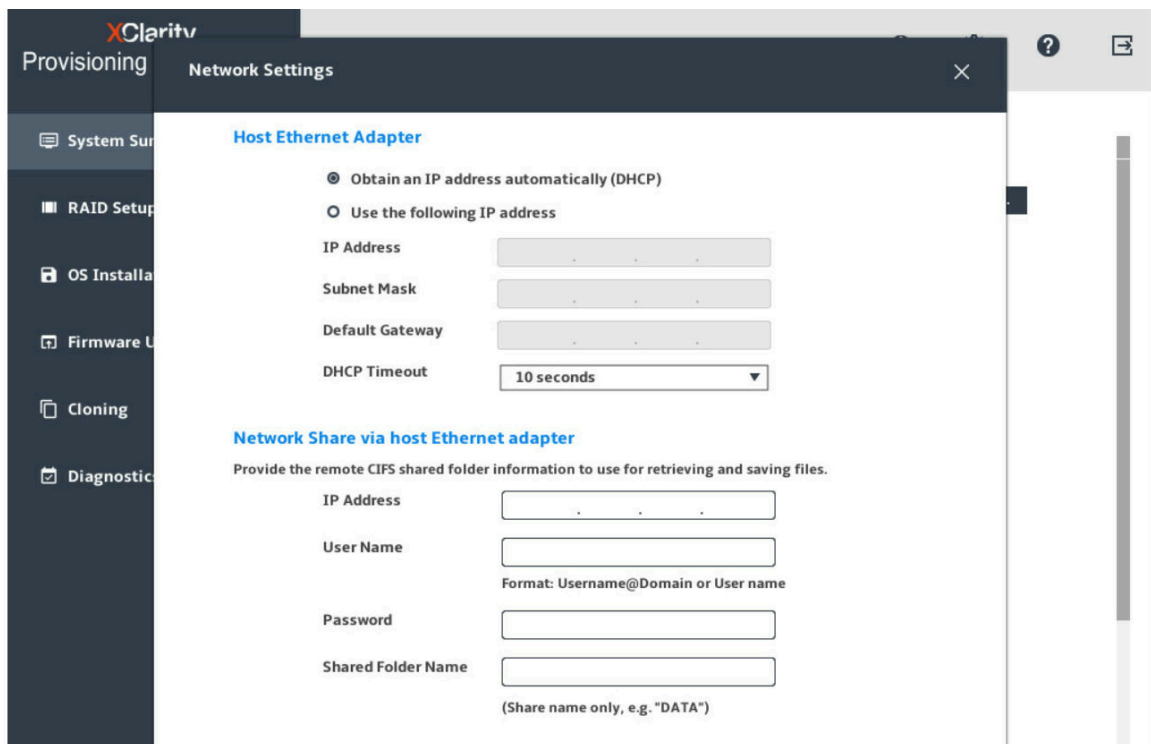


Figure 1. Network Settings window

2. Follow the instructions on the screen to configure the network settings.
3. After configuring the network settings, click one of the following buttons according to your needs:

- **Save and Connect:** Save the settings and connect to the shared network. If the network cannot be connected, an error message will be displayed.
- **Save without Connect:** Save the settings without connecting to the shared network. When you click the button, a confirmation window is displayed. Click **Continue** to save the settings without connecting, or click **Cancel** to go back to the Network Settings window.
- **Cancel:** Discard the changes and exit the Network Settings window.

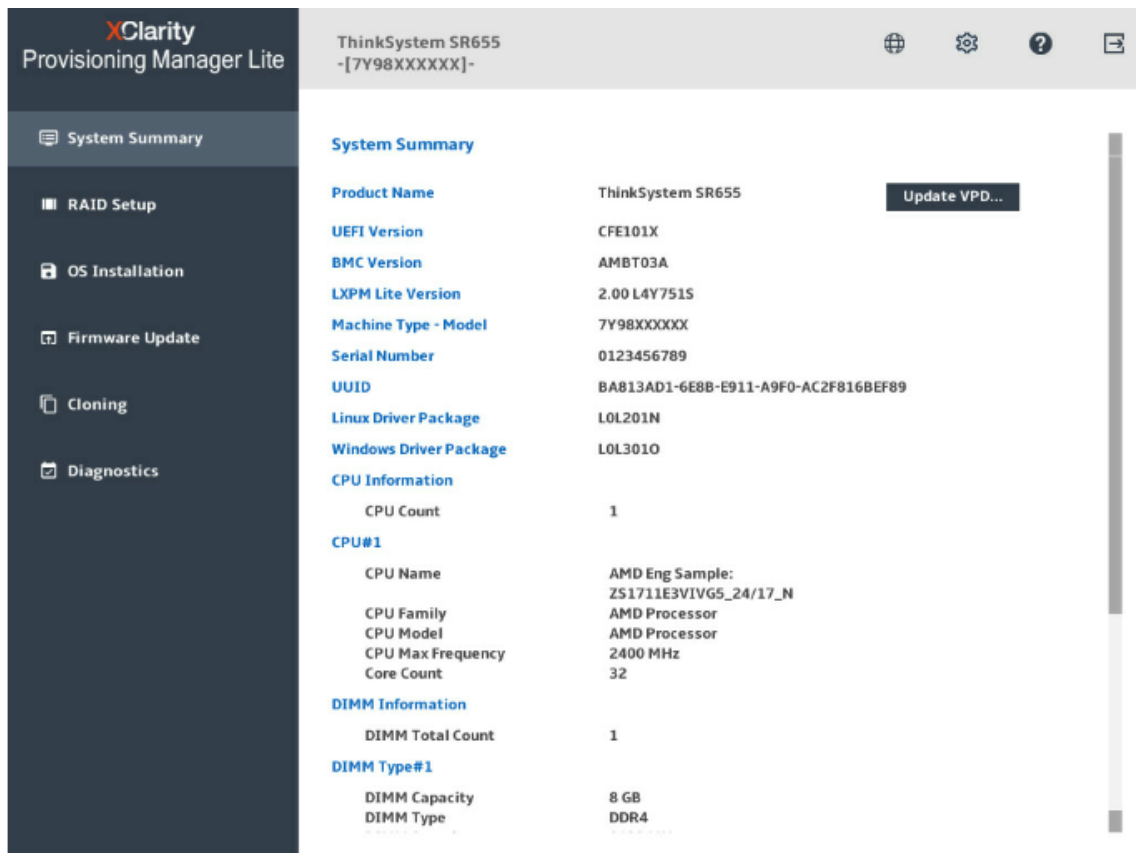
System Summary

Click the **System Summary** tab in the left panel to view the following system information:

- Product name
- UEFI, BMC, and LXPM Lite version information
- Machine type and serial number
- Universally Unique identifier (UUID)
- Operating system driver package information
- CPU information
- DIMM information
- PCI device information
- Disk drive information

Notes:

- The Non-Volatile Memory express (NVMe) SSDs are recognized as PCIe devices and listed in the PCI device information section.
- Device changes to an operating server will not be displayed in the System Summary interface in real time. To view the latest system information, you need to restart the server.



You can click **Update VPD...** to update Vital Product Data (VPD). Among the items of VPD, only asset tag and UUID are editable.

Note: You can edit items like manufacturer name, machine type, machine model, and serial number when the values are factory default. If you still need to modify these items when the values are set, contact Lenovo technical for support.

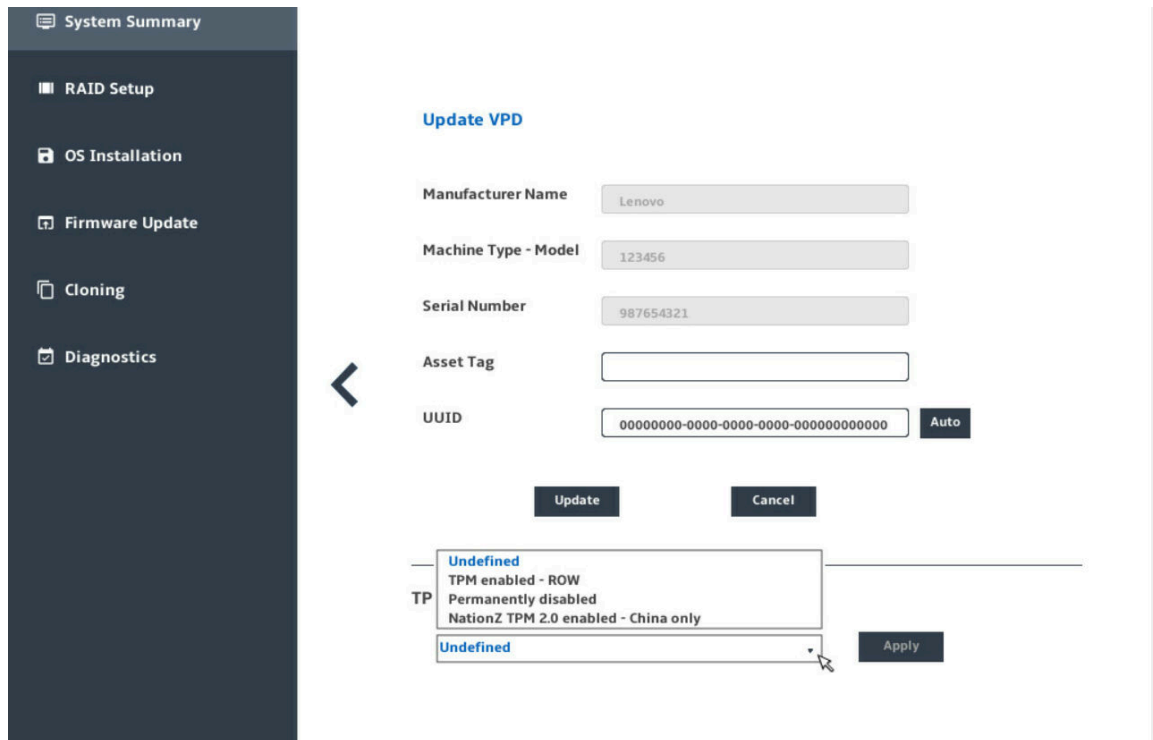
You can also check or configure the Trusted Platform Module (TPM) policy in the **Update VPD...** interface. You can select from the following configurations:

- **Undefined:** Default configuration; it must be changed to one of the other supported configurations before system shipping.
- **TPM enabled-ROW:** This configuration is used when system supports TPM. A 'lock' action is required before system shipping. A warning message will be displayed on POST screen or BMC log if no one does the 'lock' action. This configuration can be changed to one of the other supported configurations before the 'lock' action, but after the 'lock' action it cannot be changed except via Field Return recovery.
- **Permanently disabled:** This configuration is used when system support TPM. A 'lock' action is required before system shipping. A warning message will be displayed on POST screen or BMC log if no one does the 'lock' action. This configuration can be changed to one of the other supported configurations before the 'lock' action, but after the 'lock' action it cannot be changed except via Field Return recovery.
- **NationZ TPM2.0 enabled-China only:** This is a customized version of **TPM enabled-ROW** for users from China.

Notes:

- Once you have applied any TPM policy configuration, you cannot change it any more. Be cautious when setting the configuration.

- If you select **TPM enabled-ROW** or **NationZ TPM2.0 enabled-China only**, any device change or installation of unauthorized software will lead to boot failure. Contact Lenovo technical for support for details.



RAID Setup

Click the **RAID Setup** tab in the left panel to enter the wizard for configuring RAID and disk settings for the installed RAID adapters. The following is the first interface for the wizard.

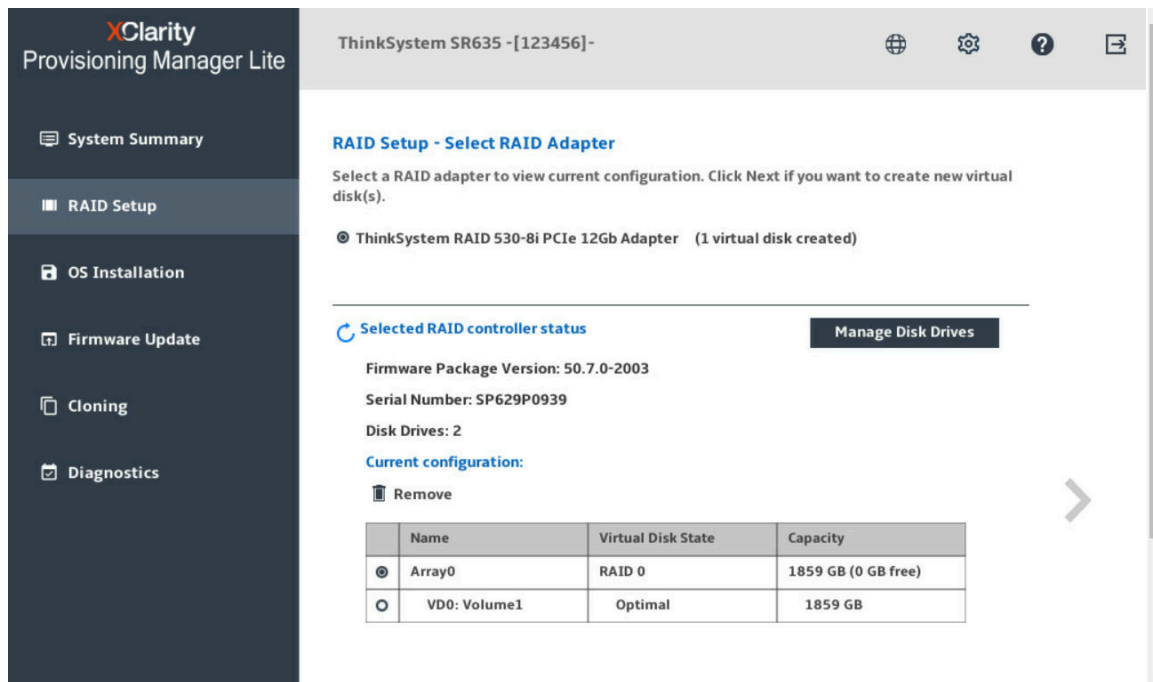






Figure 2. RAID Setup - Select RAID Adapter interface







To configure RAID and disk settings, follow the wizard to do the following:

1. Select the RAID adapter you want to configure. The basic information and current configuration for the selected RAID adapter will be displayed.
2. If you want to delete a disk array or a virtual disk for the selected RAID adapter, select the disk array or virtual disk you want to delete and click **Remove**. Then, follow the instructions on the screen to delete it.
3. If you want to view or change the drive status for the selected RAID adapter, click **Manage Disk Drives** to enter the Manage Disk Drives interface. In this interface, all the drives connected to the selected RAID adapter are listed. You can change the drive status according to your needs. Then, click  and confirm to save changes and return to the “RAID Setup - Select RAID Adapter” interface or click  to discard changes and return to the “RAID Setup - Select RAID Adapter” interface.

Notes:

- If you are configuring the ThinkSystem™ M.2 with Mirroring Enablement Kit, you cannot change the drive status, but only can view the drive status in the Manage Disk Drives interface.
 - You need to set the drive status to **UGood** to configure disk setting.
4. Click  to enter the “RAID Setup - Select RAID configuration type” interface and do one of the following:
 - Select **Simple configuration** and go to step 5.
 - Select **Advanced configuration** and select **Create new disk array and virtual disk** in the drop-down list box. Then, go to step 6.
 - Select **Advanced configuration** and select **Use free capacity on the existing disk array** in the drop-down list box. Then, go to step 7.
 5. Click  to enter the “RAID Setup - Set RAID level and hot spare” interface. Select the RAID level and choose to select or clear the **Add Hot Spare Drive** check box. If the check box is selected, one of the drives is assigned for dedicated hot spare function. Then, go to step 9.

Notes:

- If you are configuring the ThinkSystem M.2 with Mirroring Enablement Kit, you can choose RAID 0 or RAID 1 as the RAID level. Choose RAID 1 to implement mirroring.
 - If you are configuring integrated software RAID or ThinkSystem M.2 with Mirroring Enablement Kit, the **Add Hot Spare Drive** check box will not be displayed.
6. Click  to enter the “RAID Setup - Select RAID Level and Select Drives” interface. Select the RAID level and the drives for the new disk array, and set the role for each drive. Then, go to step 8.
 7. Click  to enter the “RAID Setup - Select Disk Array” interface. All the disk arrays that have free space will be displayed. Select a disk array for the new virtual disk.
 8. Click  to enter the “RAID Setup - Create and Edit Virtual Disk” interface. You can create new virtual disks. Then, you can edit or remove the new virtual disks. Follow the instructions on the screen to do the configuration.
 9. Click  to enter the “RAID Setup - Verify settings” interface. Double check the settings and click . A confirmation window is displayed.
 10. Click **Yes** to enter the “RAID Setup - Creating Virtual Disk(s)” interface. The virtual disk creation result is displayed.
 11. Click  to return to the first interface of the wizard and view the current configuration of the selected RAID adapter.

OS Installation

Click the **OS Installation** tab in the left panel to enter the OS Installation interface. The OS Installation interface provides a configuration wizard for installing an operating system.

Note: If you want to configure RAID settings before installing an operating system, it is recommended to do the configuration in the RAID Setup interface. If you do the configuration in UEFI Setup, you must restart your server before installing the operating system to ensure that the RAID configuration takes effect.

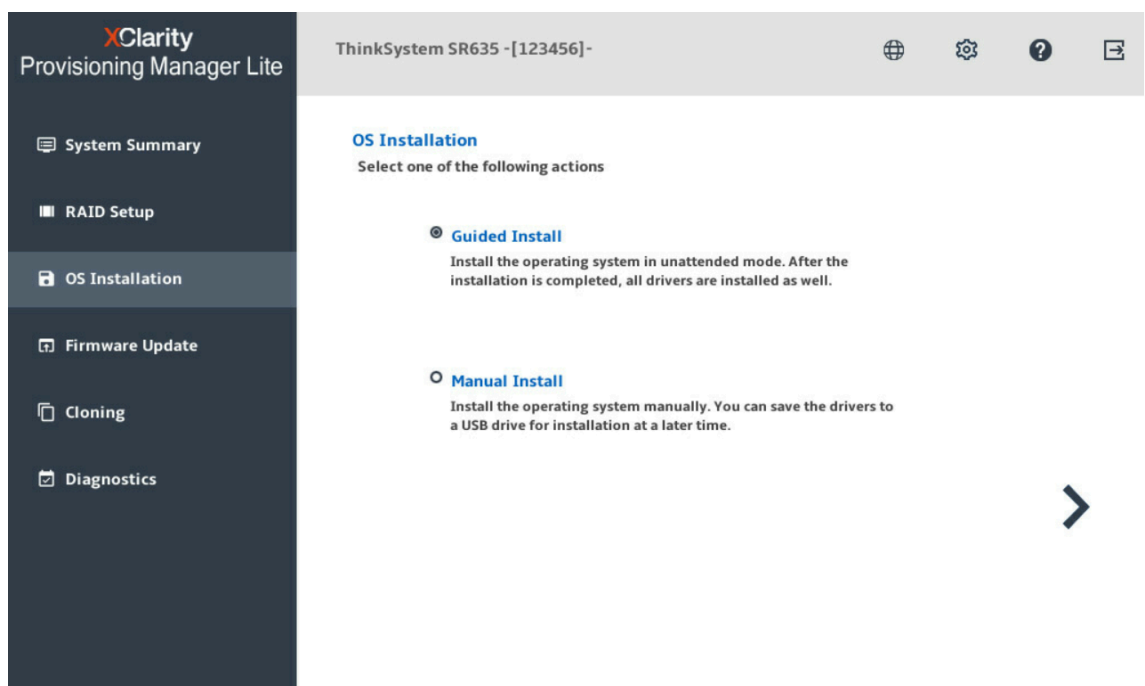


Figure 3. OS Installation interface

There are two types of installation for your selection:

- **Guided Install:** Install an operating system and device drivers in an unattended mode.
- **Manual Install:** Install an operating system and device drivers manually.

Notes:

- The Microsoft® Windows Server® version 1803 operating system is not supported by some Lenovo servers. For detailed information about the operating system compatibility with Lenovo servers, go to: <https://lenovopress.com/osig>
- The device drivers installed with the operating system are not complete. To view the complete list of the supported device drivers, refer to the readme files included in the Windows® Driver Bundle update package and Linux® Driver Bundle update package. To download the update packages, go to: <http://datacentersupport.lenovo.com>

Guided installation

Prerequisites

Before performing guided installation:

- Do the following to set the boot mode to be UEFI:
 - Go to **UEFI Setup** → **Boot** → **Boot Mode** and select **UEFI only**.
- Ensure that operating system installation files are prepared in one of the following:
 - CD or DVD

Note: Ensure that the disc is clean and the version and architecture of the operating system are correct.

- USB storage drive


To create a USB installation medium, refer to the documentation at:
http://cn.download.lenovo.com/ibmdl/pub/pc/pccbbs/thinkservers/how_to_create_usb_os_installation_media.pdf

- Shared network based on management network

Note: Ensure that the Ethernet connector for system management is active and can connect to the specified IP address. If the shared network is a CIFS server based on Linux Samba, the Samba configuration file "/etc/samba/smb.conf" shall have "ntlm auth = yes" in the "[global]" section.

If the shared network is connected, you can prepare the operating system installation files by Lenovo XClarity Controller or by Lenovo XClarity Provisioning Manager Lite.

Performing guided installation

In the OS Installation interface, select **Guided Install** and click . Refer to one of the following to install an operating system:

- “Installing a Windows operating system” on page 14
- “Installing a Linux operating system” on page 21
- “Installing a VMware operating system” on page 28

Device drivers will be automatically installed during guided installation. It is recommended to reboot the OS after guided installation is completed to make all drivers take effect. You also can export the operating system installation settings to a response file. For more information, refer to “Exporting an operating-system-installation response file” on page 33.

Installing a Windows operating system

The wizard provides a step by step guidance for installing an operating system. Follow the instructions on the screen and the tips listed below to install a Windows operating system.

1. Drive Selection

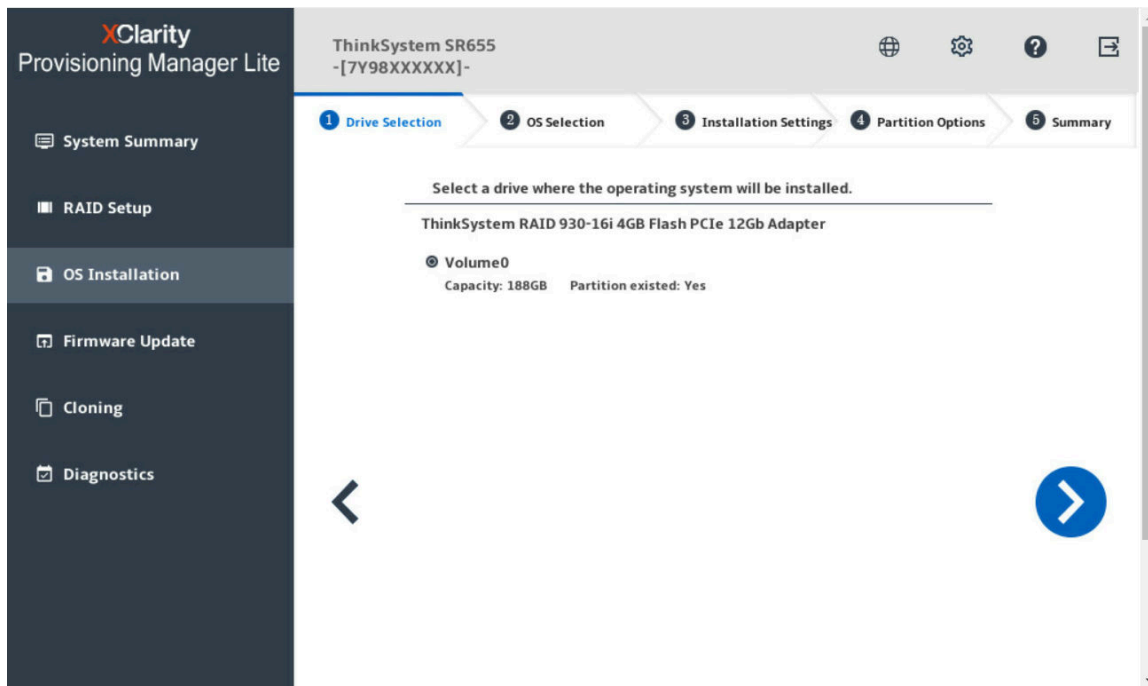


Figure 4. Drive Selection step (for Windows)

Attention: The selected drive will be formatted during the installation. Back up all data on it before the installation.

Note: The drivers will be installed automatically after the OS installation. It is recommended to restart your server to ensure that all installed drivers take effect.

2. OS Selection

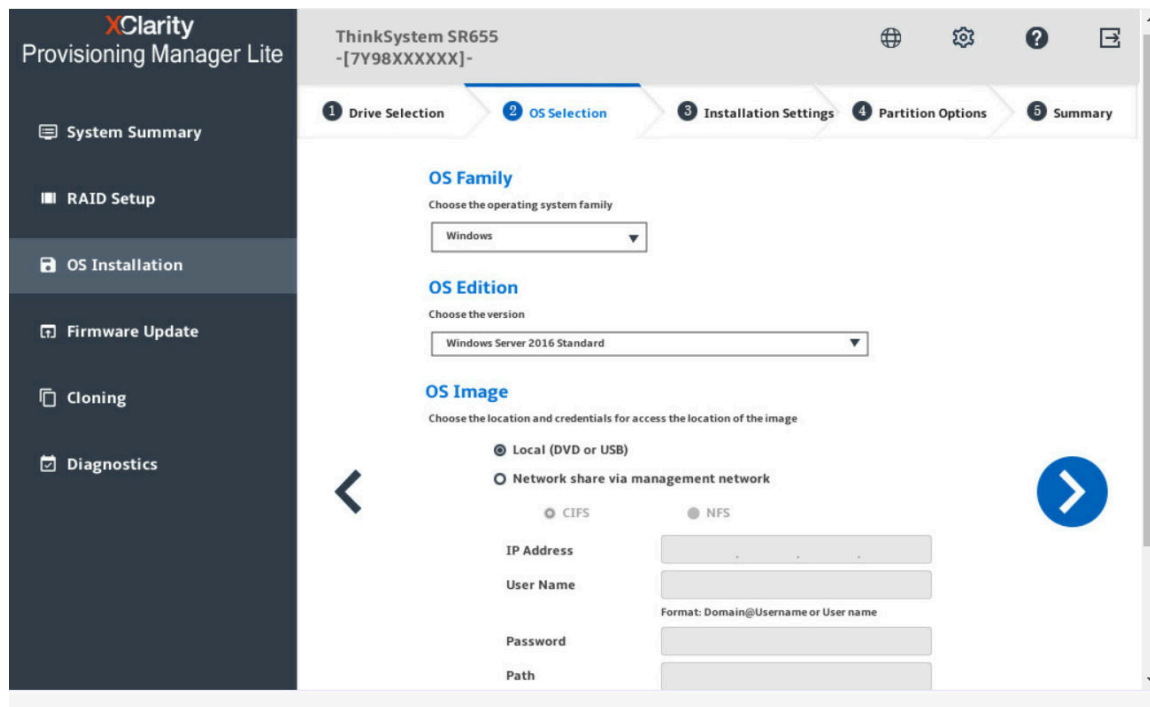


Figure 5. OS Selection step (for Windows)

The IP address is made up of four parts separated by dots. The following table lists the valid value range for each part.

IP Address	Part 1	Part 2	Part 3	Part 4
Valid values	1 – 223	0 – 255	0 – 255	0 – 255

3. Installation Settings

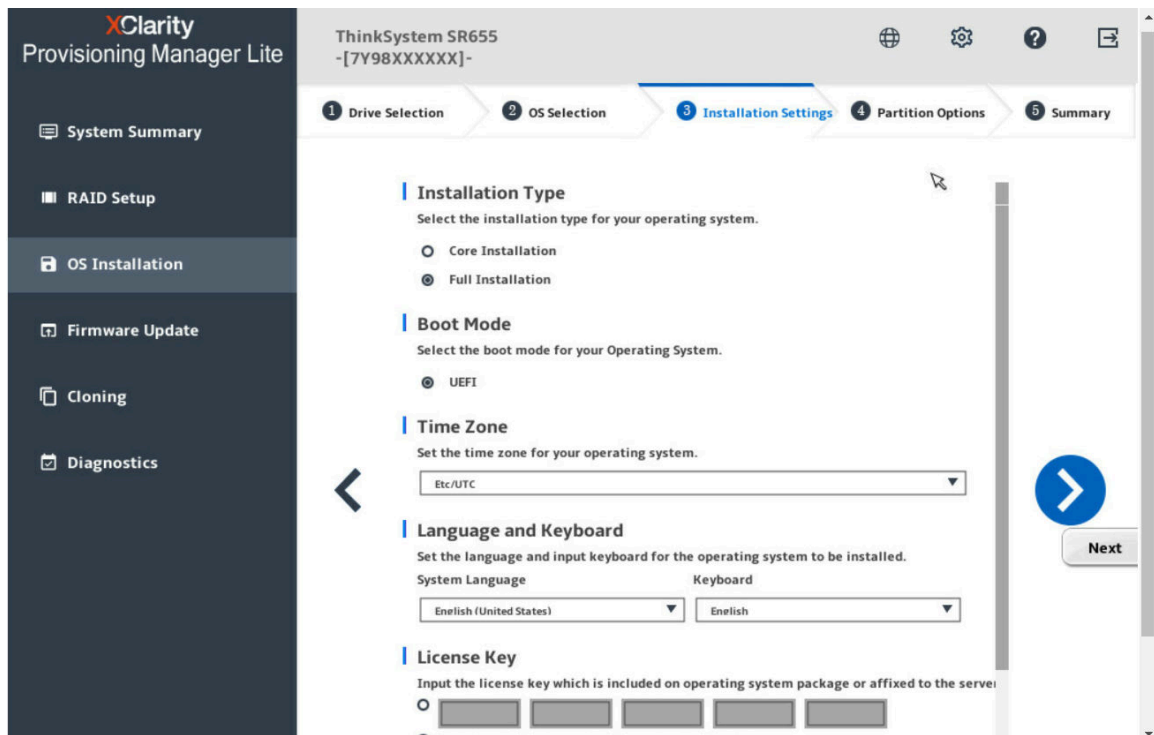


Figure 6. Installation Settings step – 1 (for Windows)

Administrator Password: You can change your administrator password later from the operating system.

If you want to do advanced configurations, expand the list by clicking the arrow icon next to **Advanced**.

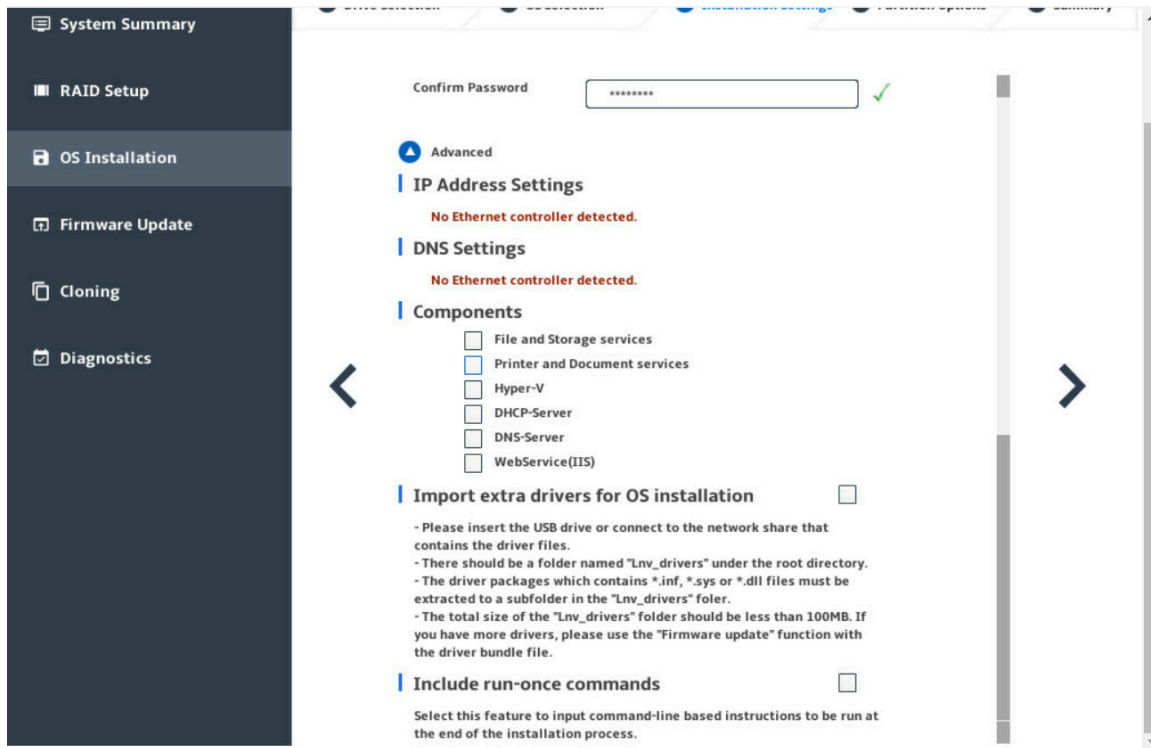


Figure 7. Installation Settings step – 2 (for Windows)

Refer to the following table for the valid values when you type the required address information.

Address	Part 1	Part 2	Part 3	Part 4
IP Address	1 – 126; 128 – 223	0 – 255	0 – 255	1 – 254
Subnet Mask	0 – 255	0 – 255	0 – 255	0 – 255
Default Gateway	0 – 255	0 – 255	0 – 255	0 – 255
Preferred DNS Server	1 – 126; 128 – 223	0 – 255	0 – 255	0 – 255
Alternate DNS Server	1 – 126; 128 – 223	0 – 255	0 – 255	0 – 255

Components: You can select one or more components for installation according to your requirements.

Include run-once commands: If you want to run specified commands at the end of the installation process, select the check box. A command-type area is displayed. Type one command and click **Add**. The command is added to the command list. You can add five commands at most. If you want to remove a certain command, select it and click **Remove**. The commands in the command list will be run one time only and in the order you type them.

4. Partition Options

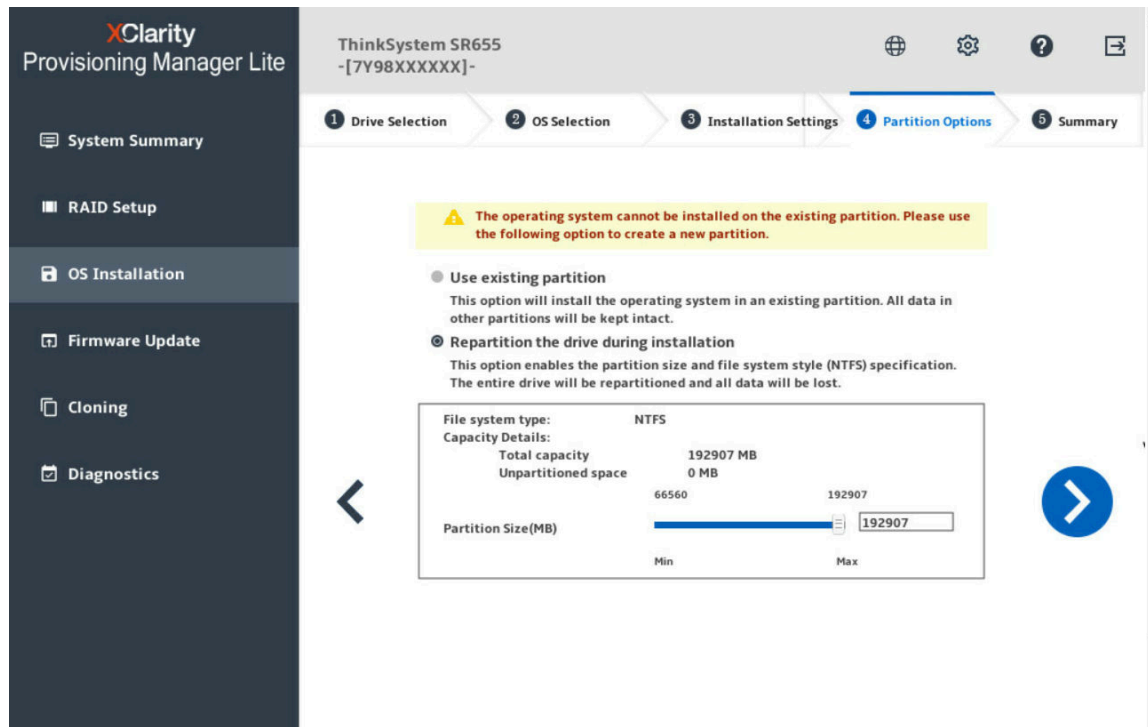


Figure 8. Partition Options step (for Windows)

If no existing partition is detected on the drive, select **Repartition the drive during installation**.

5. Summary

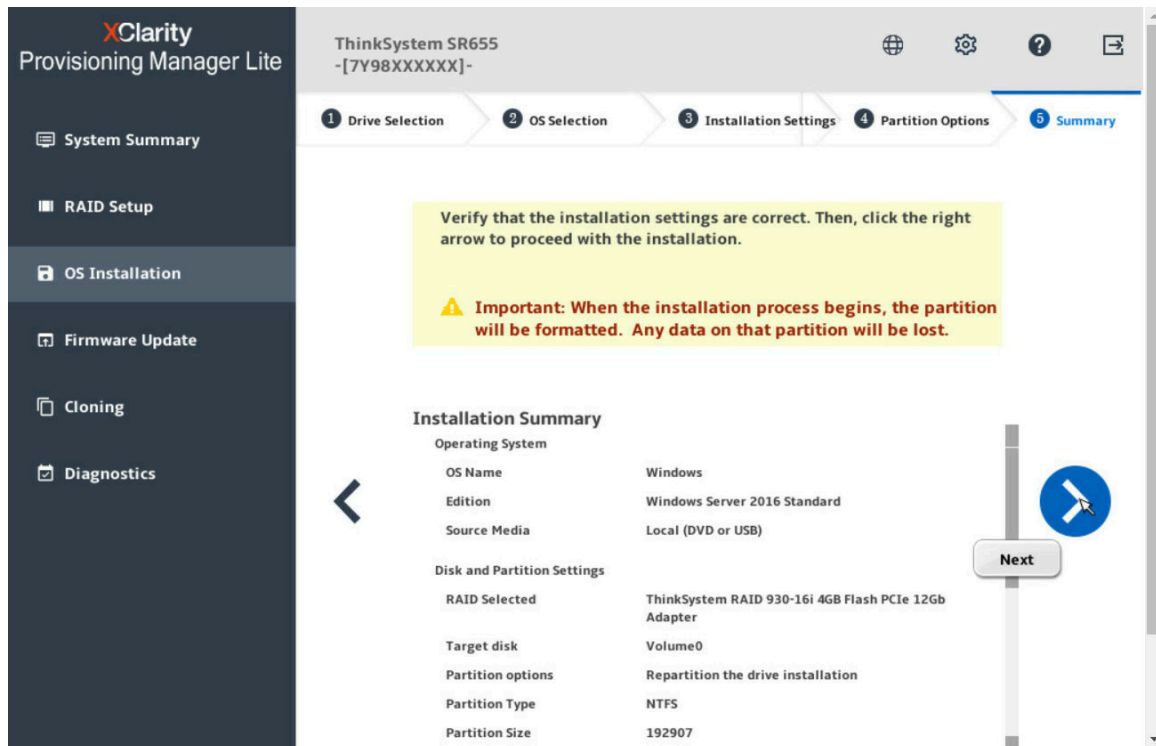




Figure 9. Summary step (for Windows)

If you want to change some settings, click  until you return to the page where you can make the changes.

If you want to export the operating system installation settings to a response file, refer to [“Exporting an operating-system-installation response file”](#) on page 33.

Click . The license agreement page for the operating system is displayed. Read and accept the license agreement. Click **Next**. The installation process starts. Wait until the installation finishes.

Installing a Linux operating system

The wizard provides a step by step guidance for installing an operating system. Follow the instructions on the screen and the tips listed below to install a Linux operating system.

Note: The CentOS Linux operating systems can be installed on the server successfully. However, Lenovo servers provide only hardware-level support for CentOS. For more information about CentOS compatibility with Lenovo servers, go to: <https://lenovopress.com/osig>

For SUSE Linux Enterprise Server 15 operating system, two image files are included: SLE-15-Installer-DVD-x86_64-GM-DVD1.iso and SLE-15-Packages-x86_64-GM-DVD1.iso.

If **Core Installation** is selected, only the SLE-15-Installer-DVD-x86_64-GM-DVD1.iso file is required. If **Full Installation** is selected, both image files are required at the same time. To prepare two image files, you can use one of the following forms:

- Two discs (physical or virtual)

- Two USB storage drives
- One disc (physical or virtual) and one USB storage drive
- One USB storage drive including both image files

To create a USB storage device including both image files, do the following:

1. Prepare a USB storage drive with an FAT32 partition and a minimum of 8 GB of free storage space.
2. Extract the SLE-15-Installer-DVD-x86_64-GM-DVD1.iso file to the root folder of the USB storage drive.
3. Create a packages sub folder in the root folder.
4. Extract the SLE-15-Packages-x86_64-GM-DVD1.iso file to the packages sub folder.

1. Drive Selection

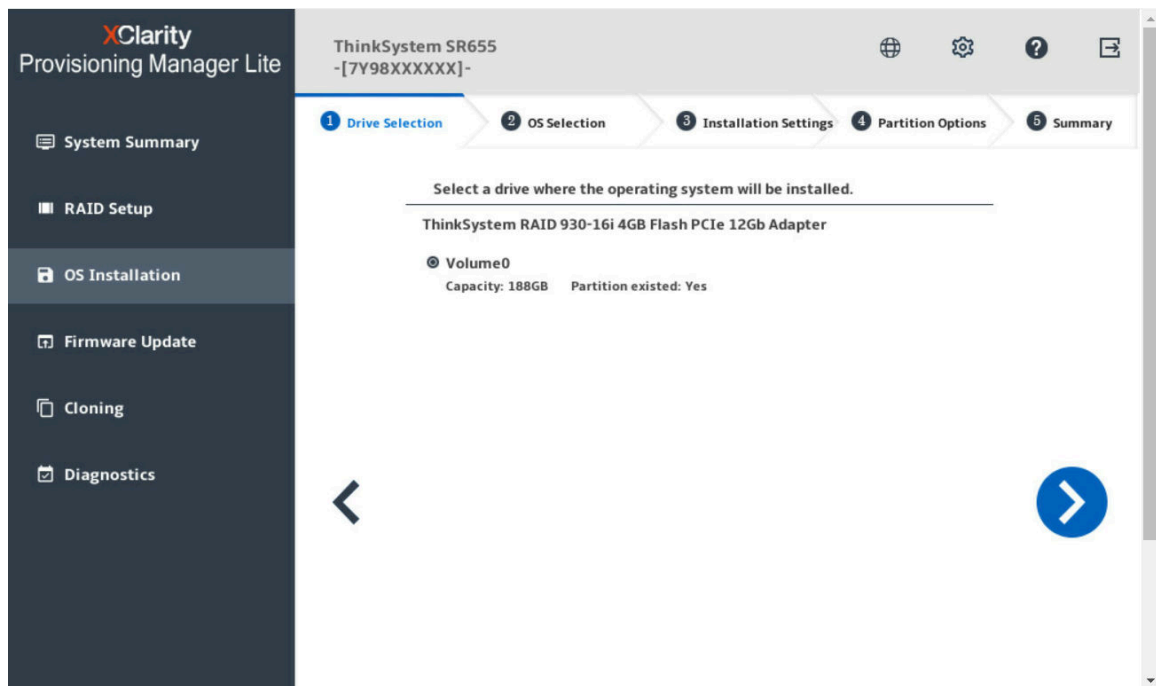


Figure 10. Drive Selection step (for Linux)

Attention: The selected drive will be formatted during the installation. Back up all data on it before the installation.

Note: The drivers will be installed automatically after the OS installation. It is recommended to restart your server to ensure that all installed drivers take effect.

2. OS Selection

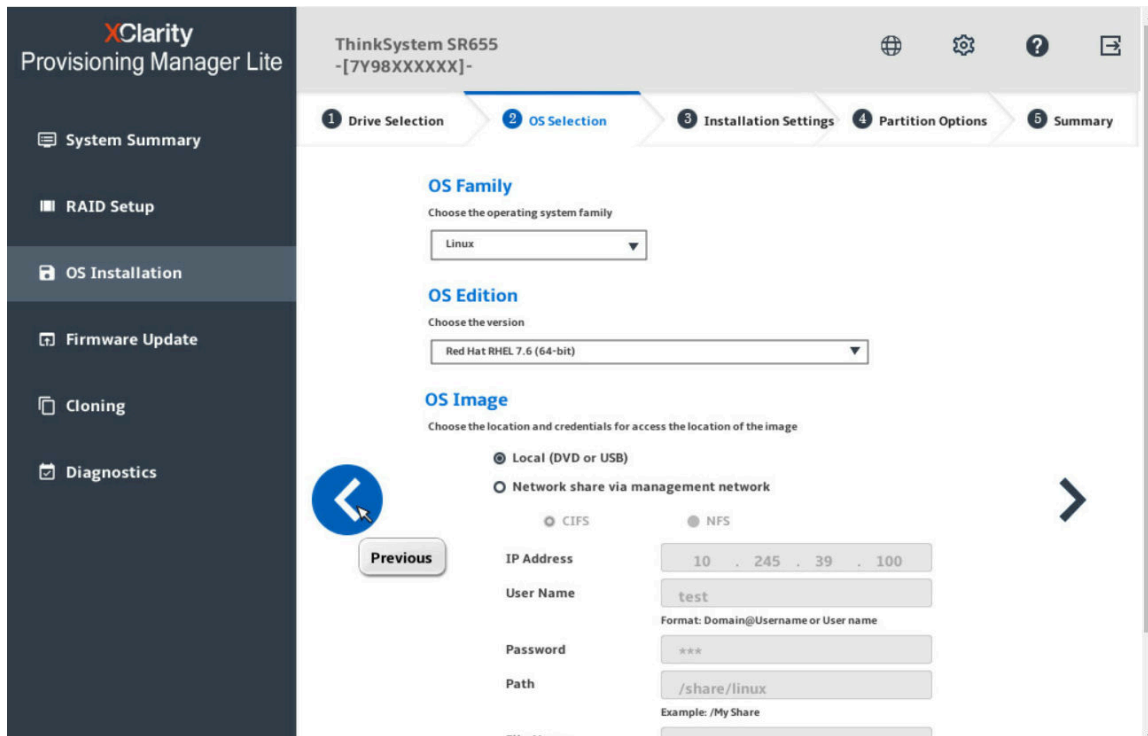


Figure 11. OS Selection step (for Linux)

The IP address is made up of four parts separated by dots. The following table lists the valid value range for each part.

IP Address	Part 1	Part 2	Part 3	Part 4
Valid values	1 – 223	0 – 255	0 – 255	0 – 255

3. Installation Settings

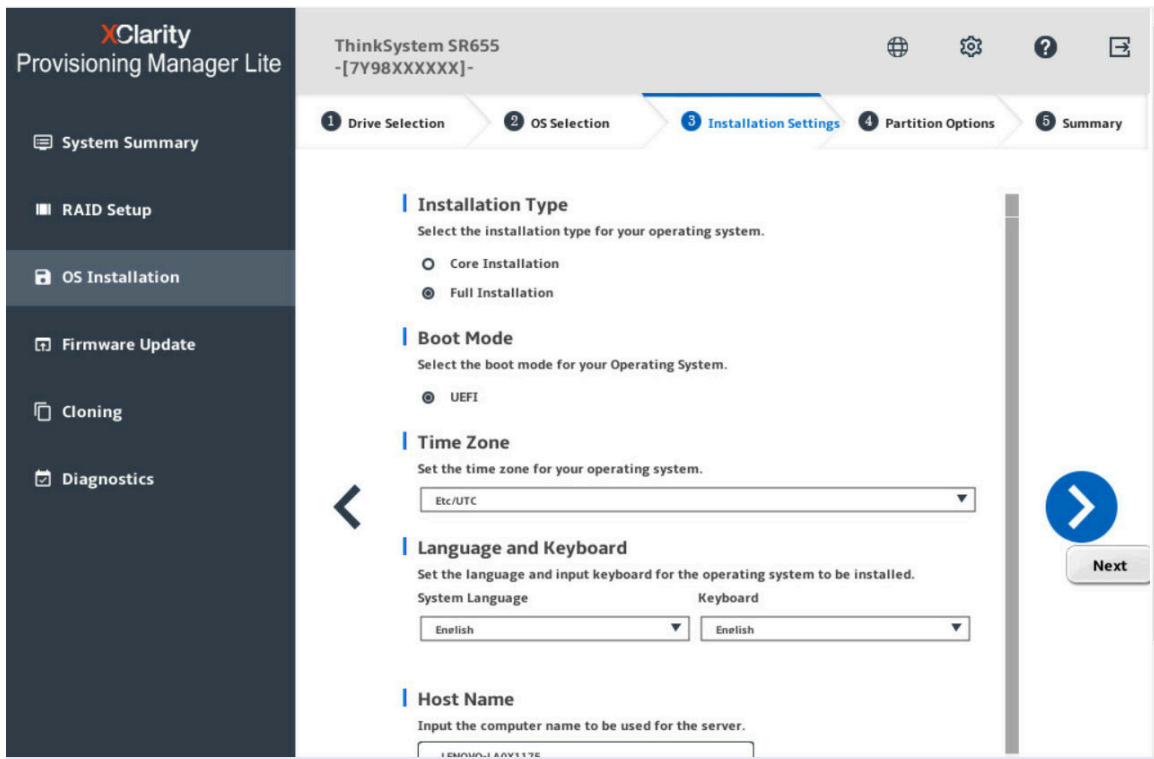


Figure 12. Installation Settings step – 1 (for Linux)

Root Password: You can change your root password later from the operating system.

If you want to do advanced configurations, expand the list by clicking the arrow icon next to **Advanced**. Refer to the following table for the valid values when you type the required address information.

Address	Part 1	Part 2	Part 3	Part 4
IP Address	1 – 126; 128 – 223	0 – 255	0 – 255	1 – 254
Subnet Mask	0 – 255	0 – 255	0 – 255	0 – 255
Default Gateway	0 – 255	0 – 255	0 – 255	0 – 255
Preferred DNS Server	1 – 126; 128 – 223	0 – 255	0 – 255	0 – 255
Alternate DNS Server	1 – 126; 128 – 223	0 – 255	0 – 255	0 – 255

4. Partition Options

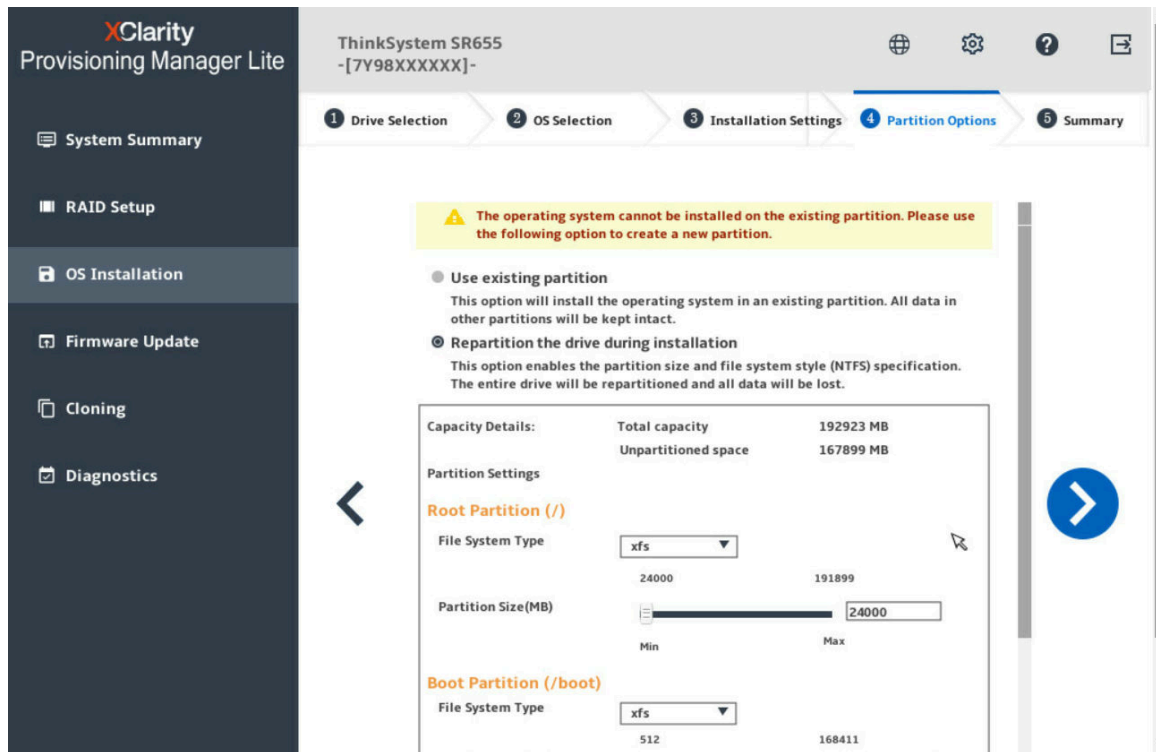


Figure 13. Partition Options step (for Linux)

If no existing partition is detected on the drive, select **Repartition the drive during installation**.

Root Partition: The root partition size depends on the space required for the operating system and applications.

Boot Partition: This partition contains files required to start the operating system.

Swap Partition: Swap partition is the virtual memory in Linux. When the Random Access Memory (RAM) is full, data will be stored on the swap partition temporarily. Although swap partition can be used to store data, it should not be considered as a replacement for RAM. It is located on hard disk drives, and has slower access speed than RAM.

5. Summary

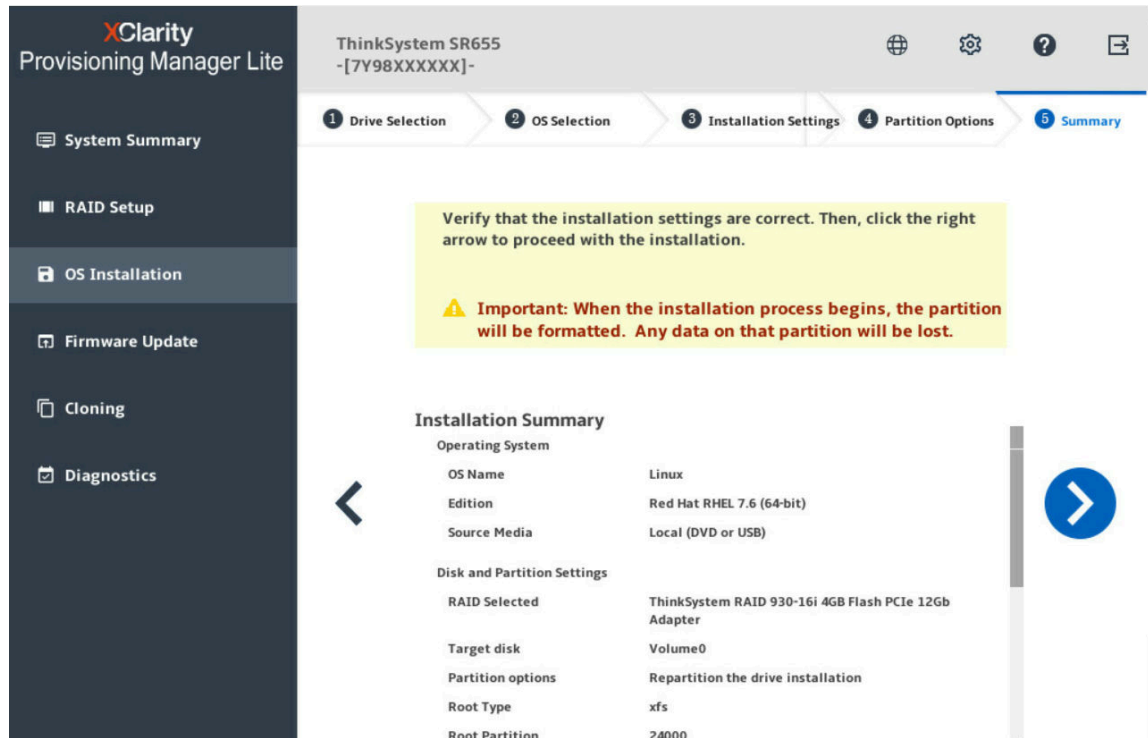



Figure 14. Summary step (for Linux)

If you want to change some settings, click  until you return to the page where you can make the changes.

If you want to export the operating system installation settings to a response file, refer to [“Exporting an operating-system-installation response file”](#) on page 33.

Click . The installation process starts. Wait until the installation finishes.

Installing a VMware operating system

The wizard provides a step by step guidance for installing an operating system. Follow the instructions on the screen and the tips listed below to install a VMware® operating system.

1. Drive Selection

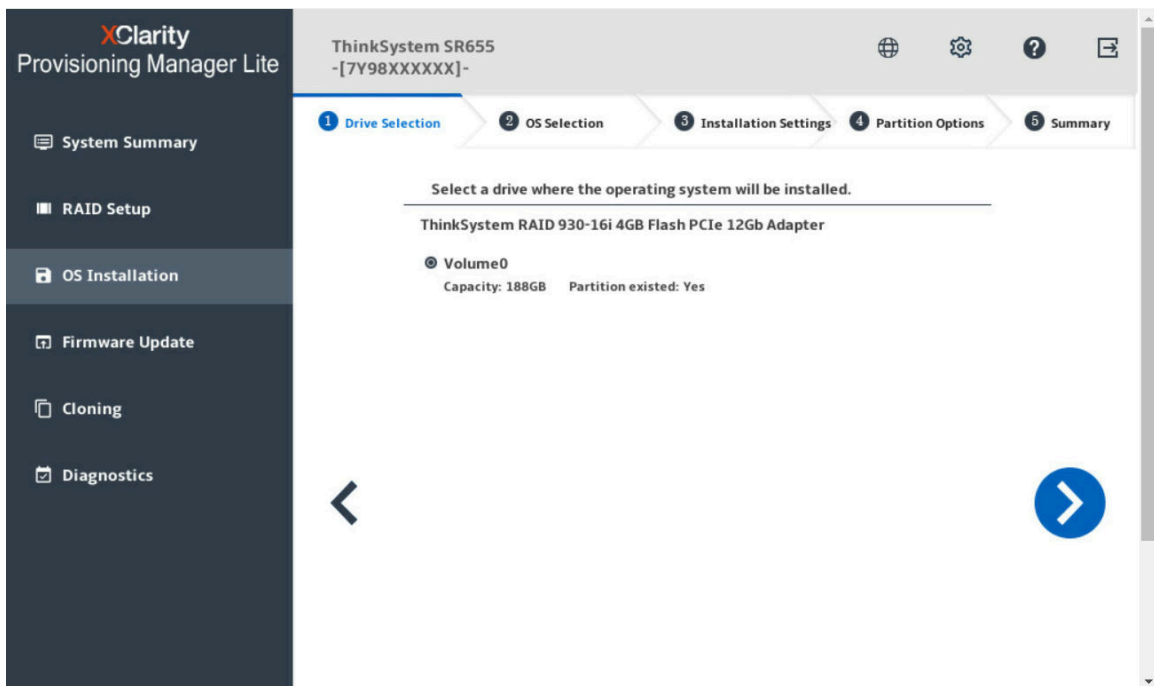


Figure 15. Drive Selection step (for VMware)

Attention: The selected drive will be formatted during the installation. Back up all data on it before the installation.

Note: The drivers will be installed automatically after the OS installation. It is recommended to restart your server to ensure that all installed drivers take effect.

2. OS Selection

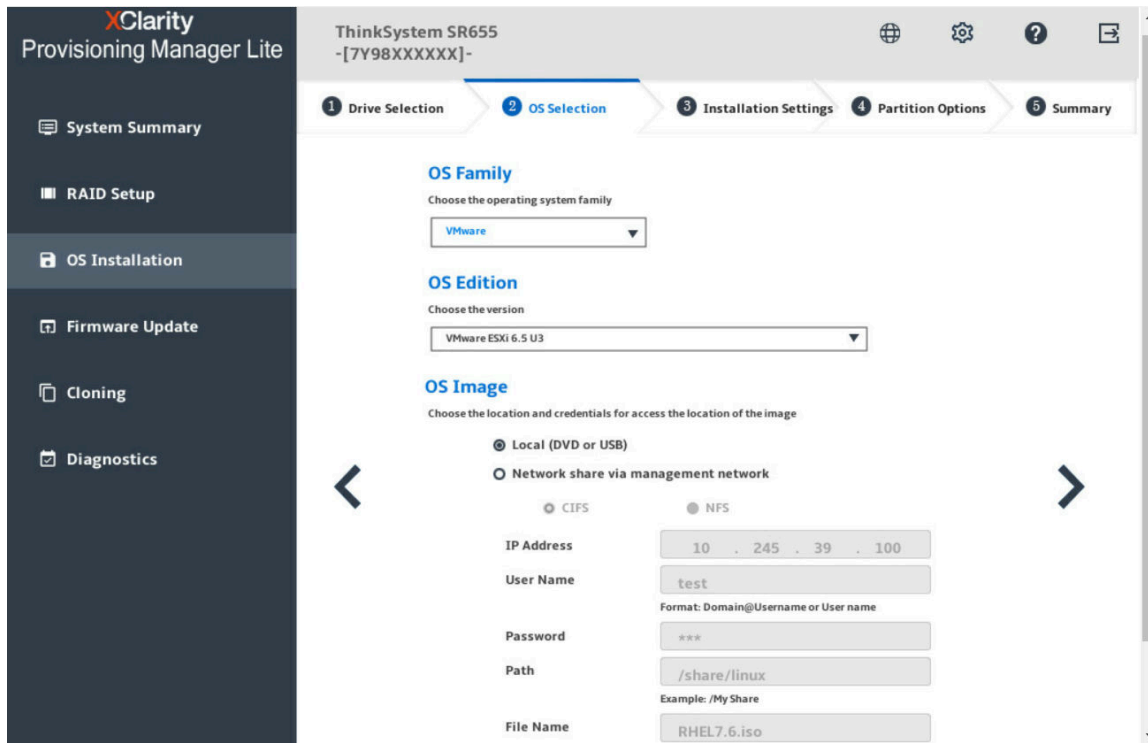


Figure 16. OS Selection step (for VMware)

The IP address is made up of four parts separated by dots. The following table lists the valid value range for each part.

IP Address	Part 1	Part 2	Part 3	Part 4
Valid values	1 – 223	0 – 255	0 – 255	0 – 255

3. Installation Settings

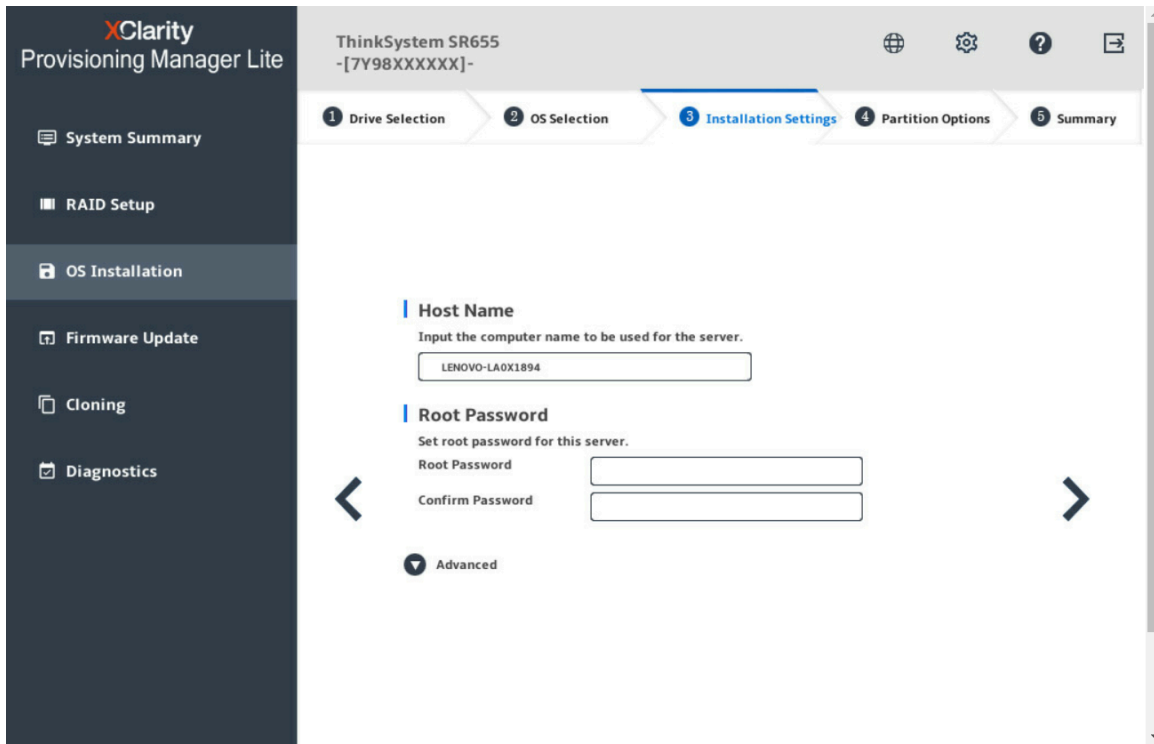


Figure 17. Installation Settings step – 1 (for VMware)

Root Password: You can change your root password later from the operating system.

If you want to do advanced configurations, expand the list by clicking the arrow icon next to **Advanced**. Refer to the following table for the valid values when you type the required address information.

Address	Part 1	Part 2	Part 3	Part 4
IP Address	1 – 126; 128 – 223	0 – 255	0 – 255	1 – 254
Subnet Mask	0 – 255	0 – 255	0 – 255	0 – 255
Default Gateway	0 – 255	0 – 255	0 – 255	0 – 255
Preferred DNS Server	1 – 126; 128 – 223	0 – 255	0 – 255	0 – 255
Alternate DNS Server	1 – 126; 128 – 223	0 – 255	0 – 255	0 – 255

4. Summary

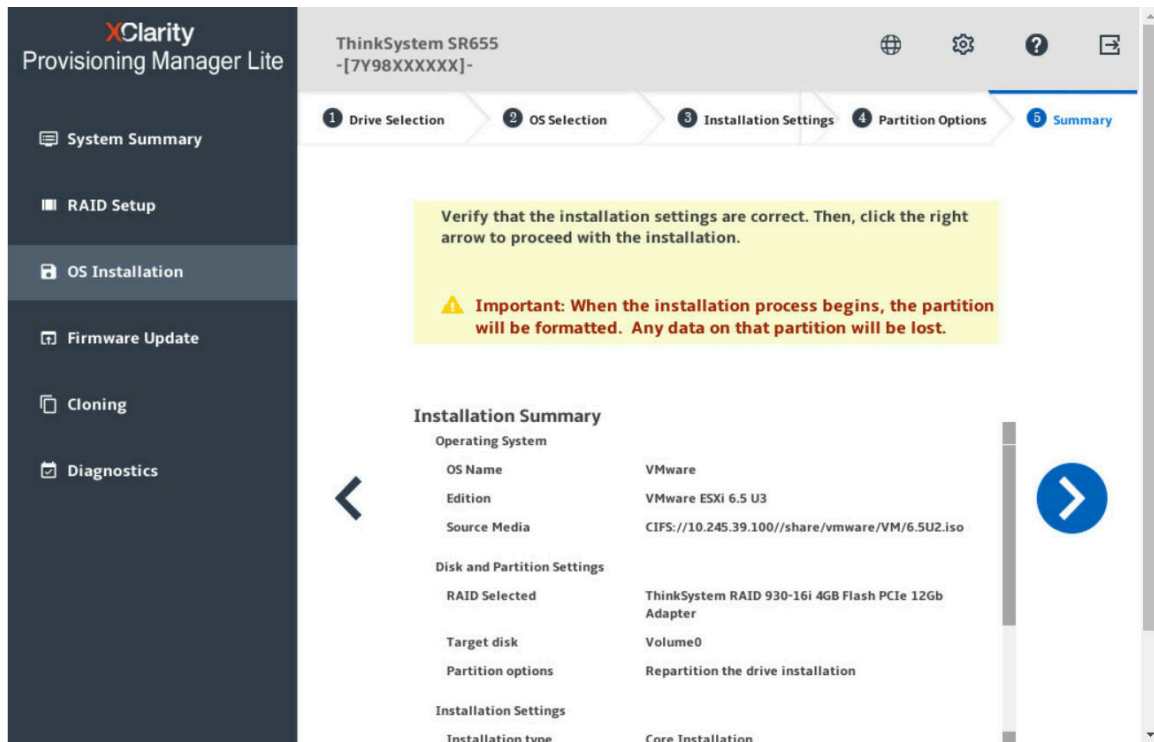



Figure 18. Summary step (for VMWare)

If you want to change some settings, click  until you return to the page where you can make the changes.

If you want to export the operating system installation settings to a response file, refer to [“Exporting an operating-system-installation response file” on page 33](#).

Click . The installation process starts. Wait until the installation finishes.


Exporting an operating-system-installation response file

You can export the operating system installation settings to a response file. Later, you can clone the settings in this response file to other similarly configured Lenovo servers.

To export an operating-system-installation response file, do the following:

1. Attach a USB storage drive to the server or connect your server to a shared network. For instructions on how to connect to a shared network, refer to [“Configuring network settings” on page 7](#).

Note: The USB storage drive should include an FAT32 partition.

2. Follow the wizard to go through the Drive Selection, OS Selection, Installation Settings, Partition Options, and Summary steps.
3. In the Summary step, select the **Save response file as (.xml)** check box, and click . The Save Response File window is displayed.
4. Select the location to save the response file and input a file name.
5. Click **Save**. Wait for several minutes until the saving process is completed.

Manual installation

Prerequisites

Before installing an operating system manually, ensure that the operating system installation files are prepared in one of the following forms:

- CD or DVD

Note: Ensure that the disc is clean and the version and architecture of the operating system are correct.

- USB storage drive

To create a USB installation medium, refer to the documentation at:

http://cn.download.lenovo.com/ibmdl/pub/pc/pccbbs/thinkservers/how_to_create_usb_os_installation_media.pdf

- Shared network

Ensure that the Ethernet connector for system management is active and can connect to the specified IP address.

Installing an operating system manually

In the OS Installation interface, select **Manual Install** and click . The following interface is displayed.

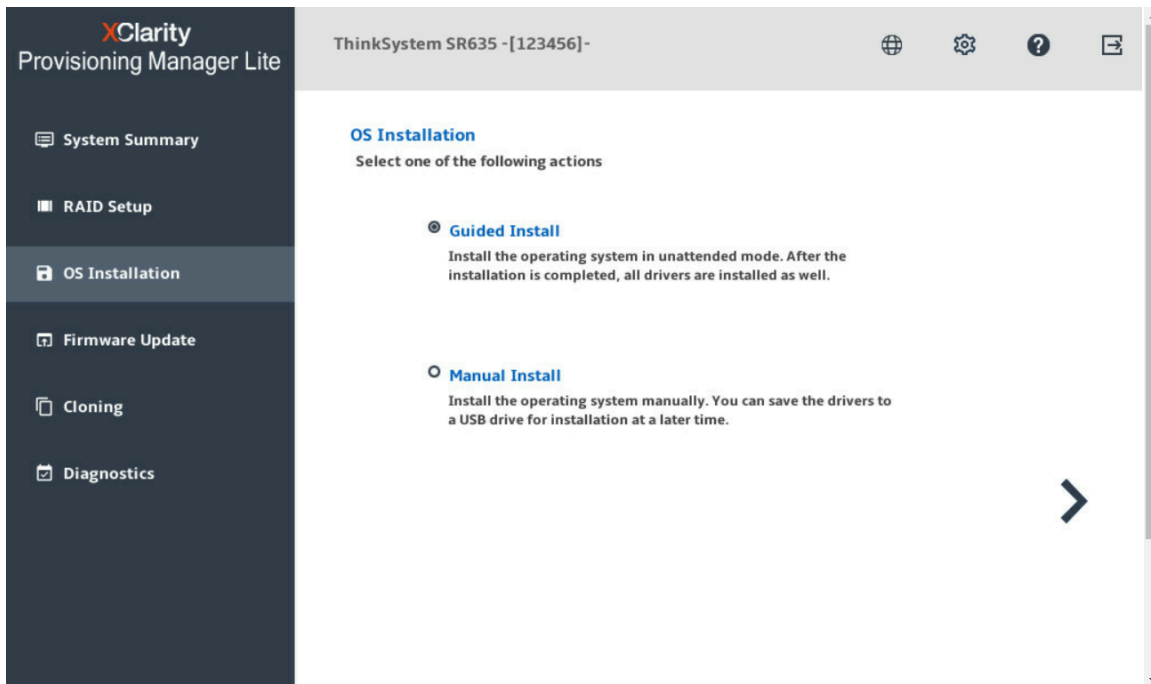




Figure 19. Manual Install interface

Do the following to install an operating system manually:

1. Select the operating system you want to install, select a location to save the drivers, and click .

Note: If no USB storage drive is detected, the **Save Drivers** button is dimmed.

2. Select **Begin the installation** and click . The server will boot from the operating system medium and the operating system installation process starts.

Note: You also can select **Reboot system** to restart the server if you want to do other configuration.

3. Install the operating system manually. To get instructions on how to install a specific operating system manually, do the following:
 - a. Go to <http://datacentersupport.lenovo.com> and navigate to the support page for your server.
 - b. Click **How-tos & Solutions**.
 - c. Select an operating system and the installation instructions will be displayed.
4. After the operating system installation process is completed, install the drivers saved in step 1 by yourself.

Firmware Update

Click the **Firmware Update** tab in the left panel to enter the Firmware Update interface. You can update the UEFI firmware, LXPM Lite, Windows driver, and Linux driver for your server in the Firmware Update interface. To download the update packages, go to:

<http://datacentersupport.lenovo.com>

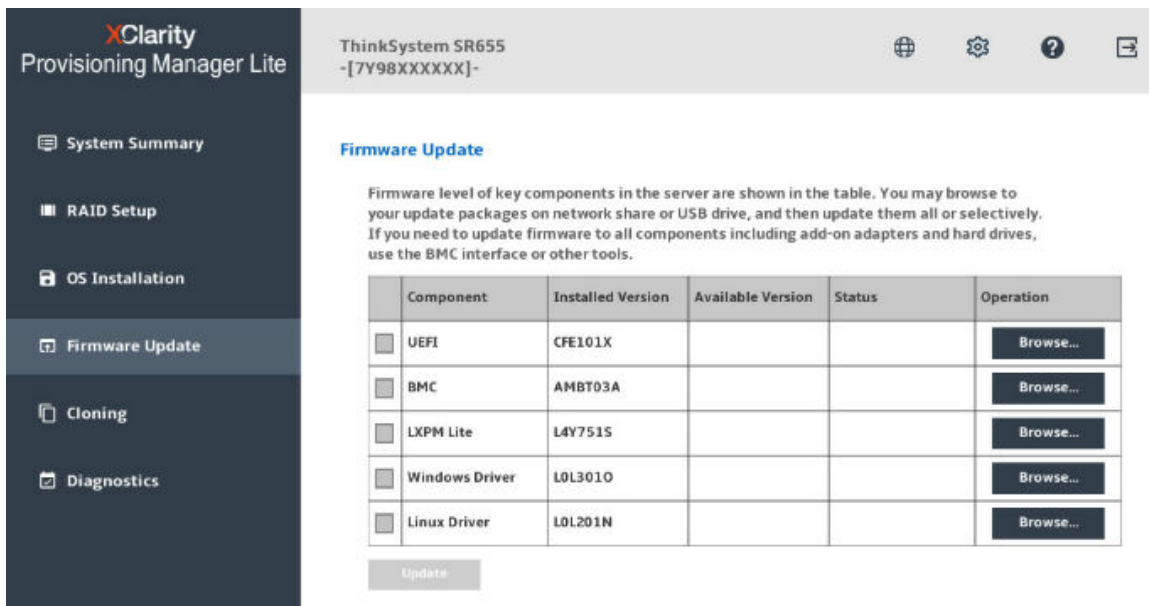


Figure 20. Firmware Update interface

To update firmware, do the following:

1. If the update package is stored on a USB storage drive, insert the USB storage drive into the server. If the update package is stored in a shared network folder, ensure that you have configured the network settings. For instructions on how to configure the network settings, refer to [“Configuring network settings” on page 7](#).

Note: Shared network is not supported for updating UEFI firmware.

2. Click **Browse....** The Select File window is displayed.
3. Select the corresponding file in the update package and click **OK**.
4. Select the items you want to update.

Note: If the available version is earlier than or the same as the current version, a confirmation window will be displayed. Click **Yes** to continue or click **No** to exit.

5. Click **Update**. The update process takes several minutes. When the **Status** for all the items are shown as **Success**, the update process is completed.

Note: If you are updating UEFI firmware, the server will be restarted automatically.

Cloning

Click the **Cloning** tab in the left panel to enter the Cloning interface. In the Cloning interface, you can clone settings in one server to other similarly configured Lenovo servers. The Cloning interface includes the following two sections:

- **Export:** Used to export RAID settings for the current server to response files respectively and save the response files to a USB storage drive or a shared network folder.
- **Import:** Used to import RAID and operating system installation settings from response files.

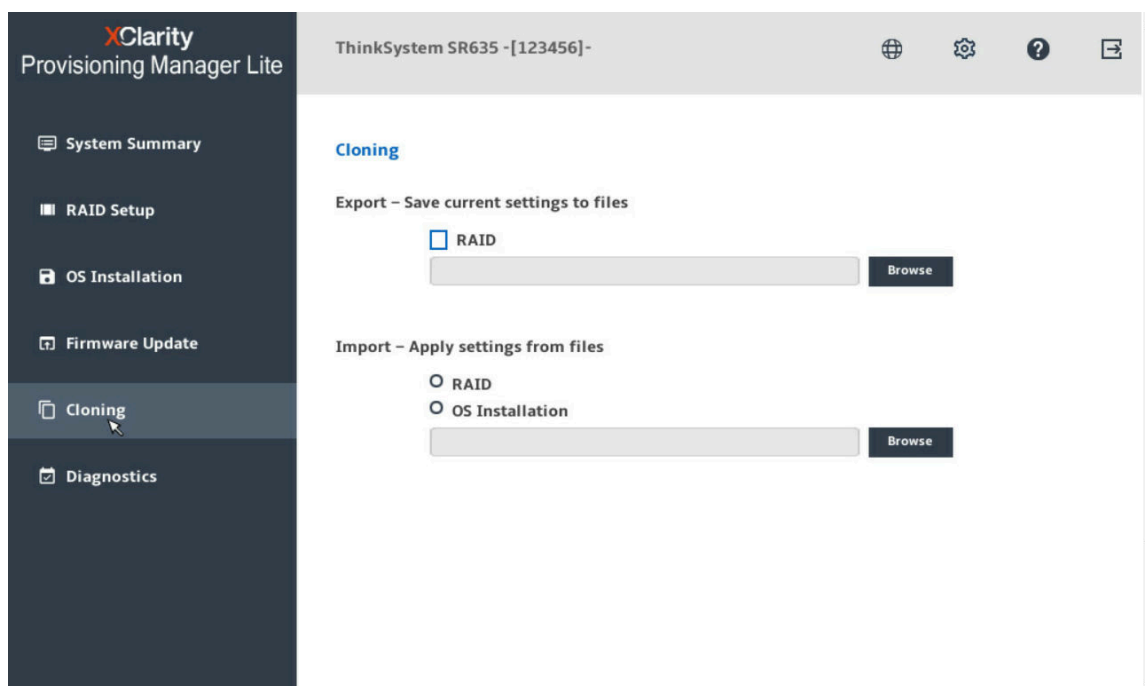


Figure 21. Cloning interface

Exporting response files

To export RAID settings to response files, do the following:

1. Attach a USB storage drive to the server or connect your server to a shared network. For instructions on how to connect to a shared network, refer to [“Configuring network settings” on page 7](#).

Note: The USB storage drive should include an FAT32 partition.

2. In the Export section, click the **Browse** button for the item you want to export. The Save Response File window is displayed.
3. Select the location to save the response file and input a file name.
4. Click **Save** to return to the Cloning interface. The check box for the item you want to export will be selected automatically.
5. If necessary, repeat step 2 to step 4 to select other items you want to export.
6. Click **>** or **Start** and wait for several minutes until the exporting process is completed.

To export operating system installation settings to a response file, refer to [“Exporting an operating-system-installation response file” on page 33](#).

Importing response files

Prerequisites

- Before importing a RAID response file, ensure that the target server and the source server have same RAID configuration.
- Before importing an operating-system-installation response file, ensure that the target server and the source server have the same RAID adapter installed, and the capacity of the disk drive under the RAID adapter for the target server is greater than the partition size in the response file.

To import RAID or operating system installation settings saved in response files to your server, do the following:

1. If the response file is stored on a USB storage drive, insert the USB storage drive into the server. If the response file is stored in a shared network folder, ensure that you have configured the network settings. For instructions on how to configure the network settings, refer to [“Configuring network settings” on page 7](#).
2. In the Import section, click the **Browse** button. The Select File window is displayed.
3. Select the corresponding response file. The selected file name is displayed in the **File Name** field.
4. Click **OK** to return to the Cloning interface. The item you want to import will be selected automatically.
5. If you are importing a RAID response file, click **>** or **Start**. The importing process starts. Wait for several minutes until the importing process is completed.

If you are importing an operating-system-installation response file, click **>**, the Installation Summary page appears. The settings in the operating-system-installation response file are listed in this page. You can edit some settings according to your need. Then, click **>** or **Start** to start the operating system installation process. Wait until the installation finishes.

Running diagnostics

Click **Diagnostics** tab, and the following four tabs are displayed:

- **Memory Test:** Run the memory test.
- **HDD Test:** Run the disk drive test.
- **RAID Log:** Collect the logs for the selected RAID adapters.
- **Collect Service Data:** Collect log data from BMC

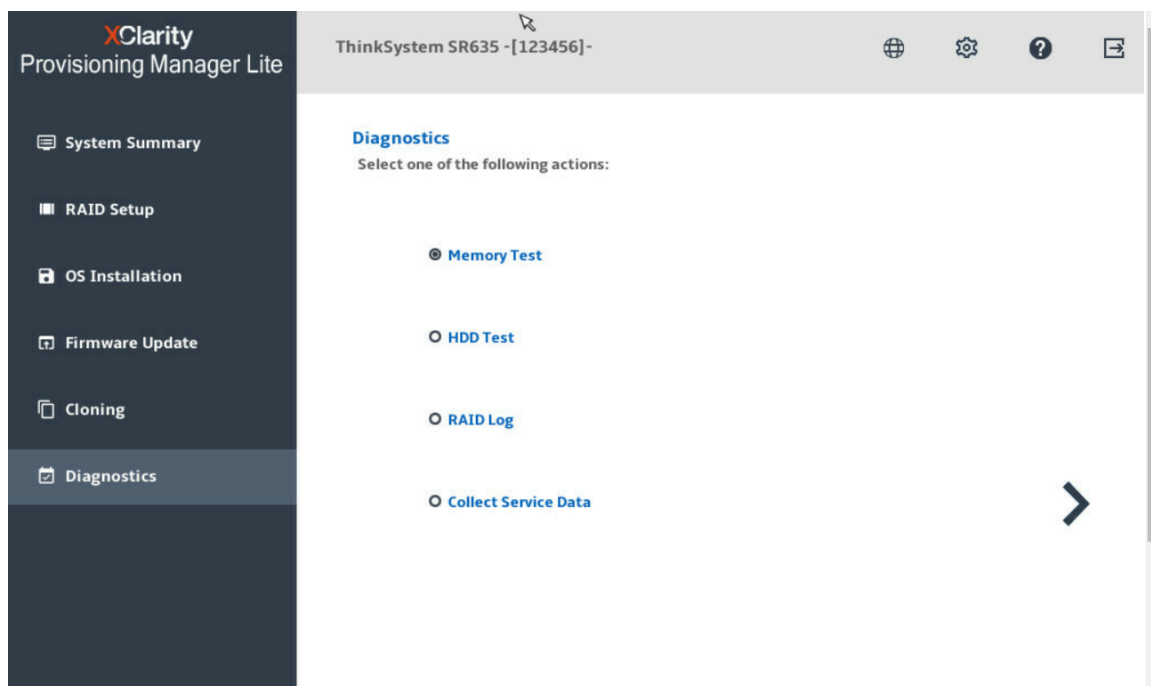


Figure 22. Diagnostics interface

Running memory test

To run memory test, do the following:

1. To save the test result, attach a USB storage drive to the server or connect the server to a shared network. For instructions on connecting to a shared network, refer to [“Configuring network settings” on page 7](#).
2. Click the **Memory Test** tab.
3. Select one of the following test options, and click **Run Test** to start testing.

Memory Test Types	Function	Memory Test Settings	Log format	Log save location	Notes
Quick Test	The default test type, which only runs the WriteRead test pattern.	Support	memory.log	<ul style="list-style-type: none"> • USB flash drive • Web-site 	<ul style="list-style-type: none"> • The mouse pointer is not active during the test process. • After the test process is completed, the test result will be displayed. • Press Esc to stop the test.
Full Test	Runs all test patterns and takes a long time to finish.	Support			
Advanced Memory Test	Runs complicated data test patterns for memory during UEFI POST. The test time depends on the DIMM configuration. The system will be restarted when running the test, and a dialog will be displayed on the Memory Test page after the test. Users can save the logs.	Not support	adv_memory.log	<ul style="list-style-type: none"> • USB flash drive 	This option is only available for server installed with AMD EPYC 7XX3 Series processor.

4. To save the test result, click **Save** after the process is completed.

Note: The test result will be saved in the memory.log file in the USB storage drive or the shared network folder. Compared with the test result displayed on the interface, the file contains more details.

Running disk drive test

To run disk drive test, do the following:

1. If you want to save the test result, attach a USB storage drive to the server or connect your server to a shared network. For instructions on how to connect to a shared network, refer to [“Configuring network settings” on page 7](#).
2. Click the **HDD Test** → > to enter the test setting interface.
3. Select the test options according to your need, and click **Run Test** to start testing.

Notes:

- **Short Self Test** is selected as the test type by default.
 - The mouse pointer is not active during the testing process.
 - You can press Esc to stop the test.
 - If you are running test for NVMe SSDs, no matter you select **Short Self Test** or **Long Self Test**, the test item only includes the Self-Monitoring, Analysis, and Reporting Technology (SMART) flag status.
4. Click **Save** after the testing process is completed if you want to save the test result.

Notes:

- The test result will be saved in an hdd log file in the USB storage drive or the shared network folder. The file includes more details than the test result displayed on the interface.
- If two M.2 drives are configured as a RAID array, the drives are not supported in the disk drive test. If you want to use disk drive test function to test the M.2 drives, do not configure them as a RAID array.

Collecting RAID logs

To collect RAID logs, do the following:

1. If you want to save the logs, attach a USB storage drive to the server or connect your server to a shared network. For instructions on how to connect to a shared network, refer to [“Configuring network settings” on page 7](#).
2. Click the **RAID Log** → > to enter the setting interface.
3. Select the RAID adapter that you want to collect the logs and click **Collect RAID Log** to start the collection.

Note: The mouse pointer is not active during the collecting process.

4. After the collecting process is finished, the summary information for the RAID adapter will be displayed. You can click **View Recent Log** to see the recent logs of the RAID adapter.
5. If you want to save the detailed logs, click **Save Detailed Log**. The collected logs will be saved in three TXT files in the USB storage drive or the shared network folder. The three TXT files include the following information respectively:
 - Basic information about the RAID adapter
 - Firmware logs for troubleshooting
 - Event logs for the RAID adapter

Collecting Service Data

To collect service data, do the following:

1. If you want to save the data, attach a USB storage drive to the server or connect your server to a shared network. For instructions on how to connect to a shared network, refer to [“Configuring network settings” on page 7](#).
2. Click the **Collect Service Data** tab to generate and collect data.
3. Wait for several minutes to finish the collecting process. Then click > to save the data. The collected data will be saved in the USB storage drive or the shared network folder.

Chapter 4. Troubleshooting

This chapter provides information about basic troubleshooting methods to help you solve problems that might occur while using Lenovo XClarity Provisioning Manager Lite V2.

If you cannot diagnose and solve a problem by using the information in this chapter, go to <http://datacentersupport.lenovo.com> for additional troubleshooting resources. You also can get help and information by telephone through the Customer Support Center. The most up-to-date telephone list for Lenovo Support is always available on the Web site at: <https://datacentersupport.lenovo.com/supportphonenumberlist>

The following table lists typical symptoms you might experience and the suggested actions.

Symptom	Action
The process for installing an operating system continuously loops.	Make more space available on the hard disk drive.
Lenovo XClarity Provisioning Manager Lite cannot start the operating system medium.	Do one of the following: <ul style="list-style-type: none">• Ensure that the disc has no problem.• Ensure that your server can connect to the shared network correctly.• Ensure that the USB installation medium is created correctly. Refer to: http://cn.download.lenovo.com/ibmdl/pub/pc/pccbbs/thinkservers/how_to_create_usb_os_installation_media.pdf
No drive is found in OS Installation → Guided Install → Drive Selection .	Ensure that you have configured a RAID adapter for the server in the RAID Setup interface. For instructions on how to configure a RAID adapter, refer to “ RAID Setup ” on page 10.

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