



XENTRY Diagnosis Kit 4 User Guide

Mercedes-Benz AG

Valid from 11/2022

Mercedes-Benz



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1. New Features in XENTRY Diagnosis Kit 4

Familiar operating concept

As with XENTRY Diagnosis Kit 3, the new diagnosis device concept consists of the diagnosis computer and a multiplexer: XENTRY Diagnosis Pad 2 and XENTRY Diagnosis VCI.

Major optimizations in XENTRY Diagnosis Kit 4:

- New XENTRY Diagnosis Pad 2
- New WiFi connection between XENTRY Diagnosis Pad 2 and VCI.
- XENTRY Diagnosis Pad 2 now comes with an improved, capacitive multitouch display that enables you to work in a bright environment with an even sharper image.
- Interchangeable rechargeable battery in XENTRY Diagnosis Pad 2

Easy IT integration

- **Familiar connection variant:**
The connection between the XENTRY Diagnosis Pad 2 and VCI is made, as usual, independent of the given IT infrastructure at the workshop.
New: XENTRY Diagnosis Pad 2 now comes with a second WLAN card installed in it, that sets up the connection between XENTRY Diagnosis Pad 2 and the VCI.
- **WLAN integration:**
XENTRY Diagnosis Pad 2 is directly integrated into the workshop network as was the case with the XENTRY Diagnosis Pad. During initial commissioning, you are taken through the configuration procedure with ConfigAssist.

Online update

The XENTRY Update Service is standard procedure with us for ensuring that your XENTRY Diagnosis Kit 4 is always provided with the release updates, Regio-DVDs and Digital Operator's Manuals.

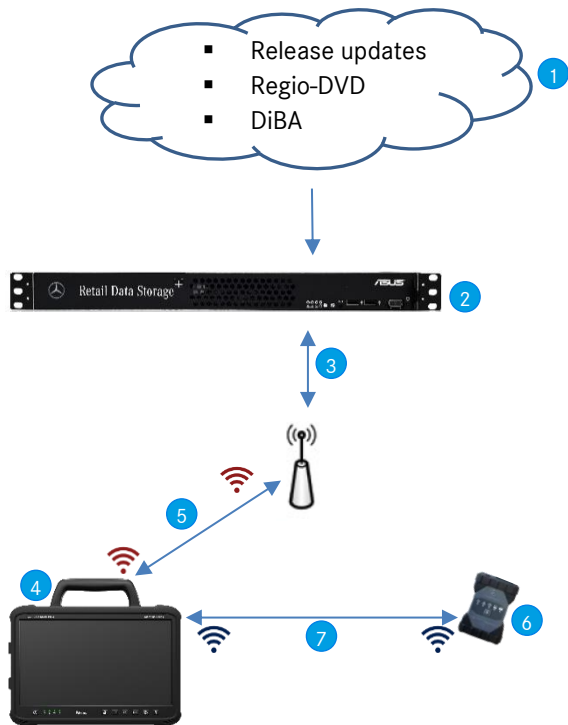
- Depending on the given configuration, diagnosis updates are downloaded overnight over the Internet onto Retail Data Storage, and distributed from there over the workshop network to XENTRY Diagnosis Pad | Pad 2.
- "Zero-time update" ensures that diagnosis software updates are transferred to the XENTRY Diagnosis Pad | Pad 2 in the background. During this time, you can continue to work as usual. As soon as the process is completed, you will be notified that you can now install the new software update. Generally, the installation lasts no more than roughly 5 minutes, after this you can then continue to work, as usual, with your XENTRY Diagnosis Pad | Pad 2.
- The Update Center also offers you an option to change quickly between the latest release update and the preceding update.
- Along with the diagnosis software updates, the control unit software and Digital Operator's Manuals are supplied through Retail Data Storage on demand for the XENTRY Diagnosis Pad | Pad 2.

Adapter cable concept

As you may know, adapter cables that can be connected to the OBD cable are available to you as an option for special application cases.

Note: These are no longer included in the standard scope of supply for XENTRY Diagnosis Kit 4. You can however use the XENTRY Diagnosis Kit 3 adapter cables, they do not have to be returned when the contractual period expires.

Schematic layout for network integration



- 1 Release updates, Regio-DVD and Digital Operator's Manuals are always kept up-to-date online.
- 2 Depending on the given configuration, the data are downloaded overnight.
- 3 Retail Data Storage is integrated into the workshop network so that it is located in the same network as your XENTRY Diagnosis Kit 4.
- 4 XENTRY Diagnosis Pad | Pad 2 is integrated into your workshop infrastructure (necessary for online services)
- 5 The connection between XENTRY Diagnosis Pad 2 and the workshop network can be made via LAN or WLAN.
- 6 XENTRY Diagnosis VCI (multiplexer) in compact and sturdy design without PC core, without rechargeable battery, without fan, without display
- 7 You can connect your XENTRY Diagnosis Pad 2 using a WiFi connection or per USB connection cable to the VCI.

2. Scope of Supply of XENTRY Diagnosis Kit 4

The scope of supply of your XENTRY Diagnosis Kit 4 includes the following:

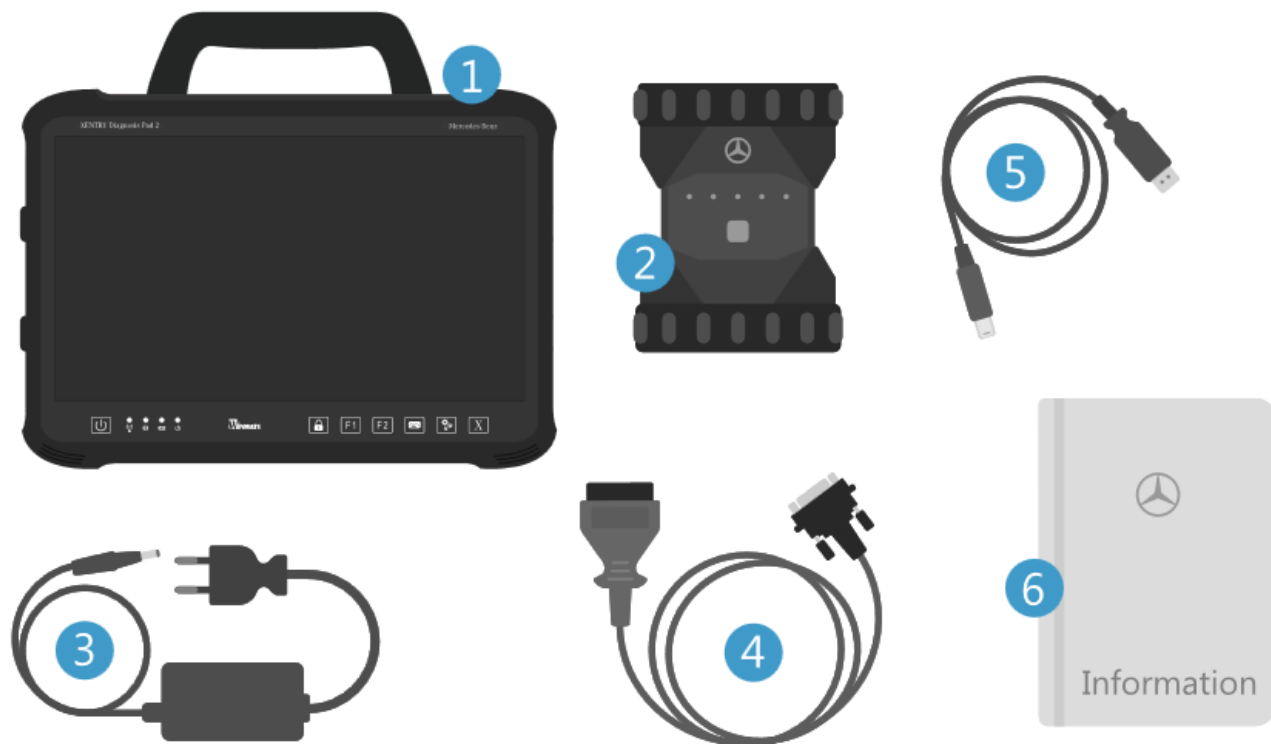


Figure 1: Scope of supply for XENTRY Diagnosis Kit 4

1	XENTRY Diagnosis Pad 2	4	OBD cable (16-pin)
2	XENTRY Diagnosis VCI	5	USB connection cable (5 m)
3	Power supply unit incl. power supply plug	6	User and safety information
		Optional: XENTRY Scope Measurement Technology	

3. Initial Commissioning and Configuration

XENTRY Diagnosis Kit 4 must be configured for initial commissioning. ConfigAssist is automatically launched for this purpose when XENTRY Diagnosis Pad 2 is switched on for the first time.



ConfigAssist

Figure 1: ConfigAssist icon

Alternatively, you can open ConfigAssist directly at the following path:

Desktop > Diagnosis Toolbox > ConfigAssist

Navigate through ConfigAssist using the "Continue" button.

XENTRY Diagnosis Pad 2 comes with two freely-assignable function keys: F1 and F2. You can assign the following functions to the keys:

- XENTRY Diagnosis AQT
- XENTRY CAN Tool
- XENTRY Scope
- XENTRY Scope NVH
- Diagnosis Stop
- ConfigAssist
- VCI Manager
- Support Tool
- PDF Center
- XENTRY Portal
- Hot topics

Then click on "Apply and continue".

After receiving further information about your XENTRY Diagnosis Kit 4, you can then integrate XENTRY Diagnosis Pad 2 into your network.

3.1. Configuring Network

3.1.1.WLAN

Select the WLAN you want in the "Available networks" field.

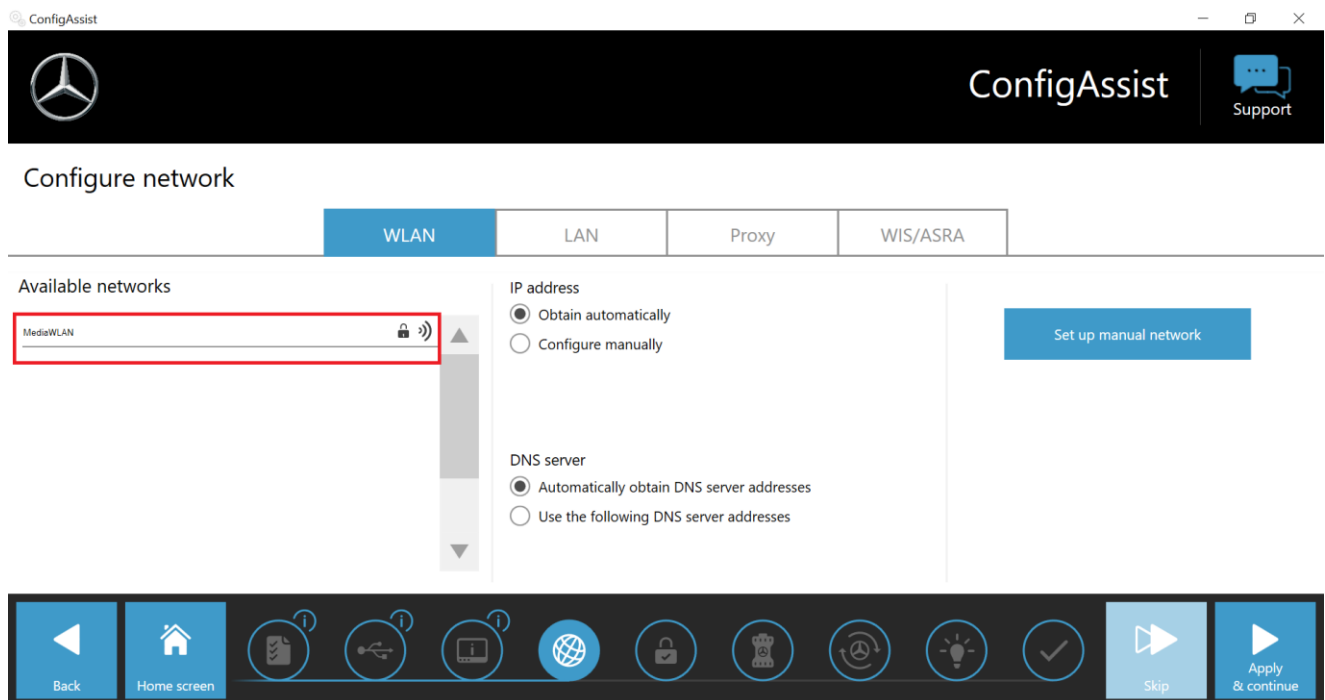


Figure 2: Configuring WLAN network

Now enter your network key in the window that appears, and then click on "Connect".

In the "Available networks" list, the "connected" notice appears next to the network you selected.

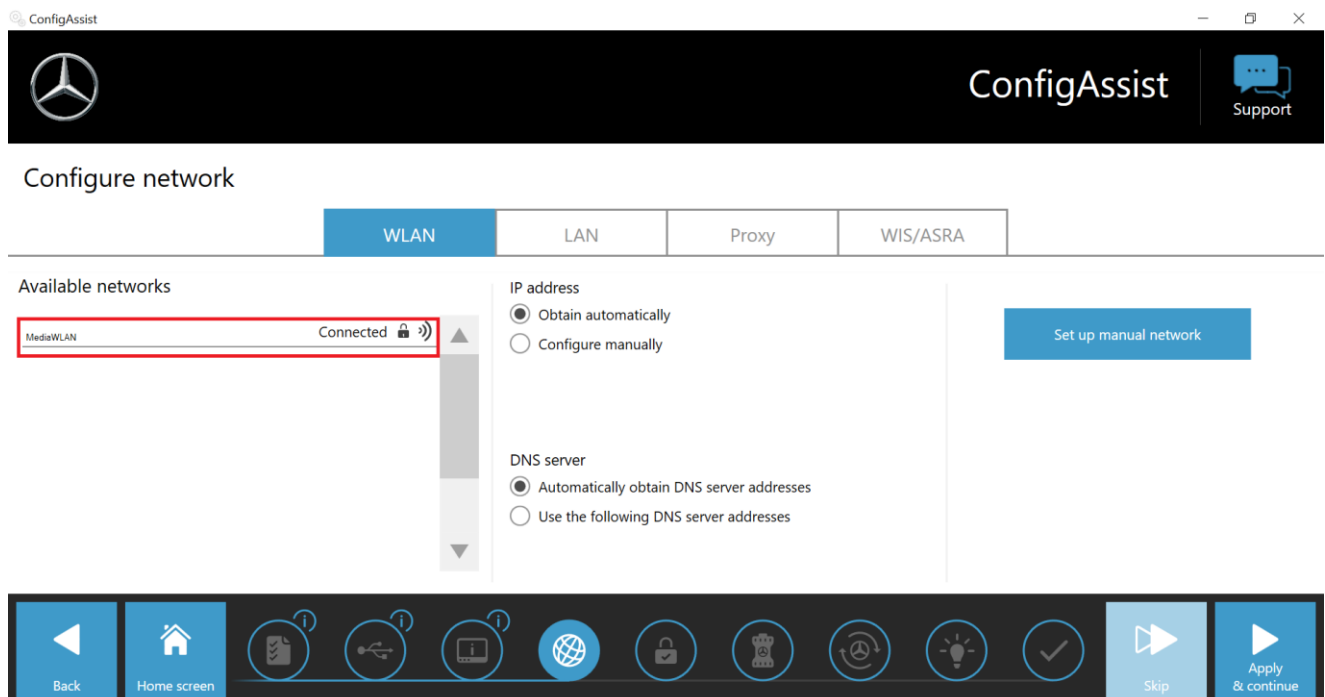


Figure 3: WLAN connected

At this point, you can also manually configure the IP address and select another DNS server.

Alternatively, you can also set up the network manually. To do so, click on the "Set up manual network" button

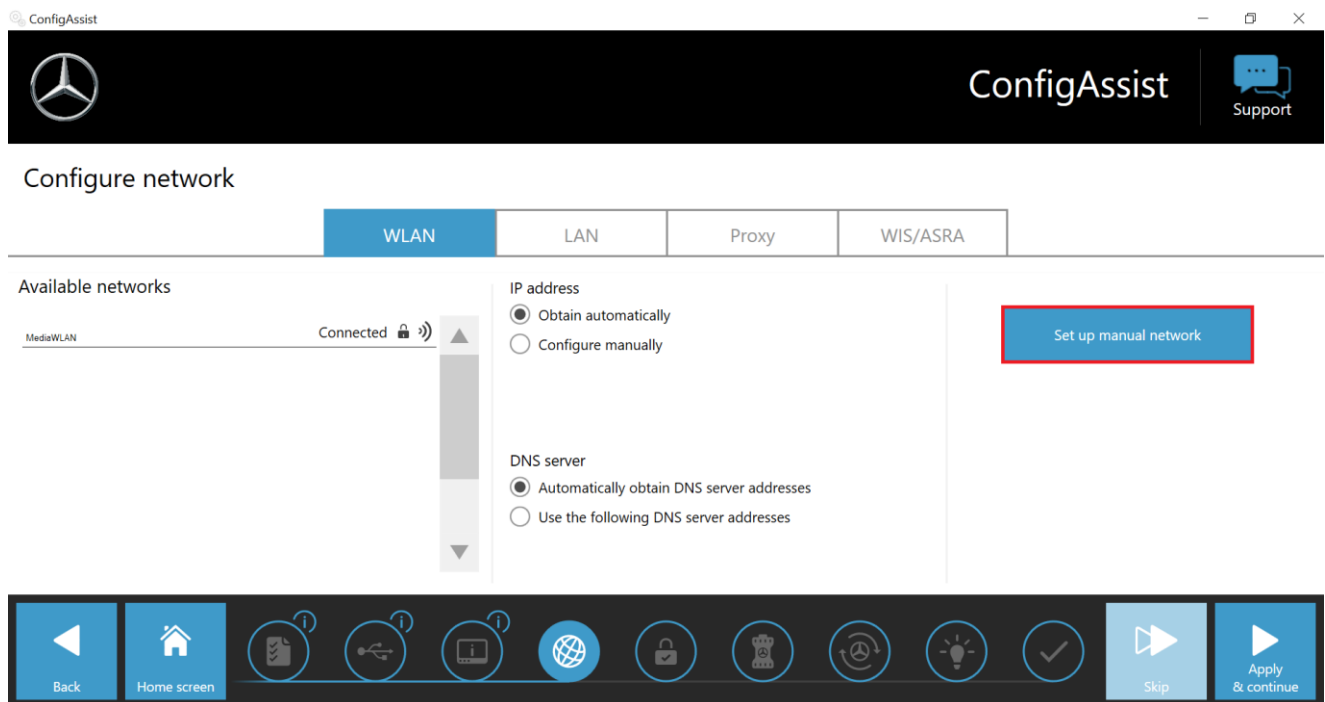


Figure 4: Setting-up manual network

Enter your corresponding data:

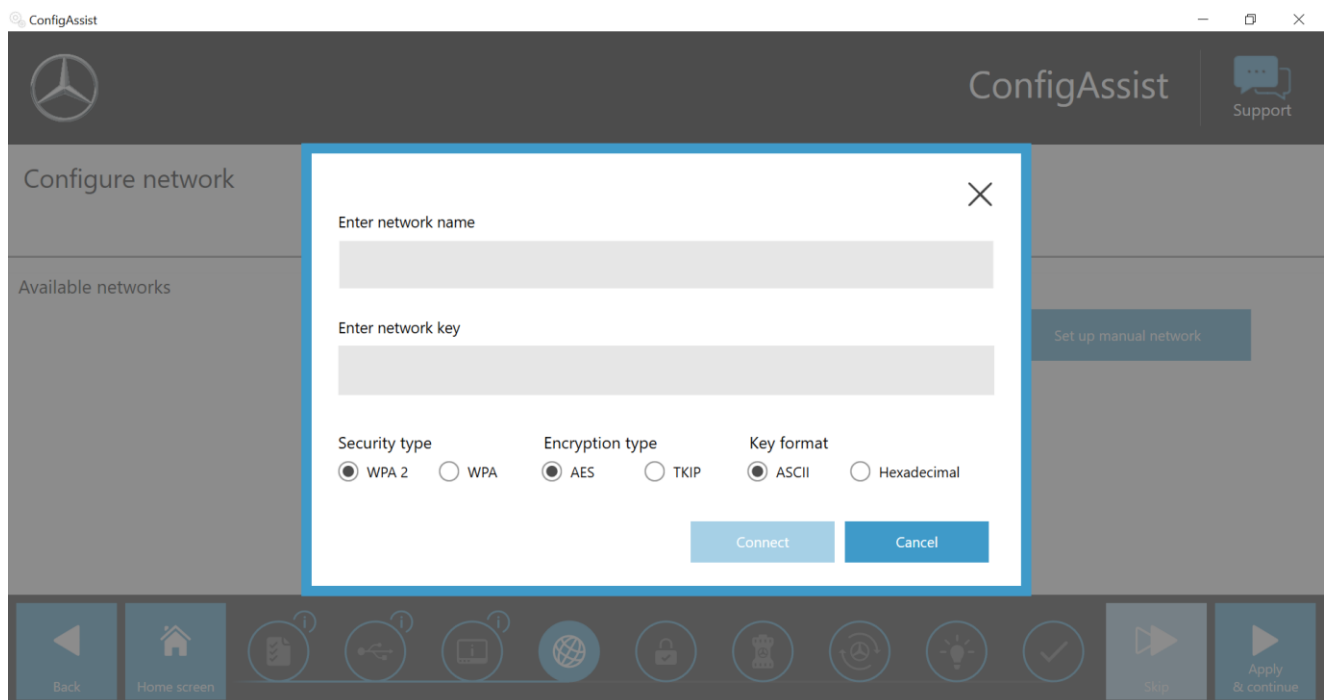


Figure 5: Entering data manually

Click on Apply & continue.

3.1.2.LAN

Along with the settings for the WLAN, you can also enter the settings for using the LAN. You can obtain the IP address automatically or configure it manually, and set up the DNS server.

ConfigAssist

Configure network

WLAN LAN Proxy WIS/ASRA

IP address

- ☒ Obtain automatically
- ☐ Configure manually

DNS server

- ☒ Automatically obtain DNS server addresses
- ☐ Use the following DNS server addresses

Back Home screen Skip Apply & continue

Figure 6: Configuring LAN network

Click on Apply & continue.

3.1.3.Proxy

In the proxy area, you can make some settings for the proxy server.

ConfigAssist

Configure network

WLAN LAN Proxy WIS/ASRA

Automatic configuration

Automatic configuration can disable manual settings. Deactivate automatic configuration to ensure manual settings are applied.

- ☒ Automatically detect settings
- ☐ Use script for automatic configuration

Address

Proxy server

- ☐ Use proxy server for network (these settings do not apply for VPN or dial-up connections)

Address

Port

User (Optional)

Password (Optional)

- ☐ Bypass proxy server for local addresses

Exceptions: For addresses which start with the following, do not use a proxy server

Separate entries with semicolons (;).

Back Home screen Skip Apply & continue

Figure 7: Proxy settings

You can have the settings for the proxy server detected automatically or you can run a script for the automatic configuration. Here too, you can make more settings for the proxy server.

Click on Apply & continue.

3.1.4.WIS/ASRA

RetailFactory is selected by default for the WIS/ASRA server. At this point however, you can manually configure your own WIS/ASRA server.

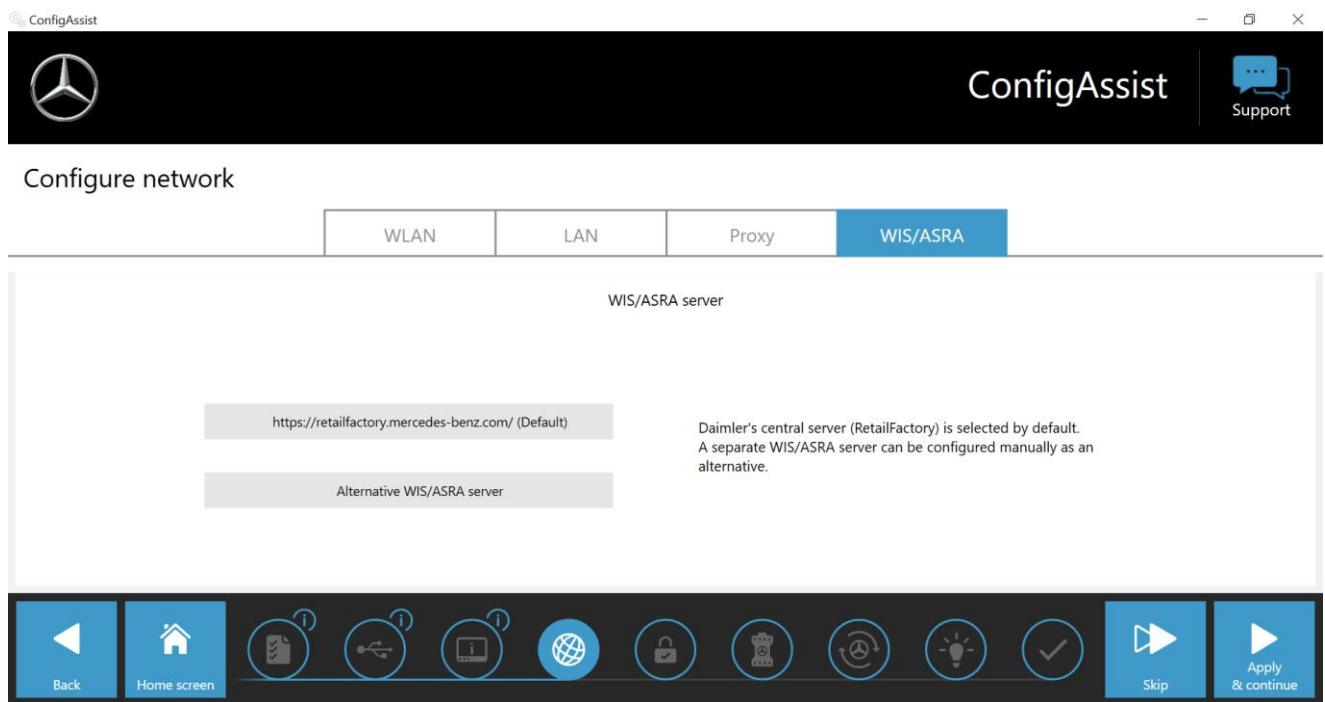


Figure 8: WIS/ASRA server

3.2. Installing StartKey

Checking all entered data may take a few moments, during which your StartKey is retrieved. This is located directly online on the StartKey server itself, and it is launched there during installation, provided that the StartKey was also ordered together with the XENTRY Diagnosis Kit 4.

You can now see your system number, hardware ID and validity of your StartKey on the following page.

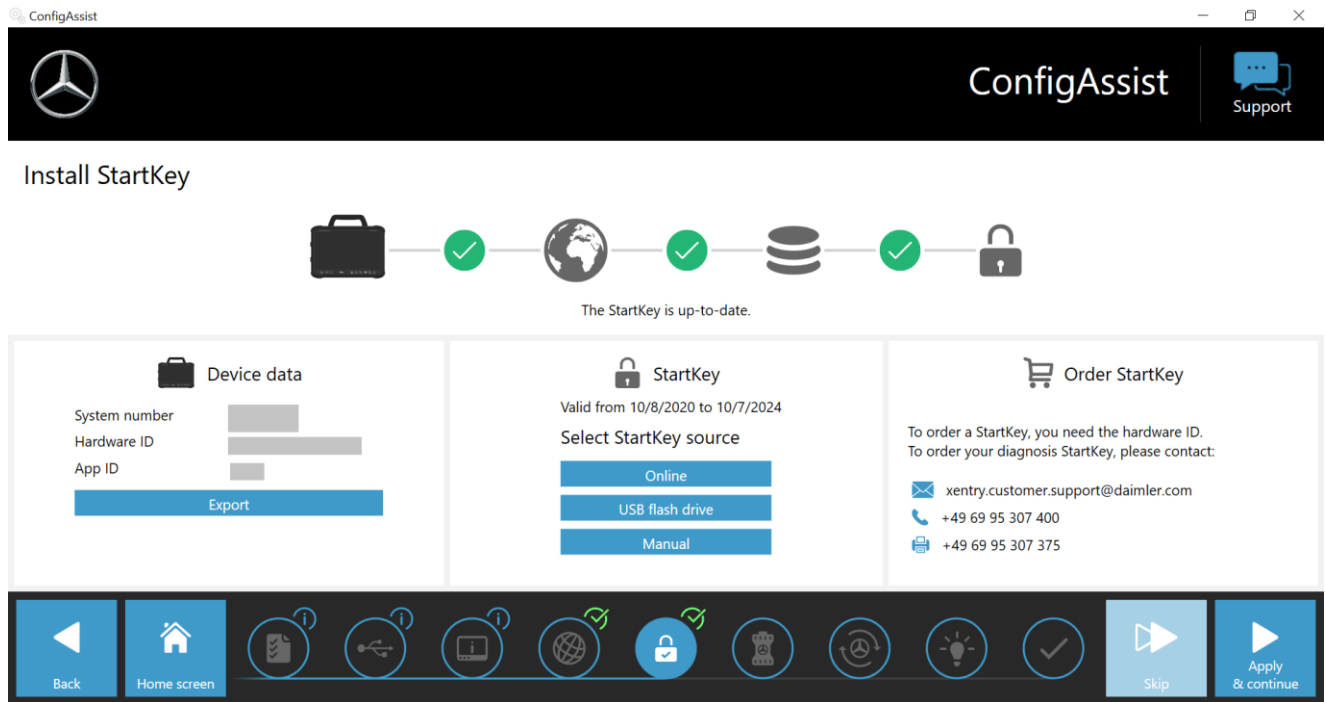


Figure 9: StartKey overview

If the StartKey was not automatically downloaded to your XENTRY Diagnosis Pad_2, you can "Retrieve it online", "Install it per USB flash drive" or enter it by "Manual entry". If you do not have a StartKey, please get in touch with your point of contact to order one.

To select an alternative StartKey source, please proceed as follows:

- Online: Click "Online" to repeat the StartKey download process from the Internet.
- USB flash drive: If the StartKey is on a USB flash drive, please select this option. If the StartKey cannot be loaded automatically from the USB flash drive, Explorer is then opened. Navigate to the StartKey in your USB flash drive.
- Manual: You can also enter the StartKey manually. Click on "Manual" and then enter the StartKey in the window that opens.

3.3. XENTRY Diagnosis VCI Coupling

Connect XENTRY Diagnosis VCI using the USB connection cable to the XENTRY Diagnosis Pad 2, wait for the acoustic signal then click on "Couple VCI".

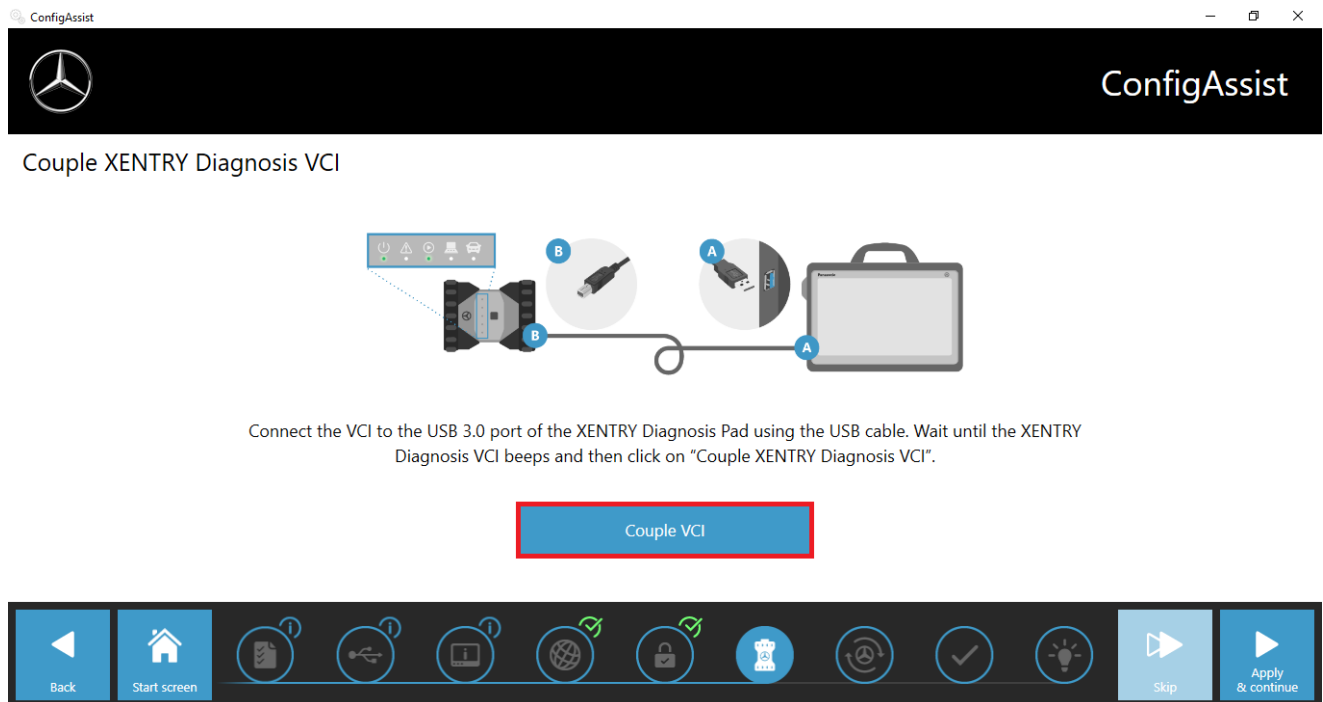


Figure 10: Coupling the XENTRY Diagnosis VCI

! Please note that only one VCI at a time can be coupled to the XENTRY Diagnosis Pad 2. When coupling another VCI, the VCI manager will indicate that the current VCI configuration will be overwritten.

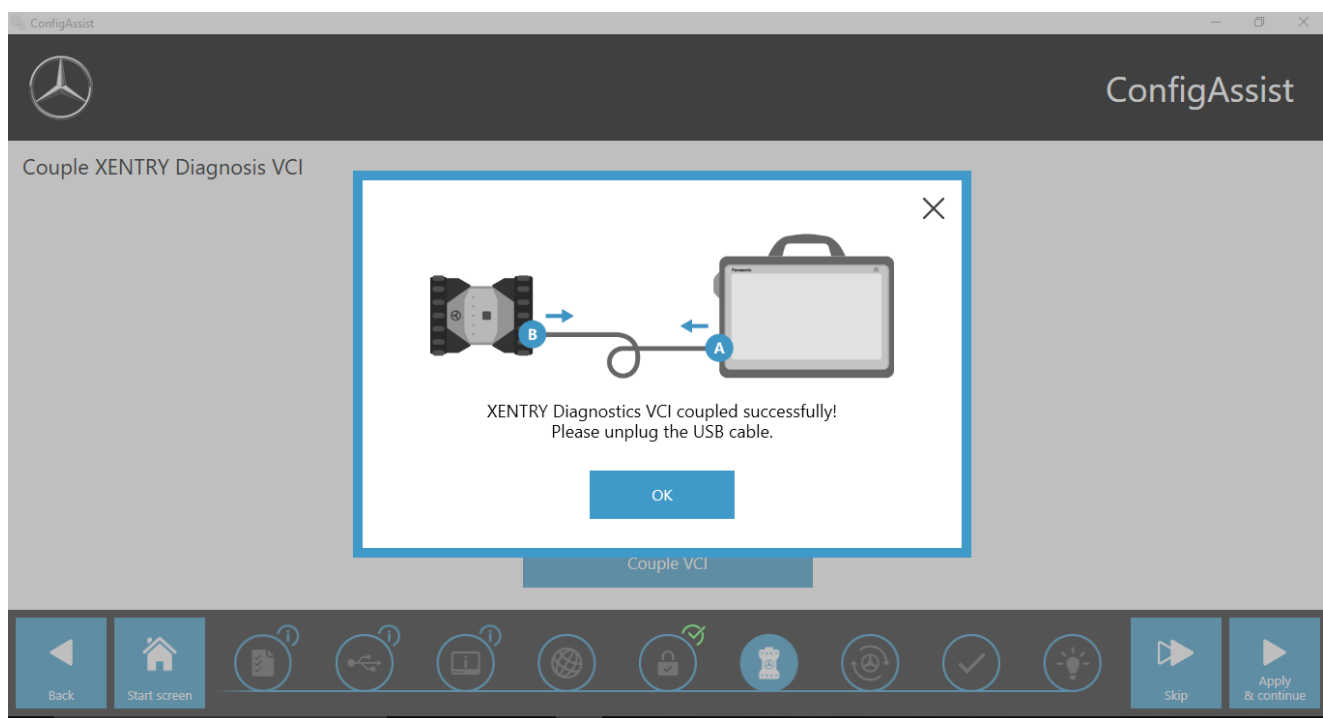


Figure 11: Coupling with XENTRY Diagnosis VCI successful

On the following screen, please click on "Apply & continue".

3.4. Configuration of the XENTRY Update Service

In this section you can configure the XENTRY Update Service.

XENTRY Update Service defines how the diagnostic data (release update, Regio-DVD and Digital Operator's Manuals) are to be downloaded onto your XENTRY Diagnosis Kit 4.

There are two ways to configure the XENTRY Update Service:

Variant 1: XENTRY Update Service with Retail Data Storage

The diagnostic data (release updates, Regio-DVDs and Digital Operator's Manuals) are downloaded from the Internet onto Retail Data Storage first, and then onto the XENTRY Diagnosis Pad | Pad 2.

Variant 2: XENTRY Update Service without Retail Data Storage

The diagnostic data (release update, Regio-DVD and Digital Operator's Manuals) are downloaded directly from the Internet onto the XENTRY Diagnosis Pad | Pad 2.

Please note the following: Retail Data Storage belongs to the retail standards.

3.4.1. XENTRY Update Service with Retail Data Storage

If your workshop has Retail Data Storage, then you can obtain diagnosis updates, Regio-DVDs and Digital Operator's Manuals (DiBA) online via the XENTRY Update Service on the Internet.

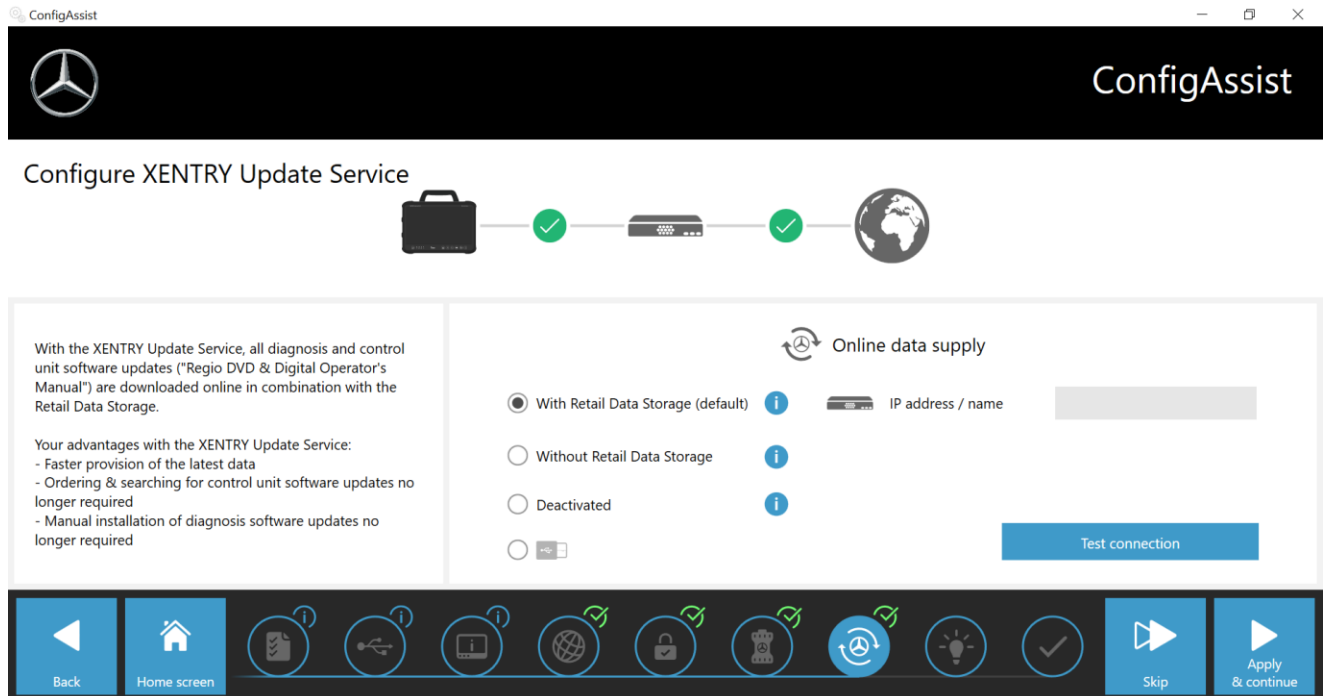


Figure 12: XENTRY Update Service with Retail Data Storage

To establish the connection to the Retail Data Storage, please select **"With Retail Data Storage (Default)"** and enter the IP address that you have configured for Retail Data Storage in the "IP address/name" field. Then click on the "Test connection" button; the correct connection will be confirmed with a green tick.

Now select the item "Apply & Continue".

3.4.2.XENTRY Update Service without Retail Data Storage

If your workshop does not have Retail Data Storage, you can download diagnosis and control unit software updates directly from the Internet onto your XENTRY Diagnosis Kit 4.

Please note: We recommend this option only for workshops with one or two diagnostic devices.

There are the following limitations compared to the XENTRY Update Service with Retail Data Storage:

- Higher network load
 - Data, especially control unit software, must be downloaded on demand from the Internet while the unit is running
(in contrast to Retail Data Storage, which downloads overnight)
 - The data must be downloaded multiple times
 - High data volume required for the Internet connection
- Longer waiting times for customers, depending on the download duration

For this option, select the **"Without Retail Data Storage"** button in the "Retail Data Storage" area and then click on "Test connection".

Note: It is also possible to configure your XENTRY Diagnosis Kit 4 to this option at any given time in the event of a Retail Data Storage malfunction.

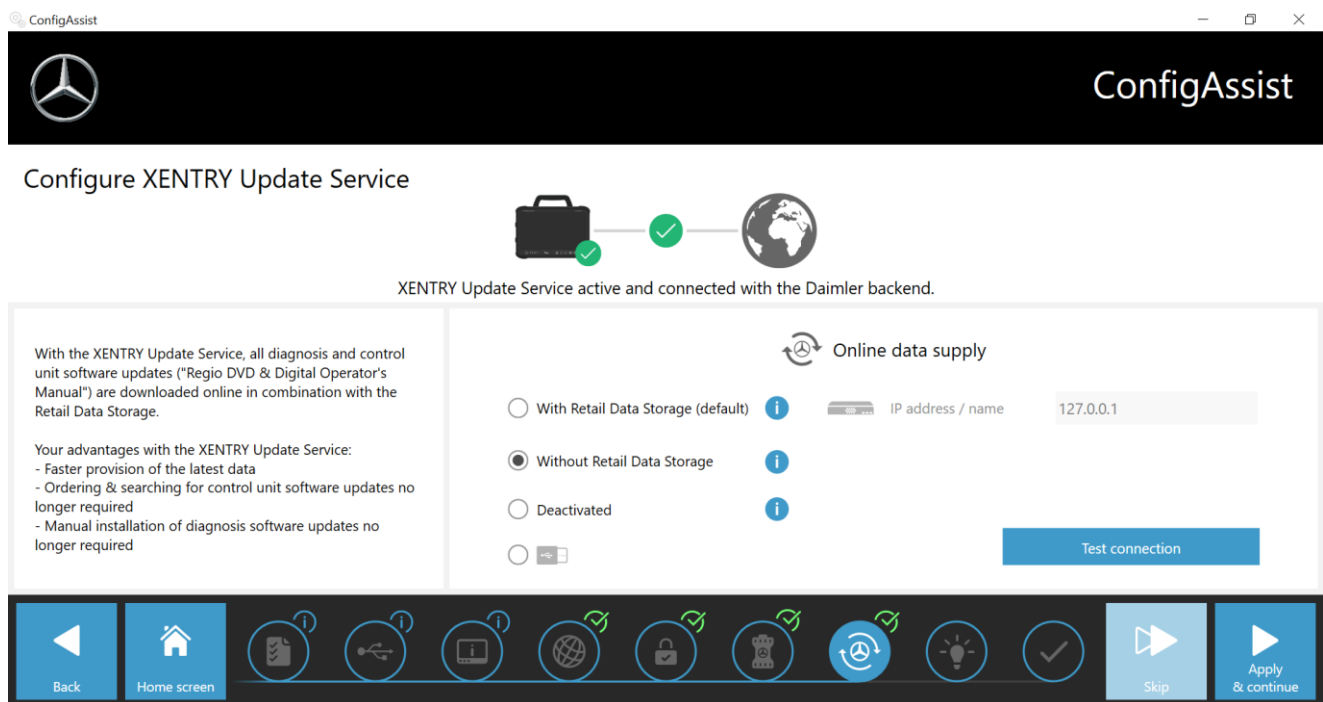


Figure 13: XENTRY Update Service without Retail Data Storage

Click "Apply & continue".

3.5. Finishing the Configuration

The "Additional information" page has links on it that lead you to helpful additional information.

Now click the "Next" button. An overview of your system configuration appears.

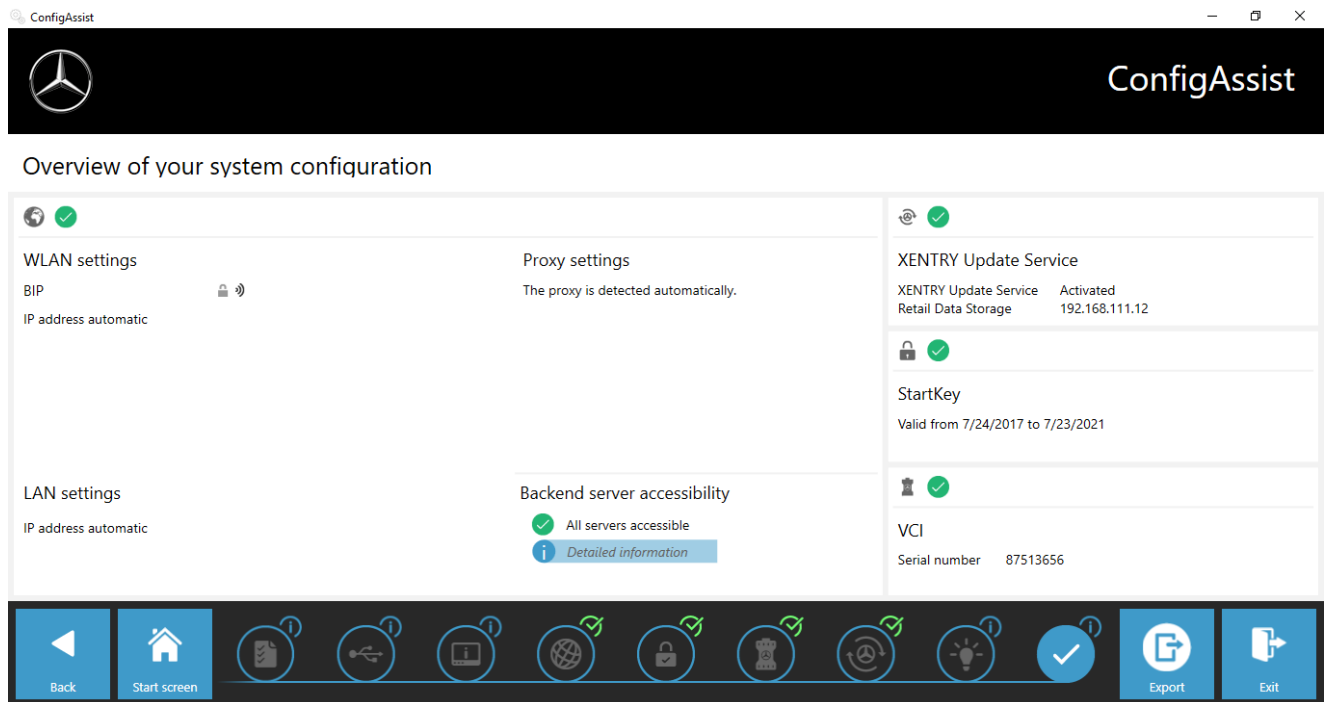


Figure 14: Overview of the system configuration

A green "tick symbol" next to the globe indicates a correct online connection. If the symbol is gray, no online connection is established. In this case, please check your network settings. You also obtain information about your network settings, XENTRY Update Service, StartKey and paired XENTRY Diagnosis VCI.

3.6. Exporting the Configuration

You can save your configuration on the hard drive of the XENTRY Diagnosis Pad 2 as an *.XML file using the "Export" function. If you are using several XENTRY diagnostic systems in your service operation, you have the option of installing the configuration on every XENTRY Diagnosis Pad | Pad 2 using a USB flash drive or via the network.

You can find this export function on the first and last page of ConfigAssist.

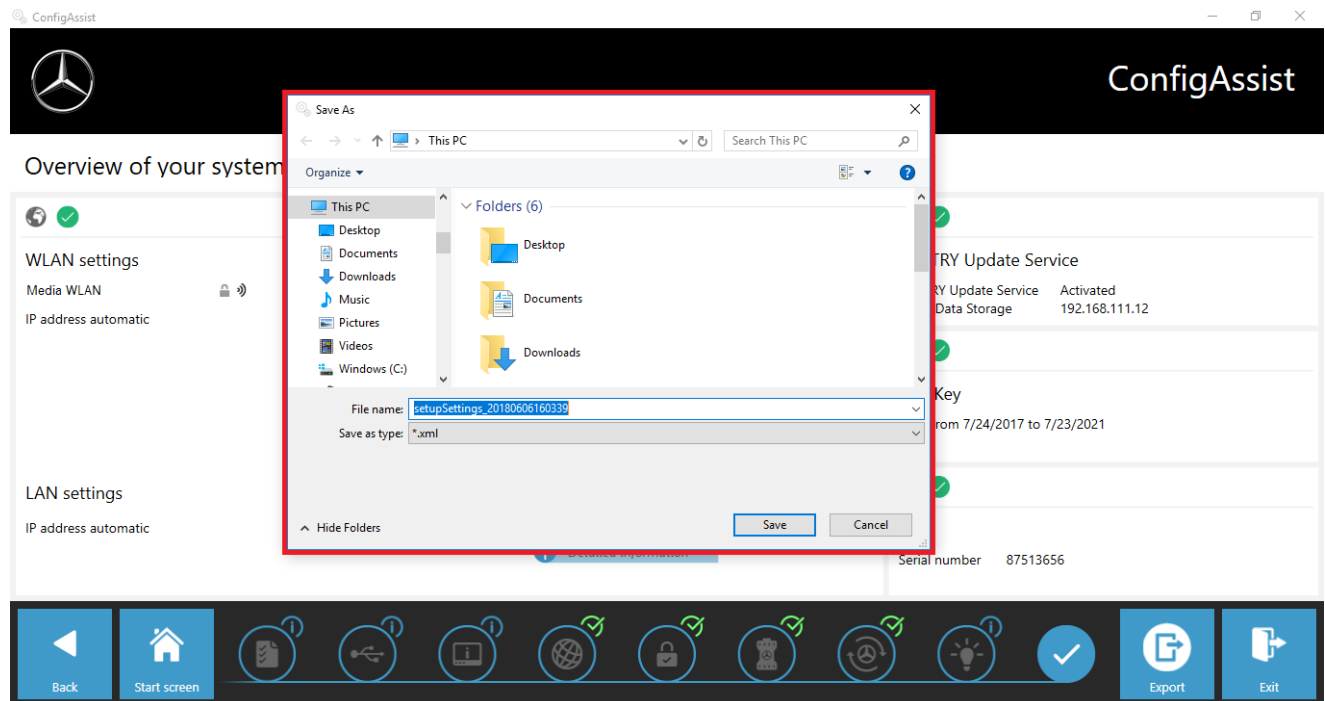


Figure 15: Exporting the configuration

You have successfully completed the setup of your XENTRY Diagnosis Pad 2. Now close ConfigAssist by clicking "Exit".

3.7. Installing, Updating and Configuring WIS/ASRA Offline/Standalone

April 2021 will see the start of the change from the previous physical Blu-ray Disc distribution process to installation through the WIS Download Portal. This goes hand-in-hand with a number of benefits and added values compared with the current installation procedure per Blu-ray Disc:

- Ordering through the Spare Parts Logistics Center has been discontinued
- No delay times caused by shipping
- Access per Single-Sign On in the XENTRY Portal / After Sales Portal
- Installation package is immediately available after publication
- Data query and installation directly on XENTRY Diagnosis Kit 3 | Kit 4 possible
- Fault rectification effective immediately; discontinuation of read errors on physical data storage media
- Internal distribution discontinued through authorization of multiple customers
- Archiving of physical media no longer required
- Contribution to environmental protection and sustainability

3.7.1. Installing/Updating WIS/ASRA Offline/Standalone

If necessary, and in well-founded exceptional circumstances, you can also install WIS/ASRA locally on your XENTRY Diagnosis Pad | Pad 2.

The installation and updating of the WIS/ASRA software (offline) requires access to the XENTRY Portal / After-Sales Portal; the Blu-ray Disc full version can only be ordered in 2021.

1. Before installing WIS/ASRA offline/standalone, please order a StartKey for WIS/ASRA through the usual channels (XENTRY Shop).

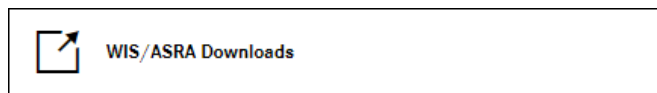
Note

Please note: Local installation of WIS/ASRA on the XENTRY Diagnosis Pad | Pad 2 should only be conducted in well-founded, exceptional cases. Therefore, when ordering the StartKey per XENTRY Shop, a reason must be provided. The hardware ID (HW ID) required for ordering is visible in ConfigAssist.

2. Supply the XENTRY Diagnosis Pad | Pad 2 with power using the power supply unit included.
3. Switch on your XENTRY Diagnosis Pad | Pad 2.

Installation through WIS/ASRA Download Portal

1. Open the XENTRY Portal / After Sales Portal using the browser at (<https://xentry.mercedes-benz.com/>)
2. Open the download area of WIS/ASRA using the "WIS/ASRA Downloads" tile



3. Click on the latest version of the publication and load it straight onto the XENTRY Diagnosis Pad | Pad 2.

Note

Please note the following: The download of the installation files can take up to 3 hours, depending on the given network connection. We advise you to run an overnight download. Do not attempt to stop the download process, wait until the complete download has been completed.

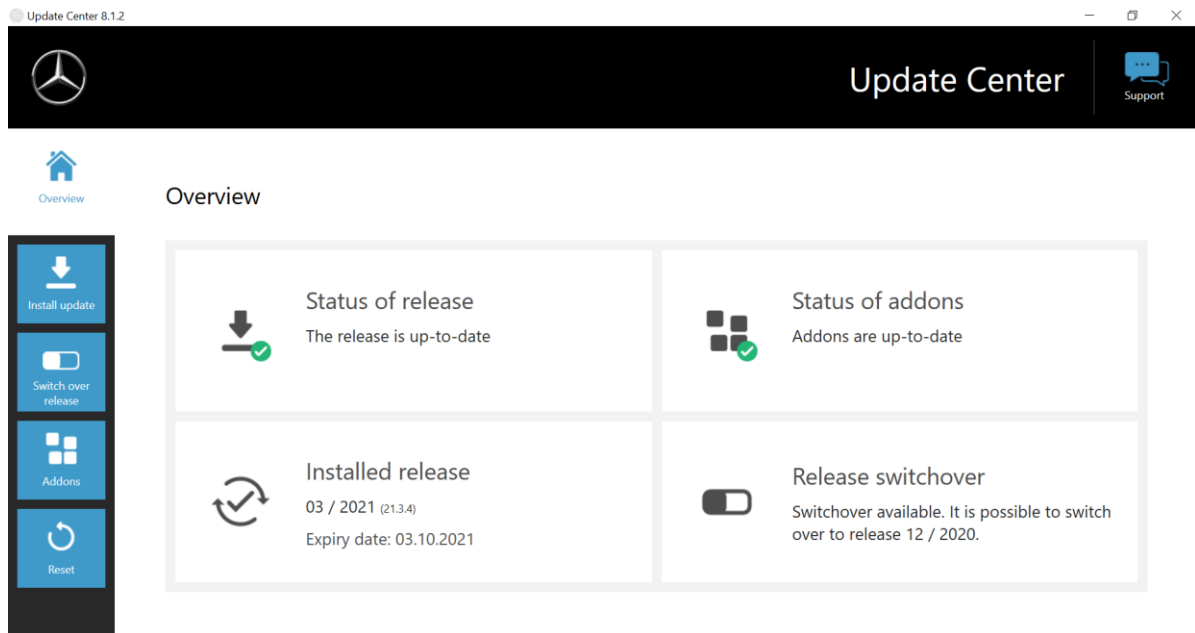
- After completion of the download, double click and unpack the ISO file

Installation through Blu-ray

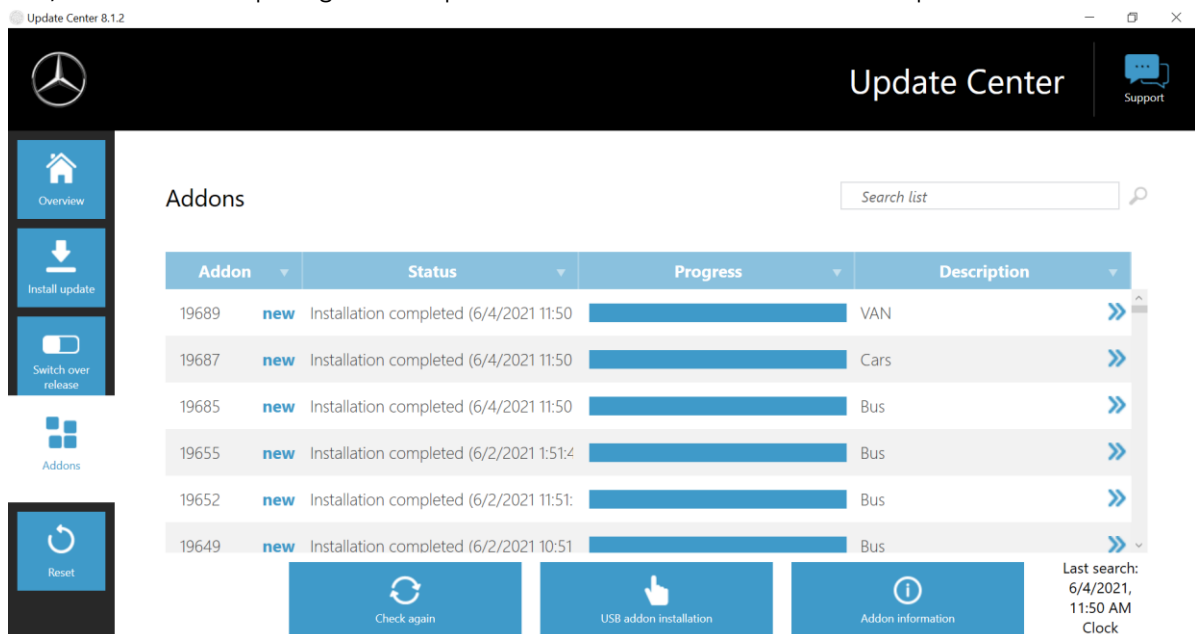
- Connect the Blu-ray Disc drive using the USB connection cable to XENTRY Diagnosis Pad | Pad 2.
- Insert the WIS/ASRA Blu-ray Disc into the Blu-ray Disc drive.

One-time only from the April 2021 version onwards

- Open the Update Center.



- Click on "Add-ons" on the left-hand side of the navigation
- Click on "USB add-on installation" and open the add-on file (*16000_V1.add-on) on the uppermost level of the WIS/ASRA installation package in the Explorer view. Installation of the add-on takes place.



For each update per full version

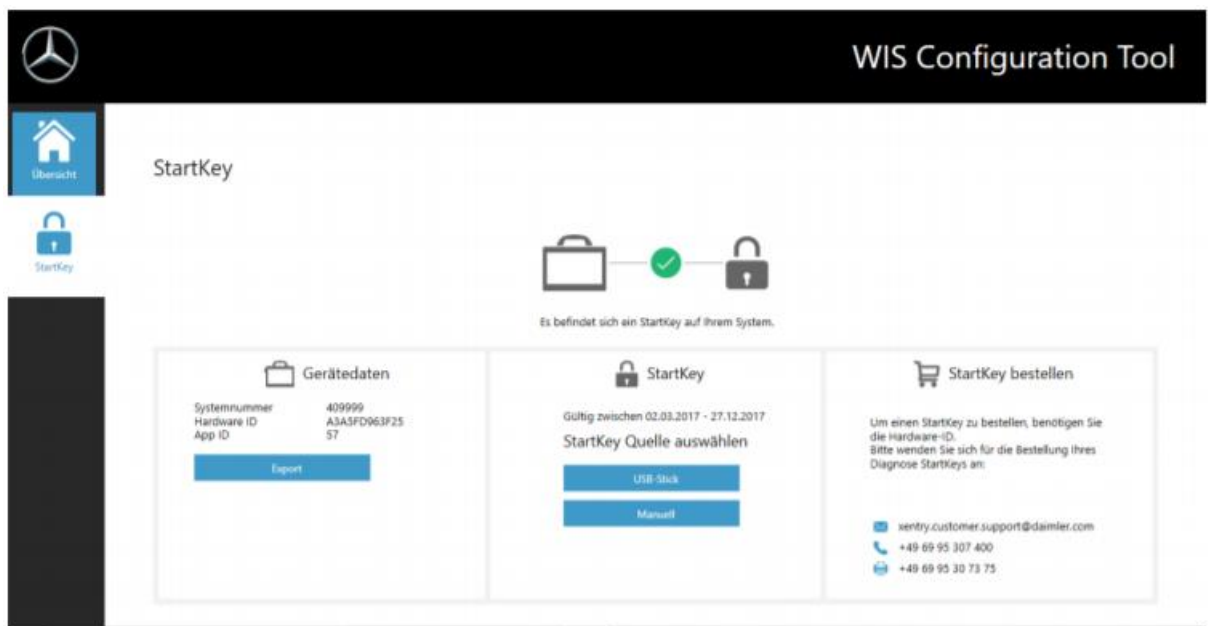
1. Start the installation by double clicking on the *WISStandaloneSetup.exe* file in the *ewa\xd_pad* path
2. Follow the instructions of the installation routine.
3. The WIS Configuration Tool is pulled up immediately after installation of WIS/ASRA offline.

3.7.2. Entering WIS/ASRA StartKey in WIS Configuration Tool

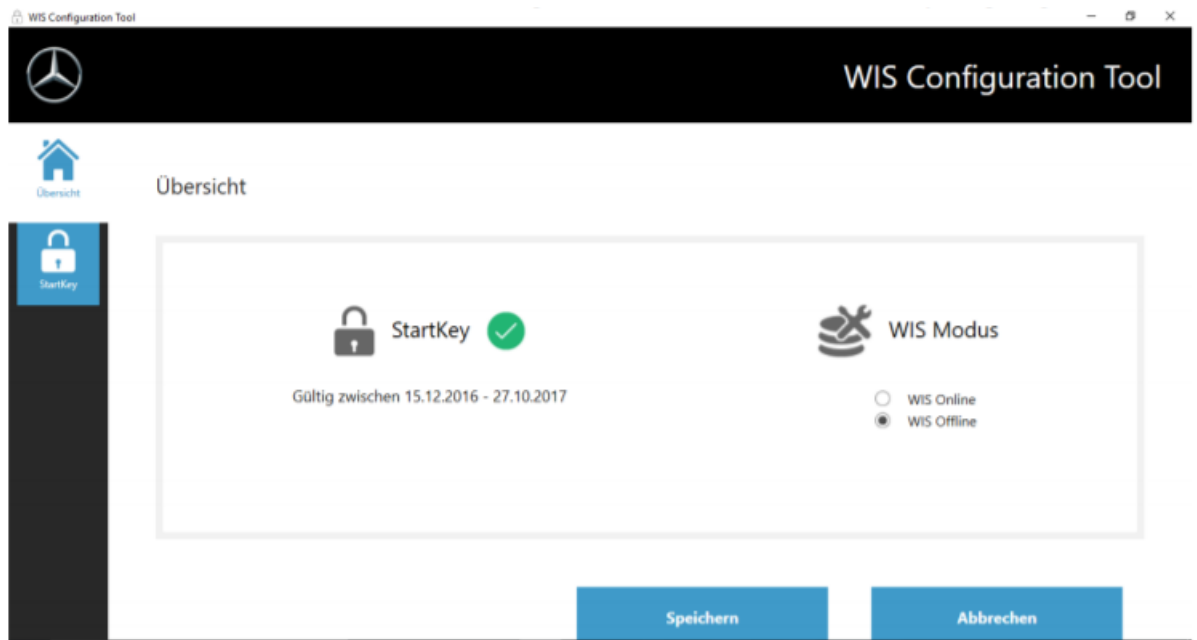
Please perform the following steps in sequence after initial installation of WIS/ASRA offline/standalone.

Please note: In order to be able to install WIS/ASRA offline, you must have already received the StartKey as a text file (*.txt) via email. You can save this file to a USB flash drive and connect this USB flash drive to the XENTRY Diagnosis Pad | Pad 2 at a later stage.

1. Open the WIS Configuration Tool (under the Mercedes-Benz menu item) within the start menu after receiving the StartKey.
2. Select the "StartKey" button on the left-hand side and then click on "USB Stick" to import the StartKey via the USB flash drive. Alternatively, manually enter the StartKey via the "Manual" button.



3. In the "Overview" menu item, click on WIS Offline as the preferred application. Following configuration, you can start WIS/ASRA offline via the icon on the desktop or via the XENTRY frame. In this window, the validity of your WIS/ASRA StartKey will also be shown.



- Next, click on "Save".

4. Operation of XENTRY Diagnosis Kit 4

4.1. System Start

Please proceed as follows to correctly launch the components of your XENTRY Diagnosis Kit 4:

1. Start XENTRY Diagnosis Pad 2 by pressing the button on the front side of the device for approx. 5 seconds.



Figure 16: Illustration of XENTRY Diagnosis Pad 2

2. Start XENTRY Diagnosis VCI by connecting it to a vehicle via the OBD (and possibly an adapter) cable.
3. When the VCI has booted, an acoustic signal is audible (after approx. 10 seconds).
4. Now launch the XENTRY Diagnosis software to begin a diagnosis session.

4.2. Connection Options

You can individually select the connection to the workshop network, XENTRY_Diagnosis_Pad_2 and XENTRY_Diagnosis_VCI.

Connection variant 1: WLAN



Figure 17: Connection variant 1: WLAN

Connection variant 2: WLAN and USB



Figure 18: Connection variant 2: WLAN and USB

Connection variant 3: LAN and WLAN

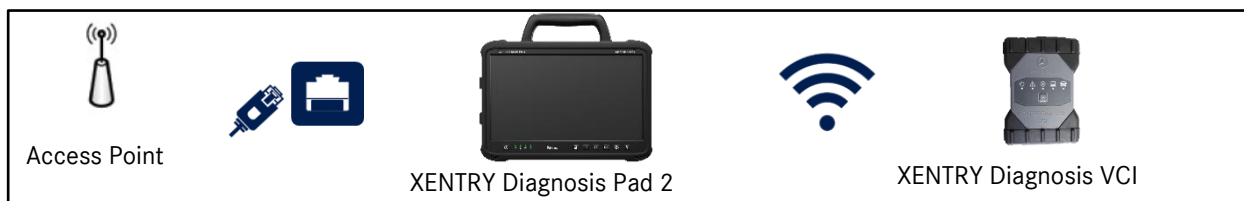


Figure 19: Connection variant 3: LAN and WLAN

Connection variant 4: LAN and USB

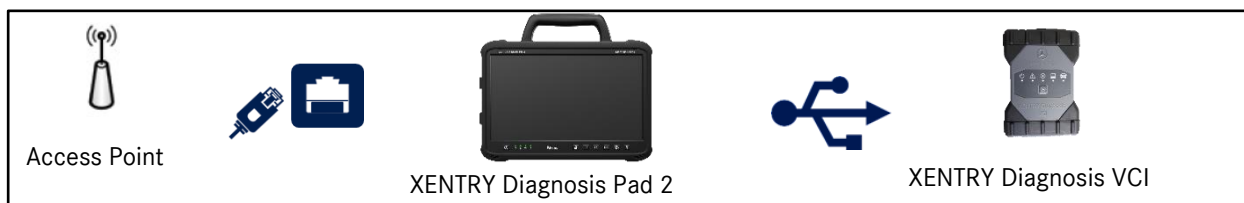


Figure 20: Connection variant 4: LAN and USB

4.3. Update Center

Updates are managed via the Update Center. You can open this using the "Update Center" icon on the taskbar on your XENTRY Diagnosis Pad 2:

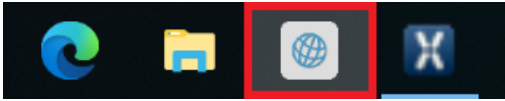


Figure 21: Update Center icon

The overview of the Update Center shows you all the relevant data in terms of diagnosis updates and add-ons, at a glance.

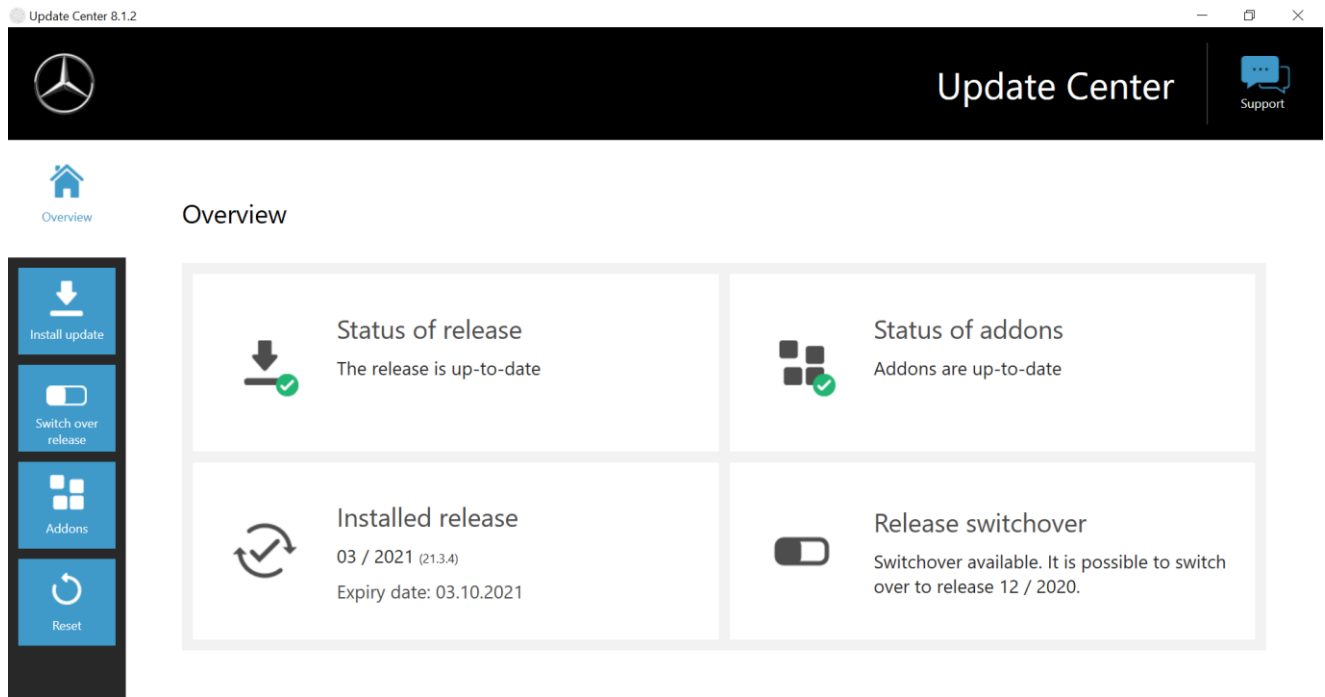


Figure 22: Update Center start screen

4.4. Switch Release

Switch release is embedded into the Update Center and it enables you to switch back to a previously-installed release update.

There are two partitions on the XENTRY Diagnosis Pad | Pad 2 hard drive.

If, in exceptional cases, it is necessary to switch back to the predecessor software update after installing an update, click on the "Switch over release" button in the left navigation area and then on the "Switch over" button.

This does not usually take longer than ten minutes.

After switching over, you can also switch back to the current software update using this button.

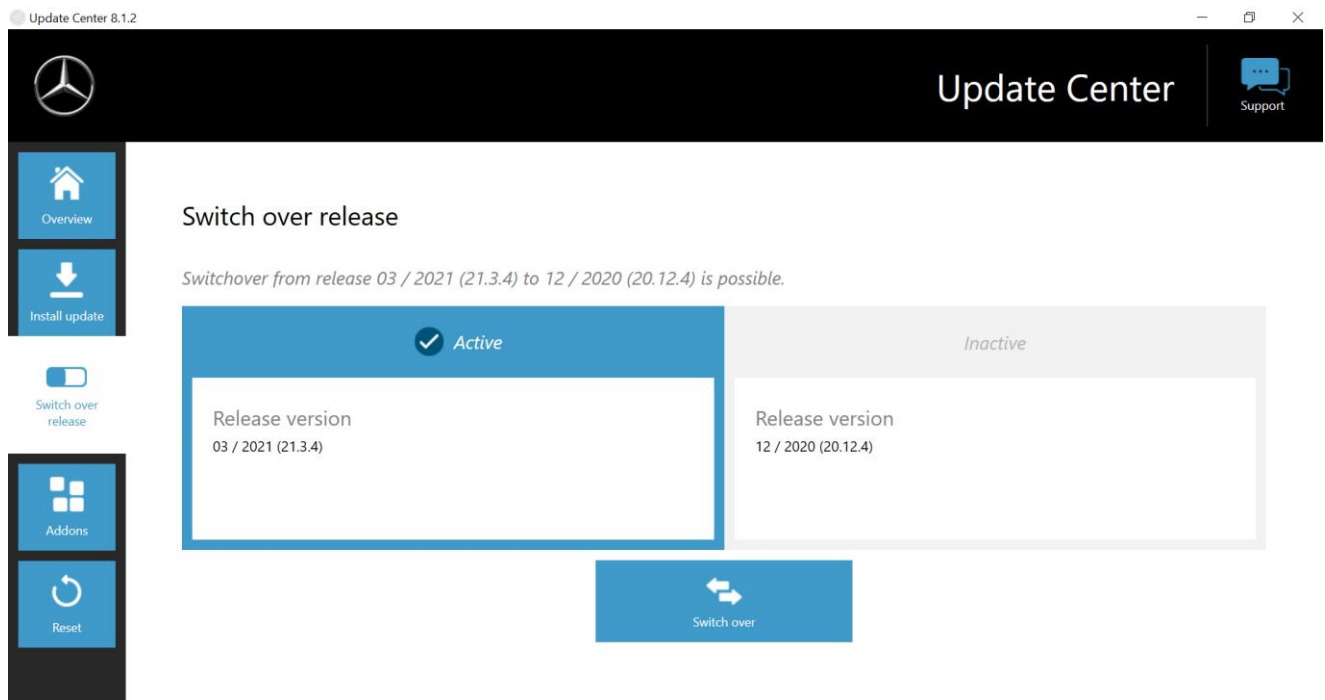


Figure 23: Release switching in the Update Center



Please note that release switching is only possible when two release updates have been successfully installed.

4.5. Add-Ons

Add-ons are automatically installed on XENTRY Diagnosis Pad 2. This is managed by the Update Center. To check the current status of the installed add-ons, open the Update Center.

Click on the "Add-ons" menu item to obtain an overview of the currently installed add-ons.

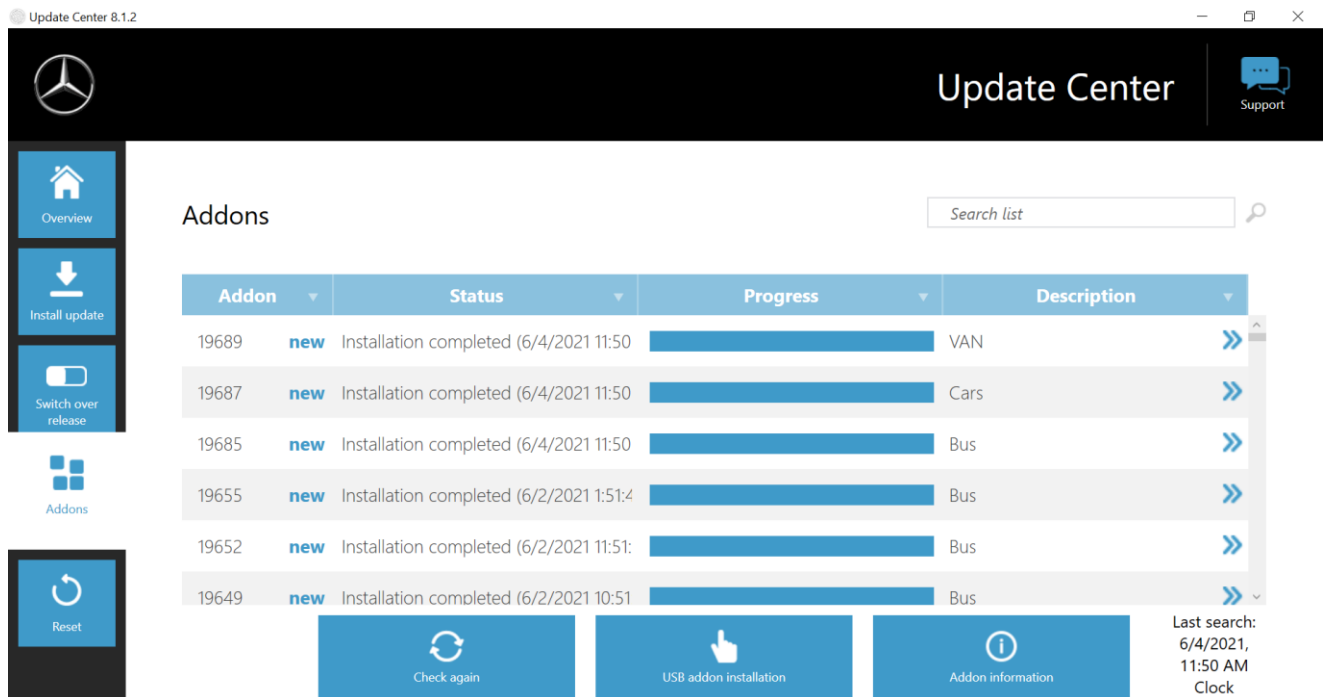


Figure 24: Installed add-ons

You can obtain more information on the Update Center in Chapter 7.2 on page 61.

In principle, the Update Center continuously checks for newly available add-ons. You can start this check using the "Check again" button.

If a Support employee emails you an add-on, you can copy it onto a USB flash drive then upload and install it yourself on the XENTRY Diagnosis Pad 2 through "USB add-on installation".

4.6. Printers and Printing

Any commercially available Windows 10-compatible printer may be installed on XENTRY Diagnosis Pad_2. This applies to both USB and network printers. Printers certified for Windows 10 are preferred. Installation is no longer via special tools, but simply via the Windows menu.

4.6.1.USB Printer Installation

To install a USB printer, proceed as follows:

1. Switch on the USB printer
2. Connect the USB printer to XENTRY Diagnosis Pad 2 using a suitable USB connection cable
3. Please wait a few minutes
4. The USB printer is automatically installed by Microsoft Windows 10
5. The printer is now ready for use

Alternatively, you can install the printer as follows:

1. Open the control panel via the start menu.

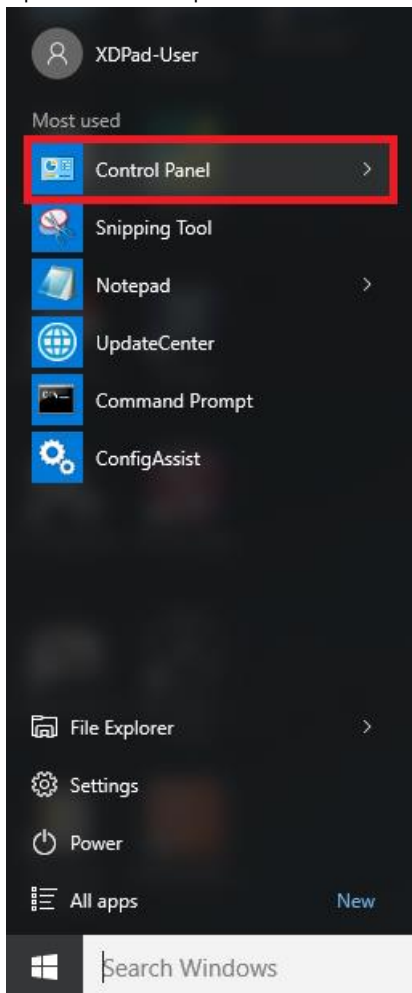


Figure 25: Opening the control panel

2. Click "View devices and printers" in the "Hardware and Sound" area.

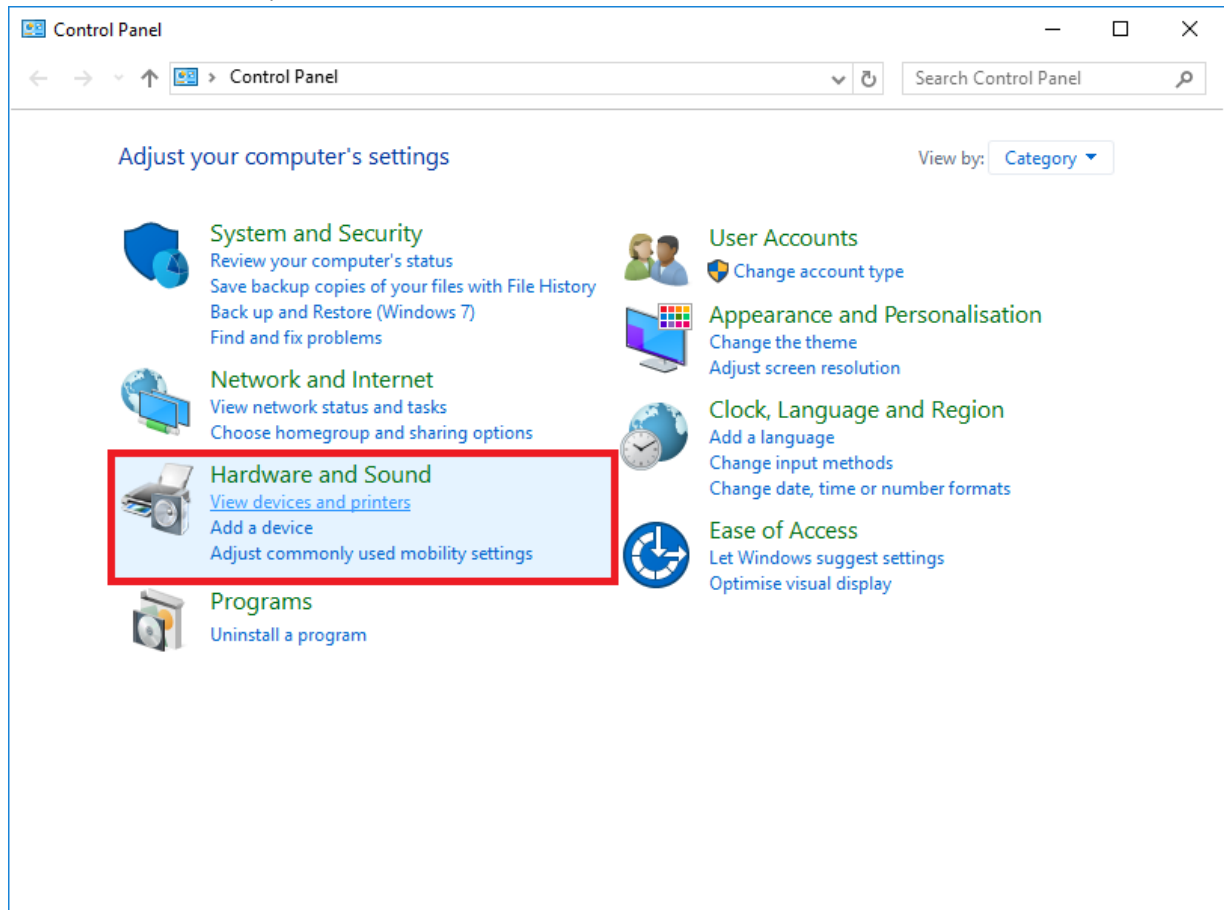


Figure 26: Hardware and Sound - View devices and printers

3. To start with, the currently installed printers are displayed:

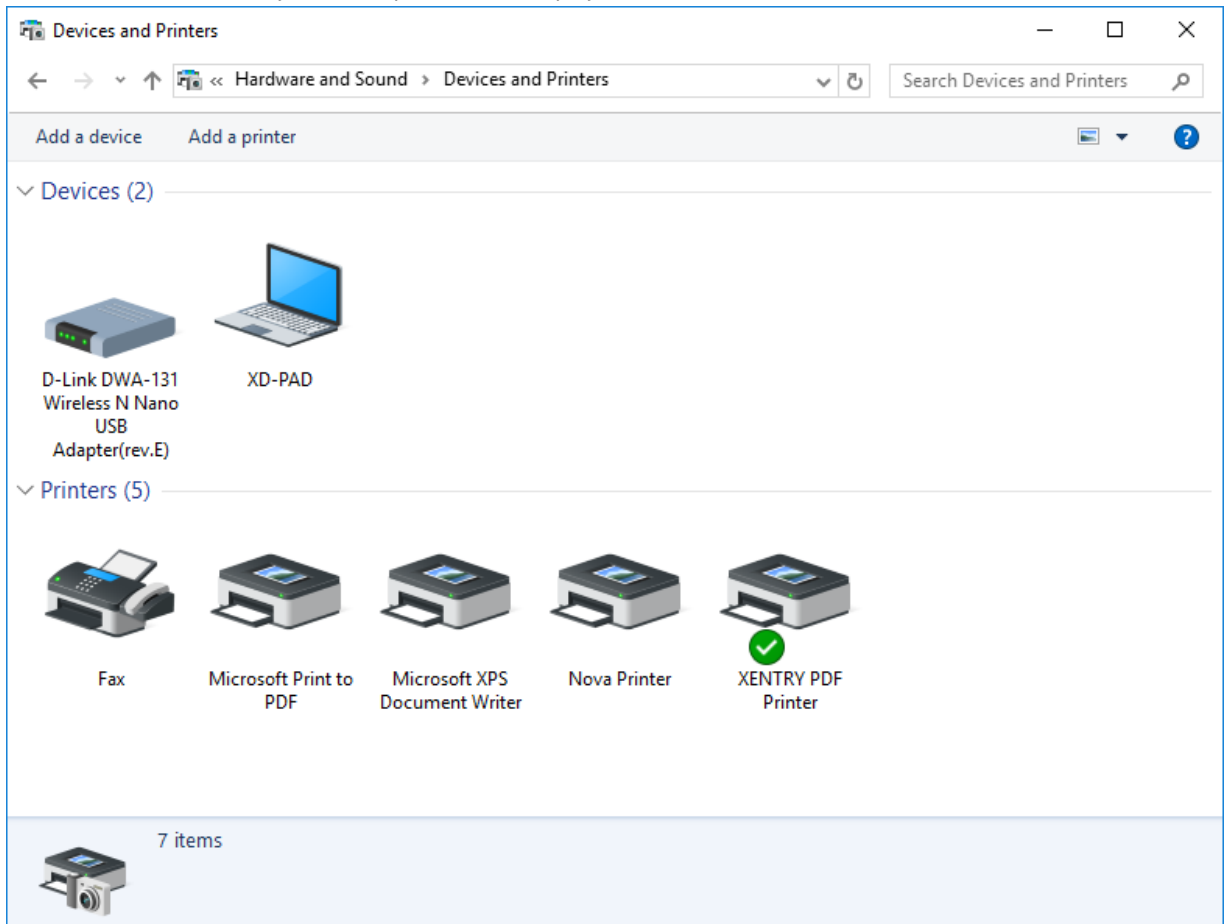


Figure 27: Currently installed printers

4. Now switch on the desired USB printer, and connect it to the XENTRY Diagnosis Pad with a suitable USB connection cable.
- The printer is initially displayed in the "Unspecified" area; the printer drivers are installed at the same time. This process may take a few minutes.

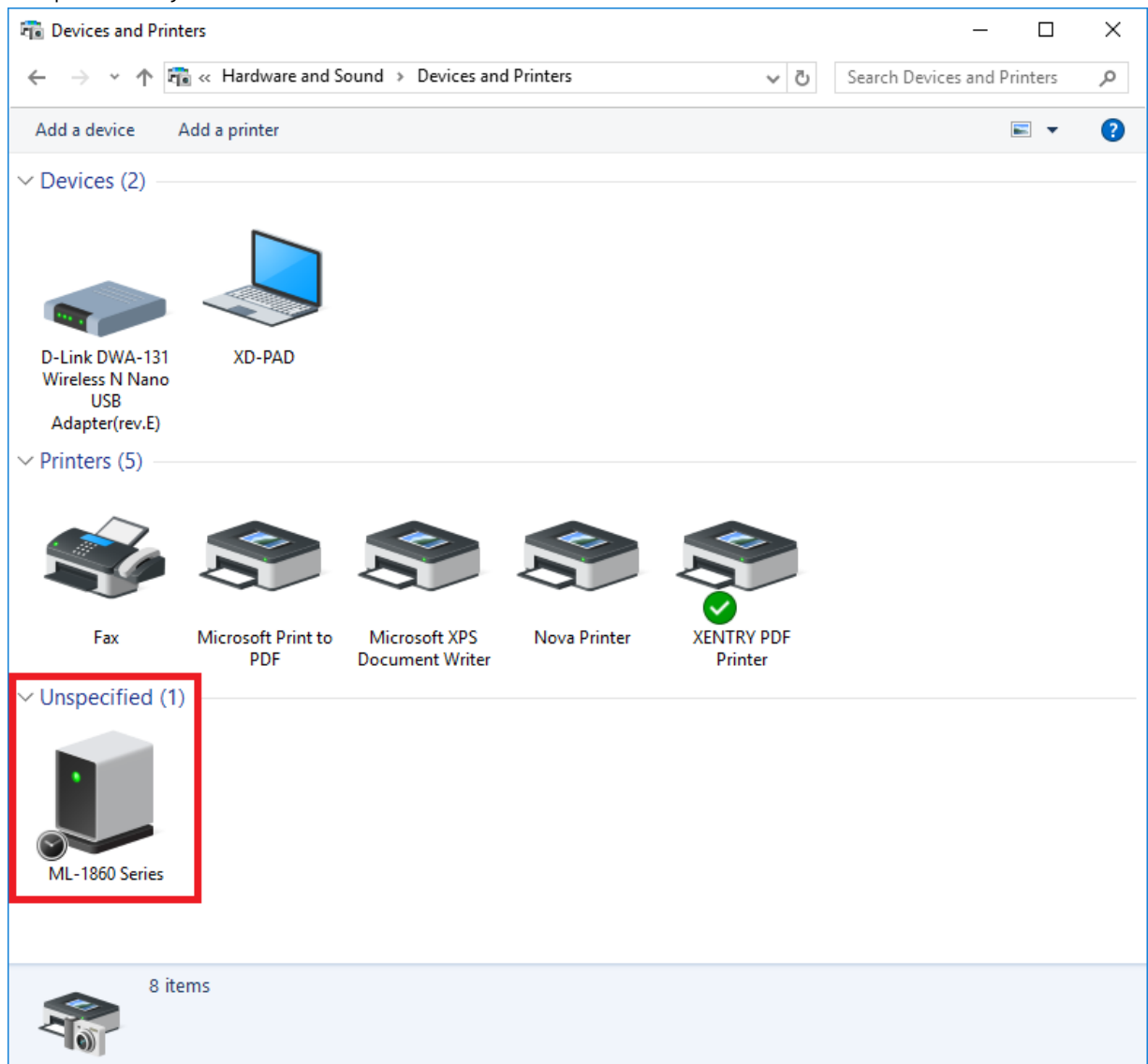


Figure 28: Printer recognized, installation in progress

5. Once successfully installed, the printer is displayed in the "Printers" area.

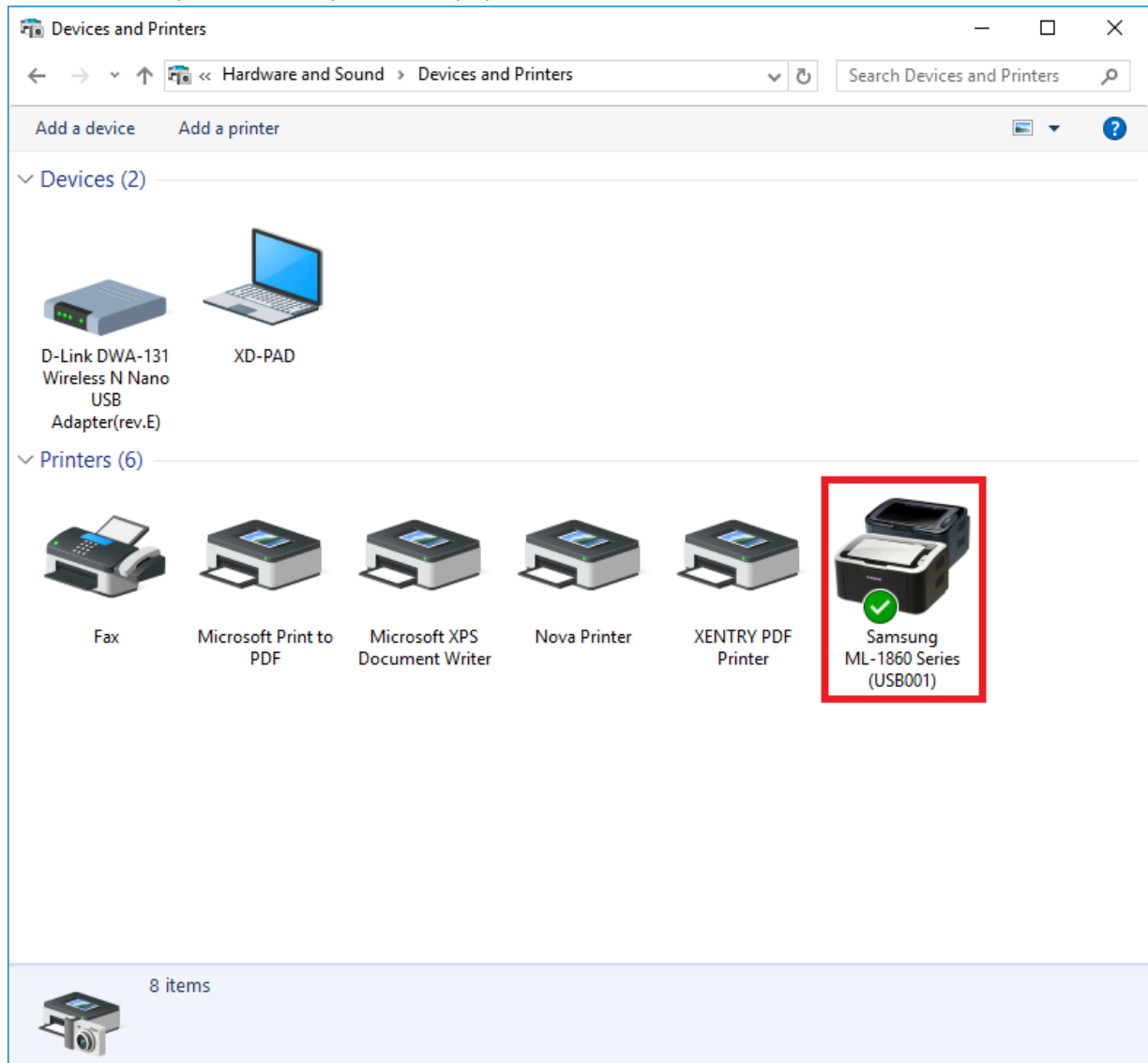


Figure 29: Printer installed

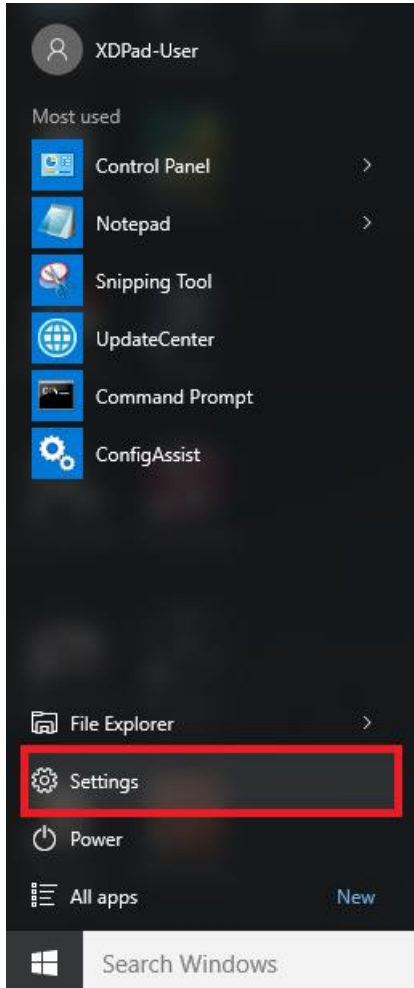
You can also create PDF files in XENTRY Diagnosis Kit 4. A comprehensive description of the PDF Center is available in Chapter 7.4 on page 67.

4.6.2. Installation of a Network Printer

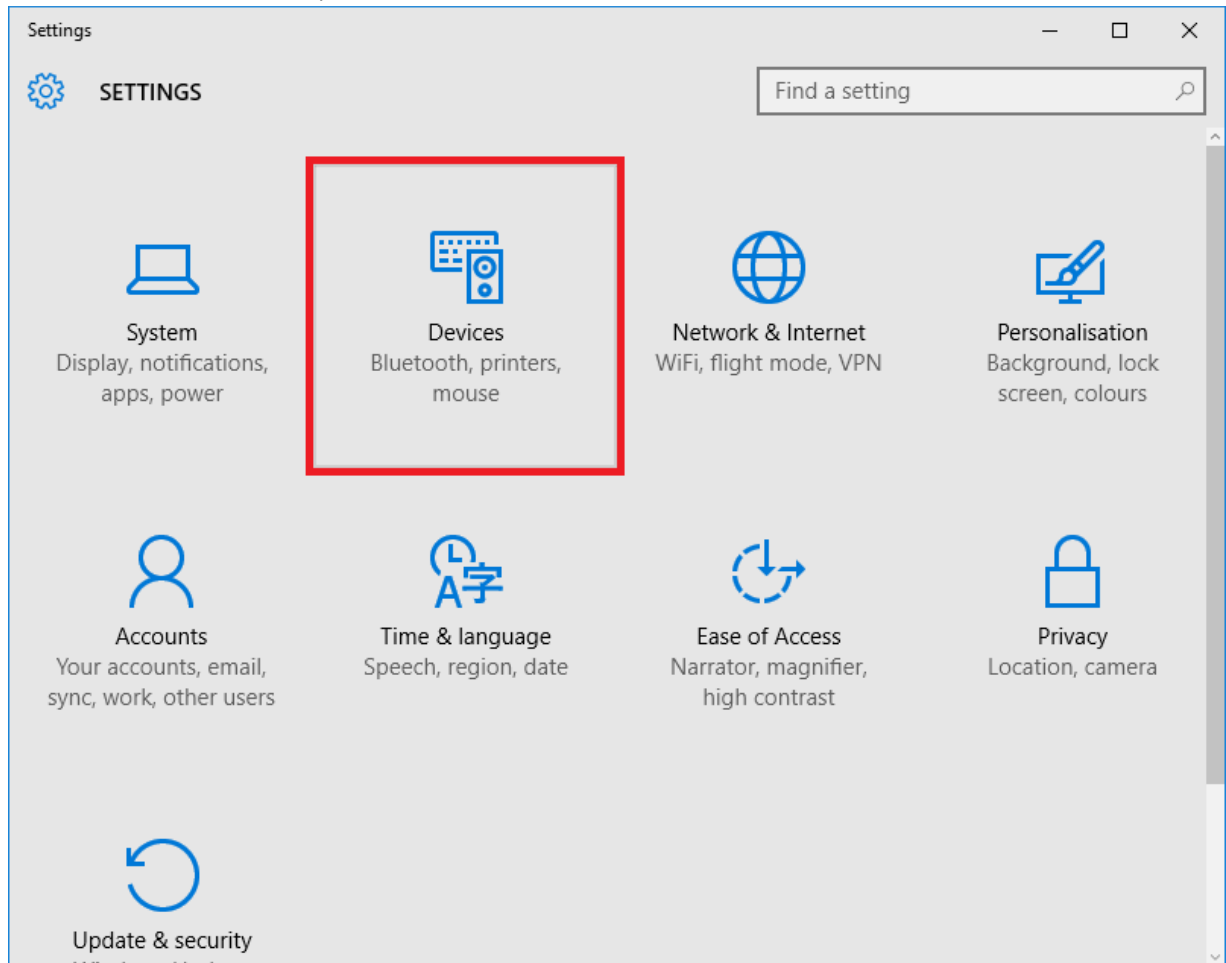
The procedure for setting up a network printer located on the same network as XENTRY Diagnosis Pad_2 is described below.

Please switch on the network printer, and connect to the network on which XENTRY Diagnosis Pad_2 is located.

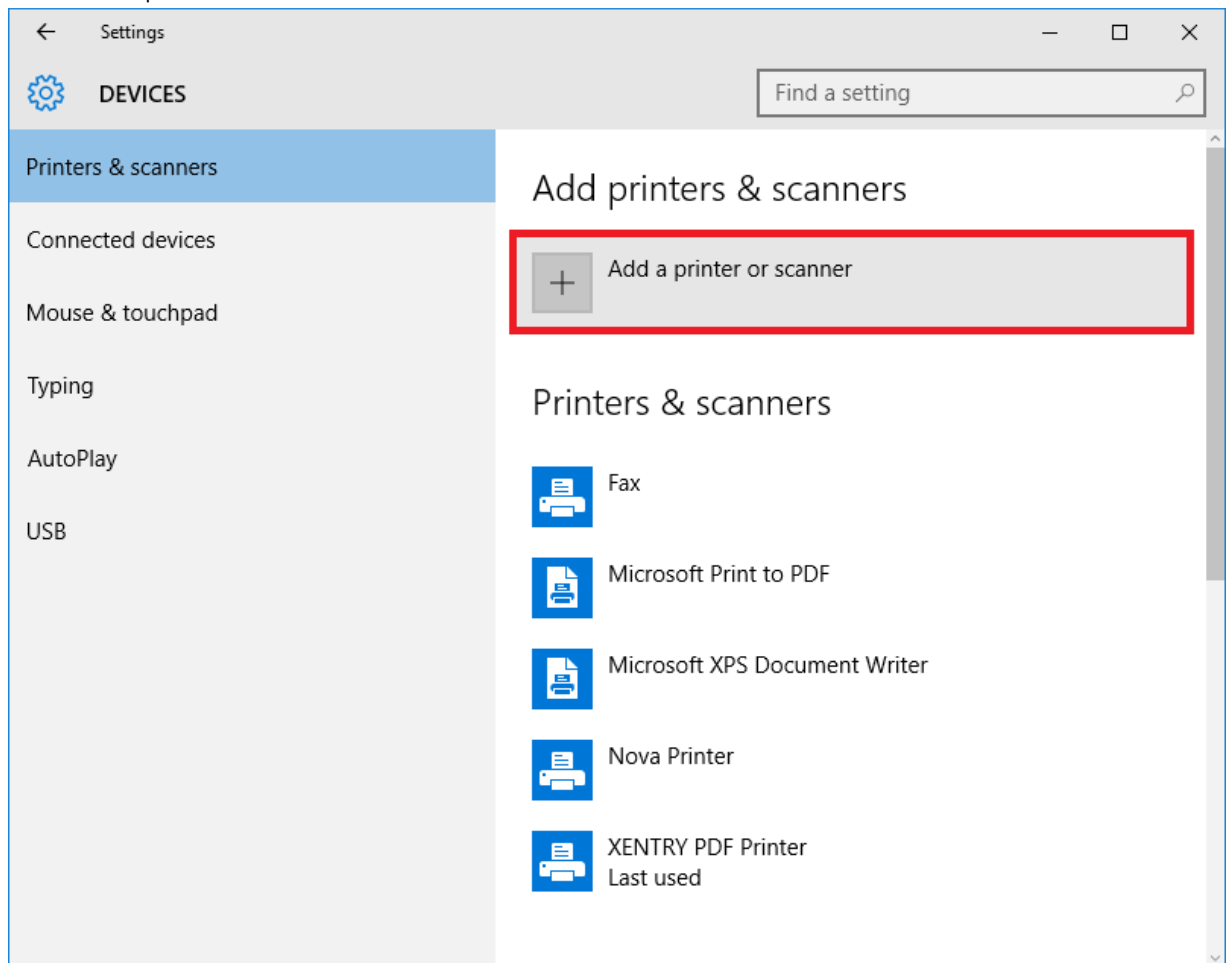
1. Open "Settings" via the Start menu on XENTRY Diagnosis Pad 2.



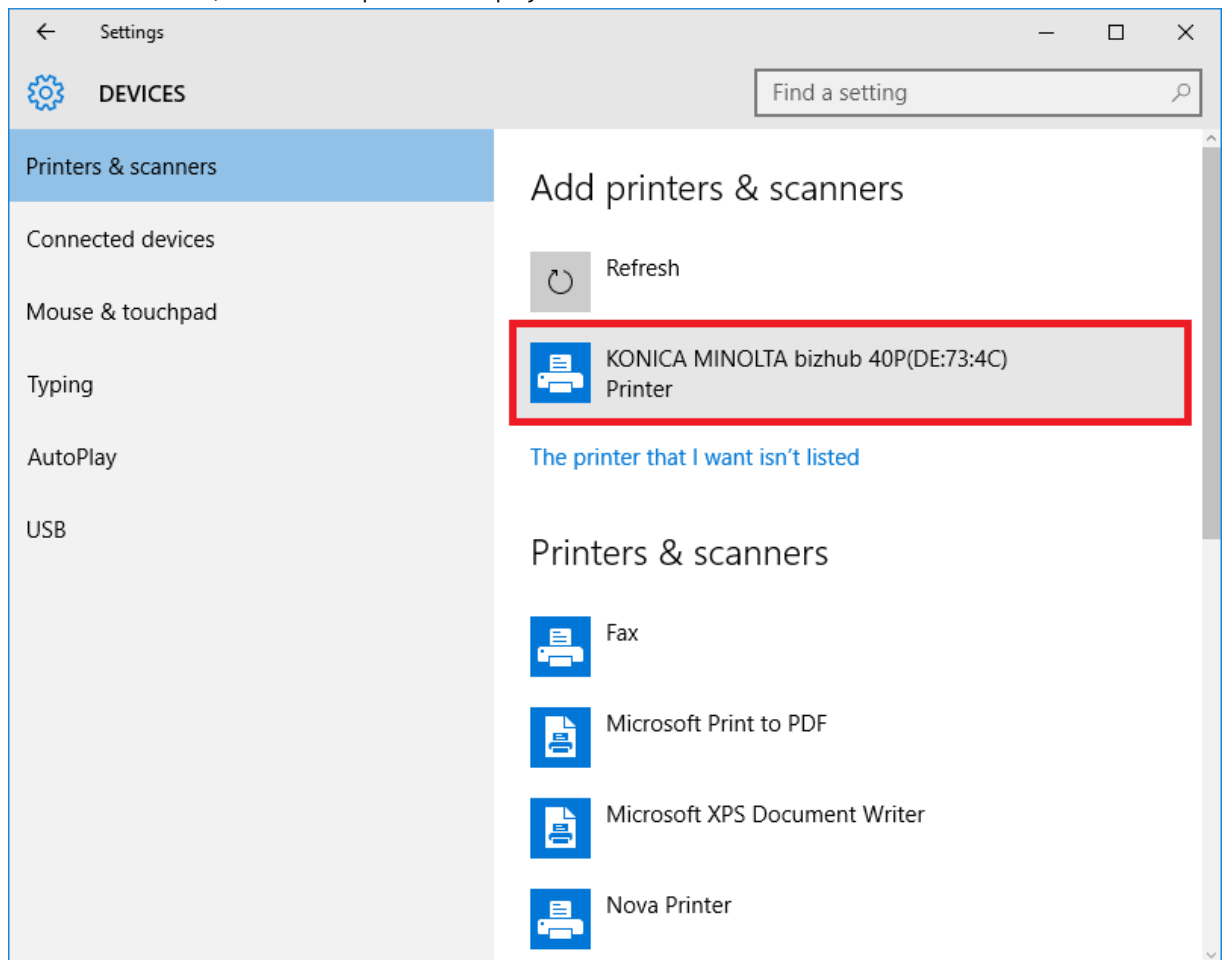
2. Select "Devices – Bluetooth, printers, mouse".



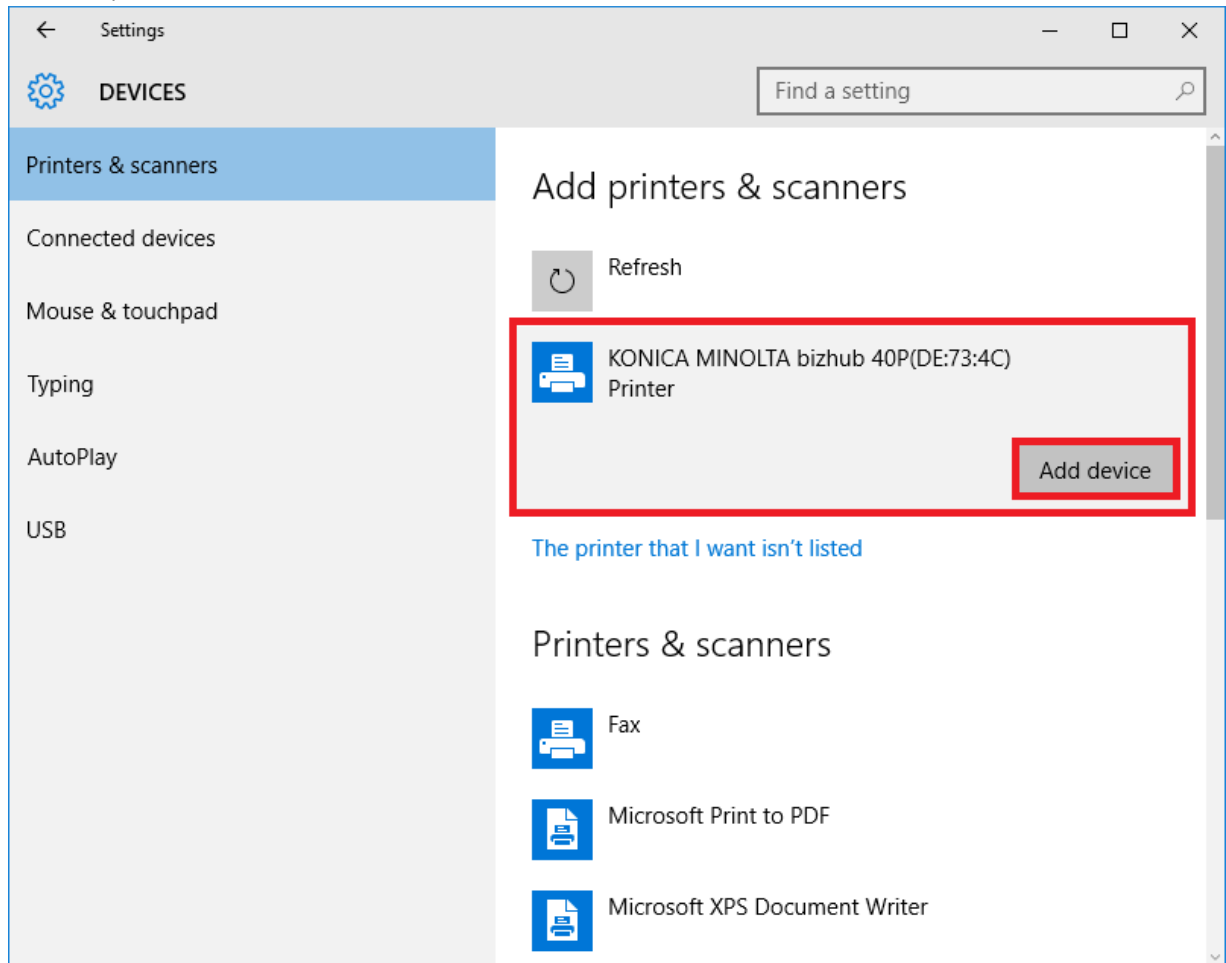
3. Click "Add a printer or scanner".



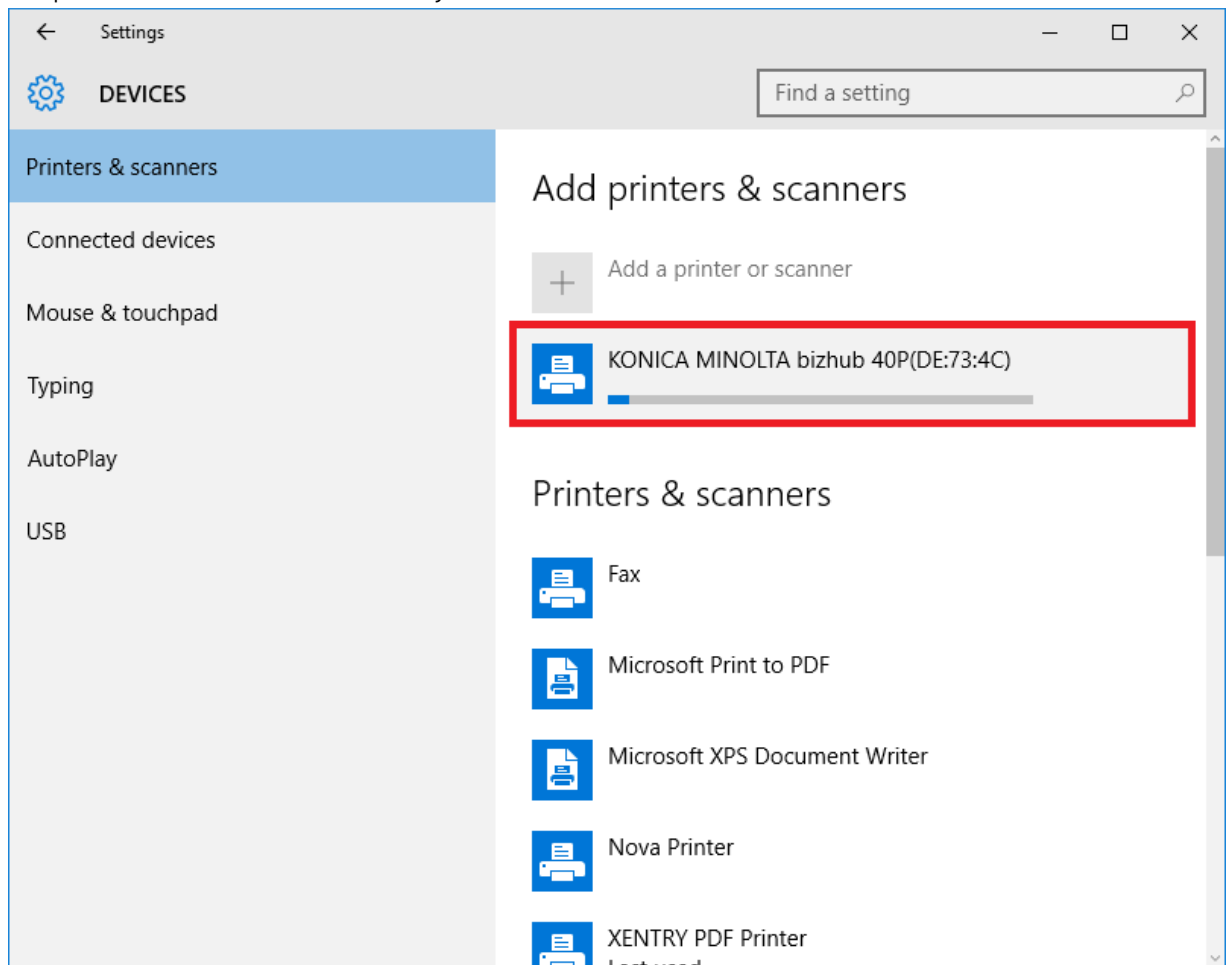
4. After a brief search, the network printer is displayed.



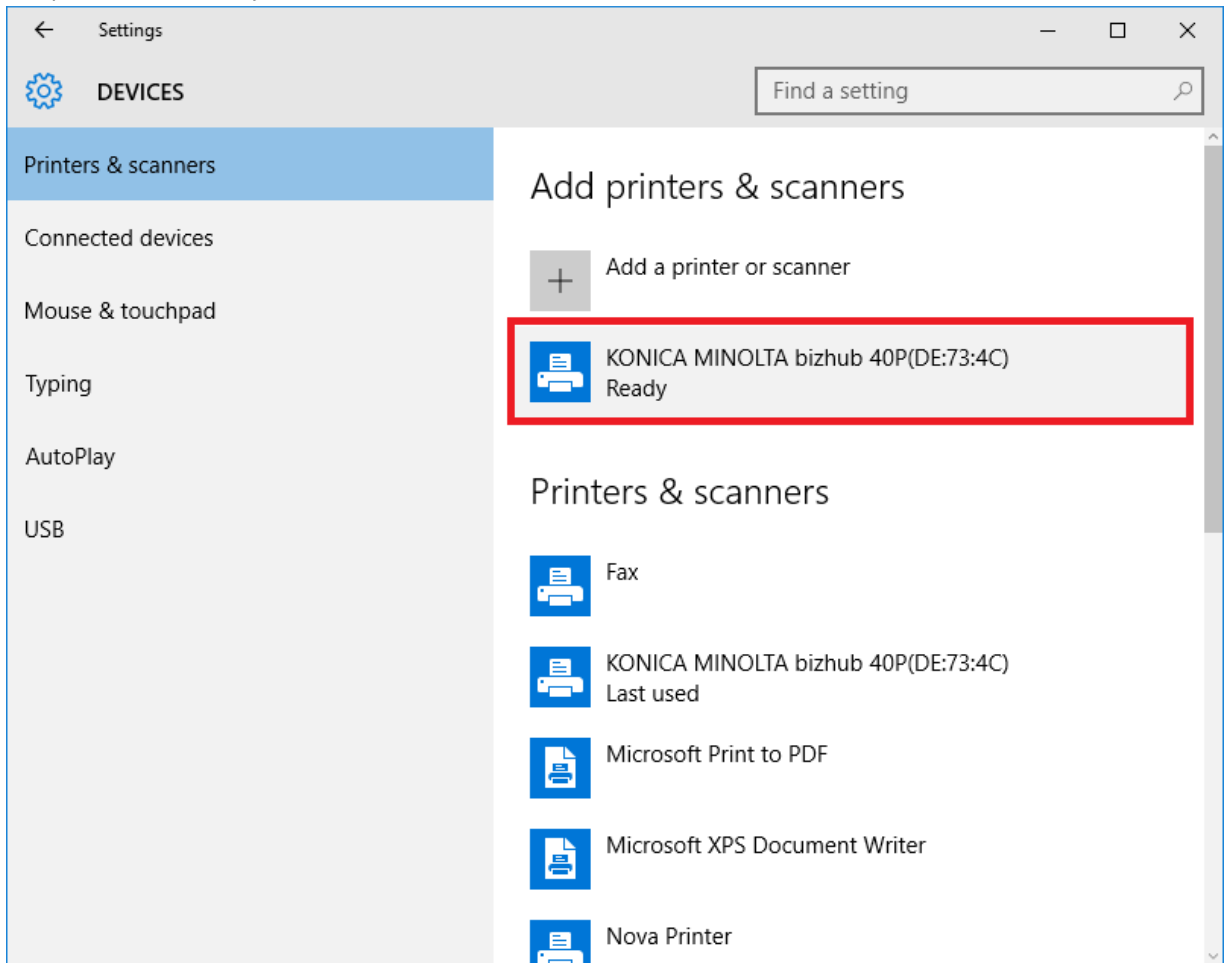
5. Mark the printer for installation, and then select "Add device".



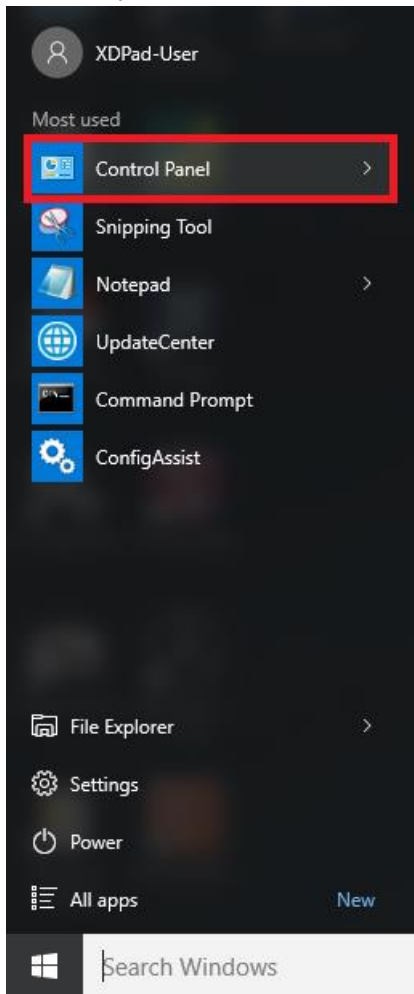
6. The printer drivers are now automatically retrieved and installed.



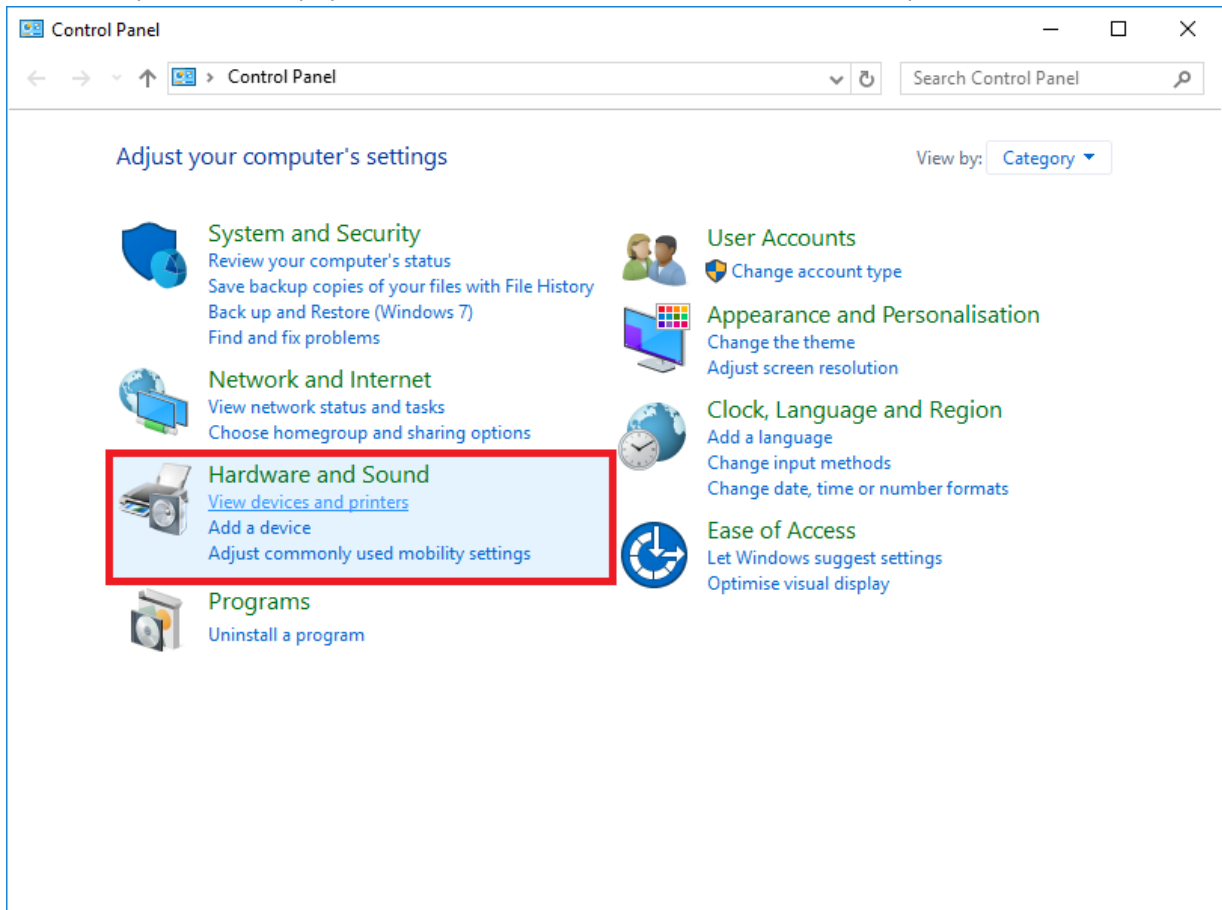
7. The printer is now ready.



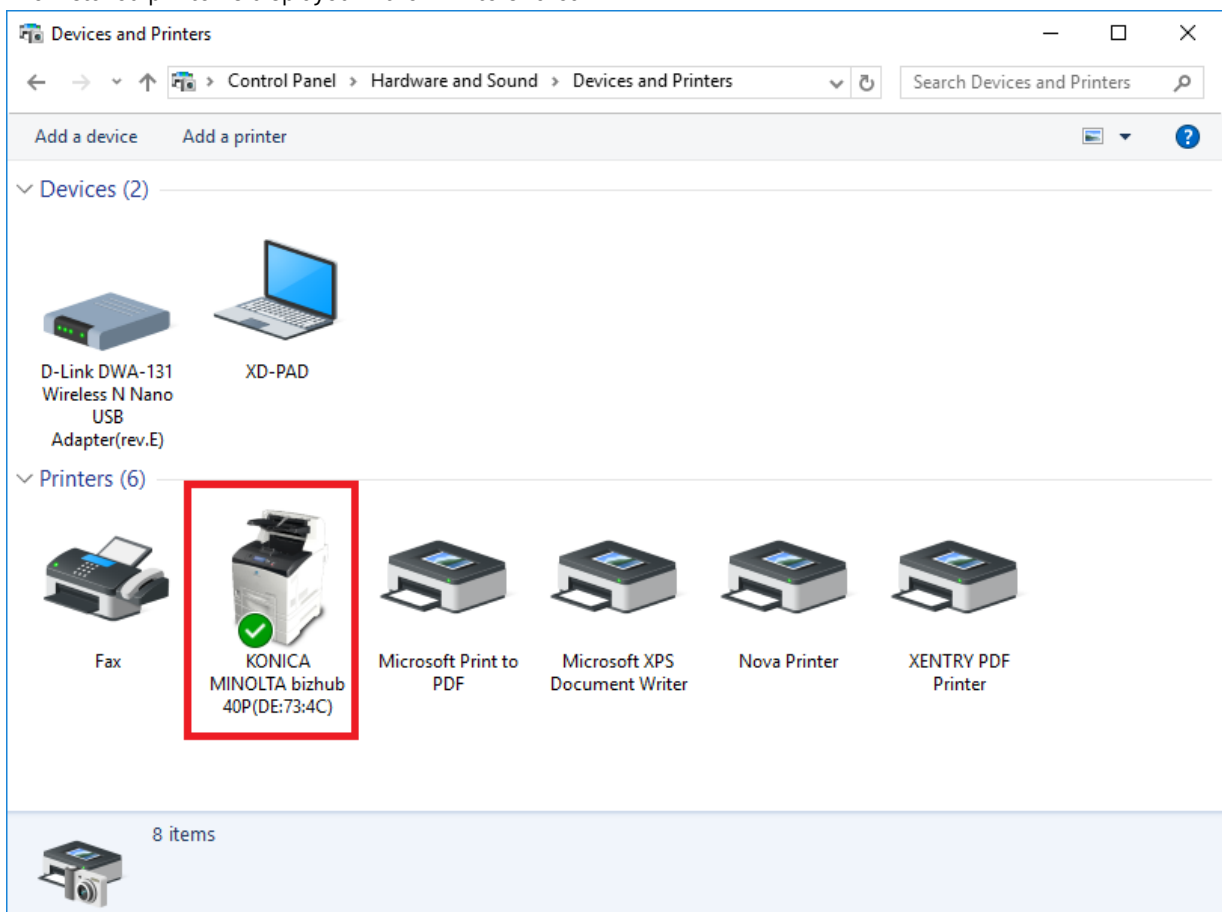
8. If desired, you can run a check via the control panel. To do so, click the "Control panel" button in the start menu.



9. All installed printers are displayed via the "Hardware and Sound – View devices and printers" menu item.



10. The installed printer is displayed in the "Printers" area.

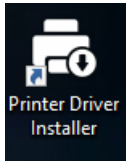


4.6.3. Assistant for Installing Printer Drivers

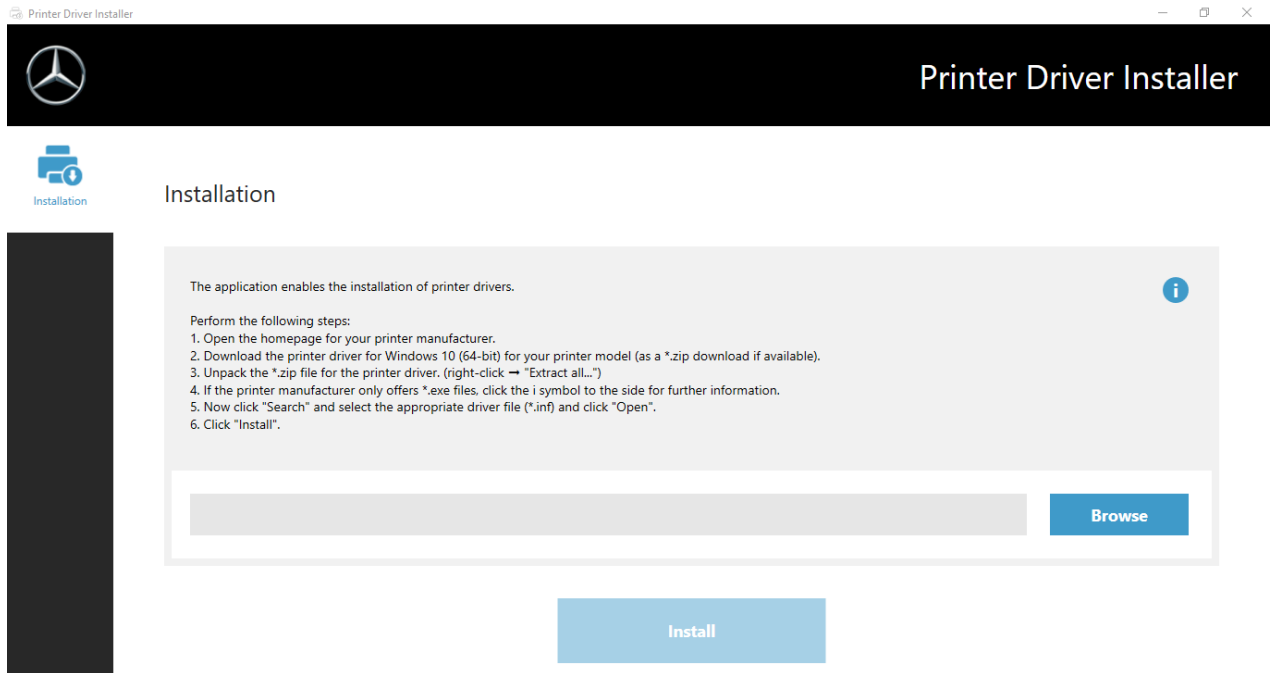
If you are prompted to enter an admin password during printer installation, you have two options:

Install the printer driver via the "Printer Driver Installer" desktop shortcut. The procedure to do so is described below:

1. Open the Printer Driver Installer via the desktop shortcut on your XENTRY Diagnosis Pad.




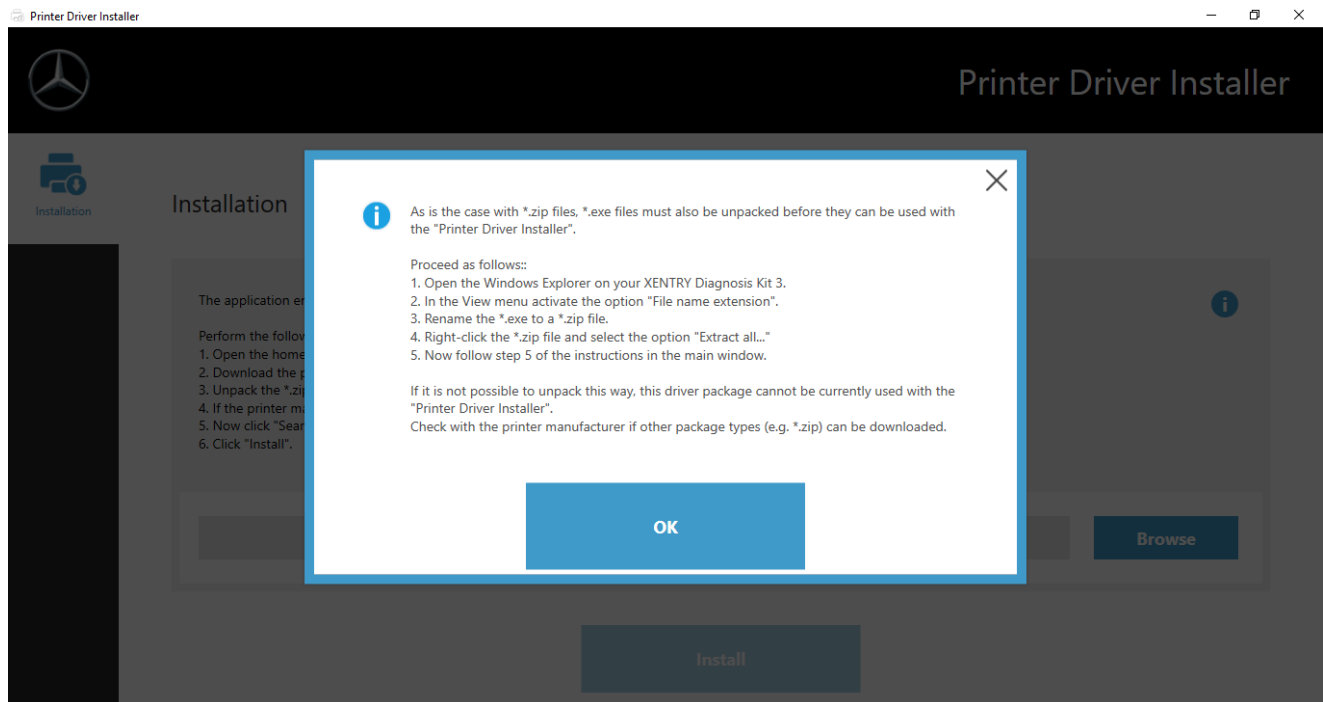
2. The installation screen appears:



Here, you can load and install printer drivers directly on XENTRY Diagnosis Pad 2.

Please note that the Printer Driver Installer currently only handles *.INF files.

If your printer driver is only available as an *.EXE file, please click on the  button on the right-hand side to clarify the further procedure:



4.7. Use of Control Unit Software Provided Online

If you use Retail Data Storage in your service operation, you can perform initial commissioning of control units online (without DVDs or Blu-ray discs), as the control unit software is now available via Retail Data Storage.

The available control unit software can be viewed in the XENTRY Update Service Control Center.

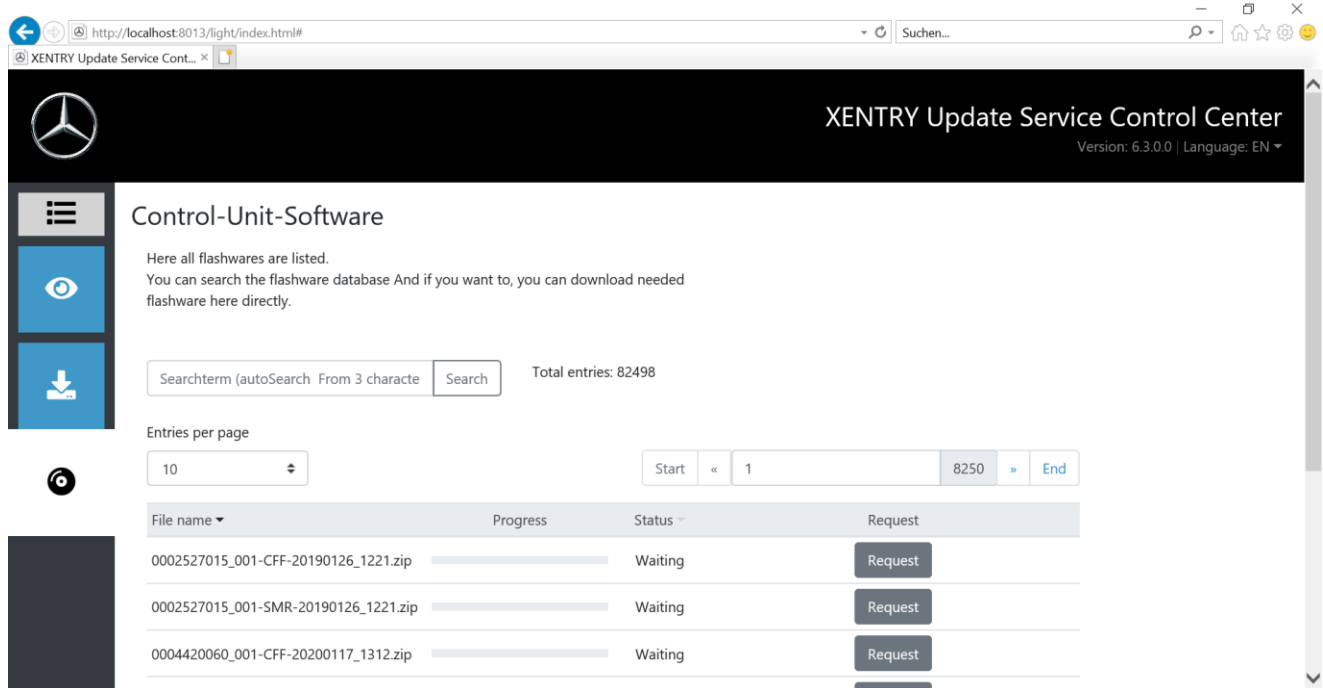


Figure 30: Available control unit software

For more information, please see the user guide "XENTRY Update Service - Commissioning Retail Data Storage".

4.8. AQT – Automatic Quick Test

In order to perform an automatic quick test (AQT) in service reception, the XENTRY Diagnosis Pad_2 must be integrated into your service operation's service reception network and be connected to the Internet.

Please ensure when working in service reception that XENTRY Diagnosis VCI and XENTRY Diagnosis Pad_2 are close enough to each other to ensure that the connection between the hardware components can be maintained via WLAN. Alternatively, hardware components can be connected via USB connection cable.

In addition, you must have XENTRY Portal access. Further information is available in the XENTRY Portal at Service reception > Diagnosis in service reception (automatic quick test)

To activate the automatic quick test (AQT) mode, on the XENTRY Diagnosis Pad_2 desktop open the "XENTRY Diagnosis AQT" link.

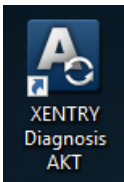


Figure 31: XENTRY Diagnosis AQT (AQT) icon

You will be prompted once to sign on with your user name and password:

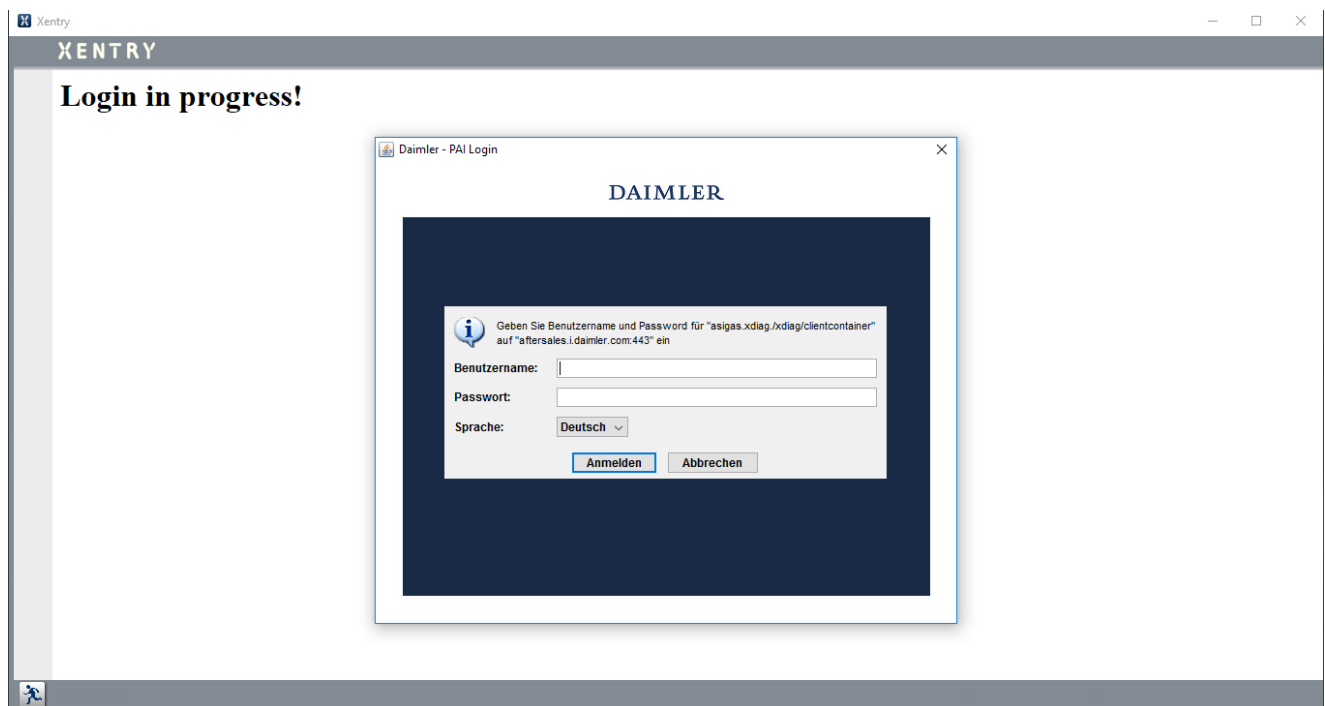


Figure 32: XENTRY Diagnosis AQT login

XENTRY Diagnosis VCI is now ready to perform the AQT.

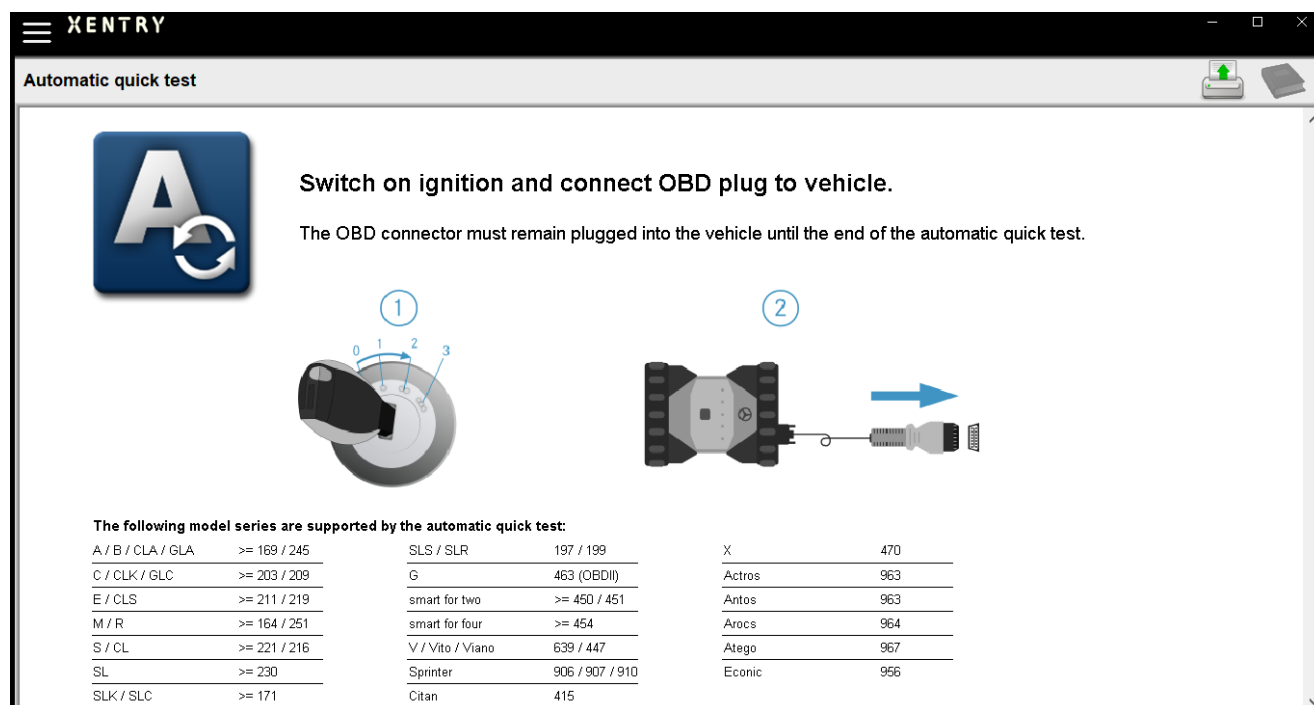


Figure 33: XENTRY AQT home screen

Proceed as follows:

1. Switch on the vehicle ignition (important!)
2. Connect XENTRY Diagnosis VCI to the OBD socket on the vehicle
3. The quick test starts; you can follow its progress on the XENTRY Diagnosis Pad:

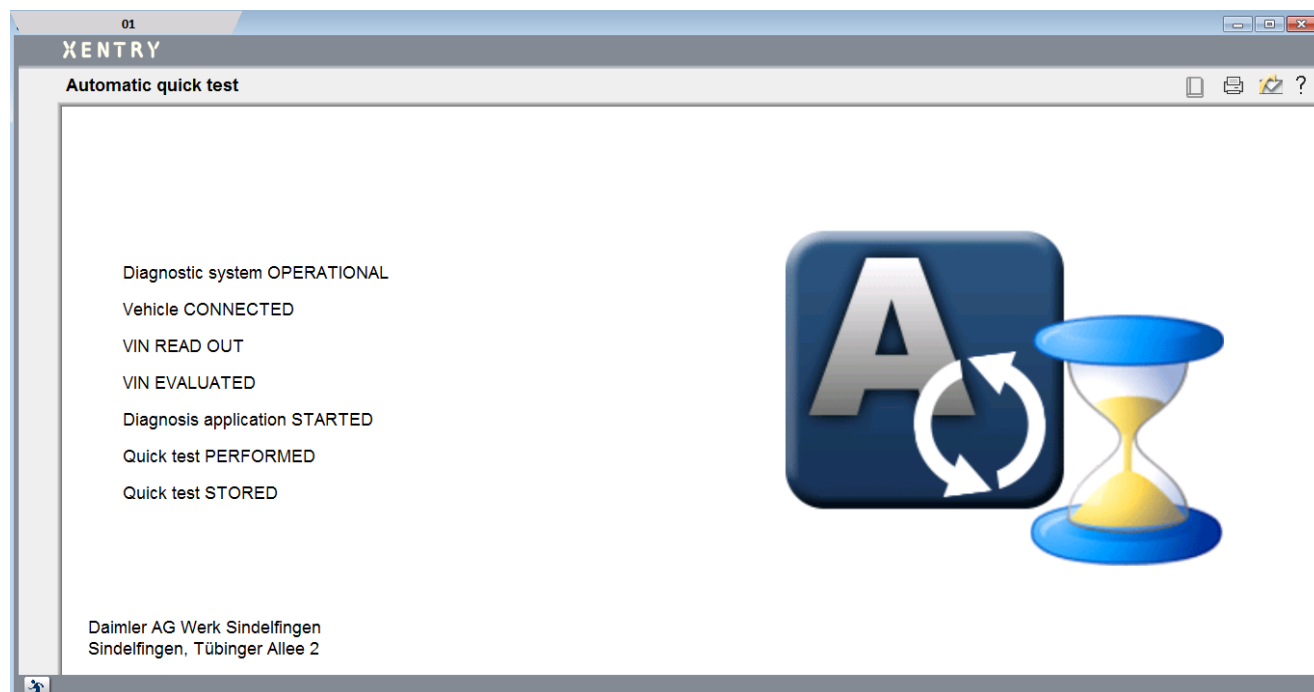


Figure 34: XENTRY AQT run

4. The quick test is completed in a few minutes (depending on model series and vehicle equipment), and the results are automatically transmitted via the network to the XENTRY Portal (the status display for the quick test can be read from the XENTRY Diagnosis Pad).
5. In response to the prompt "Pull OBD plug" on the XENTRY Diagnosis Pad display, disconnect the device from the vehicle.
6. The quick test is now available on the XENTRY Portal.

You can now use the XENTRY Diagnosis VCI on the next vehicle.

You can close AQT mode again after the last automatic quick test. To do so, close the "XENTRY AQT" program on the XENTRY Diagnosis Pad.

4.9. XENTRY WIS / XENTRY Operation Time

4.9.1. The New Workshop Information System (XENTRY WIS)

XENTRY WIS gives you information at the touch of a button

All technical descriptions, work instructions and information that you need for maintenance or repair are now available to you in XENTRY WIS. Your state-of-the-art Workshop Information System will win you over with its new design, its convenient integration into XENTRY Portal, and it can be used on your mobile devices too. At the touch of a button, you can have all the latest and most precise data to do with your workshop order, at any given time. You can process your order efficiently and handle it purposefully.

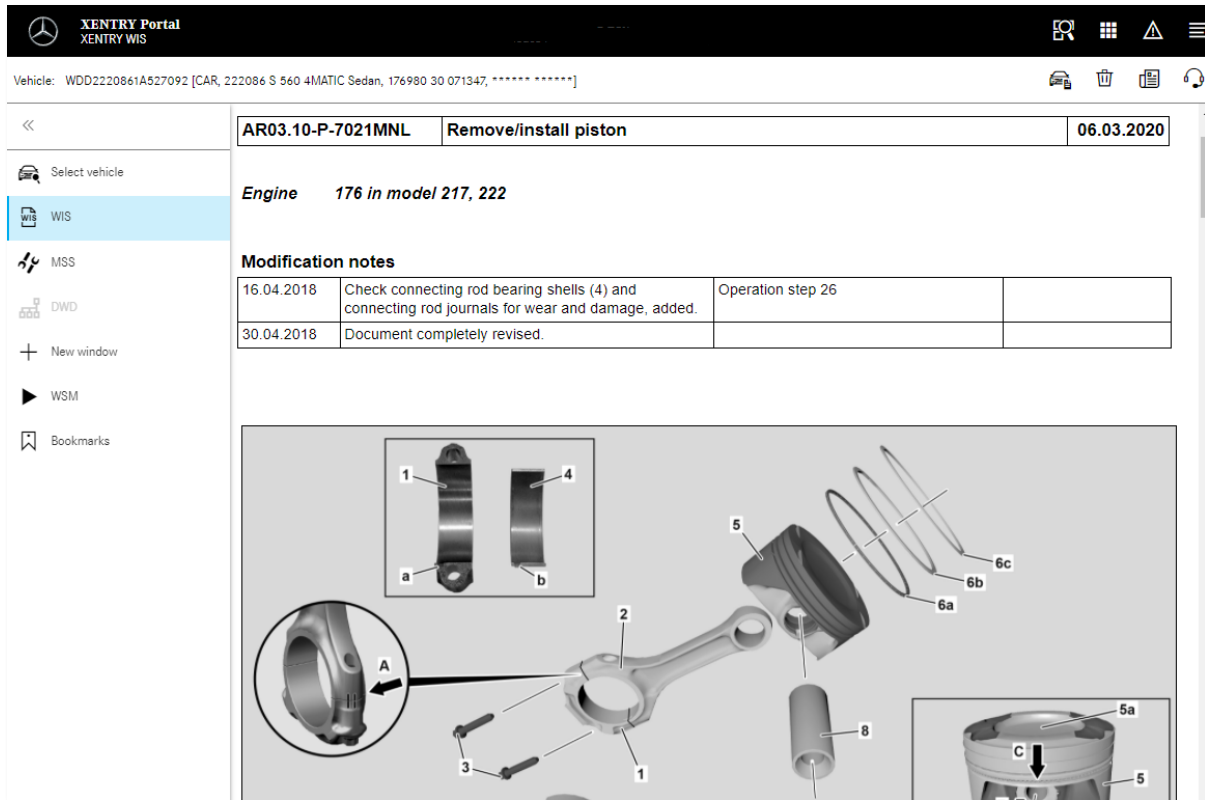


Figure 35: Directly launching XENTRY WIS

Optimized functionalities in modern design

You too can benefit from your new Workshop Information System:

- Integration into existing system environment and After Sales processes: uniform design, simplified use and greater networking of After Sales information
- JAVA/OWS clients are no longer necessary
- Identical operating concept means you can get started straight away without any special training
- Vehicle-specific repair and maintenance information from a single source
- Latest information for optimized maintenance and repair services in line with manufacturer specifications
- New product design: Search for workshop information in new, streamlined design
- Can be used on mobile devices

https://xentry.mercedes-benz.com/information/content/display/xentry_wis_overview

Note: WIS/ASRA offline/stand-alone

From January 2023 onwards, WIS/ASRA offline/stand-alone will no longer be supported. The ability to order the various offline products in XENTRY Shop had already been stopped back in December 2021. Please change your configuration in the WIS Configuration Tool; at the latest, when the current StartKey term expires (WIS Configuration Tool -> Overview -> WIS Mode -> "Online").

4.9.2. XENTRY Operation Time – Operates More Intuitively, Searches Faster, Finds Easier

Now, you can search for all the information you need about **operation items** and **labor times** and do so quicker than ever. **XENTRY Operation Time provides FIN/VIN-based data of the highest quality on a daily basis.**

The new, intuitive and modern user interface displays all the relevant information, using two screens only.

XENTRY Operation Time is integrated seamlessly into XENTRY Portal/ XENTRY Diagnosis, and it can also be used on additional mobile devices.

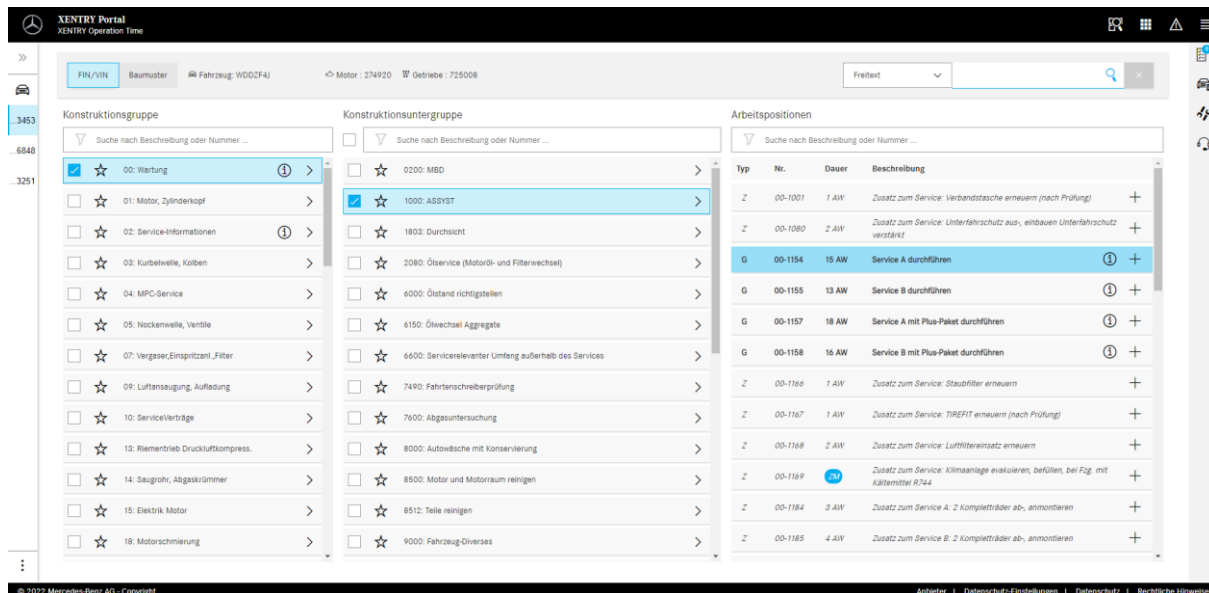


Figure 36: Directly launching XENTRY Operation Time

All the advantages at a glance:

- Daily information on operation items and times
- FIN/VIN-specific filter options
- Improved and intuitive search functions
- Continuous development enables data corrections on a daily basis
- Can be used on mobile devices
- Integration into XENTRY Portal/ XENTRY Diagnosis for optimum networking of applications and information
- JAVA/OWS clients are no longer necessary

https://xentry.mercedes-benz.com/information/content/display/xentry_operation_time_overview

4.9.3. Launching XENTRY WIS/XENTRY Operation Time from XENTRY Frame

You can launch XENTRY WIS and XENTRY Operation Time from XENTRY Frame.

You will need to log in with single sign-on using your EMEA user ID and the corresponding password.

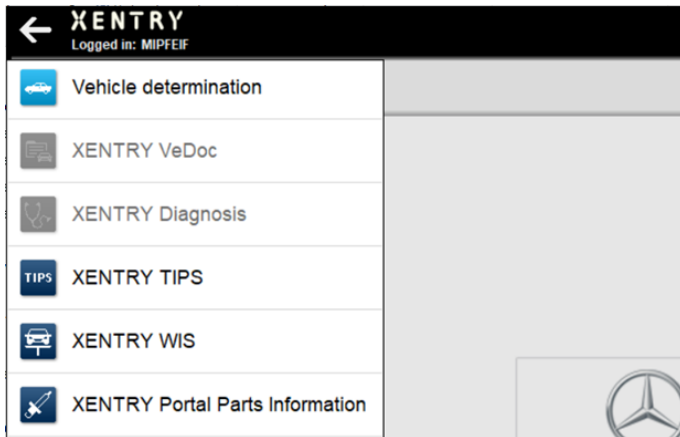


Figure 37: Directly launching XENTRY WIS/Operation Time from XENTRY Frame

Note

Please note that as soon as a vehicle context has been specified in XENTRY Frame (vehicle data visible in the XENTRY footer), it is then forwarded to the applications. XENTRY WIS and XENTRY Operation Time then set this vehicle data as the search context.

4.9.4. Launching XENTRY WIS/ XENTRY Operation Time from the Diagnosis Session

In addition to launching WIS/ASRA from the XENTRY frame, which involves transferring the vehicle context to WIS/ASRA, it is also possible to launch WIS/ASRA from various control unit or function views within a diagnosis session.

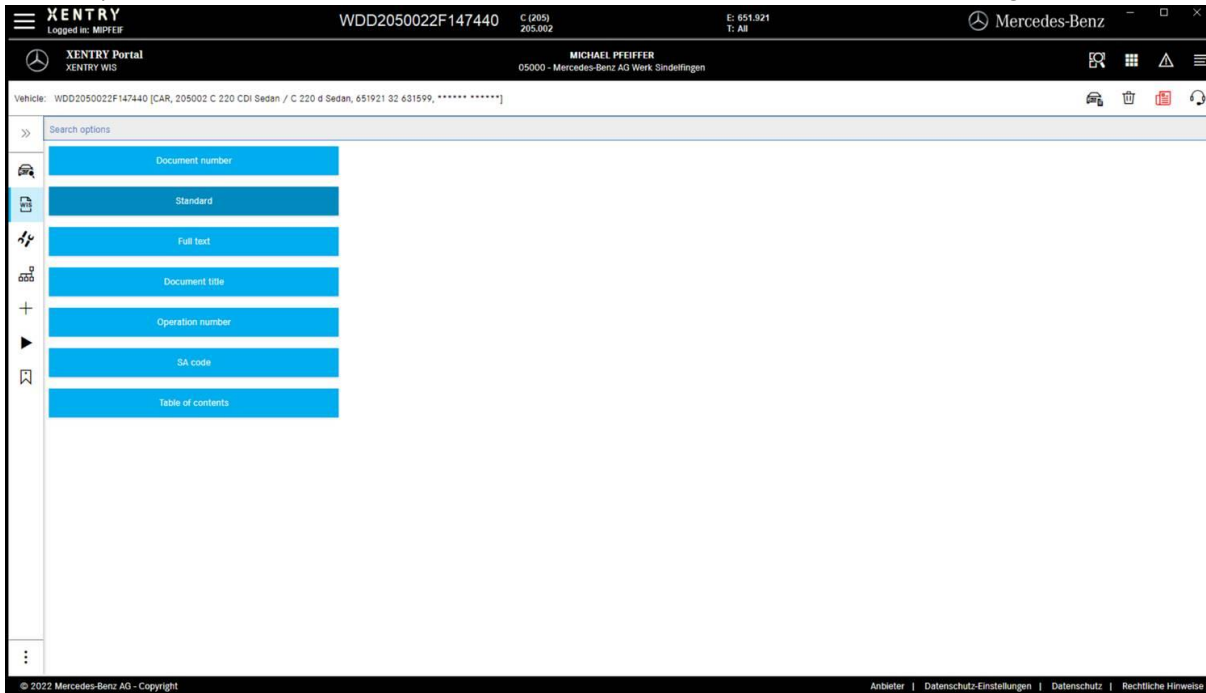


Figure 38: Directly launching XENTRY WIS/Operation Time from diagnosis session

4.9.5. Vehicle-specific wiring diagrams per "Dynamic Wiring Diagram"

As from 12.10.2021, as part of the XENTRY WIS rollout, the new "Dynamic Wiring Diagram" module will be available to every user in XENTRY Portal and XENTRY Diagnosis.

The FIN-specific display of the "Dynamic Wiring Diagram" means that users are only shown the wiring diagrams relevant for their particular vehicle. This does away with the need for exhaustive searching according to vehicle equipment and system jumps. This, along with further search and filter functions help the user, while also contributing significantly to reducing any search errors during the diagnosis procedure. Similarly, further information about component parts is also available with only one click.

"Dynamic Wiring Diagram" is linked to the WIS rights, a separate order is therefore not required. Please note that as from the end of 2021, wiring diagrams for relaunches and facelifts will only be available in the "Dynamic Wiring Diagram" module. Therefore, use this as your preferred search module for wiring diagrams.

Launching Dynamic Wiring Diagram from the home screen and quick test

1. Open "Dynamic Wiring Diagram" using the book symbol at top right.

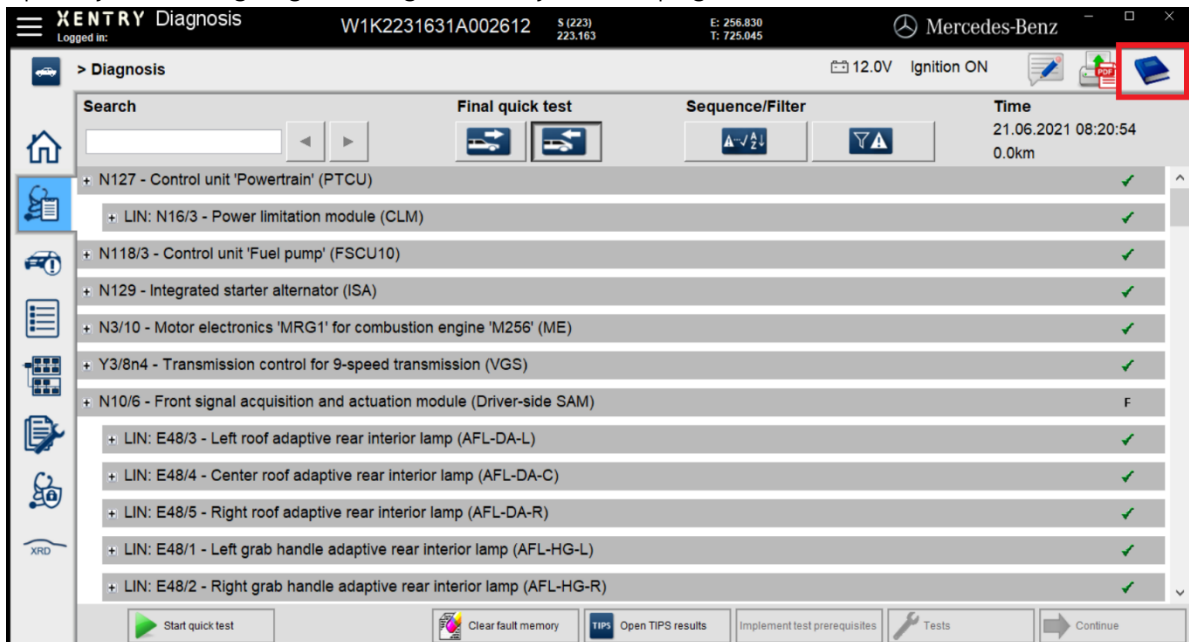


Figure 39: Vehicle-specific wiring diagrams via "Dynamic Wiring Diagram"

- Open the list of all control units in the quick test. After opening a wiring diagram, all the components in the wiring diagram are displayed.

You can use the search field to filter the displayed component parts.

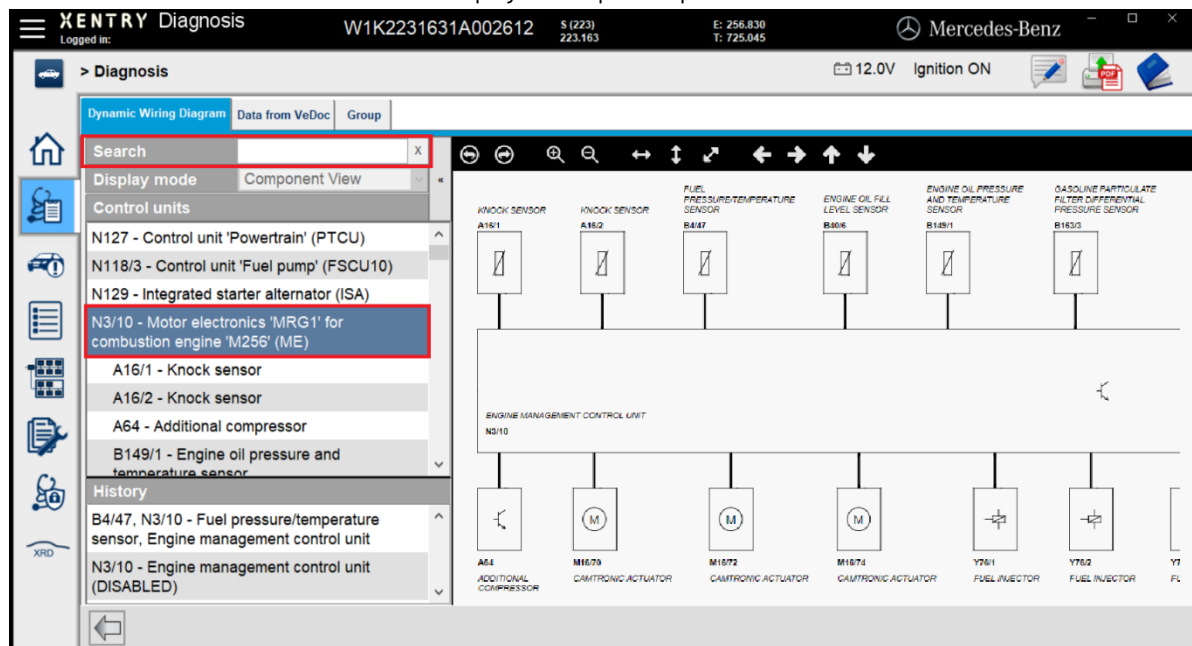


Figure 40: Overview of components within the circuit diagram

- Select the component you want. You will see the corresponding installation location in the right-hand area.

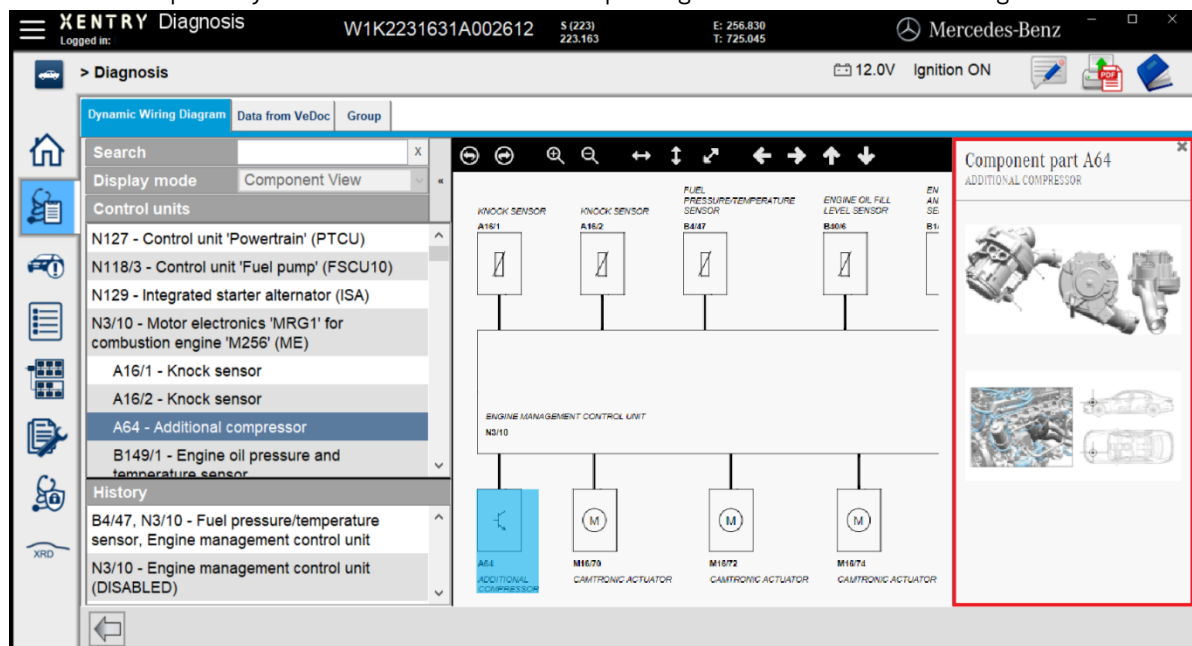


Figure 41: Selection of components and respective installation location

5. Hardware Components

5.1. XENTRY Diagnosis Pad 2

5.1.1. Technical Performance Features of XENTRY Diagnosis Pad 2



Figure 42: View of XENTRY Diagnosis Pad 2

- Hard drive: 1 TB SSD
- Main memory: 16 GB DDR4
- Processor: Intel ® Core ™ i5
- Operating system: Windows 10 IoT
- Dimension: Approx. 338 x 240 x 33 mm (W x L x H)
- Weight: Approx 2.3 kg
- Convenient operation via:
 - Infinitely adjustable stand
 - Capacitive Full HD multitouch display
 - Good display readability

5.1.2.Connections on XENTRY Diagnosis Pad 2

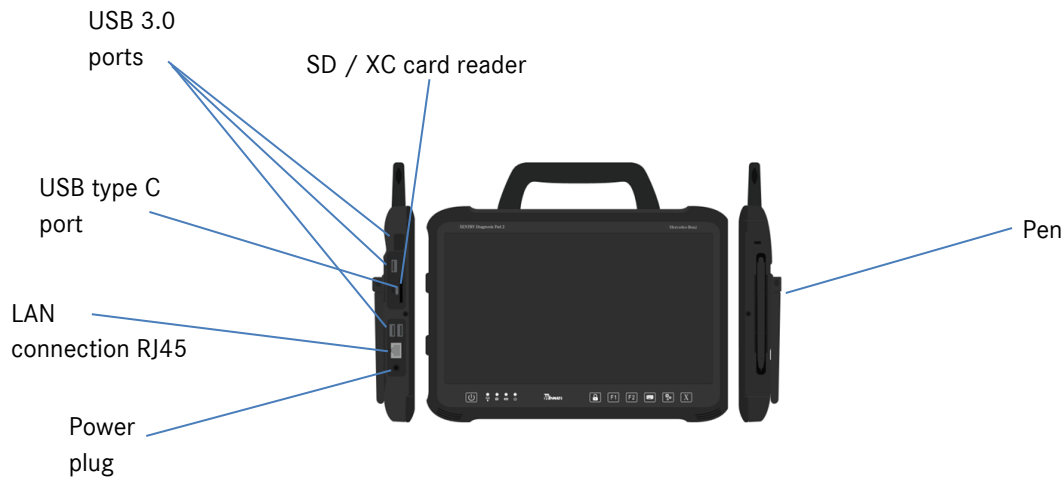
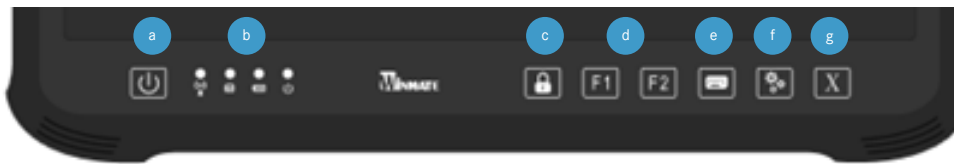


Figure 43: XENTRY Diagnosis Pad 2 connections

5.1.3.Buttons and Displays on XENTRY Diagnosis Pad 2

XENTRY Diagnosis Pad 2 is equipped with the following buttons and displays:



a You can switch on your XENTRY_Diagnosis_Pad_2

b LED status displays for WLAN, hard disk operation, rechargeable battery, operating status

c Screen lock

d F1 and F2 buttons, freely assignable

e Showing/hiding virtual keyboard

f Settings

g Open XENTRY Diagnosis software

5.2. XENTRY Diagnosis VCI

5.2.1.XENTRY Diagnosis VCI Technical Performance Features



Figure 44: XENTRY Diagnosis VCI

- Material: Polycarbonate with rubber caps
- No battery
- No display
- Connection of VCI to Pad via WLAN, via WLAN USB sticks, no available WLAN infrastructure required
- There is a control button on the XENTRY Diagnosis VCI. This function key is used for special use cases in the XENTRY CAN-Tool.
- The VCI does not require any power supply unit for external power supply
- VCI switches off automatically if it is not connected to a vehicle or an OBD/USB connection cable. It switches on automatically when the power supply is restored.







Property	Value/range
Host interface	
Wired	High speed USB 2.0
Wireless WiFi USB flash drive	802.11b/g/n
Processor system	
Microprocessor	Intel MX6 Solo
Clock rate	800 MHz
RAM	512 MB DDR3 RAM
RON	512 MB Flash
Mass storage (opt.)	USB memory stick
User interface	
LEDs	5 status LEDs
Signal tone beeper	Acoustic signal tone
Power supply	
From the vehicle battery via the diagnosis connection cable or via a connected USB connection cable.	OBD: 8 to 28 VDC; 750 mA USB: 5 VDC; 700 mA
Important: Diagnostic socket of the vehicle must be secured with a fuse of maximum 6 A/32 V.	
Mechanical properties	
Dimensions	168 x 115 x 45 mm
Weight	0.41 kg
Operating temperature	-20 °C – +60 °C
Storage temperature	-40 °C – +80 °C
Humidity at 25 °C	30% – 95%
Maximum operating height	4,000 m
Protection class when diagnosis connection cable not plugged in	IP 30
Protection class when diagnosis connection cable screw-fitted to IEC60529	IP 54; category 2
Degree of soiling	2
Diagnosis connection cable	
J1962 (ISO 15031-3)	26-pin; rating 28 V; CAT O
VCI certifications	
EU	
USA	
South Korea	 MSIP-REM-BO2-XENTRY-VCI
Russia	
Australia	
Ukraine	

Table 1: Technical data of XENTRY Diagnosis VCI

Application area

XENTRY Diagnosis VCI is designed for indoor use only.

- Degree of soiling 2, keep area around XENTRY Diagnosis VCI clean
- Avoid condensation, do not expose XENTRY Diagnosis VCI to rain or dampness

5.2.2.Connections and Controls on XENTRY Diagnosis VCI

Following are the connections and controls on the XENTRY Diagnosis VCI:



Figure 45: Connection XENTRY Diagnosis VCI

5.2.3. Status Display and Control Elements on XENTRY Diagnosis VCI



Figure 46: Status display and control elements on XENTRY Diagnosis VCI

Status displays






	Operating indicator, LED green
	Fault indicator, LED red
	LED red/green/orange
	Connection indicator VCI ↔ Pad, LED flashing in green
	Connection indicator VCI ↔ Vehicle, LED flashing in green

Figure 47: VCI status displays

Control element



Figure 48: VCI control button

There is a control button on the XENTRY Diagnosis VCI. This function key is used for special use cases in the XENTRY CAN-Tool.

6. Accessories

6.1. Optionally Available Accessories

Optionally available accessories are displayed during the configuration process.

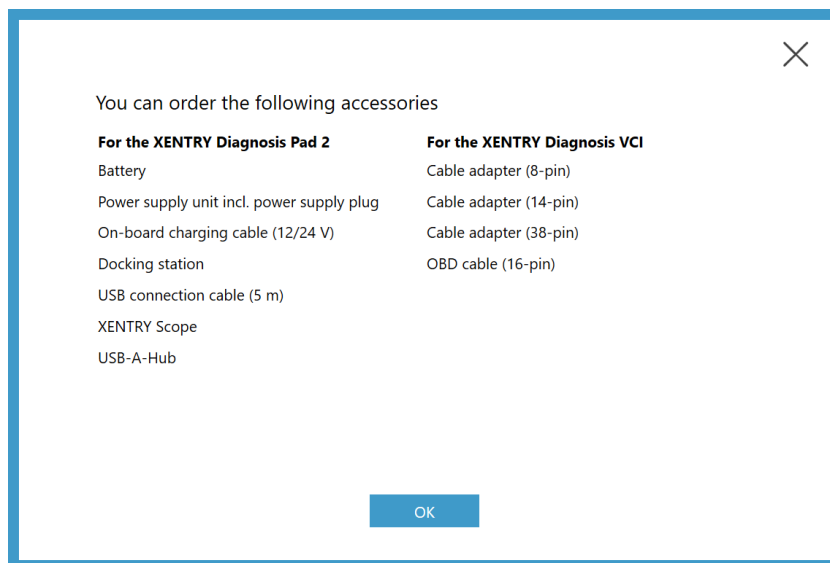


Figure 49: Optionally available accessories

The docking station offers additional connections such as USB connections and an option for connecting a screen or projector.



Figure 50: Docking station

6.2. XENTRY Scope Measurement Technology

Further information on the XENTRY Scope measurement technology is available in the XENTRY Scope documentation or in the XENTRY Scope software itself. This is already installed on your XENTRY Diagnosis Pad | Pad 2.



Figure 51: XENTRY Scope

6.3. Injector Scanner (2D Hand-Held Scanner)

The injector scanner (2D hand-held scanner) is connected to the XENTRY Diagnosis Pad | Pad 2 through a USB port. The software is installed automatically and it can be used after restarting the XENTRY Diagnosis Pad | Pad 2.

6.4. Diagnostic Unit for HV Batteries

The diagnostic unit is connected through the OBD cable to the XENTRY Diagnosis Pad | Pad 2. The HV battery test sequence is run via XENTRY Diagnosis software.

6.5. SBC Flash Box

The SBC flash box is connected using the RS232-USB adapter to the XENTRY Diagnosis Pad | Pad 2.

7. Operating Tools

7.1. ConfigAssist

ConfigAssist guides you through the configuration and initial commissioning of your new XENTRY diagnostic device. You can find the exact procedure for the configuration in Chapter 3 on page 7.

ConfigAssist offers the following functions:

1. Introduction to the hardware
2. Network configuration
3. Coupling XENTRY Diagnosis Pad 2 and the VCI
4. Loading the StartKey
5. Configuration of XENTRY Update Service
6. Additional information

7.2. Update Center

The Update Center is used for installing new software updates, switching between releases, add-on installation and administration.

The overview in the Update Center shows the currently installed release, an available release changeover, the current update status and the most recently installed add-on.

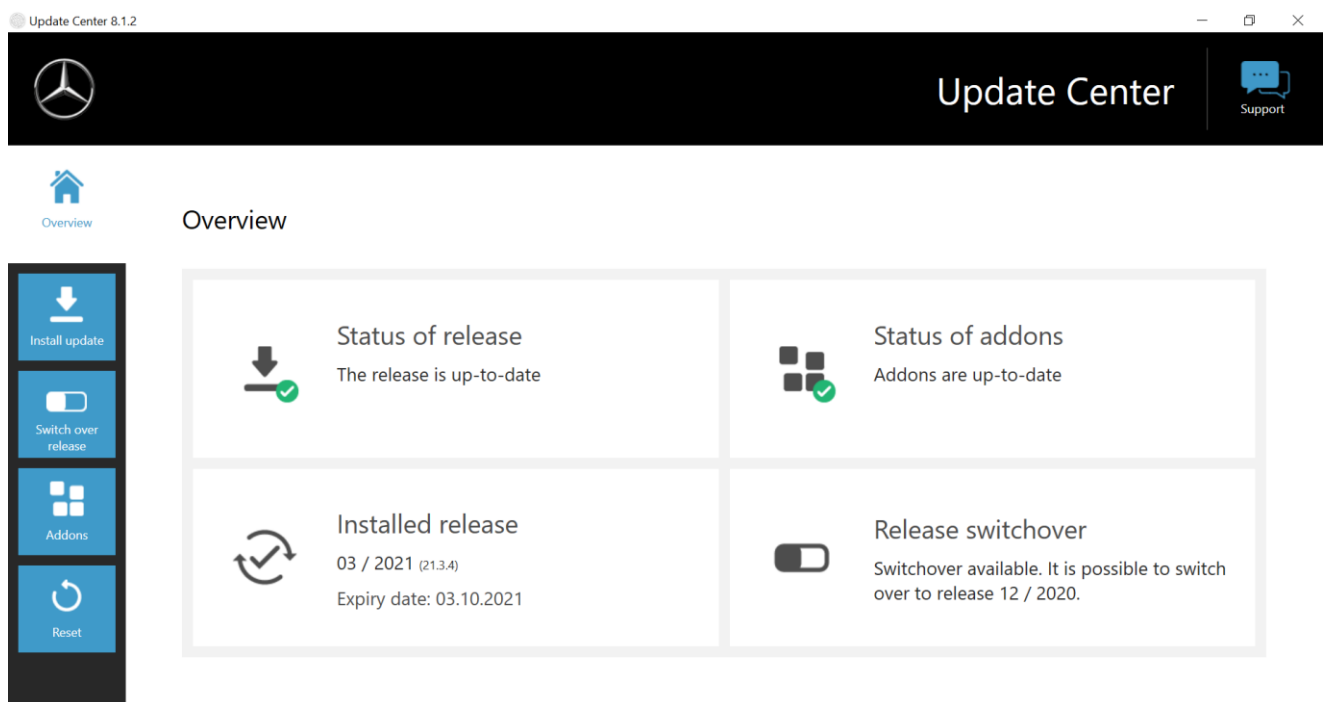


Figure 52: Update Center overview

7.3. VCI Manager

The VCI Manager is used for the recovery and firmware update of XENTRY Diagnosis VCI. The overview below "General" shows the connection status between XENTRY Diagnosis Pad | Pad 2 and XENTRY Diagnosis VCI.



Figure 53: VCI Manager icon

7.3.1. Call VCI

You can use the "Call VCI" function to check the connection between XENTRY Diagnosis Pad_2 and the VCI or simply to determine which VCI is connected to the XENTRY Diagnosis Pad.



Please note that this function is only available if you have already coupled XENTRY Diagnosis Pad_2 and the VCI.

To launch the VCI, open the VCI Manager using the link on the desktop of your XENTRY Diagnosis Pad_2. You can see the currently coupled XENTRY Diagnosis VCI on the overview page. The "Call VCI" button can be found there. Click this button, the coupled VCI will beep.



Please note: The VCI does not have own power supply. This means that the VCI can only be called if it is connected to a power source. This can be through an OBD cable on the vehicle or per USB cable connection to the XENTRY Diagnosis Pad_2.

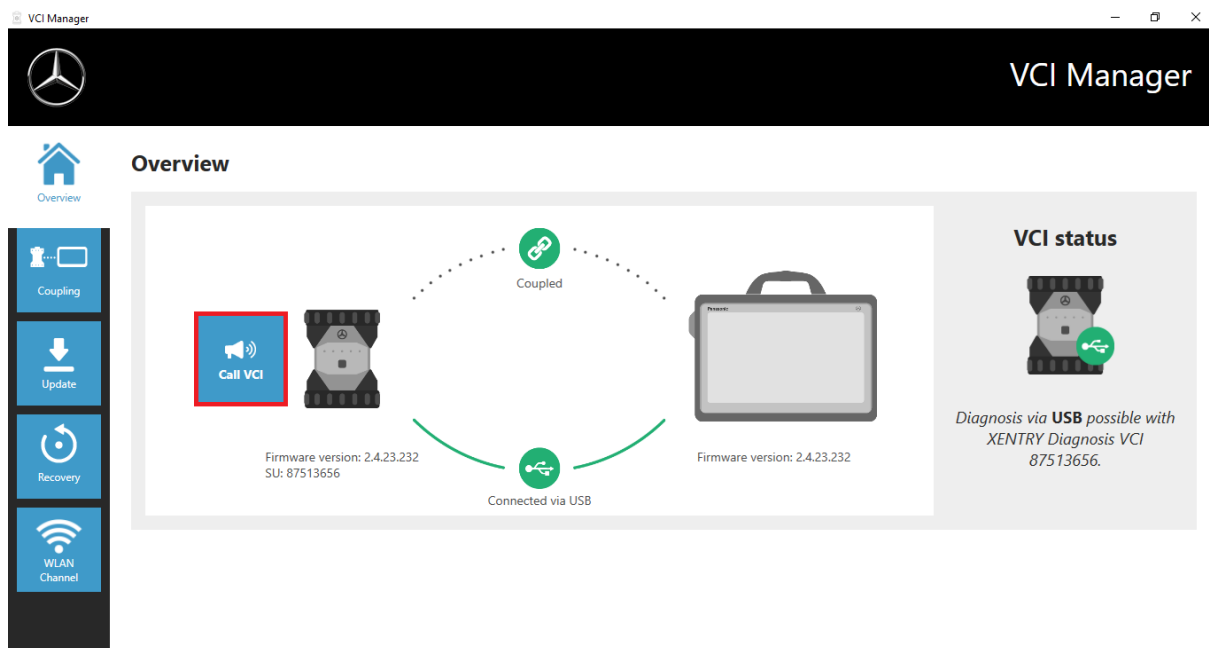


Figure 54: Call VCI

7.3.2.XENTRY Diagnosis VCI Firmware Update

After an update to the XENTRY Diagnosis Pad 2, you may then need to update the firmware for the XENTRY Diagnosis VCI. You can also see this in the VCI Manager on the overview page:

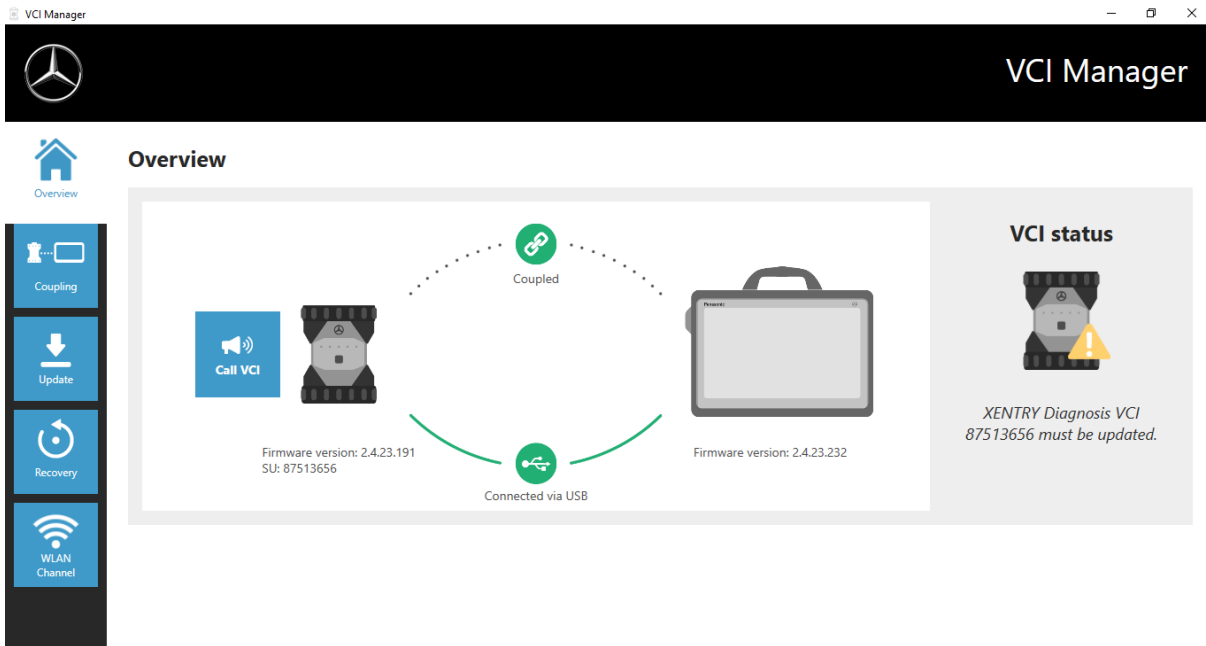


Figure 55: Update notice

Click in the "Update" menu item in the VCI Manager and then on the "Start update" button.

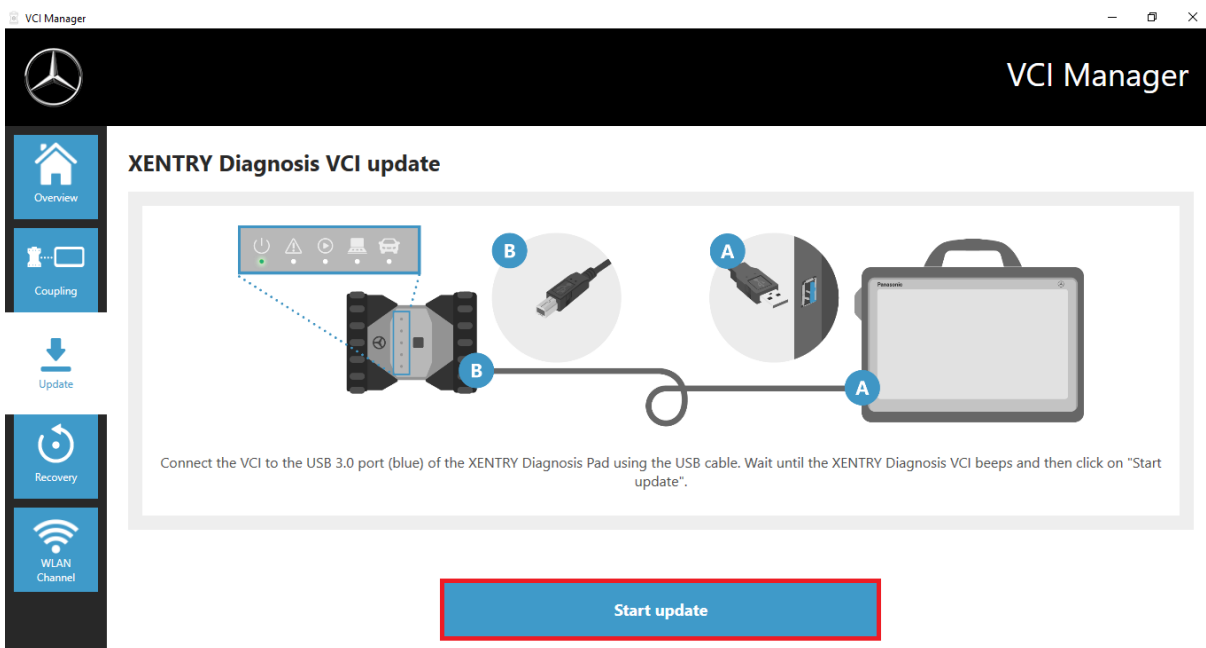


Figure 56: Start update

When executing the update, please ensure that the USB connection between XENTRY Diagnosis Pad and VCI is not interrupted.

Once the update has completed, you can then continue to work with XENTRY Diagnosis Kit 4 as usual.

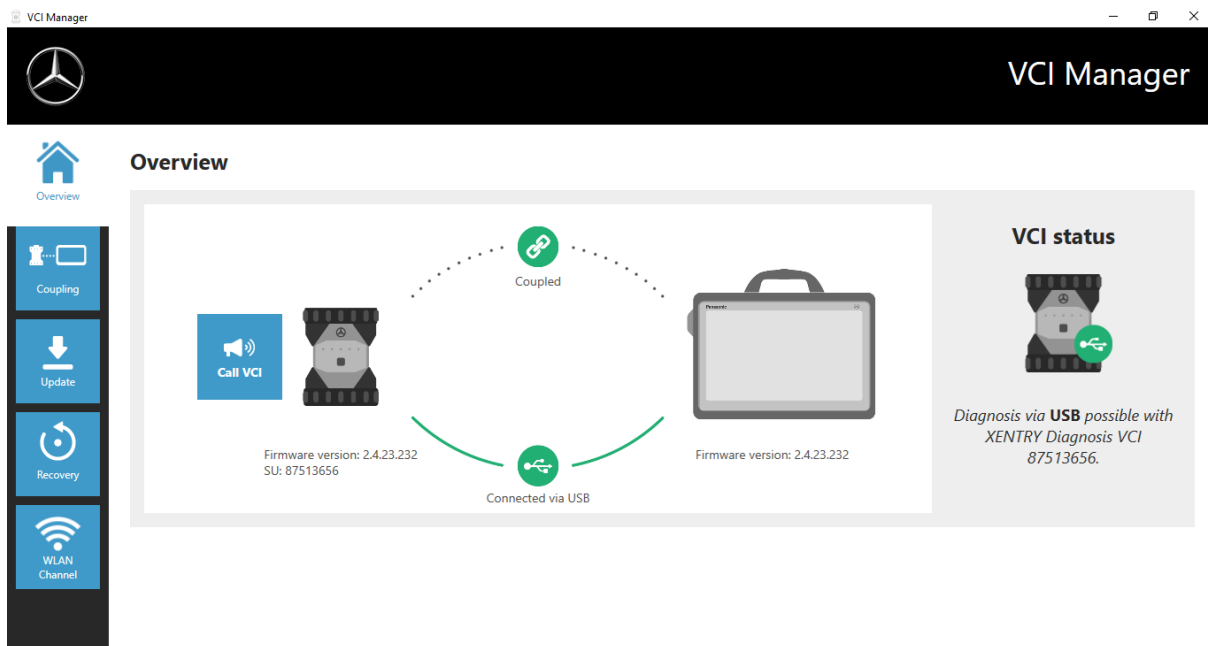


Figure 57: Confirmation after the firmware update

7.3.3.XENTRY Diagnosis VCI Recovery

⚠ Important: Please perform recovery only when explicitly requested to do so by the Diagnosis User Help Desk!

This function is used to adapt the XENTRY Diagnosis VCI firmware version to that of the XENTRY Diagnosis Pad. This release switch function is described in Chapter 4.3.3.

Recovery is only necessary if you have switched the release on the XENTRY Diagnosis Pad to the preceding version and, where applicable, need to reduce the firmware version on the XENTRY Diagnosis VCI.

To start recovery, click on the "Recovery" button in the VCI Manager. Connect the XENTRY Diagnosis VCI to the XENTRY Diagnosis Pad via USB connection cable.

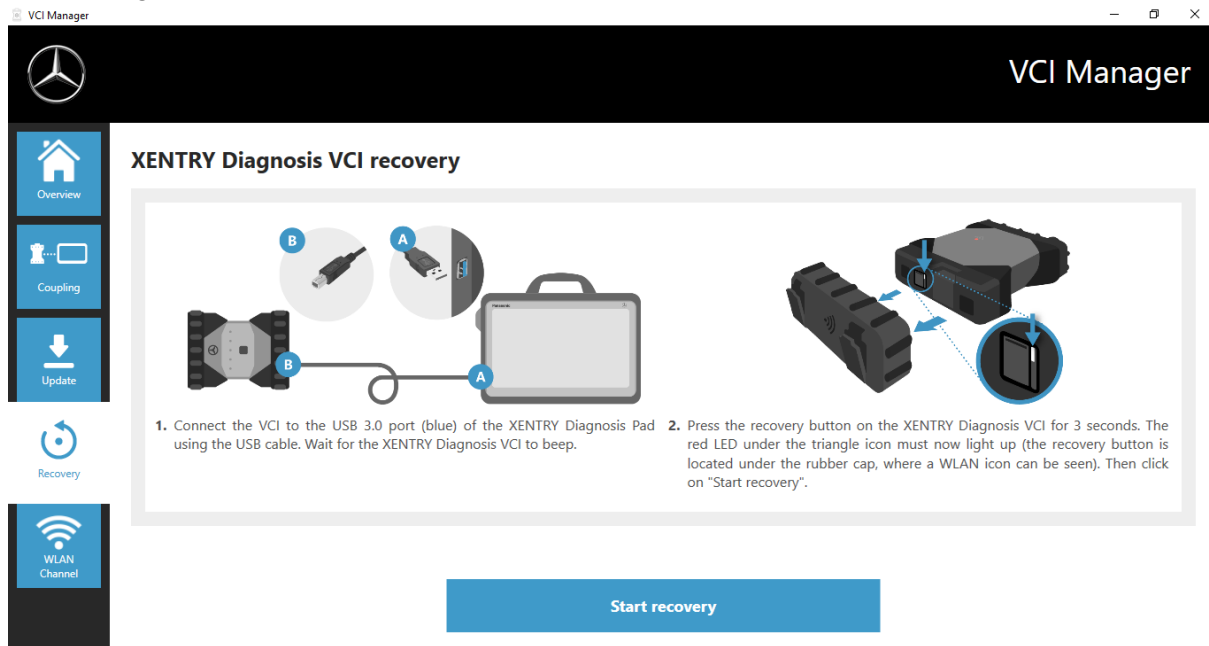


Figure 58: Recovery of the XENTRY Diagnosis VCI

For this, the XENTRY Diagnosis VCI must be in recovery mode. To do so, remove the rubber cover with printed WLAN symbol from XENTRY Diagnosis VCI and press the recovery button for 3 seconds. The red LED below the triangle symbol should now light up. Next, click on "OK".

⚠ Please ensure that the connection between XENTRY Diagnosis Pad and XENTRY Diagnosis VCI is not interrupted during recovery.

7.3.4 WLAN Channel

In rare cases, the WLAN channels within the workshop can interfere with each other. If this is the case, it is possible to manually configure the WLAN channel between the XENTRY Diagnosis Pad and VCI.

To do so, select "WLAN Channel" in the menu item and click on the "WLAN Configuration" button.

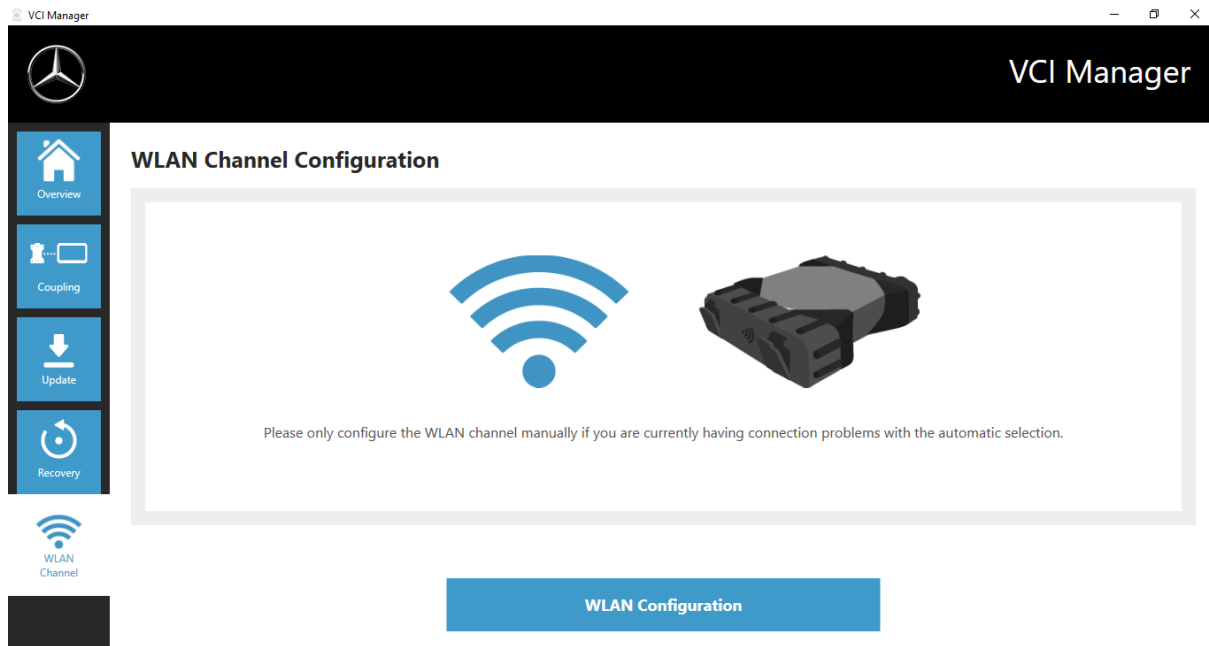


Figure 59: Configuration of WLAN channel

7.4. PDF Center

The PDF Center enables you to

- send documents to a specific printer,
- save documents in a user-defined storage location,
- collect documents in one file,
- export documents.

It is easiest to specify in the settings of the PDF Center the actions which should be performed by default whenever you create a PDF document.

New features with the PDF Center and Release Update 03/2020

Please note the following information:

The "Print to File" function from XENTRY Diagnosis and DAS has been modified:

- The folders "DASPrints" and "XDprint" are no longer used.
- The working folder of the PDF Center is used instead.

Workshops which have already worked with the Diagnosis PDF Printer will notice the following change: The saving of your documents is now repeated until it is successful. This means that you can power down the XENTRY Diagnosis system or remove it from your network at any time. As soon as the storage location is reachable again, the system attempts to save the document. The present status can be seen in the new display under the 1st tab.

Workshops which have not used the Diagnosis PDF Printer in the past are urged to do so from now on.

Configure the PDF Center according to your wishes and transfer the documents from the earlier Release Updates to this structure – if desired. All new PDF documents can be saved automatically to this structure. We also recommend this for workshops which print on paper. The PDF Center enables you to do both automatically.

7.5. Support Tool

You can open the Support Tool via the link on the desktop:

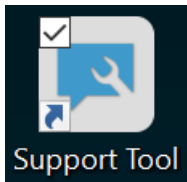


Figure 60: Icon Support Tool

After launching the Support Tool, the "XSF Ticket" tab is already selected. This page supports you when creating an XSF ticket.

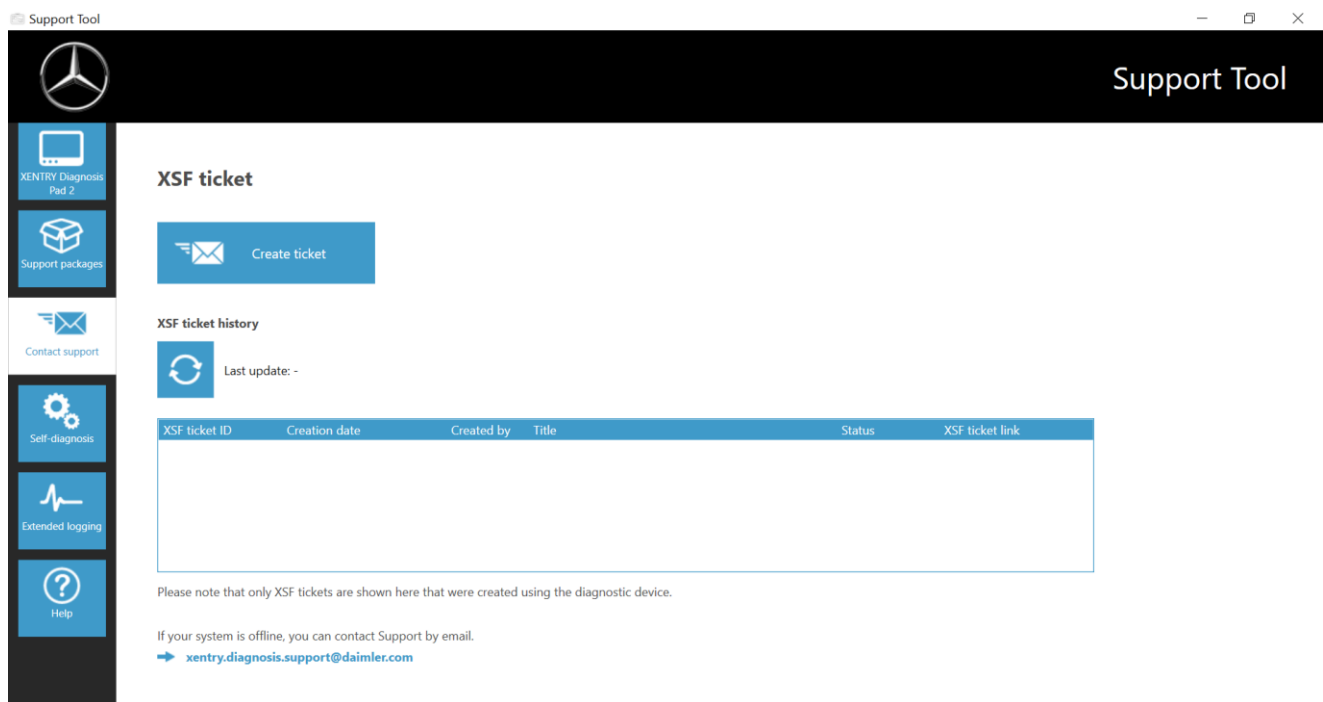


Figure 61: Creating XSF tickets

- Go to the "XENTRY Diagnosis Pad 2" menu item for system information
- The second "Support packages" item makes it easy for you to create support packages and, consequently, to compile all the relevant system information for Support.
- The status of back-end server availability is listed under the "Self-diagnosis" menu item
- The Diagnosis User Help Desk may ask you to change the "Extended logging"; this is selected here
- You can find links to the online offer, help documents, instructions and release notes at "Help", the bottom menu item in the navigation bar.

Support packages that have been created are located in the "Diagnosis Files" library, at the very bottom of the "Packages" area. The link for this is located on the Desktop on your XENTRY Diagnosis Pad 2.

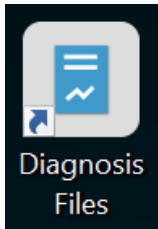


Figure 62: Library icon "Diagnosis Files"

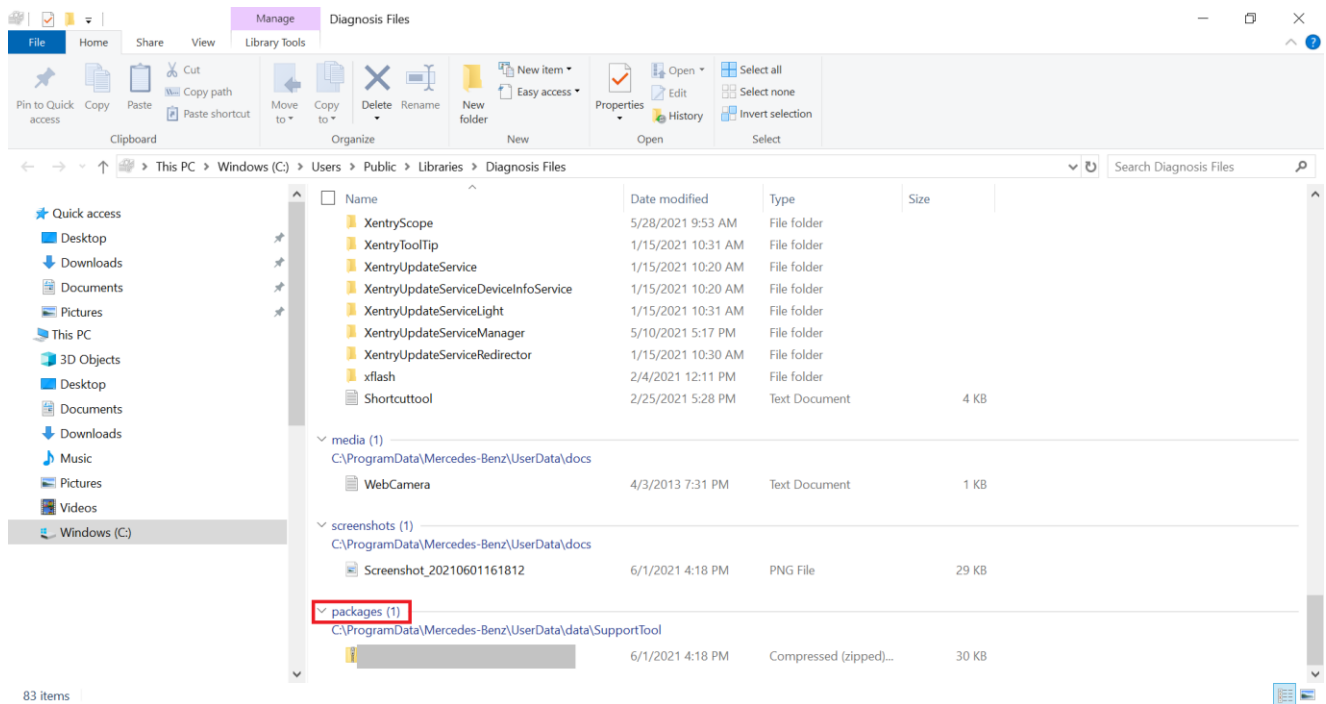


Figure 63: Support package storage location

7.6. VCI Monitor

The VCI Monitor shows the connection quality between XENTRY Diagnosis Pad and XENTRY Diagnosis VCI.

The following statuses are displayed by the "VCI Monitor" tool:

Icon	Status/cause	Description	Remedy
	VCI not coupled	<ul style="list-style-type: none"> VCI not coupled 	<ul style="list-style-type: none"> Couple the VCI
	VCI not accessible (via WLAN)	<ul style="list-style-type: none"> VCI is not connected via USB VCI is not visible via WLAN 	<ul style="list-style-type: none"> Supply power to the VCI
	"Coupling lost"	<ul style="list-style-type: none"> VCI is not connected via USB VCI visible via WLAN Coupling missing 	<ul style="list-style-type: none"> Connect the VCI via a USB connection cable Couple the VCI via the VCI Manager
	VCI firmware older than PC software	<ul style="list-style-type: none"> Firmware of the VCI outdated 	<ul style="list-style-type: none"> Update the VCI via the VCI Manager
	PC software older than VCI firmware	<ul style="list-style-type: none"> VCI is not connected via USB VCI visible via WLAN PC software outdated 	<ul style="list-style-type: none"> Downgrade the VCI firmware by carrying out the "Update" in the VCI Manager
	VCI in recovery	<ul style="list-style-type: none"> VCI connected via USB VCI in recovery mode 	<ul style="list-style-type: none"> Carry out recovery in the VCI Manager
	VCI in use	<ul style="list-style-type: none"> VCI in use by (another) application 	
	VCI in use via WLAN	<ul style="list-style-type: none"> VCI in use via WLAN by (another) application 	
	VCI accessible via USB	<ul style="list-style-type: none"> VCI is connected via USB connection cable 	
	VCI accessible via WLAN	<ul style="list-style-type: none"> VCI accessible via WLAN WLAN connection quality visible via bar graph 	
	WLAN adapter nonfunctional	<ul style="list-style-type: none"> No communication possible between VCI and Pad via WLAN 	<ul style="list-style-type: none"> Reset WLAN adapter via "Reset WLAN adapter" window or right click the status display and then click "Reset WiFi flash drive..."
	VCI in use via cable connection	<ul style="list-style-type: none"> VCI in use by (another) application 	
	Flight mode	<ul style="list-style-type: none"> The WiFi flash drive is deactivated 	<ul style="list-style-type: none"> Deactivate flight mode Activate the WiFi flash drive
	VCI too hot	<ul style="list-style-type: none"> The WiFi stick is deactivated at temperatures higher than 65 °C 	<ul style="list-style-type: none"> At temperatures up to 85 °C, use a USB connection cable. Use VCI for cooler ambient temperature

Table 2: VCI Monitor status

8. Service & Support

When creating an XSF ticket, we advise you to use a tool for ticket creation. You can start this directly in the XENTRY Diagnosis Software. To do so, click here on the speech bubble symbol at top right.

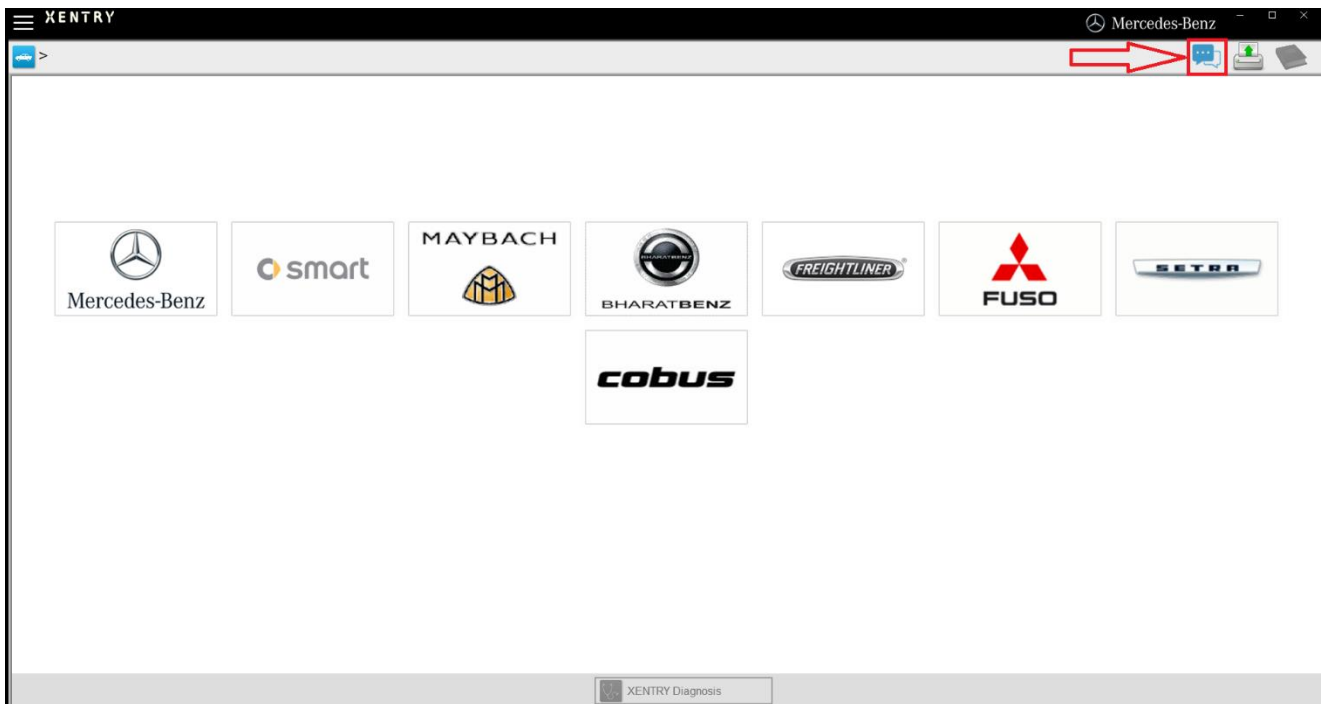


Figure 71: Creating XSF ticket in XENTRY Diagnosis

If necessary, sign-in to the next window and then select the component for which you wish to create the XSF ticket.

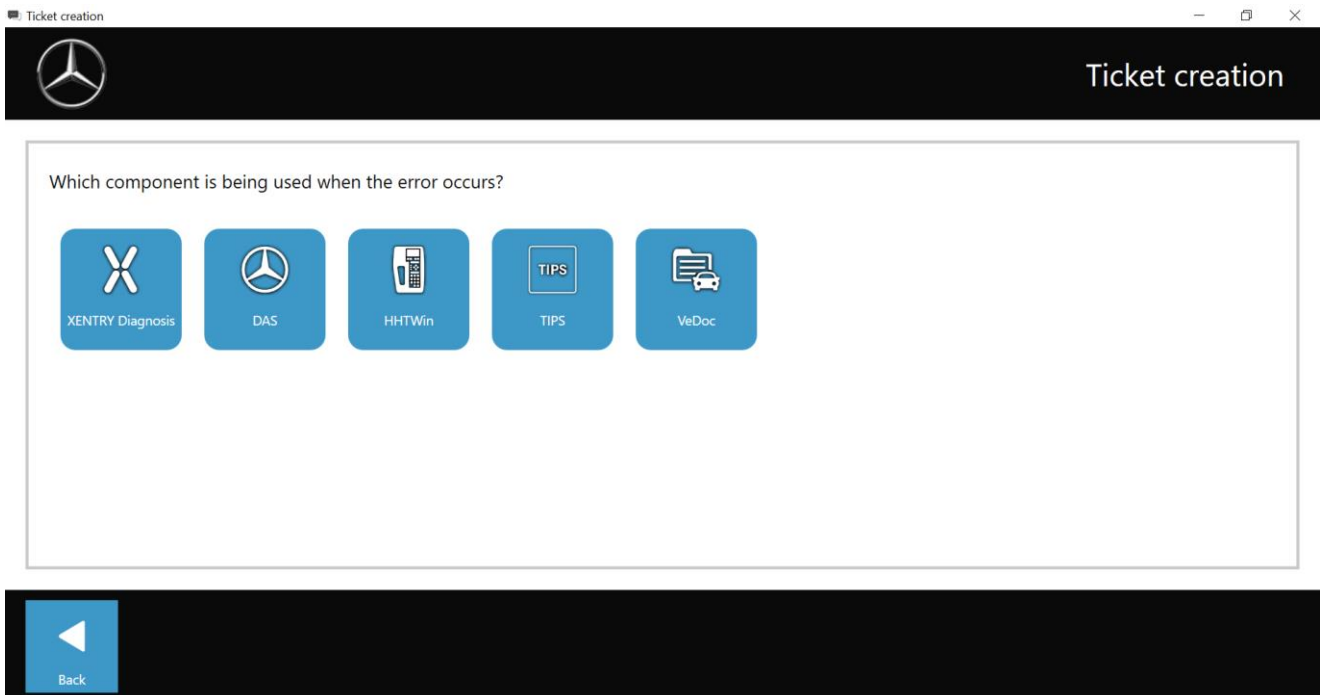
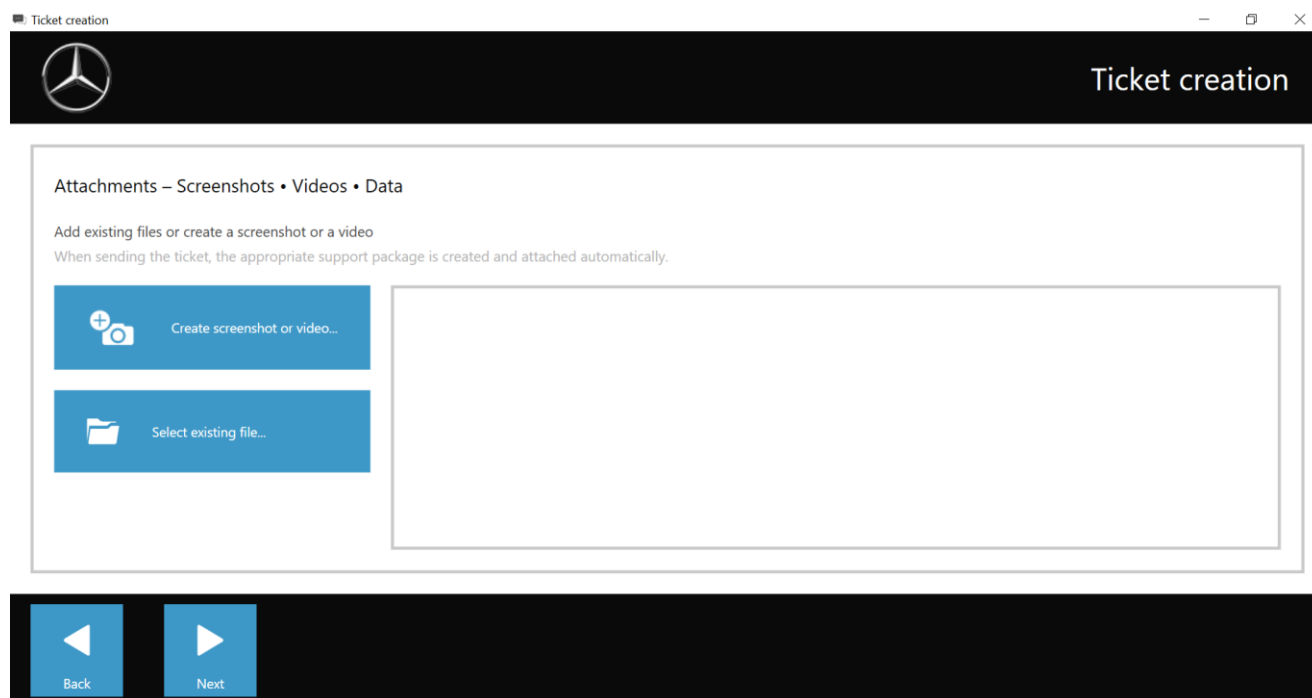


Figure 64: XSF ticket component selection

Please answer all the questions put to you throughout the continuous process.

Attach screenshots or videos. When sending the XSF ticket, the matching support package is created and attached automatically.



Ticket creation

Attachments – Screenshots • Videos • Data

Add existing files or create a screenshot or a video

When sending the ticket, the appropriate support package is created and attached automatically.

Create screenshot or video...

Select existing file...

Back Next

Figure 65: XSF ticket file attachments

9. Windows 10 IoT LTSC Enterprise License Policies

Updated May 2020

MICROSOFT SOFTWARE LICENSE TERMS (SAMPLE TEMPLATE)

WINDOWS 10 IOT ENTERPRISE & MOBILE (ALL EDITIONS)

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This agreement describes your rights and the conditions upon which you may use the Windows software. You should review the entire agreement, including any supplemental license terms that accompany the software and any linked terms, because all of the terms are important and together create this agreement that applies to you. You can review linked terms by pasting the (aka.ms/) link into a browser window.

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1. Overview.

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- b. **Additional terms.** Depending on your device's capabilities, how it is configured, and how you use it, additional Microsoft and third party terms may apply to your use of certain features, services and apps.
 - (i) Some Windows apps provide an access point to, or rely on, online services, and the use of those services is sometimes governed by separate terms and privacy policies, such as the Microsoft Services Agreement at (aka.ms/msa). You can view these terms and policies by looking at the service terms of use or the app's settings, as applicable; please read them. The services may not be available in all regions.
 - (ii) The manufacturer or installer may also preinstall apps, which will be subject to separate license terms.

- (iii) The software may include third party software such as Adobe Flash Player that is licensed under its own terms. You agree that your use of Adobe Flash Player is governed by the license terms for Adobe Systems Incorporated at (aka.ms/adobeflash). Adobe and Flash are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.
- (iv) The software may include third party programs that are licensed to you under this agreement, or under their own terms. License terms, notices and acknowledgements, if any, for the third party program can be view at (aka.ms/thirdpartynotices).

2. Installation and Use Rights.

- a. **License.** The software license is permanently assigned to the device with which you acquired the software. You may only use the software on that device.
- b. **Device.** In this agreement, “device” means a physical hardware system) with an internal storage device capable of running the software. A hardware partition or blade is considered to be a device.
- c. **Restrictions.** The manufacturer or installer and Microsoft reserve all rights (such as rights under intellectual property laws) not expressly granted in this agreement. For example, this license does not give you any right to, and you may not:
 - (i) use or virtualize features of the software separately;
 - (ii) publish, copy (other than the permitted backup copy), rent, lease, or lend the software;
 - (iii) transfer the software;
 - (iv) work around any technical restrictions or limitations in the software;
 - (v) use the software as server software, for commercial hosting, make the software available for simultaneous use by multiple users over a network, install the software on a server and allow users to access it remotely, or install the software on a device for use only by remote users;
 - (vi) reverse engineer, decompile, or disassemble the software, or attempt to do so, except and only to the extent that the foregoing restriction is (a) permitted by applicable law; (b) permitted by licensing terms governing the use of open source components that may be included with the software; or (c) required to debug changes to any libraries licensed under the GNU Lesser General Public License which are included with and linked to by the software; and
 - (vii) when using Internet-based features you may not use those features in any way that could interfere with anyone else’s use of them, or to try to gain access to or use any service, data, account, or network, in an unauthorized manner.
- d. **Multi use scenarios.**
 - (i) Multiple versions. If when acquiring the software, you were provided with multiple versions (such as 32-bit and 64-bit versions), you may install and activate only one of those versions at a time.
 - (ii) Multiple or pooled connections. Hardware or software you use to multiplex or pool connections, or reduce the number of devices or users that access or use the software, does not reduce the number of licenses you need. You may only use such hardware or software if you have a license for each instance of the software you are using.
 - (iii) Device connections. You may allow up to 20 other devices to access the software installed on the licensed device for the purpose of using the following software features: file services, print services, Internet information services, and Internet connection sharing and telephony services on the licensed device. The 20 connection limit applies to devices that access the software indirectly through “multiplexing” or other software or hardware that pools connections. You may allow any number of devices to access the software on the licensed device to synchronize data between devices. This section does not mean, however, that you have the right to install the software, or use the primary function of the software (other than the features listed in this section), on any of these other devices.
 - (iv) Remote access. Users may access the licensed device from another device using remote access technologies, but only on devices separately licensed to run the same or higher edition of this software.
 - (v) Remote assistance. You may use remote assistance technologies to share an active session without obtaining any additional licenses for the software. Remote assistance allows one user to connect directly to another user’s computer, usually to correct problems.
 - (vi) POS application. If the software is installed on a retail point of service device, you may use the software with a point of service application (“POS Application”). A POS Application is a software

application which provides only the following functions: (i) process sales and service transactions, scan and track inventory, record and/or transmit customer information, and perform related management functions, and/or (ii) provide information directly and indirectly to customers about available products and services. You may use other programs with the software as long as the other programs: (i) directly support the manufacturer's specific use for the device, or (ii) provide system utilities, resource management, or anti-virus or similar protection. For clarification purposes, an automated teller machine ("ATM") is not a retail point of service device.

- (vii) Cloud Computing Devices. If your device uses Internet browsing functionality to connect to and access cloud hosted applications: (i) no desktop functions may run locally on the device, and (ii) any files that result from the use of the desktop functions may not be permanently stored on the system. "Desktop functions," as used in this agreement, means a consumer or business task or process performed by a computer or computing device. This includes but is not limited to email, word processing, spreadsheets, database, scheduling, network or internet browsing and personal finance.
- (viii) Desktop Functions. If your system performs desktop functions, then you must ensure that they: (i) are only used to support the application, and (ii) operate only when used with the application.

e. Windows 10 IoT Enterprise Features for Development and Testing Only.

- 1. Device Health Attestation. You may only implement Device Health Attestation in a commercial use if you execute a Microsoft Windows IoT Core Services Agreement at: <https://azure.microsoft.com/en-us/services/windows-10-iot-core/>.

f. Specific Use. The manufacturer designed the licensed device for a specific use. You may only use the software for that use.

- 3. **Privacy; Consent to Use of Data.** Your privacy is important to us. Some of the software features send or receive information when using those features. Many of these features can be switched off in the user interface, or you can choose not to use them. By accepting this agreement and using the software you agree that Microsoft may collect, use, and disclose the information as described in the Microsoft Privacy Statement available at (aka.ms/privacy), and as may be described in the user interface associated with the software features.
- 4. **Authorized Software and Activation.** You are authorized to use this software only if you are properly licensed and the software has been properly activated with a genuine product key or by other authorized method. When you connect to the Internet while using the software, the software will automatically contact Microsoft or its affiliate to confirm the software is genuine and the license is associated with the licensed device. You can also activate the software manually by Internet or telephone. In either case, transmission of certain information will occur, and Internet, telephone and SMS service charges may apply. During activation (or reactivation that may be triggered by changes to your device's components), the software may determine that the installed instance of the software is counterfeit, improperly licensed or includes unauthorized changes. If activation fails the software will attempt to repair itself by replacing any tampered Microsoft software with genuine Microsoft software. You may also receive reminders to obtain a proper license for the software. Successful activation does not confirm that the software is genuine or properly licensed. You may not bypass or circumvent activation. To help determine if your software is genuine and whether you are properly licensed, see (aka.ms/genuine). Certain updates, support, and other services might only be offered to users of genuine Microsoft software.
- 5. **Updates.** You may obtain updates only from Microsoft or authorized sources, and Microsoft may need to update your system to provide you with those updates. The software periodically checks for system and app updates, and may download and install them for you. To the extent automatic updates are enabled on your device, by accepting this agreement, you agree to receive these types of automatic updates without any additional notice.
- 6. **Geographic and Export Restrictions.** If your software is restricted for use in a particular geographic region, then you may activate the software only in that region. You must also comply with all domestic and international export laws and regulations that apply to the software, which include restrictions on destinations, end users, and end use. For further information on geographic and export restrictions, visit (aka.ms/exporting).
- 7. **Support and Refund Procedures.** For the software generally, contact the device manufacturer or installer for support options. Refer to the support number provided with the software. For updates and supplements obtained directly from Microsoft, Microsoft may provide limited support services for properly licensed software as described at (aka.ms/mssupport). If you are seeking a refund, contact the manufacturer or installer to determine its refund policies. You must comply with those policies, which might require you to return the software with the entire device on which the software is installed for a refund.
- 8. **Binding Arbitration and Class Action Waiver if You Live in (or if a Business Your Principal Place of Business is in) the United States.**

We hope we never have a dispute, but if we do, you and we agree to try for 60 days to resolve it informally. If we can't, you and we agree to binding individual arbitration before the American Arbitration Association ("AAA") under the Federal Arbitration Act ("FAA"), and not to sue in court in front of a judge or jury. Instead, a neutral arbitrator will decide and the arbitrator's decision will be final except for a limited right of appeal under the FAA. Class action lawsuits, class-wide arbitrations, private attorney-general actions, and any other proceeding where someone acts in a representative capacity aren't allowed. Nor is combining individual proceedings without the consent of all parties. "We," "our," and "us" includes Microsoft, the device manufacturer, and software installer.

- a. **Disputes covered—everything except IP.** The term "dispute" is as broad as it can be. It includes any claim or controversy between you and the manufacturer or installer, or you and Microsoft, concerning the software, its price, or this agreement, under any legal theory including contract, warranty, tort, statute, or regulation, **except disputes relating to the enforcement or validity of your, your licensors', our, or our licensors' intellectual property rights.**
- b. **Mail a Notice of Dispute first.** If you have a dispute and our customer service representatives can't resolve it, send a Notice of Dispute by U.S. Mail to the manufacturer or installer, ATTN: LEGAL DEPARTMENT. If your dispute is with Microsoft, mail it to Microsoft Corporation, ATTN: LCA ARBITRATION, One Microsoft Way, Redmond, WA 98052-6399. Tell us your name, address, how to contact you, what the problem is, and what you want. A form is available at (aka.ms/disputeform). We'll do the same if we have a dispute with you. After 60 days, you or we may start an arbitration if the dispute is unresolved.
- c. **Small claims court option.** Instead of mailing a Notice of Dispute, and if you meet the court's requirements, you may sue us in small claims court in your county of residence (or if a business your principal place of business) or our principal place of business—King County, Washington USA if your dispute is with Microsoft. We hope you'll mail a Notice of Dispute and give us 60 days to try to work it out, but you don't have to before going to small claims court.
- d. **Arbitration procedure.** The AAA will conduct any arbitration under its Commercial Arbitration Rules (or if you are an individual and use the software for personal or household use, or if the value of the dispute is \$75,000 USD or less whether or not you are an individual or how you use the software, its Consumer Arbitration Rules). For more information, see (aka.ms/adr) or call 1-800-778-7879. To start an arbitration, submit the form available at (aka.ms/arbitration) to the AAA; mail a copy to the manufacturer or installer (or to Microsoft if your dispute is with Microsoft). In a dispute involving \$25,000 USD or less, any hearing will be telephonic unless the arbitrator finds good cause to hold an in-person hearing instead. Any in-person hearing will take place in your county of residence (or if a business your principal place of business) or our principal place of business—King County, Washington if your dispute is with Microsoft. You choose. The arbitrator may award the same damages to you individually as a court could. The arbitrator may award declaratory or injunctive relief only to you individually to satisfy your individual claim.
- e. **Arbitration fees and payments.**
 - (i) Disputes involving \$75,000 USD or less. The manufacturer or installer (or Microsoft if your dispute is with Microsoft) will promptly reimburse your filing fees and pay the AAA's and arbitrator's fees and expenses. If you reject our last written settlement offer made before the arbitrator was appointed, your dispute goes all the way to an arbitrator's decision (called an "award"), and the arbitrator awards you more than this last written offer, the manufacturer or installer (or Microsoft if your dispute is with Microsoft) will: (1) pay the greater of the award or \$1,000 USD; (2) pay your reasonable attorney's fees, if any; and (3) reimburse any expenses (including expert witness fees and costs) that your attorney reasonably accrues for investigating, preparing, and pursuing your claim in arbitration. The arbitrator will determine the amounts unless you and we agree on them.
 - (ii) Disputes involving more than \$75,000 USD. The AAA rules will govern payment of filing fees and the AAA's and arbitrator's fees and expenses.
 - (iii) Disputes involving any amount. If you start an arbitration we won't seek our AAA or arbitrator's fees and expenses, or your filing fees we reimbursed, unless the arbitrator finds the arbitration frivolous or brought for an improper purpose. If we start an arbitration we will pay all filing, AAA, and arbitrator's fees and expenses. We won't seek our attorney's fees or expenses from you in any arbitration. Fees and expenses are not counted in determining how much a dispute involves.
- f. **Must file within one year.** You and we must file in small claims court or arbitration any claim or dispute (except intellectual property disputes — see Section 9.a.) within one year from when it first could be filed. Otherwise, it's permanently barred.

- g. **Severability.** If the class action waiver is found to be illegal or unenforceable as to all or some parts of a dispute, those parts won't be arbitrated but will proceed in court, with the rest proceeding in arbitration. If any other provision of Section 9 is found to be illegal or unenforceable, that provision will be severed but the rest of Section 9 still applies.
 - h. **Conflict with AAA rules.** This agreement governs if it conflicts with the AAA's Commercial Arbitration Rules or Consumer Arbitration Rules.
 - i. **Microsoft as party or third-party beneficiary.** If Microsoft is the device manufacturer or if you acquired the software from a retailer, Microsoft is a party to this agreement. Otherwise, Microsoft is not a party but is a third-party beneficiary of your agreement with the manufacturer or installer to resolve disputes through informal negotiation and arbitration.
9. **Governing Law.** The laws of the state or country where you live (or if a business where your principal place of business is located) govern all claims and disputes concerning the software, its price, or this agreement, including breach of contract claims and claims under state consumer protection laws, unfair competition laws, implied warranty laws, for unjust enrichment, and in tort, regardless of conflict of law principles. In the United States, the FAA governs all provisions relating to arbitration.
10. **Consumer Rights, Regional Variations.** This agreement describes certain legal rights. You may have other rights, including consumer rights, under the laws of your state or country. You may also have rights with respect to the party from which you acquired the software. This agreement does not change those other rights if the laws of your state or country do not permit it to do so. For example, if you acquired the software in one of the below regions, or mandatory country law applies, then the following provisions apply to you:
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In this section, "goods" refers to the software for which Microsoft or the manufacturer or installer provides the express warranty. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
 - b. **Canada.** You may stop receiving updates on your device by turning off Internet access. If and when you reconnect to the Internet, the software will resume checking for and installing updates.
 - c. **Germany and Austria.**
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 - (ii) **Limitation of Liability.** In case of intentional conduct, gross negligence, claims based on the Product Liability Act, as well as, in case of death or personal or physical injury, the manufacturer or installer, or Microsoft is liable according to the statutory law.

Subject to the preceding sentence, the manufacturer or installer, or Microsoft will only be liable for slight negligence if the manufacturer or installer or Microsoft is in breach of such material contractual obligations, the fulfillment of which facilitate the due performance of this agreement, the breach of which would endanger the purpose of this agreement and the compliance with which a party may constantly trust in (so-called "cardinal obligations"). In other cases of slight negligence, the manufacturer or installer or Microsoft will not be liable for slight negligence.
 - d. **Other regions.** See (aka.ms/variations) for a current list of regional variations
11. **Additional Notices.**
- a. **Networks, data and Internet usage.** Some features of the software and services accessed through the software may require your device to access the Internet. Your access and usage (including charges) may be subject to the terms of your cellular or internet provider agreement. Certain features of the software may help you access the Internet more efficiently, but the software's usage calculations may be different from your service provider's measurements. You are always responsible for (i) understanding and complying with the terms of your own plans and agreements, and (ii) any issues arising from using or accessing networks, including public/open networks. You may use the software to connect to networks, and to share access information about those networks, only if you have permission to do so.
 - b. **H.264/AVC and MPEG-4 visual standards and VC-1 video standards.** The software may include H.264/MPEG-4 AVC and/or VC-1 decoding technology. MPEG LA, L.L.C. requires this notice:

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12. Entire Agreement. This agreement (together with the printed paper license terms or other terms accompanying any software supplements, updates, and services that are provided by the manufacturer or installer, or Microsoft, and that you use), and the terms contained in web links listed in this agreement, are the entire agreement for the software and any such supplements, updates, and services (unless the manufacturer or installer, or Microsoft, provides other terms with such supplements, updates, or services). You can review this agreement after your software is running by going to (aka.ms/useterms) or going to Settings - System - About within the software. You can also review the terms at any of the links in this agreement by typing the URLs into a browser address bar, and you agree to do so. You agree that you will read the terms before using the software or services, including any linked terms. You understand that by using the software and services, you ratify this agreement and the linked terms. There are also informational links in this agreement. The links containing notices and binding terms are:
 - [Windows 10 Privacy Statement \(aka.ms/privacy\)](http://aka.ms/privacy)
 - [Microsoft Services Agreement \(aka.ms/msa\)](http://aka.ms/msa)
 - [Adobe Flash Player License Terms \(aka.ms/adobe-flash\)](http://aka.ms/adobe-flash)

NO WARRANTY

THE SOFTWARE ON YOUR DEVICE (INCLUDING THE APPS) IS LICENSED "AS IS." TO THE MAXIMUM EXTENT PERMITTED BY YOUR LOCAL LAWS, YOU BEAR THE ENTIRE RISK AS TO THE SOFTWARE'S QUALITY AND PERFORMANCE. SHOULD IT PROVE DEFECTIVE, YOU ASSUME THE ENTIRE COST OF ALL SERVICING OR REPAIR. NEITHER THE DEVICE MANUFACTURER NOR MICROSOFT GIVES ANY EXPRESS WARRANTIES, GUARANTEES, OR CONDITIONS FOR THE SOFTWARE. TO THE EXTENT PERMITTED UNDER YOUR LOCAL LAWS, THE MANUFACTURER AND MICROSOFT EXCLUDE ALL IMPLIED WARRANTIES AND CONDITIONS, INCLUDING THOSE OF MERCHANTABILITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. YOU MAY HAVE ADDITIONAL CONSUMER RIGHTS OR STATUTORY GUARANTEES UNDER LOCAL LAWS THAT THESE TERMS CANNOT CHANGE.

IF YOUR LOCAL LAWS IMPOSE A WARRANTY, GUARANTEE, OR CONDITION EVEN THOUGH THIS AGREEMENT DOES NOT, ITS TERM IS LIMITED TO 90 DAYS FROM WHEN THE FIRST USER ACQUIRES THE SOFTWARE. IF THE MANUFACTURER OR MICROSOFT BREACHES SUCH A WARRANTY, GUARANTEE, OR CONDITION, YOUR SOLE REMEDY, AT THE MANUFACTURER'S OR MICROSOFT'S ELECTION, IS (I) REPAIR OR REPLACEMENT OF THE SOFTWARE AT NO CHARGE, OR (II) RETURN OF THE SOFTWARE (OR AT ITS ELECTION THE DEVICE ON WHICH THE SOFTWARE WAS INSTALLED) FOR A REFUND OF THE AMOUNT PAID, IF ANY. THESE ARE YOUR ONLY REMEDIES FOR BREACH OF A WARRANTY, GUARANTEE, OR CONDITION YOUR LOCAL LAWS IMPOSE.

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THE DAMAGE EXCLUSIONS AND REMEDY LIMITATIONS IN THIS AGREEMENT APPLY EVEN IF YOU HAVE NO REMEDY (THE SOFTWARE IS LICENSED "AS IS"), IF REPAIR, REPLACEMENT, OR A REFUND (IF REQUIRED BY YOUR LOCAL LAW) DOES NOT FULLY COMPENSATE YOU FOR ANY LOSSES, IF THE MANUFACTURER OR MICROSOFT KNEW OR SHOULD HAVE KNOWN ABOUT THE POSSIBILITY OF THE DAMAGES, OR IF THE REMEDY FAILS OF ITS ESSENTIAL PURPOSE.

Check with your device manufacturer to determine if your device is covered by a warranty.

10. Lease Agreement for Microsoft Software Products



Agreement for leasing or renting certain Microsoft Software Products

IMPORTANT—READ CAREFULLY: This agreement (“Agreement”) is between you, a legal entity (“COMPANY”), and Microsoft Corporation or one of its affiliates (“Microsoft”). This Agreement grants COMPANY limited rights to: (i) lease to third parties personal computers (“PCs”) that COMPANY acquires with the original equipment manufacturer (“OEM”) versions of the Windows 10 Pro/Pro for Workstations, Windows 8 Pro, or Windows 7 Professional desktop operating system, and, as applicable, Microsoft Office 2019, Microsoft Office 2016, Microsoft Office 2013, or Microsoft Office 2010 (“Microsoft Software Products”) preinstalled by a PC manufacturer (“OEM”), and (ii) rent the OEM and Volume Licensing versions of certain Microsoft Software Products. By exercising rights under this Agreement, COMPANY agrees to its terms. If COMPANY does not agree, COMPANY may not lease PCs with Microsoft Software Products preinstalled and may not rent Microsoft Software Products. COMPANY may not exercise rights under this Agreement if either (1) COMPANY has a valid OEM License Agreement with Microsoft or a Microsoft affiliate or (2) COMPANY qualifies as an OEM affiliate under an OEM License Agreement. For purposes of this Agreement, “qualifies as an OEM affiliate” means that COMPANY is controlled by, or is under common control with, an entity that has a valid OEM License, where control means direct or indirect majority ownership. COMPANY also agrees that it will not exercise rights as an end user under the Microsoft Software License Terms for the units of Microsoft Software Products leased or rented under this Agreement (“License Terms”).

1. Lease rights and obligations

1.1. License grant, limitations, and obligations

Notwithstanding anything to the contrary in the applicable License Terms for each Microsoft Software Product, Microsoft hereby grants to COMPANY the right to lease Microsoft Software Products on Leased PCs to its customers, each under a Lease (each as defined below). This grant is subject to COMPANY’s continuing compliance with the terms of this Agreement and all applicable license terms.

COMPANY must fully own the leased PCs (“Leased PCs”) and also must enter into a lease agreement (“Lease”) with each of its customers (“Lessees”). The Leased PCs must have Microsoft Software Products preinstalled and each Leased PC can be leased only to a single Lessee. Each Lease must (i) prohibit subleasing or sublicensing of the Leased PCs, (ii) have a term of at least three years, and (iii) automatically terminate upon transfer of ownership of the Leased PC to the Lessee.

Use of each Microsoft Software Product by the Lessee shall be governed by the applicable License Terms for that Microsoft Software Product. COMPANY shall instruct each Lessee to use each Microsoft Software Product in accordance with the applicable License Terms.

This Section 1 does not grant any right to COMPANY to (1) lease Microsoft Software Products on a stand-alone basis; (2) lease or otherwise provide shared access to software products that are accessed from a host device that provides resources, services, and/or information to multiple client computers/workstations; or (3) lease Microsoft Software Products other than under a Lease, except as allowed in Section 2 below.

1.2. Distribution of the Microsoft Software Products

COMPANY shall market and distribute Microsoft Software Products to Lessees only as installed on the Leased PCs as outlined in this Agreement and **not** as "standalone" products. If COMPANY acquires Leased PCs that include a copy of Microsoft Software Products on separate OEM branded media (for example, CD-ROM) for recovery purposes, such recovery media may be provided to Lessee with the Leased PCs.

1.3. Obligations upon expiration or termination of Leases

When a Lease ends, COMPANY shall keep records of whether ownership of the Leased PCs is transferred to Lessee or to a Microsoft Authorized Refurbisher, or whether the Leased PCs with all Microsoft Software Products and related materials are destroyed. COMPANY does not have the right to transfer the Leased PCs to a different party or to re-lease the Microsoft Software Products under this Agreement. Any further use or transfer is limited to the Lessee of the Microsoft Software Products and is governed solely by the applicable License Terms. COMPANY may re-lease Leased PCs at the end of a Lease provided COMPANY first properly acquires the right to do so.

2. Rental Rights

For each desktop or other personal computer on which COMPANY is licensed to run one of the qualifying applications identified in section 2.1 below (each, a "Qualifying Device"), Microsoft grants COMPANY the limited rental rights in this section 2.

2.1. Qualifying applications for Rental Rights – Office and Windows

Qualifying applications are limited to certain applications acquired through specific Microsoft Programs. The qualifying applications (each, a "Qualifying Application") by program type are:

Office products

Qualifying versions of Office for Rental Rights	License Agreement that applies to COMPANY's license:				
	OEM	PIPC (Japan only)	Microsoft Products and Services Agreement ¹	Open License ¹	Select or Select Plus Agreement ¹
Office Standard 2019			X	X	X
Office Standard 2016			X	X	X
Office Standard 2013			X	X	X
Office Standard 2010			X	X	X
Office Professional Plus 2019			X	X	X
Office Professional Plus 2016			X	X	X
Office Professional Plus 2013			X	X	X
Office Professional Plus 2010			X	X	X
Office Personal 2019		X			
Office Personal 2016		X			
Office Personal 2013		X			
Office Home & Business 2019		X			
Office Home & Business 2016		X			
Office Home & Business 2013		X			
Office Professional 2019		X			
Office Professional 2016		X			
Office Professional 2013		X			
Office Mobile (Licensed for personal, noncommercial use, unless the end user has commercial use rights under a separate agreement)	X				

Windows products

Qualifying versions of Windows for Rental Rights	License Agreement that applies to COMPANY's license:			
	OEM	Microsoft Products and	Open License ¹	Select or Select Plus Agreement ¹

		Services Agreement ¹		
Windows 10 Pro (N, KN) (32-bit or 64-bit)	X	X	X	X
Windows 10 IoT Enterprise, Pro for Workstations	X			
Windows 8 and Windows 8.1 (32-bit or 64-bit) – Pro (K, KN)	X	X	X	X
Windows 7 (32-bit or 64-bit) – Professional (K, KN)	X		X	X
Windows Mobile	X			

¹ For Microsoft Software Products purchased under this type of agreement, the “License Terms” are the Volume Licensing Product Terms and the associated terms under which COMPANY licensed the Microsoft Software Products. Effective July 1, 2016, in markets where the Microsoft Products and Services Agreement (MPSA) is available, Microsoft will stop accepting new orders and Software Assurance renewals through existing commercial Select Plus agreements at your next agreement anniversary date. This retirement does not apply to government and academic Select Plus agreements. More information is at www.microsoft.com/en-us/licensing/licensing-programs/select.aspx.

2.2. License grant for Rental Rights – Office and Windows

Notwithstanding anything to the contrary in the applicable License Terms for each Microsoft Software Product (Qualifying Application) identified in section 2.1, Microsoft hereby grants to COMPANY the right to exercise the rental rights allowed in Section 2.3 below. This grant is subject to COMPANY’s continuing compliance with the terms of this Agreement and all applicable license terms.

2.3. Rental Rights

For each Qualifying Device, Microsoft waives the prohibition in the License Terms against renting or leasing the Qualifying Application(s) for Leases and rentals that comply with the terms of this Agreement.

Use of each Qualifying Application by each user will be governed by the License Terms for that Qualifying Application. COMPANY must (1) require each user to accept the License Terms for each Qualifying Application in writing or electronically and (2) notify each user that Microsoft offers no warranty for the Qualifying Application and that Microsoft will not defend the user against any third-party claims or be liable for any damages arising from use of the software.

2.4. Additional requirements for rentals

The Qualifying Application may not be used in a virtual environment.

The Qualifying Application may not be accessed remotely, or in any other manner that enables a user to use the software on a device other than the device for which it is licensed, except as required for technical support purposes using Remote Assistance or similar technologies.

Commercial use: The rights in this section 2 may be exercised for commercial use only.

COMPANY agrees to indemnify, defend, and hold Microsoft harmless, including attorneys’ fees, for claims related to any use of a Qualifying Application under the rental rights granted in this section 2.

3. Additional obligations of COMPANY

3.1. Acquisition of Microsoft Software Products

All Microsoft Software Products, including those on Leased PCs must be genuine Microsoft Software Products, properly acquired and, if an OEM version of a product, preinstalled by an OEM.

3.2. Compliance with license requirements

COMPANY agrees to inform its employees and other individuals who have access to the Microsoft Software Products that the Microsoft Software Products: (i) are licensed by Microsoft and the OEMs, (ii) may be used only subject to the terms and conditions contained in this Agreement (including the applicable License Terms), and (iii) may not be copied, transferred, or otherwise used in violation of such terms and conditions. COMPANY agrees to use all commercially reasonable efforts to prevent any unauthorized distribution, use, duplication, or pirating of the Microsoft Software Products.

3.3. Term and termination of Agreement

This Agreement shall take effect on the date on which COMPANY enters into its first Lease or first exercises the rental rights in section 2 (if earlier) and will remain in effect until terminated by Microsoft. If Microsoft provides notice of termination, then COMPANY's rights under this Agreement will terminate 90 days following the date of the notice; provided, however, that the rights granted by this Agreement with regard to Leases in effect at the time of termination shall survive for the entire length of those Leases. Microsoft also may terminate this Agreement immediately, upon notice, if COMPANY breaches this Agreement. If this Agreement is terminated, COMPANY and its affiliates may not enter into another version of this Agreement without Microsoft's prior written consent.

4. Limitation of liability

There may be situations in which COMPANY has the right to claim damages from Microsoft or its affiliates. Whatever the basis for COMPANY's claim (such as breach of contract or tort), liability of Microsoft and its affiliates will be limited to direct damages up to US\$50.00. This monetary limitation will not apply to (i) liability for damages caused by Microsoft's or its affiliates', or their employees' or agents', recklessness or willful misconduct and awarded by a court of final adjudication or (ii) liability for personal injury or death caused by Microsoft's or its affiliates', or their employees' or agents', negligence or for fraudulent misrepresentation.

Neither Microsoft, its affiliates, nor anyone else who has been involved in the creation, production, or delivery of the Microsoft Software Products, shall be liable for any indirect, consequential, or incidental damages (including damages for loss of business profits, business interruption, loss of business information, and the like) arising out of the use or inability to use the Microsoft Software Products even if Microsoft has been advised of the possibility of such damages.

COMPANY, its affiliates, and its franchisees must not make to any Lessee, or any user of rental rights, any representation with respect to the Microsoft Software Products or the use thereof, except as is explicitly set forth in the License Terms. COMPANY agrees to defend, indemnify, and hold harmless Microsoft and its affiliates from and against any and all claims arising from or relating to COMPANY's breach of this Agreement or any negligent act or omission related to COMPANY's activities under this Agreement.

5. Verifying compliance

5.1. Right to verify compliance

COMPANY must keep records relating to the Leased PCs, its Leases, exercise of rental rights, and implementation of COMPANY's obligations under this Agreement. Microsoft has the right to verify compliance with the Agreement, at Microsoft's expense, during the term of the Agreement, and for a period of one year thereafter.

5.2 Verification process and limitations

To verify compliance, Microsoft will engage an independent accountant from an internationally-recognized public accounting firm, which will be subject to a confidentiality obligation. Verification will take place upon not fewer than 30-days' notice, during normal business hours and in a manner that does not interfere unreasonably with COMPANY's operations. COMPANY must promptly provide the accountant with any information the accountant reasonably requests in

furtherance of the verification. As an alternative, Microsoft can require COMPANY to complete Microsoft's self-audit questionnaire relating to the Leased PCs COMPANY leased, and rental rights COMPANY exercised, under this Agreement, but Microsoft reserves the right to use a verification process as set out above.

If Microsoft undertakes verification and does not find material unauthorized leasing, rental, or failure to keep records required under this Agreement (unauthorized leasing or rental, or records deficiency of 5 percent or more), Microsoft will not undertake another verification of the same entity for at least one year. Microsoft and Microsoft's auditors will use the information obtained in compliance verification only to enforce Microsoft's rights and to determine whether COMPANY is in compliance with the terms of this Agreement. By exercising its rights under this section 5.2, Microsoft does not waive its rights to enforce this Agreement or to protect its intellectual property by any other means permitted by law.

5.3 Remedies for noncompliance

If verification or self-audit reveals any unauthorized leasing or recording deficiencies, COMPANY must promptly acquire the necessary rights to reflect its leasing and rental activities. If material unauthorized leasing or failure to keep required records by COMPANY is found, COMPANY must reimburse Microsoft for the costs Microsoft has incurred in verification within 30 days of the finding.

6. General

This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns, provided that COMPANY may not assign its rights or obligations under this Agreement in any way without the prior written consent of Microsoft.

If COMPANY is located in Europe, the Middle East, or Africa, this Agreement shall be construed under, and controlled by, the laws of Ireland, and COMPANY consents to jurisdiction and venue in the courts sitting in Ireland. Otherwise, this Agreement shall be construed under, and controlled by, the laws of the State of Washington, United States, exclusive of its choice of law rules, and COMPANY consents to jurisdiction and venue in the courts sitting in King County, State of Washington, United States. Process may be served on either party in the manner as is authorized by applicable law or court rule. Sections 1.3, 3.3, 4, 5, 6, and 7 of this Agreement, as well as the prohibition on exercising rights as an end user under the License Terms for the units of Microsoft Software Products leased under this Agreement, will survive termination or expiration of this Agreement. If any provision of this Agreement is held by a court of competent jurisdiction to be illegal, invalid, or unenforceable, the remaining provisions shall remain in full force and effect.

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11. Product Terms for Windows 10 IoT CLA

ADDITIONAL TERMS FOR WINDOWS 10 IoT ENTERPRISE AND WINDOWS 10 IoT CORE DEVICE LICENSES

Additional Terms contained in this document are only applicable to CLA 6.0. For successor versions of the CLA please see the applicable Product Terms documents available on the Licensing and Programs Resource Center of the Partner Portal.

Product Name and Version	Applicable Additional Terms	Product End of License
Windows® 10 IoT Enterprise 2019 LTSC High End (Virtualization Only for Qualified Operating System) (ESD)	(1), (2), (4), (5), (7), (10), (11), (12), (13), (14), (15), (16), (17), (18), (27), (28), (29), (30), (31), (35), (36), (37), (39), (40), (41), (42), (43), (44), (45), (49)	Nov 30, 2028
Windows® 10 IoT Enterprise 2019 LTSC High End (Virtualization Only for Non-Qualified Operating System) (ESD)	(1), (2), (4), (5), (7), (10), (11), (12), (13), (14), (15), (16), (17), (18), (27), (28), (29), (30), (31), (35), (36), (37), (39), (40), (41), (42), (43), (44), (45), (49)	Nov 30, 2028
Windows® 10 IoT Enterprise 2019 LTSC High End (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (20), (28), (29), (30), (31), (35), (36), (37), (39), (40), (41), (42), (43), (44), (45), (49)	Nov 30, 2028
Windows® 10 IoT Enterprise 2019 LTSC Value (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (20), (28), (29), (30), (31), (34), (36), (37), (39), (40), (41), (42), (43), (44), (45), (49)	Nov 30, 2028
Windows® 10 IoT Enterprise 2019 LTSC Entry (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (20), (28), (29), (30), (31), (33), (36), (37), (39), (40), (41), (42), (43), (44), (45), (49)	Nov 30, 2028
Windows® 10 IoT Enterprise 2019 LTSC Upgrade High End (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (35), (36), (37), (39), (40), (41), (42), (43), (44), (45), (49)	Nov 30, 2028
Windows® 10 IoT Enterprise 2019 LTSC Upgrade Value (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (34), (36), (37), (39), (40), (41), (42), (43), (44), (45), (49)	Nov 30, 2028
Windows® 10 IoT Enterprise 2019 LTSC Upgrade Entry (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (33), (36), (37), (39), (40), (41), (42), (43), (44), (45), (49)	Nov 30, 2028
Windows® 10 IoT Enterprise 2016 LTSC High End (Virtualization Only for Qualified Operating System) (ESD)	(1), (2), (4), (5), (7), (10), (11), (12), (13), (14), (15), (16), (17), (18), (27), (28), (29), (30), (31), (35), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2026
Windows® 10 IoT Enterprise 2016 LTSC High End (Virtualization Only for Non-Qualified Operating System) (ESD)	(1), (2), (4), (5), (7), (10), (11), (12), (13), (14), (15), (16), (17), (18), (27), (28), (29), (30), (31), (35), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2026

Windows® 10 IoT Enterprise 2016 LTSC High End (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (20), (28), (29), (30), (31), (35), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2026
Windows® 10 IoT Enterprise 2016 LTSC Value (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (20), (28), (29), (30), (31), (34), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2026
Windows® 10 IoT Enterprise 2016 LTSC Entry (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (20), (28), (29), (30), (31), (33), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2026
Windows® 10 IoT Enterprise 2016 LTSC Upgrade High End (from 2015 LTSC only) (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (35), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2026
Windows® 10 IoT Enterprise 2016 LTSC Upgrade Value (from 2015 LTSC only) (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (34), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2026
Windows® 10 IoT Enterprise 2016 LTSC Upgrade Entry (from 2015 LTSC only) (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (33), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2026
Windows® 10 IoT Enterprise 2016 LTSC Upgrade High End (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (35), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2026
Windows® 10 IoT Enterprise 2016 LTSC Upgrade Value (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (34), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2026
Windows® 10 IoT Enterprise 2016 LTSC Upgrade Entry (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (33), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2026
Windows® 10 IoT Enterprise SAC High End (Virtualization Only for Qualified Operating System) (ESD)	(1), (2), (4), (5), (7), (10), (11), (12), (13), (14), (15), (16), (17), (18), (27), (28), (29), (30), (31), (35), (36), (37), (38), (39), (40), (41), (42), (43), (44), (45), (49)	N/A
Windows® 10 IoT Enterprise SAC High End (Virtualization Only for Non-Qualified Operating System) (ESD)	(1), (2), (4), (5), (7), (10), (11), (12), (13), (14), (15), (16), (17), (18), (27), (28), (29), (30), (31), (35), (36), (37), (38), (39), (40), (41), (42), (43), (44), (45), (49)	N/A
Windows® 10 IoT Enterprise SAC High End (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (20), (28), (29), (30), (31), (35), (36), (37), (38), (39), (40), (41), (42), (43), (44), (45), (49)	N/A
Windows® 10 IoT Enterprise SAC Value (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (20), (28), (29), (30), (31), (34), (36), (37), (38), (39), (40), (41), (42), (43), (44), (45), (49)	N/A
Windows® 10 IoT Enterprise SAC Entry (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (20), (28), (29), (30), (31), (33), (36), (37), (38), (39), (40), (41), (42), (43), (44), (45), (49)	N/A

Windows® 10 IoT Enterprise SAC Upgrade High End (from 2015 LTSB only) (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (35), (36), (37), (38), (39), (40), (41), (42), (43), (44), (45), (49)	July 31, 2025
Windows® 10 IoT Enterprise SAC Upgrade Value (from 2015 LTSB only) (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (34), (36), (37), (38), (39), (40), (41), (42), (43), (44), (45), (49)	July 31, 2025
Windows® 10 IoT Enterprise SAC Upgrade Entry (from 2015 LTSB only) (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (33), (36), (37), (38), (39), (40), (41), (42), (43), (44), (45), (49)	July 31, 2025
Windows® 10 IoT Enterprise SAC Upgrade High End (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (35), (36), (37), (38), (39), (40), (41), (42), (43), (44), (45), (49)	N/A
Windows® 10 IoT Enterprise SAC Upgrade Value (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (34), (36), (37), (38), (39), (40), (41), (42), (43), (44), (45), (49)	N/A
Windows® 10 IoT Enterprise SAC Upgrade Entry (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (33), (36), (37), (38), (39), (40), (41), (42), (43), (44), (45), (49)	N/A
Windows® 10 IoT Enterprise 2015 LTSB High End (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (20), (28), (29), (30), (31), (35), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2025
Windows® 10 IoT Enterprise 2015 LTSB Value (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (20), (28), (29), (30), (31), (34), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2025
Windows® 10 IoT Enterprise 2015 LTSB Entry (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (20), (28), (29), (30), (31), (33), (36), (37), (39), (40), (41), (42), (43), (44)	July 31, 2025
Windows® 10 IoT Enterprise 2015 LTSB Upgrade High End (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (35), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2025
Windows® 10 IoT Enterprise 2015 LTSB Upgrade Value (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (34), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2025
Windows® 10 IoT Enterprise 2015 LTSB Upgrade Entry (ESD)	(1), (2), (4), (5), (6), (7), (9), (10), (11), (12), (13), (14), (15), (17), (18), (23), (28), (29), (30), (31), (33), (36), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2025
Windows® 10 IoT Enterprise 2015 LTSB High End (Virtualization Only for Qualified Operating System) (ESD)	(1), (2), (3), (4), (5), (7), (10), (11), (12), (13), (14), (15), (16), (17), (18), (19), (28), (27), (29), (30), (31), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2025
Windows® 10 IoT Enterprise 2015 LTSB High End (Virtualization Only for Non-Qualified Operating System) (ESD)	(1), (2), (3), (4), (5), (7), (10), (11), (12), (13), (14), (15), (16), (17), (18), (19), (27), (28), (29), (30), (31), (37), (39), (40), (41), (42), (43), (44), (49)	July 31, 2025

Windows® 10 IoT Core (ESD)	(1), (2), (5), (13), (15), (18), (29), (30), (37), (40), (45), (46), (47), (49)	N/A
Windows® 10 IoT Core Services (ESD)	(1), (2), (5), (13), (15), (18), (20), (29), (30), (37), (40), (45), (46), (48), (49)	N/A

The following Additional Terms (“AT”) apply to the Products as indicated above and are in addition to terms of Company’s Microsoft OEM Customer License Agreement for Embedded Systems (“Agreement”). Capitalized terms used below and not otherwise defined have the meaning set in the Agreement. These ATs supersede any inconsistent terms in the Agreement.

1. General Terms

(a) Valid Agreement

In order to obtain Runtime License Envelopes, Company must have a valid, current Agreement.

(b) License Terms

- (1) Company shall sublicense rights to use the Product to each End User by means of License Terms. MS License Terms for each Product are posted on the Partner Portal. For purposes of this subsection, “MS License Terms” means the Product License Terms available on the Partner Portal. Company may use different terms or additional terms, as long as they are no less protective of MS than the MS License Terms.
- (2) If Company elects to use the MS License Terms, Company should substitute its name for “[OEM]” in the MS License Terms. Company may also substitute the term “[Company]’s software suppliers” for the term “MS” in the MS License Terms.
- (3) Company must notify each End User before or at the time of purchase that the
 - (i) Embedded System contains software that is subject to the License Terms; and
 - (ii) End User must agree to the License Terms before using the Embedded System.
- (4) Company must distribute License Terms in a manner that forms a contract binding the End User under applicable law.
- (5) (5) From time to time, MS may update the MS License Terms for a Product. Any such updates will be posted on the Partner Portal. For each Product, Company may use any version of the applicable MS License Terms that has been posted on the Partner Portal during the term of this Agreement. Certain updates to the MS License Terms may be required as provided in Section 2 (License Grant Limitations) of the Agreement.

(c) Windows Preinstallation Environment

- (1) Company may include Microsoft® Windows® Preinstallation Environment, Version 3.0 or any successor version (“WinPE 3.0”) in the recovery solution for the Product..
- (2) No royalty is owed for WinPE 3.0 included in recovery solutions pursuant to this Section 1(d).
- (3) WinPE 3.0 may not function properly with the Product. If Company includes WinPE 3.0 in a recovery solution, then the following terms apply:
 - (i) Despite any other terms in the Agreement, MS and its Suppliers provide WinPE 3.0 “AS IS” and with all faults. MS and its Suppliers make no warranties, conditions or guarantees with respect to these products and disclaim all warranties and conditions, whether express, implied or statutory, including but not limited to any warranties or conditions of or related to merchantability and fitness for a particular purpose, the entire risk arising out of use or performance of these products and any support services remains with Company and the End User. The foregoing limitations, exclusions and disclaimers will apply to the maximum extent permitted by applicable law; and 5/10/18
 - (ii) Company must provide prominent notice to End Users indicating that the recovery solution may not function properly.

(d) Language Versions

Language versions other than English are licensed on an “if and as available” basis.

(e) Definitions

“Partner Portal” means the website designated by Microsoft through which Microsoft may provide access to tools, documents and communications to Company, as updated by Microsoft from time to time.

“Processor” means a central processing unit, including dual core and multi-core processors.

“Processor Requirements” means the document posted at <https://go.microsoft.com/fwlink/?linkid=847781> (or updated URL).

2. Permitted Use of Deliverables

Company may only use the Deliverables to:

- (a) perform internal testing of Embedded Systems, and

- (b) install the MS Binaries on Embedded Systems. Company shall preinstall the MS Binaries in accordance with the instructions in the Deliverables. Company shall not change or delete any part of the Product unless expressly allowed by such instructions.

Such testing and installation shall be conducted only on Company premises by Company employees or Contractors. Company shall make no changes or deletions to the Product except as expressly permitted in the Agreement or in the Deliverables.

3. Terminal Services Protocols

Company may use terminal services protocols to enable an Embedded System to connect to and access applications running on a server. These include Remote Desktop Protocol, Remote Assistance and Independent Computer Architecture. If Company uses these protocols on an Embedded System, then Company shall not allow any Desktop Functions to run locally on that system, except for network/Internet browsing functions. Company shall advise its End Users of this requirement.

4. Product Keys

Company may install and use the Product to develop and test prototype Embedded Systems. Company may use the test Product Key included in the Deliverables to install the test Images. Any Images installed using the test Product Key will not function more than 30 days after Company first boots an Image on a prototype system. Company must use Embedded Product Key Entry Activation ("EPKEA") or Product Key Entry Activation ("PKEA") with Images that will be distributed.

- 5. **Product End of License.** Company's license for the Product ends on the earlier of the date included in the Product Table, or end of the Agreement.

6. Virtualization

Company may only preinstall this Product configured to run directly on a physical hardware system. Company must not install this Product within any virtual (or otherwise emulated) hardware system.

7. Use of USB Drive for Embedded Systems

Company may incorporate up to two internal USB Drives into the design of its Embedded Systems under the following terms:

- (a) The USB Drives must be mounted inside the Embedded System.
- (b) If Company includes two USB Drives, one of them may be used for recovery purposes only (see Section (e) below). 6 10/1/18
- (c) Each internal USB Drive must work only on Company's applicable Embedded System and must use commercially reasonable authentication of each USB Drive to ensure the foregoing.
- (d) Each Embedded System must bear a COA that meets the requirements of the Agreement.
- (e) **Recovery Image Rights.** Company's rights regarding Recovery Images are included in Section 2(f) of the Agreement. Company may distribute Recovery Images on an internal Recovery Image USB Drive. The Recovery Image USB Drive must include only the Recovery Image and the Recovery Image USB Drive must not be rewriteable. (In other words, the internal USB Drive must be "write once, read many".) All other requirements for Recovery Images remain unchanged.

(f) Replacement USB Drives

- (1) **Replacement.** If Company removes or replaces an internal USB Drive, then Company:

- (i) must destroy the replaced internal USB Drive or refurbish it as provided in Section (f)(3) below.
- (ii) may distribute replacement USB Drives separate from an Embedded System only directly to an Enterprise Customer (cannot be distributed through Company's Channel partners) for replacement of existing internal USB Drive. OEM must require an Enterprise Customer to internally mount the replacement USB Drive in the Embedded System and prohibit any use of the replacement USB Drive externally. Company must instruct Enterprise Customers to destroy each replaced internal USB Drive or return it to Company.
- (iii) must distribute replacement internal USB Drives directly to Enterprise Customers at no charge, except for the reasonable costs Company incur for materials, shipping, and handling.

- (2) **Royalty.** No additional royalty shall accrue to MS for replacement internal USB Drives, provided that:

- (i) Company complies with Section (f)(1) above, and
- (ii) the replaced units are returned or destroyed (as specified under Section (f)).

- (3) **Refurbishment.** Company may repair or refurbish internal USB Drives replaced by Company or an Enterprise Customer. Company may redistribute those repaired or refurbished internal USB Drives as allowed in this Section (f). Company must destroy any replaced internal USB Drives that are not repaired or refurbished.

8. [Intentionally left blank]

9. Connection Limit

Company may permit up to 20 computers or other devices to connect via Server Message Block (“SMB”) to the Embedded System to use one or more of the following services of the Product:

- (a) File services,
- (b) Print services,

This 20-connection limit applies to computers and devices that access the software indirectly through “multiplexing” or other software or hardware that pools connections. The 20-connection limit does not apply to other uses of the Product. Unlimited inbound connections are allowed via TCP/IP (Transmission Control Protocol (“TCP”) and the Internet Protocol (“IP”).

10. No Retail Channel Distribution. Embedded Systems containing this Product shall:

- (a) be marketed solely to business (including Enterprise Customer) and government entities;
- (b) be sold directly by Company or via the Channel to business (including Enterprise Customer) and government entities;
- (c) not be distributed individually to consumer end users; and
- (d) not be kept in stock at consumer retailers. 7 10/1/18

11. End User Interface and Embedded Applications

- (a) Company may use the shell included in the Deliverables as the End User interface to support Windows 10 compatible Embedded Applications.
- (b) Company must comply with the ‘Guidelines for Designing Embedded Systems with Windows 10 IoT Enterprise’ white paper posted on the Partner Portal which may be updated from time to time.
- (c) To take advantage of the Windows 10 shell or user interface, Company may add one or more Embedded Applications that End Users can access and execute via the user interface.

12. Embedded Product Key Entry Activation (“EPKEA”)

- (a) Company may implement EPKEA to pre-activate the MS Binaries during the Embedded System manufacturing process.
- (b) Company must comply with the following requirements:
 - (1) Company must comply with all EPKEA requirements contained in the Embedded Activation application and process documentation located on the Partner Portal.
 - (2) The Recovery Image for this Product must include EPKEA.
 - (3) Company shall pay MS, as the Default Charge, an amount equal to 130% of the royalty for this Product for each Embedded System activated with an EPKEA key lost by Company. MS also reserves the right to terminate Company’s right to implement and distribute EPKEA or immediately terminate this Agreement. In addition, MS may require Company to re-create Images with a new EPKEA key.

13. Processors

No Embedded System shall be designed to support this Product with more than two Processors. Company shall not distribute this Product on any Embedded System that supports more than two Processors.

14. 32-Bit and 64-Bit Installations

- (a) **32 Bit and 64 Bit.** The OPK for this Product includes 32- and 64-bit versions.
 - (1) If the Embedded System uses a compatible 32-bit processor, Company may only install the 32-bit version.
 - (2) If the Embedded System uses a compatible 64-bit processor, Company may install either the 64- or the 32-bit version, or both.
- (b) **Documentation.** For Embedded Systems pre-installed with Product, Company may document the fact Embedded Systems contain both the 64-bit and 32-bit versions of the Products with the right for End Users to switch between the 64-bit and 32-bit versions. Any documentation must clearly indicate that the End User may only use one of these versions at a time and that switching between these versions requires uninstalling the other version. If End Users chooses to switch between the 64-bit and 32-bit versions, End User must comply with the License Terms of the Product.
- (c) **Selection Utility.** If Company includes both the 32-bit and 64-bit versions in an Embedded System, Company must include a utility for End Users to select one of these versions. After selection, the utility must delete the other version.
- (d) **Recovery.** An End User may use Company’s Recovery Image to switch between 32-bit and 64-bit versions. If an End User of an Embedded System with a compatible 64-bit Processor requests Recovery Image media with the 32-bit or 64-bit version, Company may provide the media even if that version was not preinstalled on that Embedded System. Company’s Recovery Image and media must be in a format that deletes the other

version of the Product, excluding data folders with End User's settings and configurations. Company must notify the End User to back-up data and applications prior to installing the other version. This notice may be inside the Embedded System package or with the media. For Embedded Systems preinstalled with Windows Embedded 8 or successor versions, Company must: 8 10/1/18

- (1) Provide the following notice in a clear and conspicuous manner to each End User with the recovery media, and on Company's support webpage:
"Installing the 32-bit version of <Product> on this system requires a change to the BIOS settings to legacy BIOS mode. Switching back to the 64-bit version of <Product> from the 32-bit version of <Product> will require you to revert back to the original BIOS settings. If you do not revert back to these BIOS settings the following Windows 8 functionalities will not work as they rely on a native UEFI mode boot:
 - (i) Secure Boot
 - (ii) Seamless Boot experience
 - (iii) Network unlock for Bitlocker for systems with a Trusted Platform Module ("TPM")
 - (iv) eDrive supportReverting back to UEFI mode will require a hard drive reformat. All data and personal settings will be lost. It is highly recommended that you back up your data before you revert back to UEFI mode."
- (2) Provide clear instructions to each End User in the Embedded System packaging, with Recovery Images and on Company's support website detailing how to switch from Unified Extensible Firmware Interface ("UEFI") + Compatibility Support Module ("CSM") or legacy BIOS mode to native UEFI with Secure Boot enabled. The CSM can be used in two ways: (1) it can be used by firmware in the boot path to boot into a compatible BIOS mode or (2) it can be loaded during UEFI boot to provide support for legacy services. When Secure Boot is enabled Windows CSM should not be installed for any other purpose.
- (3) Company's Recovery Image for each Embedded System may include each LP and LIP available for the preinstalled Product.

15. Assessment and Deployment Kit

For clarity, the Windows 10 Product Assessment and Deployment Kit ("ADK") is considered part of the Product such that references to the OPK are applicable to the ADK (as appropriate). MS may modify the ADK from time to time. In the event of any conflict between the online ADK license terms and the Agreement, the terms of the Agreement shall control.

16. Processors

Company may install the Product on an Embedded System or Partitioned Embedded System in a virtual Instance configured to support no more than two processors.

17. Adobe® Flash® Player.

- (a) This Product includes Adobe Flash Player technology from Adobe Systems Incorporated. Company shall have the right to distribute the Adobe Flash Player in the Products that include Internet Explorer and/or Microsoft Edge; provided that: (i) Company disables the Adobe Flash Player in compliance with the instructions in the 'Guidelines for Designing Embedded Systems with Windows Embedded 8' or 'Guidelines for Designing Embedded Systems with Windows 10 IoT Enterprise' white paper (as applicable) posted on the Partner Portal and (ii) does not re-enable or use the Adobe Flash Player without a separate license from Adobe or an authorized Adobe partner.
- (b) Company will indemnify and hold harmless Microsoft Parties for any claim from Adobe resulting from any unauthorized use of Adobe Flash Player in breach of this AT.
- (c) For purposes of this AT, "Thin Client Device" means an Embedded System that depends heavily on some other computer (may be a server) to fulfill its computational roles; and "Desktop Functions" means consumer or general purpose tasks or processes (such as using word processing, spreadsheet, or slide show presentation software) performed exclusively or primarily by a PC device. If this Product is included on Embedded Systems that are designed and marketed as Thin Client Devices, then the below terms apply: 9 10/1/18

This Product includes Adobe Flash Player technology from Adobe Systems Incorporated. Company shall have the right to distribute the Adobe Flash Player in the Products that include Internet Explorer and/or Microsoft Edge on Embedded Systems where Thin Client is the primary functionality; provided that Company must notify each End User before or at the time of purchase that the Embedded System contains Third Party software that is subject to the license terms for Adobe Systems Incorporated/Adobe Systems Software Ireland Limited, which license terms can be found at go.microsoft.com/fwlink/?linkid=248532. Adobe and Flash are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

18. Default Settings

In some cases, OEMs may configure default settings on this Product on behalf of the End User, including without limitation turning on by default the Location Services and Input Personalization features as described in <http://go.microsoft.com/fwlink/?LinkId=521839>.

OEMs who turn these features on by default in the images distributed to End Users must:

- Notify End Users that these features have been enabled and provide End Users with links to <http://go.microsoft.com/fwlink/?LinkId=521839> or equivalent instructions on how to disable these features; AND
- Secure consent from the relevant End Users to enable such features by default, if required by and to the extent required by applicable law.

In the event that Company has configured the image or device provided to End Users such that the end user is no longer able to disable Location Services or Input Personalization, these features must be turned off by Company. Nothing in AT (18) is intended to limit Company's obligations to comply with all applicable data protection and privacy laws applying to the Products or their performance under this Agreement.

19. Cloud Computing Devices

Company may allow an Embedded System to use Internet browsing functionality to connect to and access cloud hosted applications (for example, Microsoft Office 365), provided that:

- (a) Company shall not allow any Desktop Functions to run locally on the Embedded System;
- (b) Any files that result from the use of Desktop Functions must not be permanently stored on the Embedded System; and
- (c) Company shall advise End Users of the requirements in (a) and (b) in the License Terms for the Product.

20. Field Upgrade

This Product may not be used in Field Upgrade Images.

21. [Intentionally left blank]

22. [Intentionally left blank]

23. Field Upgrade Existing Image Change

Field Upgrade terms for this Product are edited as follows. Section 1. Additional Definitions "Existing Image" is edited to read:

"Existing Image" means:

- (a) An Image that includes a prior version of the MS Binaries, or
- (b) A software image that includes an operating system different from the Product contained in the Field Upgrade Image; excluding Microsoft Windows products distributed on general purpose personal computing devices. 10 10/1/18

24. [Intentionally left blank]

25. [Intentionally left blank]

26. [Intentionally left blank]

27. Virtualization Rights and Limitations

- (a) For purposes of this AT:

(1) Additional Definitions.

- (i) "Instance" means an instance of software (including Product software) created by executing the software's setup or install procedure or by duplicating an existing Instance. To "run an Instance" means to load an Instance of the software into memory and execute one or more of its instructions. Once running, an "Instance" is considered to be running (whether or not its instructions continue to execute) until it is removed from memory.
- (ii) "Non-Qualified Operating System" or "Non-QOS" means any non-Microsoft operating system, or one of the following previous versions of Microsoft embedded operating system Products, which may be used as an Embedded System Physical OSE under the terms of this AT:
 - Windows® 7 Professional for Embedded Systems;
 - Windows® 7 Ultimate for Embedded Systems;
 - Windows® Embedded 8 Pro; and
 - Windows® Embedded 8.1 Pro.
 - Microsoft® Windows Server® 2008 R2 for Embedded Systems Standard (all versions)
 - Microsoft® Windows Server® 2008 R2 for Embedded Systems Enterprise (all versions)

- Microsoft® Windows Server®Hyper-V
 - (iii) “Operating System Environment” or “OSE” means all or part of an operating system Instance, or all or part of a virtual (or otherwise emulated) operating system Instance which enables separate machine identity (primary computer name or similar unique identifier) or separate administrative rights, and instances of applications, if any, configured to run on the operating system Instance or parts identified above. There are two types of OSEs, physical and virtual. A physical hardware system can have one Physical OSE and/or one or more Virtual OSEs.
 - (iv) “Physical OSE” means an OSE that is configured to run directly on a physical hardware system. The operating system Instance used to run hardware virtualization software (e.g. Microsoft Hyper-V or similar third-party technologies) or to provide hardware virtualization services (e.g. Microsoft virtualization technology or similar third-party technologies) is considered part of the Physical OSE.
 - (v) “Qualified Operating System” or “QOS” means the following latest generation Microsoft embedded operating system Products which may be used as an Embedded System Physical OSE under the terms of this AT:
 - Windows® 10 Enterprise [LTSC, LTSC, or SAC] for IoT High End or successor Product; or
 - Windows Server® 2012 / 2012 R2 for Embedded Systems [Standard or Datacenter] or successor Product.
 - (vi) “Virtual OSE” means an OSE that is configured to run on a virtual hardware system. Product to which this AT applies must be deployed as a Virtual OSE.
- (2) An embedded system must not be a thin client or mobile device.**
- (b) The rights granted in this AT are in addition to the rights granted in the Embedded Agreement. For clarification purposes, Company’s embedded solutions must comply with the definition of Embedded system and all terms and conditions related to Embedded Systems including Section 2 (License Grant and Limitations) of the Embedded Agreement. 11 10/1/18
 - (c) For Embedded systems where the Physical OSE is a QOS, Company must use the applicable Products containing ‘Virtualization Only for Qualified Operating System’ as part of the Product Name and pay the corresponding royalty for such Products. Company may only Distribute a QOS as a Physical OS with an Embedded System that meets the Processor Requirements for the QOS.
 - (d) For Embedded Systems where the Physical OSE is a Non-QOS, Company must use the applicable Products containing ‘Virtualization Only for Non-Qualified Operating System’ as part of the Product Name and pay the corresponding royalty for such Products. Company may only Distribute a Non-QOS as a Physical OS with an Embedded System that meets the Processor Requirements for Non-QOSes that are previous versions of Microsoft embedded operating system Products.
 - (e) Company must not add or remove a Virtual OSE or move a Virtual OSE from the Embedded System to another Embedded System after final configuration and delivery of the Embedded System to an End User. However, an existing Virtual OSE may be replaced with an identical Virtual OSE for recovery purposes.
 - (f) Only one user at a time may access the Embedded System.
 - (g) With the exception of access for administration and technical support purposes, using the Windows remote assistance feature or similar technology is prohibited. Company does not need a license to access Instances only to administer the Product software.
 - (h) An OSE must not contain a non-embedded version of a Microsoft operating system product.
 - (1) For non-OA 3.0 Product, Company must affix a separate COA and pay a separate royalty rate for each Instance of the Product installed (excluding recovery solutions allowed under the Embedded Agreement). For OA 3.0 Product, Company must install only one Instance of the Product utilizing a DPK and affix the appropriate GML. For any additional Instances of the Product, Company must affix a COA, and pay a separate royalty for each Instance (excluding recovery solutions allowed under the Embedded Agreement).
 - (j) There is no limit on the number of Virtual OSEs allowed, however Company must comply with the COA/GML and payment requirements in subsection (i) above.
 - (k) Migration rights as described in Section 7 of the Licensing Appendix do not apply to Embedded Systems containing one or more Virtual OSEs.
 - (l) A Virtual OSE must not be utilized to perform the functions of a thin client device.
 - (m) Any Product virtualization rights not explicitly granted in this AT are prohibited including, but not limited to:
 - (1) Application virtualization (i.e., no App-V);
 - (2) Presentation virtualization (i.e., no functioning as a Virtual Desktop Infrastructure server); and
 - (3) Software appliances (i.e., no shipping Virtual OSE without hardware; no hosting Virtual OSE on a server, in a datacenter or in the cloud).
 - (n) Company must include the following additional terms in the License Terms distributed with Embedded Systems in compliance with this AT and otherwise comply with the requirements stated in Section 4(c) of the Licensing Appendix.
 - (1) “Instance” means an instance of software created by executing the software’s setup or install procedure or by duplicating an existing Instance. To “run an Instance” means to load an Instance of the software

- into memory and execute one or more of its instructions. Once running, an “Instance” is considered to be running (whether or not its instructions continue to execute) until it is removed from memory.
- (2) “Operating System Environment” or “OSE” means all or part of an operating system Instance, or all or part of a virtual (or otherwise emulated) operating system Instance which enables separate machine identity (primary computer name or similar unique identifier) or separate administrative rights, and 12 10/1/18 instances of applications, if any, configured to run on the operating system Instance or parts identified above. There are two types of OSEs, physical and virtual. A physical hardware system can have one Physical OSE and/or one or more Virtual OSEs.
 - (3) “Physical OSE” means an OSE that is configured to run directly on a physical hardware system. The operating system Instance used to run hardware virtualization software (e.g. Microsoft Hyper-V or similar technologies) or to provide hardware virtualization services (e.g. Microsoft virtualization technology or similar technologies) is considered part of the Physical OSE.
 - (4) “Virtual OSE” means an OSE that is configured to run on a virtual hardware system.
 - (5) This is a single user device. Only one user at a time may access Instance(s) running on the device.
 - (6) You must not add or remove a Virtual OSE or move a Virtual OSE from the device to another device or system.
 - (7) With the exception of access for administration and technical support purposes, using of Remote Assistance or similar technology is prohibited. You do not need a license to access Instances only to administer the software.
 - (8) Your rights to use the software as permitted hereunder expire when the applicable device is retired from service.

28. Language Packs (LPs) and Language Interface Packs (LIPs)

- (a) **Language Packs.** Company must distribute these Products with at least one LP preinstalled. The LP defines the base language of the user interface. Some LPs are not fully localized. Company may install more than one LP for these Products and allow the End User to select the language version. Where more than one base LP is preinstalled, Company may treat any one of the LPs as the base language.
- (b) **LIPs.** Company may distribute one or more LIPs licensed as supplements to these Products. LIPs are not fully localized and must be applied to a base LP. LIPs may not be marketed as full language versions. Refer to MSDN for a complete list of LPs and LIPs available for these Products and the base LP required for each LIP.
- (d) **Recovery.** Company’s recovery solution for each Embedded Systems may include each LP and LIP available for the preinstalled Product.
- (e) **Windows Products with Language Switching Rights.**
 - (1) Language Selection. Company may give End Users the right to switch between language versions included in the Product by Company. This right must be granted in the License Terms for the Product.
 - (2) Advertising. Company may advertise the ability for End Users to select between more than one LP and to switch between LPs.

29. Windows 10 IoT App Servicing.

The Windows 10 IoT App servicing program (“App Servicing Program”) is an optional program for Embedded Systems preinstalled with this Product. The App Servicing Program provides Company the opportunity to obtain certification of Apps, preinstall such Apps on Embedded Systems and service the Apps via the Windows Store. For purposes of this AT:

- (a) “Apps” mean applications that:
 - (1) are Embedded Applications, Additional Software or Support Software;
 - (2) have been built using the APIs at the link indicated in the ‘Windows Store OEM Program Guide’ posted on the Partner Portal;
 - (3) are processed and serviced or updated via the Windows Store infrastructure; and
 - (4) are preinstalled on Embedded Systems. 13 10/1/18
- (b) “Windows Store” is a feature of this Product and is an internet-based service provided by MS or an MS Affiliate that allows Company to submit Apps for MS certification, and then download and preinstall certified Apps.
- (c) **Program Requirements.** To participate in the App Servicing Program, Company must comply with the terms of this AT and the ‘Windows Store OEM Program Guide.’
- (d) **Enrollment.** Company must follow the enrollment process as outlined in the ‘Windows Store OEM Program Guide.’
- (e) **Warranties.** MS provides the Windows Store “as is.” Company understands and acknowledges that Embedded Systems and telecommunications systems are not fault-free and occasional periods of downtime may occur. Company further agrees that MS will not have any responsibility or liability related to availability, speed, security, errors, or data loss arising out of use of the Windows Store. Windows Store use (including Apps submission) by End Users or developers is governed by separate terms.

30. Audio Visual (AV) Technologies

- (a) AV Technologies for Windows 10 IoT Products

- (1) For H.264/AVC Visual Standard, the VC-1 Video Standard, and the MPEG-4 Visual Standard, MPEG LA, LLC requires this notice:
This Product is licensed under the AVC, the VC-1 and the MPEG-4 Part 2 Visual patent portfolio licenses for the personal and non-commercial use of a consumer to (i) encode video in compliance with the above standards ("Video Standards") and/or (ii) decode AVC, VC-1 and MPEG-4 Part 2 Visual that was encoded by a consumer engaged in personal and non-commercial activity or was obtained from a video provider licensed to provide such video. None of the licenses extend to any other product regardless of whether such product is included with this product in a single article. No license is granted or will be implied for any other use. Additional information may be obtained from MPEG LA, LLC. See www.mpegla.com.
To the extent that non-Product software includes AV Technologies licensed by MPEG LA, LLC under a product category, such license agreement will determine any royalties due for AV Technologies included in non-Product software.
- (2) **High Efficiency Video Coding / H.265 Codec.** Windows 10 IoT Enterprise Products include an implementation of the High Efficiency Video Coding (HEVC) / H.265 video compression standard. Company agrees that it is responsible for any licensing obligations related to HEVC/H.265.
- (3) **Dolby Codecs.** Dolby Laboratories, Inc. requires the following notice:
"This Product includes audio encoding and decoding technology from Dolby Laboratories. Microsoft has licensed Dolby's two-channel decoder for use in this Product. Company is not licensed for Dolby Digital Plus decoder for decoding more than two channels and the Dolby Digital consumer encoder, and Company must separately license such technologies from Dolby. Company agrees to obtain the license(s) and to pay applicable royalties and other fees. Dolby considers failure to obtain such licenses to be infringement of Dolby Laboratories intellectual property rights. Company may apply for a license from Dolby Laboratories using the following URL:
<http://www.dolby.com/professional/technology/licensing/getting-licensed.html>
If you have questions for Dolby Laboratories, Company may contact Dolby Laboratories at the following email address:
licensinginquiries@dolby.com
Dolby, Dolby Digital Plus, Dolby Digital Stereo Creator and the double-D symbol are registered trademarks of Dolby Laboratories. Any use of those marks requires a separate license from Dolby." 14 10/1/18
- (4) **MPEG-2 Transport Stream.** This Product supports processing of data in an MPEG-2 Transport Stream container. Company agrees that it is responsible for any licensing obligations related to the MPEG 2 Transport Stream.
- (5) **MPEG-2 Codec.** Windows 10 IoT Enterprise Products also include MPEG-2 visual decoding and encoding technologies, which are disabled. Company agrees that it is responsible for any licensing obligations related to the MPEG-2 codec.
- (6) **Opus, VP9 Codec and Successors.** Starting with Product releases in 2016, Windows 10 IoT Products also include Opus audio decoding and encoding technologies and VP9 (and successor) visual decoding and encoding technologies. Company agrees that it is responsible for any licensing obligations related to such technologies.

31. Windows 10 IoT Enterprise Product Disclaimers / Notices.

All notices required under this AT must be provided in a clear and conspicuous manner to End Users before they acquire the Product. For example, Company may provide the notice on Websites and/or in sales and marketing materials. Company may modify the notices below and substitute a different URL, if the modified statement and the Web pages to which the URL links provide disclosures that conform to the requirements of this AT. All notices required under this AT must at a minimum be in the base language of the Product preinstalled on the Embedded Systems.

In addition to the specific notices set forth in this AT, Company must distribute Embedded Systems with all other consumer disclosures and notices required under applicable laws. MS may require that Company provide to its End Users such additional notices as MS deems reasonably necessary. If MS determines that any such additional End User notice is necessary, Company will provide the notice to End Users within a commercially reasonable time after MS informs Company of the requirement, unless MS otherwise specifies the time by which the notice must be provided

- (a) An Embedded Systems preinstalled with a Windows 10 IoT Enterprise Product that is distributed with a DirectX 9 class Graphics Processor Unit (GPU) must include notice of that fact and the fact that some advanced games and programs may need a DX10 or higher GPU for superior performance and graphics. Company must use the following or substantially similar notice:

"Graphics processor supports DirectX 9. Some games and programs may require DirectX 10 or higher for superior performance and graphics. Check www.windows.com/Windows10specs for details."

- (b) An Embedded Systems that does not include hardware components required to support all the features of Windows 10 IoT Enterprise Products must include notice of the fact that advanced hardware may be required to take advantage of the advanced features of the Windows 10 Family Products. Company must use the following or substantially similar notice:
 “Some [insert Product edition name] features – such as [insert feature capability description, e.g., Windows Hello, Cortana with voice, support for 5-point touch, USB peripheral support] – may require advanced hardware. Check [oem.com/pagename] for details.”
- (c) For Windows 10 IoT Enterprise Products distributed into Iran, Company must provide to End Users, and cause its Channel Partners to provide to End Users, as applicable, the following or substantially similar notice:
 “Some features and functionality of Windows that are dependent on electronic transactions may not be supported in Iran. Examples include, but are not limited to, Windows Store apps, games, music and movies & tv purchases.”
 Company agrees that it will not market or advertise, and will cause its Channel Partners not to market or advertise, any features or functionality that are unavailable in Iran, including Windows Store apps, games (and any preinstalled apps that cannot be updated or reinstalled), music and movies & tv purchases. 15 10/1/18
- (d) For Products that include Cortana, Company agrees that it will not market or advertise, and will cause its Channel Partners not to market or advertise, Cortana in countries where the service is unavailable. Cortana is currently available in the United States, the United Kingdom, China, France, Italy, Germany, and Spain. Check www.microsoft.com/Windows10specs for updates. When marketing where Cortana is available, add:
 “Cortana experience may vary by device.”
- (e) An Embedded Systems preinstalled with a Windows 10 IoT Enterprise Product that is marketed and distributed with the Skype translator feature must include notice that this is not available in all languages. Company must use the following or substantially similar notice:
 “Skype translator feature is only available in the all-in-one desktop app in Spanish, English, French, Italian, German, and simplified Chinese.”
- (f) An Embedded Systems preinstalled with a Windows 10 IoT Enterprise Product that is marketed and distributed with the People feature must include notice that this feature is only supported per mobile operator availability. Company must use the following or substantially similar notice:
 “One-touch video call within the People feature is only available with supported mobile operators.”

32. [Intentionally left blank].

33. Entry Embedded Systems Hardware Requirements

- (a) Company may only distribute this Product on Embedded Systems (or Field Systems, if upgrade Product) that utilize an approved processor listed on the “Entry” Section of the Processor List, posted on Partner Portal, as updated from time to time.
- (b) **Default Charges.** Each Embedded Systems (or Field Upgrade Image, if upgrade Product) distributed by or for Company that does not comply with the requirements of section (a) of this AT is subject to a Default Charge equal to 130% of the royalty associated with the Product eligible to be distributed with the Embedded Systems (as identified on the appropriate Processor List).

34. Value Embedded Systems Hardware Requirements

- (a) Company may only distribute this Product on Embedded Systems (or Field Systems, if upgrade Product) that utilize an approved processor listed on the “Value” Section of the Processor List, posted on the Partner Portal, as updated from time to time.
- (b) **Default Charges.** Each Embedded Systems (or Field Upgrade Image, if upgrade Product) distributed by or for Company that does not comply with the requirements of section (a) of this AT is subject to a Default Charge equal to 130% of the royalty associated with the Product eligible to be distributed with the Embedded Systems (as identified on the appropriate Processor List).

35. High End Embedded Systems Hardware Requirements

- (a) Company may only distribute this Product on Embedded Systems (or Field Systems, if upgrade Product) that utilize an approved processor listed on the “High End” Section of the Processor List, posted on the Partner Portal, as updated from time to time.
- (b) **Default Charges.** Each Embedded Systems (or Field Upgrade Image, if upgrade Product) distributed by or for Company that does not comply with the requirements of section (a) of this AT is subject to a Default Charge equal to 130% of the Windows 10 IoT Enterprise High End Product.

36. Thin Client Device Limitations

- (a) For Embedded Systems that are designed and marketed as Thin Client Devices, Company may include terminal services protocols (such as Remote Desktop Protocol or Independent Computer Architecture) to enable Thin Client Devices to connect to and access applications running on a server.
- (b) Company may allow Thin Client Devices to use Internet browsing functionality to connect to and access cloud hosted applications (for example, Microsoft Office 365). 16 10/1/18

- (c) Company shall not allow any Desktop Functions to run locally on Thin Client Devices and shall advise End Users of this requirement in the License Terms for the Product.
- (d) For Embedded Systems that are designed and marketed as Thin Client Devices, Company may run one or more of the following applications locally:
 - (i) Remote desktop software (e.g. RDP client, Citrix);
 - (ii) Device management software (e.g. SCCM, MDM, security apps);
 - (iii) Media player;
 - (iv) Browser;
 - (v) Anti-malware software; or
 - (vi) Anti-virus software;
 - (vii) PDF Viewers., provided that Viewers do not offer productivity functionality or the ability for end users to upgrade the Viewers to offer productivity functionality.

For purposes of this AT, "Thin Client Device" means an Embedded Systems that depend heavily on some other computer (may be a server) to fulfill its computational roles; and "Desktop Functions" means consumer or general purpose tasks or processes (such as using word processing, spreadsheet, or slide show presentation software) performed exclusively or primarily by a PC device.

37. Intellectual Property Infringement. Section 6(a)(2) Coverage and 6(b)(2) (Patent Claims) of the Agreement are replaced with the following:

(a) Coverage

- (1) infringe any patents (except for patents that are alleged to be infringed by or essential to an implementation of any Standards) or of any visual or audio decoding or encoding technologies; and

(b) Patent Claims

- (1) **Generally.** MS obligations for any patent Claims are limited to patent Claims where the Product (excluding Sample Code) software alone, without combination or modification, either: (i) directly infringes an asserted patent claim; or (ii) embodies all the essential inventive elements of an asserted patent claim.
- (2) **Standards-Based Patent Claim.** Notwithstanding the foregoing, MS has no obligation or liability with regard to infringement Claims for any patents that are alleged to be infringed by, or essential to, the implementation of any Standards, the Opus audio codec, the VP9 video codec and any visual or audio decoding or encoding technologies.

38. Windows as a Service

- (a) To maintain serviceability support, Company must meet all requirements as outlined in this AT.
- (b) Company must pre-configure this Product for Servicing in alignment with the Semi-Annual Channel (formerly known as the Current Branch for Business) as outlined at <https://docs.microsoft.com/en-us/windows/deployment/update/waas-configure-wufb>
- (c) Microsoft will release Product Supplements to support the Semi-Annual Servicing (SAC) servicing model. Each SAC is a Required Supplement to the Product.
- (d) **Notices.** Company must ensure that End Users of this Product are notified of all servicing requirements. Company must use the following or substantially similar notice:
 "To maintain Operating System (OS) servicing support from Microsoft, this product requires ongoing installation of new upgrades and updates. Contact the device manufacturer for more information or refer to the following details on microsoft.com: <https://docs.microsoft.com/en-us/windows/deployment/update/>"

39. Additional Processor Requirements for Windows 10 IoT and Windows Embedded Products

- (a) **General.** Company may only Distribute these Products with an Embedded System that meets the Processor Requirements for these Products.
- (b) **Updates.** Microsoft may add new Processors to the Processor Requirements at any time with notice to Company. Microsoft may modify the Processor Requirements upon no less than 90 days' notice to Company.
- (c) **Other Requirements.** The requirements in this AT are in addition to other hardware requirements, including processor limitations associated with Product pricing, and processor limitations in the Minimum Hardware Requirements for this Product.

40. Hardware Requirements for Windows 10 IoT Products

All Embedded Systems that include Windows 10 IoT Products must meet:

- (a) The hardware configuration requirements (listed by applicable Product) in the Processor List. If a Windows 10 IoT Product has a Processor requirement, Company must only use a Processor listed on the designated Processor List for that Product.
- (b) The Minimum Hardware Requirements for Windows 10 IoT Products specified in the document located at [https://msdn.microsoft.com/library/windows/hardware/dn915086\(v=vs.85\).aspx](https://msdn.microsoft.com/library/windows/hardware/dn915086(v=vs.85).aspx) (or updated URL) ("**Minimum Hardware Requirements**").

- (c) Microsoft may update the Minimum Hardware Requirements for Windows 10 IoT Products upon no less than 120 days' notice to Company.
 - (d) Embedded Systems installed with Downgrade Software must follow all the Minimum Hardware Requirements for Windows 10 IoT, unless otherwise noted in such requirements or Additional Terms.
- 4.1. Migration Rights.** The terms of the CLA Migration Rights Schedule are hereby replaced with the following:

MIGRATION RIGHTS SCHEDULE

1. ADDITIONAL DEFINITIONS

"Delivery Date" means the date when the Migration System is distributed to the End User.

"Extended Support End Date" means the last date that Microsoft offers extended support for the Product as published at Microsoft Lifecycle Policy at <https://support.microsoft.com/en-us/lifecycle/search>

"Final Software" means the Product in the Image licensed under the Agreement that must be permanently installed on the Migration System before the end of the Migration Period. Final Software is a successor version of Prior Software.

"Migration Period" means the shorter of:

- (a) either:
 - (i) the 12-month period following the Delivery Date of the Migration System; or
 - (ii) for Migration Systems requiring industry certification or industry regulatory compliance authorization post-delivery, the 24-month period following the Delivery Date of the Migration System;

OR

- (b) the period from Delivery Date to the Extended Support End Date.

"Migration System(s)" means Embedded System(s) that have not been previously distributed and that comply with the descriptions set forth in Sections 2(i) and (ii) below.

"Prior Software" means a Product in the Image licensed under the Agreement installed on the Migration System temporarily, either before or during the Migration Period.

2. Migration Systems Distribution

Upon the specific written request of an End User, Company may distribute Migration Systems as described in (i) through (iii) below, provided that Company complies with all the terms of this Schedule.

- (i) distribute Migration Systems to that End User that contain an Image that includes the Prior Software on a temporary basis, and then migrate those Migration Systems by installing them with an Image containing the Final Software within the Migration Period;
- (ii) distribute Migration Systems to that End User that contain an Image that includes the Final Software, migrate those Migration Systems on a temporary basis to an Image containing the Prior Software, and then migrate those Migration Systems back to an Image containing the Final Software by installing the Final Software within the Migration Period; and
- (iii) both Final Software and Prior Software must be distributed with the Migration System at the same time.

- 3. Migration Table and Processor Requirements.** The Final Software must be associated with the Prior Software as listed in the Migration Table posted on the Partner Portal. If Company is Distributing an Embedded System under the terms of this Migration Rights section, that Embedded System must meet both: (i) the Processor Requirements for the Final Software; and (ii) the Processor Requirements for the Prior Software. For clarity, if an Embedded System has a Processor that does not meet the Processor Requirements for the Prior Software requested, Company may not Distribute the Embedded System with Migration Rights. For example, Company may only Distribute an Embedded System with Windows 7 Professional for Embedded Systems (the Prior Software) and Windows 10 IoT Enterprise SAC High End (the Final Software), if that Embedded System meets both the Processor Requirements for Windows 7 Professional for Embedded Systems and the Processor Requirements for the Windows 10 IoT Enterprise SAC High End licensed Product.

- 4. End of License.** Company may not, in any event, distribute either the Prior Software or the Final Software after its respective Microsoft End of License date.

- 5. Updates.** Company must include all required Updates for the Prior Software on any Migration System distributed with the Prior Software, and for the Final Software on any Migration System distributed with the Final Software.

- 6. COA/APM Distribution. In accordance with the Agreement, Company**

- (a) shall affix a COA for the Final Software to each Migration System, and
- (b) shall distribute any required APM with each Migration System.

7. **Recovery Images.** Company shall distribute a Recovery Image containing the Final Software (“Final Software Image”) and a Recovery Image containing the Prior Software (“Prior Software Image”) to the End User together with the Migration System. Company shall distribute Final Software Images either on Recovery Media or via Company’s website as a download in accordance with the Agreement. Company may only distribute the Prior Software Image on the Embedded System, either on a separate partition or a separate hard disk drive on the Embedded System.
8. **End User Requirements**
- (a) Company must advise the End User that the Final Software Image may only be installed onto additional units of the same model of Migration System if:
- (i) Company elects to provide the End User with only a single copy of the Final Software Image on external media for installation on more than one Migration System, or
- (ii) End User installs the Final Software Image via the End User’s internal network.
- (b) Company shall establish a commercially reasonable procedure to ensure End Users do not concurrently use both the Final Software and the Prior Software on the Migration Systems. Without limitation of the foregoing requirement, Company shall require the End User to destroy the Image containing the Prior Software and to erase any and all copies of the Prior Software after the installation of the Image containing the Final Software on the Migration System. Prior Software must be removed from the Migration System on or before the end of the Migration Period.
9. **License Terms.** For Migration Systems, Company must include the following additional terms in the “Grant of Software License” section of the License Terms for the Final Software:

“Use of Previous Version of the Product. If the Certificate of Authenticity that accompanies the DEVICE identifies the SOFTWARE as Microsoft® Windows® <name of Final Software> (the “Final Software”), then in lieu of using Final Software, you may request that [OEM Parties] install [[or, if agreed, in writing, with [OEM Parties] you may install yourself]], and may temporarily use, Microsoft® Windows® <name and version of Prior Software> (the “Prior Software”) on the DEVICE, provided: (1) the Prior Software is deemed “SOFTWARE” for the purposes of these License Terms and use of the Prior Software shall be in compliance with all the terms of these License Terms; (2) you do not simultaneously use both versions of the SOFTWARE on the DEVICE; (3) you do not loan, rent, lease, lend or otherwise transfer the recovery media or back-up copy of either version of the SOFTWARE to another end user, except as otherwise provided in the transfer provisions of these License Terms; (4) [unless otherwise agreed with [OEM Parties]], you allow only [OEM Parties] perform the upgrade from the Prior Software to the Final Software; and (5) upon upgrading to the Final Software you erase any and all system copies of the Prior Software.”

42. **Downgrade Rights.** The terms of the CLA Downgrade Rights Schedule are hereby replaced with the following:

DOWNGRADE RIGHTS SCHEDULE

1. ADDITIONAL DEFINITIONS

“**Downgrade Image**” means an Image customized for a specific Enterprise Customer that includes Downgrade Software, and may include customer-requested applications, drivers and other customizations to the Embedded Application or Embedded System.

“**Downgrade Image System**” means an Embedded System with a preinstalled Downgrade Image.

“**Downgrade Software**” means a prior version of the Product that is no longer available for distribution by Company under the Agreement.

2. Additional Rights

(a) Subject to the terms of this Downgrade Rights Schedule and Company’s compliance with those terms, Company may, at the specific request of an Enterprise Customer:

- create a Downgrade Image using an image provided by the Enterprise Customer;
- preinstall that Downgrade Image on Embedded Systems; and
- distribute the Downgrade Image System directly to the requesting Enterprise Customer.

Downgrade Rights only apply to a Downgrade Image System that has not been distributed.

3. **Software Versions.** The Product included in the Downgrade Image must be listed as an End of Licensed Product to the Eligible Product on the Downgrade Table as posted on Partner Portal. The Eligible Product listed on the Downgrade Table must appear on the affixed COA distributed with the Downgrade Image System. The foregoing also applies to Recovery Solutions for a Downgrade Image System.

4. DOWNGRADE IMAGES INSTALLED BY COMPANY.

(a) Company must be licensed for the Product that appears on the affixed COA distributed with the Downgrade Image System.

(b) If Company was previously licensed for Downgrade Software and has retained the Installation Tools for the Downgrade Software, then Company may only use the preinstallation tools in the Installation Tools

- for the Downgrade Software to capture and install the Downgrade Image on the Downgrade Image System.
- (c) An Enterprise Customer must provide an image that includes Downgrade Software to the Company.
 - (d) Company may choose not to provide a Recovery Solution.
5. **Indemnity.** Company will indemnify and defend Microsoft and Microsoft Affiliates from and against any damages, claims, costs, judgments (or settlements to which Company consents) and expenses (including reasonable attorneys' fees) arising from any unlicensed software on the Downgrade Image (including all Microsoft software, unless Company has taken commercially reasonable steps to verify the Enterprise Customer has a valid license for those products). Microsoft reserves the right, in its sole discretion, to assume at any time the defense of any such claim arising from any unlicensed Microsoft software installed on the Downgrade Image. Any amount due to Microsoft or Microsoft Affiliates under this section will be reduced by the amount, if any, of any Default Charges already paid to Microsoft by Company for the unlicensed software products on the Downgrade Image(s). The indemnity in this section will survive termination or expiration of the Agreement.
 6. **No Support.** Microsoft has no obligation to provide support for Downgrade Software under this Agreement.
 7. **Other Duties.** Company must comply with the Agreement with respect to the release of any required Updates for the Product included in the Downgrade Image.
 8. **Processor Requirements.** A Downgrade Image System must meet both: (i) the Processor Requirements for the licensed Product eligible for downgrade; and (ii) the Processor Requirements for the Downgrade Software. For clarity, if Downgrade Image System has a Processor that does not meet the Processor Requirements for the Downgrade Software requested, Company may not Distribute the Downgrade Image System.

43. Field Upgrade Rights. The terms of the CLA Field Upgrade Rights Schedule are hereby replaced with the following:

FIELD UPGRADE RIGHTS SCHEDULE

1. ADDITIONAL DEFINITIONS.

"Existing Image" means

- (1) an Image that includes a prior version of the Microsoft Binaries, or
- (2) a software image that includes an operating system different from the Product contained in the Field Upgrade Image.

"Field System" means

- (1) an Embedded System, or
- (2) another company's system that meets the requirements for an Embedded System (except that it does not include a Product or other Microsoft operating system product), that has been distributed to an End User and that contains an Existing Image.

"Field Upgrade Image" means an Image containing a Product licensed under the Agreement that Company distributes to End Users of Field Systems.

2. **Field Upgrade License and Processor Requirements.** Microsoft grants Company the right to copy and distribute Field Upgrade Images directly to End Users for the purpose of replacing existing software on certain Field Systems if all of the conditions below are, and remain, satisfied. In addition, Field Upgrade Images may only be distributed on Field Systems that meet the Processor Requirements for the Field Upgrade Image.

3. Design.

- (a) Company may engage an Authorized Subcontractor to create Field Upgrade Images on its behalf, provided that Company ensures that the Authorized Subcontractor distributes the resulting Field Upgrade Image only to Company.
- (b) Company (or its Authorized Subcontractor acting on its behalf) must ensure that the Field Upgrade Image is useable only on the applicable Field System. Before the End User can use the Field Upgrade Image, Company (or its Authorized Subcontractor) must ensure that a commercially reasonable authentication of the Field System is performed.
- (c) When installed, the Field Upgrade Image must completely replace the Existing Image (End User data and/or End User configuration settings may remain intact). The Field Upgrade Image must erase or permanently disable the Existing Image.
- (d) Upon installation of the Field Upgrade Image on a Field System, the Field System must meet all requirements of an Embedded System as set forth in the Agreement.

4. COAs

Company must distribute one COA affixed to the External Media packaging of each copy of a Field Upgrade Image. However, COAs are not required for:

- (a) copies of Field Upgrade Images placed in use on additional units of the same model of Field System over an End User's network (such as a server) as allowed in this section;
 - (b) copies of Field Upgrade Images downloaded by an End User as allowed under Section 3(f) (End User Downloads); or
 - (c) copies of Field Upgrade Images for Products that do not require COAs.
- Notwithstanding subsection (a) through (c) above, if Company elects to obtain COAs for Field Upgrade Images, Company must affix a COA on the Embedded System or distribute a COA on a card, as specified in the IoT Operations Handbook.

5. Distribution and Installation.

- (a) Company and its Channel Partners may distribute one Field Upgrade Image to each End User of a Field System only to upgrade the End User's Field System. The Field Upgrade Image must be installed only on a Field System. Field Upgrade Images may be distributed in either:
 - (i) on External Media, or
 - (ii) via Company's restricted access website as a download, as provided in Section 3(f) (End User Downloads).

(b) Multiple Units

- (i) Some End Users may have more than one unit of the same Field System with the same Existing Image. Such End Users may use one copy of the Field Upgrade Image to install such Field Upgrade Image on to multiple units of the same Field System through a server deployment.
- (ii) Company shall advise such End Users that the Field Upgrade Image may only be installed onto additional units of the same model of Field System. Company agree to include in the License Terms for such End Users the number of units authorized. (For example, "Authorized Number of Installations of Software = ____").

- 6. **End User Notices.** Company will require End Users to keep the Field Upgrade Image if originally delivered on separate media. Once a Field Upgrade Image is installed, the End User may use the Field Upgrade Image on its original media as a Recovery Image. Company shall establish a commercially reasonable procedure to assure the return or destruction of any replaced Recovery Image media.

- 7. **License Terms.** Company must use the License Terms to license a Field Upgrade Image distributed in accordance with this Schedule (Field Upgrade Rights).

44. Leasing Schedule. The terms of the Leasing Schedule are hereby replaced with the following:

LEASING SCHEDULE

1. OEM Leases to End Users

Company may install and distribute the Product on Embedded Systems that Company rents or leases to End Users ("**Lessees**"), including leases intended to create a security interest consistent with Section 2 of this Leasing Schedule subject to the following requirements:

- (a) Company must enter into a written lease agreement with each Lessee ("**Lease**"):
 - (1) The Lease must be for a term of at least six consecutive months;
 - (2) The Lessee must make payments over the term of the Lease;
 - (3) The Lessee cannot terminate its payment obligations; and
 - (4) At the end of the Lease, the Lessee must renew the Lease, purchase the Embedded Systems, or return them to Company, with all copies of the Product, the COA and any APM.
- (b) Any returned Embedded System must include the COA and any APM. Company may not return the COAs for credit. Company must destroy, and keep records of the destruction of, any returned COAs or recovery media or APM unless Company redistributes it as allowed in Section 4 (Re-Distribution of Embedded Systems) of this Licensing Schedule.
- (c) At the end of this Agreement, Company may allow each Lessee to continue to use the Product for the remaining term of its then-current Lease. This Section 1(c) will survive termination or expiration of this Agreement.
- (d) Except as provided in this Leasing Schedule, Company may not rent or lease Embedded Systems to End Users.

2. OEM Finance Lease

In addition to the lease rights above, in accordance with Section 1(a) of this Leasing Schedule, Company may only engage an entity that is an Affiliate Lessor (as defined below) to lease or rent Embedded Systems to Lessees, provided that:

- (a) "**Affiliate Lessor**" is an entity that directly or indirectly controls, is controlled by, or is under common control with Company,

- (b) Company shall defend, indemnify, and hold MS harmless from and against all claims and damages, including, without limitation, attorneys' fees, arising from or related to any violation by Company or the Affiliate Lessor of the terms of this Leasing Schedule, and
- (c) Company shall remain the licensing party to the End User under the License Terms for the leased Product.

3. Enterprise Customer Lease to Franchisee.

In the License Terms, Company may grant an Enterprise Customer the right to rent or lease Embedded Systems to entities that have a valid current franchise agreement with the Enterprise Customer ("**Franchisee**"), subject to the following:

- (a) Enterprise Customer must enter into a written lease agreement complying with the lease requirements in Section 1(a) of this Leasing Schedule with the Franchisee for each Embedded System.
- (b) Each lease shall terminate if the Franchisee loses its Franchisee status.
- (c) Enterprise Customer may re-lease each Embedded System. Each re-lease must also meet the requirements of this Section 3. The re-lease must include all copies of the Product, the COA and any APM.

4. Re-Distribution of Embedded Systems

If Company complies with Sections 1 (OEM Leases to End Users) and 2 (OEM Finance Lease) of this Schedule, then Company may re-lease, resell, or transfer a returned or previously-leased Embedded System. Each re-lease or sale must include all copies of the Product, the COA, and any APM.

(a) Same Product

- (1) Company may preinstall a copy of the Product that corresponds to the Product version and edition originally licensed for the Embedded System, as long as Company is licensed for that Product at the time of installation.
- (2) If the Product version originally licensed for the Embedded System is for a Product that is not licensed in the Agreement at the time of installation, then Company may install that Product only (i) if it is licensed to do so under a separate agreement with MS or an MS Affiliate; or (ii) by exercising rights as an end user of that Product under the License Terms. Company may use the recovery media returned by the Lessee or the End User to exercise those rights or use any extended OPK rights granted in this Agreement or ATs.
- (3) No royalty will accrue for a re-installation and redistribution under this Section 4(a).
- (4) Company may purchase replacement APM, if available, to distribute with each Embedded System.
- (5) Company may not return the COA from a previously leased Embedded System for credit.
- (b) **Different Product. Company may preinstall and distribute a different Product on the Embedded System, so long as the Embedded System meets the Processor Requirements for the Product. In addition, Company must:**
 - (1) Removes the original Product, destroys any APM and keeps records of each removal and destruction;
 - (2) Affixes the COA for the Product preinstalled under this Section 4(b) directly to the Embedded System over the COA previously affixed to the Embedded System; and
 - (3) Pays the royalty rate for the Product installed under this Section 4(b).

45. Windows containers

- (a) Customers may use any number of virtual Operating System Environments (OSE) instantiated as Windows containers by the Microsoft Azure IoT Edge runtime on the device.
- (b) Available for commercial use when used with Microsoft Azure IoT Edge.

46. No COAs

There are no COAs for this Product. However, there is an optional tracking label for the Windows 10 IoT Core Product that may be acquired from a MS Distributor. Optional tracking label is not required to be affixed for the Product.

47. Zero Royalty Terms

- (a) **Default Charge.** The Default Charge for this Product is \$0.00.
- (b) **Amounts Owed; Audit Costs.** Section 8(d)(2)(Amounts Owed; Audit Costs) of the Agreement is replaced with the following:
 - (2) MS will bear the cost of audit expenses for verifying compliance with Section 15(b) (Anti-Corruption and Anti-Money Laundering Prohibition). For any other audit, if the audit reveals a Material Discrepancy, Company must pay MS the costs of the audit, in addition to any unpaid amounts due. "Material Discrepancy" means a material breach of this Agreement.
- (c) **Limitations of Liability.** Section 5 (MS Liability) of the Agreement are replaced with the following:
 - (a) **MS Liability.** Each party's total cumulative liability (if any) to the other party under this Agreement (and the other party's exclusive remedy for any such liability) shall be limited to the other party's direct damages for claims arising under this Agreement up to an amount not to exceed \$1,000,000 U.S. Dollars under the Agreement. The preceding sentence does not apply, however, to (i) Company's unauthorized use of Microsoft or an MS Affiliates intellectual property (including violation of any part of Section 2 (License Grant Limitations), (ii) Microsoft's liability under Section 6

(Intellectual Property Infringement), (iii) breach of Section 9 (Non-Disclosure), or (iv) breach of Section 15 (Government Regulations).

- (b) **Updates.** If connected to the Internet, the Image will periodically check, download and install Updates to enhance Embedded System functionality and security. Company agrees to receive automatic Updates without any additional notice. MS recommends that Embedded Systems are periodically connected to the Internet at least once every month in order to check for and install any Updates. Company agrees not to disable, programmatically manipulate, or redirect the automatic updating capability of the Image. Only the Windows 10 IOT Core Product enables Company to change the Update settings for the Image.

48. Windows 10 IoT Core Services

This Product includes the following components: (i) MS Binaries and (ii) the Windows services more fully described below in this AT (“**Core Services**”). Company may distribute the MS Binaries and provision Core Services solely on new Embedded Systems in accordance with the terms of this AT (each, a “**Core Services Device**”).

- (a) **MS Binaries.** MS will release separate MS Binaries for each LTSC of this Product (each, a “**MS Binaries LTSC Release**”). Company’s license to distribute any given MS Binaries LTSC Release on Core Services Devices ends the earlier of the End of License Date for such MS Binaries LTSC Release (as specified in the table below) or the expiration or termination of the Agreement.

Windows 10 IoT Core Services MS Binaries LTSC Release Date	MS Binaries LTSC Release End Item Part Number	MS Binaries LTSC Release End Item Description	MS Binaries LTSC Release End of License Date
October 1, 2018	X21-96389	SW DVD9 Windows 10 IoT Core 1809 ARM32/ARM64/32/64 EMB English OEM	November 30, 2028

MS will update this AT with each subsequent MS Binaries LTSC Release prior to the release date of each subsequent MS Binaries LTSC Release.

- (b) **Core Services.** Subject to the terms of this AT, Company may also provision Core Services on a Core Services Device on which the MS Binaries have been installed for distribution to an End User. This Product includes the following Core Services for managing the delivery of updates and monitoring device health over-the-air (OTA) when distributed to and End User and connected to the Internet. For information related to Core Services SLA please refer to <https://azure.microsoft.com/en-us/support/legal/sla/>.

- (1) **Update Control** is a service that provides Company the ability to create, customize and control the delivery of updates to a distributed Core Services Device as outlined in the DUC Deployment Guide on the Partner Portal. For purposes of this AT, updates may include the following:

- (i) MS Binaries update(s)
- (ii) Company Binaries
- (iii) Subsequent MS Binaries LTSC Release(s)

Company may only deliver updates to a distributed Core Services Device that has paid Core Services coverage as defined in (c) below. In addition, subsequent MS Binaries LTSC Release(s) may only be delivered to a distributed Core Services Device provided the device:

- (i) technically supports the Update
- (ii) meets the Processor Requirements

- (2) **Device Health Attestation (DHA)** is a service that evaluates device health and can be combined with a device management system (e.g., Azure IoT Device Management). Based on DHA report data, the device management system can take corrective actions.
MS may make additional Core Services available from time to time. MS will update this AT with additional Core Services prior to their release.

(c) Core Services Duration, Extension and Expiration

- (1) **Duration.** Each Core Services Device distributed by Company under this AT, is entitled to receive Core Services for a period of 10 years, beginning as of the date of Product purchase from MS, as defined and specified within Company’s submitted Sales Our Report (SOR).
- (2) **Extension of Core Services on Core Services Devices.** MS will notify Company within 180 days of Core Services duration expiration to purchase additional period(s) of Core Services. For Core Services Devices distributed by Company under this AT, any additional extension of Core Services period(s) will

only be offered by MS under a separate agreement and through a separate Microsoft services commerce platform.

- (3) **Expiration of Core Services on Core Services Devices.** If Company has not purchased additional Core Services to extend the Core Services for Core Services Devices prior to the 10-year expiration date, MS reserves the right to disable Core Services for any Core Services Device or DUC for which the original 10-year services have expired.

49. Retail Point of Service Application

(a) Definitions

- (1) "POS" means point of service.
 - (2) A "Retail POS System" means a Embedded System that performs functions substantially similar to that of a point of sale, kiosk (informational or transactional), digital signage, or similar types of devices; is designed for use solely with a POS Application; and is distributed to a Retail Environment.
 - (3) A "POS Application" means a software application which provides only the following functions:
 - (i) process sales and service transactions, scan and track inventory, record and/or transmit customer information, and perform related management functions; and/or
 - (ii) provide information directly and indirectly to customers about available products and services.
 - (4) A "Retail Environment" means physical location where the primary activity is the sale of goods and services to consumers; examples include grocery stores, retail pharmacies, department stores, hotels, and restaurants.
- (b)** Company are not required to distribute an Embedded Application as part of an Image that includes this Product when distributing Product with a Embedded System that is a Retail POS System.
- (c)** Company may enable their End Users and Channel Partners to install POS Applications on Retail POS Systems. Company also may enable their End Users and Channel Partners to install Viewers to support use of the POS Application. A "Viewer" is a utility program that allows a user to view a file in its native format without providing the functions to make changes to files. Each End User must be separately licensed to use each Viewer.
- (d)** Microsoft is not responsible for testing or ensuring that POS Applications are suitable for the Retail POS Systems. Microsoft also will not provide technical support for the installation or use of the POS Application.
- (e)** Microsoft has not tested Windows Updates with POS Applications, and does not warrant or guarantee that Windows Updates will work with POS Applications. Windows Updates may not be suitable for use with POS Applications and may malfunction and/or cause harm to the Retail POS System or persons or property.

Company therefore acknowledge and agree that Microsoft has no responsibility for any such harm or malfunction.

12. WLAN Certifications

Country	XENTRY Diagnosis VCI	XENTRY Diagnosis Pad 2
Afghanistan	Not certified	Certified
Aland Islands	Not certified	Certified
Albania	Certified	Certified
Algeria	Certified	Certified
Amer. Oceania	Certified	Certified
Amer. Virgin Islands	Certified	Certified
Andorra	Certified	Certified
Angola	Not certified	Certified
Antigua/Barbuda	Certified	Certified
Argentina	Certified	Certified
Armenia	Certified	Certified
Aruba	Not certified	Certified
Austr. Oceania	Certified	Certified
Australia	Certified	Certified
Austria	Certified	Certified
Azerbaijan	Certified	Certified
Azores	Certified	Certified
Bahamas	Certified	Certified
Bahrain	Not certified	Certified
Bangladesh	Certified	Certified
Barbados	Not certified	Certified
Belarus	Certified	Not certified
Belgium	Certified	Certified
Belize	Not certified	Certified
Benin	Not certified	Certified
Bermuda	Certified	Certified
Bhutan	Not certified	Certified
Bolivia	Not certified	Certified
Bonaire	Not certified	Certified
Bosnia-Herzegovina	Certified	Certified
Botswana	Not certified	Certified
Brazil	Certified	Certified
Brit. Ind. Ocean Territory	Certified	Certified
Brit. Virgin Islands	Certified	Certified
Brunei	Certified	Certified
Bulgaria	Certified	Certified
Burkina Faso	Certified	Certified
Burundi	Not certified	Certified

Country	XENTRY Diagnosis VCI	XENTRY Diagnosis Pad 2
Cambodia	Not certified	Certified
Cameroon	Not certified	Certified
Canada	Certified	Certified
Canary Islands	Certified	Certified
Cape Verde	Certified	Certified
Cayman Islands	Certified	Certified
Central African Republic	Not certified	Certified
Ceuta/Melilla	Certified	Certified
Chad	Not certified	Certified
Chile	Certified	Certified
China, PR	Certified	Certified
Colombia	Certified	Certified
Comoros	Not certified	Certified
Congo	Not certified	Certified
Costa Rica	Not certified	Certified
Croatia	Certified	Certified
Cuba	Not certified	Not certified
Cyprus	Certified	Certified
Czech Republic	Certified	Certified
Dem. Republic of Congo	Not certified	Certified
Denmark	Certified	Certified
Djibouti	Not certified	Certified
Dominica	Certified	Certified
Dominican Republic	Certified	Certified
Ecuador	Not certified	Certified
Egypt	Certified	Certified
El Salvador	Certified	Certified
Equatorial Guinea	Not certified	Certified
Eritrea	Not certified	Certified
Estonia	Certified	Certified
Ethiopia	Not certified	Certified
Falkland Islands	Certified	Certified
Faroe Islands	Not certified	Certified
Fiji	Not certified	Certified
Finland	Certified	Certified
France	Certified	Certified
French Guiana	Certified	Certified
French Polynesia	Certified	Certified
Gabon	Certified	Certified
Gambia	Not certified	Certified

Country	XENTRY Diagnosis VCI	XENTRY Diagnosis Pad 2
Georgia	Certified	Certified
Germany	Certified	Certified
Ghana	Certified	Certified
Gibraltar	Certified	Certified
Great Britain	Certified	Certified
Greece	Certified	Certified
Greenland	Certified	Certified
Grenada	Certified	Certified
Guadeloupe	Not certified	Certified
Guatemala	Not certified	Certified
Guernsey	Certified	Certified
Guinea-Bissau	Not certified	Certified
Guyana Rep.	Not certified	Certified
Haiti	Not certified	Certified
Honduras	Not certified	Certified
Hong Kong	Certified	Certified
Hungary	Certified	Certified
Iceland	Certified	Certified
India	Certified	Certified
Indonesia	Certified	Certified
Iran	Not certified	Not certified
Iraq	Not certified	Certified
Ireland	Certified	Certified
Isle of Man	Certified	Certified
Israel	Certified	Certified
Italy	Certified	Certified
Ivory Coast	Not certified	Certified
Jamaica	Not certified	Certified
Japan	Certified	Certified
Jersey	Certified	Certified
Jordan	Certified	Certified
Kazakhstan	Certified	Certified
Kenya	Certified	Certified
Kiribati	Not certified	Not certified
Korea PDR (North)	Not certified	Not certified
Korea Rep. (South)	Certified	Certified
Kuwait	Not certified	Certified
Kyrgyzstan	Not certified	Certified
Laos	Certified	Certified
Latvia	Certified	Certified

Country	XENTRY Diagnosis VCI	XENTRY Diagnosis Pad 2
Lebanon	Certified	Certified
Lesotho	Not certified	Certified
Liberia	Not certified	Certified
Libya	Not certified	Certified
Liechtenstein	Certified	Certified
Lithuania	Certified	Certified
Luxembourg	Certified	Certified
Macao	Not certified	Certified
Macedonia	Certified	Certified
Madagascar	Not certified	Certified
Madeira	Certified	Certified
Malawi	Certified	Certified
Malaysia	Not certified	Certified
Maldives	Not certified	Certified
Mali	Not certified	Certified
Malta	Certified	Certified
Marshall Islands	Certified	Certified
Martinique	Certified	Certified
Mauritania	Not certified	Certified
Mauritius	Not certified	Certified
Mayotte	Certified	Certified
Mexico	Certified	Certified
Micronesia	Certified	Certified
Moldavia	Certified	Not certified
Mongolia	Certified	Certified
Montenegro	Certified	Certified
Morocco	Certified	Certified
Mozambique	Not certified	Certified
Myanmar (Burma)	Not certified	Certified
Namibia	Not certified	Certified
Nauru	Not certified	Certified
Nepal	Not certified	Certified
Netherlands	Certified	Certified
New Caledonia	Certified	Certified
New Zealand	Certified	Certified
New Zealand Oceania	Certified	Certified
Nicaragua	Certified	Certified
Niger	Not certified	Certified
Nigeria	Certified	Certified
NL Antilles - Curacao	Certified	Certified

Country	XENTRY Diagnosis VCI	XENTRY Diagnosis Pad 2
NL Antilles - St. Maarten	Certified	Certified
Northern Cyprus	Certified	Certified
Norway	Certified	Certified
Oman	Not certified	Certified
Pakistan	Certified	Certified
Palestinian territories	Not certified	Not certified
Panama	Certified	Certified
Papua New Guinea	Not certified	Certified
Paraguay	Not certified	Certified
Peru	Certified	Certified
Philippines	Certified	Certified
Pitcairn Islands	Certified	Certified
Poland	Certified	Certified
Portugal	Certified	Certified
Puerto Rico	Certified	Certified
Qatar	Certified	Certified
Republic of Guinea	Not certified	Certified
Réunion	Certified	Certified
Romania	Certified	Certified
Russia	Certified	Certified
Rwanda	Not certified	Certified
Saint Barthelemy	Not certified	Certified
Saint Martin (French part)	Certified	Certified
Samoa	Not certified	Certified
Sao Tome/Principe	Not certified	Certified
Saudi Arabia	Certified	Certified
Senegal	Not certified	Certified
Serbia	Certified	Certified
Seychelles	Certified	Certified
Sierra Leone	Certified	Certified
Singapore	Certified	Certified
Sint Maarten	Certified	Certified
Slovak Republic	Certified	Certified
Slovenia	Certified	Certified
Solomon Islands	Certified	Certified
Somalia	Not certified	Certified
South Africa	Certified	Certified
South Sudan	Not certified	Certified
Spain	Certified	Certified
Sri Lanka	Not certified	Certified

Country	XENTRY Diagnosis VCI	XENTRY Diagnosis Pad 2
St. Helena	Certified	Certified
St. Lucia	Not certified	Certified
St. Pierre	Certified	Certified
St. Vincent	Not certified	Certified
Sudan	Not certified	Certified
Suriname	Not certified	Certified
Swaziland	Not certified	Certified
Sweden	Certified	Certified
Switzerland	Certified	Certified
Syria	Not certified	Not certified
Taiwan	Certified	Certified
Tajikistan	Not certified	Certified
Tanzania	Certified	Certified
Thailand	Not certified	Certified
Timor Leste	Not certified	Certified
Togo	Not certified	Certified
Tonga	Not certified	Certified
Trinidad/Tobago	Not certified	Certified
Tunisia	Not certified	Certified
Turkey	Certified	Certified
Turkmenistan	Not certified	Certified
Turks/Caicos Islands	Certified	Certified
Tuvalu	Not certified	Certified
Uganda	Not certified	Certified
Ukraine	Certified	Certified
United Arab Emirates	Certified	Certified
Uruguay	Certified	Certified
USA	Certified	Certified
Uzbekistan	Not certified	Not certified
Vanuatu	Not certified	Not certified
Vatican	Certified	Certified
Venezuela	Not certified	Certified
Vietnam	Not certified	Certified
Wallis/Futuna	Not certified	Certified
Yemen	Certified	Certified
Zambia	Certified	Certified
Zimbabwe	Not certified	Certified

Table 3: WLAN certifications

13. FAQ - Frequently Asked Questions

New features of the device concept

- What is the difference between XENTRY Diagnosis Kit 3 and XENTRY Diagnosis Kit 4?
 - The device concept was retained as with XENTRY Diagnosis Kit 3. XENTRY Diagnosis Pad 2 has undergone a fundamental change.
 - The WiFi connection between XENTRY Diagnosis Pad 2 and the VCI is no longer established with two WiFi sticks, XENTRY Diagnosis Pad 2 now comes with a second WLAN card. This ensures a stable connection over lengthy distances.
 - XENTRY Diagnosis Pad 2 is equipped with a 13.3 inch, multitouch, full HD display with a brightness of 400 nits, four USB type A 3.0 ports and one USB type C port
- What is fundamentally new in the XENTRY Diagnosis Kit 4?
 - Fundamentally new features are the 13.3 inch, multitouch, full HD display,
 - a second WLAN card has also been installed, which ensures a stable connection over lengthy distances between the XENTRY Diagnosis Pad 2 and the VCI.
- Which connections does the XENTRY Diagnosis Pad 2 have?
 - XENTRY Diagnosis Pad 2 comes with four USB type A 3.0 ports and one USB type C port

Commissioning

- What do I have to note when commissioning XENTRY Diagnosis Kit 4?
 - Commissioning XENTRY Diagnosis Kit 4 is done in the same manner as previously used with XENTRY Diagnosis Kit 3, using ConfigAssist. This starts automatically when commissioning for the first time and takes you through the commissioning procedure. You can start it at any given time by clicking on the icon again on the desktop.
- How long does the commissioning procedure for XENTRY Diagnosis Kit 4 take?
 - Usually, the initial commissioning procedure takes less than 15 minutes.

Service operation

- Can I use the docking station for XENTRY Diagnosis Kit 3 for XENTRY Diagnosis Kit 4 too?
 - XENTRY Diagnosis Pad 2 differs fundamentally from its predecessor, XENTRY Diagnosis Pad, therefore it is not possible to use the same docking station here. Information on accessories is available in the XENTRY Portal.
- Which accessories are available for XENTRY Diagnosis Kit 4?
 - The available accessories are located centrally in a list in the XENTRY Portal.

- Why are the cable adapters in the scope of supply for XENTRY Diagnosis Kit 3 different from the usual ones?
 - Decisive here is the low rate of usage, only approx. 5% of global diagnosis sessions are conducted using a cable adapter. The workshops are already all equipped with the adapters, in some instances with several. The cable adapter from the scope of supply for XENTRY Diagnosis Kit 3 can still be used and it does not have to be returned at the end of the contractual term. You can also use it for XENTRY Diagnosis Kit 4.
Furthermore, you can also order the cable adapter separately. A list of cable adapters is available in the XENTRY Portal.

Update

- How can I update my XENTRY Diagnosis Kit 4?
 - XENTRY Diagnosis Kit 4 is updated in the usual manner through the XENTRY Update Service using Retail Data Storage.
- Is it also possible to update XENTRY Diagnosis Kit 4 using a Blu-ray disc?
 - As from the end of 2019 onwards, XENTRY diagnostic systems have been updated online only using the XENTRY Update Service.

Network

- How can I connect XENTRY Diagnosis Pad 2 and XENTRY Diagnosis VCI to each other?
 - There are two ways of doing so:
 - WLAN connection: As usual you can set up a direct connection per WLAN. Coupling must be performed for this. This should take place either during initial commissioning through ConfigAssist or later on in the VCI Manager.
 - Cable connection: via the supplied USB connection cable.
- Which WLAN encryption types must I use in the workshop for XENTRY Diagnosis Kit 4?
 - WPA2 (recommended) and WPA
- Is there an overview of countries certified for WLAN operation?
 - An overview of certified countries is available in the IT leaflet, you can download this from the Download area.

Ordering

- Can I exchange my existing system for the new XENTRY Diagnosis Kit 4 before my current contract expires?
 - No. Lease contracts for XENTRY Kit 3 systems will continue to run for the agreed contractual term. A premature cancellation or exchange is not possible. When the contract expires, a renewal order can be submitted to replace the devices with the new XENTRY Diagnosis Kit 4 systems.
- Where can I order XENTRY Diagnosis Kit 4?
 - Please apply to your country representative for details of the ordering process in your country.

- Which products are available for order?
 - The following variants can be ordered:
 - XENTRY Diagnosis Kit 4 (consisting of XENTRY Diagnosis Pad 2 and XENTRY Diagnosis VCI)
 - XENTRY Diagnosis Kit 4 Scope (including XENTRY Scope measurement technology). You can also order XENTRY Scope separately.
- What is included in the initial scope of delivery for XENTRY Diagnosis Kit 4?
 - The initial scope of delivery includes the following:
XENTRY Diagnosis Pad 2 with power supply unit including power supply plug, XENTRY Diagnosis VCI, USB connection cable (5 m), OBD cable (16-pin), user information and safety information. Please note that the cable adapter is no longer included in the standard scope of supply and it can be ordered individually, as required.
- Which lease/purchase schemes are available?
 - You still have the option to lease or purchase XENTRY Diagnosis Kit 4. Please apply to your country representative for details of the ordering process in your country

14. Glossary

Term	Description	Section
Add-Ons	<ul style="list-style-type: none"> Add-ons are automatically loaded on your XENTRY Diagnosis Pad 2 and update your system. The prerequisite is that XENTRY Diagnosis Pad 2 is connected to the Internet. Please note that all add-ons should always be installed on XENTRY Diagnosis Pad 2 	4.5
AQT	<ul style="list-style-type: none"> Automatic quick test 	4.8
ASRA	<ul style="list-style-type: none"> Operation texts, standard texts, flat rates and work units The data determined with ASRA form the basis for producing precise estimates, work orders, invoices and warranty claims 	
ConfigAssist	<ul style="list-style-type: none"> Helps to set up the diagnosis system step-by-step right from connecting the cables through setting up the network to importing the StartKey Is called up automatically during initial commissioning, and can be opened again if required 	3
Diagnosis software updates	<ul style="list-style-type: none"> Diagnosis software updates are controlled via the Update Center. They are made available as online updates with Retail Data Storage or as an exception without Retail Data Storage 	3.4
PDF Center	<ul style="list-style-type: none"> PDF printer for user-friendly creation of PDF documents 	7.4
DiBA	<ul style="list-style-type: none"> Digital Owner's Manuals (DiBAs) are required for control unit commissioning. When using Retail Data Storage, you can check the availability of DiBAs via the XENTRY Update Service Control Center 	4.7
Firmware update	<ul style="list-style-type: none"> Occasionally, the XENTRY Diagnosis VCI firmware has to be updated after a diagnosis software update. 	7.3.2
Coupling/ couple	<ul style="list-style-type: none"> 1:1 connection is established between XENTRY Diagnosis Pad 2 and VCI via WLAN. This process is known as "coupling". 	3.3
OBD	<ul style="list-style-type: none"> On Board Diagnosis 	2
Regio DVD	<ul style="list-style-type: none"> Regio DVDs are required for control unit commissioning. When using Retail Data Storage, you can check the availability of DiBAs via the XENTRY Update Service Control Center 	4.7
Retail Data Storage	<ul style="list-style-type: none"> Network storage for buffering diagnosis updates in XENTRY Update Service 	
StartKey	<ul style="list-style-type: none"> Use of diagnosis applications is not possible without the StartKey. It defines your rights of use. It can additionally be ordered when ordering XENTRY Diagnosis Kit 4. 	
Control unit commissioning	<ul style="list-style-type: none"> Control unit commissioning means the control unit programming of a vehicle using XENTRY Diagnosis Software 	
Support Tool	<ul style="list-style-type: none"> Tool with information on the support case and on creating support packages 	7.5
Update Center	<ul style="list-style-type: none"> The Update Center is used for installing new software updates, switching between releases (release management), add-on installation and administration 	7.2
VCI Manager	<ul style="list-style-type: none"> The VCI Manager enables coupling of XENTRY Diagnosis Pad 2 & XENTRY Diagnosis VCI 	7.3
WIS	<ul style="list-style-type: none"> Workshop Information System Contains detailed information and working instructions for repair and maintenance work for the Mercedes-Benz, Maybach and smart brands 	
XENTRY Diagnosis Kit 4	<ul style="list-style-type: none"> Product bundle: XENTRY Diagnosis Pad 2 & XENTRY Diagnosis VCI 	5
XENTRY Diagnosis Pad 2	<ul style="list-style-type: none"> A workshop-compatible PC on which the XENTRY Diagnosis Software is installed 	5.1
XENTRY Diagnosis VCI	<ul style="list-style-type: none"> The multiplexer, or Vehicle Communication Interface (VCI), that forms the interface from the vehicle to XENTRY Diagnosis Pad 2 via the OBD interface and "translates" data from the vehicle so that it can be used by the software 	5.2
XENTRY Update Service	<ul style="list-style-type: none"> XENTRY Update Service is the option of loading updates to XENTRY Diagnosis Pad 2 via the Internet. Blu-ray Discs can no longer be used 	3.4

Table 4: Glossary

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