



Technical white paper

HP Print and Scan Devices Supported in Citrix Virtual Apps and Virtual Desktops Environments

Microsoft Remote Desktop Server and Citrix environments

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Executive summary

Citrix® has collaborated with HP to test select HP devices and their associated HP drivers in Citrix environments.

These tests were run to determine how HP printers and their associated printer drivers performed using the standard printer and printer-related features tests that Citrix uses to test its Virtual Apps server and client software. This document lists all of the printers tested by HP in Citrix environments, explains the printer tests performed by Citrix, identifies which HP printers and printer driver versions were used, and describes any issues that occurred when these tests were performed.

Citrix has also collaborated with HP to test scanning functions on select scanner devices and their associated HP TWAIN drivers in a Virtual Apps and Virtual Desktops environments. These tests were run to determine how HP scan devices and their associated TWAIN drivers performed with the scan-related feature tests that Citrix uses to test its Virtual Apps server and client software. This document explains the scan tests performed by Citrix, identifies which HP scan devices and TWAIN driver versions were used, and describes any issues that occurred while these tests were being performed.

Target audience: Citrix Virtual Apps and Virtual Desktops print administrators.

Conflicting information

This document is provided for the convenience of the Citrix administrator. If there are any discrepancies between this document and the product data sheet, the product data sheet takes precedence in all cases. For additional information such as product End of Support Life, please consult www.hp.com.

What's new

1. Citrix has changed the names of XenApp and XenDesktop to Citrix Virtual Apps and Desktops.
2. Models highlighted in **Bold** have been added since the previous release.
3. Models highlighted in **Red** are discontinued, no longer supported.

Versions of Citrix supported by HP

- Citrix Virtual Apps and Desktops 19xx
- Citrix Virtual Apps and Desktops 18xx
- Citrix Virtual Apps and Desktops 7.X
- XenApp 7.X
- XenDesktop 7.X

Testing performed by HP and by Citrix

HP performs Windows Server/Virtual Apps/Virtual Desktops testing on its device drivers and is confident in the stability and functionality of the driver versions listed in this document. HP also screens all driver releases to verify that the drivers are free of memory leaks and memory allocation issues that might cause print spooler crashes or Citrix logon issues.

HP has selected a combination of LaserJet, DesignJet, Business Inkjet, and Deskjet printers for Citrix to test as a representative sample of all printers in the HP printer family. Because the driver code bases of these printers are common to all printers in the HP printer family, the testing performed by Citrix on these select printers translates to all other HP printers.

All HP devices and their associated device drivers listed in this document are supported by HP in Citrix environments. HP only supports the driver on the Citrix server and no other components from the CD-ROM supplied with the device or printing system installed on the Citrix server are supported.

Feature testing by HP

The HP test team installs the device driver on the Citrix server, logs into a Citrix session, and verifies that printing and/or scanning is successful to client devices and network printers. The feature testing performed by HP is very similar to that achieved with the Citrix Interoperability Test Kit for the Citrix Ready program.

Stress testing by HP

HP performs stress testing of its print drivers in both Citrix and non-Citrix environments. HP tests its print drivers with the StressPrinters tool provided by Citrix to simulate a user logon where multiple printers are auto-created concurrently. HP also employs other printing stress suites to ensure its drivers are compatible and stable in Citrix environments and can stand up to the printing and auto-creation demands that are commonly experienced by a Citrix server.

Using the HP UPD in Citrix environments

The HP Universal Print Driver, freely available at hp.com/go/upd, is supported by HP in Citrix and Remote Desktop Server environments. HP has tested the HP Universal Print PCL 5 driver, HP Universal Print PCL 6 driver, and the HP Universal PS emulation driver in Citrix environments.

Citrix Ready status

All versions of the HP Universal Print Driver pass the Citrix Ready tests, but not all versions are submitted to Citrix for listing on the Citrix Ready web page. The HP UPD 6.5 and 6.6 PCL 6, and PS (32 and 64-bit) are listed as Citrix Ready. See citrix.com/ready/en/hewlett-packard/hp-universal-printer-driver for more information.

Traditional Mode

The HP UPD can be installed in Traditional Mode on the Citrix server and will perform as a print driver for all compatible auto-created printers or redirected printers.

For auto-created printers, the HP Universal Print PCL 6 driver can be mapped to print to all PCL 6-capable HP client printers. Similarly, the HP Universal Print PS emulation driver can be mapped to print to all PS-capable HP client printers through driver mapping in the Citrix management tools.

To install the HP UPD in Traditional Mode, download the software from www.hp.com/go/upd and run `install.exe` from the command line on the server; alternatively, you can use the Add Printer Wizard or the Add Printer Driver Wizard. You can then configure mapping from within the Citrix server.

For Remote Desktop Server configurations, the HP UPD can be configured as the PCL or PS fallback driver when installed in Traditional Mode.

See hp.com/go/upd for more information and white papers on the HP UPD.

HP UPD Dynamic Mode

Installing the HP UPD in Dynamic Mode on the Citrix server

Installing the HP UPD in Dynamic Mode on the Citrix server is not supported. This is due to a design limitation in the Windows operating system which limits a print queue to be assigned to one port at a time, so multiple users would compete for the single port bound to the HP UPD queue if installed in Dynamic Mode.

Installing the HP UPD on clients in Dynamic Mode

The following scenarios are supported:

- Installing and using the HP UPD in Dynamic Mode on Citrix and Remote Desktop Server clients
- Using the HP UPD installed on the client as an auto-created printer in a Citrix or Remote Desktop Services session
- However, you need to be alerted to the following caveats:
 - When a job is printed from within the Citrix or Remote Desktop Services session, no Dynamic Mode UI is presented. The print job will automatically print to the last printer that was selected on the client.
 - If the HP UPD Dynamic Mode installation is new and no printing has been done before, UPD Dynamic Mode will default to LPT1. If there is no printer connected to LPT1, the print job will fail.
 - If you wish to change the physical printer where the job will be sent, there are two options:
- **The HP UPD is installed on clients in Dynamic Mode, and the Citrix auto-create policy is configured so that the Citrix UPD is the driver that is mapped to the HP UPD on the client. This is the recommended scenario.**
 - The following steps can be performed from within a Citrix session:
 - After selecting **Print** from within an application, select **Preferences**.

- When the Citrix UPD UI appears, select **Local Driver**.
- The HP UPD Dynamic Mode UI will be displayed. You can then select the desired printer.
- When the HP UPD print preferences UI is displayed, you may click **Cancel**.
- **The HP UPD is installed as a driver on the Citrix or Remote Desktop server and mapped to the Dynamic Mode UPD on the clients**
 You must perform the following steps prior to logging in to a Citrix session or published application:
 - Open the Printers folder and select **Dynamic Mode UPD printer**.
 - Right click the printer and select **Printing Preferences**.
 - The UPD Dynamic Mode UI will be displayed. You can then select the desired printer.
 - When the UPD print preferences UI is displayed, you may click **Cancel**.

Use a valid auto-created port when running the Citrix StressPrinters test

Citrix knowledge base article CTX109374 suggests that you use LPT1 as the printer port name when running the StressPrinters test – this is also the default setting. However, using LPT1 will give erroneous results because the HP UPD needs to make queries to the printer during the auto-creation process to obtain the printer’s configuration. If an invalid printer port like LPT1 is selected, these queries will time out and fail with indications that include exceptionally long auto-create times and/or test failure.

To get results that are accurate and reflect actual performance, use a valid auto-created port instead. These ports can be easily identified because the port name has one of the following formats:

- client:<session #>::<printer name on client>>
- CLIENT\ \<session information>>#\ <printer name on client>>
- Client\ \<session information>>#\ <printer name on client>>
- CLIENT/<session information>>#/<printer name on client>>
- Client/<session information>>#/<printer name on client>>

Comparing Citrix UPD and the HP UPD

The Citrix UPD for Virtual Apps works well for auto-created client printers and for Windows clients. However, you need to be alerted to the following caveats:

- The Citrix UPD cannot be used for auto-created network print share session printers that are connected at login by a Citrix policy. UPD or model-specific print drivers must be installed on the Citrix server for any session printer.
- The Citrix UPD requires a supported Windows operating system on the client.
- The Citrix UPD is not supported with thin clients that utilize embedded non-windows operating systems because the Citrix UPD works in conjunction with the Windows print driver installed on the client for communication of print settings and rendering of print jobs locally.

The HP UPD works well for mapping to any HP PCL or PS client print driver for auto-created client printers. It works well for any client, including thin clients with embedded operating systems that support print stream pass-through.

The Citrix UPD has the ability to provide all printer configurations and user settings from the client connected printer – such as print-on-both sides as default – to the auto-created printer within the Citrix user session.

The HP UPD has the ability to communicate with the client network printer and determine its configuration, such as tray configuration; however, the HP UPD cannot determine user settings of the client printers from the client. The auto-created printers using the HP UPD will have default print settings, such as print single-sided as default.

HP and Citrix UPD usage recommendations

Table 1 outlines the best usage circumstances when utilizing HP or Citrix UPD.

Table 1. Usage recommendations

Platform	Citrix UPD	HP UPD
XenApp 5.0/6.0/7.x	Better choice for Windows clients	Better choice for non-Windows clients or thin clients

HP LaserJet printers and supported driver versions

Table 2 identifies the LaserJet printers and minimum levels of associated drivers that are supported in Citrix environments by HP. These printers and printer drivers were tested by HP.

Note

The driver versions in this table reflect the model-specific driver information that was available at the time of publication. Subsequent to publication, newer drivers may have been released; others may no longer be available for download from the HP website. For the most current driver information, please consult hp.com.

Note

For many of the devices listed below, the HP Universal Print Driver (UPD) can be used. Consult www.hp.com/go/upd to determine whether a particular device is supported by the HP Universal Print Driver.

Table 2. HP LaserJet printers and supported drivers

HP printer	Supported in Citrix environment	HP-supported drivers (i)		
		PCL 6	Host-based	Postscript (PS)
HP LaserJet Pro M118dw	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro M119dw	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro MFP M148	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro MFP M149	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet M154	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro 100 Color MFP M175	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Pro MFP M177 series	Yes	All supported OS: HP UPD 5.8	N/A	All supported OS: HP UPD 5.8
HP Color LaserJet MFP M180	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet MFP M181	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro M201/M202 series	Yes	61.165.1.17779 All supported OS: HP UPD 6.0.0	N/A	All supported OS: HP UPD 6.0.0
HP LaserJet Pro M203/M204/M205	Yes	40.8 All supported OS: HP UPD	N/A	40.8 All supported OS: HP UPD
HP LaserJet Ultra M206	Yes	40.8 All supported OS: HP UPD	N/A	40.8 All supported OS: HP UPD
HP LaserJet Pro MFP M225/M226 series	Yes	61.165.1.17779 All supported OS: HP UPD	N/A	All supported OS: HP UPD x
HP LaserJet Pro MFP M227/M228/M229	Yes	40.8 All supported OS: HP UPD	N/A	40.8 All supported OS: HP UPD
HP LaserJet Ultra MFP M230/M231	Yes	40.8 All supported OS: HP UPD	N/A	40.8 All supported OS: HP UPD
HP LaserJet Pro M252	Yes	8.01.1320.2917 All supported OS: HP UPD	N/A	8.01.1320.2917 All supported OS: HP UPD
HP Color LaserJet M254	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Pro MFP M274	Yes	8.01.1320.2917 All supported OS: HP UPD	N/A	8.01.1320.2917 All supported OS: HP UPD
HP LaserJet Pro 200 color MFP M275	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro M277 MFP	Yes	8.01.1320.2917 All supported OS: HP UPD	N/A	8.01.1320.2917 All supported OS: HP UPD
HP Color LaserJet Pro MFP M277	Yes	8.01.1320.2917 All supported OS: HP UPD	N/A	8.01.1320.2917 All supported OS: HP UPD

HP printer	Supported in Citrix environment	HP-supported drivers (i)		
		PCL 6	Host-based	Postscript (PS)
HP Color LaserJet MFP M280	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet MFP M281	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro M304a	Yes	48.2.4515 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro M305	Yes	48.2.4515 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro MFP M329	Yes	48.2.4526 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro 300 color M351	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro 300 color MFP M375/M376	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Pro MFP M377	Yes	8.00.1324.3328 All supported OS: HP UPD	N/A	8.00.1324.3328 All supported OS: HP UPD
HP LaserJet Pro 400 M401	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro M402/M403	Yes	8.10.1320.XXXX All supported OS: HP UPD	N/A	8.10.1320.XXXX All supported OS: HP UPD
HP LaserJet Pro M404	Yes	48.2.4515 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro M405	Yes	48.2.4515 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro MFP M427	Yes	8.00.1326.3536 All supported OS: HP UPD	N/A	8.00.1326.3536 All supported OS: HP UPD
HP LaserJet Pro MFP M428	Yes	48.2.4526 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro MFP M429	Yes	48.2.4526 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet MFP M433	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro M435 Multifunction Printer series	Yes	61.145.02.15674 All supported OS: HP UPD	N/A	61.145.02.15674 All supported OS: HP UPD
HP LaserJet MFP M436	Yes	21.0.17012.148 All supported OS: HP UPD	N/A	21.0.17012.148 All supported OS: HP UPD
HP LaserJet Pro 400 color M451	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Pro M452	Yes	8.10.1320.2893 All supported OS: HP UPD	N/A	8.10.1320.2893 All supported OS: HP UPD
HP Color LaserJet Pro M453	Yes	48.2.4526 All supported OS: HP UPD	N/A	All supported OS: HP UPD

HP printer	Supported in Citrix environment	HP-supported drivers (i)		
		PCL 6	Host-based	Postscript (PS)
HP Color LaserJet Pro M454	Yes	48.2.4526 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro 400 color MFP M475/M476	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro 400 color MFP M477	Yes	8.00.1326.3536 All supported OS: HP UPD	N/A	8.00.1326.3536 All supported OS: HP UPD
HP Color LaserJet Pro MFP M478	Yes	48.2.4526 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Pro MFP M479	Yes	48.2.4526 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro M501	Yes	8.00.1324.3328 All supported OS: HP UPD	N/A	8.00.1324.3328 All supported OS: HP UPD
HP LaserJet Enterprise 500 M506	Yes	8.00.1326.3533 All supported OS: HP UPD	N/A	8.00.1326.3533 All supported OS: HP UPD
HP LaserJet Enterprise M507	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Enterprise 500 M521	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Enterprise 500 M525	Yes	61.121.04.12258 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Enterprise 500 M527	Yes	8.10.1320.XXXX All supported OS: HP UPD	N/A	8.10.1320.XXXX All supported OS: HP UPD
HP LaserJet Enterprise MFP M528	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Enterprise Flow MFP M528	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Enterprise 500 color M551	Yes	61.114.01.10295 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Enterprise M552	Yes	8.01.1320.3525 All supported OS: HP UPD	N/A	8.01.1320.3525 All supported OS: HP UPD
HP Color LaserJet Enterprise M553	Yes	8.01.1320.3525 All supported OS: HP UPD	N/A	8.01.1320.3525 All supported OS: HP UPD
HP LaserJet Enterprise 500 color MFP M570	Yes	61.135.04.13697 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Enterprise 500 color MFP M575	Yes	61.121.04.12258 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Enterprise 500 color MFP M577	Yes	8.00.1326.3533 All supported OS: HP UPD	N/A	8.00.1326.3533 All supported OS: HP UPD

HP printer	Supported in Citrix environment	HP-supported drivers (i)		
		PCL 6	Host-based	Postscript (PS)
HP LaserJet Enterprise 600 M601/M602/M603	Yes	61.114.01.10295 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Enterprise M604	Yes	8.01.1320.2917 All supported OS: HP UPD	N/A	8.01.1320.2917 All supported OS: HP UPD
HP LaserJet Enterprise M605	Yes	8.01.1320.2917 All supported OS: HP UPD	N/A	8.01.1320.2917 All supported OS: HP UPD
HP LaserJet Enterprise M606	Yes	8.01.1320.2917 All supported OS: HP UPD	N/A	8.01.1320.2917 All supported OS: HP UPD
HP LaserJet M607/M608/M609	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Enterprise MFP M630 series	Yes	61.165.01.17858 All supported OS: HP UPD 6.0.0	N/A	All supported OS: HP UPD 6.0.0
HP LaserJet MFP M631/M632/M633	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Flow MFP M631/M632/M633	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Enterprise M651 Printer series	Yes	61.155.01.16824 All supported OS: HP UPD 5.8	N/A	61.155.01.16824 All supported OS: HP UPD 5.8
HP Color LaserJet M652/M653	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Enterprise Multifunction M680 Printer series	Yes	61.155.01.16824 All supported OS: HP UPD 5.8	N/A	61.155.01.16824 All supported OS: HP UPD 5.8
HP Color LaserJet MFP M681	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Flow MFP M681/M682	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Pro M701 Printer series	Yes	61.155.01.16769 All supported OS: HP UPD 5.8	N/A	61.155.01.16769 All supported OS: HP UPD 5.8
HP LaserJet Pro M706 Printer series	Yes	61.155.01.16769 All supported OS: HP UPD 5.8	N/A	61.155.01.16769 All supported OS: HP UPD 5.8
HP LaserJet Enterprise 700 Printer M712	Yes	61.135.04.13681 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Enterprise MFP M725 series	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Enterprise M750 Printer series	Yes	61.155.01.16012 All supported OS: HP UPD 5.7	N/A	61.155.01.16012 All supported OS: HP UPD 5.7

HP printer	Supported in Citrix environment	HP-supported drivers (i)		
		PCL 6	Host-based	Postscript (PS)
HP LaserJet Enterprise 700 color MFP M775	Yes	61.135.04.13581 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Enterprise M806 Printer series	Yes	61.160.01.17538 All supported OS: HP UPD 5.7	N/A	61.160.01.17538 All supported OS: HP UPD 5.7
HP LaserJet Enterprise flow MFP M830	Yes	61.145.02.15638 All supported OS: HP UPD 5.7.0	N/A	All supported OS: HP UPD 5.7.0
HP Color LaserJet Enterprise M855 Printer series	Yes	61.160.01.17538 All supported OS: HP UPD 5.7	N/A	61.160.01.17538 All supported OS: HP UPD 5.7
HP Color LaserJet Enterprise flow MFP M880	Yes	61.155.01.16012 All supported OS: HP UPD 5.7.0	N/A	All supported OS: HP UPD 5.7.0
HP Color LaserJet Enterprise flow MFP M885	Yes	All supported OS: HP UPD 5.7.0	N/A	All supported OS: HP UPD 5.7.0
HP Color MFP S951dn	Yes	All supported OS: HP UPD 5.8	N/A	All supported OS: HP UPD 5.8
HP MFP S956dn	Yes	All supported OS: HP UPD 5.8	N/A	All supported OS: HP UPD 5.8
HP Color MFP S962dn	Yes	All supported OS: HP UPD 5.8	N/A	All supported OS: HP UPD 5.8
HP Color MFP S970dn	Yes	All supported OS: HP UPD 5.8	N/A	All supported OS: HP UPD 5.8
CLJ CM1015/ 1017 MFP	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 1022	Yes	Use HP LaserJet 6L PCL5e driver included in the Windows OS	Not supported (ii)	N/A
LJ 1150	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 1160	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 1200	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 1300	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ CM1312 MFP	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 1320	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ Pro CM1410 series	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ CP1510 series	Yes	All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
CLJ CP1518	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD

HP printer	Supported in Citrix environment	HP-supported drivers (i)		
		PCL 6	Host-based	Postscript (PS)
LJ Pro CP1520 series	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ Pro CP1525 series	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ CP2020/ 2025	Yes	N/A	N/A	All supported OS: HP UPD
LJ P2050/2055	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ M2727 MFP	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ 3000	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ P3005	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 3015	Yes	All supported OS: HP UPD	N/A	N/A
LJ M3027/ M3035 MFP	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 3050/3052/ 3055	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ CP3505	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ CP3520/ 3525	Yes	2008: 61.082.61.41 All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ CM3530 MFP	Yes	2008/Win7: 61.093.01.27	N/A	All supported OS: HP UPD
CLJ CP4005	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ P4014	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ CP4025	Yes	N/A	N/A	All supported OS: HP UPD
LJ 4015	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 4345 MFP	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ M4345 MFP	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 4350	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 4515	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ CP4525	Yes	N/A	N/A	All supported OS: HP UPD
CLJ CM4540 MFP	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ M4555 MFP	Yes	2008/Win7/2008 R2: 61.109.09.8874	N/A	2008/Win7/2008 R2: 61.109.09.8874
CLJ 4700	Yes	2008: 61.082.61.41 All supported OS: HP UPD	N/A	2008: 61.082.61.41 All supported OS: HP UPD
CLJ CM4730 MFP	Yes	2008: 61.082.61.41 All supported OS: HP UPD	N/A	2008: 61.082.61.41 All supported OS: HP UPD
LJ 5000	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD

HP printer	Supported in Citrix environment	HP-supported drivers (i)		
		PCL 6	Host-based	Postscript (PS)
LJ M5025/ M5035 MFP	Yes	2008: 61.082.61.41 All supported OS: HP UPD	N/A	2008: 61.082.61.41 All supported OS: HP UPD
CLJ CP5220	Yes	Win7/2008: 1.1	N/A	All supported OS: HP UPD
CLJ CP5225 series	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ CP5520 series	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ CP5525 series	Yes	2008/Win7/2008 R2: 61.105.15.7867	N/A	All supported OS: HP UPD
CLJ 5550	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ CP6015	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ CM6030/CM6040 MFP	Yes	PCL6: 2008: 61.082.61.41 All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 8000	Yes		N/A	All supported OS: HP UPD
LJ 8100	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 8150	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ 8550	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 9000/9000 MFP	Yes	PCL6: 2008: 61.074.561.43 All supported OS: HP UPD PCL5: All supported OS: HP UPD	N/A	2008: 61.074.561.44 All supported OS: HP UPD
LJ 9040/9050	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 9055 MFP	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
LJ 9065 MFP	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
CLJ 9500	Yes	2008: 61.082.61.41 All supported OS: HP UPD	N/A	2008: 61.082.61.41 All supported OS: HP UPD
CLJ 9500 MFP	Yes	2008: 61.082.61.41 All supported OS: HP UPD	N/A	2008: 61.082.61.41 All supported OS: HP UPD
HP LaserJet Managed E5014	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Managed MFP E52645dn	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Managed Flow MFP E52645c	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet E60055/E60065/ E60075	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD

HP printer	Supported in Citrix environment	HP-supported drivers (i)		
		PCL 6	Host-based	Postscript (PS)
HP LaserJet Managed E60155dn/E60165dn/E60175dn	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet MFP E62555/E62565	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Flow MFP E62565/E62575	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Managed MFP E62655/E62665/E62675z	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet E65050/E65060	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Managed E65150dn/E65160dn	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet MFP E67550/E67560	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Managed MFP E67650dh/E67660z	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet MFP E72425/E72430dn	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet MFP E72525/E72530/E72535	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Flow MFP E72525/E72530/E72535	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet MFP M72625-M72630	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Managed MFP E77422	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Managed MFP E77428dn	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet MFP E77822/E77825/E77830	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet Flow E77822/E77825/E77830	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet MFP E82540/E82550/E82560	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP LaserJet Flow MFP E82540/E82550/E82560	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Color LaserJet MFP E87640/E87650/E87660	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD

HP printer	Supported in Citrix environment	HP-supported drivers (i)		
		PCL 6	Host-based	Postscript (PS)
HP Color LaserJet Flow E87640/E87650/E87660	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD

(i) There may be a newer driver version for your HP device at hp.com that is also supported. However, the driver versions listed in this table are acceptable and are supported.

(ii) HP does not recommend installing these host-based LaserJet drivers on the Citrix server; however, the devices may function by using the Citrix UPD on the Citrix server with the HP host-based driver installed on the client. Print drivers for your product may be available within the Windows 7 operating system.

HP color multifunction printers with HP Edgeline Technology and supported driver versions

Table 3 identifies the HP color multifunction printers with Edgeline technology, along with the minimum levels of associated drivers that are supported in Citrix environments by HP.

Note

The driver versions in this table reflect the information that was available at the time of publication. Subsequent to publication, newer drivers may have been released, and some drivers may no longer be available for download from the HP website. For many of the devices listed below, the HP UPD can be used. For the most current driver information, please consult hp.com.

Table 3. HP color multifunction printers with Edgeline technology and supported drivers

HP printer	Supported in Citrix environment	HP-supported drivers (i)		
		Printer Control Language (PCL)	Host-based	Postscript (PS)
CM8050/8060 MFP	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD

(i) There may be a newer driver version for your HP device at hp.com that is also supported. However, the driver versions listed in this table are acceptable and are supported.

HP PageWide printers and supported driver versions

Table 4 identifies the HP PageWide printers and minimum levels of associated drivers that are supported in Citrix environments by HP. These printers and printer drivers were tested by HP.

Note

The driver versions in this table reflect the model-specific driver information that was available at the time of publication. Subsequent to publication, newer drivers may have been released; others may no longer be available for download from the HP website. For the most current driver information, please consult hp.com.

Note

For many of the devices listed below, the HP Universal Print Driver (UPD) can be used. Consult hp.com/go/upd to determine whether a particular device is supported by the HP Universal Print Driver.

Table 4. HP PageWide printers and supported drivers

HP printer	Supported in Citrix environment	HP-supported drivers (i)		
		Model Specific Driver	Host-based	HP Universal Print Driver
HP PageWide 352 Printer	Yes	8.00.1324.3353	Not supported (ii)	All supported OS: HP UPD
HP PageWide Pro 377 MFP	Yes	8.00.1324.3353	Not supported (ii)	All supported OS: HP UPD
HP PageWide Pro 452	Yes	8.00.1324.3187	Not supported (ii)	All supported OS: HP UPD
HP PageWide Pro MFP 477	Yes	8.00.1324.3187	Not supported (ii)	All supported OS: HP UPD
HP PageWide Pro 552	Yes	8.00.1324.3187	Not supported (ii)	All supported OS: HP UPD
HP PageWide Enterprise Color 556	Yes	8.00.1324.3328	Not supported (ii)	All supported OS: HP UPD
HP PageWide Pro 577	Yes	8.00.1324.3187	Not supported (ii)	All supported OS: HP UPD
HP PageWide Enterprise Color Flow MFP 586	Yes	8.00.1324.3328	Not supported (ii)	All supported OS: HP UPD
HP PageWide Enterprise Color MFP 586	Yes	8.00.1324.3328	Not supported (ii)	All supported OS: HP UPD
HP PageWide Pro 750	Yes	All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide Enterprise Color 765	Yes	All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide Pro MFP 772-777	Yes	8.00.1329.4304 All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide Enterprise Color MFP 780	Yes	All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide Enterprise Color MFP 785	Yes	All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide P50250	Yes	8.00.1329.4304 All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide MFP P52750	Yes	8.00.1329.4304 All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide P75050-60	Yes	8.00.1329.4304 All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD

HP printer	Supported in Citrix environment	HP-supported drivers (i)		
		Model Specific Driver	Host-based	HP Universal Print Driver
HP PageWide Managed Color E75160	Yes	All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide Managed Color P75250	Yes	All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide Managed Color MFP P77440	Yes	All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide Managed Color Flow MFP E77650	Yes	All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide Managed Color Flow MFP E77660	Yes	All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide Managed Color MFP E77650-E77660	Yes	All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide MFP P77740-60	Yes	8.00.1329.4304 All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide Managed Color MFP P77940	Yes	All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide Managed Color MFP P77950	Yes	All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD
HP PageWide Managed Color MFP P77960	Yes	All supported OS: HP UPD	Not supported (ii)	All supported OS: HP UPD

HP Officejet and Photosmart printers and supported driver versions

Customers who wish to use certain HP ink-based AIO printers in Citrix environments may use the associated Deskjet printer driver as listed in Table 5, which limits product use to printing; all other product features (such as fax, scan, and card reader) are available on a walk-up basis. HP recommends downloading the basic features or corporate drivers when using mapped drivers.

AIO and Photosmart products that are leveraged from Lightweight Imaging Device Interface Language (LIDIL)-based Deskjet devices are not supported. These products include PSC and Officejet products leveraged from the Deskjet 3000 series.

Note

The driver versions in the table reflect the information that was available at the time of publication. Subsequent to publication, newer drivers may have been released; other drivers may no longer be available for download from the HP website. For the most current driver information, please consult hp.com.

Table 5. HP ink-based AIO and Photosmart printers with supported drivers

HP printer	Supported in Citrix environment	HP-supported drivers (i)		
		Printer Control Language (PCL)	Host-based	Postscript (PS)
HP Officejet 100 Mobile L411	Yes	70.101.801.0		
HP Officejet 150 Mobile All-in-One Scan/Copy	Yes	14.0.0	N/A	N/A
HP OfficeJet 200 Mobile Printer	Yes	38.1	N/A	N/A
HP OfficeJet 200C Mobile Printer	Yes	38.1	N/A	N/A
HP OfficeJet 202 Mobile Printer	Yes	38.1	N/A	N/A
HP OfficeJet 202C Mobile Printer	Yes	38.1	N/A	N/A
HP OfficeJet 250 Mobile Printer	Yes	39.1.1947	N/A	N/A
HP Officejet Pro 251dw Printer	Yes	61.135.04.14143 UPD 5.6.1	N/A	UPD 5.6.1
HP Officejet Pro 276dw Multifunction Printer	Yes	61.135.04.14143 UPD 5.6.1	N/A	UPD 5.6.1
HP Officejet Pro X451 Printer	Yes	61.135.04.14143 UPD 5.6.0	N/A	UPD 5.6.0
HP Officejet Pro X476 Multifunction Printer	Yes	61.135.04.14143 UPD 5.6.0	N/A	UPD 5.6.0
HP Officejet Enterprise Color X555 Printer series	Yes	61.155.01.16791 All supported OS: HP UPD 5.8	N/A	61.155.01.16791 All supported OS: HP UPD 5.8
HP Officejet Pro X551 Printer	Yes	61.135.04.14143 UPD 5.6.0	N/A	UPD 5.6.0
HP Officejet Pro X576 Multifunction Printer	Yes	61.135.04.14143 UPD 5.6.0	N/A	UPD 5.6.0
HP Officejet Enterprise Color X585 Multifunction Printer series	Yes	61.155.01.16791 All supported OS: HP UPD	N/A	61.155.01.16791 All supported OS: HP UPD
Officejet 6700	Yes	6.1.7601.17514	N/A	N/A
Officejet 7500 series	Yes	04.43.07.853	N/A	N/A

HP printer	Supported in Citrix environment	HP-supported drivers (i)		
		Printer Control Language (PCL)	Host-based	Postscript (PS)
Officejet Pro 8100	Yes	6.62.0.975	N/A	N/A
HP Officejet Pro 8210	Yes	All supported OS: HP UPD	N/A	All supported OS: HP UPD
Officejet Pro 8600	Yes	6.64.0.994	N/A	N/A
Officejet Pro 8610/8620/8630	Yes	13.33.00.2473	N/A	N/A
HP Officejet Pro 8710/15/18/19	Yes	38.1	N/A	N/A
HP Officejet Pro 8720/25/28	Yes	38.1	N/A	N/A
HP Officejet Pro 8730	Yes	38.1 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP OfficeJet Pro 8732M All-in-One Printer	Yes	38.5 All supported OS: HP UPD	N/A	38.5 All supported OS: HP UPD
HP Officejet Pro 8740 All-in-One Printer	Yes	38.1 All supported OS: HP UPD	N/A	All supported OS: HP UPD
HP Officejet Pro 8745 All-in-One Printer	Yes	38.1 All supported OS: HP UPD	N/A	All supported OS: HP UPD

(i) There may be a newer driver version for your HP device at hp.com that is also supported. However, the driver versions listed in this table are acceptable and are supported.

(iii) The HP Photosmart 7550, 7900, 8400, and 8700 printer series are PCL3 devices but use three cartridge print assemblies that are not supported by Deskjet base drivers.

HP PageWide XL supported driver versions

Table 6 identifies the HP PageWide XL printers and minimum levels of associated drivers that are supported in Citrix environments by HP. These printers and printer drivers were tested by HP.

Note

The driver versions listed in the table reflect the information that was available at the time of publication. Subsequent to publication, newer drivers may have been released; some drivers may no longer be available for download from the HP website. For the most current driver information, please consult hp.com.

Table 6. HP PageWide XL printers with supported drivers

HP printer	HP-supported drivers (i)			
	HPGL2	Postscript (PS)	PCL 3	PDF
HP PageWide XL 3900 MFP	N/A	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A

HP printer	HP-supported drivers (i)			
	HPGL2	Postscript (PS)	PCL 3	PDF
HP PageWide XL 3900PS MFP	N/A	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 4000	61.162.11205.100	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 4000PS	61.162.11205.100	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 4000 MFP	61.162.11205.100	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 4000PS MFP	61.162.11205.100	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 4100	61.183.21308.100	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 4100PS	61.183.21308.100	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 4100 MFP	61.183.21308.100	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 4100PS MFP	61.183.21308.100	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 4500	61.162.11205.100	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 4500PS	61.162.11205.100	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 4500 MFP	61.162.11205.100	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 4500PS MFP	61.162.11205.100	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 4600	61.183.21308.100	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 4600PS	61.183.21308.100	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 4600 MFP	61.183.21308.100	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 4600PS MFP	61.183.21308.100	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 5000	61.162.11205.100	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A

HP printer	HP-supported drivers (i)			
	HPGL2	Postscript (PS)	PCL 3	PDF
HP PageWide XL 5000PS	61.162.11205.100	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 5000 MFP	61.162.11205.100	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 5000PS MFP	61.162.11205.100	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 5000 Blueprinter	61.162.11205.100	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 5000PS Blueprinter	61.162.11205.100	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 5100	61.174.21308.300	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 5100PS	61.174.21308.300	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 5100 MFP	61.174.21308.300	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 5100PS MFP	61.174.21308.300	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 6000	61.174.21308.300	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 6000PS	61.174.21308.300	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 6000 MFP	61.174.21308.300	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 6000PS MFP	61.174.21308.300	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 8000	61.162.11205.100	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 8000PS	61.162.11205.100	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100
HP PageWide XL 8000 Blueprinter	61.162.11205.100	N/A	V3 61.192.11804.100 V4 61.193.11804.100	N/A
HP PageWide XL 8000PS Blueprinter	61.162.11205.100	V3: 61.192.11804.100	V3 61.192.11804.100 V4 61.193.11804.100	V4 61.193.11804.100

HP DesignJet supported driver versions

Table 7 identifies the HP DesignJet printers and minimum levels of associated drivers that are supported in Citrix environments by HP. These printers and printer drivers were tested by HP.

Note

The driver versions listed in the table reflect the information that was available at the time of publication. Subsequent to publication, newer drivers may have been released; some drivers may no longer be available for download from the HP website. For the most current driver information, please consult hp.com.

Table 7. HP DesignJet printers with supported drivers

HP printer	HP-supported drivers (i)			
	HPGL2	PCL3	PostScript (PS)	PDF
HP DesignJet Z6 24-in PostScript® Printer	N/A	V3: 61.183.11507.200 V4: 61.183.11506.500	V3: 61.183.11507.200	V4: 61.183.11506.500
HP DesignJet Z6 44-in PostScript® Printer	N/A	V3: 61.183.11507.200 V4: 61.183.11506.500	V3: 61.183.11507.200	V4: 61.183.11506.500
HP DesignJet Z9+ 24-in PostScript® Printer	N/A	V3: 61.183.11507.200 V4: 61.183.11506.500	V3: 61.183.11507.200	V4: 61.183.11506.500
HP DesignJet Z9+ 44-in PostScript® Printer	N/A	V3: 61.183.11507.200 V4: 61.183.11506.500	V3: 61.183.11507.200	V4: 61.183.11506.500
HP DesignJet Z6 dr 44-in PostScript® Printer with vertical trimmer	N/A	V3: 61.183.11507.200 V4: 61.183.11506.500	V3: 61.183.11507.200	V4: 61.183.11506.500
HP DesignJet Z9+ dr 44-in PostScript® Printer	N/A	V3: 61.183.11507.200 V4: 61.183.11506.500	V3: 61.183.11507.200	V4: 61.183.11506.500
HP DesignJet T100 24-in Printer		V3: 61.192.11802.100 V4: 61.192.11802.200		
HP DesignJet T120 Printer	All	All	N/A	N/A
HP DesignJet T125 24-in Printer		V3: 61.192.11802.100 V4: 61.192.11802.200		
HP DesignJet 30/130	N/A	N/A	N/A	N/A
HP DesignJet T130 24-in Printer		V3: 61.192.11802.100 V4: 61.192.11802.200		
HP DesignJet 500	N/A	N/A	N/A	N/A
HP DesignJet 500 + HPGL2 card/510	All	N/A	N/A	N/A

HP printer	HP-supported drivers (i)			
	HPGL2	PCL3	PostScript (PS)	PDF
HP DesignJet T520 Printer Series	All	All	N/A	N/A
HP DesignJet T525 24-in Printer		V3: 61.192.11802.100 V4: 61.192.11802.200		
HP DesignJet T525 36-in Printer		V3: 61.192.11802.100 V4: 61.192.11802.200		
HP DesignJet T530 24-in Printer		V3: 61.192.11802.100 V4: 61.192.11802.200		
HP DesignJet T530 36-in Printer		V3: 61.192.11802.100 V4: 61.192.11802.200		
HP DesignJet T730 Printer	All	All	N/A	N/A
HP DesignJet T790 PostScript Printer	All	All	All	N/A
HP DesignJet T795 Printer	All	All	All	N/A
HP DesignJet 800	5.35 6.11	N/A	4.29	N/A
HP DesignJet T830 Multifunction Printer	All	All	N/A	N/A
HP DesignJet T920 Printer series	All	All	All	N/A
HP DesignJet T930 Printer Series	All	All	All	N/A
HP DesignJet 1050/1055	4.66	N/A	4.29	N/A
HP DesignJet T1100/T1120/T610/T620/T770/T1200	All	N/A	All	N/A
HP DesignJet T1300 PostScript Printer	All	All	All	N/A
HP DesignJet T1500 Printer series	All	All	All	N/A
HP DesignJet T1530 Printer Series	All	All	All	N/A
HP DesignJet T1600 Printer Series		V3: 61.192.11803.100 V4: 61.193.11804.100		
HP DesignJet T1600 Printer Series with PostScript		V3: 61.192.11803.100 V4: 61.193.11804.100	V3: 61.192.11803.100	V4: 61.193.11804.100

HP printer	HP-supported drivers (i)			
	HPGL2	PCL3	PostScript (PS)	PDF
HP DesignJet T1700 PostScript	N/A	V3: 61.182.11501.100 V4: 61.182.11501.100	V3: 61.182.11501.100	V4: 61.182.11501.100
HP DesignJet T1700	N/A	V3: 61.182.11501.100 v4: 61.182.11501.100	V3: 61.182.11501.100	V4: 61.182.11501.100
HP DesignJet T1700dr PostScript	N/A	V3: 61.182.11501.100 V4: 61.182.11501.100	V3: 61.182.11501.100	V4: 61.182.11501.100
HP DesignJet T1700dr	N/A	V3: 61.182.11501.100 V4: 61.182.11501.100	V3: 61.182.11501.100	V4: 61.182.11501.100
HP DesignJet T1708 PostScript	N/A	V3 61.182.11501.100 V4 61.182.11501.100	V3: 61.182.11501.100	V4: 61.182.11501.100
HP DesignJet T1708	N/A	V3 61.182.11501.100 V4 61.182.11501.100	V3: 61.182.11501.100	V4: 61.182.11501.100
HP DesignJet T1708dr PostScript	N/A	V3 61.182.11501.100 V4 61.182.11501.100	V3: 61.182.11501.100	V4: 61.182.11501.100
HP DesignJet T1708dr	N/A	V3 61.182.11501.100 V4 61.182.11501.100	V3: 61.182.11501.100	V4: 61.182.11501.100
HP DesignJet T2300	All	All	All	N/A
HP DesignJet T2500 Multifunction Series	All	All	All	N/A
HP DesignJet T2530 Printer Series	All	All	All	N/A
HP DesignJet T2600 Multifunction Printer Series		V3: 61.192.11803.100 V4: 61.193.11804.100		
HP DesignJet T2600 Multifunction Printer Series with PostScript		V3: 61.192.11803.100 V4: 61.193.11804.100	V3: 61.192.11803.100	V4: 61.193.11804.100
HP DesignJet Z2600 PostScript Printer	All	All	All	N/A
HP DesignJet Z3200 Photo Printer Series	N/A	All	All	N/A
HP DesignJet T3500 Production Multifunction Printer	All	All	All	N/A
HP DesignJet XL 3600 Multifunction Printer		V3: 61.192.11803.100 V4: 61.193.11804.100		
HP DesignJet XL 3600 Multifunction Printer with PostScript		V3: 61.192.11803.100 V4: 61.193.11804.100	V3: 61.192.11803.100	V4: 61.193.11804.100
HP DesignJet 4000/4500/4020/4520	All	N/A	All	N/A

HP printer	HP-supported drivers (i)			
	HPGL2	PCL3	PostScript (PS)	PDF
HP DesignJet Z5400 PostScript Printer	N/A	All	All	N/A
HP DesignJet Z5200 Photo Printer	N/A	All	All	N/A
HP DesignJet Z5400 PostScript Printer	All	All	All	N/A
HP DesignJet 5500	6.13	N/A	4.29	N/A
HP DesignJet Z5600 PostScript Printer	All	All	All	N/A
HP DesignJet D5800 Production Printer	All	All	All	N/A
HP DesignJet Z6200 Photo Production Printer	All	All	All	N/A
HP DesignJet Z6600 Production Printer	All	All	All	N/A
HP DesignJet Z6800 Photo Production Printer	All	All	All	N/A
HP DesignJet Z6810 42 in Printer	N/A	V3: 61.183.21507.100 V4: 61.183.21507.100	V3: 61.183.21507.100	N/A
HP DesignJet Z6810 60 in Printer	N/A	V3: 61.183.21507.100 V4: 61.183.21507.100	V3: 61.183.21507.100	N/A
HP DesignJet Z6610 Printer	N/A	V3: 61.183.21507.100 V4: 61.183.21507.100	V3: 61.183.21507.100	N/A
HP DesignJet T7100	All	All	All	N/A
HP DesignJet T7200 Production Printer	All	All	All	N/A

(i) There may be a newer driver version for your HP device at hp.com that is also supported. However, the driver versions listed in this table are acceptable and are supported.

Issues when using HP printers in Citrix environments

Resolved issues

Secure Encrypted Print fails with Auto-Created printers

When using the Citrix UPD on the Virtual Apps server, and using the HP UPD on the client for auto-created printers, the Secure Encrypted Print feature is displayed (for devices that support this feature), but if selected, there is no password prompt displayed, and the job fails to print. If a default password is in use, the job fails to print.

Solution: Open Citrix policy manager. Go to All apps -> Start Citrix Policy manager -> Search for "Universal Printing EMF processing mode" and select option to "Reprocess EMF for printer" -> Close print policy Window.

Close and restart the published application on the Citrix client.

Citrix Universal Print Server – Print jobs hang under high print load conditions.

It has been reported that the Citrix Universal Print Server process (UPServer.exe) will hang or crash under heavy print load conditions when using the HP Universal Print Driver. Restarting the UPServer.exe process will free up the print jobs.

Solution: This issue is fixed in the HP UPD 6.2.x release,

Job storage not working as expected when printing from a Virtual Apps published application

A job will not be stored in-device when printing from a published application in Virtual Apps if the application is published as **Allow anonymous users**. This happens because UPD job storage requires the user ID to store the job; however, in this case, the application is run as an anonymous user on the Virtual Apps server.

Auto-creation performance in Citrix

In general, the time it takes to auto-create a printer using the HP UPD or a model specific HP print driver version 60.xxx.xxx.xxx or 61.xxx.xx.xxx is 2 – 10 seconds, depending upon the performance and load of the print spooler and other processes on the Citrix server. This is due to the time taken to initialize the HP UPD or model specific print driver.

When using the Citrix StressPrinters tool to test the HP UPD, selecting the default LPT1: port from the tool provides install times that are not accurate. The HP UPD attempts to communicate with the printer over the LPT1: port and times out after a long period of time. To achieve a true simulation of the HP UPD, run StressPrinters from a Citrix server and select a Citrix redirected port that is connected to a live network printer.

HKCU\Software\Hewlett-Packard registry hive increases in size in Citrix

Print driver versions 61.071.xxx.xx fail to clean up registry data written to the **HKEY_CURRENT_USER\Software\Hewlett-Packard** registry hive. Keys under this hive will grow over time – a new registry key is created each time a user logs on to a Citrix server for each printer auto-created. An example of such a key is **HKEY_CURRENT_USER\Software\Hewlett-Packard\165b5934-15c4-4a84-c392-d044915211da** where **165b5934-15c4-4a84-c392-d044915211da** is a globally unique identifier (GUID). **HPBIDInfo** and **HPCUSTOMForms** are keys in the GUID hive.

Newer versions of the print driver, such as version 61.081.xxx.xx or the latest HP UPD, have a fix for this issue.

Memory issues cause problems with spooler, auto-creation, and server performance

The following components may cause issues:

- **hpbmini.dll** – Memory leaks and memory corruption are possible with the 1.0.0.18 (or older) dll, which will not cause a spooler crash but may degrade server performance. This issue occurs with 60.x.x.x and 4.x.x.x. print drivers containing hpbmini.dll version 1.0.0.18 or older. Version 1.0.0.19 and newer has the fix.

Version 4.x.x.x print drivers have an issue unloading hpbmini.dll, which will probably cause a spooler crash when the server has a heavy load of connected users.

- **hpcdmc32.dll** – Memory leaks are possible with the 1.0.2.30 (or older) dll, which will not cause a spooler crash but may cause performance degradation. This issue occurs with 60.x.x.x and 4.x.x.x print drivers containing hpcdmc32.dll version 1.0.2.30 or older. UPD version 5.7.0 and later has the fix.

Other symptoms caused by the above components include failed auto-creation of printers and auto-created client printers not being deleted when users log off.

Solution

To determine if these issues are affecting a server and for a workaround, rename hpbmini.dll and hpcdmc32.dll in the **windows\system32\spool\drivers\w32sx86\3** directory and remove hpbmini.dll from **DependentFiles** registry entry in **HKLM\SYSTEM\CurrentControlSet\Control\Print\Environments\Windows NT x86\Drivers\Version-3\<driver>** hive.

For HP print drivers version 4.x.x.x, HP strongly recommends upgrading to the 60.x.x.x or 61.x.x.x driver versions available on hp.com. If one is not available, then use the HP UPD. For existing 60.x.x.x drivers with these suspected issues, HP strongly recommends upgrading to the latest driver available on hp.com.

Auto-creation of HP printer fails with Citrix

This issue occurs when an HP PCL driver (version 4.3.x.x to 4.20.x.x.) is installed on the server.

When Citrix auto creates using an older HP driver, the process halts and any remaining printers fail to auto-create. To resolve this situation, update the HP driver on the server to the version listed in the tables above.

UPD 12070 Intermittent installation errors/failures in Citrix XenDesktop

Intermittent installation errors have been reported when trying to connect to a print server from a Provisioned XenDesktop client. These errors are not directly related to UPD, as they have been experienced when using non-HP drivers. The failure appears to be related to downloading and installing the driver through point and print.

HP and Citrix are investigating. The work around is to pre-install the driver on the provisioned image before sharing it, so as to remove the need to download and install a printer driver. This issue is resolved in UPD 5.6.1

UPD 10841 Issue description: A registry growth in HKCU\DEFAULT\Software\Hewlett Packard

Significant improvements have been made in UPD 5.6. HP is still investigating. This issue is resolved in UPD 5.6.1

Unresolved issues

HP Deskjet printer drivers do not load under non-administrator privileges

HP does not recommend the use of host-based printers in Citrix environments. Host-based printers rely upon the bulk of the rendering being performed on the host machine by the host-based driver and are designed for direct-connect, non-networked environments. As a result, host-based print jobs can be considerably larger than PCL-based jobs, which is undesirable when printing over constrained bandwidth connections. An alternative is to use the Citrix UPD to print to a host-based client printer.

Known limitation of the HP UPD when used for auto-created printers or redirected printers with directly attached client printers

Outside the Citrix environment, the HP UPD can configure itself according to actual printer features – such as tray configuration – by communicating directly with the printer. However, when the HP UPD is installed on the server and mapped for auto-created printers, it cannot communicate with the printer installed on the client if the client's printer is directly attached to the client machine (via USB, for example).

If the printer is networked, automatic configuration is supported. For directly attached printers on the client, such as USB-connected printers, the HP UPD PCL driver defaults to black-and-white, no extra trays and no device-specific paper handling. The HP UPD PS driver defaults to color, no extra trays and no device-specific paper handling.

Note

Printers that are attached to the client via network ports are not affected. The HP UPD, installed on the server, can communicate with client printers that are available on the network.

Microsoft issues

HP printer with DOT4 port on client does not create a redirected printer in Terminal Server

This issue does not occur with Citrix, only with Terminal Server.

If an HP printer is connected to a client with a USB DOT4 port, then no redirected printer is created when logging on to a Terminal Server. Microsoft has a workaround described in their knowledge base article 302361.

Frequently asked questions

Which printing features are supported in Remote Desktop Server/Citrix environments?

All printing features of the driver are supported in Remote Desktop Server/Citrix environments with the exception of bi-directional communication to client printers. Bi-directional communication to networked printers is unaffected.

Is my HP printer supported in a Citrix environment by HP?

Check the LaserJet, Business Inkjet and Deskjet, ink-based AIO and Photosmart, and DesignJet printer sections of this white paper to see if your printer is listed as supported.

Is a certain HP print driver certified by Citrix?

The HP UPD is listed as "Citrix Ready." Other print drivers and printers may have been tested by HP and Citrix in Presentation Server and Virtual Apps environments. To determine if a particular printer is supported, check the appropriate section of this white paper.

All support for the printer and print driver is provided by HP.

How do I configure my Citrix server to map print drivers, use and configure the Citrix UPD, or configure and session network printers?

Consult the Citrix Advanced Concept Guide and other online documentation at citrix.com.

Why do my auto-created printer settings not reflect the correct printer settings from my client printers?

Presentation Server 4.0/4.5, XenApp 5.0, XenApp 6.0, and the Citrix UPD can read local printer settings from the client. The server must be at least 4.0 and the client must be a 32-bit or 64-bit Windows client with at least ICA version 9.0.

Can I use my AIO, MFP, MFD, or scanner connected to my client to scan to applications within my Citrix ICA session?

Yes, Presentation Server 4.0/4.5, XenApp 5.0, or XenApp 6.x with a 32-bit or 64-bit Windows client and ICA 9.0 support TWAIN devices directly connected to the client.

Where can I download the Windows Server 2003 driver for Deskjet, PSC, Officejet, and Photosmart printers?

HP does not develop Windows Server 2003 drivers for consumer-based inkjet products.

HP Scanners and supported driver versions

Table 8 identifies the HP Scanners and minimum levels of associated drivers that are supported in Citrix environments by HP. These Scanners and scanner drivers were tested by HP.

Note

The driver versions in this table reflect the driver information that was available at the time of publication. Subsequent to publication, newer drivers may have been released; others may no longer be available for download from the HP website. For the most current driver information, please consult www.hp.com.

Table 8. HP Scanners and supported drivers

HP scanner	TWAIN Redirection Supported	USB Port Redirection Supported	Basic (WIA) drivers	TWAIN drivers (i)
			(i)	
HP ScanJet Pro 2000 s1	Yes	Yes	41.3.2186	41.3.2186
HP ScanJet Pro 2500 f1	Yes	Yes	1.27.0.1216	38.0.1227.56401
Scanjet 3000 S2	Yes	Yes	17.0.0.980	1.8.0
HP ScanJet Pro 3000 s3	Yes	Yes	41.1.2183	41.1.2183
HP ScanJet Pro 3500 f1	Yes	Yes	38.2.29.56747	38.2.2238.56800
Scanjet 5000 S2	Yes	Yes	1.0	1.8
Scanjet 5000 s3	Yes	Yes	8.0	1.1.0
HP Scanjet Enterprise Flow 5000 s4	Yes	Yes	41.1.2183	41.1.2183
HP ScanJet Enterprise Flow 7000 s2	Yes	Yes	14.5	1.9.0
HP ScanJet Enterprise Flow 7000 s3	Yes	Yes	41.1.2183	41.1.2183
HP Scanjet Enterprise Flow 7500	Yes	Yes	1.0	1.9.0

HP scanner	TWAIN Redirection Supported	USB Port Redirection Supported	Basic (WIA) drivers (i)	TWAIN drivers (i)
HP Digital Sender Flow 8500 fn2 Document Capture Workstation			1.0.11707.24001	1.0.11707.24001
Scanjet N9120	Yes	Yes	3.0	1.9.0
HP ScanJet Enterprise Flow N9120 fn2 Document Scanner	Yes	Yes	1.0.11707.24001	1.0.11707.24001

(i) There may be a newer driver version for your HP device at hp.com that is also supported. However, the driver versions listed in this table are acceptable and are supported.

TWAIN redirection

Description

Virtual Apps can redirect client-connected imaging devices, notably document scanners, from the client to the Virtual Apps server. This allows users to control client-attached imaging devices from applications that run on the server. It is highly recommended that the TWAIN driver listed in Table 7 be installed on the client, in addition to the basic driver. If the TWAIN driver is not installed, some scan functionality may still be available using the Microsoft TWAIN-WIA driver, but the scanner functionality will be severely limited.

Notes:

- All scan applications published on Virtual Apps server must support TWAIN scanning. WIA only applications, e.g. MS Paint, will not work.
- TWAIN redirection is not enabled by default. Adjustments must be made to Citrix policy to allow TWAIN redirection.

Test methodology

The HP scanners listed in Table 13 were connected to the client system using a USB cable; the driver for the AIO device was either downloaded from the HP Driver Support website or installed from the CD-ROM supplied with the device.

The client system connected to the Virtual Apps server farm, which verified that TWAIN-compatible applications in a Virtual Apps server session could recognize and utilize the scanner within the particular application.

USB port redirection

USB port redirection is used primarily in a Virtual Desktop (XenDesktop) configuration. In this configuration the USB port on the client appears as a USB port in the virtual desktop, allowing Windows Plug and Play to install the scanner driver.

Citrix-tested HP printers

Citrix tested the HP printers shown in Table 9 and their associated 32-bit and 64-bit drivers with XenApp 6.5. During this testing, no problems were encountered when running Citrix test cases with the HP printers and drivers listed for each test case.

Table 9. HP printers tested by Citrix

HP printer tested	Software tested
Officejet Pro K5400	XenApp 6.5
Officejet Pro L7680 AIO	Citrix Receiver for Windows version 13.0
Officejet Pro 8500	HP UPD, PCL, PS printers and 32-bit/64-bit drivers
Color LaserJet CP2025	
Color LaserJet CP1518ni	
LaserJet P2035n	
LaserJet 2015dn	
DesignJet T1300	
DesignJet T790	

Testing methodology for HP printers

Citrix tested the following areas:

- Network print servers
- Printer policies
- Client printer properties
- Universal printer
- Auto-created client printers
- Printer driver compatibility
- Client printer driver mapping
- Dynamic printer mapping

The testing performed in each of these areas is described below. Each description outlines the following:

- **Description** – Basic description of the feature being tested
- **Test methodology** – Summary of the particular testing that was performed

Note

Actual testing was much more extensive and is therefore beyond the scope of this document.

Various client and server systems from numerous manufacturers were used throughout the testing process. The number of systems and configurations are outside the scope of this document.

Printers were connected to both client and server systems, and as stand-alone network printers using HP Jetdirect print server devices. Printers were connected to the client and server systems using IP addresses and USB cables.

The 32- and 64-bit printer driver versions listed are the versions that were available at time of testing. Newer versions may be available.

Network print servers

Description

Network print servers – those not running Virtual Apps – are servers with shared printers attached to them. Administrators add these shared printers to the Citrix Session Printers policy in order to make them available to all users when they connect to the server farm.

Test methodology

The HP printers listed in Table 10 were attached to the print server using a parallel cable, USB cable, or TCP/IP port or via Jetdirect. These printers were configured for multiple users. Drivers for the printers were downloaded from the HP Driver Support website.

A printer policy was then created for session printers and a user filter created for the session printer policy for domain users, allowing domain users logged on to the Virtual Apps server farm to verify that the shared network printer was available in the client session and that the client could print successfully.

Table 10. Network print servers tested by Citrix

HP printer tested	HP driver version
LaserJet P2015dn	LaserJet P2015 series PCL5e (61.115.1.10527) LaserJet P2015 series PCL6 (61.115.1.10527) LaserJet P2015 series PS (61.115.1.10527)
LaserJet P2035n	LaserJet P2035n XPS (2.0.0.80825)

No issues were discovered when testing the Virtual Apps Session Printers policy using these HP printers and drivers.

Printer policies

Description

Policies are used to apply Virtual Apps settings (for client device mapping, for example) to specific users, clients, and servers. Printer policies are used for configuring settings such as auto-creation, printer property retention, print job routing, printer mapping, printer driver configuration, and session printers.

Test methodology

The HP printers listed in Table 11 were installed on the client system using a parallel cable, USB cable, or TCP/IP port; drivers for the printers were downloaded from the HP Driver Support website.

The client system connected to the Virtual Apps server farm. Each type of printer setting that is configurable by printer policies was checked to verify operability with the HP printer and driver and to ensure that the client could print successfully.

Table 11. Printers tested by Citrix

HP printer tested	HP driver version
Color LaserJet 4700n	Color LaserJet 4700 PCL5c (61.115.1.10527) Color LaserJet 4700 PS (61.115.1.10527)
Color LaserJet CP3525n	Color LaserJet CP3525 PCL6 (61.115.1.10527) Color LaserJet CP3525 PCL6 (6.1.7601.17514)
LaserJet P2015dn	LaserJet P2015 series PCL5e (61.115.1.10527) LaserJet P2015 series PCL6 (61.115.1.10527) LaserJet P2015 series PS (61.115.1.10527)
LaserJet P2035n	LaserJet P2035n XPS (2.0.0.80825)
Officejet Pro K5400	Officejet Pro K5400 series (6.1.7601.17514)
Officejet Pro L7680 All-in-One	Officejet Pro L7600 series (6.1.7601.17514)

No issues were discovered when testing Virtual Apps server printer policies using these HP printers and drivers.

Client printer properties

Description

Client printer properties control the configuration of printers installed on the client system.

These properties are set locally on the client’s desktop. Some of the more common settings are propagated to the auto-created client printer in the user’s session.

Test methodology

The HP printers listed in Table 12 were installed on the client device using a parallel cable, USB cable, or TCP/IP port; drivers for the printers were downloaded from the HP Driver Support website.

Setting changes were made to the HP printer installed locally on the client system, after which the client connected to the Virtual Apps server farm. The settings were propagated and the client was able to print successfully.

Table 12. Printers tested by Citrix

HP printer tested	HP driver version
LaserJet P2035n	LaserJet P2035n XPS (2.0.0.80825)
LaserJet P2015dn	LaserJet P2015 series PCL5e (61.115.1.10527) LaserJet P2015 series PCL6 (61.115.1.10527) LaserJet P2015 series PS (61.115.1.10527)
Officejet Pro K5400	Officejet Pro K5400 series (6.1.7601.17514)
Officejet Pro L7680 All-in-One	Officejet Pro L7600 series (6.1.7601.17514)

No issues were discovered when testing client printer properties using these HP printers and drivers.

Universal printer

Description

Auto-creation of client printers requires drivers for these printers to be available on Virtual Apps servers. When you use universal printing, you do not need to install native printer drivers in your server farm; rather, the client printers are auto-created using Citrix universal printing.

Test methodology

The HP printers listed in Table 13 were installed on the client system using a parallel cable, USB cable, or TCP/IP port. Because printer drivers are not needed to test the universal printer, only HP printers are tested with this feature.

The client system connected to the Virtual Apps server farm, which verified that the client’s locally attached HP printers were available in the user’s session and that the client could print successfully to these printers.

Table 13. Printers tested by Citrix

HP printer tested	Citrix driver version
HP Color LaserJet 4700	Citrix Universal Printer (6.2.0.510)
HP Color LaserJet CP3525n	Citrix XPS Universal Printer (6.2.0.510)
HP LaserJet P2015dn	
HP LaserJet P2035n	
HP Officejet Pro K5400	
HP Officejet Pro L7680 All-in-One	

No issues were discovered when testing Citrix universal printing using these HP printers.

Auto-created client printers

Description

Auto-created client printers are printers that are connected to ports on users’ Win16, Win32, and Win64 client devices (Windows CE, DOS, and Macintosh OS platforms).

Test methodology

The HP printers listed in Table 14 were installed on the client system using a parallel cable, USB cable, or TCP/IP port; drivers for the printers were downloaded from the HP Driver Support website.

The client system connected to the Virtual Apps server farm, which verified that the client's locally-attached HP printer was available in the user's session and that the client could print successfully to this printer.

Table 14. Printers tested by Citrix

HP printer tested	HP driver versions
HP Color LaserJet 4700n	HP Color LaserJet 4700 PCL5c (61.115.1.10527) HP Color LaserJet 4700 PS (61.115.1.10527)
HP LaserJet P2035n	HP LaserJet P2035n XPS (2.0.0.80825)
HP Color LaserJet CP3525n	HP Color LaserJet CP3525 PCL6 (61.115.1.10527) HP Color LaserJet CP3525 PCL6 (6.1.7601.17514)
HP LaserJet P2015dn	HP LaserJet P2015 series PCL5e (61.115.1.10527) HP LaserJet P2015 series PCL6 (61.115.1.10527) HP LaserJet P2015 series PS (61.115.1.10527)
HP Officejet Pro K5400	HP Officejet Pro K5400 series (6.1.7601.17514)
HP Officejet Pro L7680 All-in-One	HP Officejet Pro L7600 series (6.1.7601.17514)

No issues were discovered when testing auto-created client printers using these HP printers and drivers.

Printer driver compatibility

Description

Some printer drivers can cause server problems when printing to client printers in the Virtual Apps server farm and may result in a fatal system error on the server. Because of this, you might need to prevent the auto-creation of client printers that use certain printer drivers. The printer driver compatibility feature allows you to designate or prohibit drivers for use with client printers.

Test methodology

The HP printers listed in Table 15 were installed on the client system using a parallel cable, USB cable, or TCP/IP port; drivers for the printers were downloaded from the HP Driver Support website.

The printer driver mapping and compatibility policy was configured and enabled on the Virtual Apps Server; in addition, the driver for the HP printer was configured to allow the auto-creation of the client printer using that particular HP driver. After the client had connected to the Virtual Apps server farm, the auto-creation of the client printer was verified. The client printer was able to print successfully.

Subsequently, in the printer driver mapping and compatibility policy, the driver for the HP printer was configured to disallow the auto-creation of the client printer using that particular HP driver. On this occasion, the client printer was not auto-created after the client connected to the Citrix server farm. There were no issues with preventing the HP printer from being auto-created.

Table 15. Printers tested by Citrix

HP printer tested	HP driver versions
Color LaserJet 4700n	Color LaserJet 4700 PCL5c (61.115.1.10527) Color LaserJet 4700 PS (61.115.1.10527)
Color LaserJet CP3525n	Color LaserJet CP3525 PCL6 (61.115.1.10527) Color LaserJet CP3525 PCL6 (6.1.7601.17514)

HP printer tested	HP driver versions
LaserJet P2015dn	LaserJet P2015 series PCL5e (61.115.1.10527) LaserJet P2015 series PCL6 (61.115.1.10527) LaserJet P2015 series PS (61.115.1.10527)
Officejet Pro K5400	Officejet Pro K5400 series (6.1.7601.17514)
Officejet Pro L7680 All-in-One	Color LaserJet 4700 PCL5c (61.115.1.10527) Color LaserJet 4700 PS (61.115.1.10527)

No issues were discovered when testing the Virtual Apps printer driver compatibility feature using these HP printers and drivers.

Client printer driver mapping

Description

When using Virtual Apps clients, you map printer drivers on the server to client drivers that have different names for the same printer. You need to use mapping if the printer drivers installed on Virtual Apps servers have names for client printers that differ from the drivers used on client systems.

Test methodology

The HP printers listed in Table 16 were attached to the client system using a parallel cable, USB cable, or TCP/IP port. The printer was installed on the client system; drivers were downloaded from the HP Driver Support website and installed on the Virtual Apps server.

A printer driver with a different name than the HP driver installed on the server was installed on the client system. The client printer driver was mapped to the HP printer driver installed on the server. The client connected to the Virtual Apps server farm and the auto-creation of the client printer was verified. The client printer was able to print successfully.

Table 16. Printers tested by Citrix

HP printer tested	HP driver versions
HP Color LaserJet 4700	HP Color LaserJet 4700 PCL5c (61.115.1.10527) HP Color LaserJet 4700 PS (61.115.1.10527)
HP LaserJet P2035n	HP LaserJet P2035n XPS (2.0.0.80825)
HP Color LaserJet CP3525n	HP Color LaserJet CP3525 PCL6 (61.115.1.10527) HP Color LaserJet CP3525 PCL6 (6.1.7601.17514)
HP LaserJet P2015dn	HP LaserJet P2015 series PCL5e (61.115.1.10527) HP LaserJet P2015 series PCL6 (61.115.1.10527) HP LaserJet P2015 series PS (61.115.1.10527)
HP Officejet Pro K5400	HP Officejet Pro K5400 series (6.1.7601.17514)
HP Officejet Pro L7680 All-in-One	HP Officejet Pro L7600 series (6.1.7601.17514)

No issues were discovered when testing client printer driver mapping with Virtual Apps using these HP printers and drivers.

Dynamic printer mapping

Description

When using Virtual Apps clients, users can dynamically map client printer objects to the remote session in the server.

Test methodology

The HP printers listed in Table 17 were attached to the client system using a parallel cable, USB cable, or TCP/IP port. The printer was installed on the client system; drivers were downloaded from the HP Driver Support website and installed on the Virtual Apps server.

The client connected to a session on the Virtual Apps server. The user removed the printer object from the client machine by disconnecting the printer from the machine or removing the device from the client's control panel. The user then reconnected the same printer device and tried to print to this device. The client printer was able to print successfully.

Table 17. Printers tested by Citrix

HP printer tested	HP driver versions
HP Color LaserJet 4700n	HP Color LaserJet 4700 PCL5c (61.115.1.10527) HP Color LaserJet 4700 PS (61.115.1.10527)
HP LaserJet P2035n	HP LaserJet P2035n XPS (2.0.0.80825)
HP Color LaserJet CP3525n	HP Color LaserJet CP3525 PCL6 (61.115.1.10527) HP Color LaserJet CP3525 PCL6 (6.1.7601.17514)
HP LaserJet P2015dn	HP LaserJet P2015 series PCL5e (61.115.1.10527) HP LaserJet P2015 series PCL6 (61.115.1.10527) HP LaserJet P2015 series PS (61.115.1.10527)
HP Officejet Pro K5400	HP Officejet Pro K5400 series (6.1.7601.17514)
HP Officejet Pro L7680 All-in-One	HP Officejet Pro L7600 series (6.1.7601.17514)

No issues were discovered when testing dynamic printer mapping with Virtual Apps using these printers and drivers.

Planned future testing

Testing of HP LaserJet, Business Inkjet, DesignJet, and Deskjet printers and AIO devices is planned to continue with the next release of Virtual Apps. Newer model HP LaserJet, Business Inkjet, DesignJet, and Deskjet printers and AIO devices will be added to the test matrix.

Summary

This document describes the results of tests conducted by HP to determine how well HP printers perform in Citrix environments. The tests are explained and any issues that occurred when the tests were run are described.

Citrix has also collaborated with HP to test scanning functions on select HP All-in-One (AIO) devices and their associated HP TWAIN drivers in a Virtual Apps environment. These tests were run to determine how HP AIO devices and their associated TWAIN drivers performed with the scan-related feature tests that Citrix uses to test its Virtual Apps server and client software. This document explains the scan tests performed by Citrix, identifies which HP AIO devices and TWAIN driver versions were used, and describes any issues that occurred while these tests were being performed.

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