

Automatic
Installation
Behavior - Xerox®
Desktop Print
Experience App

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Overview

Xerox plans to enable automatic installation of the Xerox® Desktop Print Experience App by posting it to Windows update. This process will be enabled for Xerox® Desktop Print Experience App version 5.0 (7.192.8) and later. Once posted customers using supported Xerox® Devices and Windows 10 will no longer need to download and install the Xerox® Desktop Print Experience App through www.support.xerox.com or through the Smart Start Installer. Note both the Xerox® V4 print drivers and the Xerox® Desktop Print Experience App will still be available on www.support.xerox.com for download.

When a customer creates a print queue for a supported device, Windows Update will download and install the application automatically. Furthermore, when Xerox releases new versions of the Xerox® Desktop Print Experience App customers will receive the new version through Windows Update. The Xerox® Desktop Print Experience App provides the ability to select additional features when utilizing the V4 print architecture to print from the desktop.

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1. Prerequisites

SUPPORTED OPERATING SYSTEMS

- Windows 10 version 1709 (Redstone 3) and later
- Windows Server 2019 (version 1809) and later
- Windows Server 2016 and older Windows server and client operating systems are not supported.

WINDOWS SYSTEM UPDATE SERVER (WSUS) CONSIDERATIONS

- Xerox® Desktop Print Experience App automatic installation requires access to Microsoft Windows Update. If your IT organization uses a WSUS server to block driver updates, then automatic installations will not work.
- WSUS administrators must approve Xerox Extension INF and Component INF updates for the Xerox® Desktop Print Experience App automatic installation to work.
- Administrators should also approve Xerox® Print driver updates as well. In certain printer installation scenarios, Windows will attempt to download a Xerox Type 4 print driver from Windows Update. If Xerox® Print driver updates are blocked, then Windows will use a Class print driver instead.

PRINT DRIVERS

What are Type 3 print drivers?

Introduced in Windows 2000 Type 3 print drivers are optimized for printing from traditional desktop applications. Xerox Type 3 print drivers do not need the Xerox® Desktop Print Experience App.

What are Type 4 print drivers?

- Introduced in Windows 8, Type 4 print drivers are optimized for printing from both traditional desktop applications and Microsoft Store applications. Xerox Type 4 print drivers need the Xerox® Desktop Print Experience App for features like secure print, accounting, and finishing features such as folding.
- Windows or Xerox Class drivers do not support the Xerox® Desktop Print Experience App.

2. Automatic installation of the Xerox® Desktop Print Experience App

WHEN DO AUTOMATIC XEROX® DESKTOP PRINT EXPERIENCE APP INSTALLATIONS OCCUR?

Windows will either automatically install the Xerox® Desktop Print Experience App during print queue creation or when Windows checks for updates.

- Automatic installs during print queue creation depends on the printer port type and print driver type selected by the user. See the [Automatic Installation Scenarios](#) section for details on which printer creation scenarios trigger automatic installs.
- Windows normally checks for updates every 22 hours or once a day. Users can always manually check for updates.

HOW AUTOMATIC INSTALLATION OF THE XEROX® DESKTOP PRINT EXPERIENCE APP WORKS?

To enable automatic installation of the Xerox® Desktop Print Experience App, Xerox posts two items to Windows Update - the Extension INF and the Component INF.

- **Extension INF** – This item tells Windows Update which devices support automatic installation of Xerox® Desktop Print Experience App. Xerox will post extension INFs to Windows Update on a per-device basis. New and popular products will be prioritized. Xerox may never post an extension INF for older products. The extension INF instructs Windows Update to download the Component INF.
- **Component INF** – This item contains the Xerox® Desktop Print Experience App installer. When Windows Update downloads this item, Windows will launch the installer and silently install the Xerox® Desktop Print Experience App.

Each extension INF contains the device's hardware ID. Windows uses these hardware ID's to determine if a device supports automatic installation of the Xerox® Desktop Print Experience App.

When a printer is installed or when Windows checks for updates it compares hardware ID's of installed printers to hardware ID's in the Extension INF files posted on Windows Update.

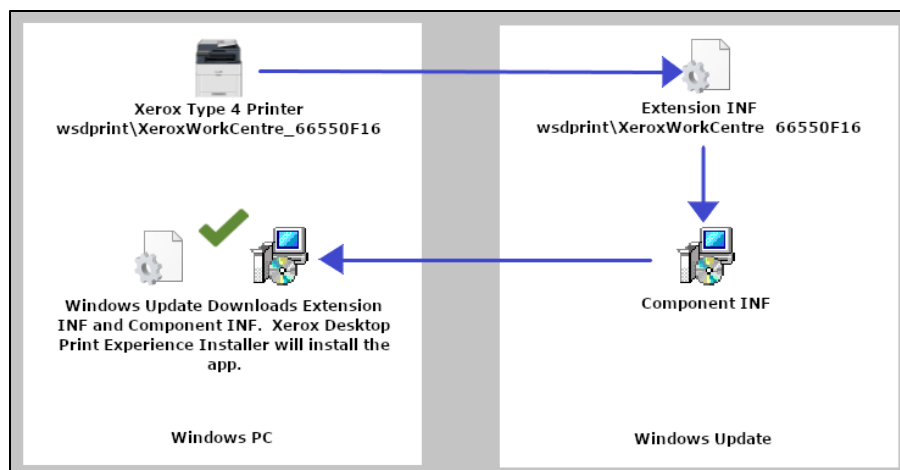


Figure 1 - Xerox® Type 4 Print Driver Automatic Installation Scenario

If a printer's hardware ID matches a hardware ID in the Extension INF then Windows Update downloads the Extension INF and Component INF files.

Windows does not use the type of Xerox® Print driver to determine if a device supports automatic installation of the Xerox® Desktop Print Experience App. Printers created with Xerox Type 3 print drivers can trigger Windows Update to download and run the Xerox® Desktop Print Experience App installer if the hardware ID matches an Extension INF. If the installer only detects Xerox Type 3 print drivers then it will exit without installing the app.

The Xerox® Desktop Print Experience App is only installed if the installer detects a Xerox Type 4 print driver.

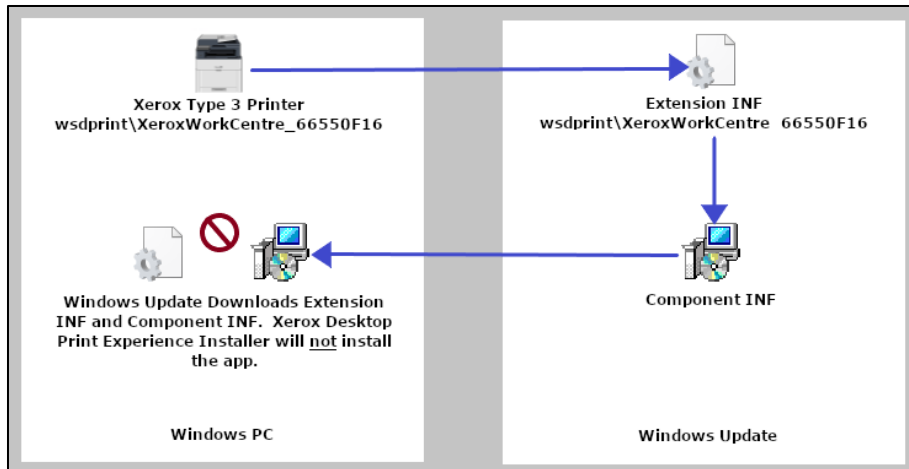


Figure 2 - Xerox® Type 3 Print Driver Automatic Installation Scenario

WHAT HAPPENS DURING AN AUTOMATIC XEROX® DESKTOP PRINT EXPERIENCE APP CE INSTALLATION?

Automatic Installation of the Xerox® Desktop Print Experience App occurs in a series of three steps.

Step 1 – Windows checks to see if a printer's hardware ID matches an Extension INF present on Windows Update. Depending on the printer port and type of Xerox® Print driver, this can happen when the printer is created or when Windows checks for updates.

Step 2 – If a match is discovered Windows Update will download the Extension INF. The Extension INF then prompts Windows Update to download the Component INF, which contains the Xerox® Desktop Print Experience App installer.

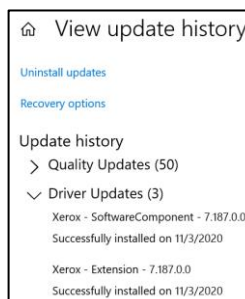


Figure 3 - Windows Update history showing Extension INF and Component INF downloads

Both the Extension INF and Component INF are stored in the PC's Driver Store, `C:\Windows\System32\DriverStore\FileRepository`.

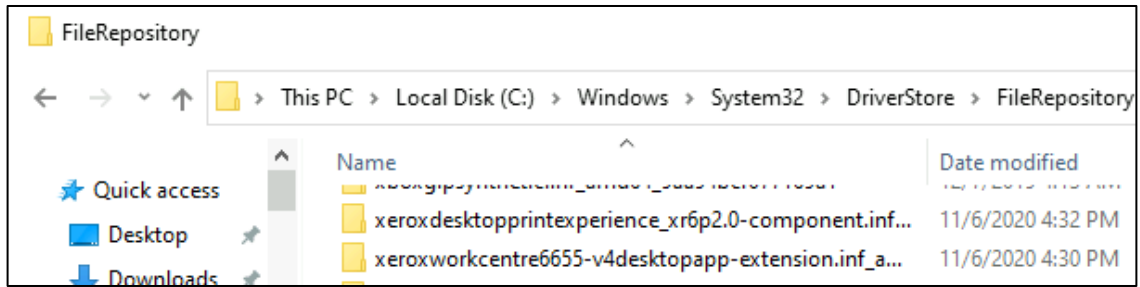


Figure 4 - Extension INF and Component INF in Windows driver store

Step 3 – Windows silently runs the Xerox® Desktop Print Experience App installer. The installer then searches the PC for a printer using a Xerox Type 4 print driver.

- If the installer finds a Xerox Type 4 print driver then it will silently install the Xerox® Desktop Print Experience App.

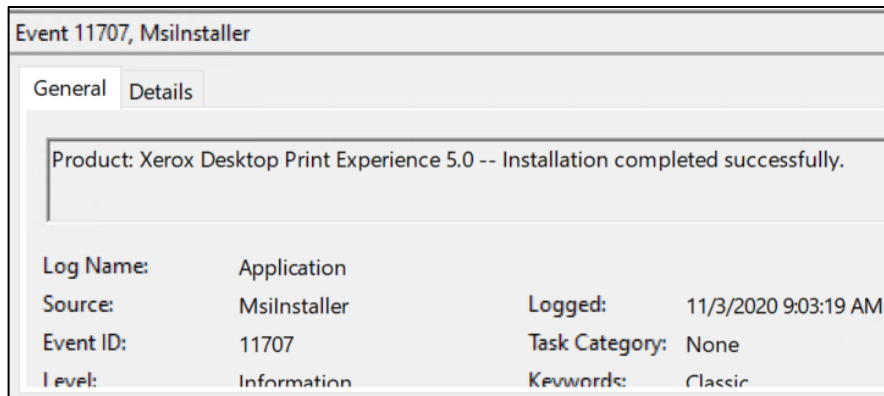


Figure 5 - Event 11707 - Xerox® Desktop Print Experience App installed successfully

- If the installer does not find a Xerox Type 4 print driver then it will quickly quit without installing the Xerox® Desktop Print Experience App.
- The Xerox® Desktop Print Experience App installer will not install the app if there are only Xerox Class drivers installed.

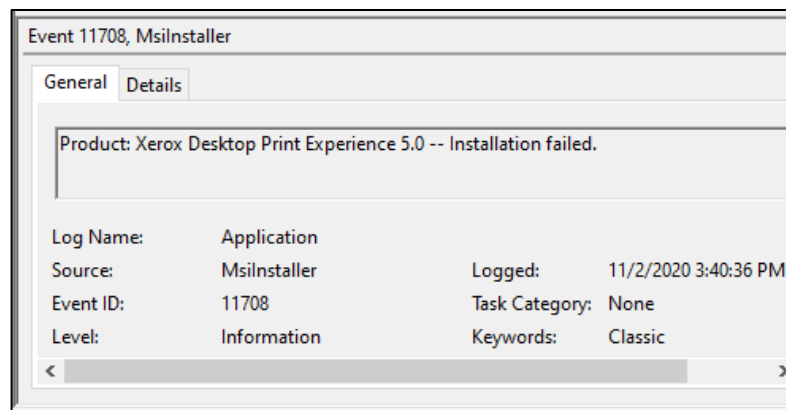


Figure 6 - Event 11708 - Xerox® Desktop Print Experience App Installer did not find a Xerox Type 4 print driver

WHAT IF I ALREADY HAVE THE XEROX® DESKTOP PRINT EXPERIENCE APP INSTALLED ON MY PC?

- When Xerox releases a new version of the Xerox® Desktop Print Experience App, a new Component INF containing the new version will be posted to Windows Update. Windows PC's that have a printer with a supported hardware ID will automatically download the new Component INF when Windows Update is run.
 - When Windows Update downloads the new Component INF, it may also download Extension INF updates for supported devices again even if they have not changed. This does not affect the upgrade of the Xerox® Desktop Print Experience App.
- If the Xerox® Desktop Print Experience App installer from the Component INF detects a previous version of the Xerox® Desktop Print Experience App installed on the system, it will uninstall it before installing the new version.
- All printers that use Xerox Type 4 print drivers will be upgraded to the new desktop app version, not just printers supported by an Extension INF.
- If the Xerox® Desktop Print Experience App installer from the Component INF detects a newer version of the Xerox® Desktop Print Experience App installed on the system, it will exit without installing the app. A MSInstaller event 11729 will trigger if this occurs.

AUTOMATIC INSTALLATION EXCEPTION – WINDOWS IPP PRINTERS

The Xerox® Desktop Print Experience App is designed to work with Xerox Type 4 print drivers. Windows IPP print drivers use the Microsoft IPP Class driver, which does not support the Xerox® Desktop Print Experience App. Therefore, Windows IPP printers do not support automatic installations of the Xerox® Desktop Print Experience App.

3. Automatic Installation Scenarios

This section will cover common print driver installation scenarios. It will detail when Xerox® Desktop Print Experience App is automatically installed.

Xerox Type 4 Print Driver Scenarios

LOCAL PRINTER AUTOMATIC INSTALLATION SCENARIOS

Printer created on a TCP/IP port

- Windows does not check Windows Update during the creation of a TCP/IP printer.
- Automatic installation of the Xerox® Desktop Print Experience App will occur when Windows checks for updates.

Printer created on a WSD or USB port

- When creating a WSD or USB printer Windows will check Windows Update for available downloads associated with the device's hardware ID.
- To create the printer Windows will download the Xerox Type 4 print driver from Windows Update.
 - Note – If your organization uses a WSUS server then administrators must approve Xerox® Print driver updates. Otherwise, the Xerox® Desktop Print Experience App will not be installed. See the [WSUS Server Considerations](#) section for more details.
- Windows will also download the Extension INF and the Component INF from Windows Update. Windows will then install the Xerox® Desktop Print Experience App during printer creation.

POINT AND PRINT AUTOMATIC INSTALLATION SCENARIOS

Print Server Printers

- Automatic Xerox® Desktop Print Experience App installation is supported by Windows Server 2019 and up.
- Automatic Xerox® Desktop Print Experience App installation scenarios on Windows print servers are the same as the Xerox Type 4 local printer installation scenarios listed in the above section.
- How Windows downloads the Extension INF and Component INF depends on the printer port an admin chooses, TCP/IP or WSD.

Client Point and Print Printers

- When a client connects to a server print queue Windows will check Windows Update for available downloads associated with the hardware ID.
- The client will download the Xerox Type 4 print driver from Windows Update.
- The client will also download the Extension INF and Component INF file from Windows Update.
- The Xerox® Desktop Print Experience App installer will then silently install the Xerox® Desktop Print Experience App. This does not require any user input.

Caveat

If the client cannot download a Xerox Type 4 print driver from Windows Update, then it will use the Microsoft Enhanced Point and Print driver instead.

In this case:

- Windows Update will download the Extension and Component INF files.
 - **Note:** these files are not automatically deleted from *C:\Windows\System32\DriverStore\FileRepository*
- The Xerox® Desktop Print Experience App installer will not install the app.
- To avoid this scenario an Admin needs to approve Xerox® Print Driver updates through Windows Update. Refer to [WSUS Server Considerations](#) for more details.

Xerox Type 3 Print Driver Scenarios

LOCAL PRINTER AUTOMATIC INSTALLATION SCENARIOS

Printer created with the Xerox® Global Print Driver on a TCP/IP port

- Printers created with the Xerox® Global Print Driver use generic hardware IDs that are not supported by an Extension INF.
- Windows Update will not download or install the Xerox® Desktop Print Experience App.

Printer created with the Xerox® Global Print Driver on a WSD or USB port

- To create a WSD or USB printer with the Xerox® Global Print driver the driver must be installed on the PC before printer creation.
- When creating a WSD or USB printer Windows will use the device's hardware ID and not the Xerox® Global Print Driver's generic hardware ID.
- Unlike the Xerox Type 4 driver scenario, Windows will not automatically download and install the Xerox® Desktop Print Experience App during printer creation.
- The Xerox® Desktop Print Experience App will be automatically downloaded the next time Windows checks for updates.
- If no Xerox Type 4 print drivers are present on the PC, then the Xerox® Desktop Print Experience App will not be installed.

Note: The Component INF and Extension INF are not deleted from the driver store if the installer quits without installing the Desktop App

Printer created with a Xerox Product specific Type 3 print driver or Xerox® Pull Print Type 3 print driver on a TCP/IP port

- Xerox Type 3 product specific drivers use the same hardware IDs as Xerox Type 4 print drivers.
- Windows does not check Windows Update during the creation of a TCP/IP printer.
- The Xerox® Desktop Print Experience App will be automatically downloaded the next time Windows checks for updates.
- If no Xerox Type 4 print drivers are present on the PC, then the Xerox® Desktop Print Experience App will not be installed.

Note: The Component INF and Extension INF are not deleted from the driver store if the installer quits without installing the Desktop App

Printer created with a Xerox Product specific Type 3 print driver or Xerox® Pull Print Type 3 print driver on a WSD or USB port

- To create a WSD or USB printer a product specific Xerox Type 3 print driver the driver must be installed on the PC before printer creation.
- Unlike the Xerox Type 4 driver scenario, Windows will not automatically download the Xerox® Desktop Print Experience App during printer creation.

- The Xerox® Desktop Print Experience App will be automatically downloaded the next time Windows checks for updates.
- If no Xerox Type 4 print drivers are present on the PC then the Xerox® Desktop Print Experience App will not be installed.

Note: The Component INF and Extension INF are not deleted from the driver store if the installer quits without installing the Desktop App

POINT AND PRINT AUTOMATIC INSTALLATION SCENARIOS

Print Server Printers

- Automatic Xerox® Desktop Print Experience App installation is supported by Windows Server 2019 and up.
- Automatic Xerox® Desktop Print Experience App installation scenarios on Windows print servers are the same as the Xerox Type 3 local printer installation scenarios listed in the above section.
- How Windows downloads the Extension INF and Component INF depends on the printer port, TCP/IP or WSD, as well as the Xerox® Print driver an admin chooses.

Client Point and Print Printers

Note: When a client connects to a server print queue that uses a Xerox Type 3 print driver it will download a copy of the print driver from the print server and use it to create a point and print printer.

- Windows will not download the Extension INF or Component INF when a client connects to a server printer using a Xerox Type 3 print driver.
- If the client downloaded a Xerox Type 3 product specific driver from the print server then:
 - Windows Update will download the Xerox® Desktop Print Experience App the next time Windows checks for updates.
 - If no Xerox® Type 4 print drivers are present on the PC, then the Xerox® Desktop Print Experience App will not be installed.
- If the client downloaded the Xerox Global Print Driver from the print server then:
 - Windows Update will not download or install the Xerox® Desktop Print Experience App.