ThinkSmart One Deployment Guide and User Guide for Zoom Rooms

Read this first

Before using this documentation and the product it supports, ensure that you read and understand the following:

- *Generic Safety and Compliance Notices*
- *Safety and Warranty Guide*
- Other documents in the box

Contents

About this documentation

- Illustrations in this documentation might look different from your product.

- Documentation content is subject to change without notice. To get the latest documentation, go to https://smartsupport.lenovo.com/.

- Microsoft® makes periodic feature changes to the Windows® operating system through Windows Update. Refer to Microsoft resources for the latest information.

Chapter 1. Meet ThinkSmart One

Thanks for choosing ThinkSmart One.

ThinkSmart One is the first Windows-based all-in-one bar on the market. It combines the high-resolution camera with wide filed of view, premium sound and powerful compute running Microsoft Windows. End users will enjoy the familiar Zoom Rooms interface and IT administrators will enjoy the easily deployed and managed Windows system.

Front

1. Camera cover slider	Move the slider to cover or uncover the camera lens.
2. Camera	Use for video conference.
3. Camera status indicator	Show the camera status of your device. • **On:** The camera is working for a video conference. • **Off:** The camera is off.
4. Power indicator	Show the system status of your device. • **Solid white:** The device is powered on and not in meeting. • **Solid green:** The device is in a meeting or in a call. • **Solid red:** The device is muted. • **Blinking green:** A call is on hold. • **Green dot flowing from both sides to center:** There is an incoming call.
5. System clock	Show the system time.

Rear
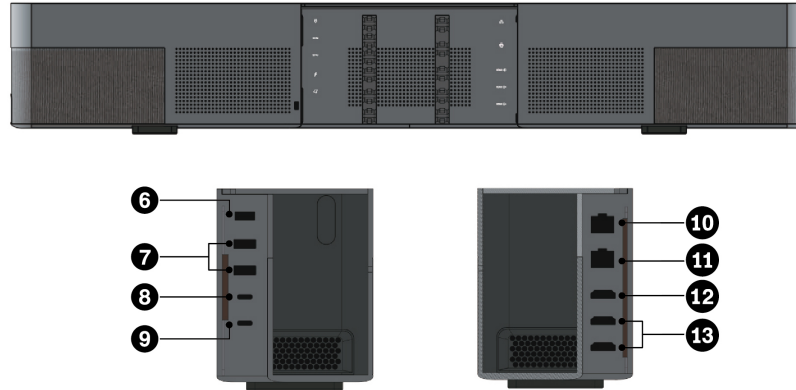
6. Power connector	Connect to a power supply.
7. USB 3.2 Gen 1 connector	Connect a USB-compatible device, such as a USB keyboard or USB mouse.
8. USB-C™ connector (USB 3.2 Gen 1)	Connect USB-C compatible devices.
9. USB-C connector (USB 2.0)	Connect to ThinkSmart Controller only.
10. Ethernet connector	Connect to a local area network (LAN).
11. Ethernet connector	Connect to a local area network (LAN). This connector will be enabled with Power over Ethernet (PoE) for selected models.
12. HDMI-in connnector	Connect to your computer only. Do not connect an external HDMI™ display to this connector.
13. HDMI-out connector	Connect to en external HDMI display. This HDMI 1.4 connector supports display resolutions up to 3840 x 2160 pixels, 30 Hz.

Right

14. Volume button	Adjust volume.
15. Power button	Switch between Operation mode and Non-operation mode. • Press to enter Operation mode. In this mode, ThinkSmart One is ready for meeting. • Press for 4 seconds to enter Non-operation mode. In this mode, the system clock is working while the system running has stopped.
16. Ventilation holes (out)	Maintain the outgoing airflow to dissipate internal heat.

Statement on USB transfer rate

Depending on many factors such as the processing capability of the host and peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and will be slower than the data rate listed below for each corresponding device.

USB device	Data rate (Gbit/s)
3.2 Gen 2 / 3.1 Gen 2	10

Specifications

ThinkSmart Controller*

Dimensions	• Width: 265.5 mm (10.5 inches) • Height: 168.1 mm (6.6 inches) • Depth: 13 mm (0.5 inches) , 83.3 mm (3.3 inches) with the stand
Weight (without packaging)	Maximum configuration as shipped: 753.8 g (1.7 lb)

ThinkSmart One

Dimensions	• Width:700 mm (27.5 inches) • Height: 113 mm (4.4 inches) • Depth: 89 mm (3.5 inches)
Weight (without packaging)	Maximum configuration as shipped: 3.7 kg (8.15 lb)
Hardware configuration	1. Right-click **Start** to open the Start context menu. 2. Click **Device Manager**.
Power supply	135-watt automatic voltage-sensing power supply
Electrical input	• Input voltage: From 100 V ac to 240 V ac • Input frequency: 50/60 Hz
Microprocessor	To view the microprocessor information, right-click **Start** and then click **System**.
Storage device	M.2 solid-state drive
Network features	• Ethernet LAN • Wireless LAN (not recommended)
Operating system	Windows 10 IoT Enterprise SAC 64 bit
Preloaded Lenovo apps	ThinkSmart Manager Service*
Preloaded non-Lenovo apps	Zoom Rooms

* for selected models

Smart feature for camera

- **People count and auto zoom/frame**: Auto detect and count the people in the field of view. Then auto frame and zoom in the people to a suitable size. This function makes it easier to monitor the dynamics of the conference.
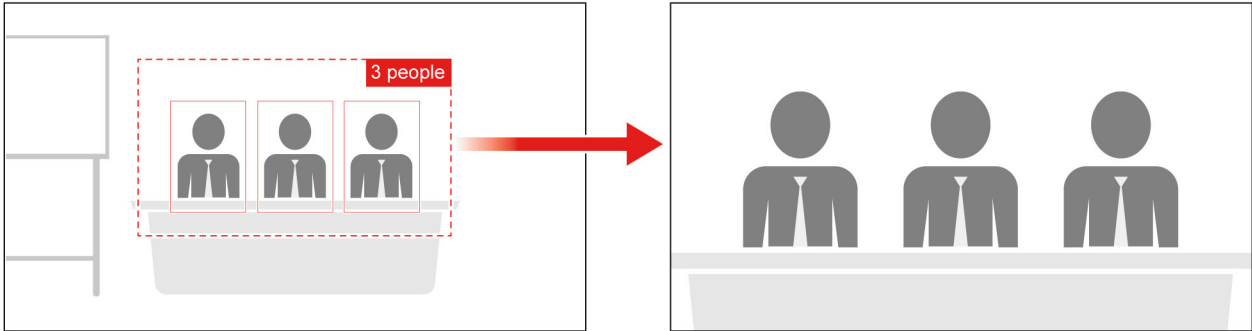
- **Speaker tracking and whiteboard recognition**: Auto track the speaker and count the whiteboard nearby as a person. Then auto frame and zoom in the speaker and the whiteboard to a suitable size. The camera will use Picture-in-Picture mode to replace the original video image in the sub image. This function makes the conference more focus on the speaker and the content of whiteboard.
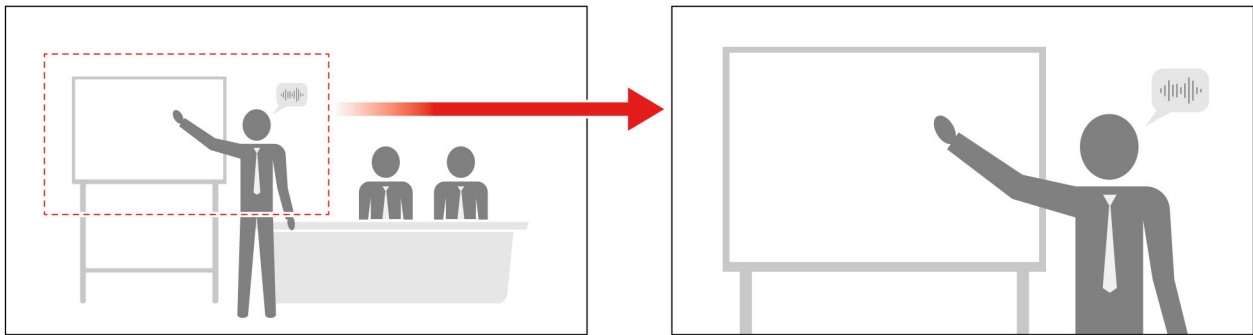
Notes:

- The camera will run the speaker tracking function when the speaker speaks with normal sound volume (greater than 60dB) for over 2 seconds. The speaker should be less than 5 meters away from the camera.

- The camera will run the whiteboard recognition function when the speaker is nearby and speaks for over 2 seconds.

- The camera will zoom out to show all people in the field of view when the speaker stops speaking for over 3 seconds.

- The camera will run the auto zoom/frame function instead of the speaker tracking function when there are more than two speakers and their distance is too close (less than 50 cm).

Chapter 2.   Prerequisites for deployment

The following are basic prerequisites for deployment. ThinkSmart One only works if the proper infrastructures are deployed. Please consult your sales representative for related prerequisites.

Hardware

- At least one external display with cable for HDMI-out connection
- Keyboard and mouse
- RJ45 Ethernet cable
- HDMI cable for HDMI-in connection
- In-box items
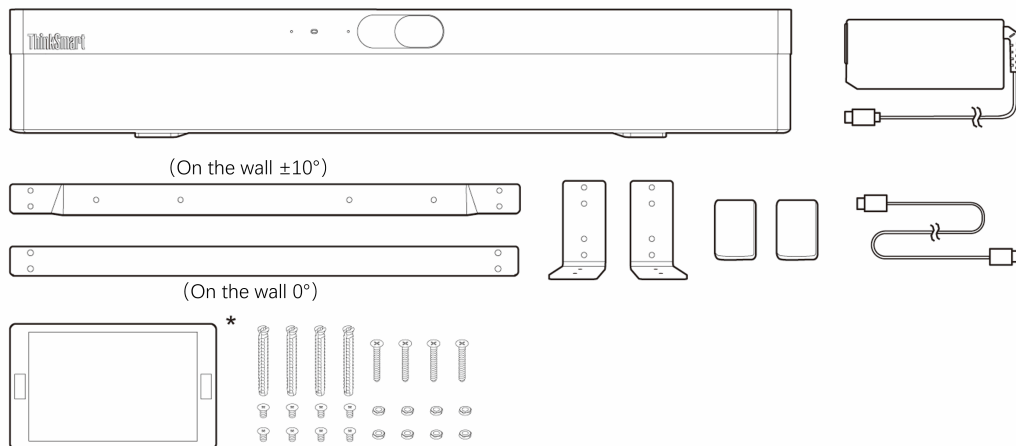
You can purchase accessories from Lenovo https://www.lenovo.com/accessories.

Software

Get started by a Zoom Rooms license.

Network

- Firewall requirements: https://support.zoom.us/hc/en-us/articles/203680389-Firewall-Configuration-for-Zoom-Rooms
- Bandwidth requirements: https://support.zoom.us/hc/en-us/articles/204003179-System-requirements-for-Zoom-Rooms

Deploy and Maintain Services

A deploy, and maintain service is included with the ThinkSmart one. Go to https://lenovosmartofficeservices.com and schedule for professional support.

- Deploy: A ThinkSmart service to help set up, configure and integrate collaboration solution devices into your environment. All deployments include full documentation reports after complete.
- Maintain: A one-year (renewable) maintenance contract where technicians will assist with updates and device changes and provide easy to follow Do's and Don'ts. Device operability health check will ensure collaboration solution is healthy and running smoothly. Redeployment of solution, if required, into a different meeting space is included.

Chapter 3. Hardware deployment

ThinkSmart One supports multiple mounting angles on the wall or on the desk to meet various conference needs. The filed of view of the camera varies by the installation angle on the wall. IT administrators can deploy them according to the actual situations.

Note: The device shall be installed within in two metres above ground.

Install ThinkSmart One

- **Install on the wall (0°)**

Step 1. Mount two L brackets to the horizontal bracket.
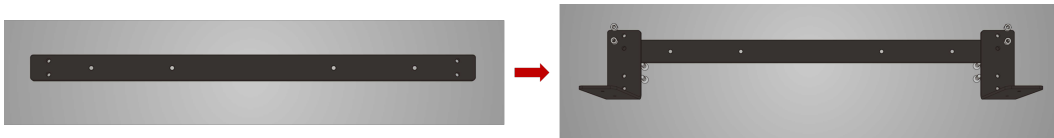
Step 2. Drill and mount the combined bracket to the wall.
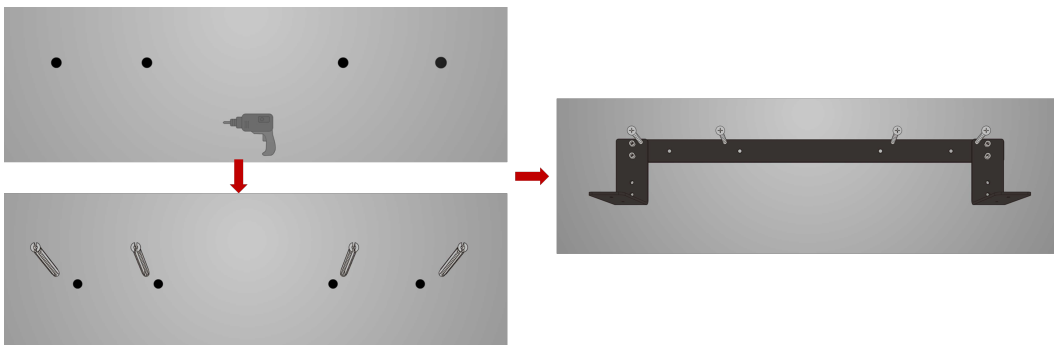
Step 3. Fix ThinkSmart One to the bracket with screws in the bottom.
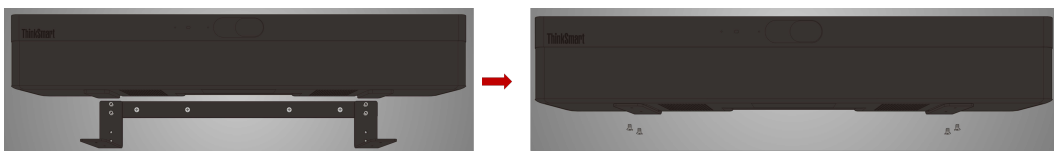
- **Install on the wall (10°)**

ThinkSmart One is slightly upward by 10 degrees. Recommended if you plan to install the device in a lower place.

Step 1. Mount two L brackets to the lower holes of horizontal bracket.
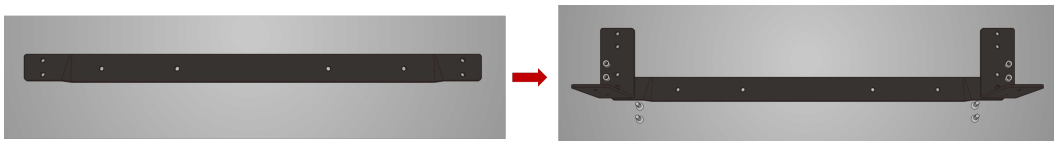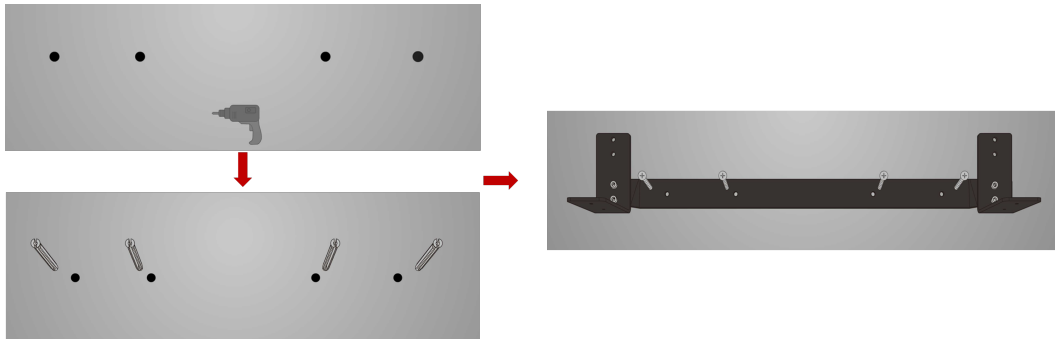
Step 2. Drill and mount the combined bracket to the wall.

Step 3. Fix ThinkSmart One to the bracket with screws in the bottom.
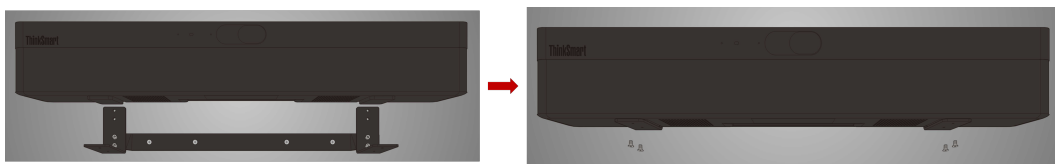
- **Install on the wall (–10°)**

ThinkSmart One slightly faces downwards. Recommended if you plan to install it higher (no more than 2 metres above the ground).

Step 1. Mount two L brackets to the horizontal bracket.
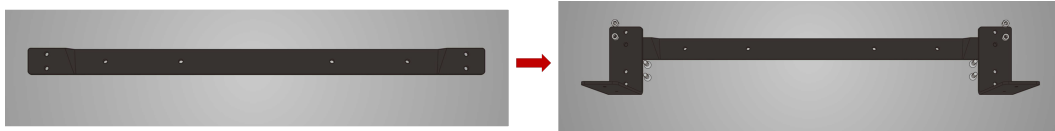
Step 2. Drill and mount the combined bracket to the wall.
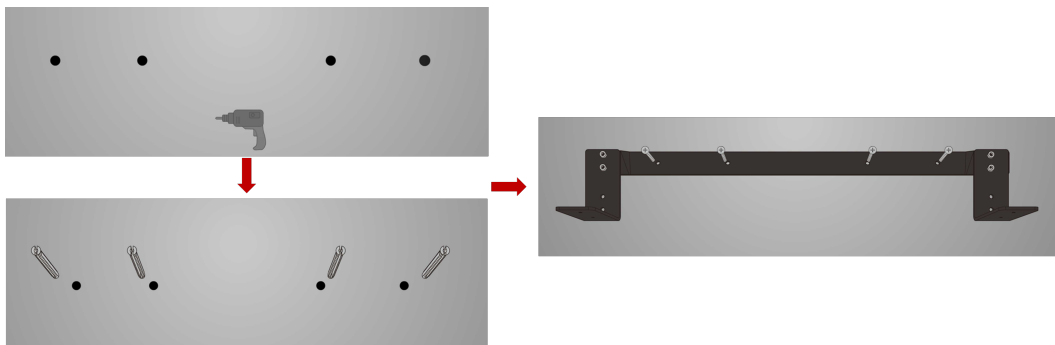
Step 3. Fix ThinkSmart One to the bracket with screws in the bottom.
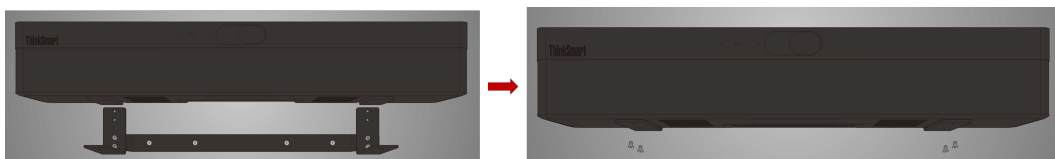
- **Install on the table**

Follow the steps in the illustration.
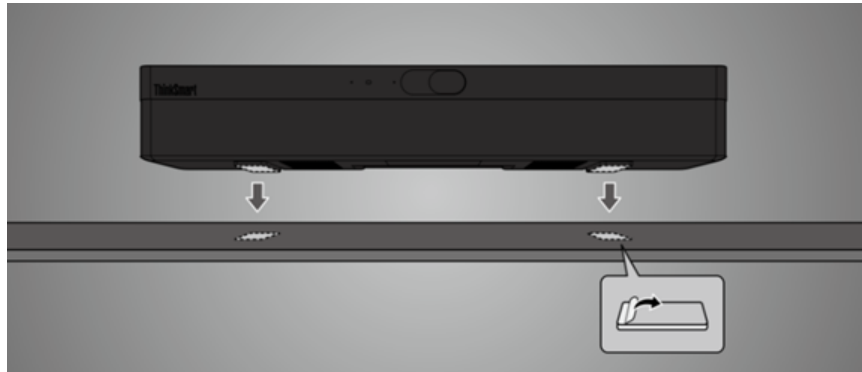
Connect devices to ThinkSmart One

1. Open the connector door.
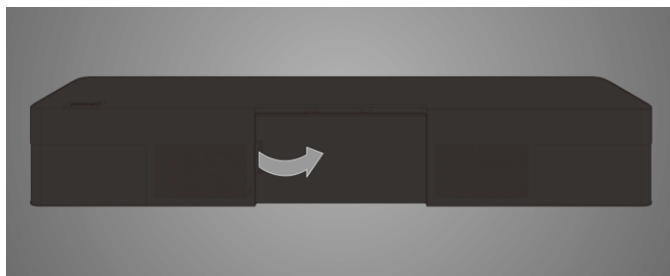
2. Connect a keyboard, a mouse, Controller, an external display, an Ethernet cable, the power adapter and power cord, and your computer to ThinkSmart One.

   Note: Ensure you connect your computer to the HDMI-in connector (HDMI ⊕) and connect the external displays to the HDMI-out connectors (HDMI ⊖).
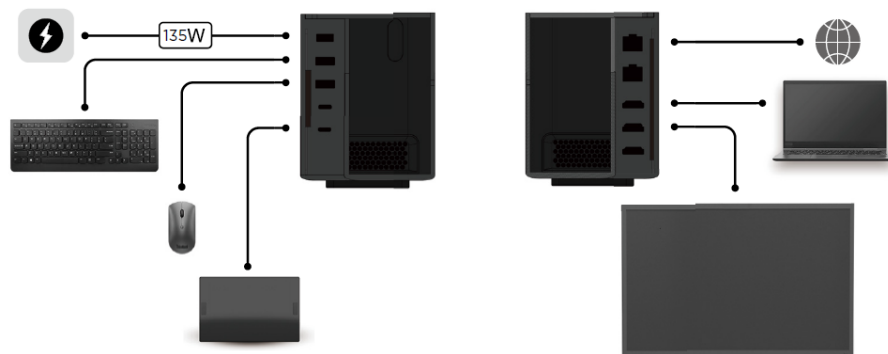
3. Press the power button on the left and turn on the device.

4. Use the keyboard and mouse to complete the following software deployment:
   - "Configure Windows" on page 13
   - "Claim to ThinkSmart Manager" on page 16
5. Close the connector door.

ThinkSmart Controller

1. Place Controller on a table in either 30° or 60 ° position.

   Note: Its screen will rotate automatically.
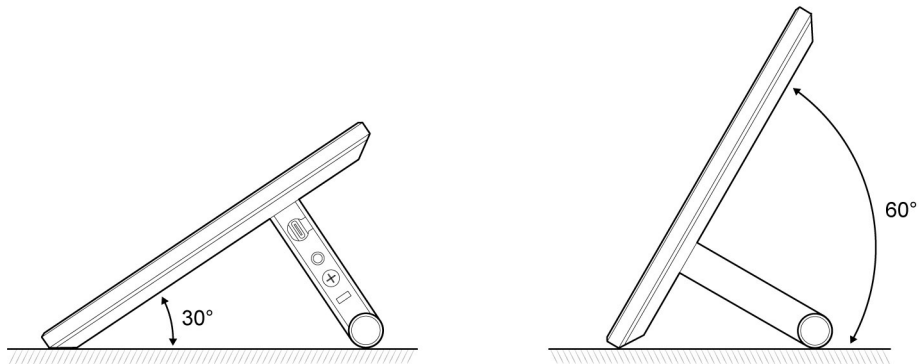
2. Lock Controller to a table or other fixture through a cable lock compliant with Kensington / Lenovo NanoSaver lock standard (using Cleat locking technology). The security-lock slot is located in the Controller stand.

   Note: You are responsible for evaluating, selecting, and implementing the locking device and security feature. Lenovo makes no comments, judgments, or warranties about the function, quality, or performance of the locking device and security feature. You can purchase locks from Lenovo.

Chapter 4. Software deployment

Administrator password, Zoom Rooms password, Room passcode

You will use the following three kinds of password during the software deployment:

- **Zoom Rooms password:** This password is used to sign in to the Zoom Rooms account. You can view or change the default password from the Zoom Web portal https://zoom.us/locationYou also can contact the administrator of your company to get the password.

- **Room passcode:** This passcode is a lock code used to prevent unauthorized changes to the Zoom Rooms settings on ThinkSmart controller.

  The default passcode is 00000.

  You can change the passcode from the Zoom Web portal https://zoom.us/location.

- Administrator password: This password is used to log in to the Windows administrator account (**ZoomRoomsAdmin**).

  If you claim ThinkSmart One to ThinkSmart Manager, you can view or change the default password on ThinkSmart Manager.

  If you skip claiming, you will be prompted to change the default password on ThinkSmart controller.

  For detailed information, see "Claim to ThinkSmart Manager" on page 16

Configure Windows

When you turn on ThinkSmart One for the first time, you will see the Windows Out of Box Experience (OOBE). Follow on-screen instructions to set the region and keyboard language.

Note: It is working as designed to show the OOBE window on the external display rather than ThinkSmart Controller. Please complete the settings with your keyboard and mouse.
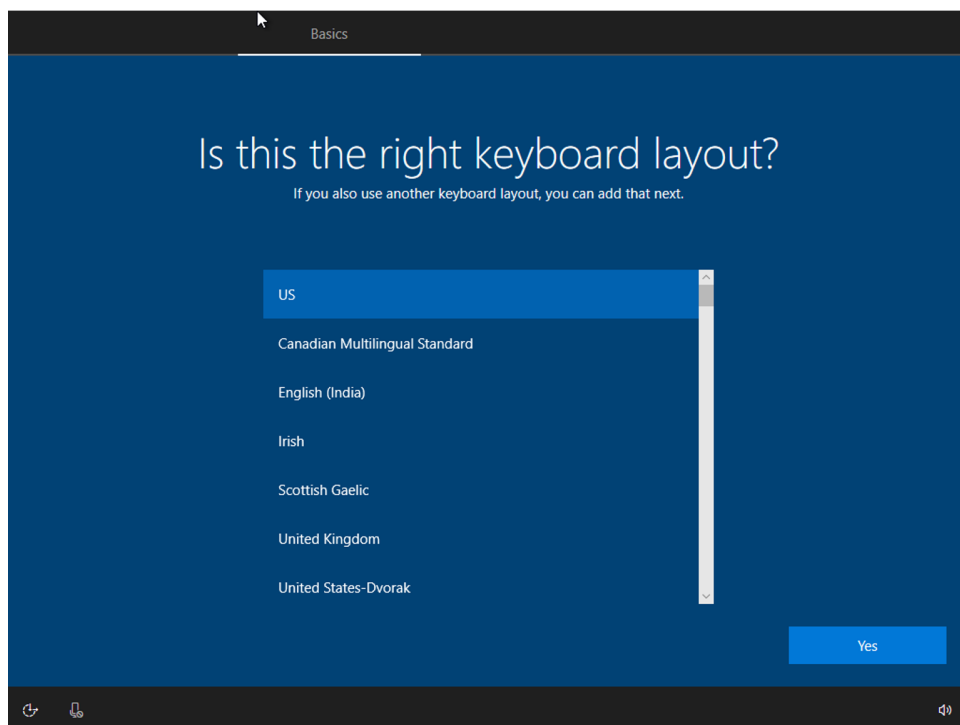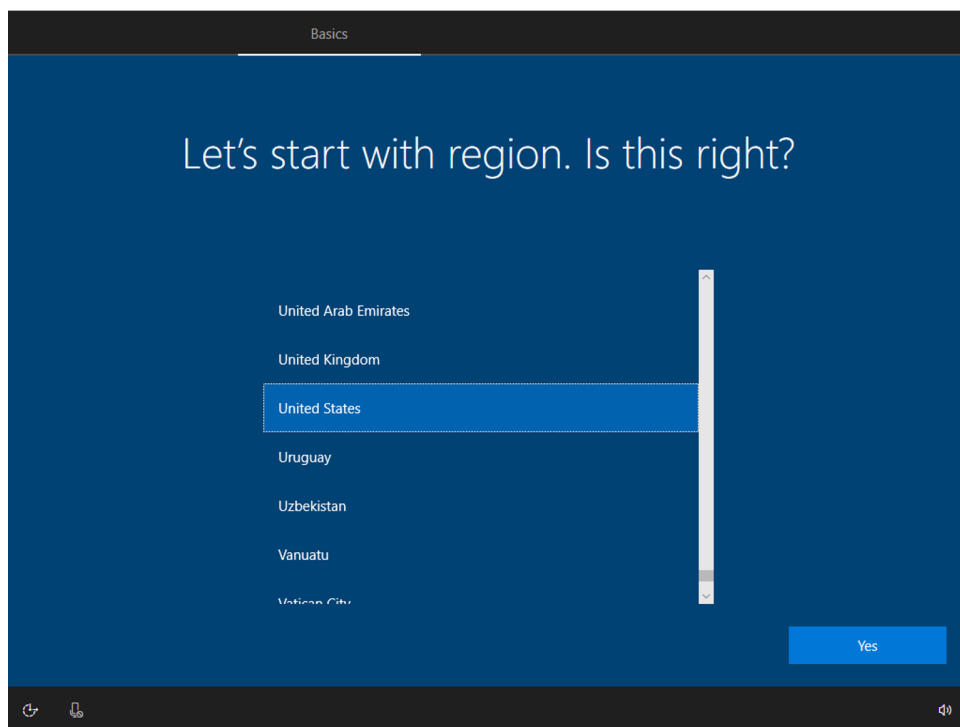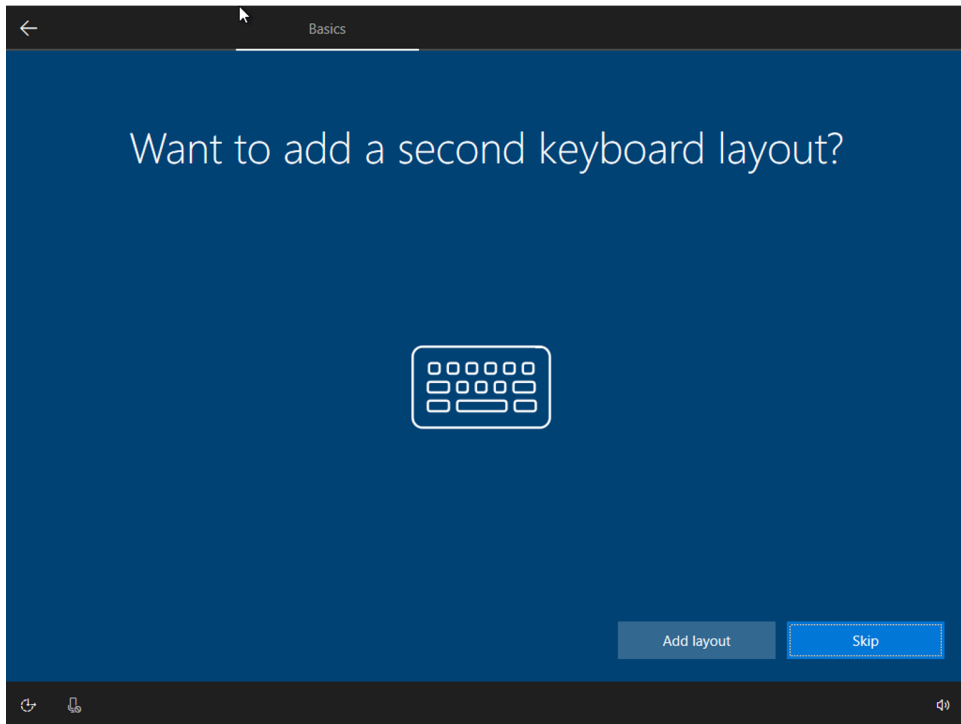
Claim to ThinkSmart Manager

ThinkSmart Manager is a cloud management console designed for Lenovo smart devices, including ThinkSmart One. IT administrators can claim ThinkSmart One to ThinkSmart Manager so as to add, configure, and manage ThinkSmart Oneand attached peripherals from cloud.

After the Windows OOBE settings are completed, wait several minutes until the Claim Device to ThinkSmart Manager window is displayed. Then you can claim ThinkSmart One through the QR code or the PIN code. After claiming, a new Windows administrator password will be generated by ThinkSmart Manager automatically. See the following sections for details.

Note: ThinkSmart Controller touch screen is ready for use now. However, for optimal performance, it is recommended to use the keyboard and mouse to complete the claiming process.

It is recommended that you claim now. However, if you want to claim later, you can:
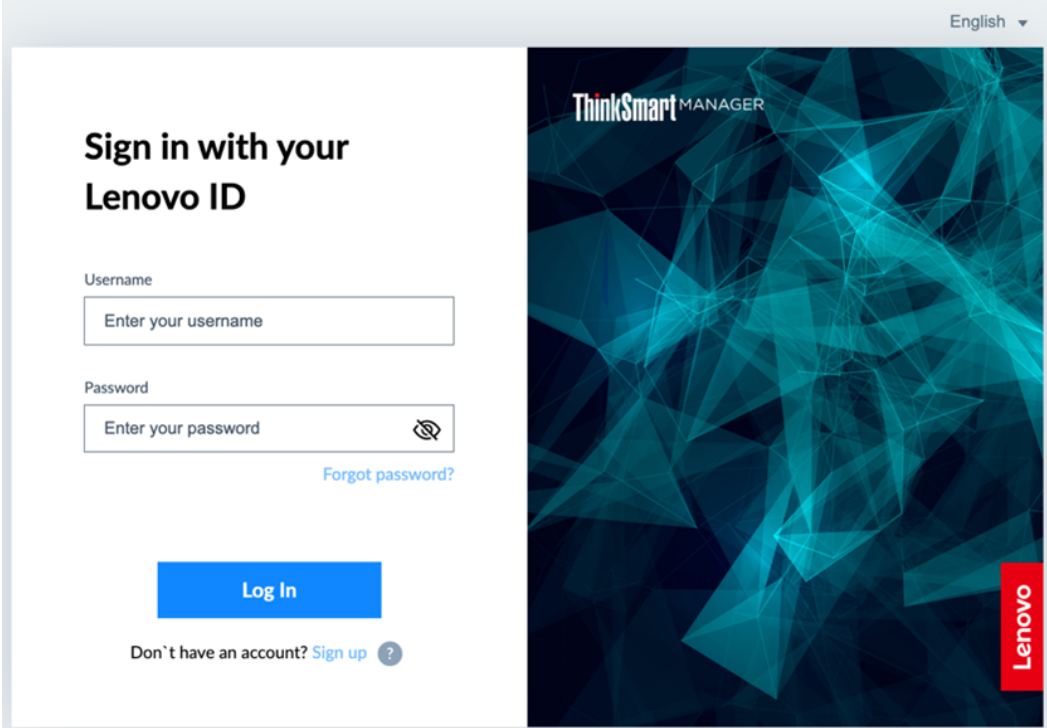
1. Select **Skip for now** on the Claim Device to ThinkSmart Manager window. The Change Default Administrator Password prompt will be displayed.
2. Set a new Windows administrator password and select **Change password** to complete the process.

For information about claiming device after Windows OOBE, see *ThinkSmart Manager User Guide* at https:// support.lenovo.com/downloads/ds542392 to complete the claiming process.

Before claiming

1. Go to https://portal.thinksmart.lenovo.com/ and sign in to your organization. If your organization is not created yet, select **Create an Organization** and follow the on-screen instructions to create it. Ensure that you validate the e-mail that comes from Lenovo when you first create a Lenovo ID. Once you have validated using the link in the e-mail, you can try to log in to ThinkSmart Manager with your Lenovo ID.

   Important: Do not use Lenovo ID's Social Sign-on feature (Facebook, Google, or Windows Live ID) for your ThinkSmart Manager. We recommend you use an e-mail address and password to ensure full functionality.

2. Log in with your Lenovo ID. If your do not have a Lenovo ID, select **Sign up** and follow the on-screen instructions to create it. Ensure that you validate the e-mail that comes from Lenovo when you first create a Lenovo ID. Once you have validated using the link in the e-mail, you can try to log in.

   Important: Do not use Lenovo ID's Social Sign-on feature (Facebook, Google, or Windows Live ID) for your ThinkSmart Manager. We recommend you use an e-mail address and password to ensure full functionality.

3. Follow the on-screen instructions to create organization.
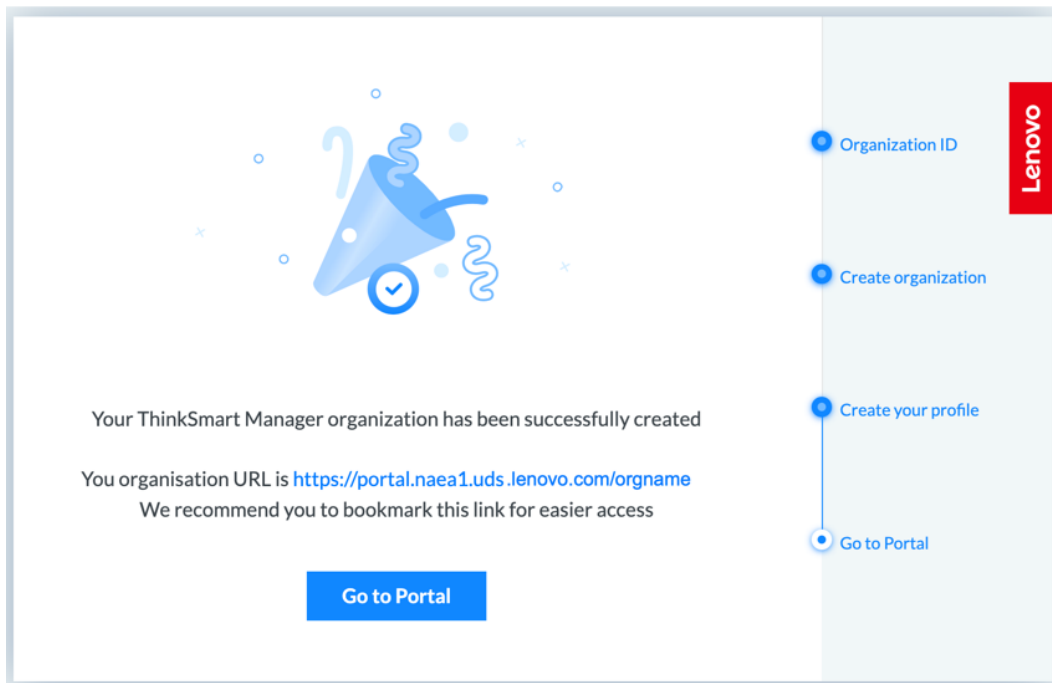
4. After your organization is created, click **Go to Portal** and log in to your organization.

5. The user who created the organization is known as an **Owner**. The **Owner** sends invites from within ThinkSmart Manager to people who need access in the organization.
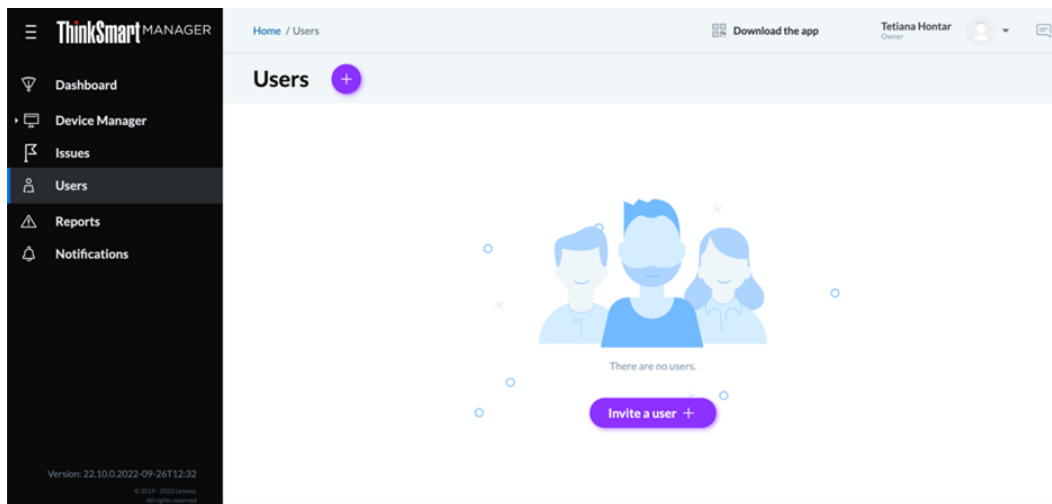
Claiming ways

There are 2 ways to claim a device to ThinkSmart Manager:

- Claim by the QR code or the PIN code from the ThinkSmart Manager application
- Claim by the PIN code from the ThinkSmart Manager Web site

The following sections show the claiming way from the ThinkSmart Manager application. For information about the other claiming way, see *ThinkSmart Manager User Guide* at https://support.lenovo.com/downloads/ds542392.

Claiming from the ThinkSmart Manager application

Prerequisite

- Prepare a mobile device (such as smart phone) that can scan a QR code.
- Ensure that ThinkSmart One and the mobile device are connected to the Internet during the claiming process.

Claiming steps

1. Use your mobile device to scan the QR code. Follow on-screen instructions to install the ThinkSmart Manager application and log in to your organization.

Get ThinkSmart Manager mobile app

Scan the QR code to download the app on your phone
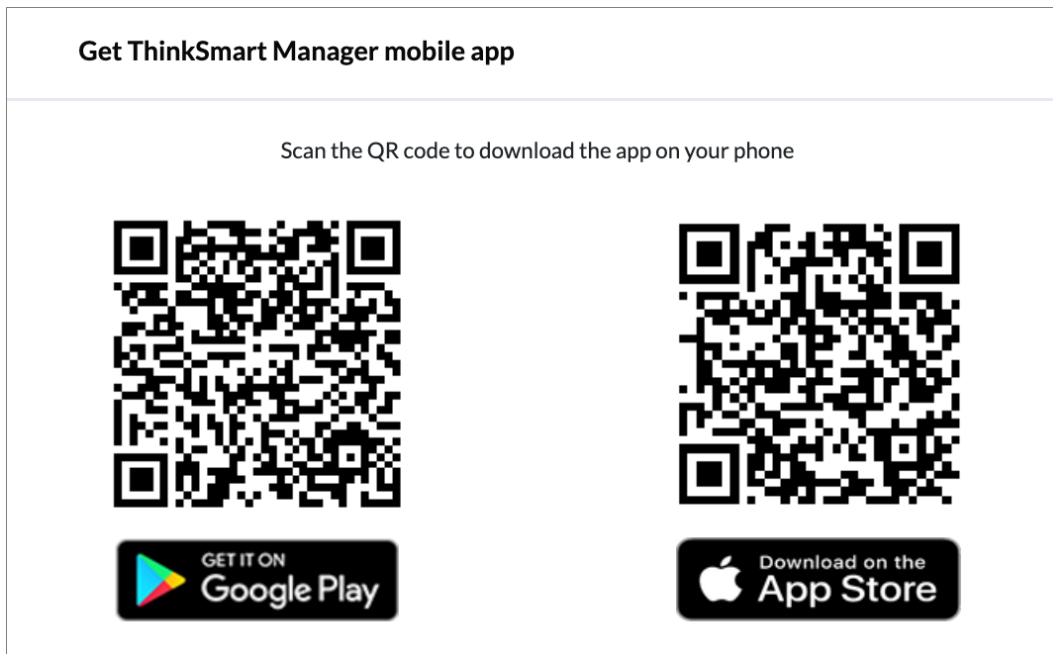
2. Complete the following operations on your mobile device.
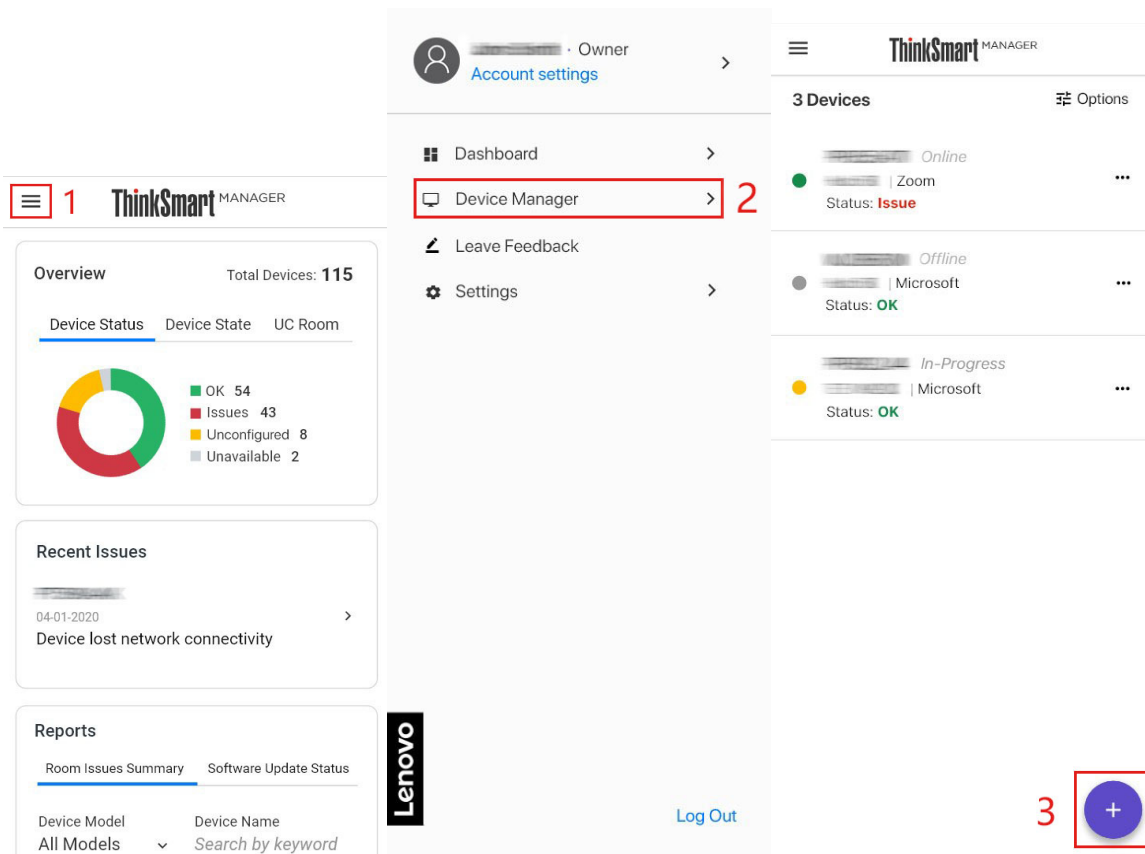
3. Add ThinkSmart One by one of the following:

- **Scan QR barcode** (recommended): This QR code contains all the information required to add ThinkSmart One to ThinkSmart Manager. Once scanned, the application will add ThinkSmart One automatically.
- **Add manually**: Once selected, the application will guide you to select Machine Type and enter Serial Number and the PIN code to add ThinkSmart One manually.
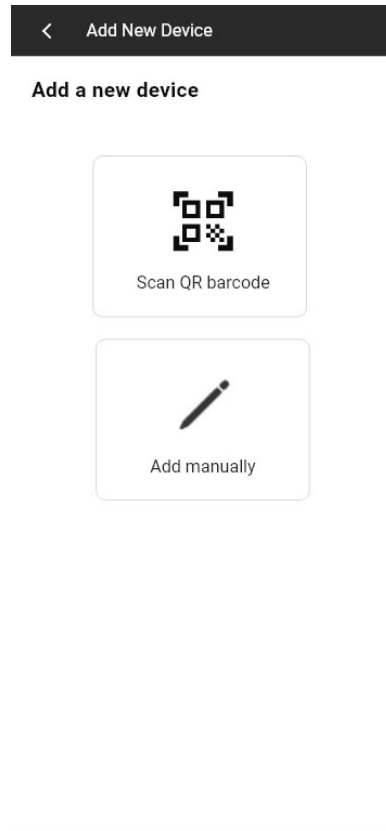
4. Select if you want to apply the default organization configurations to ThinkSmart One from cloud.

   • Select it if you have configured ThinkSmart Oee locally and don't want to apply the default organization configurations.

   • Do not select it if you want to apply the default organization configurations.
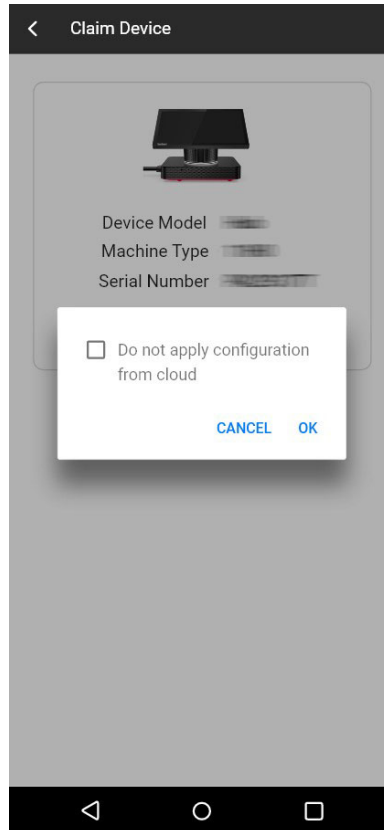
5. The claiming is successful.

DONE

✅ Claim successful!

Device Model

Machine Type

Serial Number

Configure Device

+ CLAIM ANOTHER DEVICE

◁　　○　　▢

6. Follow the on-screen instructions to complete the claiming process.

Device is Ready

Device will automatically reboot after 30 seconds.

The Lenovo ThinkSmart Manager allows you to deploy and manage all your devices from one location, while collecting valuable telemetry to help you improve meeting and facilities optimization.

Visit https://lenovo.com/thinksmart for more information.

Reboot (22)
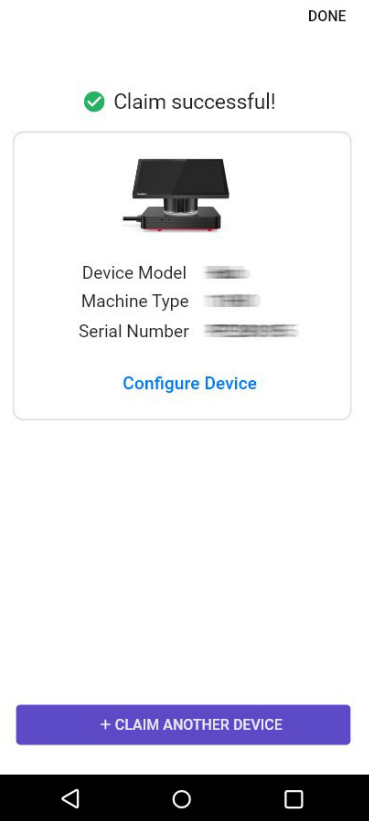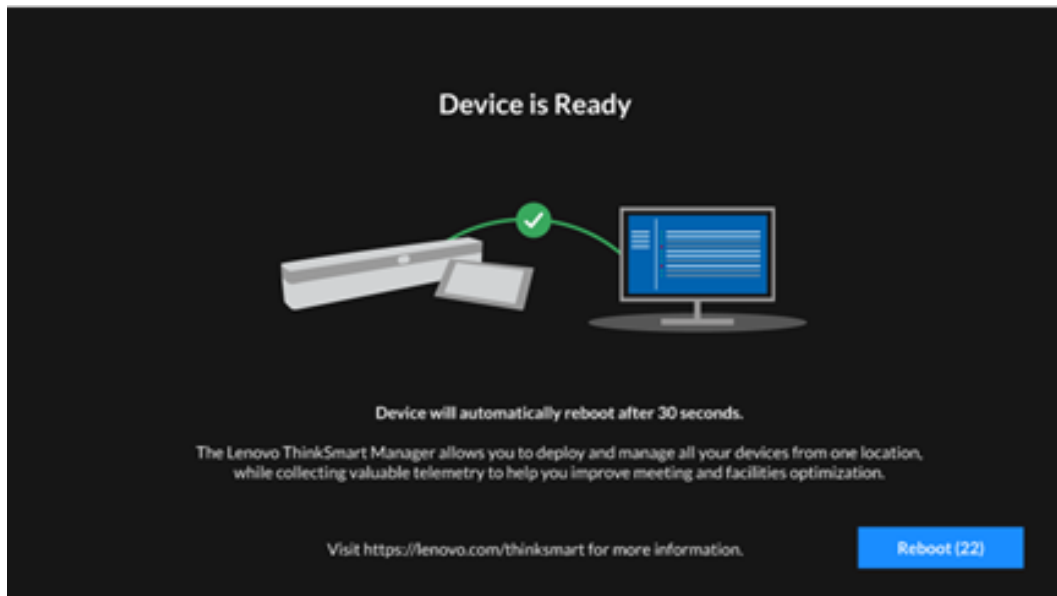
After claiming

You can view the administrator password from ThinkSmart Manager. You will need this password to enter the MTR Settings page or enter the administrator account.

1. Go to https://portal.thinksmart.lenovo.com/ and log in.

2. Select **Devices** on the left navigation panel. The Device List page is displayed.

3. Select the device you want to manage. The device information window is displayed.

4. Select **Configuration ➙ Windows** on the right panel. Then, follow the on-screen instructions to view the administrator password.

For information about configuring and managing devices through ThinkSmart Manager, see *ThinkSmart Manager User Guide* at https://support.lenovo.com/downloads/ds542392.

Sign in to Zoom Rooms

After the claiming is completed, wait several minutes until the Zoom Rooms window is displayed on the Controller.

1. Select **Sign in**.
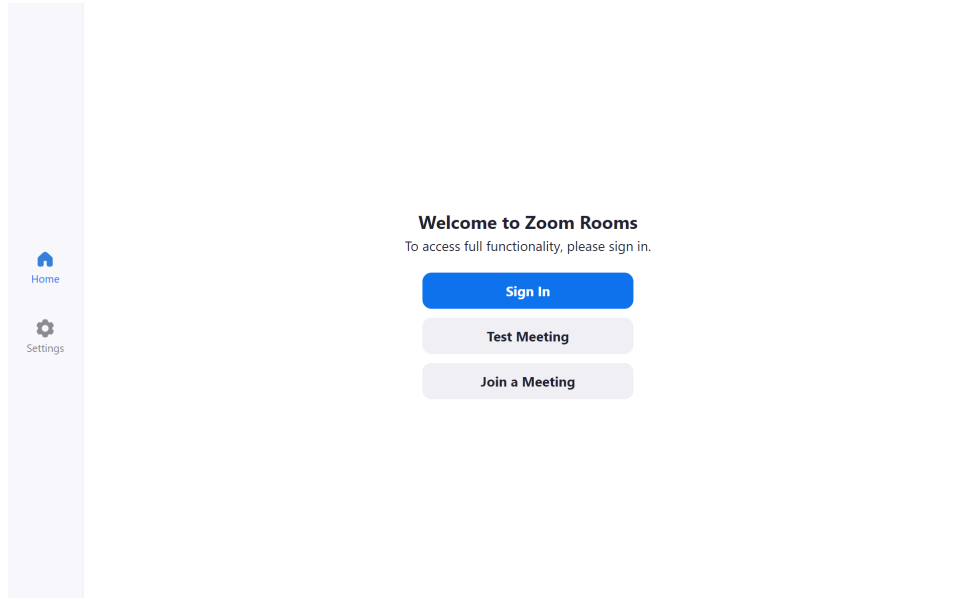
2. Enter the Zoom Rooms account and password. Follow the on-screen instructions.
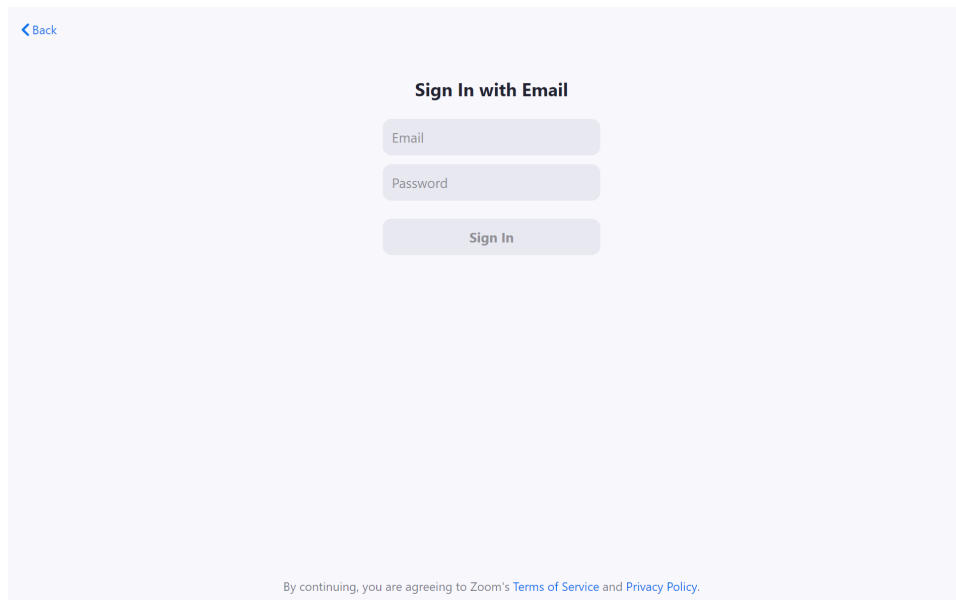
For information about the Zoom Rooms password, see "Administrator password, Zoom Rooms password, Room passcode" on page 13

Configure Zoom Rooms settings

After signing in to Zoom Rooms, configure Zoom Rooms Settings as needed.

1. Select **Settings**from the main menu and configure Zoom Rooms.
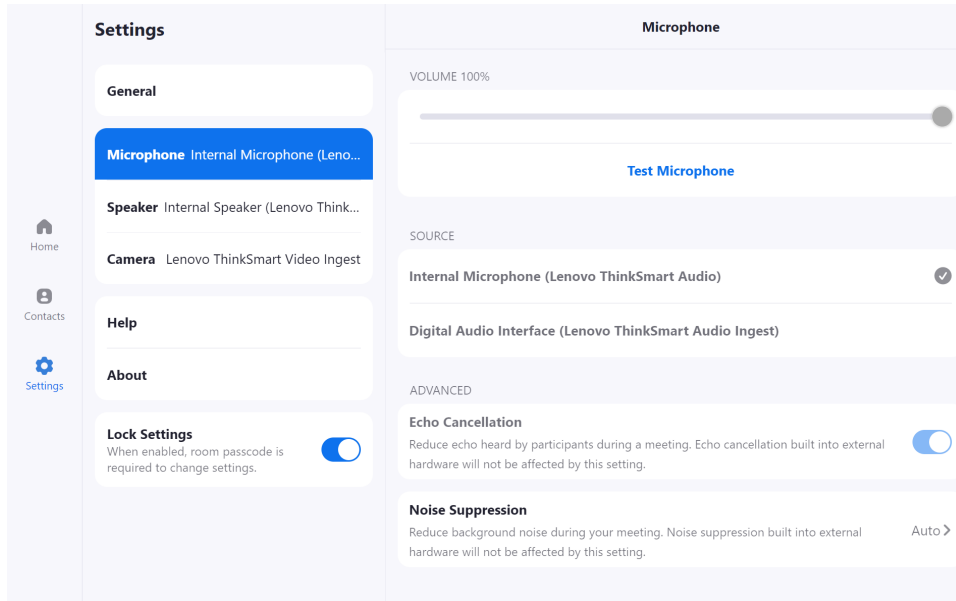
2. Enter the Room passcode and select **Continue** to complete the configuration.
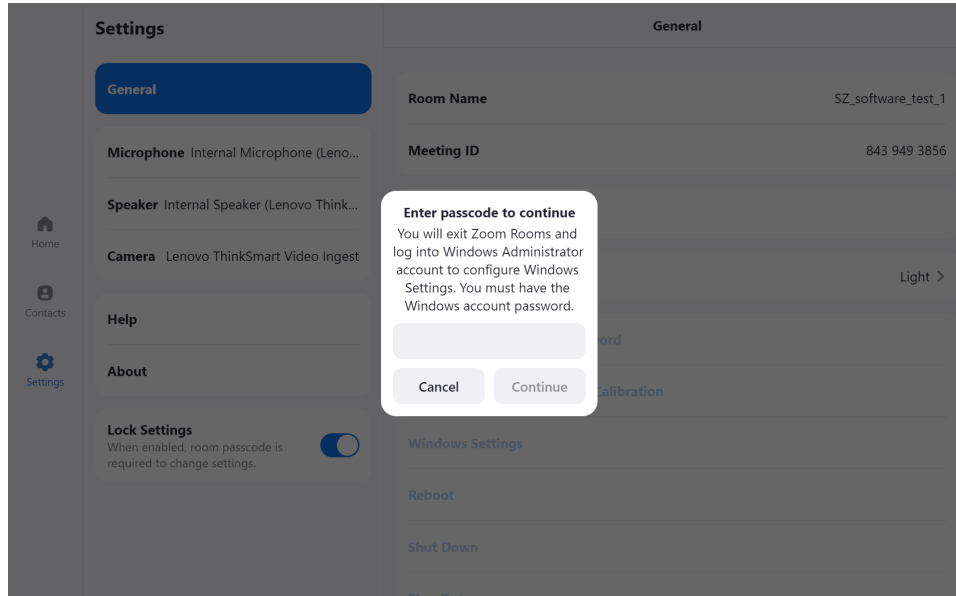
For information about the Room passcode, see "Administrator password, Zoom Rooms password, Room passcode" on page 13

Switch between Zoom Rooms account and administrator account

To switch from the Zoom Rooms account to the administrator account,

1. From the main menu, Select **Settings → Room → Windows Settings**.
2. Enter the Room passcode and select **Continue**.
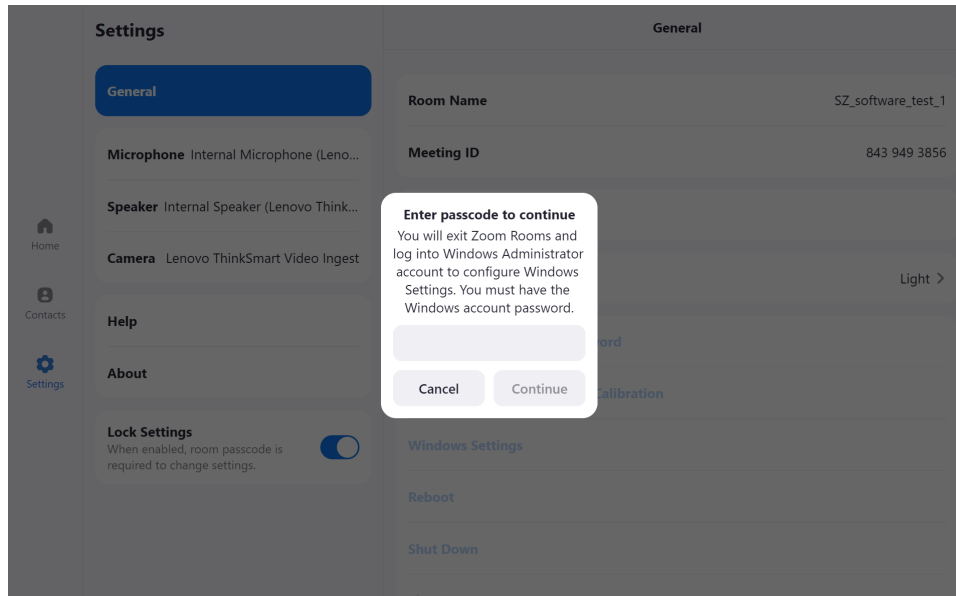
3. Select **ZoomRoomsAdmin** and log in with the administrator password.For information about the Room passcode and the administrator password, see "Administrator password, Zoom Rooms password, Room passcode" on page 13.

To switch from the administrator account to the Zoom Rooms account,

1. Open the **Start** menu.
2. Select **ZoomRoomsAdmin → Sign out**.
3. Select **ZoomRooms → Sign in**.

Chapter 5. Zoom Rooms Information

Zoom Help Center

You can find the most updated information for Zoom Rooms from Zoom Help Center: https://support.zoom.us/hc/en-us/categories/200108436

- Zoom Rooms user guide: https://support.zoom.us/hc/en-us/articles/204772869-Zoom-Rooms-User-Guide
- Zoom Room meeting controls and settings: https://support.zoom.us/hc/en-us/articles/360021921032-Zoom-Rooms-meeting-controls-and-settings
- Scheduling meetings: https://support.zoom.us/hc/en-us/articles/201362413
- Screen sharing: https://support.zoom.us/hc/en-us/articles/201362153-Sharing-your-screen
- Direct sharing:https://support.zoom.us/hc/en-us/articles/214629303-Direct-sharing-in-Zoom-Rooms

Note: The above support articles are provided by Zoom.us. Users in some countries or regions may need to wait patiently or try several times to open the web pages.

Wired HDMI screen sharing

Start sharing

1. Connect your computer to the HDMI-in connector on ThinkSmart One. Your screen will be shared with the in-room attendees only.
2. Join the meeting from Zoom Rooms on ThinkSmart Controller and click **Share Content**, your screen will be shared with the remote attendees too.

Stop sharing

Click **Sharing Content** and disconnect from HDMI-in connector.

Chapter 6. Secure ThinkSmart One and information

Notes:

- Connect a keyboard to ThinkSmart One for easy configurations.
- In this chapter, to turn off or restart a computer refers to turn off or restart the computing unit of ThinkSmart One.
- The Non-operation mode refers to the device status in which the system clock is on while the system running has stopped.

UEFI BIOS passwords

You can set passwords in UEFI (Unified Extensible Firmware Interface) BIOS (Basic Input/Output System) to strengthen the security of your computer.

Password types

You can set a power-on password, supervisor password, system management password, or hard disk password in UEFI BIOS to prevent unauthorized access to your computer. However, you are not prompted to enter any UEFI BIOS password when your computer resumes from Non-operation mode.

- Power-on password

  When a power-on password is set, you are prompted to enter a valid password each time the computer is turned on.

- Supervisor password

  Setting a supervisor password deters unauthorized users from changing configuration settings. If you are responsible for maintaining the configuration settings of several computers, you might want to set a supervisor password.

  When a supervisor password is set, you are prompted to enter a valid password each time you try to enter the BIOS menu.

  If both the power-on password and supervisor password are set, you can enter either password. However, you must use your supervisor password to change any configuration settings.

- Hard disk password

  Setting a hard disk password prevents unauthorized access to the data on the storage drive. When a hard disk password is set, you are prompted to enter a valid password each time you try to access the storage drive.

  Note: After you set a hard disk password, your data on the storage drive is protected even if the storage drive is removed from one computer and installed in another.

- System management password (for selected models)

  You can enable the system management password to have the same authority as the supervisor password to control security related features. To customize the authority of the system management password through the UEFI BIOS menu:

  1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.
  2. Select **Security ➔ System Management Password Access Control**.
  3. Follow the on-screen instructions.

  If you have set both the supervisor password and the system management password, the supervisor password overrides the system management password.

Set, change, and remove a password

Before you start, print these instructions.

1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Security**.
3. Depending on the password type, select **Set Supervisor Password**, **Set Power-On Password**, **Set System Management Password**, or **Hard Disk Password** and press Enter.
4. Follow the on-screen instructions to set, change, or remove a password.
5. Press F10 or Fn+F10 to save the changes and exit.

You should record your passwords and store them in a safe place. If you forget the passwords, contact a Lenovo-authorized service provider to have the passwords removed.

Note: If the hard disk password is forgotten, Lenovo cannot remove the password or recover data from the storage drive.

Use BIOS security solutions

This section provides BIOS solutions to secure your computer and information.

Wipe the storage drive data

It is recommended that you wipe the storage drive data before recycling the storage drive or the computer.

To wipe the storage drive data:

1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Security ➙ secure wipe ➙ Enabled**.
3. Press F10 or Fn+F10 to save the changes and exit.
4. Restart the computer. When the logo screen is displayed, press F12 or Fn+F12.
5. Select **App Menu ➙ secure wipe** and press Enter.
6. Select the storage drive you will wipe and click **NEXT**.
7. Select the entire storage drive or partition to wipe as desired.
8. Select the method as desired and click **NEXT**.
9. Click **Yes** to confirm your option when the prompting window is displayed.
10. If you have set a hard disk password for the storage drive, enter the password. Otherwise, set a temporary password following the on-screen instructions. Then, click **NEXT**. The wiping process begins.

    Note: Duration of the wiping process varies depending on the storage drive capacity.
11. Click **Reboot** when you are prompted to reset the system, and then one of the following will happen:

    - If the system storage drive data is wiped, you will be prompted that no operating system is found.
    - If the non-system storage drive data is wiped, the computer restarts automatically.

Intel BIOS guard

The Intel® BIOS Guard module cryptographically verifies all BIOS updates. This hardware-based security helps prevent software and malware attacks on the computers BIOS.

Smart USB Protection

The Smart USB Protection function is a security function that helps prevent data from being copied from the computer to USB storage devices connected to the computer. You can set the Smart USB Protection function to one of the following modes:

- **Disabled** (default setting): You can use the USB storage devices without limitation.
- **Read Only**: You cannot copy data from the computer to the USB storage devices. However, you can access or modify data on the USB storage devices.
- **No Access**: You cannot access the USB storage devices from the computer.

To configure the Smart USB Protection function:

1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Security ➙ Smart USB Protection** and press Enter.
3. Select the desired setting and press Enter.
4. Press F10 or Fn+F10 to save the changes and exit.

Use software security solutions

This section provides software solutions to secure your computer and information.

Windows firewalls

A firewall can be hardware, software, or a combination of both depending on the level of security required. Firewalls work on a set of rules to determine which inbound and outbound connections are authorized. If the computer is preinstalled with a firewall program, it helps protect against computer Internet security threats, unauthorized access, intrusions, and Internet attacks. It also protects your privacy. For more information about how to use the firewall program, refer to the help system of your firewall program.

To use Windows firewalls:

1. Type `Control Panel` in the Windows search box and then press Enter. View by large icons or small icons.
2. Click `Windows Defender Firewall`, and then follow the on-screen instructions.

Computrace Agent software embedded in firmware (for selected models)

The Computrace Agent software is an IT asset management and computer theft recovery solution. The software detects if changes have been made on the computer, such as hardware, software, or the computer call-in location. You might have to purchase a subscription to activate the Computrace Agent software.

Chapter 7. UEFI BIOS

Notes:

- Connect a keyboard to ThinkSmart One for easy configurations.
- In this chapter, to turn off or restart a computer means to turn off or restart the computing unit of ThinkSmart One.

What is UEFI BIOS

Note: The operating system settings might override any similar settings in UEFI BIOS.

UEFI BIOS is the first program that the computer runs when the computer is turned on. UEFI BIOS initializes the hardware components and loads the operating system and other programs. Your computer comes with a setup program with which you can change UEFI BIOS settings.

Enter the BIOS menu

Restart the computer. When the logo screen is displayed, press F1 or Fn+F1 to enter the BIOS menu.

Note: If you have set BIOS passwords, enter the correct passwords when prompted. You also can select **No** or press Esc to skip the password prompt and enter the BIOS menu. However, you cannot change the system configurations that are protected by passwords.

Navigate in the BIOS interface

Attention: The default configurations are already optimized for you in **boldface**. Improper change of the configurations might cause unexpected results.

Depending on your keyboard, you can navigate in the BIOS interface by pressing the following keys, or combinations of Fn and the following keys:

Key	Function
F1 or Fn+F1	General Help
Esc or Fn+Esc	Exit the submenu
↑↓ or Fn+↑↓	Locate an item
← → or Fn+← →	Move keyboard focus
+/– or Fn++/–	Change value
Enter	Enter the submenu
F9 or Fn+F9	Setup Defaults
F10 or Fn+F10	Save and exit

Change the display language of UEFI BIOS

UEFI BIOS supports three or four display languages: English, French, simplified Chinese, and Russian (for selected models).

To change the display language of UEFI BIOS:

1. Select **Main ➜ Language** and press Enter.

2. Set the display language as desired.

Change the display mode of UEFI BIOS (for selected models)

You can use UEFI BIOS in the graphic mode or the text mode according to your needs.

The keys on the keyboard used to perform various tasks are displayed at the bottom of the screen. In addition to the keyboard, you also can use the mouse to make selections.

To change the display mode of UEFI BIOS:

1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.

2. Select **Main ➜ Setup Mode Select** and press Enter.

3. Set the display mode as desired.

Set the system date and time

1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.

2. Select **Main ➜ System Time & Date** and press Enter.

3. Set the system date and time as desired.

4. Press F10 or Fn+F10 to save the changes and exit.

Change the boot priority order

If the computer does not boot from a device as expected, you can change the boot priority order permanently or select a temporary boot device.

Change the boot priority order permanently

1. Depending on the type of the storage device, do one of the following:

   - If the storage device is internal, go to step 2.

   - If the storage device is a disc, ensure that the computer is on or turn on the computer. Then, insert the disc into the optical drive.

   - If the storage device is an external device other than a disc, connect the storage device to the computer.

2. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.

3. Select **Startup ➜ Boot Priority Order**, and then follow the on-screen instructions to change the boot priority order.

4. You can also select the first priority device group by selecting **Startup ➜ First Boot Device**, and then follow the on-screen instructions to select the first boot device within this group. Your computer will boot from the first boot device before trying the boot priority order you set in the previous step.

5. Press F10 or Fn+F10 to save the changes and exit.

Select a temporary boot device

Note: Not all discs and storage drives are bootable.

1. Depending on the type of the storage device, do one of the following:

   - If the storage device is internal, go to step 2.

- If the storage device is a disc, ensure that the computer is on or turn on the computer. Then, insert the disc into the optical drive.
- If the storage device is an external device other than a disc, connect the storage device to the computer.

2. Restart the computer. When the logo screen is displayed, press F12 or Fn+F12.

3. Select the storage device as desired and press Enter.

If you want to change the boot priority order permanently, select **Enter Setup** on Startup Device Menu and press Enter to enter the BIOS menu.

Enable or disable a device

This section provides information about how to enable or disable user access to hardware devices (such as USB connectors or storage drives).

To enable or disable a device, do the following:

1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.

2. Select **Devices**.

3. Select the device you want to enable or disable and press Enter.

4. Select the desired setting and press Enter.

5. Press F10 or Fn+F10 to save the changes and exit.

Enable or disable the configuration change detection feature

If you enable configuration change detection, when the POST detects configuration changes of some hardware devices (such as storage drives or memory modules), an error message will be displayed when you turn on the computer.

To enable or disable the configuration change detection feature:

1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.

2. Select **Security** ➙ **Configuration Change Detection** and press Enter.

3. Enable or disable the feature as desired.

4. Press F10 or Fn+F10 to save the changes and exit.

To bypass the error message and log in to the operating system, press F2 or Fn+F2. To clear the error message, enter the BIOS menu, save and then exit.

Enable or disable the automatic power-on feature

The Automatic Power On item in UEFI BIOS provides various options for you to make your computer start up automatically.

To enable or disable the automatic power-on feature:

1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.

2. Select **Power** ➙ **Automatic Power On** and press Enter.

3. Select the feature as desired and press Enter.

4. Enable or disable the feature as desired.

5. Press F10 or Fn+F10 to save the changes and exit.

Change BIOS settings before installing a new operating system

BIOS settings vary by operating system. Change the BIOS settings before installing a new operating system.

Microsoft constantly makes updates to the Windows operating system. Before installing a particular Windows version, check the compatibility list for the Windows version. For details, go to: https://support.lenovo.com/us/en/solutions/windows-support

To change the BIOS settings:

1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.
2. From the main interface, select **Security ➙ Secure Boot** and press Enter.
3. Depending on the operating system to be installed, do one of the following:
   - To install a Windows operating system that supports secure boot, select **Enabled** for **Secure Boot**.
   - To install an operating system that does not support secure boot, such as some Linux operating systems, select **Disabled** for **Secure Boot**.
4. Press F10 or Fn+F10 to save the changes and exit.

Exit the BIOS menu

To exit the BIOS menu, do one of the following:

- If you want to save the new settings, press the F10 key. Then, select **Yes** in the window displayed and press Enter.

  Note: For some keyboards, you might need to press Fn+F10 to exit the BIOS menu.

- If you do not want to save the new settings, select **Exit ➙ Discard Changes and Exit** and press Enter. Then, select **Yes** in the window displayed and press Enter.

Update UEFI BIOS

When you install a new program, device driver, or hardware component, you might need to update UEFI BIOS. You can update the BIOS from your operating system or a flash update disc (supported only on selected models).

Download and install the latest UEFI BIOS update package from the Lenovo Support Web site:

1. Go to https://smartsupport.lenovo.com/.
2. Download the flash BIOS update driver for the operating system version or the ISO image version (used to create a flash update disc). Then, download the installation instructions for the flash BIOS update driver you have downloaded.
3. Print the installation instructions and follow the instructions to update the BIOS.

Recover from a BIOS update failure

1. Remove all media from the drives and turn off all connected devices.
2. Insert the BIOS update disc into the optical drive, and then turn off the computer.
3. Disconnect all power cords from electrical outlets. Then, remove any parts that impede access to the Clear CMOS/Recovery jumper.
4. Move the jumper from the standard position to the maintenance position.
5. Reconnect the power cords for the computer and the monitor to electrical outlets.

6. Turn on the computer and the monitor. When the computer beeps, the recovery process begins.

7. After the recovery process is completed, the computer will be turned off automatically.

   Note: Depending on the computer model, the recovery process will take two to three minutes.

8. Disconnect all power cords from electrical outlets.

9. Move the jumper back to the standard position.

10. Reinstall all the parts that have been removed. Then, reconnect the power cords for the computer and the monitor to electrical outlets.

11. Turn on the computer and the monitor. When the logo screen is displayed, press F1 or Fn+F1.

12. To prevent data loss, ensure that BIOS settings are restored to an earlier point. For BIOS configurations, see Chapter 7 "UEFI BIOS" on page 35.

Clear CMOS

1. Remove all media from the drives and turn off all connected devices and the computer.

2. Disconnect all power cords from electrical outlets. Then, remove any parts that impede access to the Clear CMOS/Recovery jumper.

3. Move the jumper from the standard position to the maintenance position.

4. Reconnect the power cords for the computer and the monitor to electrical outlets.

5. Turn on the computer and the monitor. When the computer beeps, wait for approximately 10 seconds.

6. Turn off the computer by holding the power button for approximately four seconds.

7. Disconnect all power cords from electrical outlets.

8. Move the jumper back to the standard position.

9. Reinstall all the parts that have been removed. Then, reconnect the power cords for the computer and the monitor to electrical outlets.

10. Turn on the computer and the monitor. When the logo screen is displayed, press F1 or Fn+F1.

11. To prevent data loss, ensure that BIOS settings are restored to an earlier point. For BIOS configurations, see Chapter 7 "UEFI BIOS" on page 35.

Chapter 8.   FAQ

This chapter lists out some most frequently asked questions for your reference. Please go to https://support.lenovo.com/solutions/HT513794 to read the latest version.

Question	Answer
How to apply for a Zoom Rooms account and its password?	Please refer to: https://zoom.us/signup#/signup

How to reset the Admin password if I forgot it?	There are two ways to reset Admin password.
	
	• **By RUSB**
	
	  Please visit https://smartsupport.lenovo.com/us/en/
	
	  for detailed information.
	
	• **By password reset disk**
	
	  1. Sign in to Admin account.
	
	  2. Go to **Control Panel** and view by large icons or small icons.
	
	  3. Click **User Accounts**
	
	  4. Insert a USB flash drive and select **Create a password reset disk**, then follow the on-screen instructions to finish the process.

How to reset the device to factory mode?	1. Open the **Start** menu. 2. Click **Settings → Update & Security → Recovery → Reset this PC → Get Started**. 3. Select **Remove everything → Local reinstall → Next → Reset**. Then the reset process has started. 4. After the reset process, the device will automatically restart. You need to go through the OOBE process to configure windows. **CAUTION:** **All data will be removed after device reset.**
How to upgrade the OS to latest version?	You can upgrade via **Windows Update**
Can I downgrade the OS to a previous version?	No.

Note:

For more details on Frequently Asked Questions, please refer to: https://support.zoom.us/hc/en-us/articles/360042443452-Frequently-asked-questions-for-admins

Chapter 9. Troubleshooting, diagnostics, and recovery

Basic procedure for resolving problems

Use the basic procedure as a starting point for resolving problems.

Prerequisite

Before you start, read "Read this first" on page i and print the following instructions.

1. Check that:
   a. The cables for all connected devices are connected correctly and securely.
   b. All components have been reassembled correctly.
   c. All connected devices that require ac power are connected to properly grounded and working electrical outlets.
   d. All connected devices are enabled in UEFI BIOS.
2. See Chapter 9 "Troubleshooting, diagnostics, and recovery" on page 43 to resolve the problem you are experiencing, run the diagnostic program, and recover your operating system.
3. If the problem persists, contact Lenovo. See Chapter 10 "Help and support" on page 47.

Troubleshooting

Use the troubleshooting information to find solutions to problems that have definite symptoms.

Problem	Solution
Zoom Rooms System cannot be logged in.	Ensure that ThinkSmart One is connected to a wired network.
Initial signing in is not successful.	• Reset your password at zoom.us/forgot_password. • Contact the administrator of your company to gain access.
Wrong room name is displayed.	1. Click **Settings ➙ Sign Out** . 2. Enter the Room passcode. For detailed information about the Room passcode, see "Administrator password, Zoom Rooms password, Room passcode" on page 13. 3. Sign in again and select the correct room name.
Can not turn on the camera during a meeting.	• Ensure that the account has been granted the authority to use the camera. • Ensure that camera could work in Administrator account with **Camera** application. • Ensure that the camera is not configured as content camera.
ThinkSmart Controller does not show the OOBE window.	The OOBE window is designed to display on the external display rather than ThinkSmart Controller. Please complete the settings with your keyboard and mouse on the connected external display.

Diagnostics

Use diagnostic solutions to test hardware components and report operating-system-controlled settings that interfere with the correct operation of your computer.

To use the Lenovo diagnostic:

1. Turn on or restart the computer.

2. Before Windows starts, repeatedly press and release the F10 key until the Lenovo diagnostic opens.

   Note: If a BIOS password has been set, the UEFI BIOS will not open until you enter the correct password. For more information, see "UEFI BIOS passwords" on page 31.

3. Follow the instructions on the screen to use the diagnostic program.

Recovery

This section introduces the recovery information of the Windows 10 operating system. Ensure that you read and follow the on-screen recovery instructions. The data on your computer might be deleted during the recovery process. To avoid data loss, make a backup copy of all the data that you want to keep.

Restore system files and settings to an earlier point

1. Go to **Control Panel** and view by large icons or small icons.

2. Click **Recovery** ➙ **Open System Restore**. Then, follow the on-screen instructions.

Restore your files from a backup

Note: If you use the File History tool to restore your files from a backup, ensure that you backed up your data earlier with the tool.

1. Go to **Control Panel** and view by large icons or small icons.

2. Click **File History** ➙ **Restore personal files**. Then, follow the on-screen instructions.

Reset from Windows

Note: The items in the graphical user interface (GUI) might change without notice.

1. Ensure that an external display is connected to the computer.

2. Open the **Start** menu, and then click **Settings** ➙ **Update & Security** ➙ **Recovery**.

3. In the **Reset this PC** section, click **Get started**.

4. Select **Remove everything** ➙ **Just remove my files** ➙ **Reset**. Then, your computer will reset to its factory state within a few hours.

   Notes:

   - Reset option **Keep my files** is not supported.

   - Please do not turn off or restart your computer during the reset.

   - It is normal that ThinkSmart Controller will go blank for a while during the reset process.

Reset from BIOS

Note: The items in the graphical user interface (GUI) might change without notice.

1. Ensure that an external display is connected to the computer.

2. Ensure that a keyboard is connected to the computer.

3. Restart your computer. At the beginning of the boot process, keep pressing F11 on the keyboard until Windows recovery environment opens.

4. Select **Troubleshoot** ➙ **Reset this PC** ➙ **Remove everything** ➙ **Just remove my files** ➙ **Reset**. Then, your computer will reset to its factory state within a few hours.

   Notes:

- Reset option **Keep my files** is not supported.
- Please do not turn off or restart your computer during the reset.
- It is normal that ThinkSmart Controller will go blank for a while during the reset process.

Use advanced options

1. Open the **Start** menu, and then click **Settings ➙ Update & security ➙ Recovery**.
2. In the **Advanced startup** section, click **Restart now ➙ Troubleshoot ➙ Advanced options**.
3. Select a preferred option, and then follow the on-screen instructions.

Windows automatic recovery

Note: Ensure that your computer is connected to ac power during the recovery process.

The Windows recovery environment on your computer operates independently from the Windows 10 operating system. It enables you to recover or repair the operating system even if the Windows 10 operating system fails to start.

After two consecutive failed boot attempts, the Windows recovery environment starts automatically. Then, you can choose repair and recovery options by following the on-screen instructions.

Create and use a recovery USB device

It is recommended that you create a recovery USB drive as early as possible as a backup for the Windows recovery programs. With the recovery USB drive, you can troubleshoot and fix the problems even if the preinstalled Windows recovery programs are damaged. If you did not create a recovery USB drive as a precautionary measure, you can contact Lenovo Customer Support Center and purchase one from Lenovo. For a list of the Lenovo Support phone numbers for your country or region, go to:
https://smartsupport.lenovo.com/supportphonelist

Create a recovery USB drive

Attention: The creation process deletes anything stored on the USB drive. To avoid data loss, make a backup copy of all the data that you want to keep.

1. Ensure that your computer is connected to ac power.
2. Prepare a USB drive with capacity of at least 16 GB. The actual USB capacity required depends on the size of the recovery image.
3. Connect the prepared USB drive to the computer.
4. Type `recovery` in the search box. Then, click **Create a recovery drive**.
5. Click **Yes** in the User Account Control window to allow the Recovery Media Creator program to start.
6. In the Recovery Drive window, follow the on-screen instructions to create a recovery USB drive.

Use the recovery USB drive

If your computer cannot be started, go to Chapter 10 "Help and support" on page 47 first to try to solve the problem by yourself. If the problem persists, use the recovery USB drive to recover your computer.

1. Ensure that your computer is connected to ac power.
2. Connect the recovery USB drive to the computer.
3. Turn on or restart the computer. When the logo screen is displayed, press F12. The Boot Menu window opens.

4. Select the recovery USB drive as the boot device. Then, follow the on-screen instructions to complete the process.

Update the device driver

Attention: Reinstalling device drivers will change the current configuration of the computer.

You should download the latest driver for a component when you notice poor performance from that component or when you added a component. This action might eliminate the driver as the potential cause of a problem. Download and install the latest driver by one of the following methods:

- From the Lenovo Support Web site:

  Go to https://smartsupport.lenovo.com/ and select the entry for your computer. Then, follow the on-screen instructions to download and install necessary drivers and software.

- From Windows Update:

  Note: The device drivers provided by Windows Update might not be tested by Lenovo. It is recommended that you get device drivers from Lenovo.

  1. Open the **Start** menu.
  2. Click **Settings ➙ Update & Security ➙ Windows Update**.
  3. Follow the on-screen instructions.

Chapter 10. Help and support

This chapter provides help and support information for your product.

Note: ThinkSmart One is referred to as "Computer" in this chapter.

Register with Lenovo

To register with Lenovo, ensure that device is connected to the Internet. Then, go to http://www.lenovo.com/register and follow the instructions on the screen to enter the required information into Lenovo database.

The information enables Lenovo to contact you when there is a recall or other severe problem and provide quicker service when you call Lenovo for help. In addition, some locations offer extended privileges and services to registered users.

CRU replacement

Customer Replaceable Units (CRUs) are parts that can be upgraded or replaced by the customer. Lenovo computers contain the following types of CRUs:

- **Self-service CRUs:** Refer to parts that can be installed or replaced easily by customer themselves or by trained service technicians at an additional cost.
- **Optional-service CRUs:** Refer to parts that can be installed or replaced by customers with a greater skill level. Trained service technicians can also provide service to install or replace the parts under the type of warranty designated for the customer's machine.

If you intend on installing the CRU, Lenovo will ship the CRU to you. CRU information and replacement instructions are shipped with your product and are available from Lenovo at any time upon request. You might be required to return the defective part that is replaced by the CRU. When return is required: (1) return instructions, a prepaid shipping label, and a container will be included with the replacement CRU; and (2) you might be charged for the replacement CRU if Lenovo does not receive the defective CRU within thirty (30) days of your receipt of the replacement CRU. For full details, see the Lenovo Limited Warranty documentation at:
https://www.lenovo.com/warranty/llw_02

Refer to the following CRU list for your device.

Self-service CRUs

- Cable door
- Rubber foot
- Wall mount bracket, screws and nuts
- 135 W power adapter and power cord
- Controller unit

Self-help resources

Use the following self-help resources to learn more about the product and troubleshoot problems.

Resources	How to access?
Product documentation: • Documentation in the box • This *Guide* • *Regulatory Notice*	Go to https://smartsupport.lenovo.com/. Then, follow the on-screen instructions to filter out the documentation you want.
Lenovo Support Web site with the latest support information of the following: • Drivers and software • Diagnostic solutions • Guides and manuals • Frequently asked questions • Product and service warranty • Product and parts details • Recovery	https://smartsupport.lenovo.com/
Windows help information	• Open the **Start** menu and click **Get Help** or **Tips**. • Use Windows Search or the Cortana® personal assistant. • Microsoft support Web site: https://support.microsoft.com
Accessibility information	Go to https://www.lenovo.com/accessibility
Microsoft Teams Rooms, Zoom Rooms	Go to https://support.lenovo.com/solutions/ht514061
ThinkSmart Manager Services	Go to https://support.lenovo.com/solutions/tsm

Additional services

Thank you, Lenovo customer, for your purchase of a ThinkSmart One.

During and after the warranty period, you can purchase additional services from Lenovo at: https://pcsupport.lenovo.com/warrantyupgrade. Service availability and service name might vary by country or region.

We expect you will have years of productive meeting experiences with our collaboration solution. To assist you in getting this collaboration solution installed in your environment, we have included two of our most popular ThinkSmart services: Deploy and Maintain.

Customer Action

You must register this service with Lenovo so a service technician can contact you to schedule initial deployment service: https://lenovosmartofficeservices.com

To register, please provide the contact information for the person we should engage with, along with purchase information (place and date of purchase along with sales order or invoice number).

Included Services

• **Deploy**: A ThinkSmart service to help setup, configure and integrate collaboration solution devices into your environment. All deployments include full documentation reports after complete.

- **Maintain**: A one-year (renewable) maintenance contract where technicians will assist with updates and device changes and provide easy to follow Do's and Don'ts. Device operability health check ins will ensure collaboration solution is healthy and running smoothly. Redeployment of solution, if required, into a different meeting space is included.

Call Lenovo

If you have tried to correct the problem yourself and still need help, you can call Lenovo Customer Support Center.

Before you contact Lenovo

Prepare the following before you contact Lenovo:

1. Record the problem symptoms and details:

   - What is the problem? Is it continuous or intermittent?
   - Any error message or error code?
   - What operating system are you using? Which version?
   - Which software applications were running at the time of the problem?
   - Can the problem be reproduced? If so, how?

2. Record the system information:

   - Product name
   - Machine type and serial number (on the bottom of the product)

Lenovo Customer Support Center

During the warranty period, you can call Lenovo Customer Support Center for help.

Telephone numbers

For a list of the Lenovo Support phone numbers for your country or region, go to:
https://smartsupport.lenovo.com/supportphonelist

Note: Phone numbers are subject to change without notice. If the number for your country or region is not provided, contact your Lenovo reseller or Lenovo marketing representative.

Services available during the warranty period

- Problem determination - Trained personnel are available to assist you with determining if you have a hardware problem and deciding what action is necessary to fix the problem.
- Lenovo hardware repair - If the problem is determined to be caused by Lenovo hardware under warranty, trained service personnel are available to provide the applicable level of service.
- Engineering change management - Occasionally, there might be changes that are required after a product has been sold. Lenovo or your reseller, if authorized by Lenovo, will make selected Engineering Changes (ECs) that apply to your hardware available.

Services not covered

- Replacement or use of parts not manufactured for or by Lenovo or nonwarranted parts
- Identification of software problem sources
- Configuration of UEFI BIOS as part of an installation or upgrade
- Changes, modifications, or upgrades to device drivers
- Installation and maintenance of network operating systems (NOS)
- Installation and maintenance of programs

For the terms and conditions of the Lenovo Limited Warranty that apply to your Lenovo hardware product, see the Lenovo Limited Warranty documentation at: https://www.lenovo.com/warranty/llw_02

The LLW also is preinstalled on ThinkSmart One. To access the LLW, go to the following directory:

C:\Windows\System32\oobe\info\default

Appendix A. Compliance information

For more compliance information, refer to Regulatory Notice at https://smartsupport.lenovo.com and *Generic Safety and Compliance Notices* at https://smartsupport.lenovo.com/docs/generic_notices_smart. The *Generic Safety and Compliance Notices* is also preinstalled on ThinkSmart One. To access the file, go to the following directory:

C:\Windows\System32\Safety & Compliance Notices

Certification-related information

Product name	Machine type
ThinkSmart One	12BU, 12BV, 12BY, 12CH

Further compliance information related to your product is available at https://www.lenovo.com/compliance

Operating environment

Maximum altitude (without pressurization)
- Operating: From -15.2 m (-50 ft) to 3048 m (10 000 ft)
- Storage: From -15.2 m (-50 ft) to 10 668 m (35 000 ft)

Temperature
- Operating: From 10°C (50°F) to 35°C (95°F)
- Storage in original shipping packaging: From -20°C (-4°F) to 60°C (140°F)
- Storage without packaging: From -10°C (14°F) to 60°C (140°F)

Note: If your product is stored or transported in temperatures less than 10°C (50°F), allow the product to rise slowly to an optimal operating temperature before use. This process might take up to two hours. Using the product in a lower operating temperature might result in irreparable damage to your product.

Relative humidity
- Operating: 20%-80% (non-condensing)
- Storage: 20%–90% (non-condensing)

Appendix B. Notices and trademarks

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