Slide 1		
Slide 2		Before we discuss about the topic, you may think how this topic impacts a customer and why they'll contact you. Here's an explanation - if a customer is facing an issue with audio, they may get frustrated and contact you. **There could be two scenarios**: The product is newly purchased, and audio issue started showing up, or The product was purchased some time back and audio issue has started showing up now **What they'll expect from you**: That you'll help them replace the product, or That you'll make them aware where to get it repaired for free, or That you'll help them fix the issue over the phone/chat, if that's possible

Slide 3		**Well, your role is simple**: Understand the issue and gauge if that can be solved over the call or chat If it can't be, then check if it is under warranty and tell them where it can be either repaired or replaced If they need to spend money for repair, clearly convey the reason for it What if the customer don't want to pay for the repair: Tell them the company's warranty policy If they still insist, consult your TL / mentor
Slide 4		How this topic is relevant to you? Well, if you can help resolve the issue, you'll have these benefits: Good KPI Good customer satisfaction ratings Become an example in front of your colleagues

Slide 3 content:

What's your role?

Well, your role is simple:
- Understand the issue and gauge if that can be solved over the call or chat
- If it can't be, then check if it is under warranty and tell them where it can be either repaired or replaced
- If they need to spend money for repair, clearly convey the reason for it

What if the customer don't want to pay for the repair:
- Tell them the company's warranty policy
- If they still insists, consult your TL / mentor

Slide 4 content:

Relevance

If you can help resolve the issue, you'll have these benefits:
- Good KPI
- Good CSAT
- Become an example in front of your colleagues

Slide 5	**Basic steps to be followed** Probe, understand, perform primary checklist Lenovo 5	
Slide 6	**Primary checklist** The primary checklist involves: • Asking them about the device on which the issue had occurred • Asking them whether the issue is with the speakers or headset • Asking them if they're using audio jack • Asking them if they've connected external HDMI device 	The primary checklist involves: Asking them about the device on which the issue had occurred Asking them whether the issue is with the speakers or headset Asking them if they're using audio jack Asking them if they've connected external HDMI device
Slide 7	**Scenarios of audio issues** Types and definitions Lenovo 7	

Slide 8	**Audio issues - scenarios** Here are some common audio issues that are frequently highlighted by customers: • No audio from built-in Speakers • Audio Port not working • Both built-in Speaker and Audio Port not working • Low Sound Quality from the system which is shipped with Mono Speaker (Single Speaker) • Distorted sound from built-in Speakers • Dolby Related Issues 	Here are some common audio issues that are frequently highlighted by customers:
Slide 9	**Scenario 1 - No audio from built-in Speakers** Hi! My name is Jason. I need to know why am I not able to hear anything from the built-in speakers? It's been more than 5 days this issue is happening. Hi Jason. Thank you for contacting us. My name is Sophie. I know how frustrating it could be. Let me try and help you. Let's see what steps Sophie will take to help Jason. 	Here's a scenario of no audio from built-in speakers: Customer – "Hi! My name is Jason. I need to know why am I not able to hear anything from the built-in speakers? It's been more than 5 days this issue is happening." Agent – "Hi Jason. Thank you for contacting us. My name is Sophie. I know how frustrating it could be. Let me try and help you." Let's see what steps Sophie will take to help Jason.

Slide 10		**Step 1**: Make sure that the Audio is not Muted Method 1: Use Function Key to unmute audio (function key might vary, hence check HMM) Method 2: Unmute audio using Windows Option i.e., Click the speaker icon on the taskbar. In the popup window click on the speaker icon to unmute
Slide 11		**Step 2**: Increase the volume level Method 1: Use Function Key to increase the volume (function key might vary, hence check HMM) Method 2: Increase the volume using Windows Option i.e., Click the speaker icon on the taskbar Move volume bar to the right side

Slide 12	Scenario 1 - No audio from built-in Speakers Step 3: • Ask customer to connect earphone / headphone / external speaker to the audio port and check if they can hear any audio • If yes, but not with an In-built speaker, probably it is a hardware issue • However, continue with the further troubleshooting steps to eliminate software failure	**Step 3**: Ask customer to connect earphone / headphone / external speaker to the audio port and check if they can hear any audio If yes, but not with an In-built speaker, probably it is a hardware issue However, continue with the further troubleshooting steps to eliminate software failure
Slide 13	Scenario 1 - No audio from built-in Speakers Step 4: • Run the troubleshoot option to fix the Speaker issue ➤ Right-click the speaker icon on the taskbar ➤ Select <u>Troubleshoot sound problems</u>	**Step 4**: Run the troubleshoot option to fix the Speaker issue Right-click the speaker icon on the taskbar Select <u>Troubleshoot sound problems</u>

Slide 14		**Step 5**: Refresh Audio Drivers Go to Device Manager >> Expand, Sound, Video and Game control >> Uninstall Realtek High Definition Audio (Do not check the check box stating "Delete the driver software for this device) >> Now, either click on "Scan for hardware changes" Icon or Restart the system
Slide 15		**Step 6**: Update Latest Audio driver, BIOS, chipset, IMEI and I/O drivers Update Windows to Latest version <u>Note</u>: If in-built Speakers doesn't work after performing all these troubleshooting steps, dispatch built-in speakers

Slide 16		Here's a scenario of audio port not working. Customer – "Hi! My name is Leticia. I'm facing an issue with the audio port. Whenever I connect my headphone, I can't hear anything." Agent – "Hi Leticia. Thank you for contacting us. My name is John. I know how frustrating it could be. Let me try and help you." Let's see what steps John will take to help Leticia.
Slide 17	 **Step 1:** • Tell the customer to try use a different earphone / headphone • If they don't have a spare earphone / headphone, ask them to test the same earphone / headphone by connecting it to the different system or smartphone • If this doesn't solve the issue, look at the next steps 	**Step 1**: Tell the customer to try use a different earphone / headphone If they don't have a spare earphone / headphone, ask them to test the same earphone / headphone by connecting it to the different system or smartphone If this doesn't solve the issue, look at the next steps

| Slide 18	**Scenario 2 – Audio port not working**	Here are the following steps;
	Following Steps:	Check with customer if there is any loose connection or damage on the Audio port
	2. Check with customer if there is any loose connection or damage on the Audio port	
	3. Ask customer to share the snapshots of Audio port for validation	Ask customer to share the snapshots of Audio port for validation
	4. Ask customer whether the Built-in Speaker are working or not	
	5. If the earphone / headphone aren't the issue and built-in speaker are working fine, probably it can be a hardware issue. However, continue with the further troubleshooting steps to eliminate software failure	Ask customer whether the Built-in Speaker are working or not
	6. Run the troubleshoot option to fix the speaker issue	
	7. Refresh Audio Drivers	If the earphone / Headphone aren't the issue and Built-in speaker are working fine, probably it can be a hardware issue. However, continue with the further troubleshooting steps to eliminate software failure
	8. Update Latest Audio driver, BIOS, chipset, IMEI and I/O drivers	
	9. Update Windows to Latest version	
	Note: If in-built Speakers doesn't work after performing all these troubleshooting steps, dispatch part accordingly	
		Run the troubleshoot option to fix the Speaker issue
		Refresh Audio Drivers
		Update Latest Audio driver, BIOS, chipset, IMEI and I/O drivers
		Update Windows to Latest version
		Note: If in-built Speakers doesn't work after performing all these troubleshooting steps, dispatch part accordingly

Slide 19		Here's another scenario where the complaint is that the built-in speaker is not working. Agent – "I hope the issue is resolved. Is there anything else I can help you with?" Customer – "John, I've another issue with my daughter's laptop. Both the audio port and the in-built speaker are not working. Can you help?" Of course, John will have to verify the serial number and other details first, but let's see what he'll do in this case:
Slide 20		If customer reports Both built in Speaker and Audio port not working, perform all the troubleshooting steps mentioned before, and in case issue doesn't resolve, follow the below resolution: Perform System Reset (Preloaded system) or OSRI (DOS system) Dispatch Motherboard
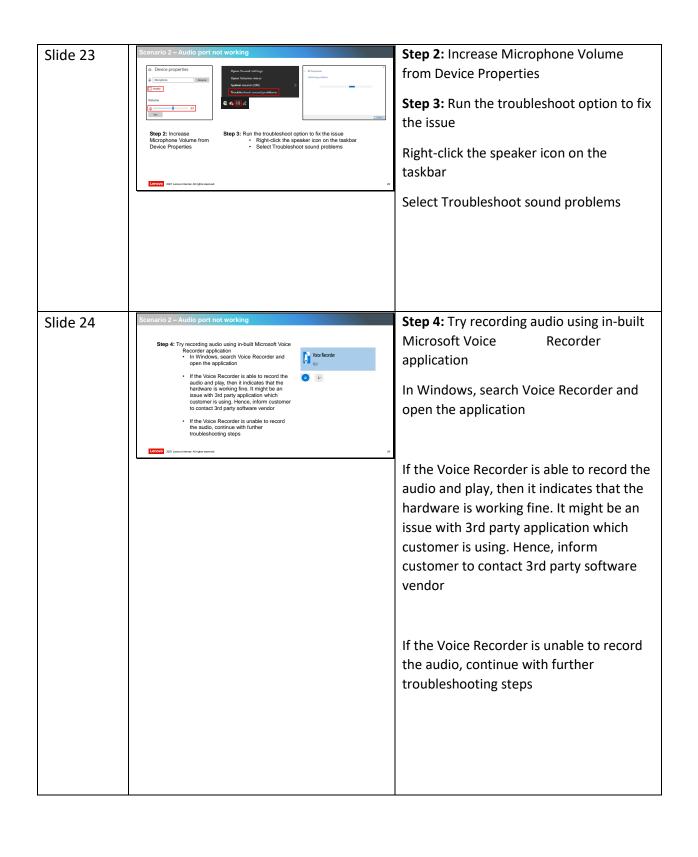
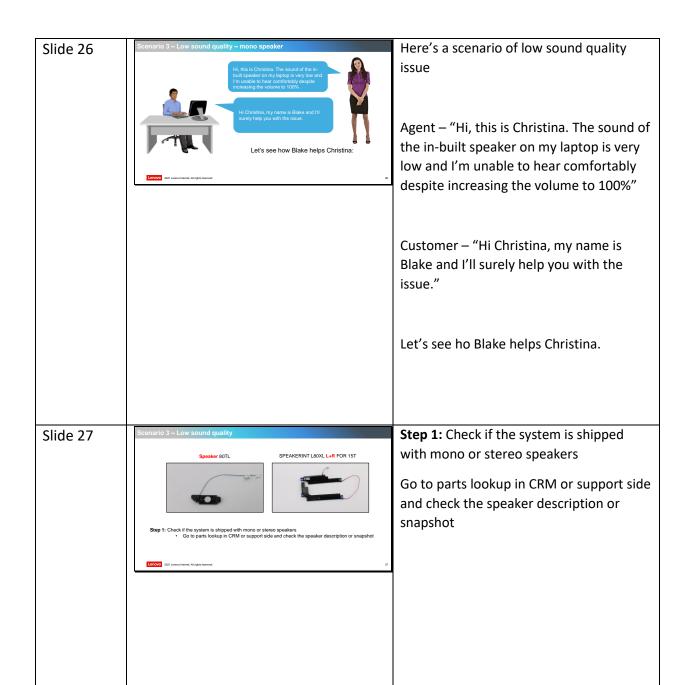|		
Slide 21	 Scenario 2 – Audio port not working I hope the issue is resolved. Is there anything else I can help you with? Well, my daughter is saying that the built-in microphone is also not working. She has Windows 10. Can you help? Let's see what he'll do in this case: 2021 Lenovo Internal. All rights reserved.	Here's another scenario where the complaint is that the built-in speaker is not working. Agent – "I hope the issue is resolved. Is there anything else I can help you with?" Customer – "Well, my daughter is saying that the built-in microphone is also not working. She has Windows 10. Can you help?" Let's see what he'll do in this case:

Slide 22	
	Scenario 2 – Audio port not working
	
	Step 1: Make sure that the microphone is not disabled
	• Method 1:
	
	Use Function Key [× F4] to enable microphone
	
	(function key might vary, hence check HMM)
	
	• Method 2: Enable Microphone
	  o Right-click the speaker icon on the taskbar.
	  o Select Open Sound settings.
	  o Select Device properties.
	  o Make sure Disable is not checked for the microphone
	
	Note: If its Think system, make sure microphone is enabled in BIOS.
	
	2021 Lenovo Internal. All rights reserved.
		Step 1: Make sure that the microphone is not disabled
		
		Method 1: Use Function Key to enable microphone (function key might vary, hence check HMM)
		
		Method 2: Enable Microphone
		
		Right-click the speaker icon on the taskbar.
		
		Select Open Sound settings.
		
		Select Device properties.
		
		Make sure Disable is not checked for the microphone
		
		Note: If it is Think system, make sure microphone is enabled in BIOS.

Slide 23		**Step 2:** Increase Microphone Volume from Device Properties **Step 3:** Run the troubleshoot option to fix the issue Right-click the speaker icon on the taskbar Select Troubleshoot sound problems
Slide 24		**Step 4:** Try recording audio using in-built Microsoft Voice Recorder application In Windows, search Voice Recorder and open the application If the Voice Recorder is able to record the audio and play, then it indicates that the hardware is working fine. It might be an issue with 3rd party application which customer is using. Hence, inform customer to contact 3rd party software vendor If the Voice Recorder is unable to record the audio, continue with further troubleshooting steps

| Slide 25 | | **Step 5:** Try recording audio using earphone / headphone microphone

If audio is getting recorded with an external devices like earphone/headphone but not with an In-built microphone, probably it can be a hardware issue. However, continue with the further troubleshooting steps to eliminate software failure

Step 6: Refresh audio drivers

Step 7: Update latest Audio driver, BIOS, chipset, IMEI and I/O drivers

Step 8: Update Windows to latest version

Note:

If in-built microphone doesn't work after performing all these troubleshooting steps, dispatch part accordingly. |

Slide 26		Here's a scenario of low sound quality issue Agent – "Hi, this is Christina. The sound of the in-built speaker on my laptop is very low and I'm unable to hear comfortably despite increasing the volume to 100%" Customer – "Hi Christina, my name is Blake and I'll surely help you with the issue." Let's see ho Blake helps Christina.
Slide 27		**Step 1:** Check if the system is shipped with mono or stereo speakers Go to parts lookup in CRM or support side and check the speaker description or snapshot

Slide 28	Scenario 3 – Low sound quality **Step 2:** If the system has been shipped with mono speaker, then you need to inform the customer: • Systems with mono speaker gives less audio output compared to stereo speaker • When we play audio file with audio level above 50% - 60%, then sound quality decreases and they can hear abnormal / distorted sound • Inform customer that the system is working as per design and hence part replacement is not recommended Speaker 80TL 	**Step 2:** If the system has been shipped with mono speaker, then you need to inform the customer: Systems with mono speaker gives less audio output compared to stereo speaker When we play audio file with audio level above 50% - 60%, then sound quality decreases and they can hear abnormal / distorted sound Inform customer that the system is working as per design and hence part replacement is not recommended
Slide 29	Scenario 3 – Low sound quality SPEAKERINT L80XL L+R FOR 15T **Step 3:** If the system has been shipped with stereo speaker, then you need to inform the customer that the product needs to be sent to the service center for repair. **Note:** Only if the driver has been checked to be updated and still the issue persists. 	**Step 3:** If the system has been shipped with stereo speaker, then you need to inform the customer that the product needs to be sent to the service center for repair. **Note:** Only if the driver has been checked to be updated and still the issue persists.

| Slide 30 | | Here's a scenario where the customer has another issue.

Agent – "I hope I could solve your issue. Is there anything else I can help you with?"

Customer – "Well, there's another issue. I observe that the sound from the built-in speakers is distorted. I'm not sure if that's a hardware issue. Can you help?"

Let's see how Blake helps Christina. |
|---|---|---|
| Slide 31 | | Here are the steps to be followed when distorted sound issue is reported:

Check if the system is shipped with Mono or Stereo speaker:

If system is shipped with Mono Speaker educate customer accordingly

If it's shipped with Stereo speaker continue with the further troubleshooting

Ask the customer

Which media player they use to play any video/MP4

Confirm the percent of volume level

If VLC media player is used with volume level >100%, it may have damaged the speakers. Consult L1.5 for further assistance |

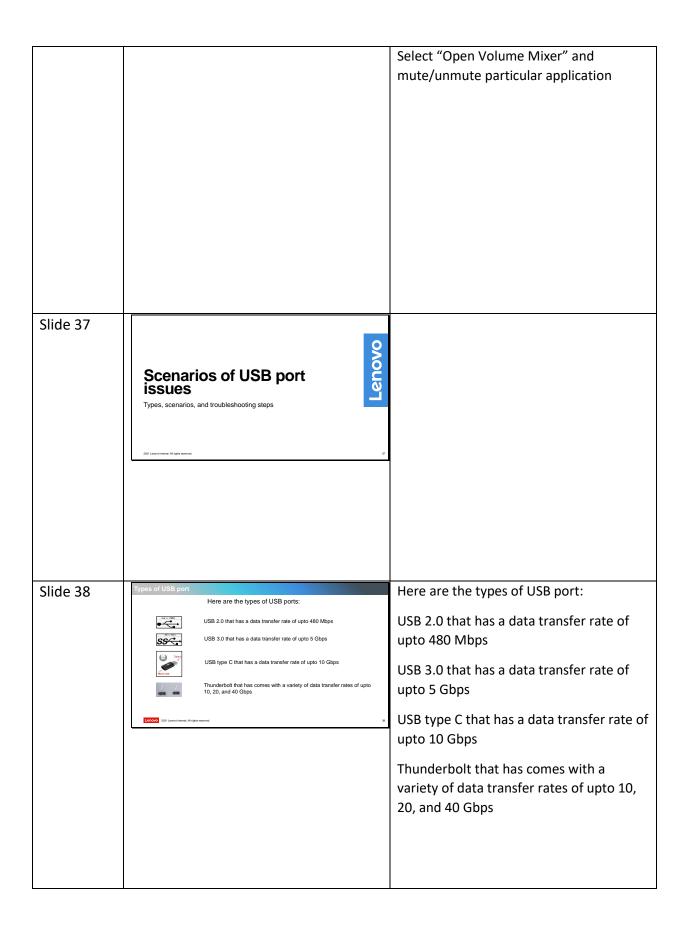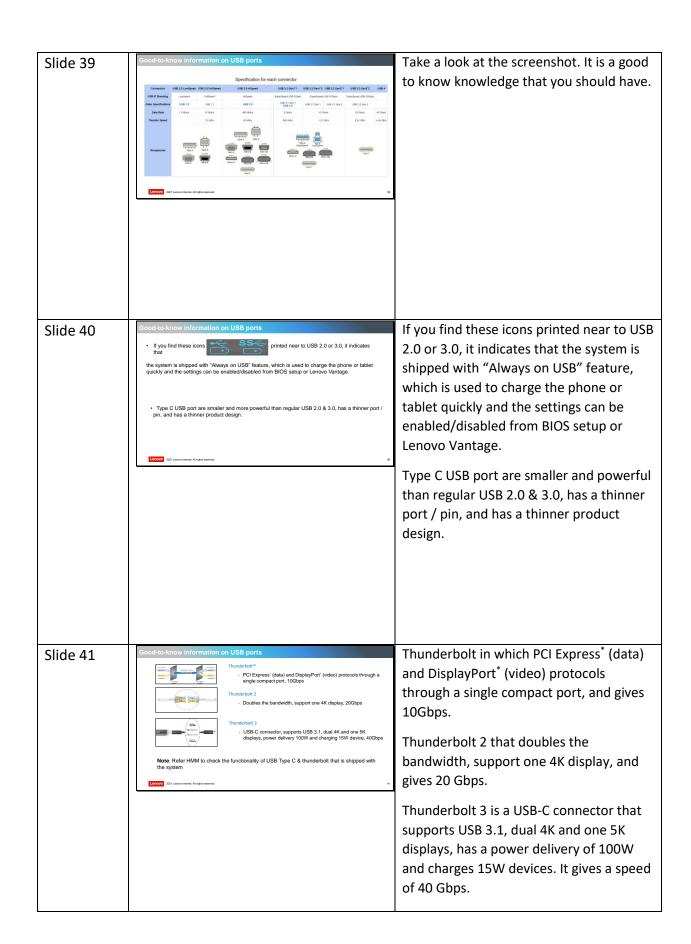|		
		If VLC or any other media player is used with volume level <100%, continue with further troubleshooting
		Check whether the Audio port is working fine
		If the Audio port is working fine and the issue is only with Built-in speaker, probably it can be a Speaker issue
		However, continue with the further troubleshooting steps to eliminate software failure
Slide 32		Here's another scenario related Dolby sound issue.
		Customer – "Hi, my name is Kim. I bought a system and the speakers that supports Dolby sound effect, but I don't get the effect anytime. What's wrong with the setting?"
		Agent – "Hey Kim, my name is Elisa. I can understand how you'd feel not able to listen to Dolby sound effect. Let me try and help you."
		Let's see how Elisa helps Kim.

|		
Slide 33	 Verify if the customer is using Windows 10. If yes, then inform the following: 1. In Windows 10, search for "Dolby" to open the Dolby Digital Plus software 2. Click the interface of Dolby Digital Plus to enable or disable Dolby, or 3. Configure the settings for Movie/Music/Game/Voice to get a better audio and media experience Dolby Digital Plus App 	Verify if the customer is using Windows 10. If yes, then inform the following: In Windows 10, search for "Dolby" to open the Dolby Digital Plus software Click the interface of Dolby Digital Plus to enable or disable Dolby, or Configure the settings for Movie/Music/Game/Voice to get a better audio and media experience
Slide 34	 If the Dolby Audio driver cannot start after upgrading to Windows10 and an error is displayed, then suggest the following steps: 1. Reinstall the audio drivers a) Device Manager >> Expand, Sound, Video and Game control >> Uninstall Realtek High Definition Audio >> check the check box stating "Delete the driver software for this device >> click Uninstall >> and restart the system b) Download and Install Latest Audio drivers from the support site and restart the system 	If the Dolby Audio driver cannot start after upgrading to Windows10 and an error is displayed, then suggest the following steps: Reinstall the audio drivers Device Manager >> Expand, Sound, Video and Game control >> Uninstall Realtek High Definition Audio >> check the check box stating "Delete the driver software for this device >> click Uninstall >> and restart the system Download and Install Latest Audio drivers from the support site and restart the system
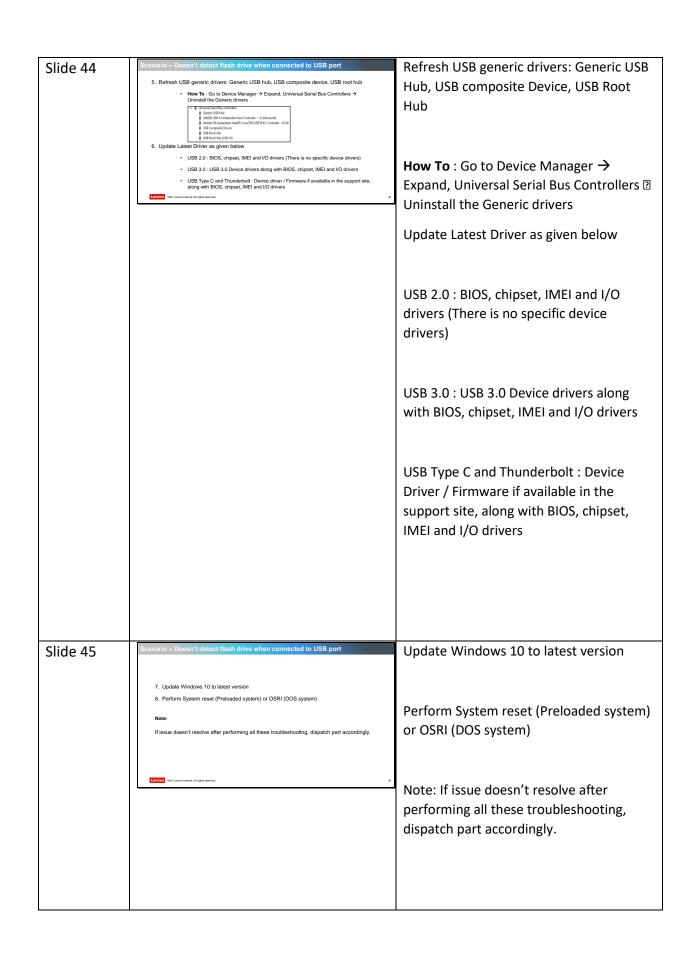
Slide 35		Once the drivers are reinstalled, ask them to go the path given below and install Dolby Home Theater software Path: c:\drivers\audio drivers\DS1 and install Dolby digital Plus HT If the Dolby Home Theater software is <u>not</u> shipped with in the Audio driver, ask them to try installing the Dolby application from Microsoft Store **Note**: Depending upon individual system configurations that can vary by model, the drivers may be stored on other drives such C, D, or E.
Slide 36		You can provide these additional information to customers: If the system has a Combo jack port, you need to connect a Combo jack supported headphone or earphone *** All Latest Ideapad and AIO system are shipped with Combo Audio jack port** You can mute / Unmute audio for a particular application Right-click the "speaker icon" on the taskbar

		Select "Open Volume Mixer" and mute/unmute particular application
Slide 37	**Scenarios of USB port issues** Types, scenarios, and troubleshooting steps Lenovo 37	
Slide 38	**Types of USB port** Here are the types of USB ports: USB 2.0 that has a data transfer rate of upto 480 Mbps USB 3.0 that has a data transfer rate of upto 5 Gbps USB type C that has a data transfer rate of upto 10 Gbps Thunderbolt that has comes with a variety of data transfer rates of upto 10, 20, and 40 Gbps Lenovo	Here are the types of USB port: USB 2.0 that has a data transfer rate of upto 480 Mbps USB 3.0 that has a data transfer rate of upto 5 Gbps USB type C that has a data transfer rate of upto 10 Gbps Thunderbolt that has comes with a variety of data transfer rates of upto 10, 20, and 40 Gbps

Slide 39		Take a look at the screenshot. It is a good to know knowledge that you should have.
Slide 40		If you find these icons printed near to USB 2.0 or 3.0, it indicates that the system is shipped with "Always on USB" feature, which is used to charge the phone or tablet quickly and the settings can be enabled/disabled from BIOS setup or Lenovo Vantage.

Type C USB port are smaller and powerful than regular USB 2.0 & 3.0, has a thinner port / pin, and has a thinner product design. |
| Slide 41 | | Thunderbolt in which PCI Express* (data) and DisplayPort* (video) protocols through a single compact port, and gives 10Gbps.

Thunderbolt 2 that doubles the bandwidth, support one 4K display, and gives 20 Gbps.

Thunderbolt 3 is a USB-C connector that supports USB 3.1, dual 4K and one 5K displays, has a power delivery of 100W and charges 15W devices. It gives a speed of 40 Gbps. |

		Note: Refer HMM to check the functionality of USB Type C & thunderbolt that is shipped with the system.
Slide 42		Here is a scenario in which the flash drive isn't getting detected. Here's what the customer has to say: "Hi, my name is Kim. Whenever I connect the pen drive to the laptop, it doesn't get detected. What's wrong with the laptop?" Agent – "Hey Kim, my name is Elisa. I can understand how you'd feel not able to use the pen drive on your laptop. Let me try and help you." Let's see what Elisa needs to check and how can she help Kim.

| Slide 43 | Follow below troubleshooting steps:

1. Check how many USB ports are shipped with the system and their location
    • **How To** : Using technical guide or HMM (Hardware Maintenance Manual)
2. Ask customer which USB port is not working
3. Check if there is any damage on the USB ports
    • Ask user to share the snapshots of USB port for validation
4. Try to use different good quality USB Flash Driver (pen-drive)
    • If no spare USB Flash Drive → Test the same USB Flash Drive by connecting to the different USB ports or different system

 | Here are the steps that Elisa should follow:

Check how many USB ports are shipped with the system and their location

How To : Using Technical Guide or HMM (Hardware Maintenance Manual)

Ask customer which USB port is not working

Check if there is any damage on the USB ports

Ask user to share the snapshots of USB port for validation

Try to use different good quality USB Flash Driver (pen-drive)

If no spare USB Flash Drive → Test the same USB Flash Drive by connecting to the different USB ports or different system |

Slide 44	 5. Refresh USB generic drivers: Generic USB hub, USB composite device, USB root hub • **How To** : Go to Device Manager → Expand, Universal Serial Bus Controllers → Uninstall the Generic drivers Universal Serial Bus controllers Generic USB Hub Intel(R) USB 3.0 eXtensible Host Controller - 1.0 (Microsoft) Mobile 5th Generation Intel(R) Core(TM) USB EHCI Controller - 9CA6 USB Composite Device USB Root Hub USB Root Hub (USB 3.0) 6. Update Latest Driver as given below • USB 2.0 : BIOS, chipset, IMEI and I/O drivers (There is no specific device drivers) • USB 3.0 : USB 3.0 Device drivers along with BIOS, chipset, IMEI and I/O drivers • USB Type C and Thunderbolt : Device driver / Firmware if available in the support site, along with BIOS, chipset, IMEI and I/O drivers 	Refresh USB generic drivers: Generic USB Hub, USB composite Device, USB Root Hub **How To** : Go to Device Manager → Expand, Universal Serial Bus Controllers ⬚ Uninstall the Generic drivers Update Latest Driver as given below USB 2.0 : BIOS, chipset, IMEI and I/O drivers (There is no specific device drivers) USB 3.0 : USB 3.0 Device drivers along with BIOS, chipset, IMEI and I/O drivers USB Type C and Thunderbolt : Device Driver / Firmware if available in the support site, along with BIOS, chipset, IMEI and I/O drivers
Slide 45	 7. Update Windows 10 to latest version 8. Perform System reset (Preloaded system) or OSRI (DOS system) **Note:** If issue doesn't resolve after performing all these troubleshooting, dispatch part accordingly. 	Update Windows 10 to latest version Perform System reset (Preloaded system) or OSRI (DOS system) Note: If issue doesn't resolve after performing all these troubleshooting, dispatch part accordingly.

Slide 46	 	Here is a scenario in which the flash drive isn't getting detected. Here's what the customer has to say: "Hi, my name is Kim. Whenever I connect the pen drive to the laptop, it doesn't get detected. What's wrong with the laptop?" Agent – "Hey Kim, my name is Elisa. I can understand how you'd feel not able to use the pen drive on your laptop. Let me try and help you." Let's see what Elisa needs to check and how can she help Kim.
Slide 47		Here are the steps that Elisa should follow: Check how many USB ports are shipped with the system and their location **How To** : Using Technical Guide or HMM (Hardware Maintenance Manual) Ask customer which USB port is not working Check if there is any damage on the USB ports Ask user to share the snapshots of USB port for validation

		Try to use different good quality USB Flash Driver (pen-drive) If no spare USB Flash Drive → Test the same USB Flash Drive by connecting to the different USB ports or different system
Slide 48	**Summary** Now you'll be able to: • Explain audio and USB issues • Identify reasons that may have caused these issues • Relate the importance of following the PD guide every time • Provide step-by-step solutions to customers 	
Slide 49	Smarter technology for all **thanks.**	