

Windows 11 Installation

Lenovo ThinkStation PX, P8, P7, P5



Table of Contents

Overview	3
Section 1 – BIOS Setup	4
Section 2 – Windows 11 Installation.....	9
Section 3 – Windows 11 Setup	15
Section 4 – Offline Windows 11 Setup	19
Section 5 – Install Device Drivers.....	22
Revision History	23



Overview

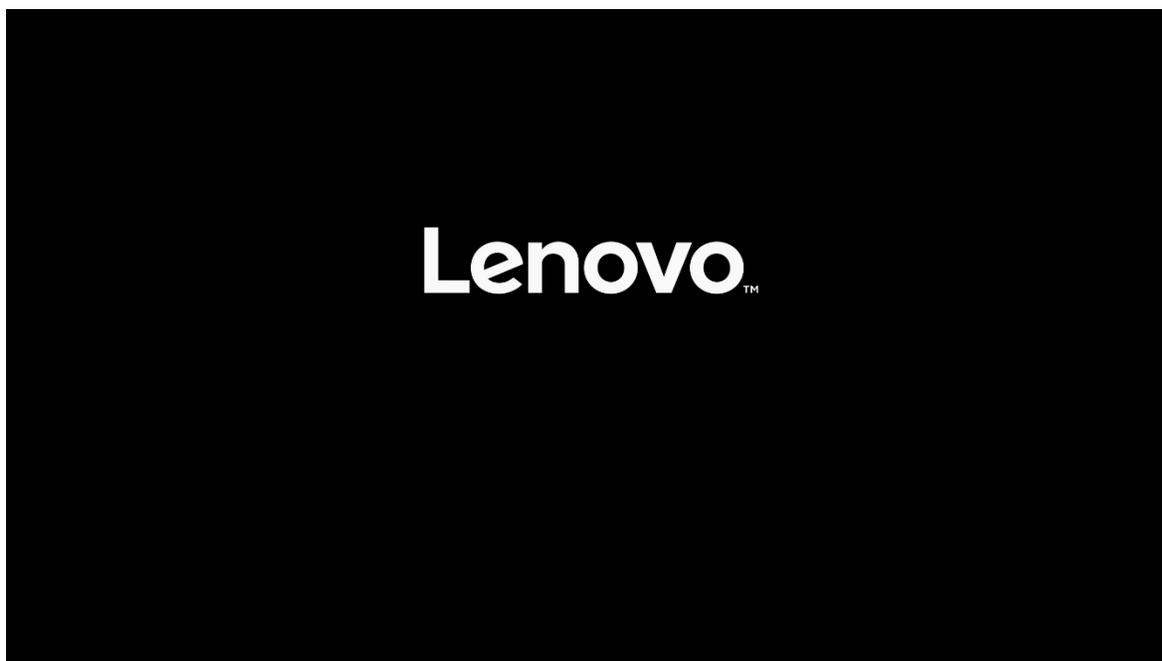
The purpose of this document is to provide high-level guidance for users to adequately install a retail Windows 11 operating system on the ThinkStation PX, P8, P7, and P5 platforms.

Section 1 – BIOS Setup

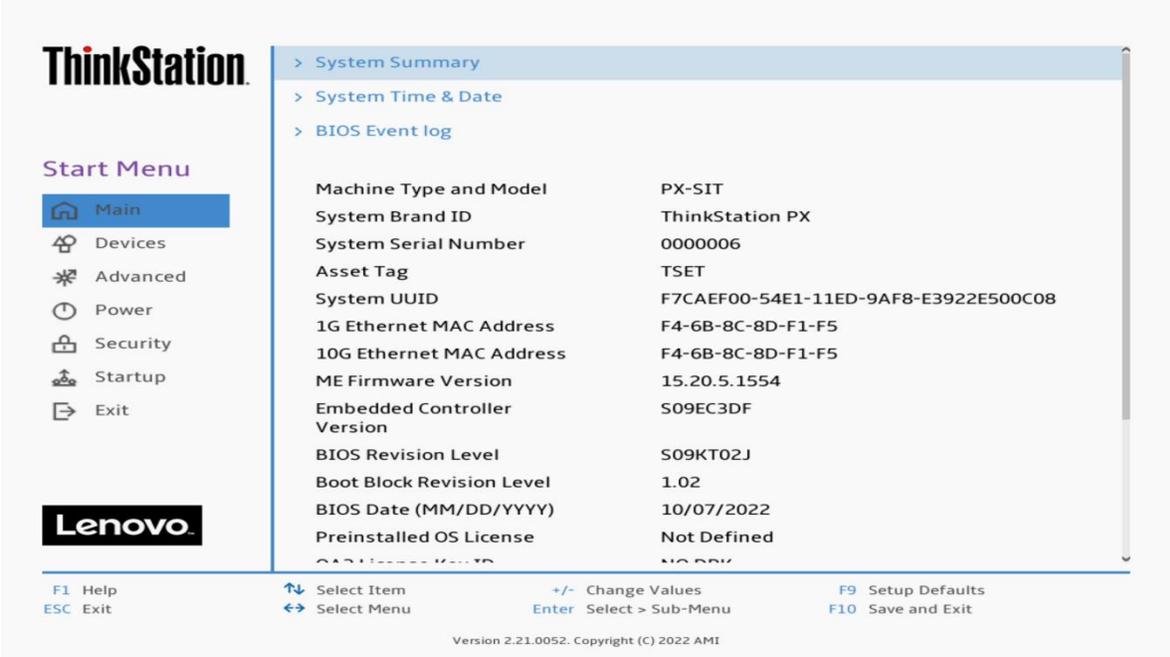
Prior to installing any operating system, it is important to make sure BIOS recognizes the storage devices appropriately.

Here are some key items to look for within BIOS setup.

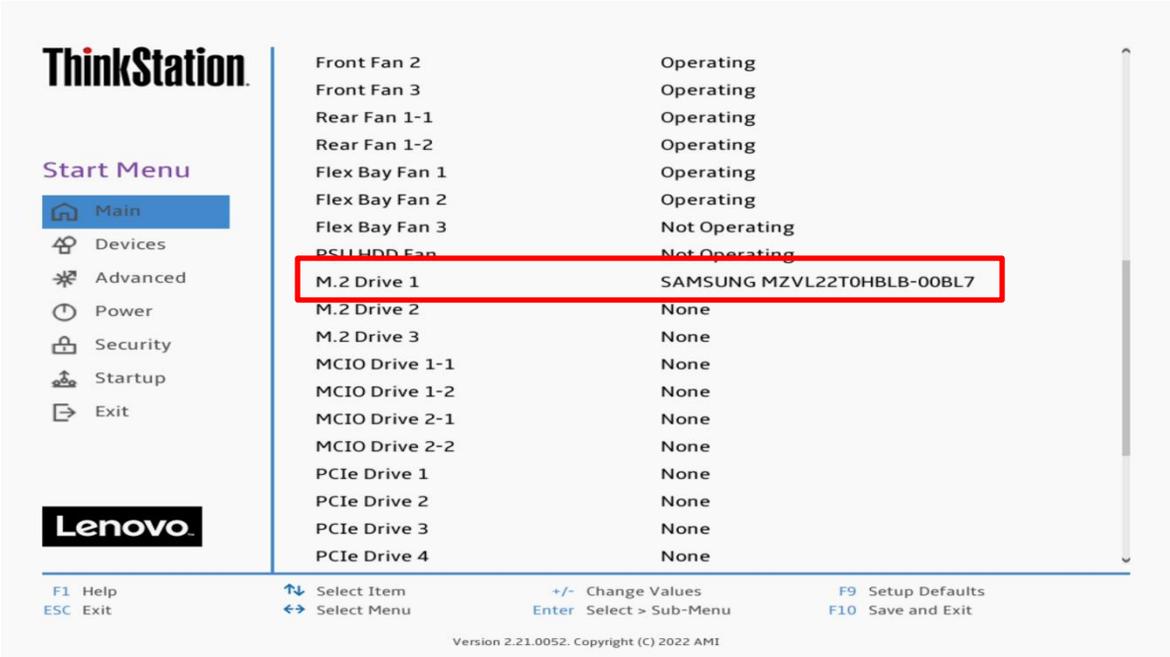
At the Lenovo splash screen, press the function key F1 to enter BIOS setup.



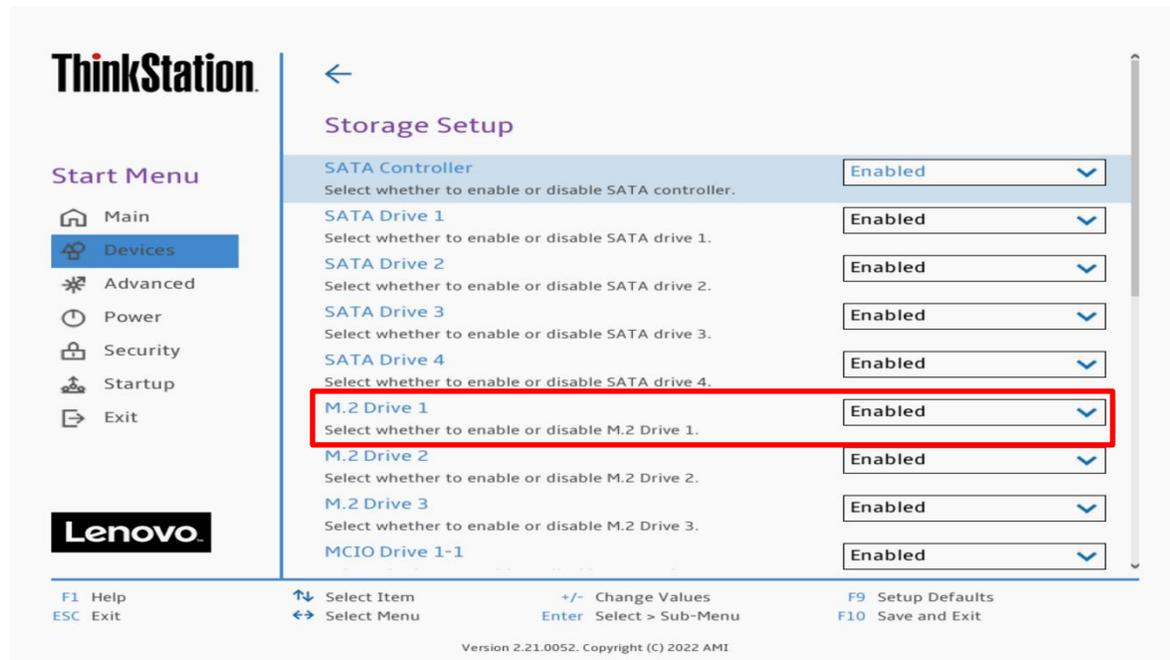
Select 'System Summary' from the main BIOS setup page.



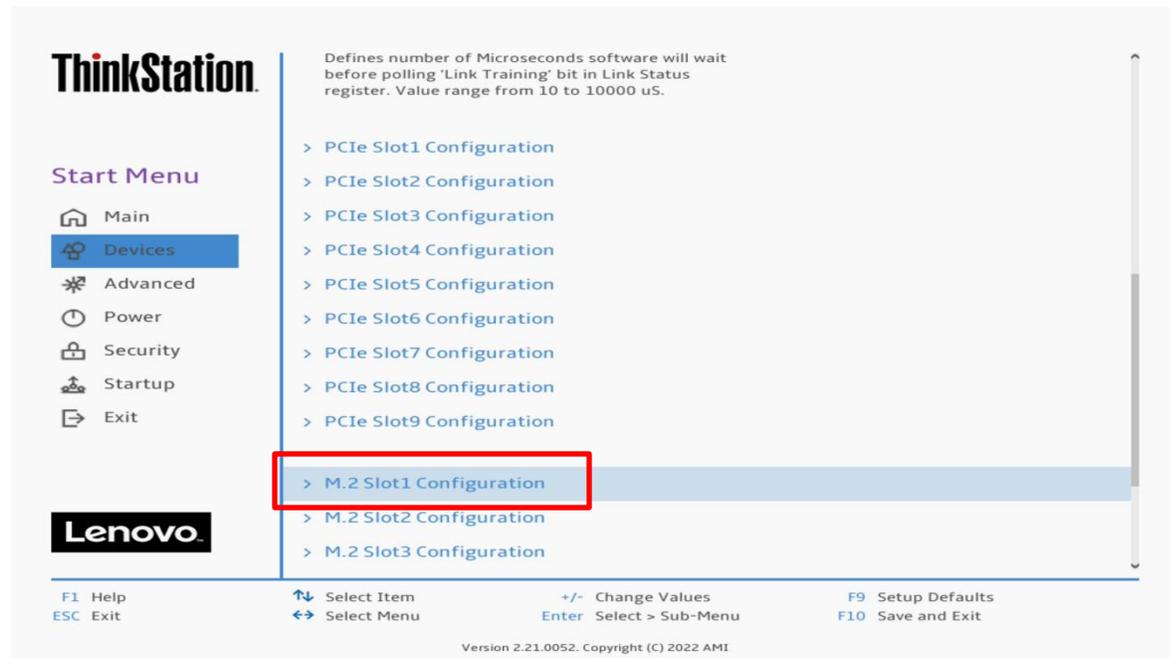
Scroll down through the list until you see the type of drive(s) you are intending to use. Note, drives may not show up here if they are part of a RAID array.



Select 'Devices' -> 'Storage Setup' to make sure the drive is enabled.



For PCIe drives, select 'Devices' -> 'PCI Express Setup' and select the slot for where the drive is physically installed. In this example, the M.2 drive is installed in Slot 1.



Make sure the drive is linking properly.



The screenshot shows the BIOS configuration for M.2 Slot1. The 'Link Speed' dropdown is set to 'Auto'. A red box highlights the following status information:

PCIe Port Link Status	Linked as x4
PCIe Port Link Max	Max Width x4
PCIe Port Link Speed	Gen 4 (16.0 GT/s)

Navigation keys at the bottom: F1 Help, ESC Exit, Select Item, Select Menu, Change Values, Enter Select > Sub-Menu, F9 Setup Defaults, F10 Save and Exit. Version 2.21.0052. Copyright (C) 2022 AMI.

Here's an example of BIOS not recognizing a PCIe drive.

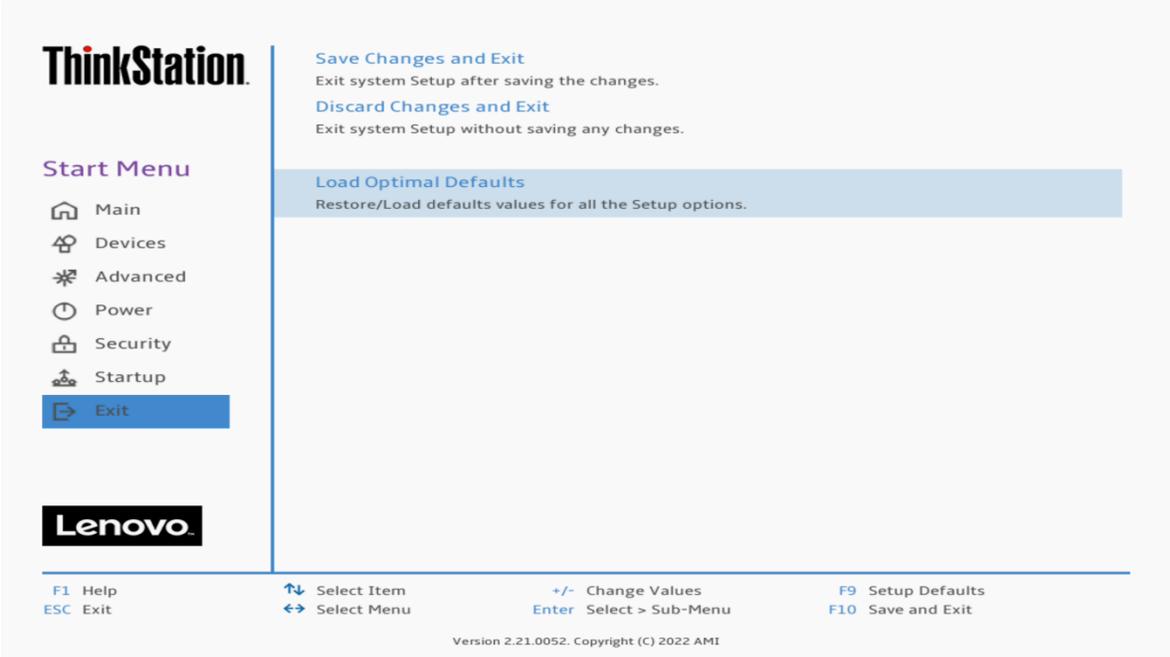
The screenshot shows the BIOS configuration for M.2 Slot2. The 'Link Speed' dropdown is set to 'Auto'. A red box highlights the following status information:

PCIe Port Link Status	Link Did Not Train
PCIe Port Link Max	Max Width x4
PCIe Port Link Speed	Link Did Not Train

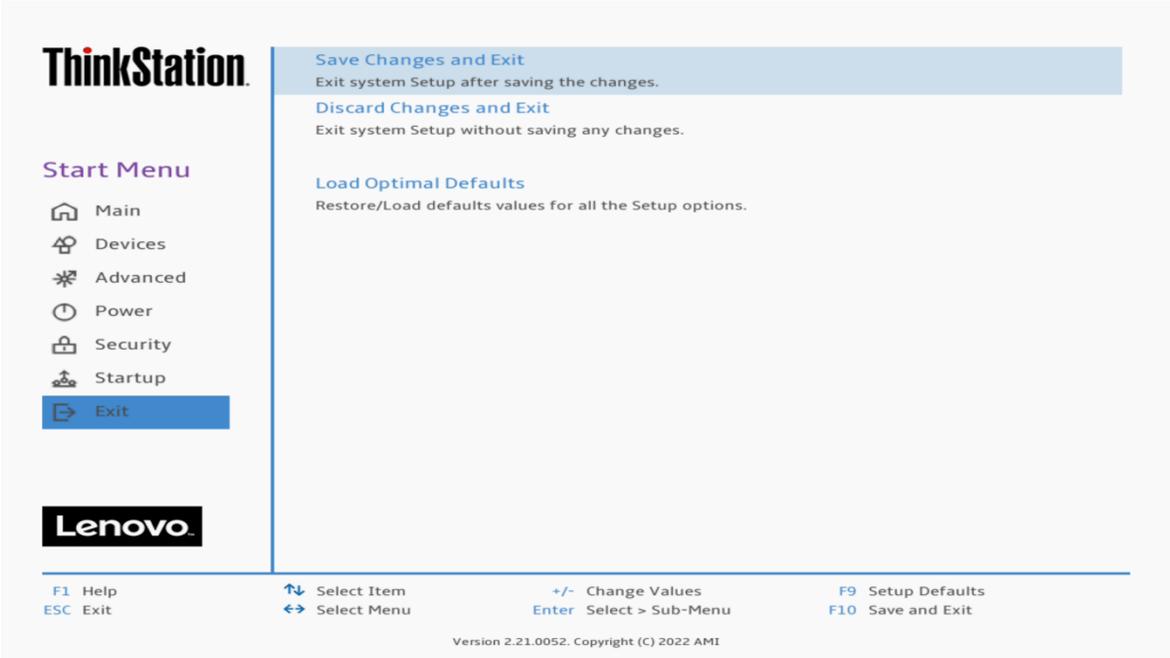
Navigation keys at the bottom: F1 Help, ESC Exit, Select Item, Select Menu, Change Values, Enter Select > Sub-Menu, F9 Setup Defaults, F10 Save and Exit. Version 2.21.0052. Copyright (C) 2022 AMI.

Select the 'Exit' menu option -> 'Load Optimal Defaults' to load BIOS defaults.

Note, in the P8 BIOS, this option is called 'Load Factory Defaults'



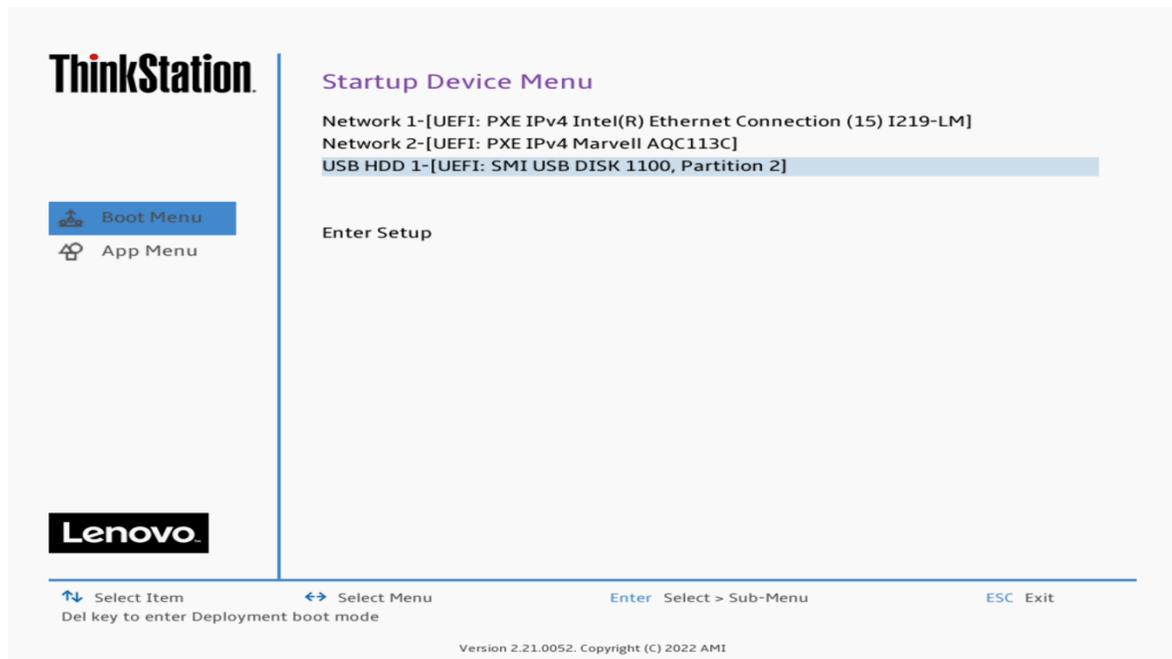
Select the 'Exit' menu option -> 'Save Changes and Exit' to reboot the system.



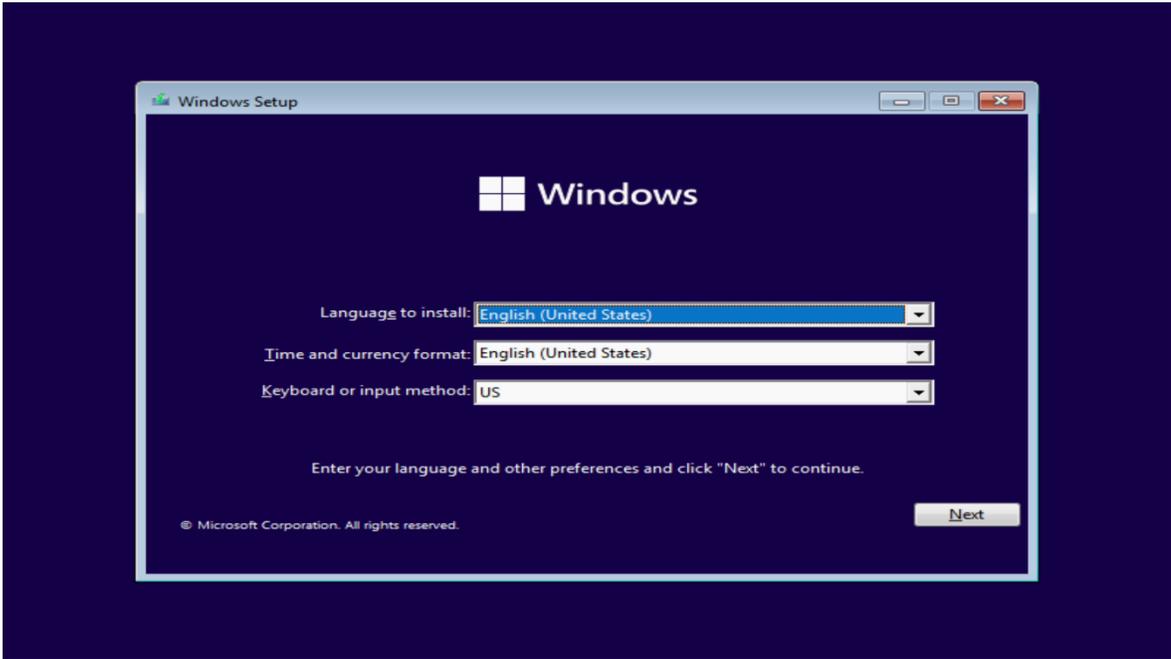
Section 2 – Windows 11 Installation

Here are some step-by-step instructions on how to get a Windows 11 operating system installed on the ThinkStation PX, P7, P8, and P5 systems.

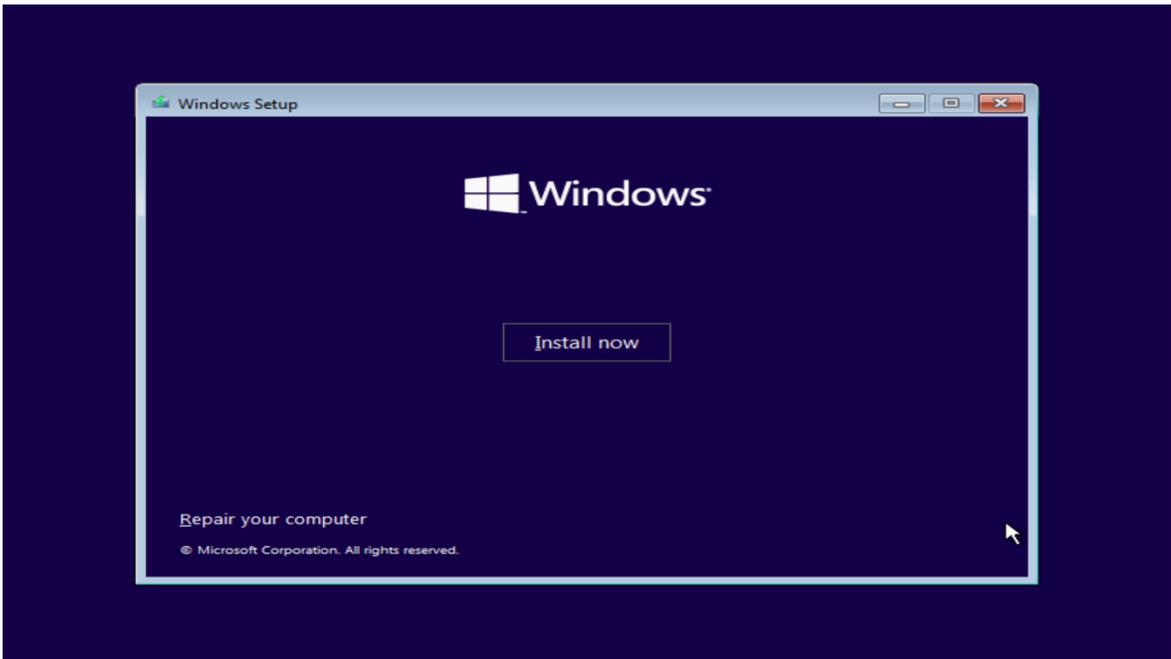
1. Obtain a copy of the Windows 11 installation media. If the Windows 11 media is an .iso image, extract the .iso image to the root of a freshly formatted FAT32 USB memory key.
2. Insert the USB memory key into one of the USB ports on the system and power on the system.
3. At the Lenovo splash screen, press the function F12 key to enter the BIOS startup menu and select the USB installation media from the list.



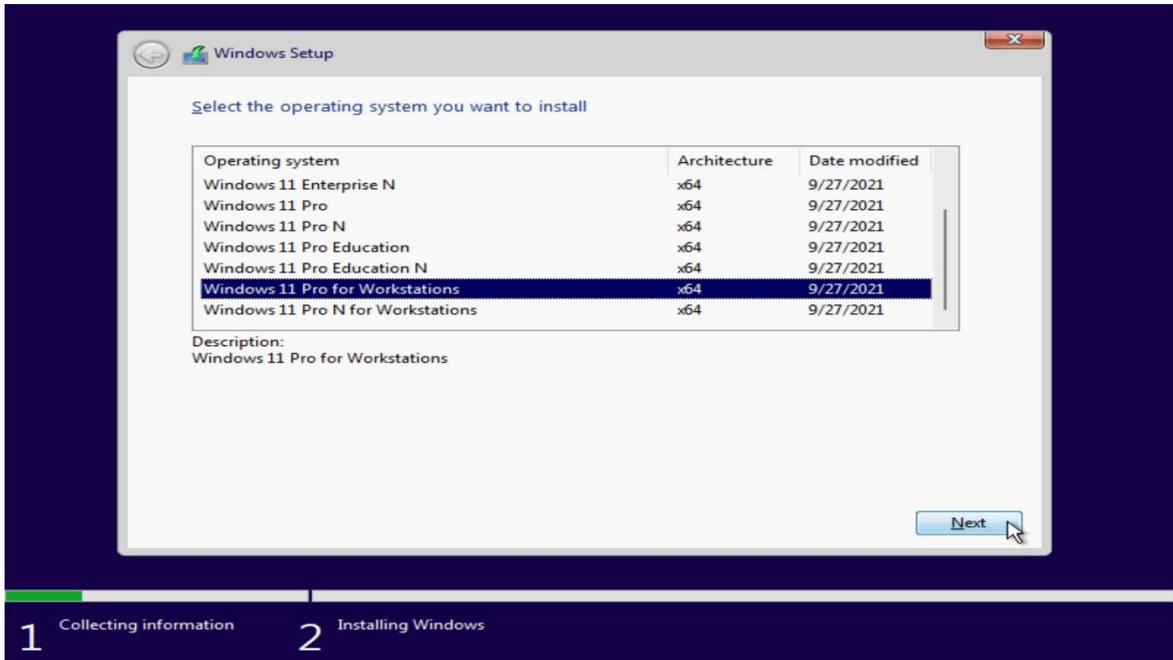
4. At the Windows 11 setup screen, select the Language, Time, and Keyboard Layout from the dropdown menus and select 'Next'.



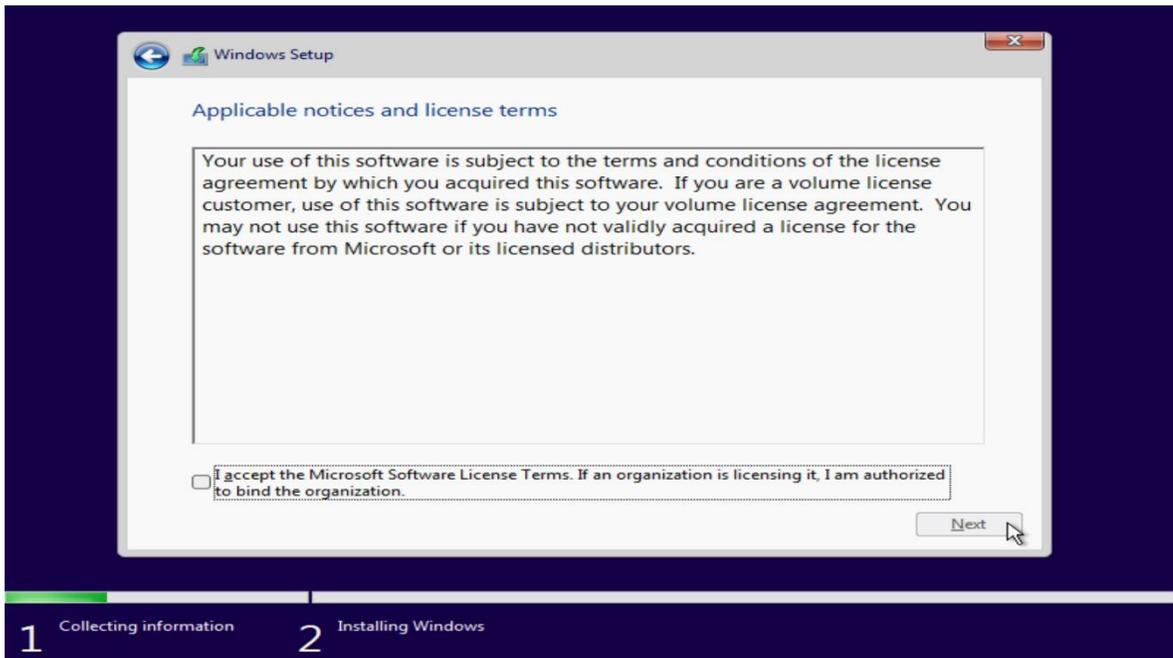
5. Select 'Install now'.



6. For a multiple Windows 11 version operating system media, select the type of Windows 11 operating system to install. In this example, “Windows 11 Pro for Workstations” was used.

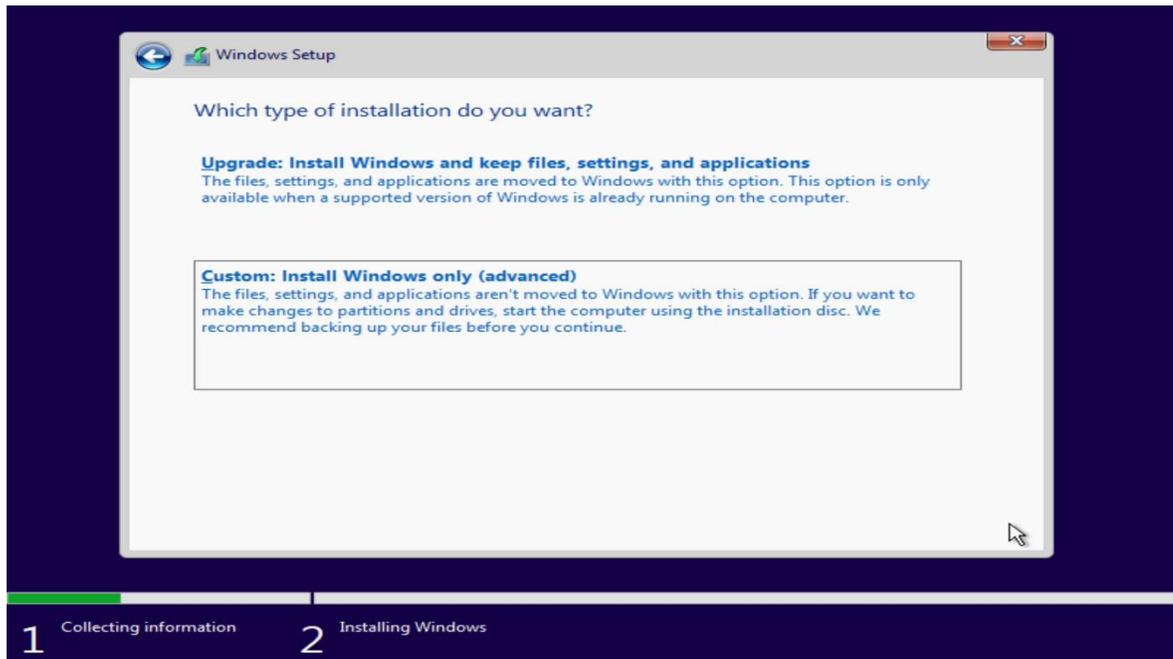


7. Check the box next to “I accept the license terms” and select ‘Next’.



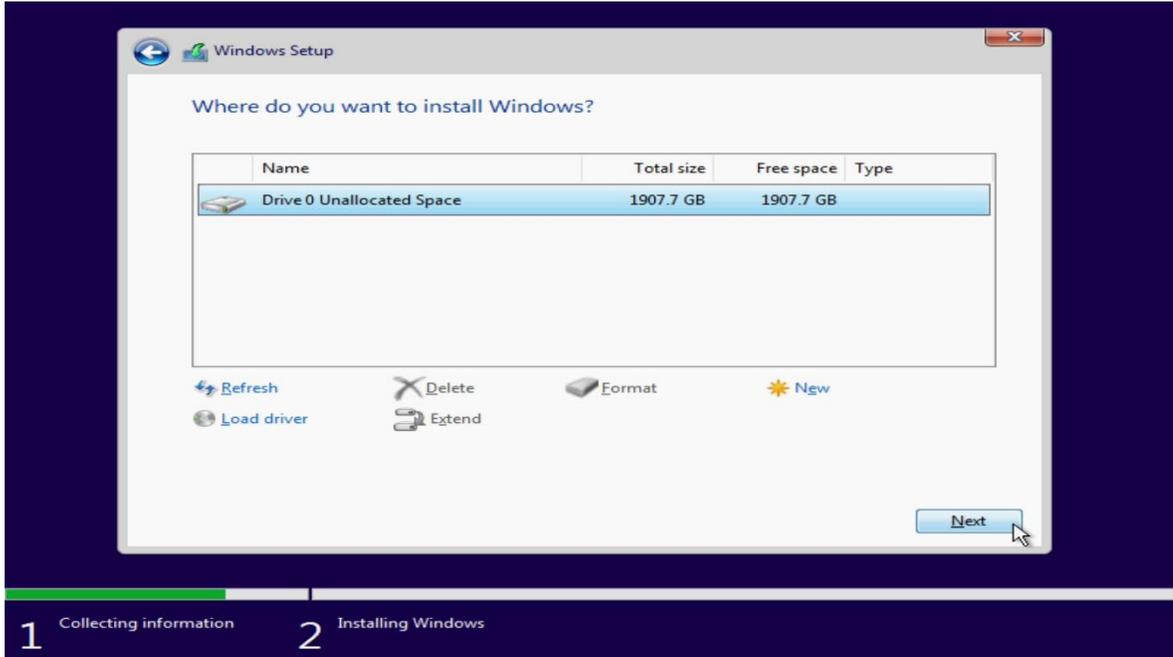
8. Choose the type of installation to perform.

- To upgrade to Windows 11 from an earlier version of Windows, select the “Upgrade” option below.
- To perform a clean OS installation, select “Custom: Install Windows only (advanced)” option below. *(This option was selected below!)*

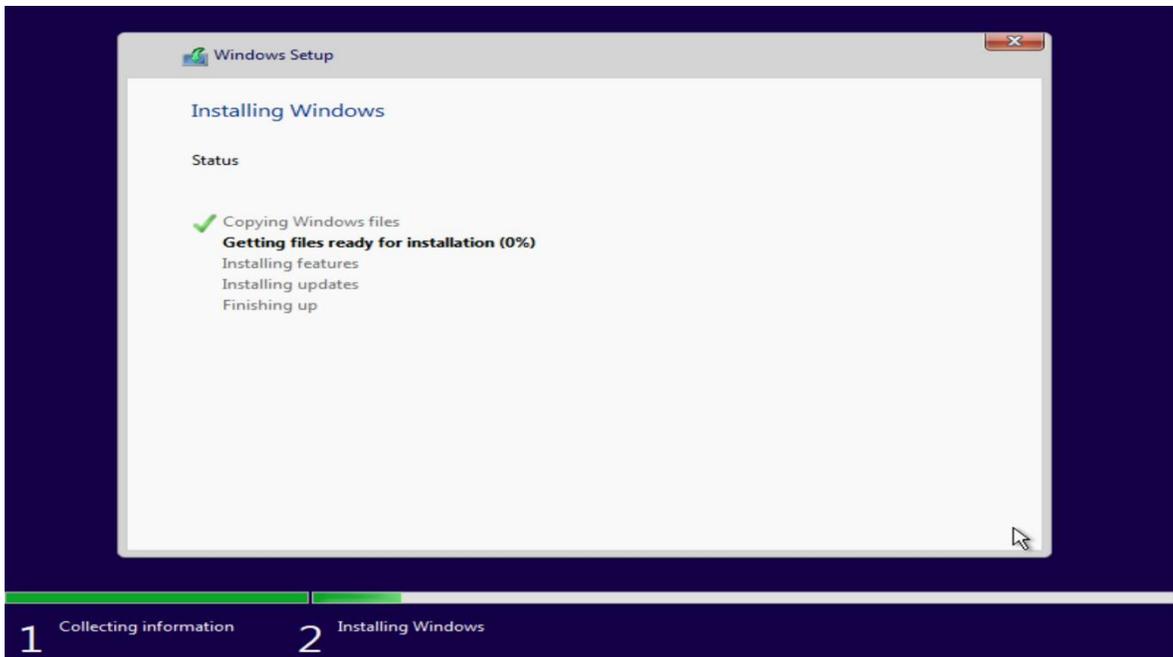


- 9. Select the drive to install the operating system on from the list below and select 'Next'.

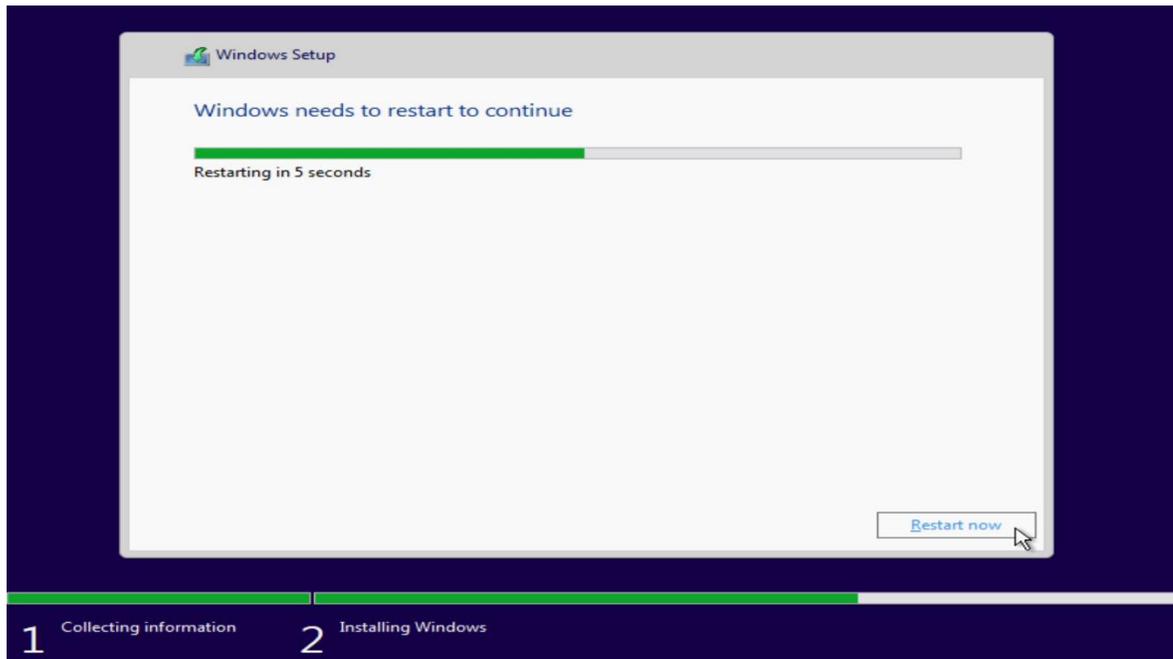
Note, some drives and RAID controllers may not be native to the Windows 11 operating system and may require a proprietary driver to get them to show up here. If so, load the proprietary driver to a USB memory key and select 'Load driver' from the screen below.



- 10. The Windows 11 operating system will begin to install on the drive selected above.



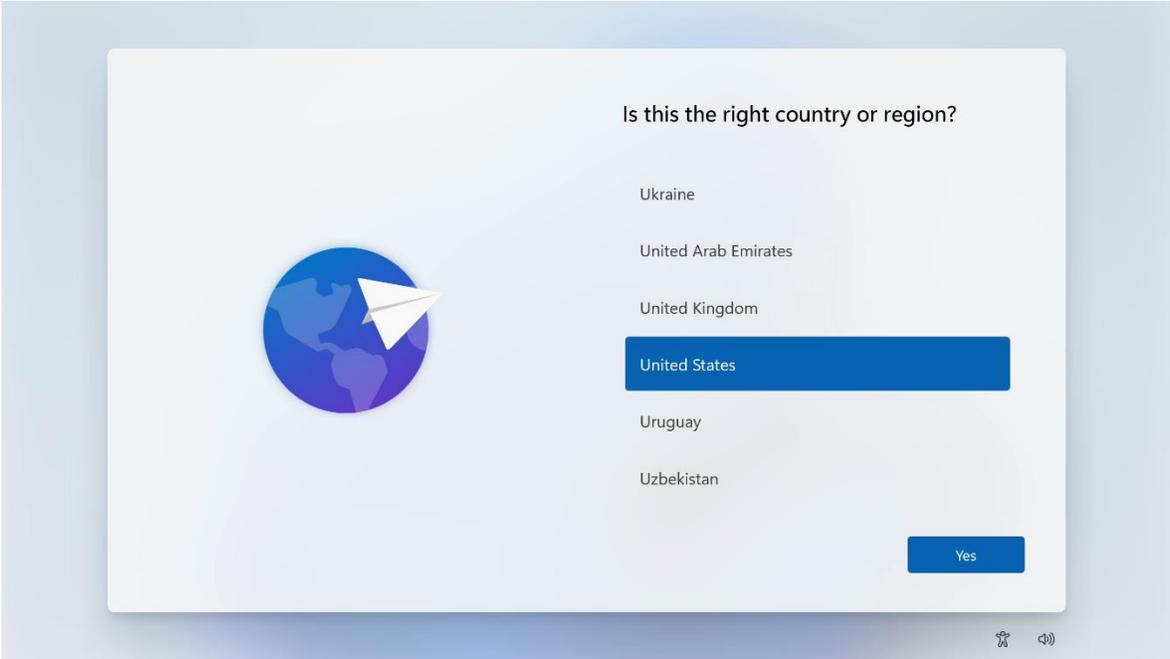
11. After the installation completes, the system should automatically reboot.



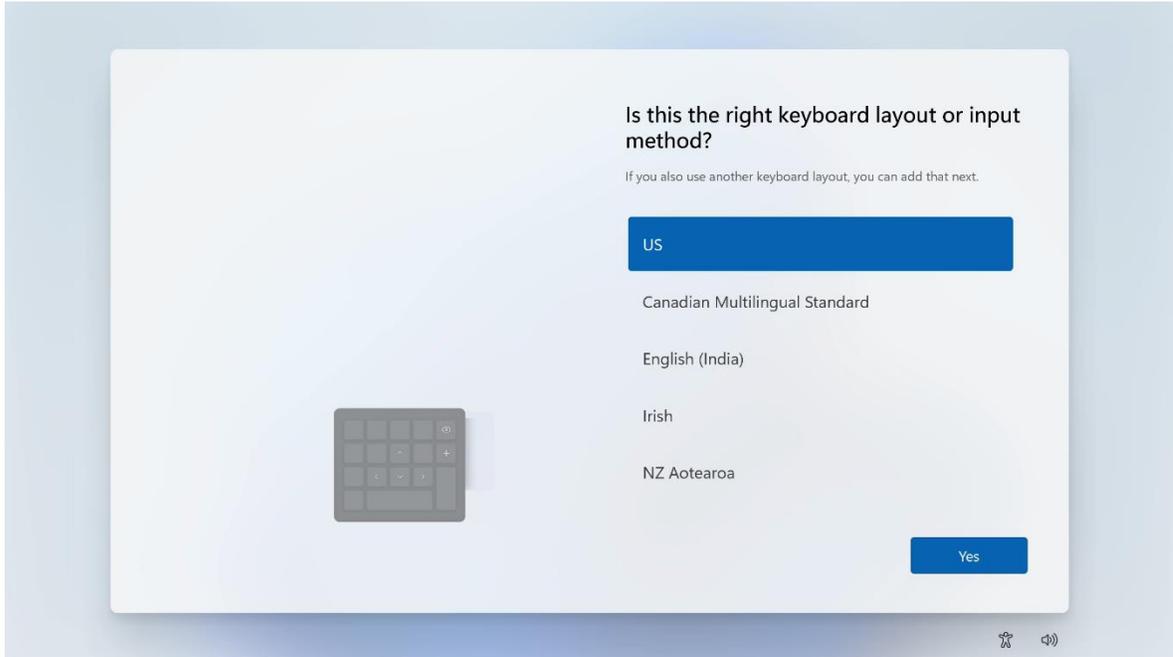
Section 3 – Windows 11 Setup

The following steps demonstrate how to begin the Windows 11 operating system setup on the ThinkStation PX, P8, P7, and P5 systems with network access.

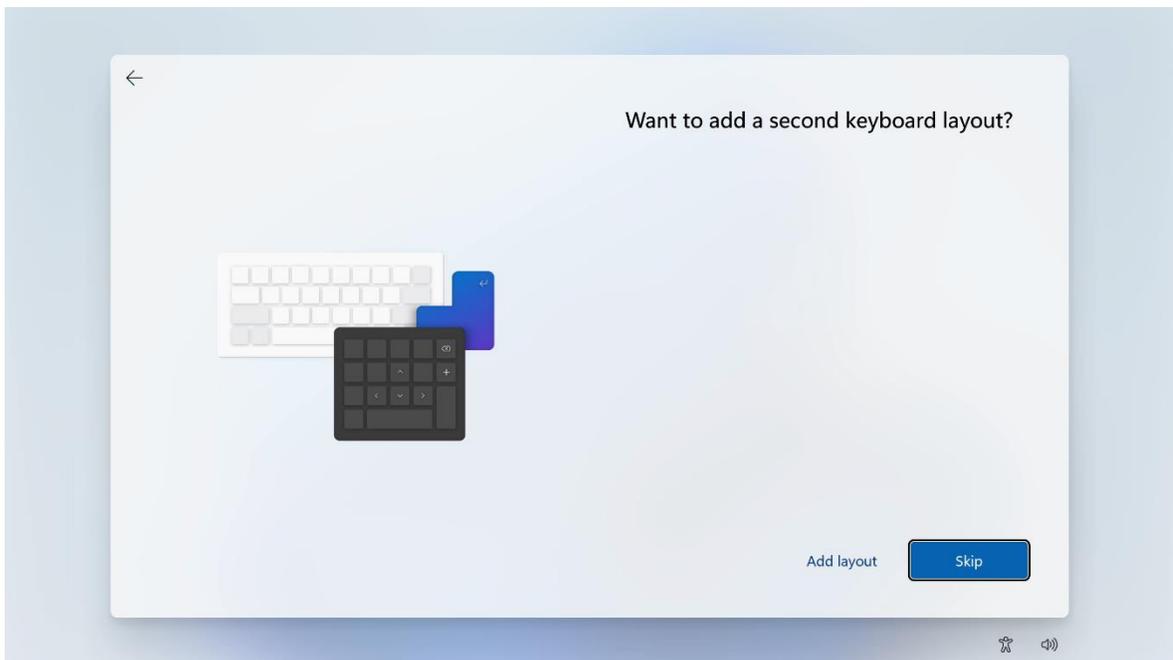
1. Select the appropriate location from the list below.



2. Select the appropriate keyboard layout from the list below.



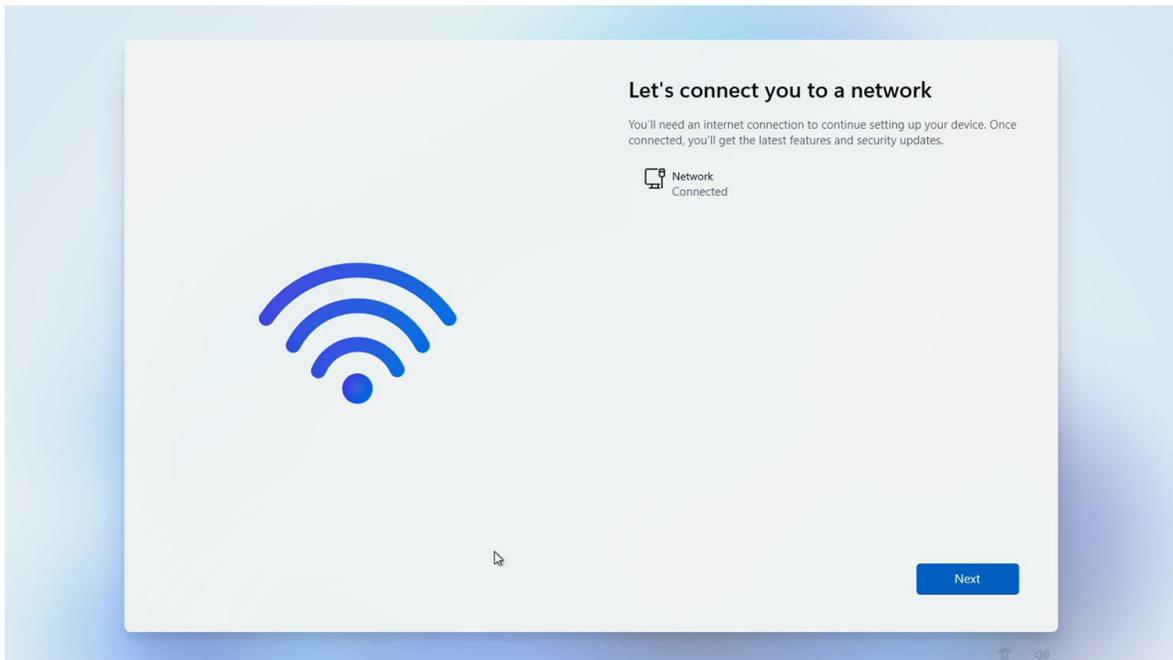
3. Select an optional second keyboard layout or 'Skip' below.



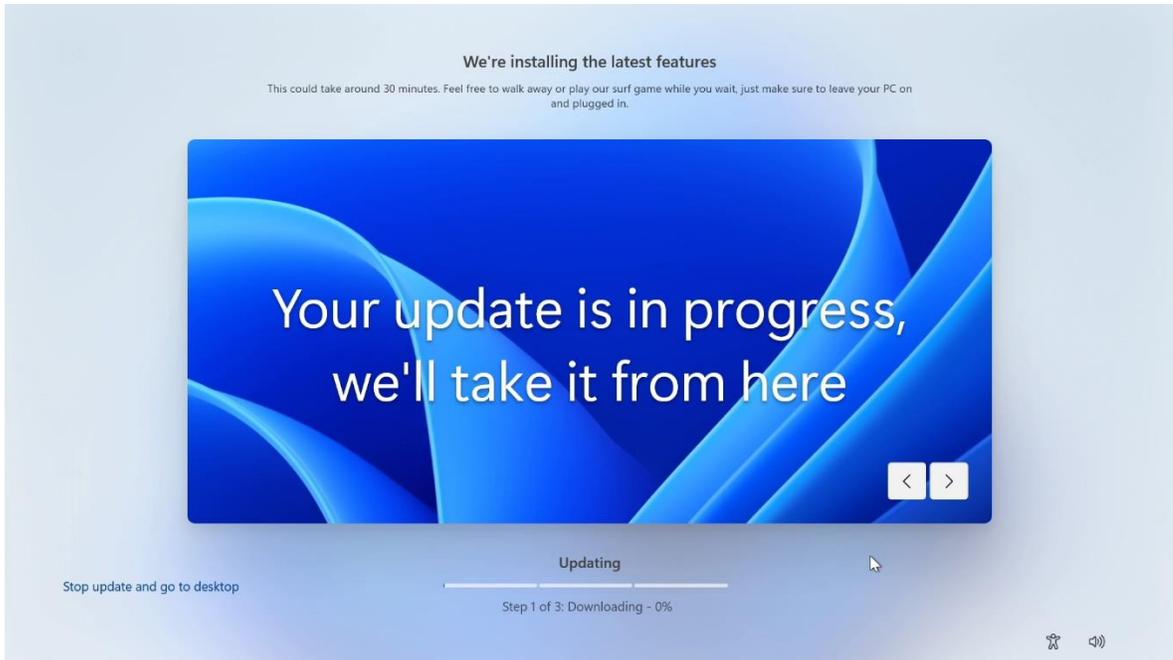
4. Systems that are connected to a network with an Ethernet cable will try to automatically connect. Systems without an existing connection that have a wireless adapter will require input to select the desired wireless network and necessary security settings.

Once the system has connected to the selected network, continue the setup process, making the appropriate selections at each step.

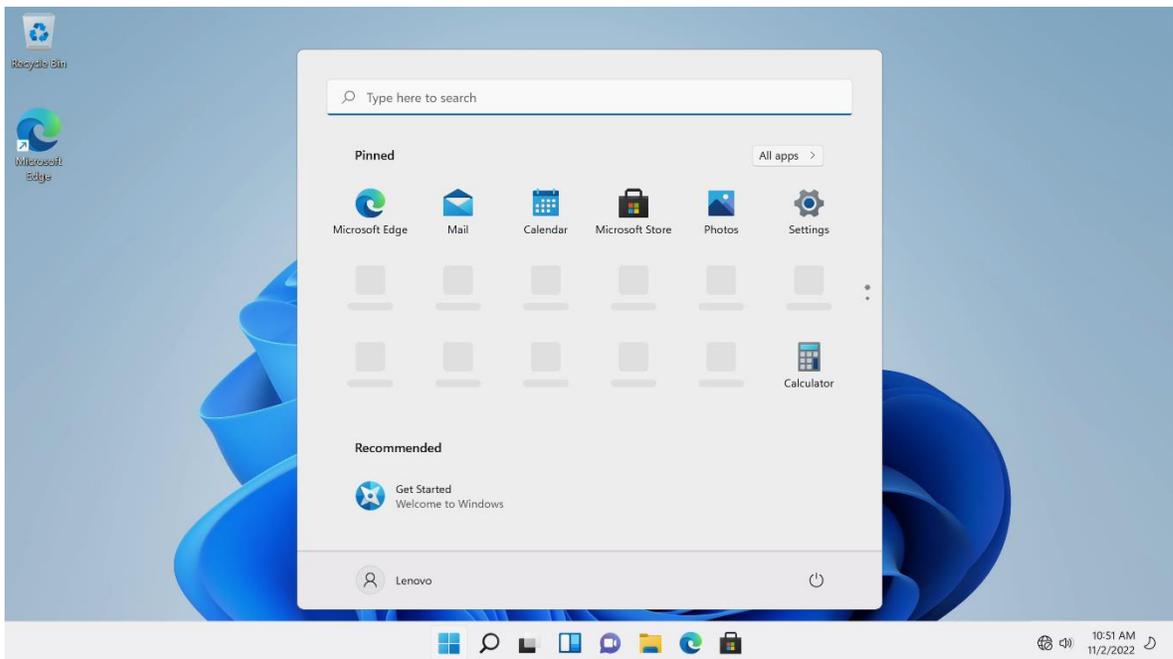
Note, some versions of Windows 11 will allow users to continue the setup process without an active network connection, for more information on the offline setup of Windows 11 refer to [Section 4](#).



5. Once all of the setup selections have been made, wait for any updates to install or select 'Stop update and go to desktop' to postpone installing updates. Proceed to the desktop and enter the PIN or password.



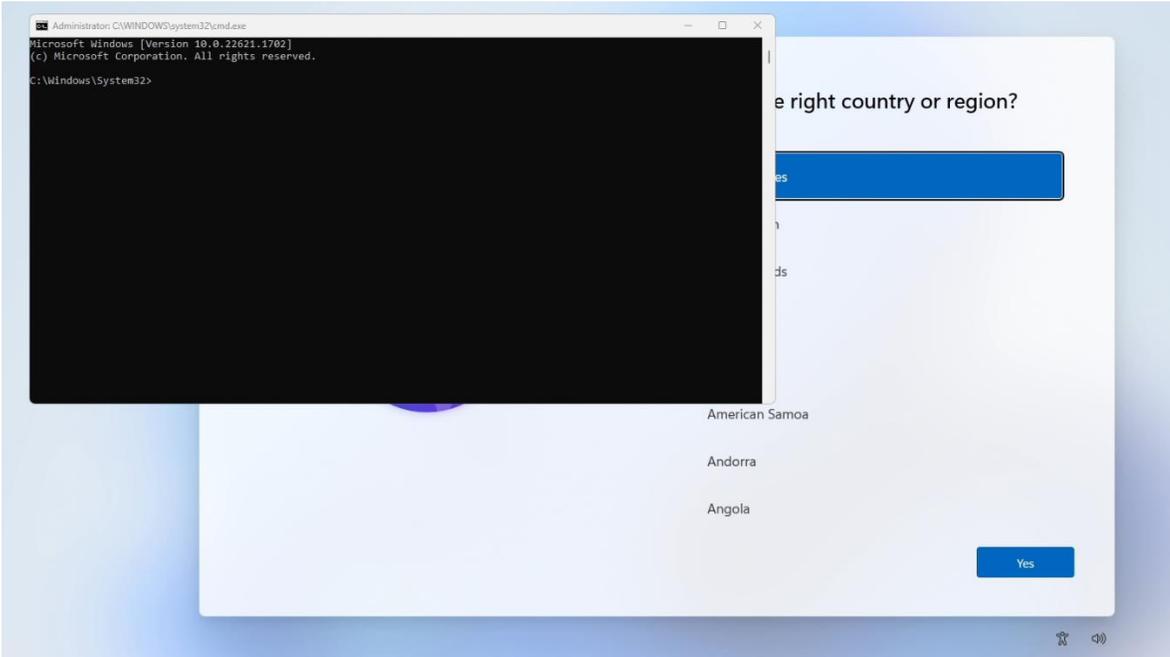
6. Completed setup with the Windows 11 desktop screen.



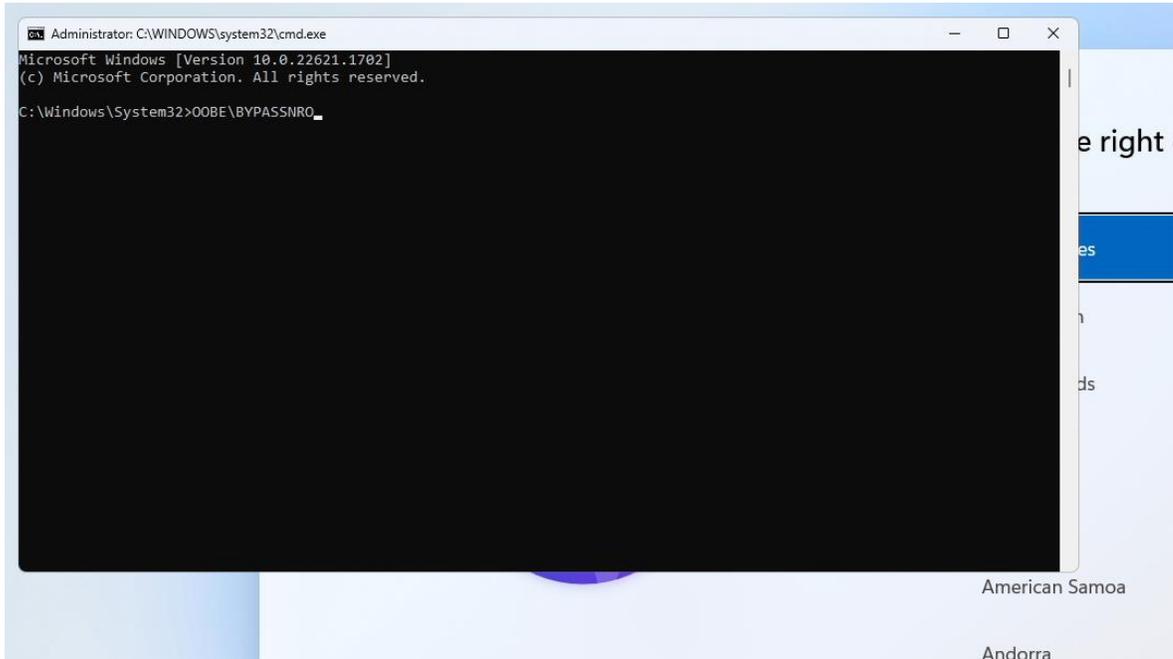
Section 4 – Offline Windows 11 Setup

The following steps demonstrate how to begin the Windows 11 operating system setup on the ThinkStation PX, P8, P7, and P5 systems without network access. These steps may not work on all versions of Windows 11.

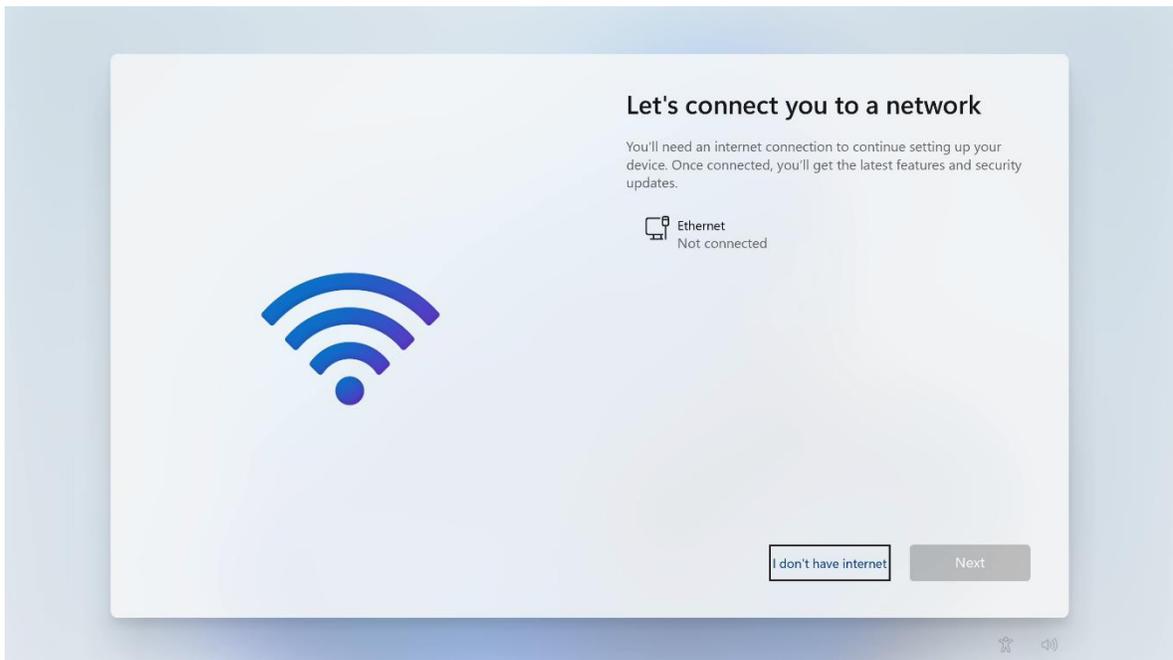
1. At any point during the Windows setup process before the 'Let's connect you to a network' page, press 'SHIFT+F10' to open a Command Prompt.



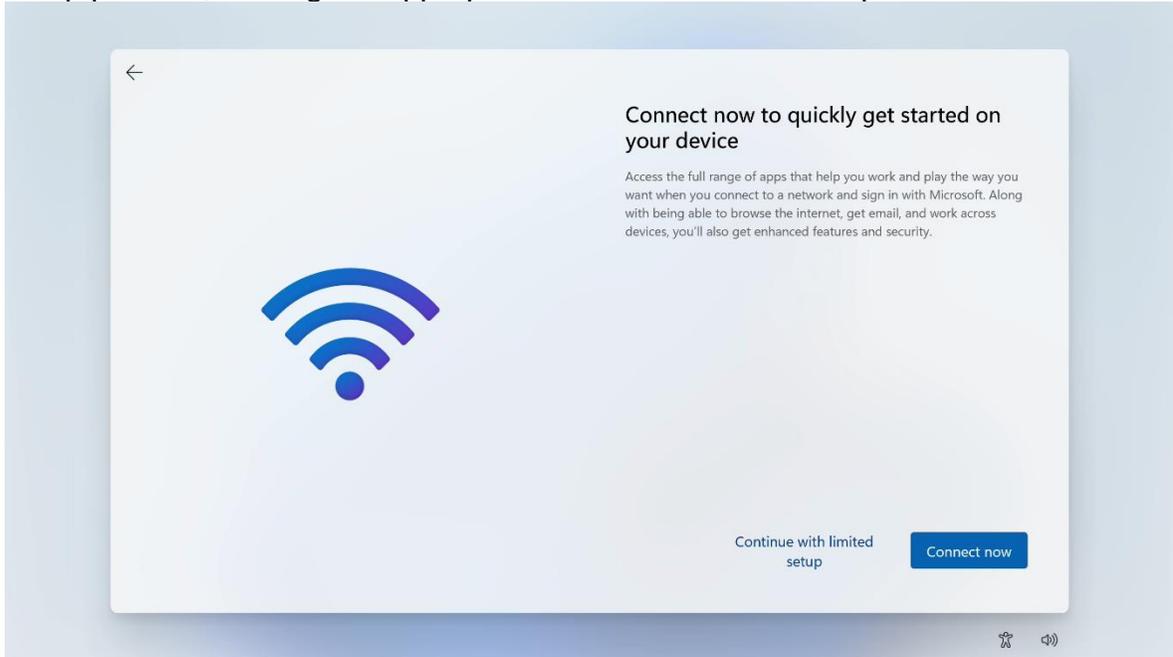
2. Enter the following command 'OOBE\BYPASSNRO' in the command line then press 'Enter'. The computer will automatically reboot and restart the setup process. Repeat steps 1-3 from [Section 3](#), once users get to the 'Let's connect you to a network' window, a new option 'I don't have internet' will appear.



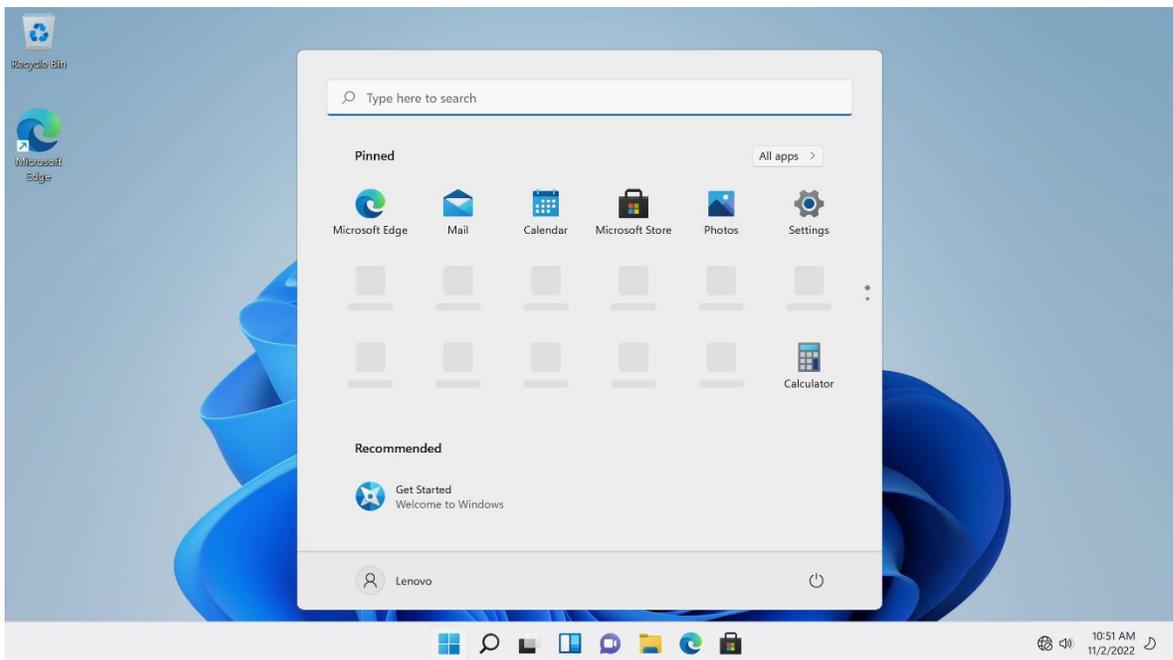
3. Select 'I don't have internet'.



4. Once the 'Continue with limited setup' option is selected, continue the setup process, making the appropriate selections at each step.



5. Completed setup with the Windows 11 desktop screen.



Section 5 – Install Device Drivers

Once the OS installation is complete and Windows 11 has been setup, it is important to make sure all device drivers are installed properly. Any missing drivers can be obtained from the [Lenovo Support Site](#) or through [Lenovo Vantage](#).

Additionally, any third-party peripherals that have been installed in the system may need an appropriate device driver from the vendor support site.

Revision History

Version	Date	Author	Changes/Updates
1.1	2/8/2024	A Pantelev	Added support for P8. Updated Section 3 and 4
1.0	4/19/2023	J Moebs	Initial launch release.