

# Determining if Clients are printing via a Windows Print Server

---

## Introduction:

In some situations, it may not be clear if all users are definitely printing through a Windows Print Server. Ensuring everyone is using a setup Windows server can be key in managing printers, tracking and controlling costs as well as implementing security.

## Terminology:

There are two key terms that in some cases are undefined, or defined differently by different vendors within the printing industry. Below are the definitions that will be used within this document.

### **Print Server:**

A print server is defined as any machine that shares its resource of an installed printer device to other servers, workstations and devices in the network. It acts as the host for all printing to that device.

**The example in this document specifically refers to using a modern Windows operating system to provide Print Server functionality.**

### **Direct (IP) Printing:**

Direct Printing or Direct IP Printing is referred to as printing directly to a print device without that job going via a print server. When direct printing is used, typically the print job is unmanaged and has little to no security implemented.

## List of Methods for Ensuring Print Server is Used:



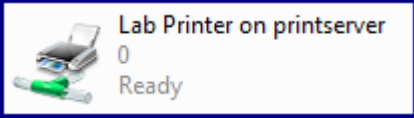
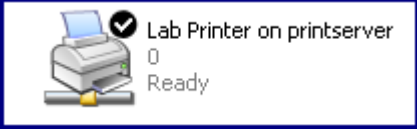
There are three overall methods that can be used to help ensure that users are printing via shares created on a print server. This article will cover each of these in further depth. They are:

- **Checking the Queues on Each Machine:**  
This method involves viewing the configuration of the printers on each workstation.
- **Viewing the Spooling Process on the Server:**  
This involves printing from a workstation while viewing the status of the job queue to see if that printing is going through the print server.
- **Using Printer Device Security Options:**  
Most printers allow you to set security that would only allow print jobs to come from the server. This will fully prevent Direct IP Printing.

### Checking the Installed Queues per Workstation:

This option provides a quick and reliable way to quickly glance at a queue installed on a Windows machine and determine if it is Direct Printing to the device in some manner, or if it is printing through a Windows Print Server.

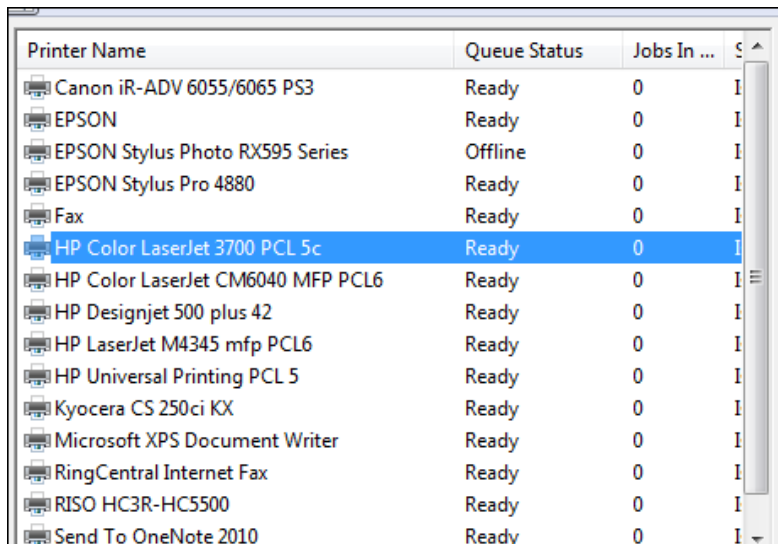
1. Log into a workstation that has a typical configuration, and open your **[Printers]** or **[Printers & Faxes]** folder from **[Control Panel]**.
2. Locate a printer typically used to print with. Compare the way the Printer is named in the chart below to help determine the setup.
3. Once you have determined the method, check the remaining printers installed on the machine.

Direct Printing	Printing through a Print Server
<ul style="list-style-type: none"><li>• Printer will include model name, or other printer name and not specify a Server Name.</li><li>• Printer Icon will not have a Network Cable beneath it.</li></ul> <p><b>Windows Vista / Seven Example:</b></p>  <p><b>Windows XP/2000 Example:</b></p>  <p><b>Note:</b> In these samples the printer printed to directly by the workstation.</p>	<ul style="list-style-type: none"><li>• Printer name will include the Print Server Name.</li><li>• Printer will have a Network Cable beneath it.</li></ul> <p><b>Windows Vista / Seven Example:</b></p>  <p><b>Windows XP/2000 Example:</b></p>  <p><b>Note:</b> In these samples the printer is hosted from a print server that is named <b>Printserver</b>.</p>

## Viewing the Spooling Process on the Server:

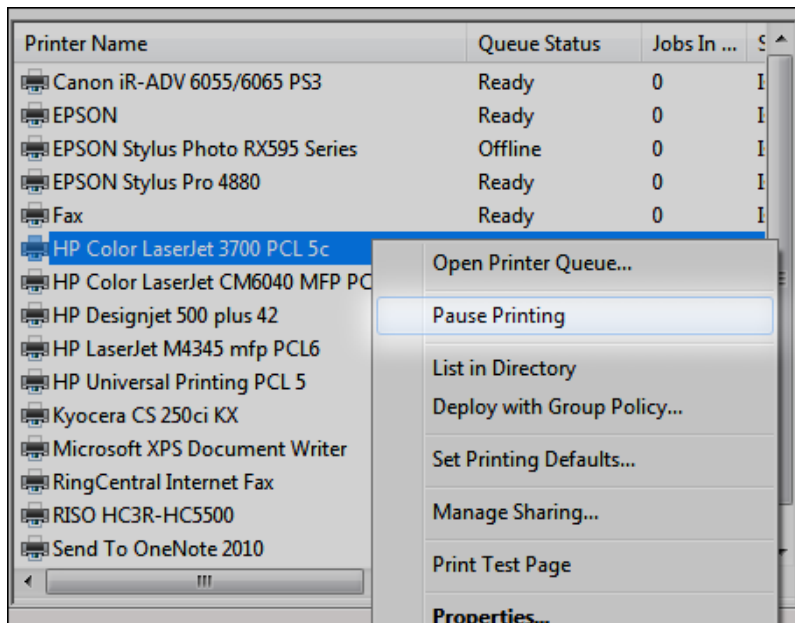
Alternatively, you can check the queues on the Print Server to see if users are printing through it. This method works consistently to not only check Windows clients, but any client such as Mac OSX, Linux/Unix, AS/400 and so on.

1. Log into your print server and browse to the printer that you are trying to check and see if user's are direct printing through. In this example, we want to see if users are printing through the **[HP Color LaserJet 3700 PCL5c]** that is installed and shared from this Server.



Printer Name	Queue Status	Jobs In ...	...
Canon iR-ADV 6055/6065 PS3	Ready	0	1
EPSON	Ready	0	1
EPSON Stylus Photo RX595 Series	Offline	0	1
EPSON Stylus Pro 4880	Ready	0	1
Fax	Ready	0	1
<b>HP Color LaserJet 3700 PCL 5c</b>	Ready	0	1
HP Color LaserJet CM6040 MFP PCL6	Ready	0	1
HP Designjet 500 plus 42	Ready	0	1
HP LaserJet M4345 mfp PCL6	Ready	0	1
HP Universal Printing PCL 5	Ready	0	1
Kyocera CS 250ci KX	Ready	0	1
Microsoft XPS Document Writer	Ready	0	1
RingCentral Internet Fax	Ready	0	1
RISO HC3R-HC5500	Ready	0	1
Send To OneNote 2010	Ready	0	1

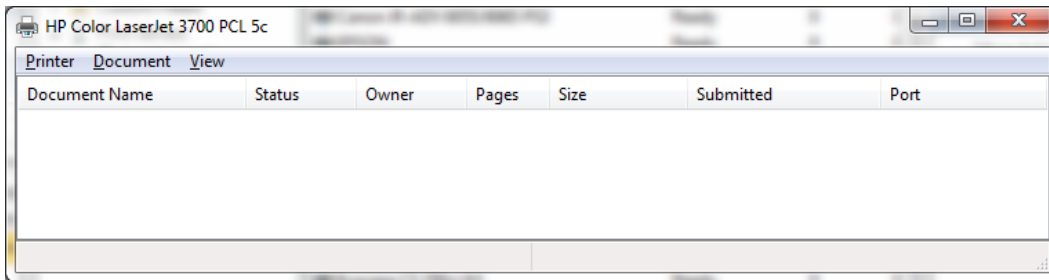
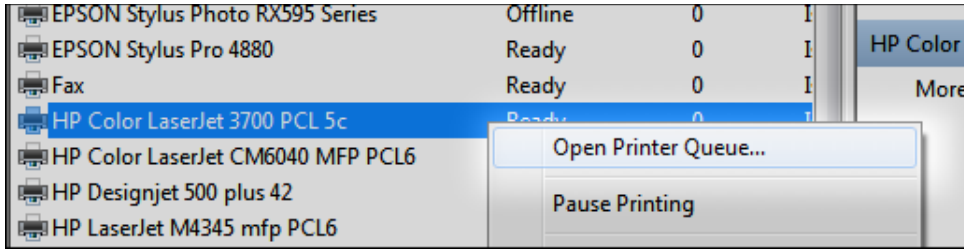
2. Right click on this printer and temporarily choose **[Pause Printing]**.



### Important:

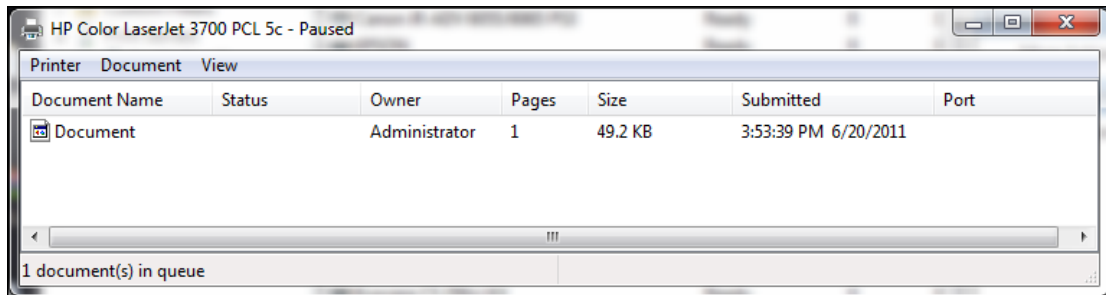
While the print queue has its printing paused, no print jobs can actually pass through this server to that printer. Printing will be temporarily halted.

- After the printer is paused, open the print queue to see any jobs that are pending printing. In this first example, the queue is currently empty.

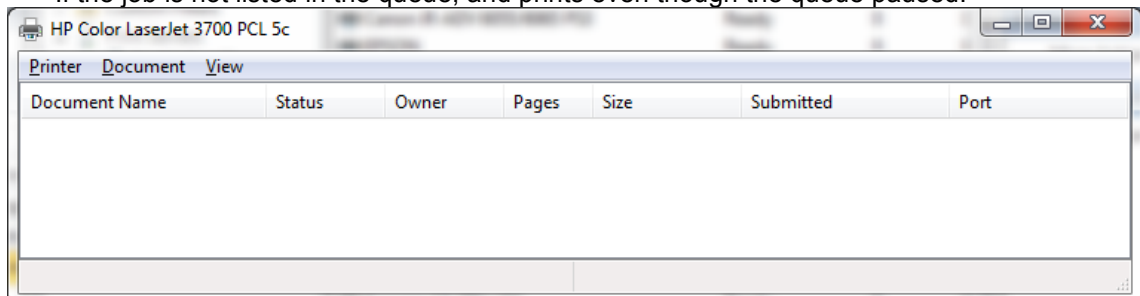


- Send a print job from the client that you wish to test. After it has been done, one of two items will be occurring telling you if it is using that shared print queue from the server.

- The Job is Listed and Held in Queue: Correctly using the Print Server Queue**  
The job will not print, and be found listed in the queue.



- The Job is not Listed and Prints: Not using Print Server Queue**  
If the job is not listed in the queue, and prints even though the queue is paused.



## Using Printer Device Security Options:

A final option for ensuring all users are printing to your device through a Print server, rather than directly is to use the Device's built in "**Access Control List**" to control that jobs must come from your Print Server.

For example depending on your device's features, you should be able to prevent print jobs from being sent from a source other than the print server.

### Important:

The available functionality, and steps vary greatly between each manufacturer and model of device. You will need to consult your device documentation to determine:

- (A) If printing source can be controlled.
- (B) The steps to configure such an Access Control List

### Sample Steps: HP 4345

1. Determine the list of computer names, and/or IP Addresses you would like to allow. This would typically be limited to just the IP Address of your print server.
2. Log into your devices Web Interface, or other Administration software. Locate within the device settings, the Access Control List for that device.
3. Add the IPs you would like to allow and ensure all other devices are blocked.
4. Printing will stop working for all clients using Direct Print, rather than printing through the print server.

### Authorization

Admin. Account   Certificates   **Access Control**

Access Control Lists (ACL) allow you to specify which IP addresses on your network are allowed access to the device. If the list is empty, then any system is allowed access.

Note: ACLs may prevent device access when Proxy Servers or Network Address Translators are used. By default, the ACL does not check HTTP connections (i.e. Web Server or Internet Print Protocol). You can force the ACL to check HTTP connections by clearing the checkbox below.

Allow Web Server (HTTP) access

	Save	IP Address	Mask
1.	<input checked="" type="checkbox"/>	192.168.0.5	255.255.255.0
2.	<input type="checkbox"/>		
3.	<input type="checkbox"/>		
4.	<input type="checkbox"/>		
5.	<input type="checkbox"/>		
6.	<input type="checkbox"/>		
7.	<input type="checkbox"/>		
8.	<input type="checkbox"/>		
9.	<input type="checkbox"/>		
10.	<input type="checkbox"/>		