Image Lenovo X1 Tablet Gen 3 for Win 10 v1809 using USBC Network Dongle

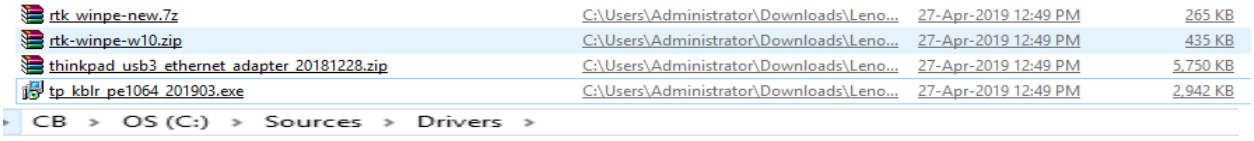
In this exercise, I will walk you through the process of setting up Lenovo X1 Tablet Generation 3 for Windows 10 v1809 imaging through Current Branch 1902. There are many things we have to complete before we can deploy and test Windows 10 image. Here are the details:

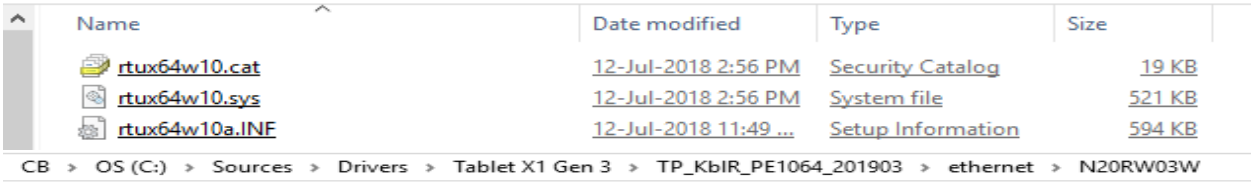
1. We have to import SCCM package that Lenovo has shared with the community
2. We have to import Ethernet Adapter drivers for boot image
3. Deploy Win 10 through the network using USBC Network Dongle – Please note, I will not be able to test this part as, I don't have a spare Lenovo X1 Tablet Gen 3 at home. I am more than happy to test and report the findings, if, RBC can provide one

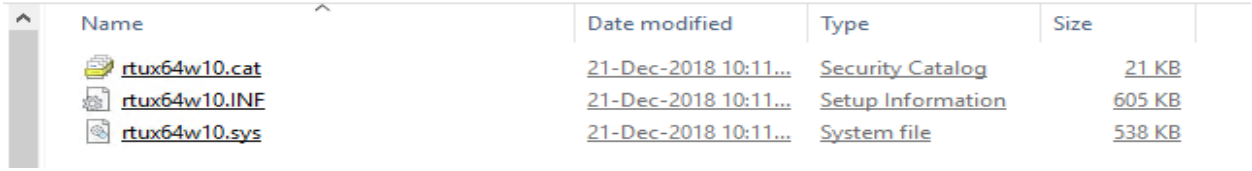
I will provide links for read, so you can download what is required and test in your environment.

https://pcsupport.lenovo.com/be/en/solutions/hf004081
https://pcsupport.lenovo.com/be/en/solutions/ht074984
https://pcsupport.lenovo.com/be/en/solutions/acc100324
https://support.lenovo.com/us/en/solutions/ht503932

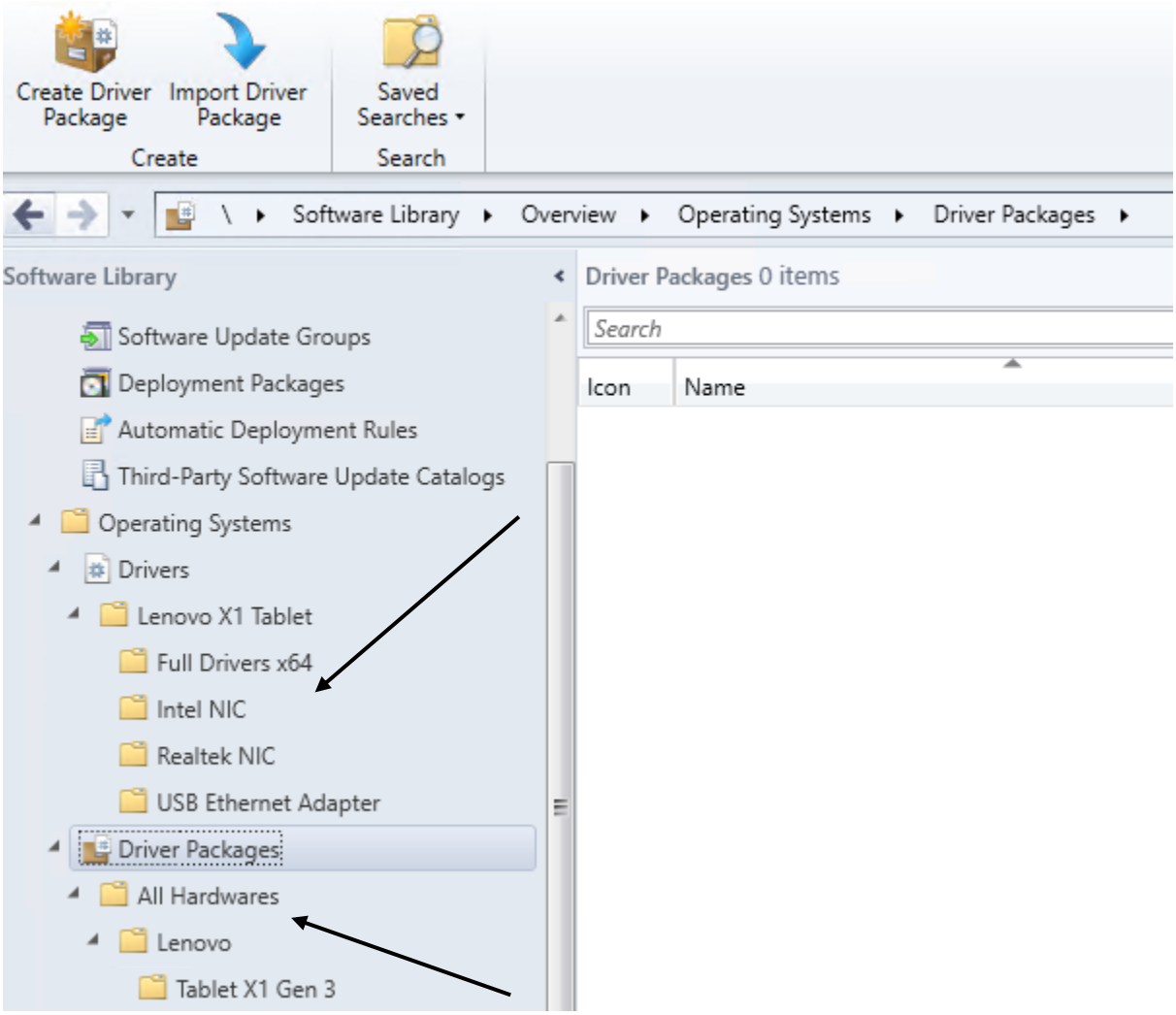
I downloaded and extracted the folders with these drivers to import for deployment through CB 1902. I am going to use Realtek that has necessary drivers to boot the tablet through the network using USBC Network dongle that was provided with the tablet. I will import the drivers to the boot image.

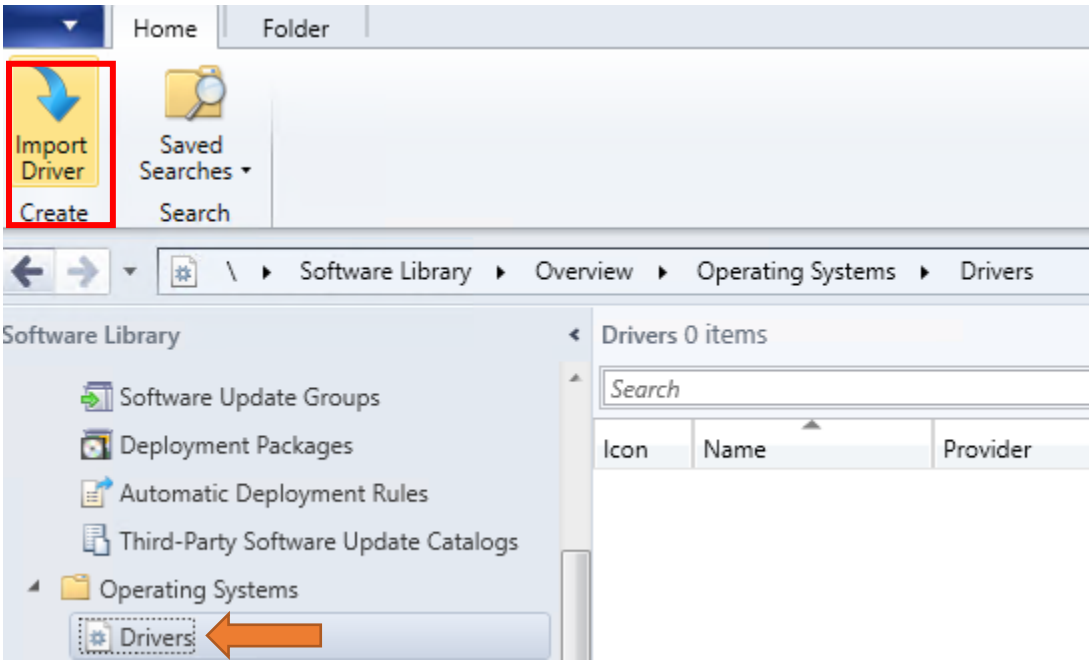


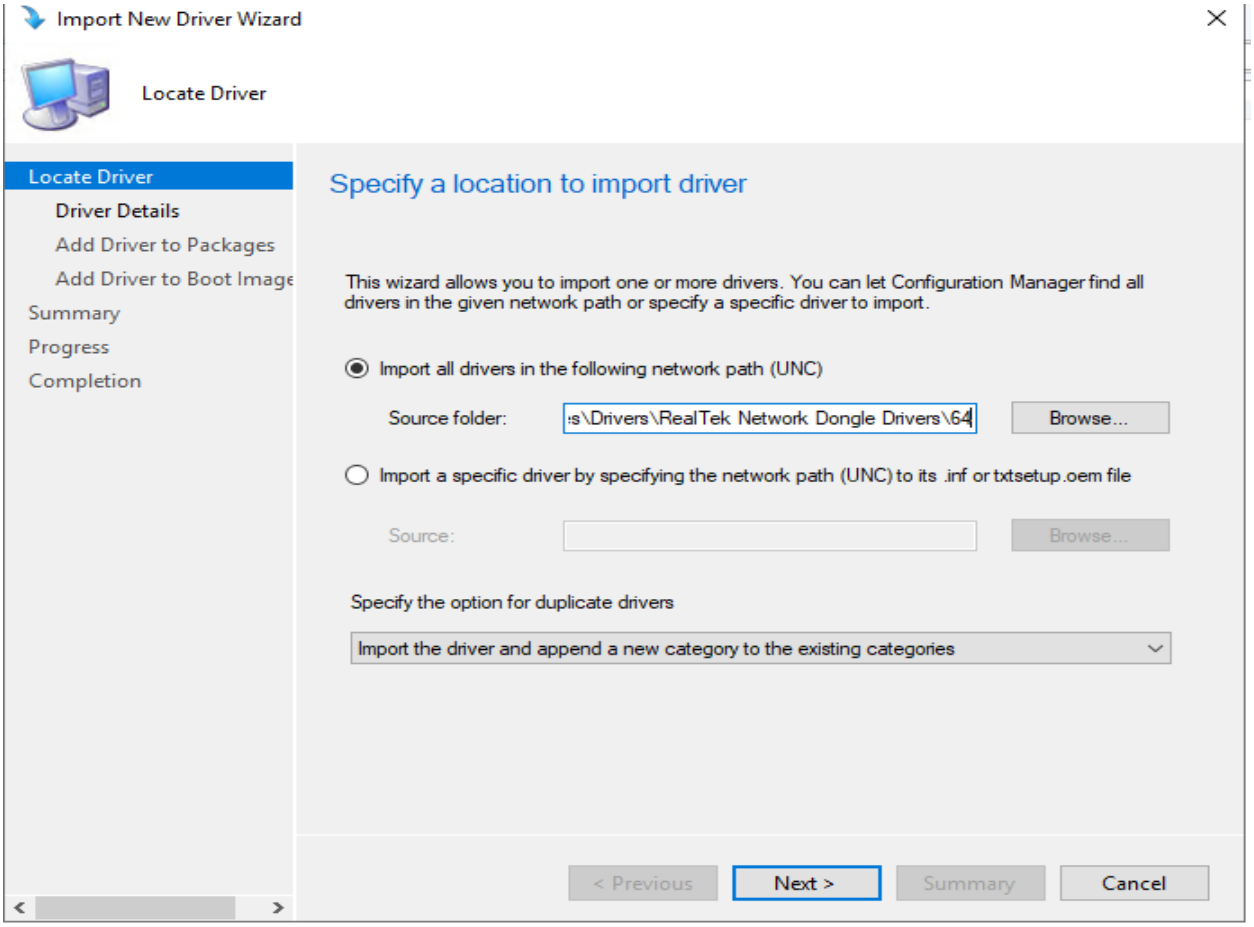


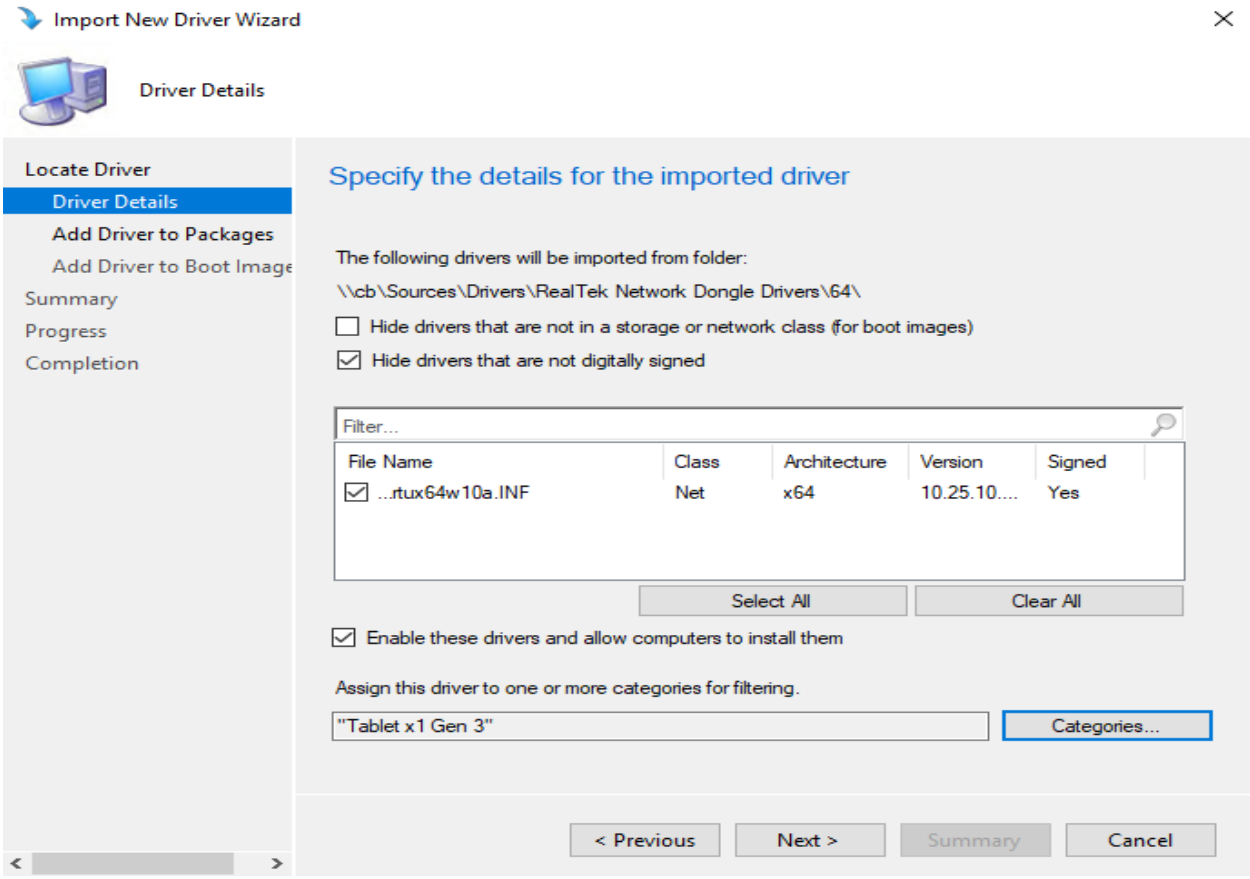


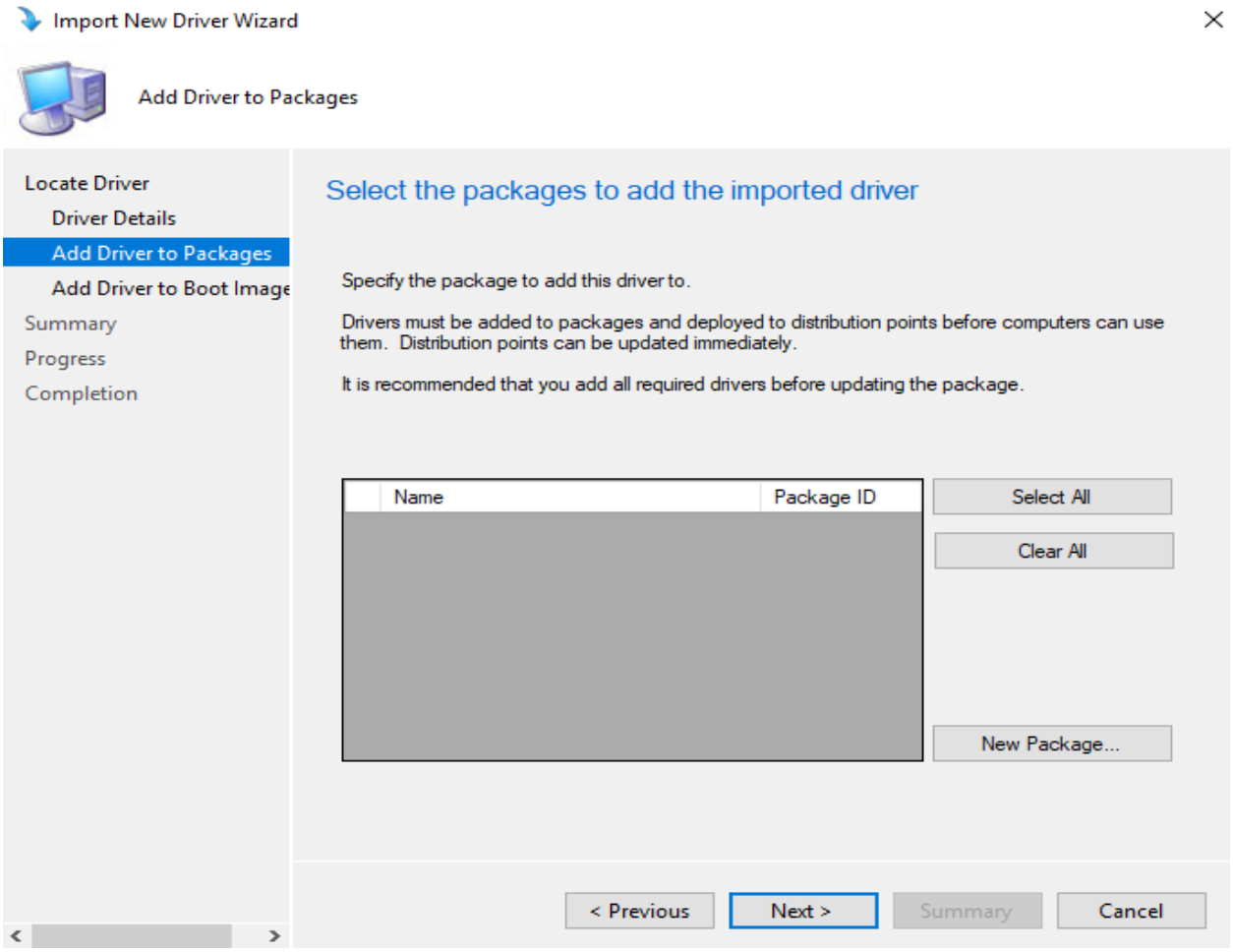
Now we have the required drivers. Will start importing the drivers to our boot images. Open Configuration Manager Console – Operating Systems – Drivers. **Below is our folder structure**.

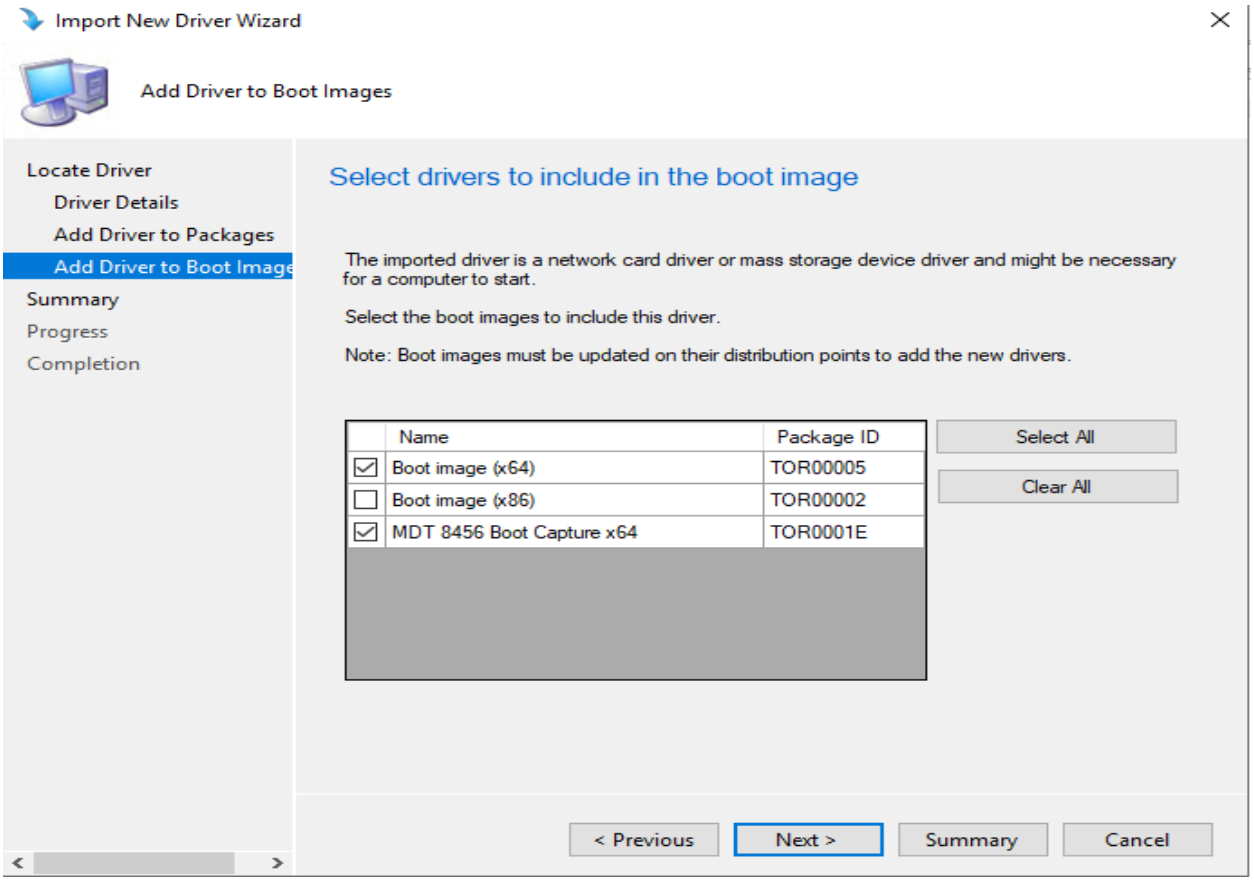


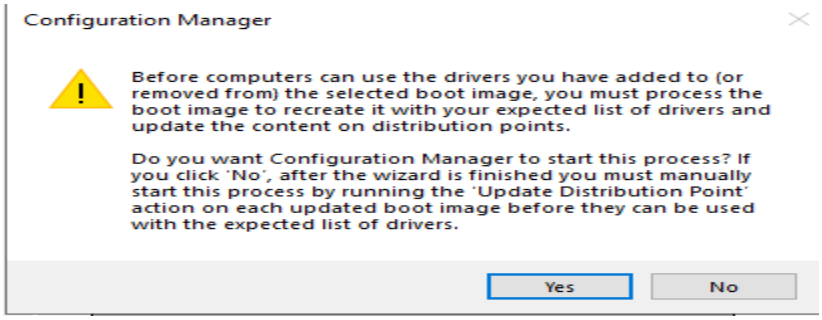


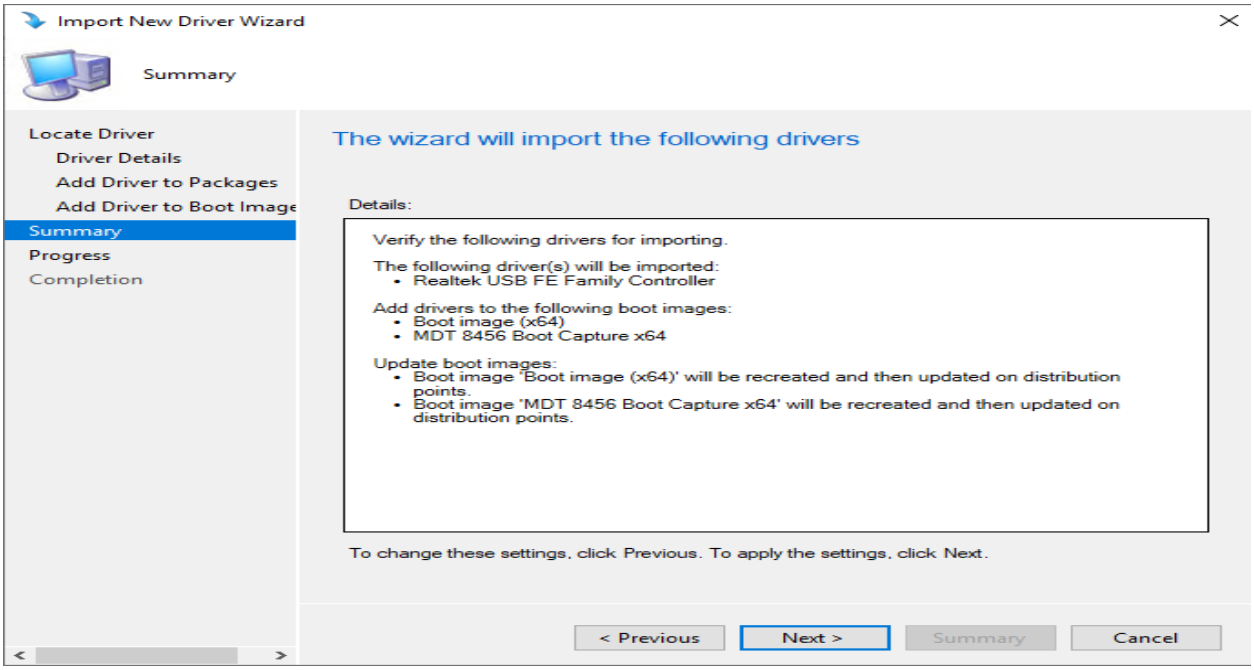

Import New Driver Wizard
Locate Driver
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
Specify a location to import driver
This wizard allows you to import one or more drivers. You can let Configuration Manager find all drivers in the given network path or specify a specific driver to import.
Import all drivers in the following network path (UNC)
Source folder:
s\Drivers\RealTek Network Dongle Drivers\64
Browse...
Import a specific driver by specifying the network path (UNC) to its .inf or txtsetup.oem file
Source:
Browse...
Specify the option for duplicate drivers
Import the driver and append a new category to the existing categories
< Previous
Next >
Summary
Cancel

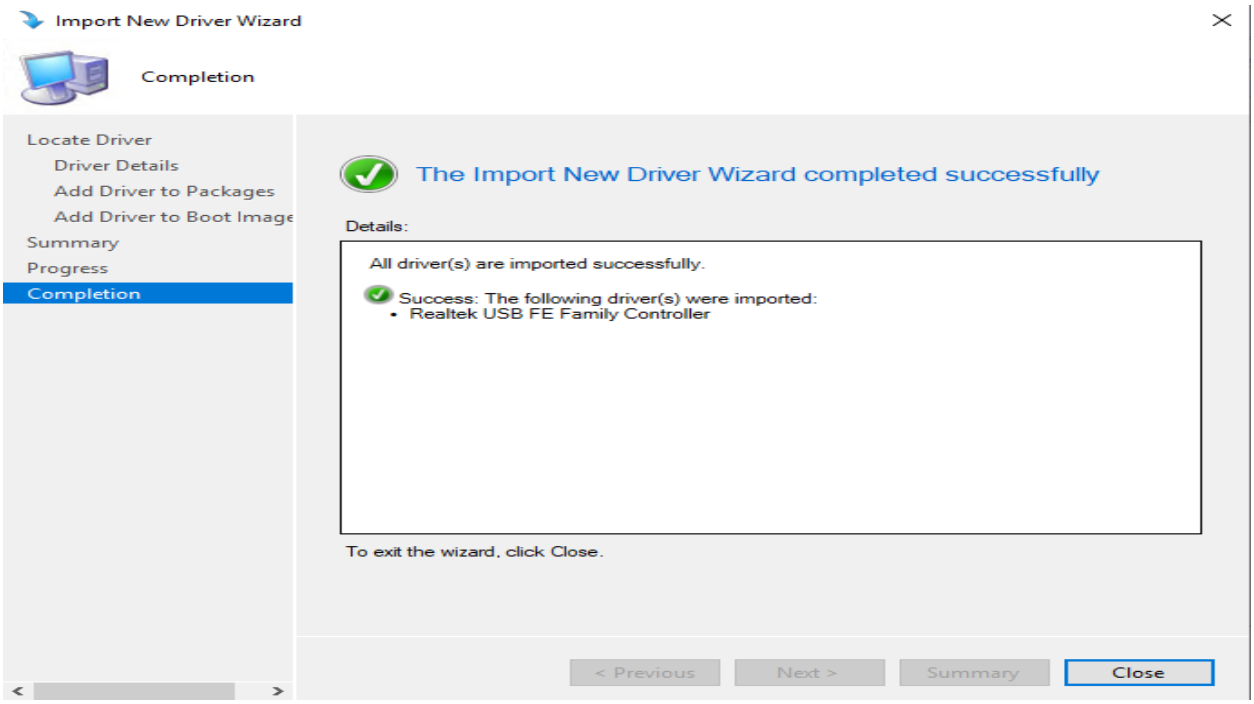

Import New Driver Wizard
Driver Details
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
Specify the details for the imported driver
The following drivers will be imported from folder:
\\cb\Sources\Drivers\RealTek Network Dongle Drivers\64\
Hide drivers that are not in a storage or network class (for boot images)
Hide drivers that are not digitally signed
Filter...
File Name
Class
Architecture
Version
Signed
...rtux64w10a.INF
Net
x64
10.25.10....
Yes
Select All
Clear All
Enable these drivers and allow computers to install them
Assign this driver to one or more categories for filtering.
"Tablet x1 Gen 3"
Categories...
< Previous
Next >
Summary
Cancel


Import New Driver Wizard
Add Driver to Packages
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
Select the packages to add the imported driver
Specify the package to add this driver to.
Drivers must be added to packages and deployed to distribution points before computers can use them. Distribution points can be updated immediately.
It is recommended that you add all required drivers before updating the package.
Name
Package ID
Select All
Clear All
New Package...
< Previous
Next >
Summary
Cancel


Import New Driver Wizard
Add Driver to Boot Images
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
Select drivers to include in the boot image
The imported driver is a network card driver or mass storage device driver and might be necessary for a computer to start.
Select the boot images to include this driver.
Note: Boot images must be updated on their distribution points to add the new drivers.
Name
Package ID
Boot image (x64)
TOR00005
Boot image (x86)
TOR00002
MDT 8456 Boot Capture x64
TOR0001E
Select All
Clear All
< Previous
Next >
Summary
Cancel

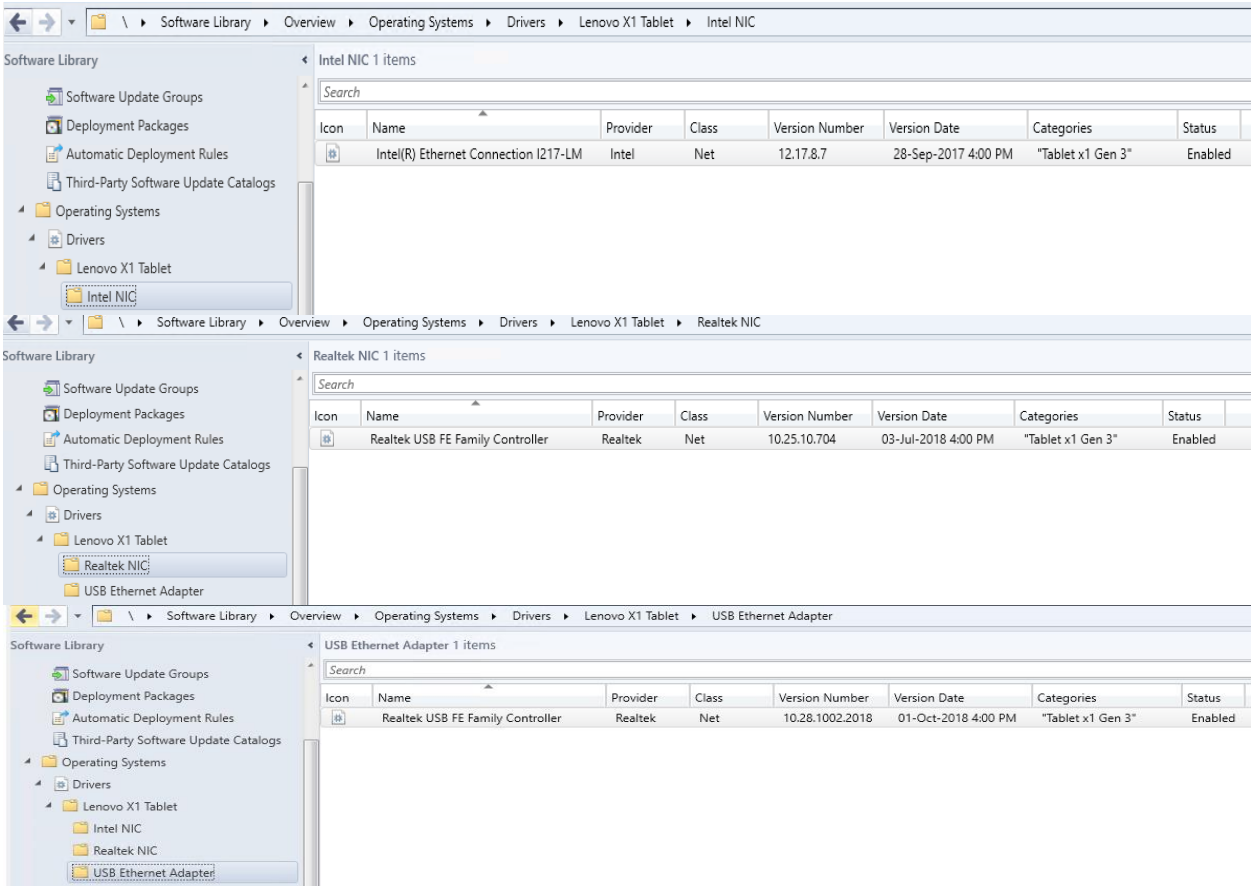




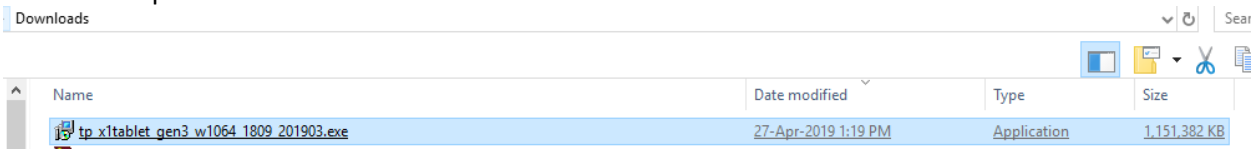


Repeat above same steps for other NIC drivers (USB Ethernet Adapter & Intel NIC)

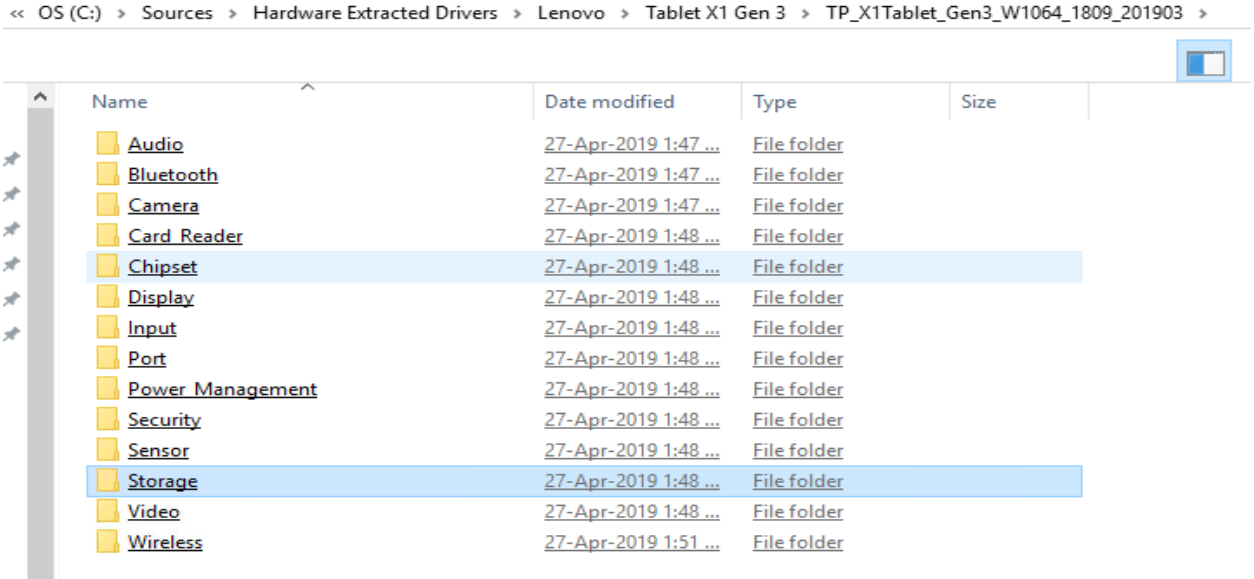
After importing try to do some house cleaning by moving the driver to sub folders, we created under Drivers. This will keep things organized for easy reference later.



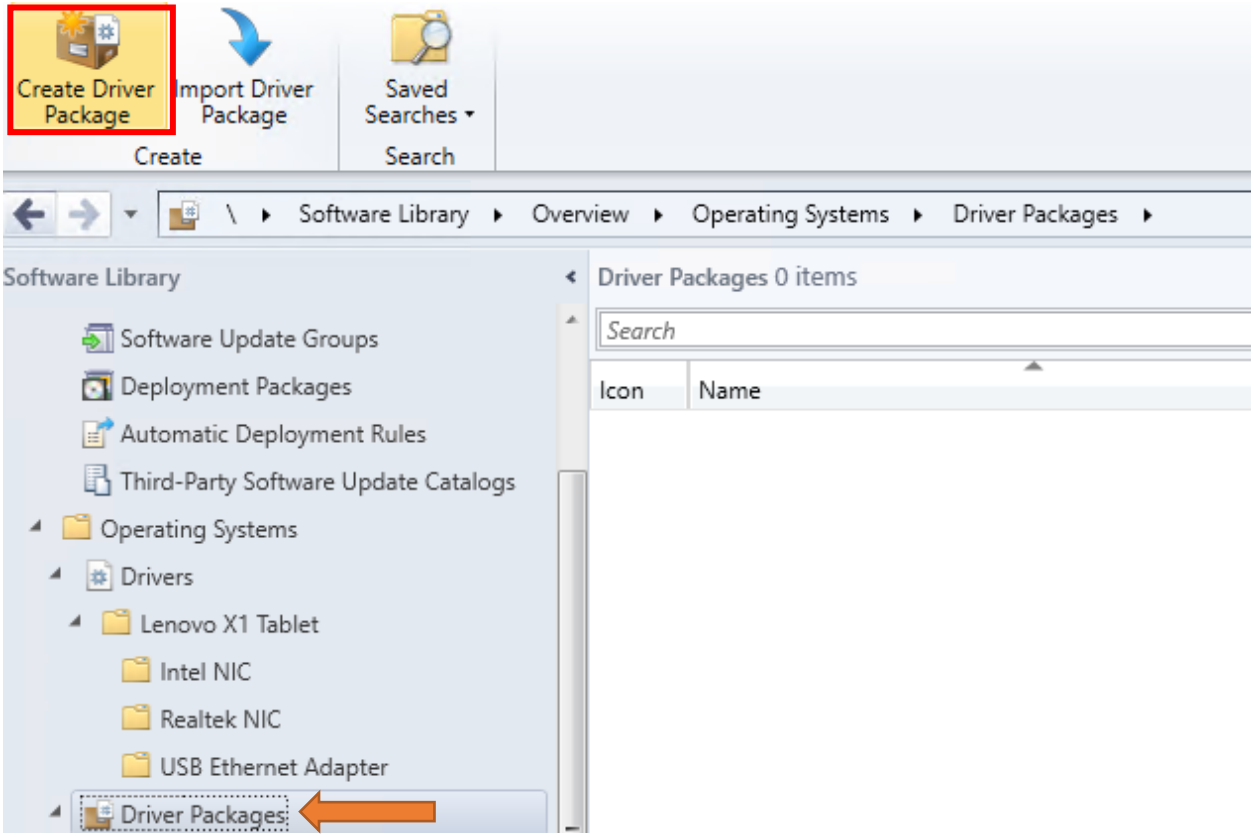
I have downloaded the entire driver package for X1 Tablet from Lenovo for Windows 10 v1809 from here - https://support.lenovo.com/us/en/downloads/ds502808 - Will import the driver package for use with task sequence later. These drivers are the entire drivers for X1 tablet that are needed for Win 10.

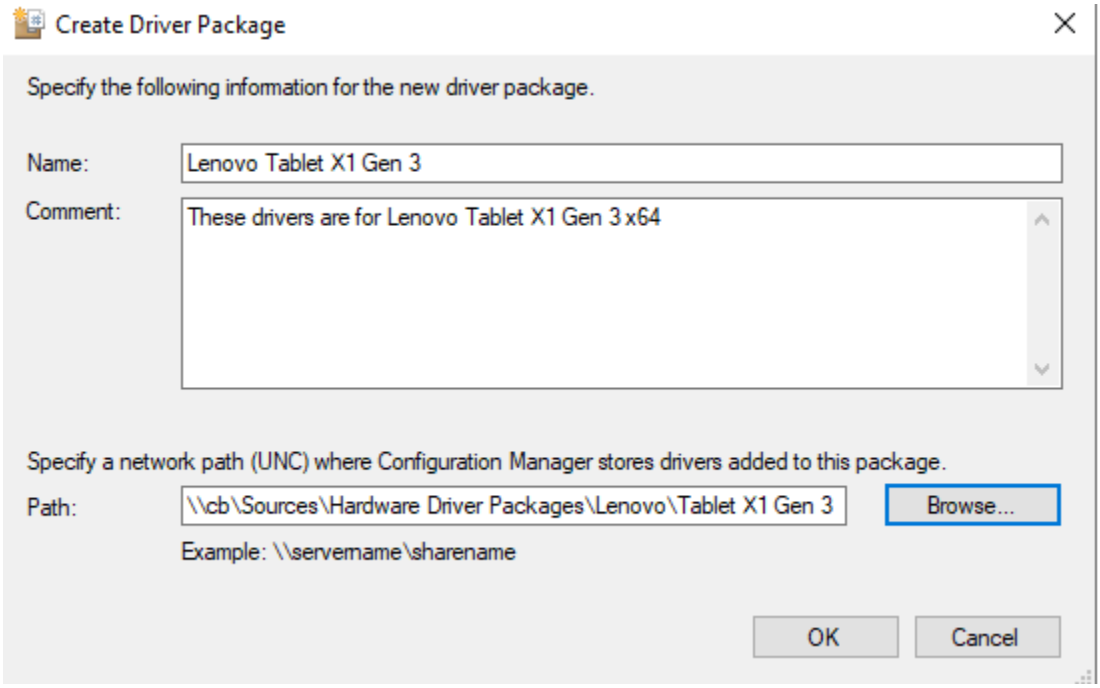


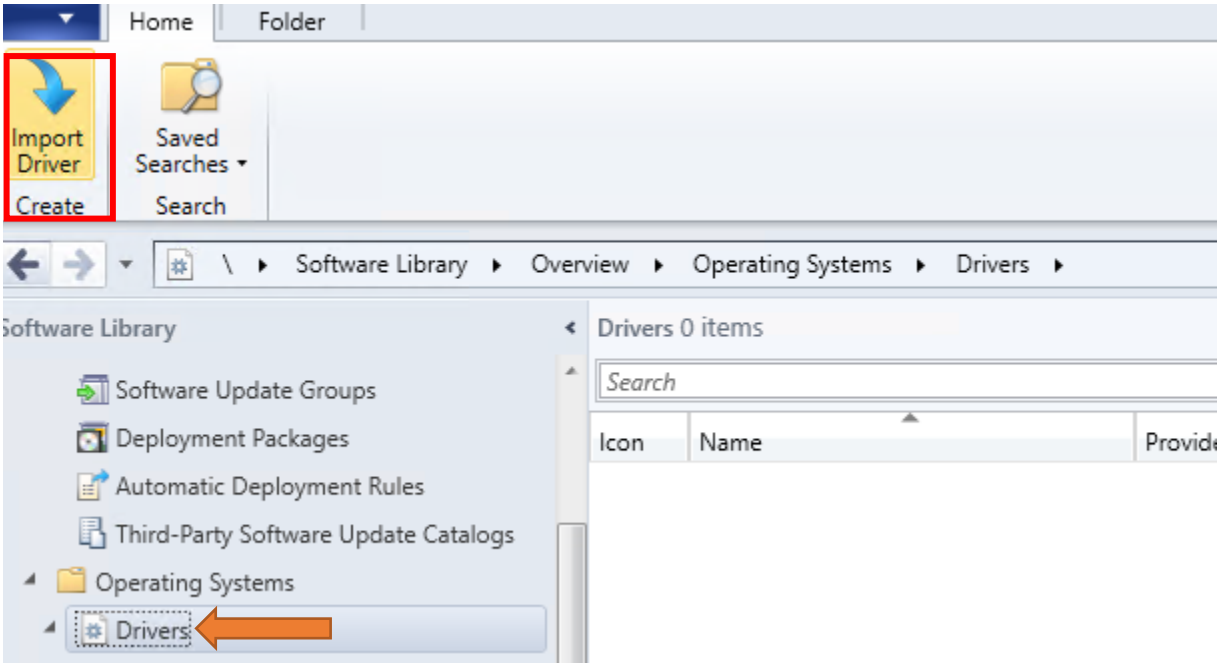
The extracted folders are copied to Sources folder.

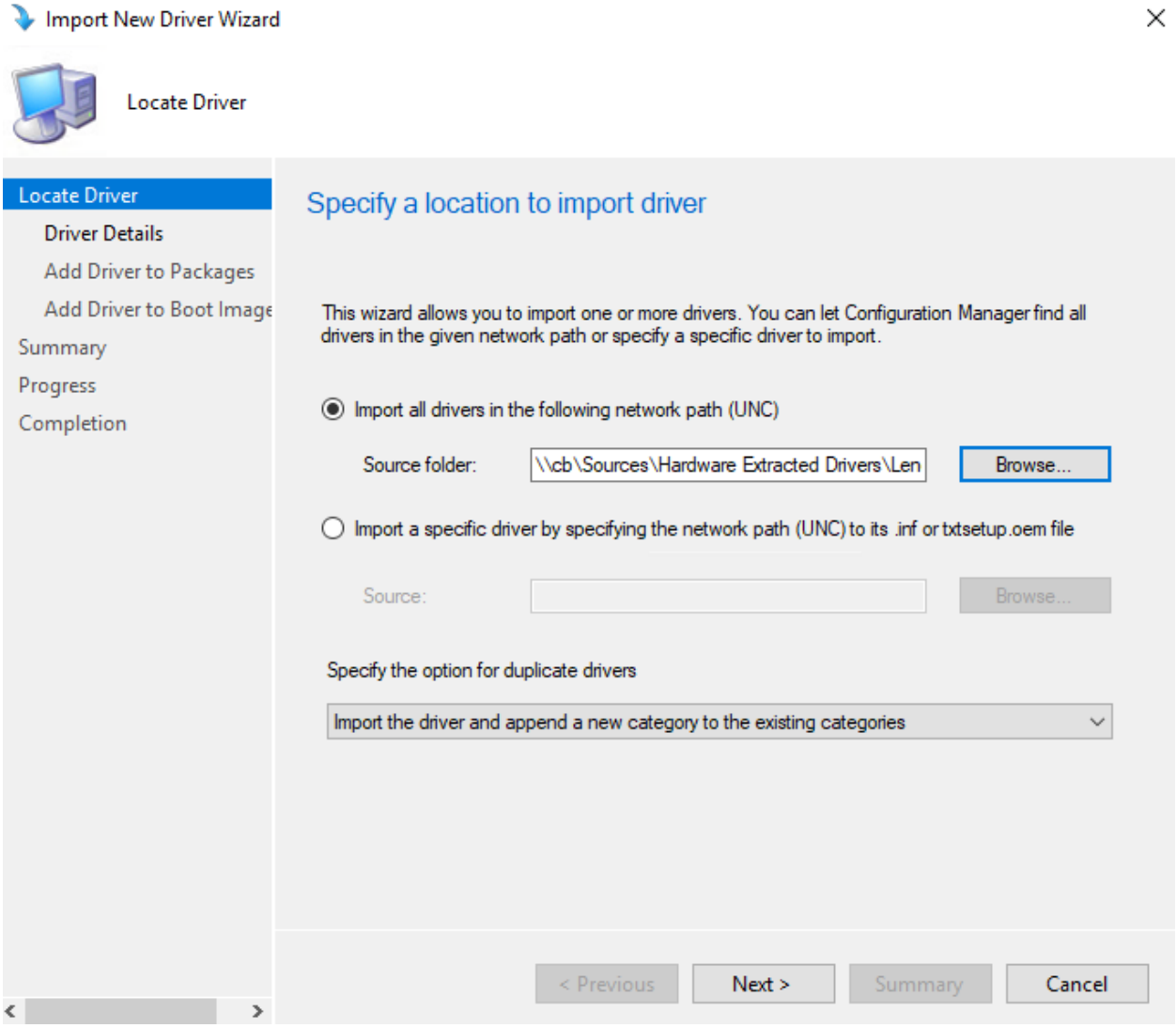


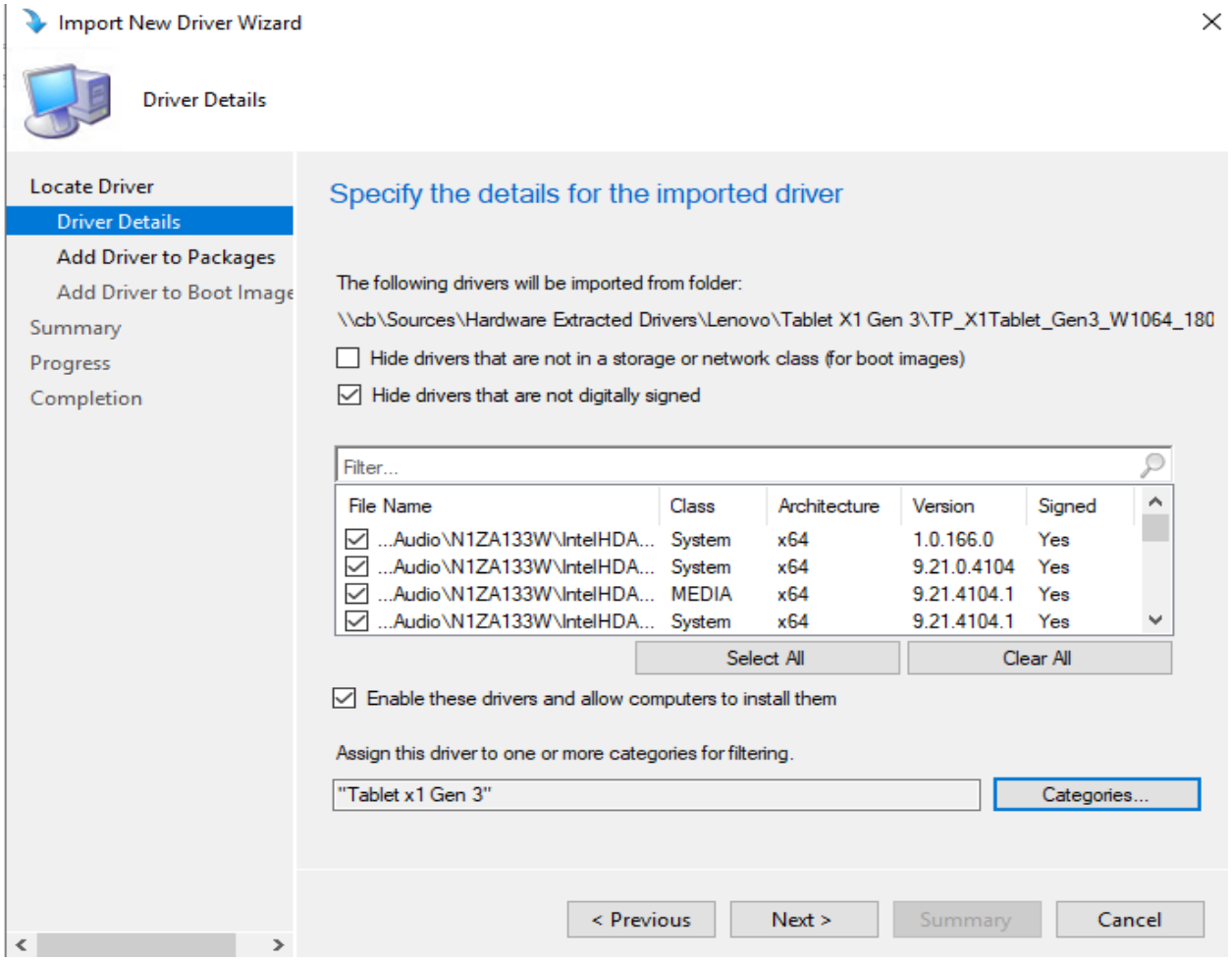
Now we will create a Driver Package for Tablet X1 Gen 3.

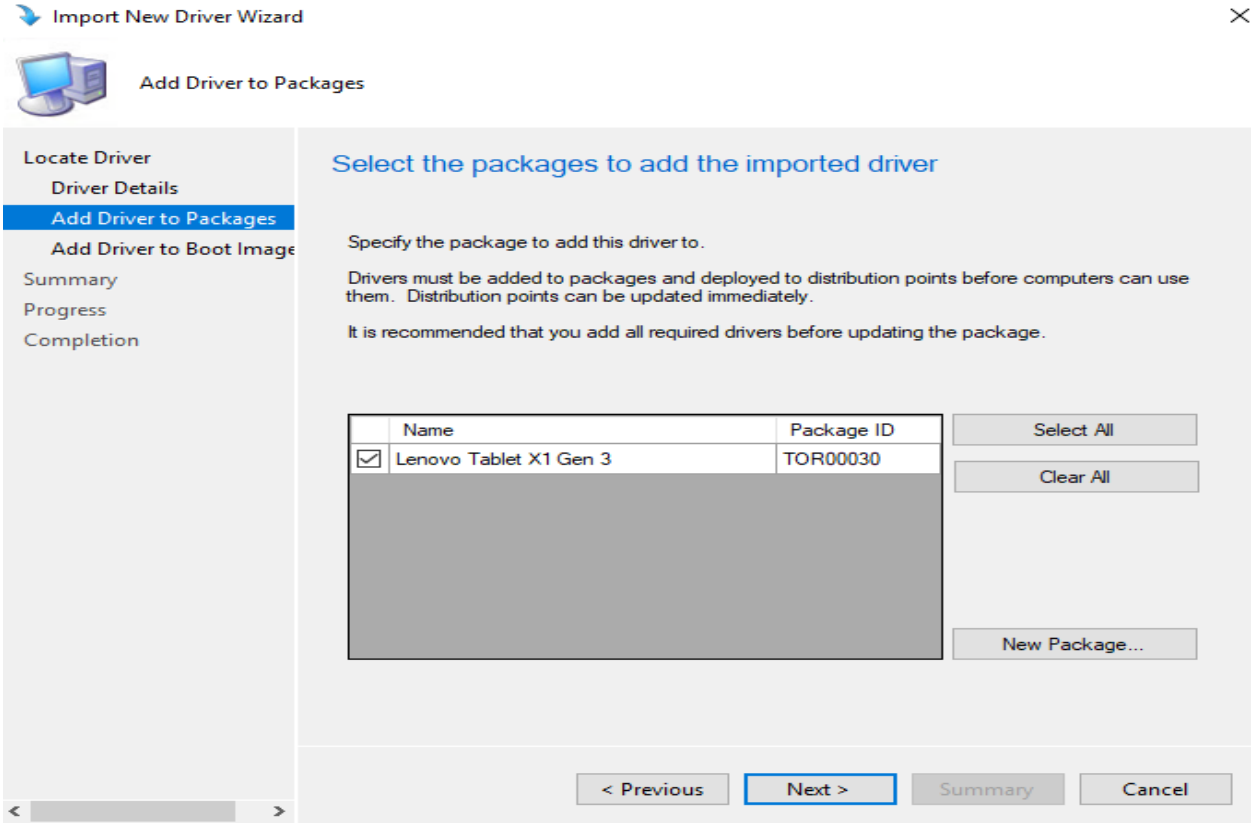


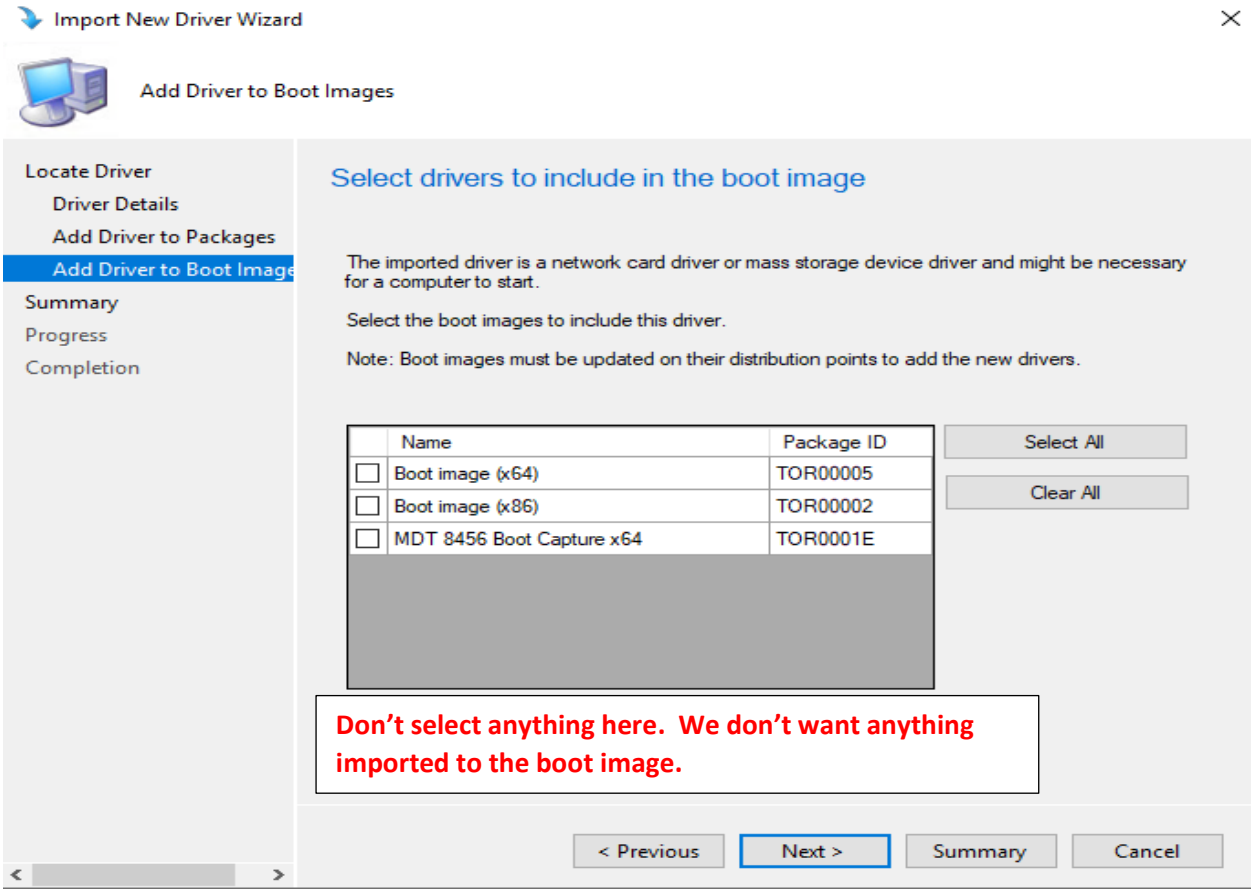


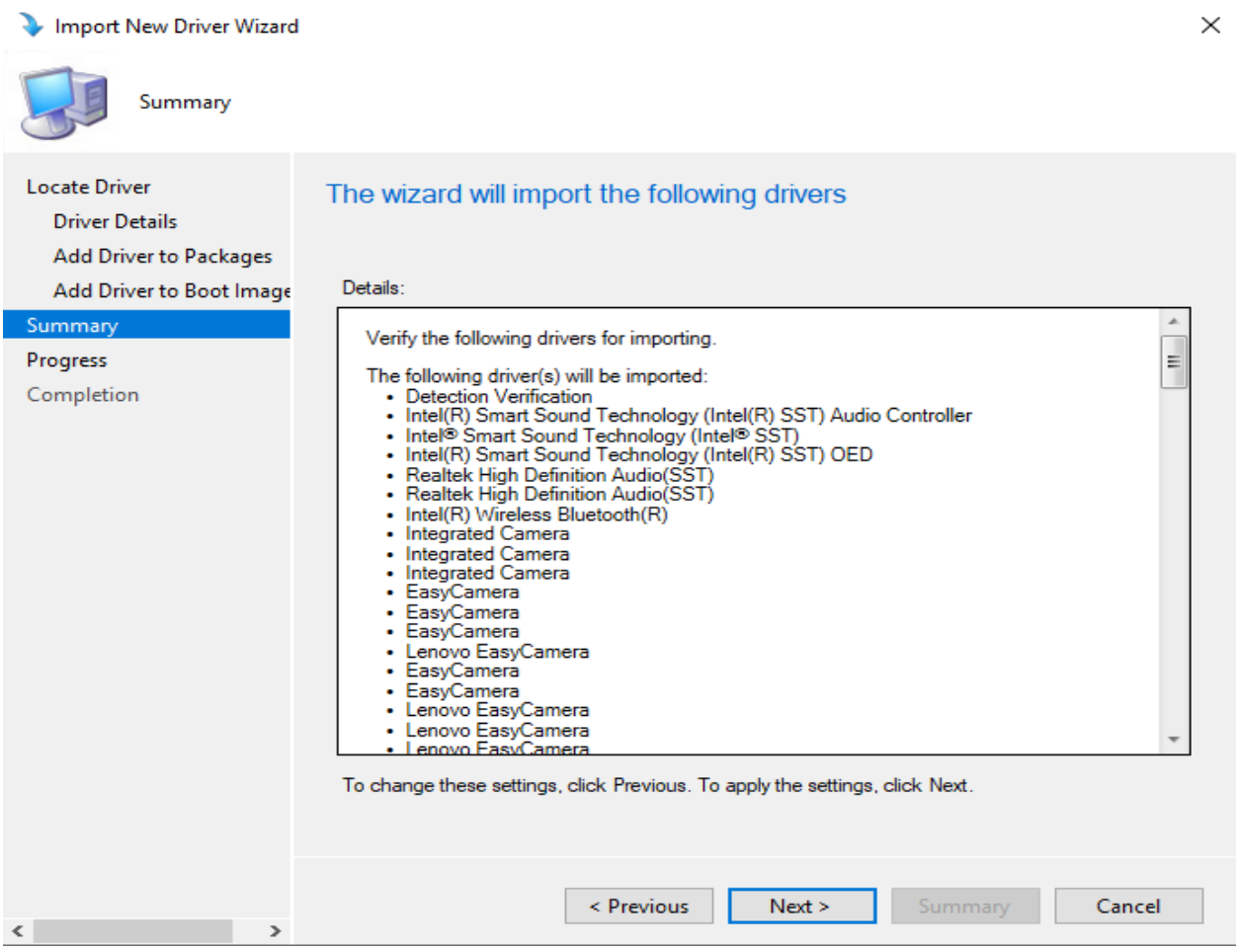

Home
Folder
Import Driver
Create
Saved Searches
Search
Software Library
Overview
Operating Systems
Drivers
Software Library
Drivers 0 items
Search
Software Update Groups
Deployment Packages
Automatic Deployment Rules
Third-Party Software Update Catalogs
Operating Systems
Drivers
Icon
Name

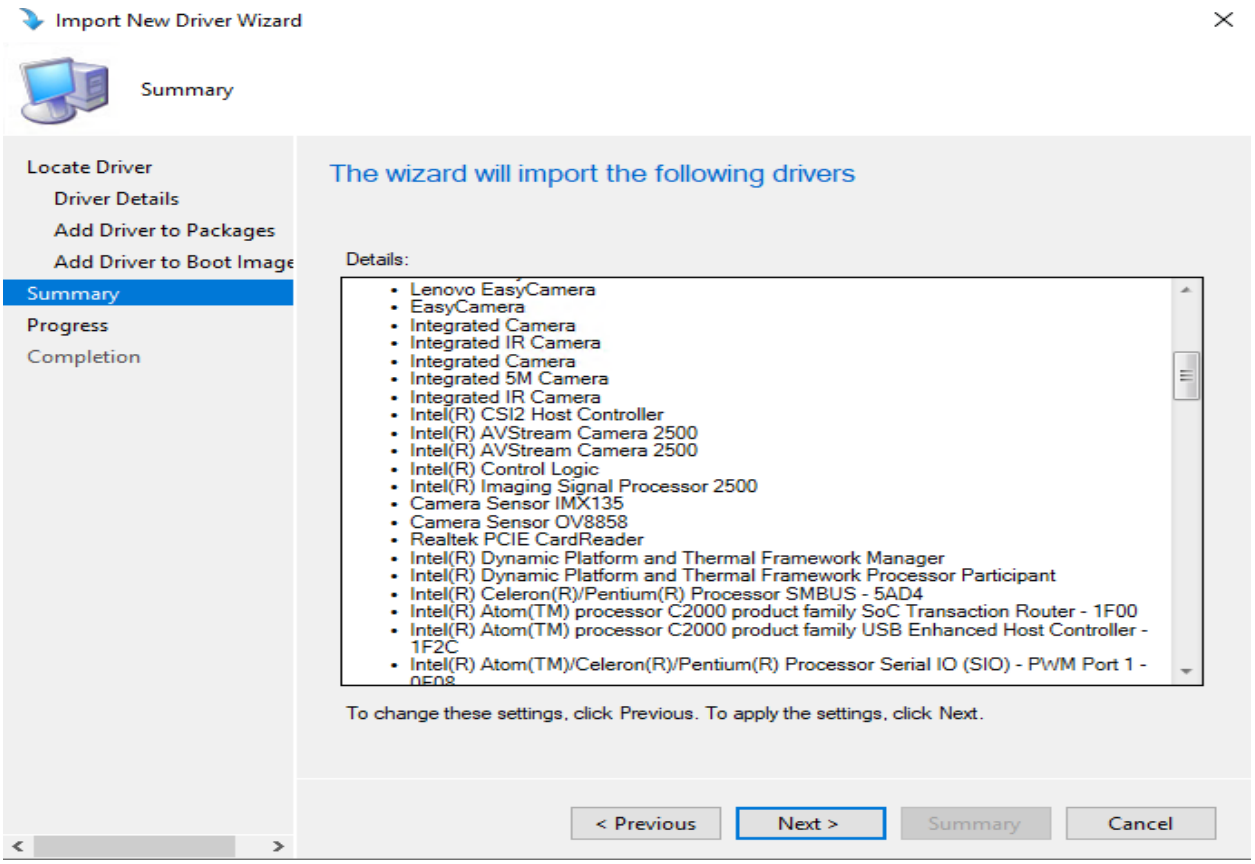

Import New Driver Wizard
Locate Driver
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
Specify a location to import driver
This wizard allows you to import one or more drivers. You can let Configuration Manager find all drivers in the given network path or specify a specific driver to import.
Import all drivers in the following network path (UNC)
Source folder:
\\cb\Sources\Hardware Extracted Drivers\Len
Browse...
Import a specific driver by specifying the network path (UNC) to its .inf or txtsetup.oem file
Source:
Browse...
Specify the option for duplicate drivers
Import the driver and append a new category to the existing categories
< Previous
Next >
Summary
Cancel

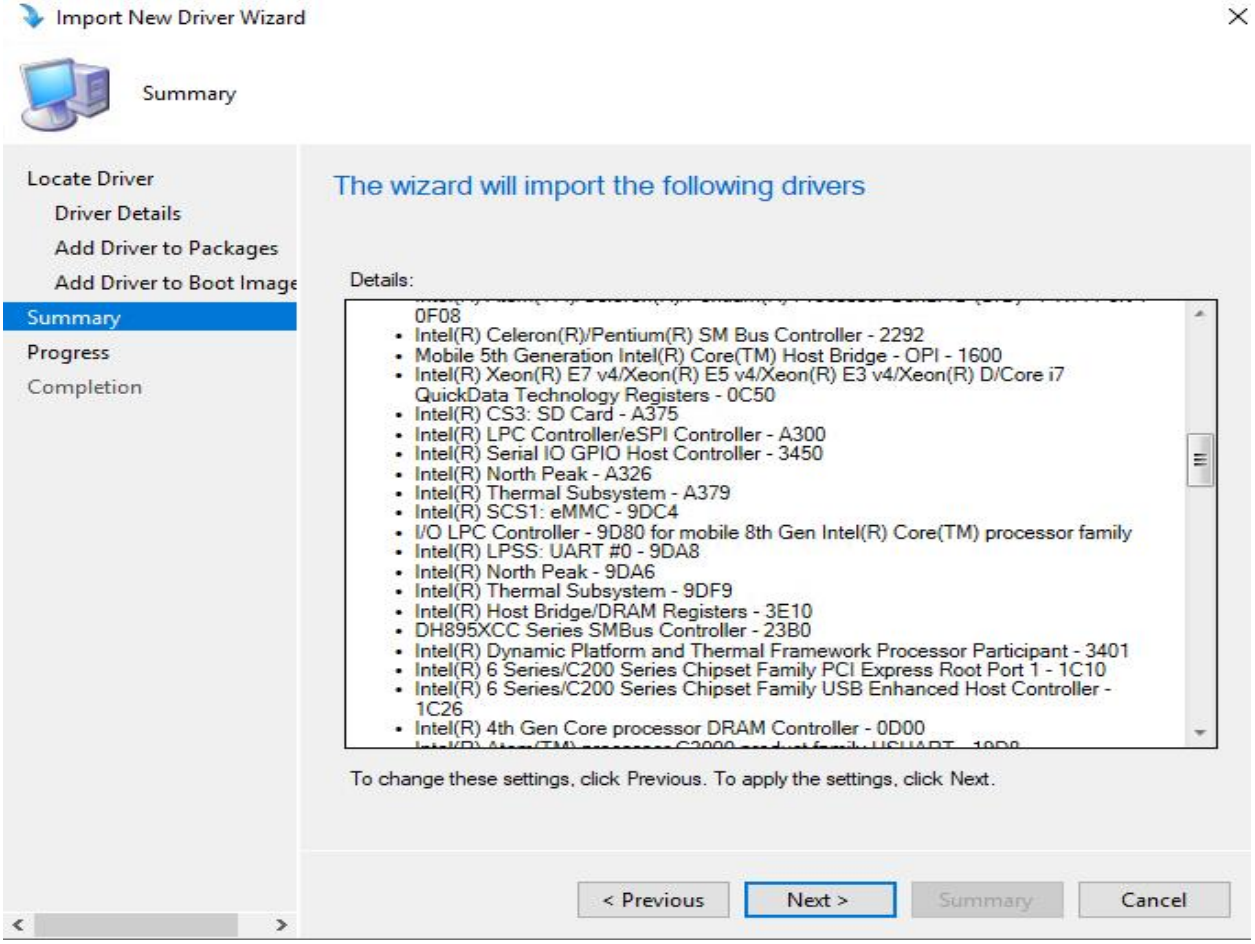

Import New Driver Wizard
Driver Details
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
Specify the details for the imported driver
The following drivers will be imported from folder:
\\cb\Sources\Hardware Extracted Drivers\Lenovo\Tablet X1 Gen 3\TP_X1Tablet_Gen3_W1064_180
Hide drivers that are not in a storage or network class (for boot images)
Hide drivers that are not digitally signed
Filter...
File Name
Class
Architecture
Version
Signed
...Audio\N1ZA133W\IntelHDA... System x64 1.0.166.0 Yes
...Audio\N1ZA133W\IntelHDA... System x64 9.21.0.4104 Yes
...Audio\N1ZA133W\IntelHDA... MEDIA x64 9.21.4104.1 Yes
...Audio\N1ZA133W\IntelHDA... System x64 9.21.4104.1 Yes
Select All
Clear All
Enable these drivers and allow computers to install them
Assign this driver to one or more categories for filtering.
"Tablet x1 Gen 3"
Categories...
< Previous
Next >
Summary
Cancel

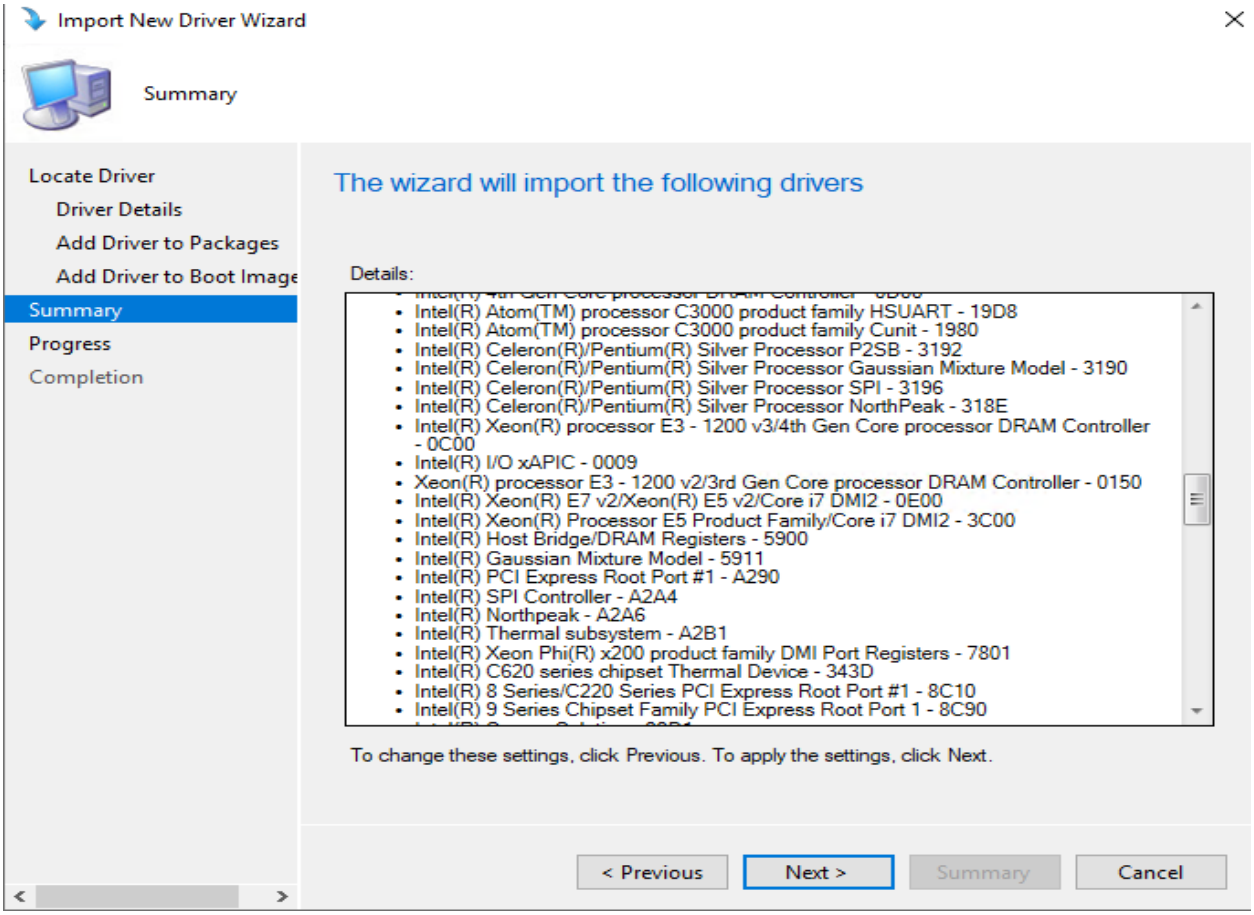

Import New Driver Wizard
Add Driver to Packages
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
Select the packages to add the imported driver
Specify the package to add this driver to.
Drivers must be added to packages and deployed to distribution points before computers can use them. Distribution points can be updated immediately.
It is recommended that you add all required drivers before updating the package.
Name
Package ID
Lenovo Tablet X1 Gen 3
TOR00030
Select All
Clear All
New Package...
< Previous
Next >
Summary
Cancel

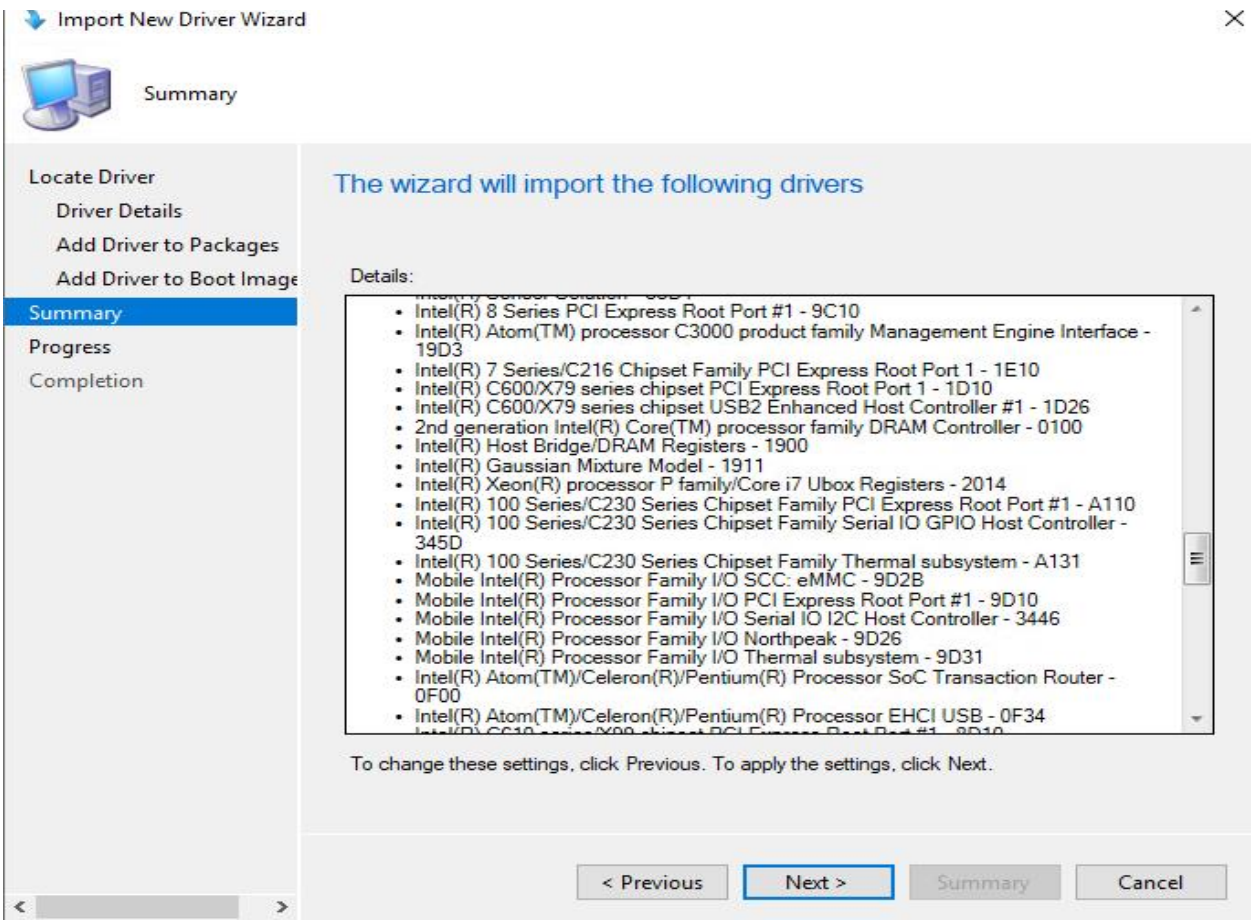

Import New Driver Wizard
Add Driver to Boot Images
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
Select drivers to include in the boot image
The imported driver is a network card driver or mass storage device driver and might be necessary for a computer to start.
Select the boot images to include this driver.
Note: Boot images must be updated on their distribution points to add the new drivers.
Name
Package ID
Boot image (x64)
TOR00005
Boot image (x86)
TOR00002
MDT 8456 Boot Capture x64
TOR0001E
Select All
Clear All
Don't select anything here. We don't want anything imported to the boot image.
< Previous
Next >
Summary
Cancel

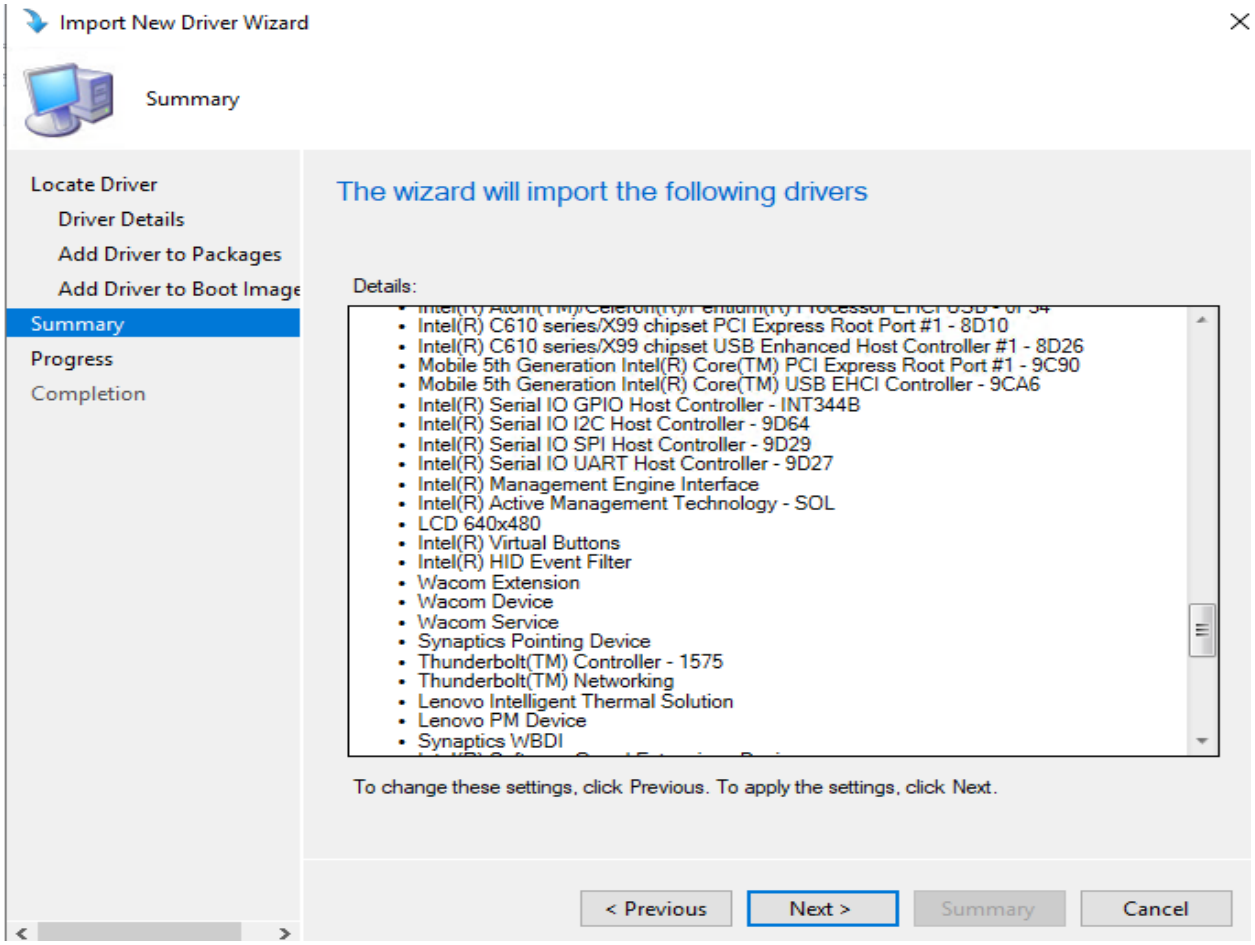

Import New Driver Wizard
Summary
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
The wizard will import the following drivers
Details:
Verify the following drivers for importing.
The following driver(s) will be imported:
Detection Verification
Intel(R) Smart Sound Technology (Intel(R) SST) Audio Controller
Intel® Smart Sound Technology (Intel® SST)
Intel(R) Smart Sound Technology (Intel(R) SST) OED
Realtek High Definition Audio(SST)
Realtek High Definition Audio(SST)
Intel(R) Wireless Bluetooth(R)
Integrated Camera
Integrated Camera
Integrated Camera
EasyCamera
EasyCamera
EasyCamera
Lenovo EasyCamera
EasyCamera
EasyCamera
Lenovo EasyCamera
Lenovo EasyCamera
To change these settings, click Previous. To apply the settings, click Next.
< Previous
Next >
Summary
Cancel

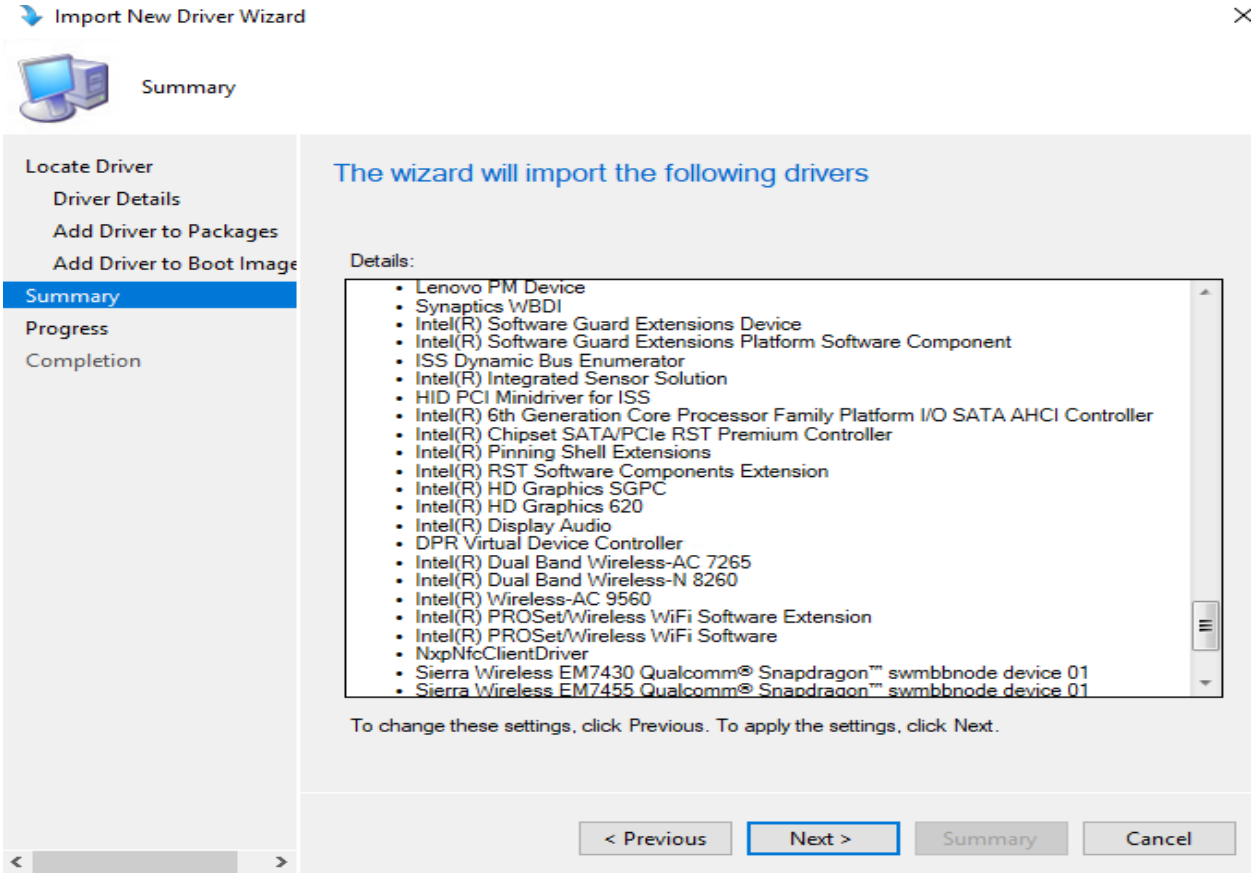

Import New Driver Wizard
Summary
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
The wizard will import the following drivers
Details:
Lenovo EasyCamera
EasyCamera
Integrated Camera
Integrated IR Camera
Integrated Camera
Integrated 5M Camera
Integrated IR Camera
Intel(R) CSI2 Host Controller
Intel(R) AVStream Camera 2500
Intel(R) AVStream Camera 2500
Intel(R) Control Logic
Intel(R) Imaging Signal Processor 2500
Camera Sensor IMX135
Camera Sensor OV8858
Realtek PCIE CardReader
Intel(R) Dynamic Platform and Thermal Framework Manager
Intel(R) Dynamic Platform and Thermal Framework Processor Participant
Intel(R) Celeron(R)/Pentium(R) Processor SMBUS - 5AD4
Intel(R) Atom(TM) processor C2000 product family SoC Transaction Router - 1F00
Intel(R) Atom(TM) processor C2000 product family USB Enhanced Host Controller - 1F2C
Intel(R) Atom(TM)/Celeron(R)/Pentium(R) Processor Serial IO (SIO) - PWM Port 1 -
To change these settings, click Previous. To apply the settings, click Next.
< Previous
Next >
Summary
Cancel

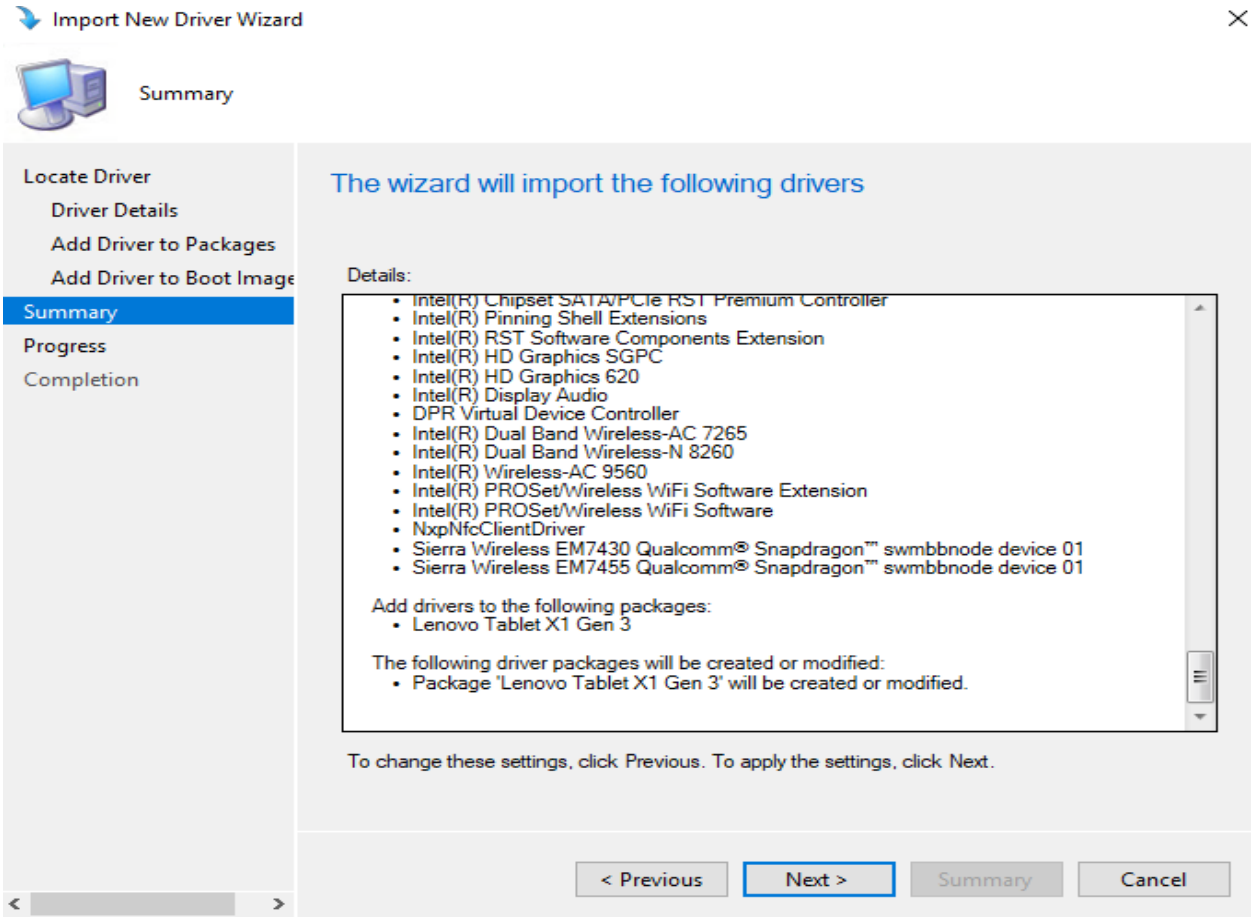

Import New Driver Wizard
Summary
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
The wizard will import the following drivers
Details:
0F08
Intel(R) Celeron(R)/Pentium(R) SM Bus Controller - 2292
Mobile 5th Generation Intel(R) Core(TM) Host Bridge - OPI - 1600
Intel(R) Xeon(R) E7 v4/Xeon(R) E5 v4/Xeon(R) E3 v4/Xeon(R) D/Core i7 QuickData Technology Registers - 0C50
Intel(R) CS3: SD Card - A375
Intel(R) LPC Controller/eSPI Controller - A300
Intel(R) Serial IO GPIO Host Controller - 3450
Intel(R) North Peak - A326
Intel(R) Thermal Subsystem - A379
Intel(R) SCS1: eMMC - 9DC4
I/O LPC Controller - 9D80 for mobile 8th Gen Intel(R) Core(TM) processor family
Intel(R) LPSS: UART #0 - 9DA8
Intel(R) North Peak - 9DA6
Intel(R) Thermal Subsystem - 9DF9
Intel(R) Host Bridge/DRAM Registers - 3E10
DH895XCC Series SMBus Controller - 23B0
Intel(R) Dynamic Platform and Thermal Framework Processor Participant - 3401
Intel(R) 6 Series/C200 Series Chipset Family PCI Express Root Port 1 - 1C10
Intel(R) 6 Series/C200 Series Chipset Family USB Enhanced Host Controller - 1C26
Intel(R) 4th Gen Core processor DRAM Controller - 0D00
To change these settings, click Previous. To apply the settings, click Next.
< Previous
Next >
Summary
Cancel

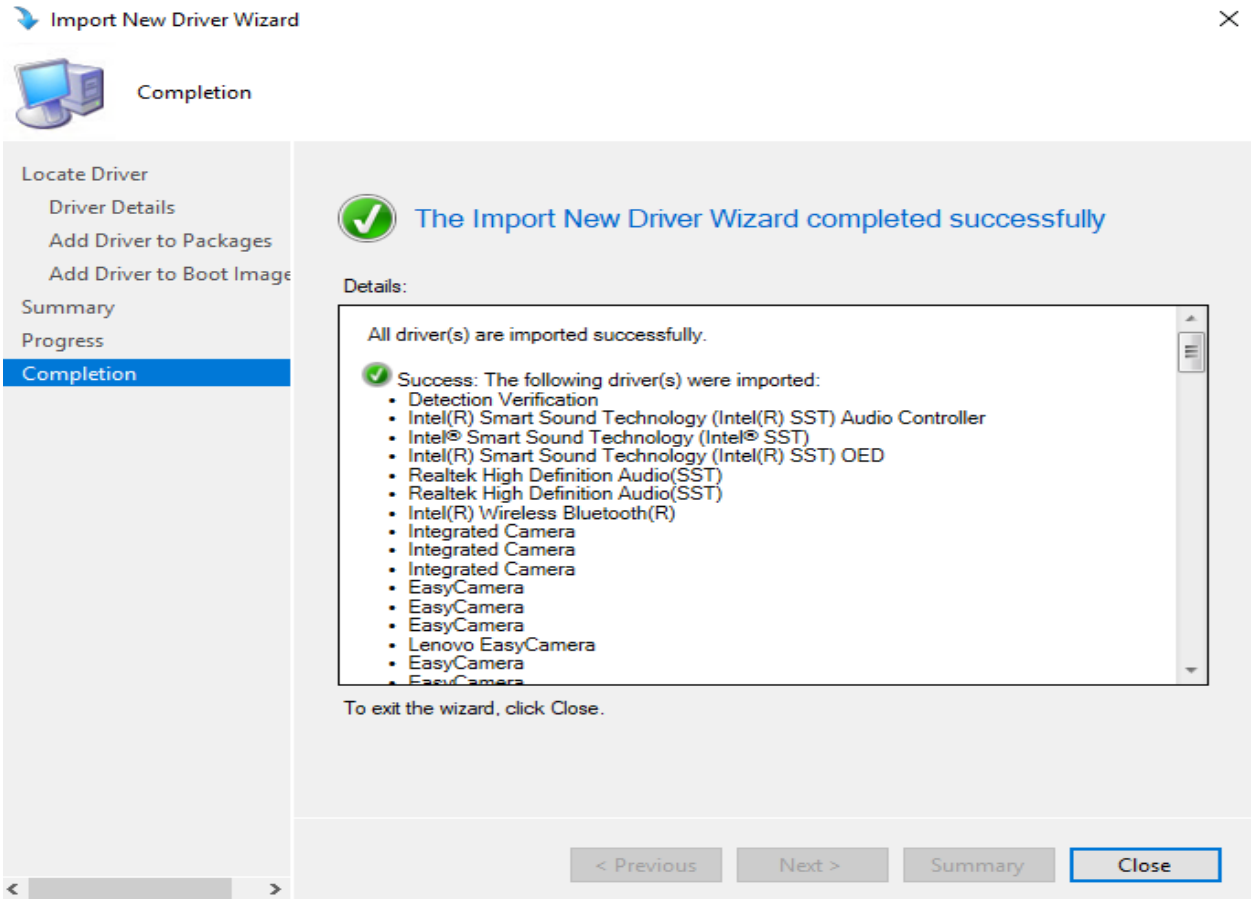

Import New Driver Wizard
Summary
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
The wizard will import the following drivers
Details:
Intel(R) Atom(TM) processor C3000 product family HSUART - 19D8
Intel(R) Atom(TM) processor C3000 product family Cunit - 1980
Intel(R) Celeron(R)/Pentium(R) Silver Processor P2SB - 3192
Intel(R) Celeron(R)/Pentium(R) Silver Processor Gaussian Mixture Model - 3190
Intel(R) Celeron(R)/Pentium(R) Silver Processor SPI - 3196
Intel(R) Celeron(R)/Pentium(R) Silver Processor NorthPeak - 318E
Intel(R) Xeon(R) processor E3 - 1200 v3/4th Gen Core processor DRAM Controller - 0C00
Intel(R) I/O xAPIC - 0009
Xeon(R) processor E3 - 1200 v2/3rd Gen Core processor DRAM Controller - 0150
Intel(R) Xeon(R) E7 v2/Xeon(R) E5 v2/Core i7 DMI2 - 0E00
Intel(R) Xeon(R) Processor E5 Product Family/Core i7 DMI2 - 3C00
Intel(R) Host Bridge/DRAM Registers - 5900
Intel(R) Gaussian Mixture Model - 5911
Intel(R) PCI Express Root Port #1 - A290
Intel(R) SPI Controller - A2A4
Intel(R) Northpeak - A2A6
Intel(R) Thermal subsystem - A2B1
Intel(R) Xeon Phi(R) x200 product family DMI Port Registers - 7801
Intel(R) C620 series chipset Thermal Device - 343D
Intel(R) 8 Series/C220 Series PCI Express Root Port #1 - 8C10
Intel(R) 9 Series Chipset Family PCI Express Root Port 1 - 8C90
To change these settings, click Previous. To apply the settings, click Next.
< Previous
Next >
Summary
Cancel

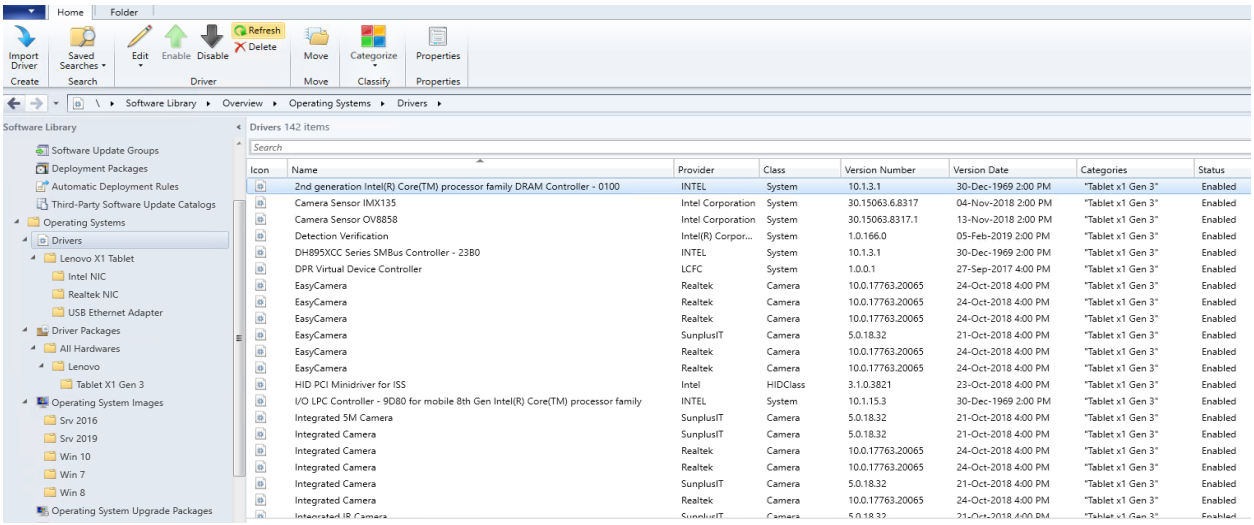

Import New Driver Wizard
Summary
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
The wizard will import the following drivers
Details:
Intel(R) 8 Series PCI Express Root Port #1 - 9C10
Intel(R) Atom(TM) processor C3000 product family Management Engine Interface - 19D3
Intel(R) 7 Series/C216 Chipset Family PCI Express Root Port 1 - 1E10
Intel(R) C600/X79 series chipset PCI Express Root Port 1 - 1D10
Intel(R) C600/X79 series chipset USB2 Enhanced Host Controller #1 - 1D26
2nd generation Intel(R) Core(TM) processor family DRAM Controller - 0100
Intel(R) Host Bridge/DRAM Registers - 1900
Intel(R) Gaussian Mixture Model - 1911
Intel(R) Xeon(R) processor P family/Core i7 Ubox Registers - 2014
Intel(R) 100 Series/C230 Series Chipset Family PCI Express Root Port #1 - A110
Intel(R) 100 Series/C230 Series Chipset Family Serial IO GPIO Host Controller - 345D
Intel(R) 100 Series/C230 Series Chipset Family Thermal subsystem - A131
Mobile Intel(R) Processor Family I/O SCC: eMMC - 9D2B
Mobile Intel(R) Processor Family I/O PCI Express Root Port #1 - 9D10
Mobile Intel(R) Processor Family I/O Serial IO I2C Host Controller - 3446
Mobile Intel(R) Processor Family I/O Northpeak - 9D26
Mobile Intel(R) Processor Family I/O Thermal subsystem - 9D31
Intel(R) Atom(TM)/Celeron(R)/Pentium(R) Processor SoC Transaction Router - 0F00
Intel(R) Atom(TM)/Celeron(R)/Pentium(R) Processor EHCI USB - 0F34
To change these settings, click Previous. To apply the settings, click Next.
< Previous
Next >
Summary
Cancel


Import New Driver Wizard
Summary
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
The wizard will import the following drivers
Details:
Intel(R) C610 series/X99 chipset PCI Express Root Port #1 - 8D10
Intel(R) C610 series/X99 chipset USB Enhanced Host Controller #1 - 8D26
Mobile 5th Generation Intel(R) Core(TM) PCI Express Root Port #1 - 9C90
Mobile 5th Generation Intel(R) Core(TM) USB EHCI Controller - 9CA6
Intel(R) Serial IO GPIO Host Controller - INT344B
Intel(R) Serial IO I2C Host Controller - 9D64
Intel(R) Serial IO SPI Host Controller - 9D29
Intel(R) Serial IO UART Host Controller - 9D27
Intel(R) Management Engine Interface
Intel(R) Active Management Technology - SOL
LCD 640x480
Intel(R) Virtual Buttons
Intel(R) HID Event Filter
Wacom Extension
Wacom Device
Wacom Service
Synaptics Pointing Device
Thunderbolt(TM) Controller - 1575
Thunderbolt(TM) Networking
Lenovo Intelligent Thermal Solution
Lenovo PM Device
Synaptics WBDI
To change these settings, click Previous. To apply the settings, click Next.
< Previous
Next >
Summary
Cancel

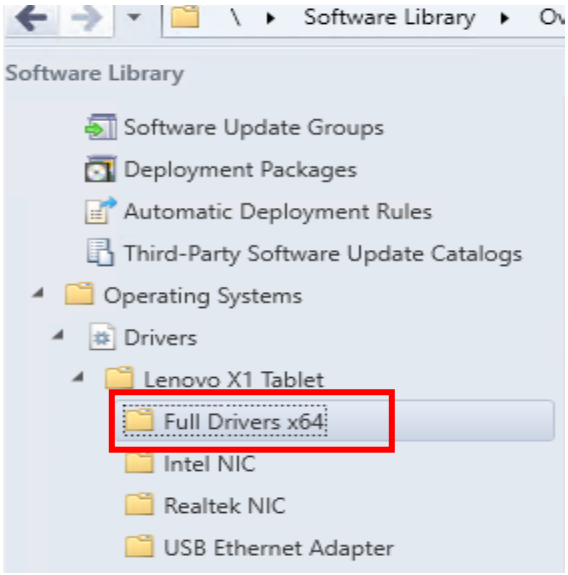

Import New Driver Wizard
Summary
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
The wizard will import the following drivers
Details:
Lenovo PM Device
Synaptics WBDI
Intel(R) Software Guard Extensions Device
Intel(R) Software Guard Extensions Platform Software Component
ISS Dynamic Bus Enumerator
Intel(R) Integrated Sensor Solution
HID PCI Minidriver for ISS
Intel(R) 6th Generation Core Processor Family Platform I/O SATA AHCI Controller
Intel(R) Chipset SATA/PCIe RST Premium Controller
Intel(R) Pinning Shell Extensions
Intel(R) RST Software Components Extension
Intel(R) HD Graphics SGPC
Intel(R) HD Graphics 620
Intel(R) Display Audio
DPR Virtual Device Controller
Intel(R) Dual Band Wireless-AC 7265
Intel(R) Dual Band Wireless-N 8260
Intel(R) Wireless-AC 9560
Intel(R) PROSet/Wireless WiFi Software Extension
Intel(R) PROSet/Wireless WiFi Software
NxpNfcClientDriver
Sierra Wireless EM7430 Qualcomm® Snapdragon™ swmbbnode device 01
Sierra Wireless EM7455 Qualcomm® Snapdragon™ swmbbnode device 01
To change these settings, click Previous. To apply the settings, click Next.
< Previous
Next >
Summary
Cancel


Import New Driver Wizard
Summary
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
The wizard will import the following drivers
Details:
Intel(R) Chipset SATA/PCIe RST Premium Controller
Intel(R) Pinning Shell Extensions
Intel(R) RST Software Components Extension
Intel(R) HD Graphics SGPC
Intel(R) HD Graphics 620
Intel(R) Display Audio
DPR Virtual Device Controller
Intel(R) Dual Band Wireless-AC 7265
Intel(R) Dual Band Wireless-N 8260
Intel(R) Wireless-AC 9560
Intel(R) PROSet/Wireless WiFi Software Extension
Intel(R) PROSet/Wireless WiFi Software
NxpNfcClientDriver
Sierra Wireless EM7430 Qualcomm® Snapdragon™ swmbbnode device 01
Sierra Wireless EM7455 Qualcomm® Snapdragon™ swmbbnode device 01
Add drivers to the following packages:
Lenovo Tablet X1 Gen 3
The following driver packages will be created or modified:
Package 'Lenovo Tablet X1 Gen 3' will be created or modified.
To change these settings, click Previous. To apply the settings, click Next.
< Previous
Next >
Summary
Cancel

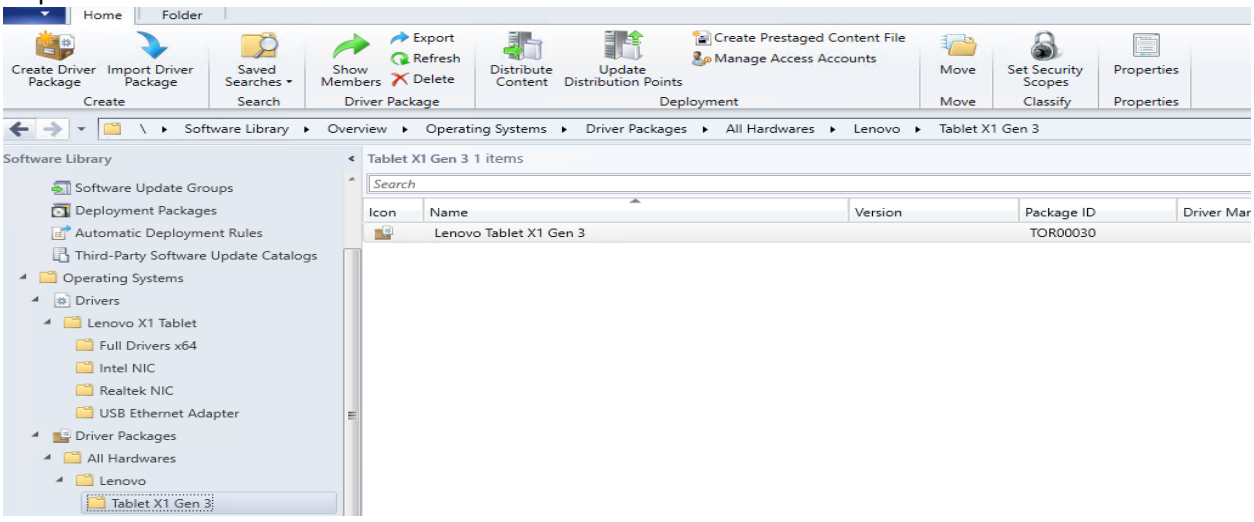

Import New Driver Wizard
Completion
Locate Driver
Driver Details
Add Driver to Packages
Add Driver to Boot Image
Summary
Progress
Completion
The Import New Driver Wizard completed successfully
Details:
All driver(s) are imported successfully.
Success: The following driver(s) were imported:
Detection Verification
Intel(R) Smart Sound Technology (Intel(R) SST) Audio Controller
Intel® Smart Sound Technology (Intel® SST)
Intel(R) Smart Sound Technology (Intel(R) SST) OED
Realtek High Definition Audio(SST)
Realtek High Definition Audio(SST)
Intel(R) Wireless Bluetooth(R)
Integrated Camera
Integrated Camera
Integrated Camera
EasyCamera
EasyCamera
EasyCamera
Lenovo EasyCamera
EasyCamera
To exit the wizard, click Close.
< Previous
Next >
Summary
Close

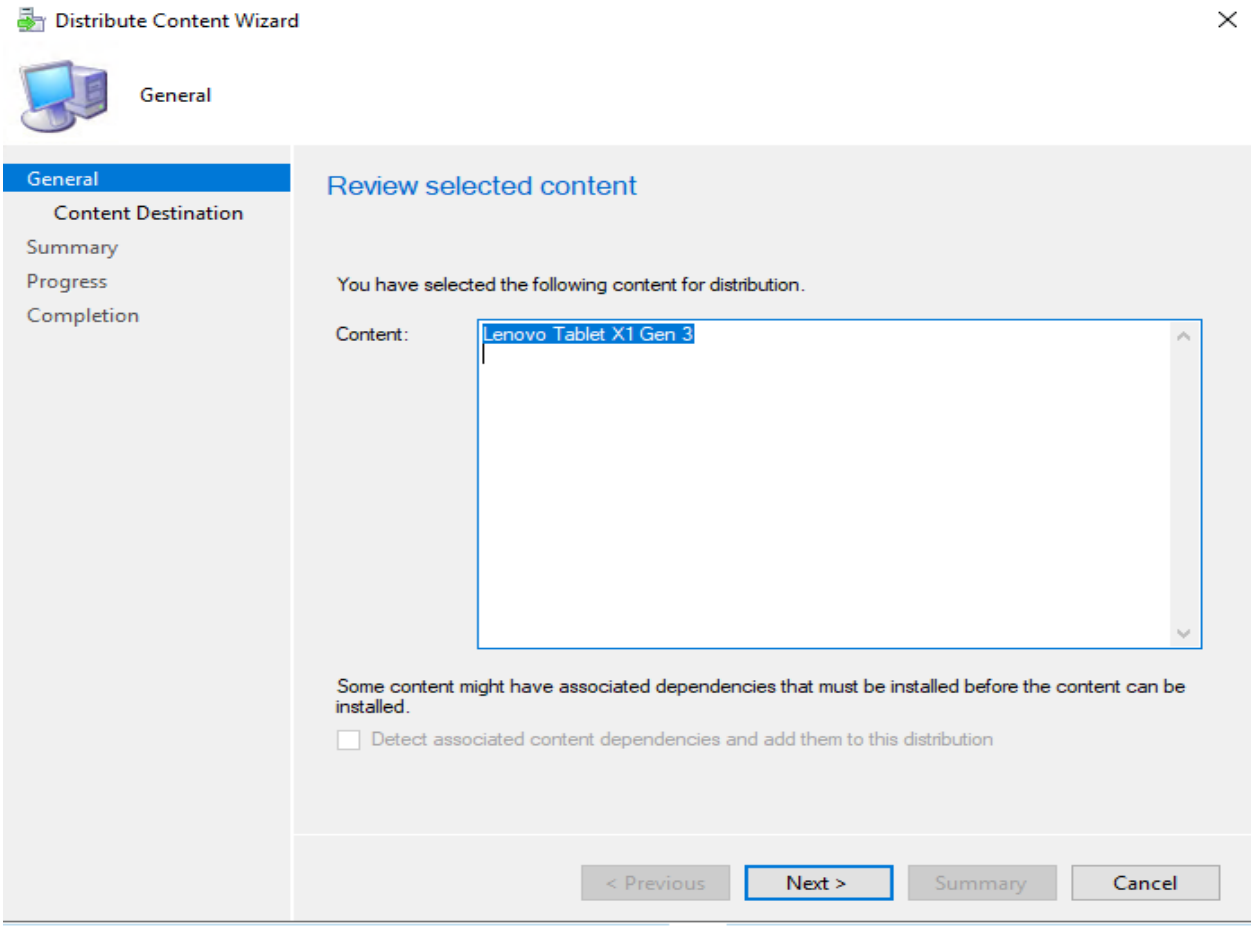


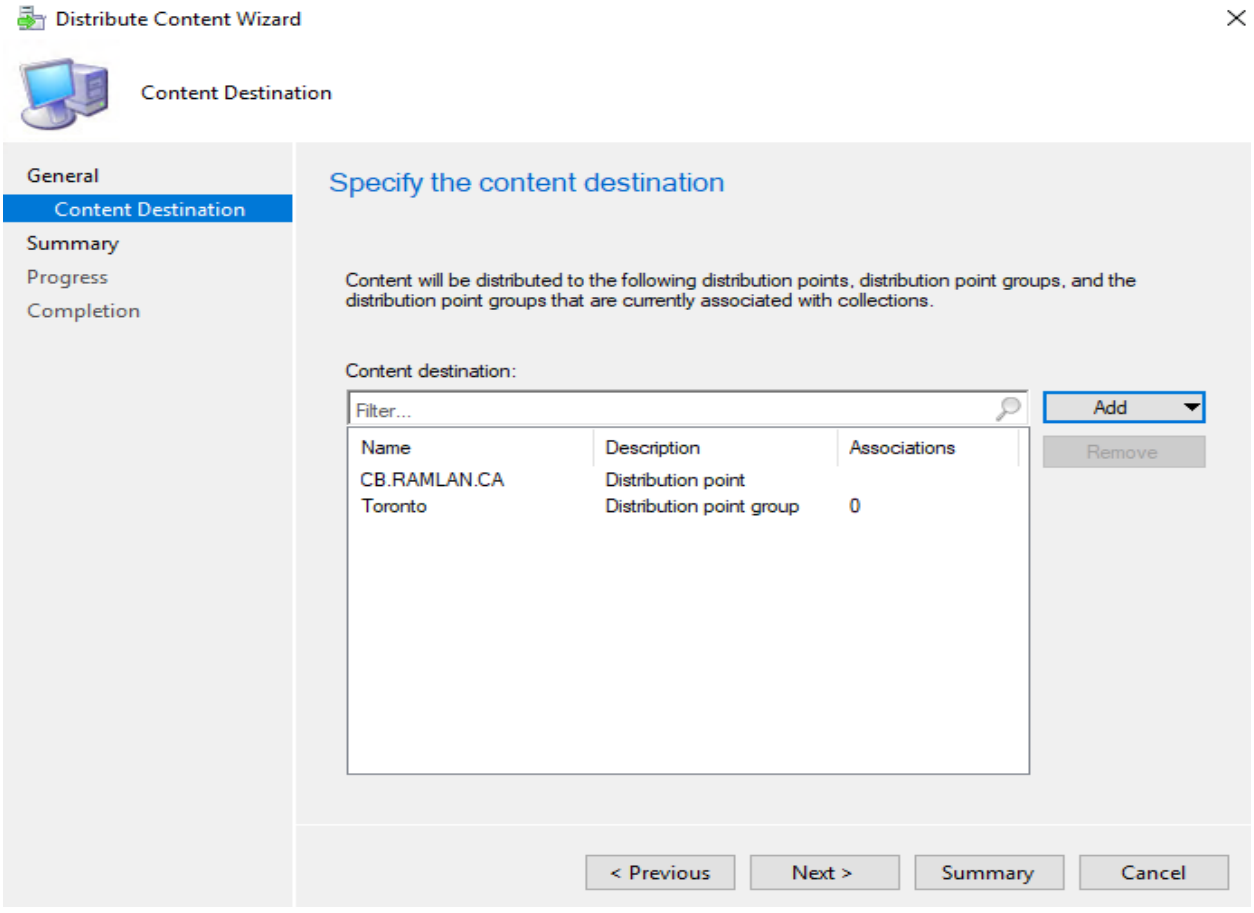
After importing move all the drivers to this new folder, I created for good house keeping.

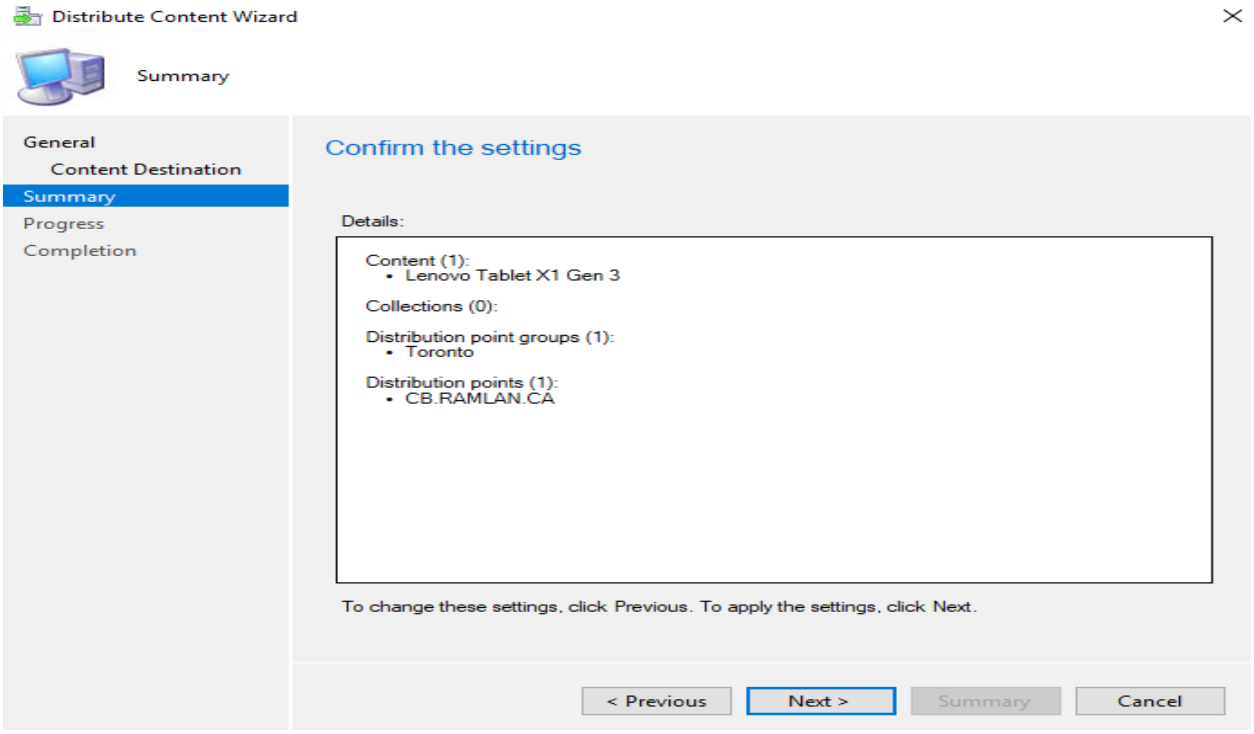


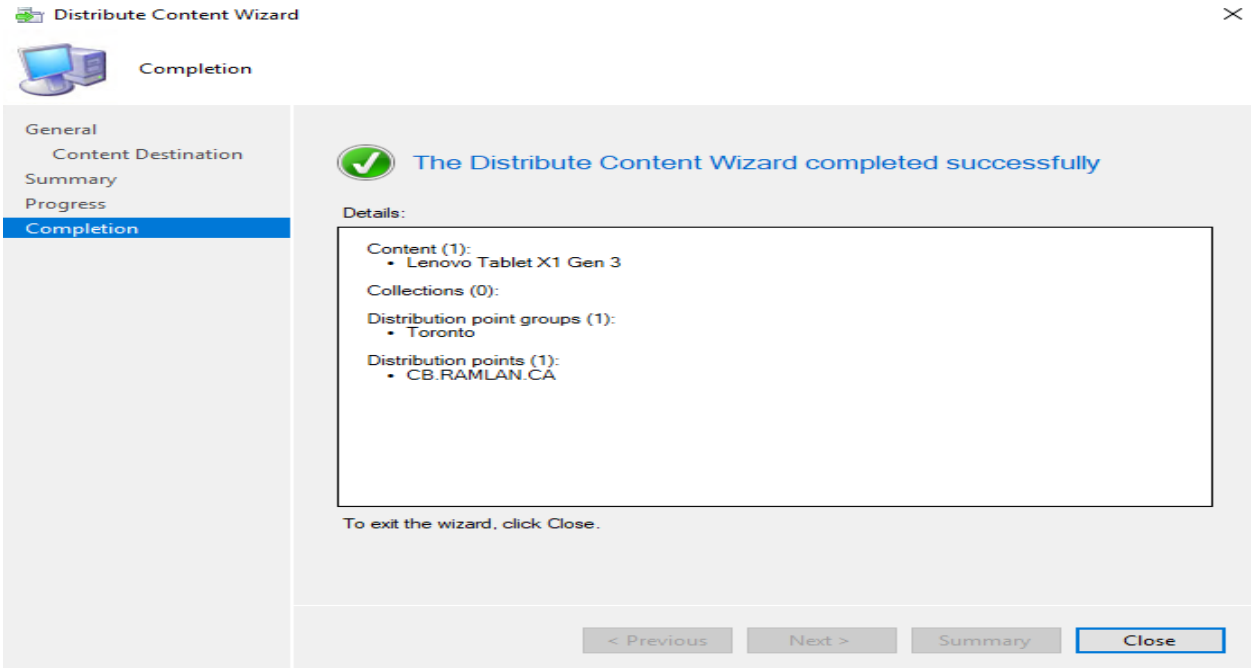
Now we have all the things ready. We can distribute Driver package so that it will be available for task sequence later.




Distribute Content Wizard
General
General
Content Destination
Summary
Progress
Completion
Review selected content
You have selected the following content for distribution.
Content:
Lenovo Tablet X1 Gen 3
Some content might have associated dependencies that must be installed before the content can be installed.
Detect associated content dependencies and add them to this distribution
< Previous
Next >
Summary
Cancel


Distribute Content Wizard
Content Destination
General
Content Destination
Summary
Progress
Completion
Specify the content destination
Content will be distributed to the following distribution points, distribution point groups, and the distribution point groups that are currently associated with collections.
Content destination:
Filter...
Add
Remove
Name
Description
Associations
CB.RAMLAN.CA
Distribution point
Toronto
Distribution point group
0
< Previous
Next >
Summary
Cancel





So, we have done all that is required for imaging Lenovo X1 Tablet Gen 3 through the network. Unfortunately, I cannot test this part as, I don't have a spare tablet at home. I hope this might help RBC Engineering to implement and test in their environment and make the task sequence available for deployment to all depots that might receive Lenovo Tablet X1 Gen 3 in the future.

I hope this is a good read for those who want to acquire knowledge in SCCM.

Thanks

Ram Lan
27th Apr 2019