



USING PRINTER DRIVERS IN MICROSOFT CLUSTER ENVIRONMENTS

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OVERVIEW

This document outlines best practices for using HP LaserJet printer drivers in the Microsoft® Cluster Server environment. It also details known issues relating to printer drivers and cluster environments.

DESCRIPTION

Support

Host-based drivers are not supported in a cluster environment. To determine whether a driver is supported, go to www.hp.com.

Setup

When setting up a print cluster environment, HP recommends referring to “Creating Highly Available Printers with Windows 2003 Server Cluster,” which you can find at:

<http://www.microsoft.com/windowsserver2003/techinfo/overview/availableprinter.msp>

HP recommends applying any hotfixes associated with the Microsoft knowledge base (KB) articles listed below.

- KB article 822553—slow printing performance
- KB article 838337—an issue where the recently installed printer is not published
- KB article 835609—an issue that results in the error “Unable to Install Printer. The Print Processor does not exist.”
- KB article 982728—“Windows cannot connect to printer” error message when you try to create a Point and Print connection to a remote printer from a Windows 7 or Windows Server 2008 R2-based client computer
- KB article 976571—Stability update for Windows Server 2008 R2 Failover Print Clusters
- KB article 979681—FIX: A legacy HP printer driver may crash when you run a 32-bit application on a computer that is running a 64-bit version of Windows 7 or of Windows Server 2008 R2
- KB article 983401—A long delay occurs when you print a large file on a Windows 7 or Windows Server 2008 R2-based computer
- KB article 2388142—A computer that is running Windows 7 or Windows Server 2008 R2 intermittently cannot use a shared network printer to print

Best practices

Outlined below are two methods for installing product-specific drivers and the HP Universal Print Driver (UPD) to a cluster environment.

Installing a product-specific driver

When installing product-specific drivers, HP recommends using the latest version of the driver, which can be found at www.hp.com. The driver needs to be installed onto every physical node in the cluster prior to being installed onto the Virtual Print Server.

Method 1

Log into the active node of the cluster and install the drivers to the Virtual Print Server from the active node. A potential issue with using this method is that older files might overwrite newer files (for more details, see “Known Issues” on page 4).

Install the driver to the Virtual Print Server:

- a) Log into the active node of the cluster. This can be done physically at the machine or remotely via Remote Desktop.
- b) Access the Virtual Print Server by going to **Start > Run** and entering the virtual server name.
- c) Go into the **Printers and Faxes** folder.
- d) Run the Add Printer Wizard and install the driver.

Method 2

Access the Virtual Print Server from a remote machine (a machine that is not part of the cluster) and install the product-specific drivers. When using this method, you may see the error "Unable to Install Printer. Print Processor does not exist" if the proper Microsoft hotfix has not been applied. For more details, see "Known Issues" on page 4.

Install the driver to the Virtual Print Server:

- a) From the client, access the Virtual Print Server by going to **Start > Run** and entering the virtual server name.
- b) Go into the **Printers and Faxes** folder.
- c) Run the Add Printer Wizard and install the driver.

Installing the HP Universal Print Driver

The HP Universal Print Driver version 4.7 or higher is supported in Microsoft Cluster environments. If you are running an earlier version of the HP UPD, please visit www.hp.com/go/upd to download the latest version.

The HP UPD must be installed on every physical node that will be used to make up the failover cluster prior to installing the HP UPD on the Virtual Server itself. This is to ensure that Com objects used for automatic configuration are registered properly. HP recommends installing the HP UPD in Traditional Mode on the Cluster Server using the following methods:

Step 1—Install the HP UPD on each physical node using the Add Printer Driver Wizard

1. Download the latest version of the HP UPD from www.hp.com/go/upd.
2. Log on to or remotely connect to one of the nodes.
3. Go to the **Printers and Faxes** folder.
4. Click on **File**, then **Server Properties**.
5. Click on the **Drivers** tab.
6. Click **Add**, then click **Next**. The Add Printer Driver Wizard will be launched.
7. Click on **Have Disk**, and browse to the location where the HP UPD drivers reside.
8. Select the .inf file, then complete the driver installation process.

Repeat these steps for each of the nodes that will make up the failover cluster before proceeding on to step 2.

Alternate methods for installing the HP UPD on the nodes are to use the Add Printer Wizard or the Install.exe utility. Additional details for these methods can be found in the System Administrator's Guide, available at www.hp.com/go/upd.

Step 2—Install the HP UPD on the Virtual Server

Installing the HP UPD on the Virtual Server is similar to installing the HP UPD on any print server.

1. Access the Virtual Server through the Active Node by using the steps in Method 1 above.
2. Use the Add Printer Wizard to install the HP UPD driver in Traditional mode and create print queues on the Virtual Server.

You can also install the HP UPD and create queues using the Install.exe utility by running install.exe from one of the physical nodes, using the /s option (available in HP UPD 5.3 and later) to specify the name of the virtual node.

FREQUENTLY ASKED QUESTIONS

HP recommends installing the HP UPD on all of the physical nodes, yet I have heard that Microsoft does not recommend this. What should I do?

The Microsoft Technet blog says that the “HP Universal Print Driver...must be installed on the physical local nodes and on the Cluster print resource.” For more information, see:

<http://social.technet.microsoft.com/Forums/en-US/winserverClustering/thread/e08b77ae-bcbf-4714-8ea6-de84b21e93d6/>.

KNOWN ISSUES

When you try to install the driver onto the cluster, you get the error “Unable to Install Printer. The Print Processor does not exist.”

This issue may be encountered when Method 2 (described on page 3) is used to install printer drivers to the cluster. This issue is documented in the Microsoft KB article 906752. The hotfix may be obtained from Microsoft.

NOTE The hotfix must be applied to the Cluster Server as well as the client machine from which the printers are being installed.

When you install multiple drivers, older files replace newer file versions.

This issue may be encountered if Method 1 (described on page 2) is used when installing drivers to the cluster. This is due to the behavior of the Add Printer Wizard. There is no fix for this issue. The recommended workaround is to install the drivers using Method 2.