



# Pcounter WebPrint

2024.04.23

## Installation & Administration Guide

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# Table of Contents

0.0.0 - Introduction .....	3
1.0.0 - 'Same Server' Installation .....	3
1.1.0 - Disable Spool File Pooling .....	3
1.2.0 - Windows Defender Firewall Exception - Port 443 - HTTPS .....	4
1.3.0 - Download & Extract Pcounter WebPrint .....	6
1.4.0 - Enable Pcounter WebPrint .....	7
1.5.0 - Pcounter WebPrint User Logon .....	12
1.6.0 - Set Default Printer .....	13
1.7.0 - Test WebPrint User Portal Access.....	15
1.8.0 - WebPrint Device List - Adding\Removing Printers .....	16
1.9.0 - Configure Default Driver Settings\Copy Paste Printing Preferences.....	17
2.0.0 - 'Separate Server' Installation.....	18
2.0.1 - Network Communication Overview .....	18
2.1.0 - Install WebPrint .....	18
2.2.0 - Prepare Pcounter LPD Server.....	19
2.2.1 - Configure Pcounter LPD Server.....	19
2.2.2 - Windows Defender Firewall Exception - Port 515 - LPR.....	20
2.3.0 - Create LPR Passthru Printers .....	22
2.4.0 - Test LPR Passthru Printers .....	23
2.5.0 - WebPrint Device List - Adding\Removing Printers.....	24
3.0.0 - WebPrint Customization.....	25
3.1.0 - Setting Default Color Mode .....	25
3.2.0 - Configure Allowed Paper Sizes .....	25
3.3.0 - Setting Default Collate Mode.....	27
3.4.0 - Banner Icon Customization .....	27
3.5.0 - Display Allowed File Extensions.....	28
3.6.0 - Anonymous User Access .....	29
3.7.0 - User Balance Display.....	29
3.7.1 - 'DisplayAccountBalance' Registry Entry .....	29
3.7.2 'AllowedAPIAddresses' Registry Entry.....	30
3.8.0 - Customized DNS WebPrint Access.....	31
3.9.0 - Alternate PDF Processor 'PDF-XChange' .....	32
4.0.0 - Pcounter SSL Guide.....	34
4.1.0 - Install Trusted Certificate.....	34
4.2.0 - Create\Export PFX.....	34
4.3.0 - Create PEM .....	38
4.4.0 - Testing HTTPS.....	39
5.0.0 - Conclusion & Links .....	40

## 0.0.0 - Introduction

Pcounter WebPrint is an add-on component to Pcounter for Windows that extends available print job submission methods by allowing users to upload files to preconfigured print queues using a web browser.

The Pcounter WebPrint User Portal website can be made externally accessible, thus allowing remote users to submit jobs when offsite.

## 1.0.0 - 'Same Server' Installation

This section covers how to install Pcounter WebPrint on the same server that Pcounter for Windows resides.

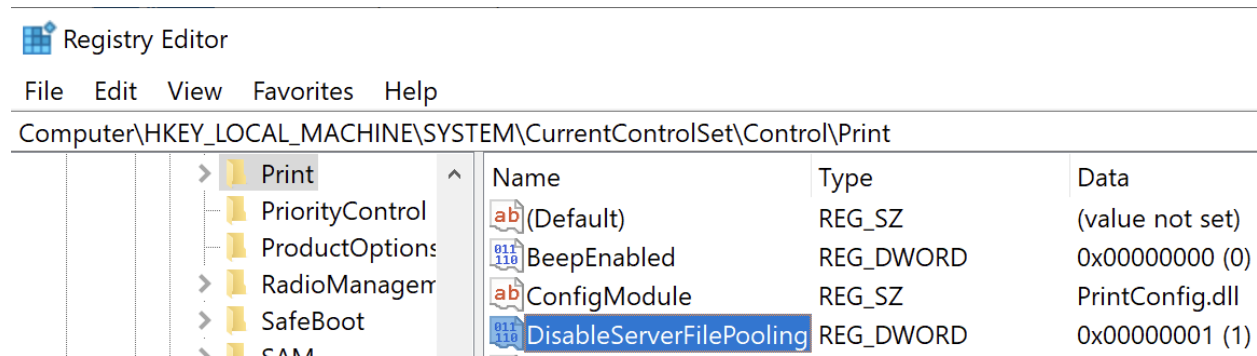
If installing WebPrint on a server separate from Pcounter please see Section 2.0.0 - Separate Installation.

### 1.1.0 - Disable Spool File Pooling

Server spool file pooling must be disabled for WebPrint to function. The following process is adapted from the Microsoft KB article located [here](#).

- 1) Click Start > type Run > type regedit > click OK to open regedit.exe.
- 2) Locate the following registry subkey:  
HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Control\Print
- 3) Create a new DWORD Value named DisableServerFilePooling.
- 4) Right-click DisableServerFilePooling, and then click Modify.
- 5) In the Value data box, type 1 to turn off spool file pooling, and then click OK.
- 6) Restart the spooler service in services.msc. for the change to take effect

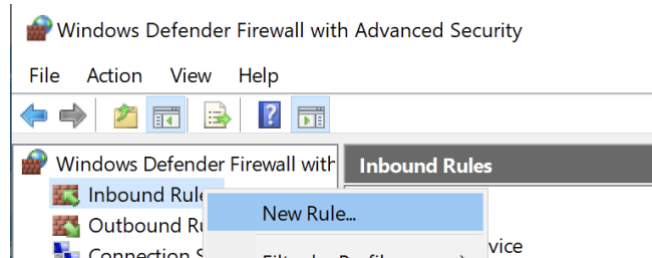
IE:



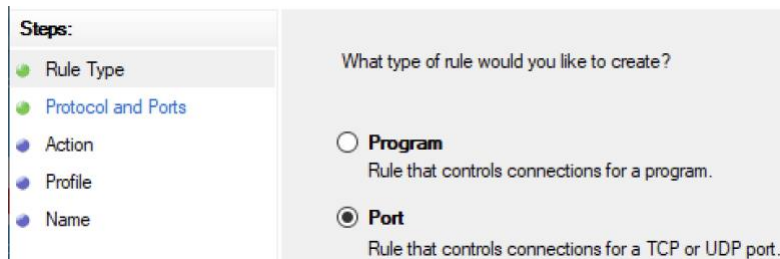
## 1.2.0 - Windows Defender Firewall Exception - Port 443 - HTTPS

Port 443 is the default port for HTTPS traffic as well as Pcounter WebPrint. By default, the Windows Firewall will block this port and thus it must be opened for WebPrint to function.

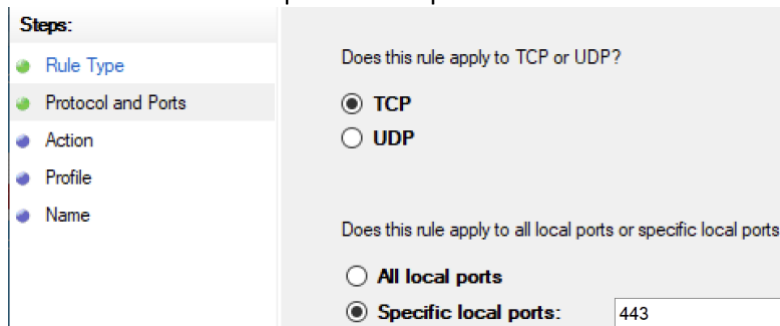
- 1) Open 'Windows Defender Firewall with Advanced Security' on the Pcounter WebPrint server.
- 2) Right click Inbound Rules and choose 'New Rule'.



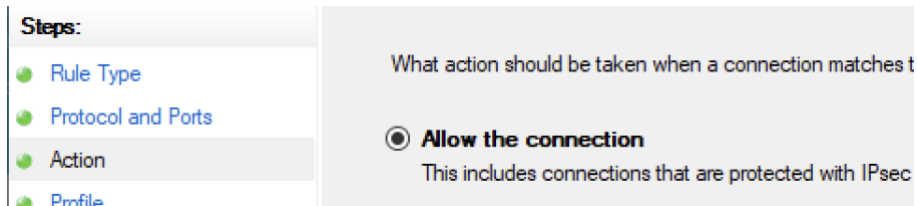
- 3) Choose Port.



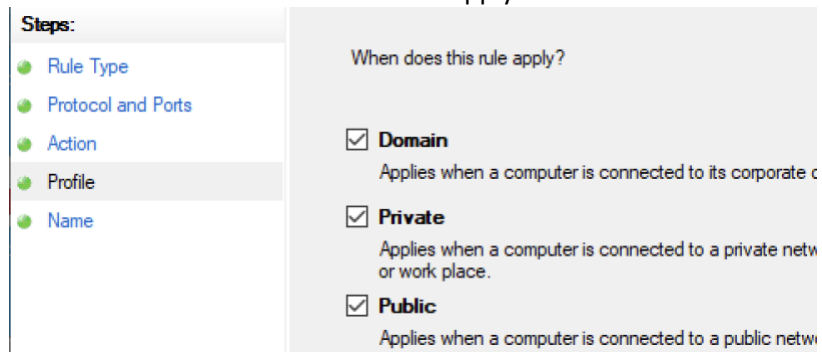
- 4) Choose TCP and enter 443 as the specific local port.



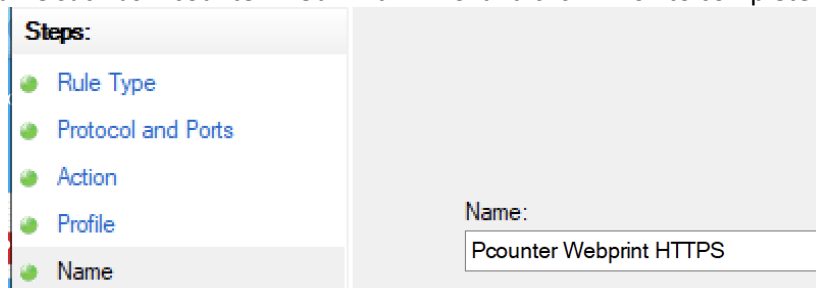
- 5) Choose 'allow the connection'.



6) Ensure all 3 boxes are checked for the zones to apply.



7) Enter a name such as 'Pcounter WebPrint HTTPS' and click Finish to complete the process.














### 1.3.0 - Download & Extract Pcounter WebPrint

Create a new directory for Pcounter WebPrint to reside. Download Pcounter WebPrint and extract the files in the newly created directory.

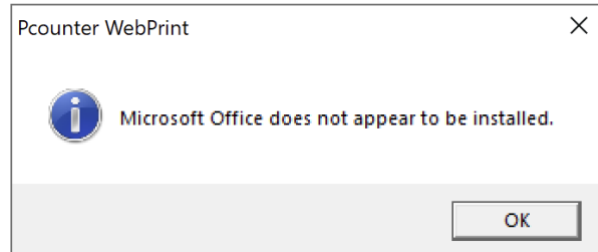
- 1) On the WebPrint server, browse to C:\Program Files (x86)\ and create a new folder named Pcounter WebPrint. The full path should be C:\Program Files (x86)\Pcounter WebPrint unless a different drive letter or fully custom path is used.
- 2) Open a web browser and navigate to [www.pcounter.com/downloads](http://www.pcounter.com/downloads)
- 3) Click on 'Mobile Printing'.
- 4) Download the Pcounter WebPrint .zip and save it to the Pcounter server desktop.
- 5) Copy the contents of the Pcounter WebPrint .zip to the newly created Pcounter WebPrint folder in the Pcounter installation directory.

This PC > Local Disk (C:) > Program Files (x86) > Pcounter WebPrint

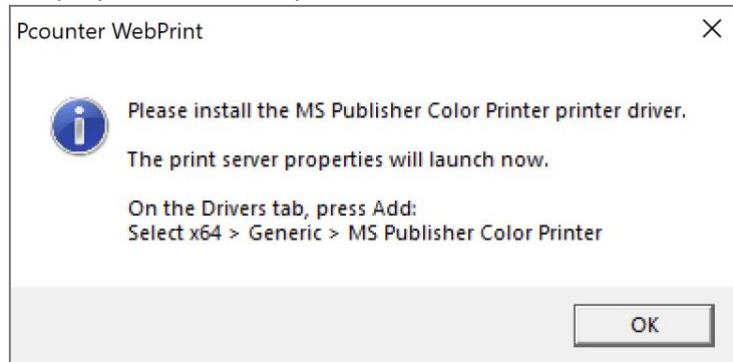
Name	Date modified
 ddePrint.exe	8/30/2023 12:24 PM
 Installing a Web Certificate in Pcounter WebPri...	8/30/2023 12:24 PM
 login.html	8/30/2023 12:24 PM
 Pcounter_Logo_48.png	8/30/2023 12:24 PM
 Pcounter_WebPrint_Guide.pdf	8/30/2023 12:24 PM
 webprint.css	8/30/2023 12:24 PM
 WebPrint.exe	8/30/2023 12:24 PM
 webprint.html	8/30/2023 12:24 PM
 WebPrint64.exe	8/30/2023 12:24 PM
 webprinthehelp.html	8/30/2023 12:24 PM
 XPSPrint.exe	8/30/2023 12:24 PM

### 1.4.0 - Enable Pcounter WebPrint

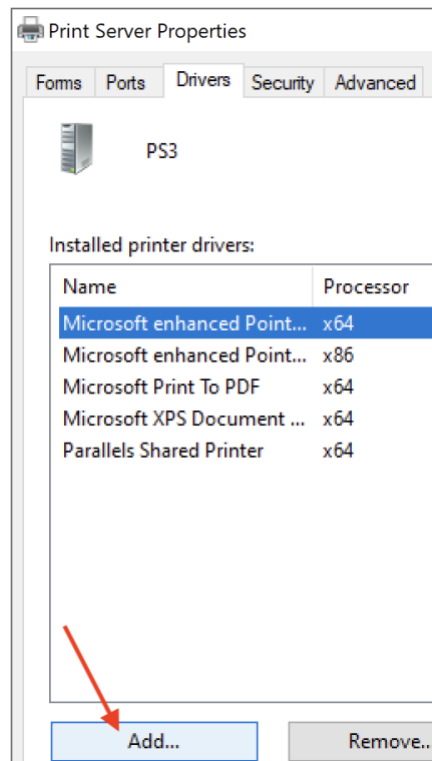
- 1) Navigate to the Pcounter WebPrint directory that was created in the previous sections.
- 2) Double click the WebPrint64.exe to launch the Pcounter Web Print Configuration interface.
- 3) If Microsoft Office is not installed on the server currently an info message will be displayed each time WebPrint is launched. Just click OK to dismiss the message and view the WebPrint interface.



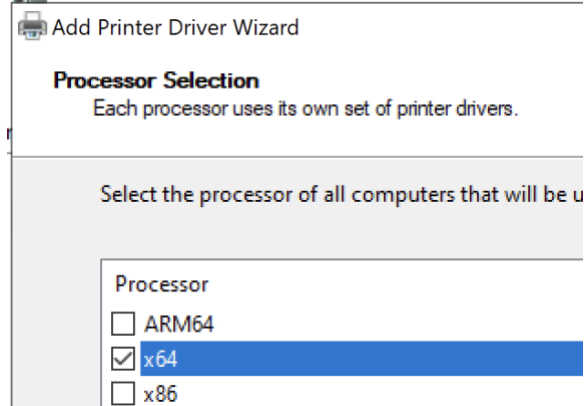
- 4) If the MS Color Publisher driver is not installed a message will be displayed confirming this and that 'print server properties' will be opened so the driver can be added. Click OK to continue.



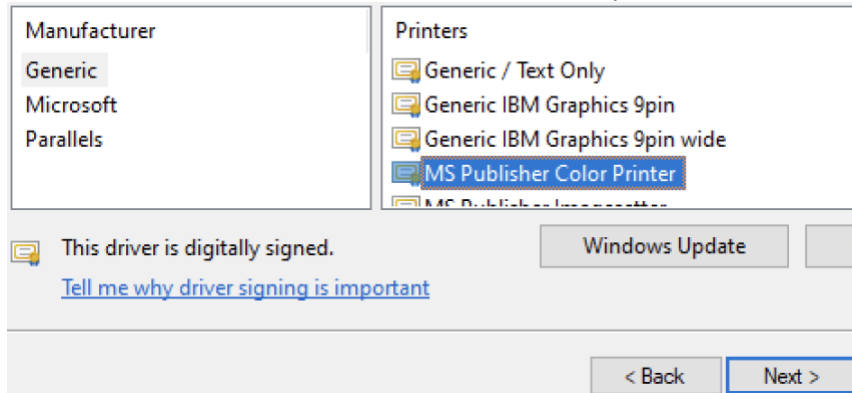
- 5) In print server properties, click the Driver tab and then click the Add button.



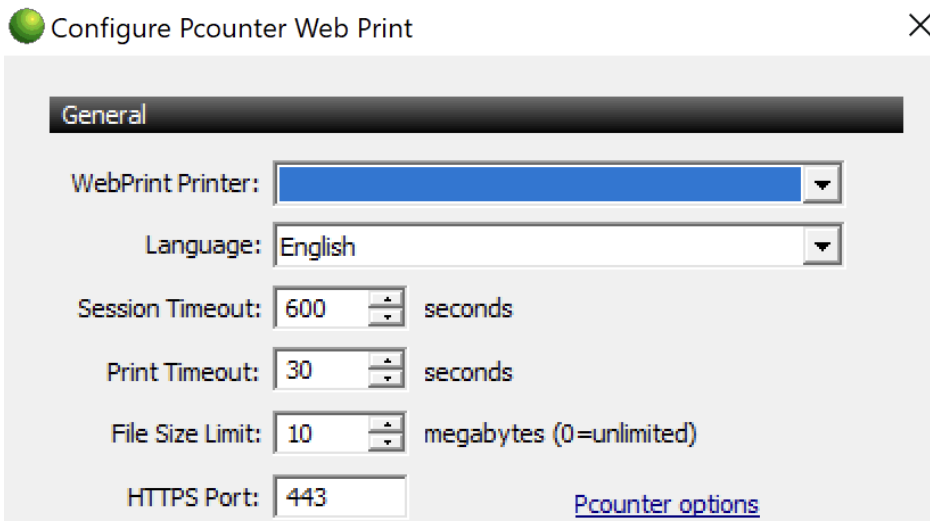
- 6) In the window that opens click Next, make sure x64 is selected and click Next again.



- 7) Select Generic for manufacturer, then choose 'MS Publisher Color Printer', click Next, click Finish to close the wizard, and click Close to close Print Server Properties.

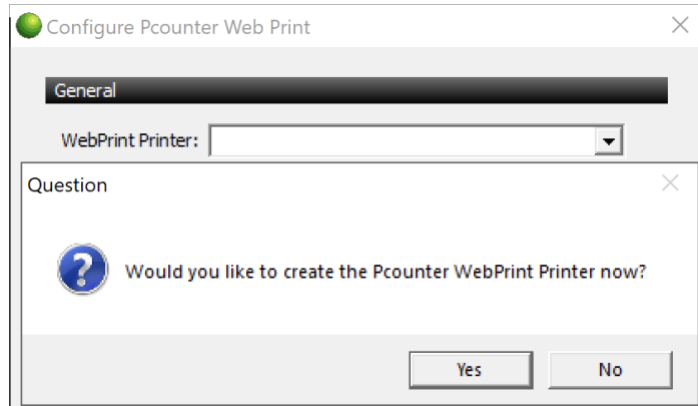


- 8) The Pcounter WebPrint Configuration interface should finally be displayed, but if not then again double click the WebPrint64.exe to launch the Pcounter Web Print Configuration interface.

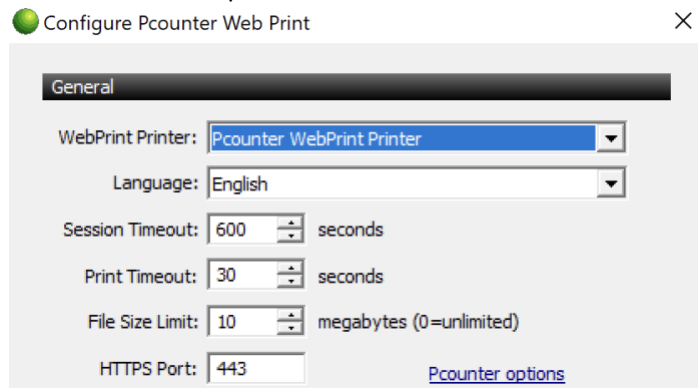




- 9) Click on the “WebPrint Printer” dropdown at the top of the Pcounter Web Print Configuration interface and a small window will display asking ‘Would you like to create the Pcounter WebPrint Printer now?’. Click Yes to continue.

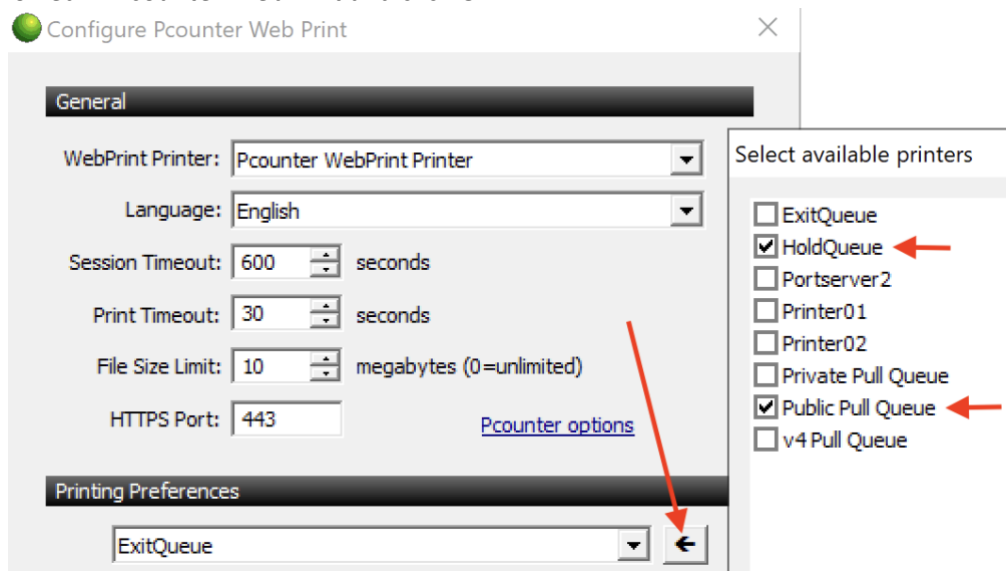


- 10) Click on the WebPrint Printer dropdown and choose the Pcounter WebPrint Printer.



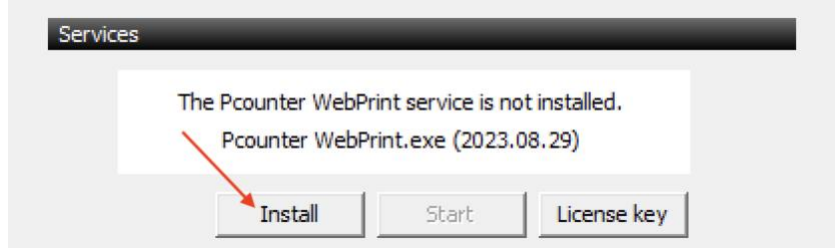
- 11) Next, click the small arrow button, in the middle of the window on the right, to open a selection window.

- 12) In the ‘Select available printers’ window, check only the boxes for printers that should be allowed in Pcounter WebPrint and click OK

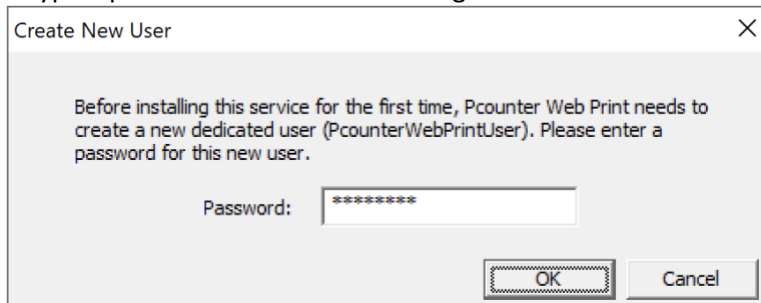


-in the example above only the ‘HoldQueue’ and ‘Public Pull Queue’ printers will be usable in WebPrint-

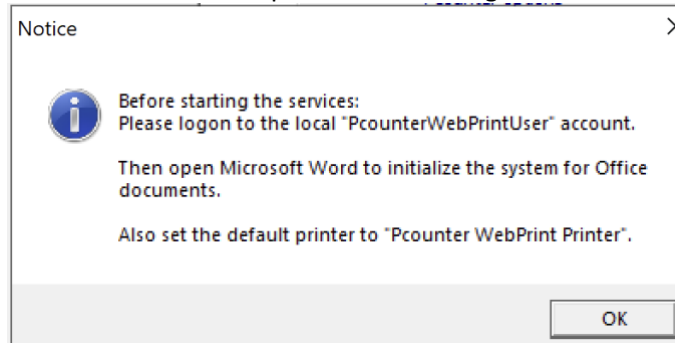
13) At the bottom of the 'Configure Pcounter Web Print' window, click 'Install' in the 'Services' area.



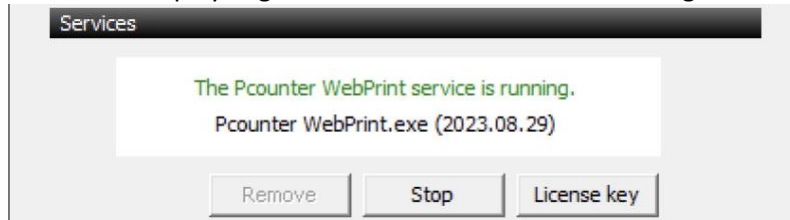
14) If this is being performed for the first time, a new window will open with a password entry field. This is the password that will be used to create the Pcounter WebPrint service account that will be used by the Pcounter WebPrint Web Service. Do not forget this password as it will be needed in the future. Type a password that will not be forgotten and click OK.



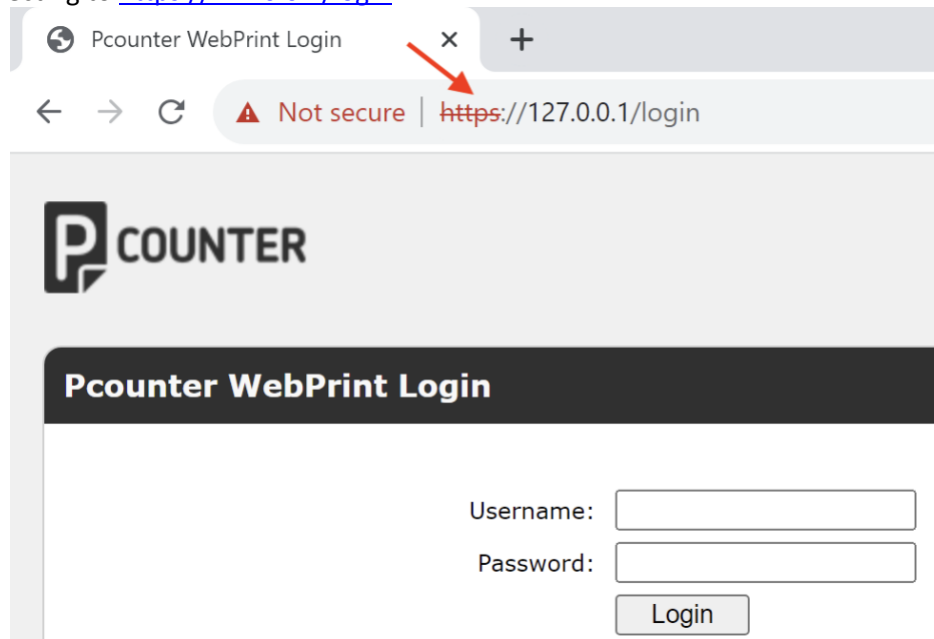
15) A warning will be displayed confirming prerequisites for Pcounter WebPrint to be fully functional. Both of these tasks will be performed in this guide. Click OK to close the warning.



- 16) Click Start to start the Pcounter WebPrint service for the first time. If all is well, the service will start and the text will display in green text that the service is running.



- 17) At this point, Pcounter WebPrint should be accessible locally. Open a web browser on the server and browse to <https://127.0.0.1>. Pcounter WebPrint's logon page should be displayed after redirecting to <https://127.0.0.1/login>



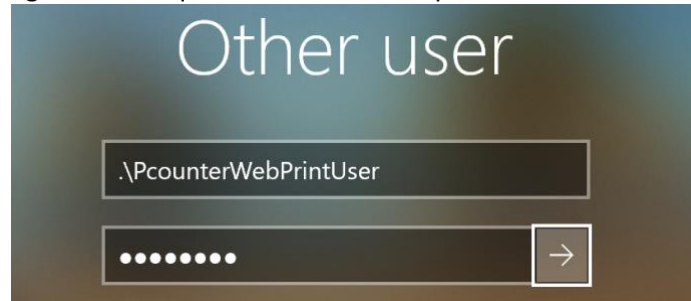
*NOTE. Pcounter WebPrint requires HTTPS. Unsecured HTTP access to WebPrint is not possible.*

- 18) It is critical the rest of the guide be completed. Please do not stop at this point as WebPrint is not yet functional.

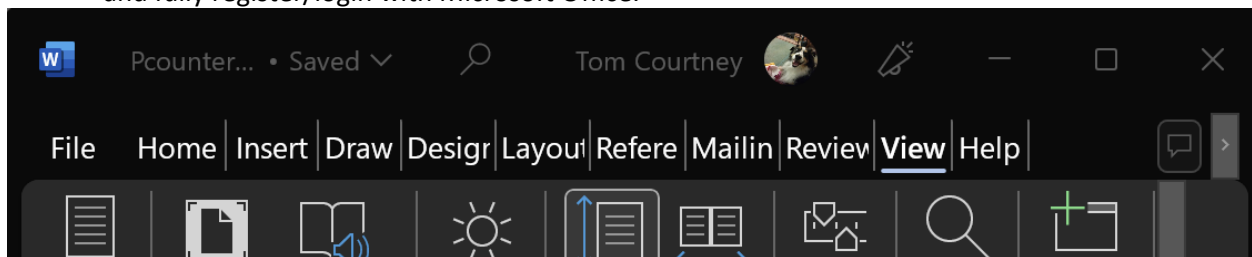
### 1.5.0 - Pcounter WebPrint User Logon

The new PcounterWebPrintUser must be used to login to the server and open each MS Office app.

- 1) On the Pcounter WebPrint Server, login as the new PcounterWebPrintUser using the password that was used to create the user in the previous section. If the password has been lost use Computer Management or equivalent to reset the password as needed.



- 2) Once logged in as the PcounterWebPrintUser, open each Microsoft Office app that is installed and fully register/login with Microsoft Office.

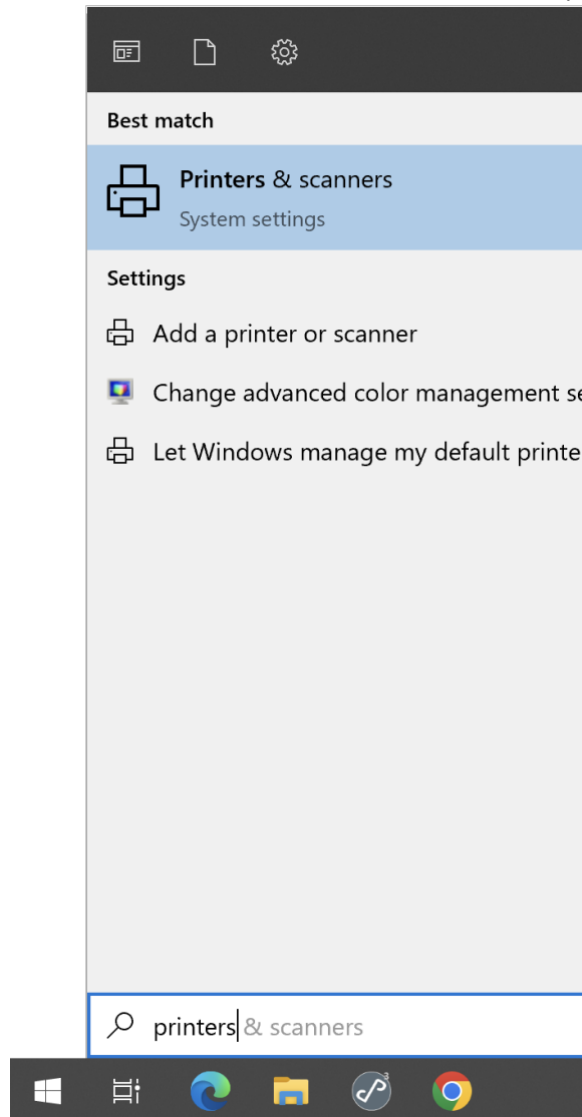


- 3) Once all the Office apps have been opened and default settings confirmed, logout as the PcounterWebPrintUser and log back into the server using a normal administrative account.

## 1.6.0 - Set Default Printer

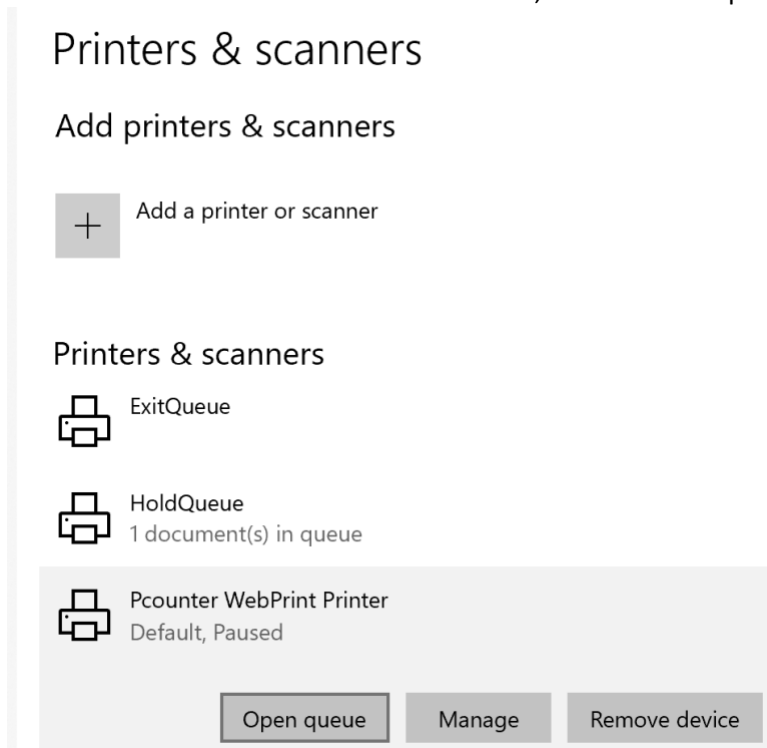
The Pcounter WebPrint Printer must be selected as the server's default printer.

- 1) Click Start and type Printers then click on 'Printers & Scanners' to open the control panel applet.

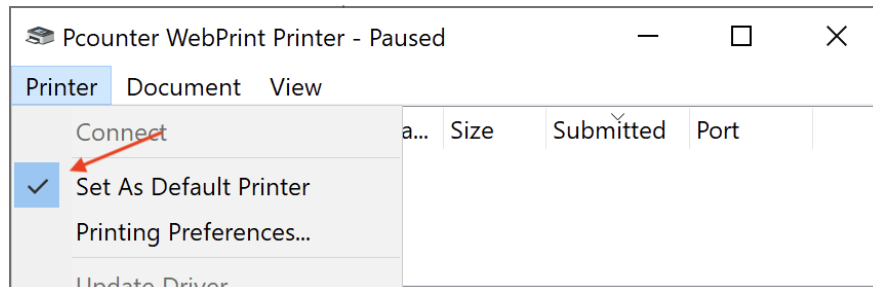


*-continued on next page-*

- 2) Find the Pcounter WebPrint Printer and left click it once, then choose 'Open Queue'.



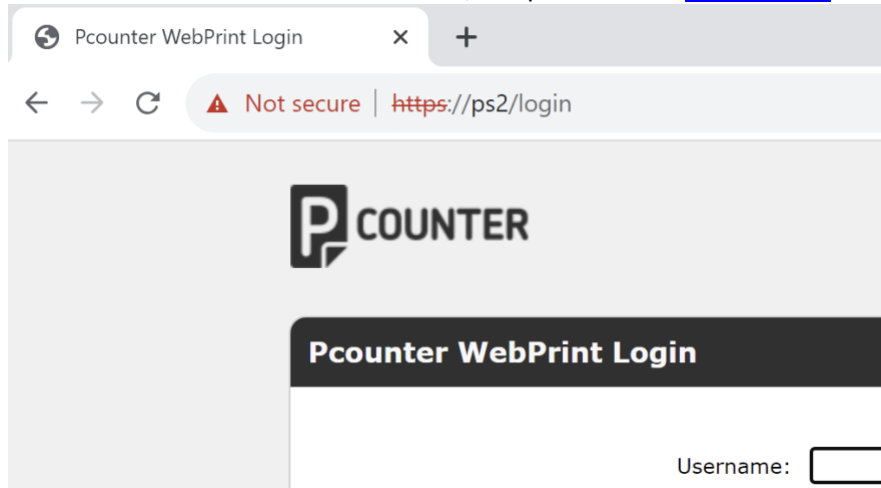
- 3) In the small window that opens click Printer then 'Set As Default Printer' and a checkmark will appear next to the text.



- 4) Close both windows to complete the change.

### 1.7.0 - Test WebPrint User Portal Access

- 1) Locate a domain workstation, any workstation instance external to the server, and login as any domain user.
- 2) Use a web browser to access the Pcounter WebPrint User Portal. In the example below, the Pcounter WebPrint server is named PS2. Thus, the path used is: <https://ps2/>

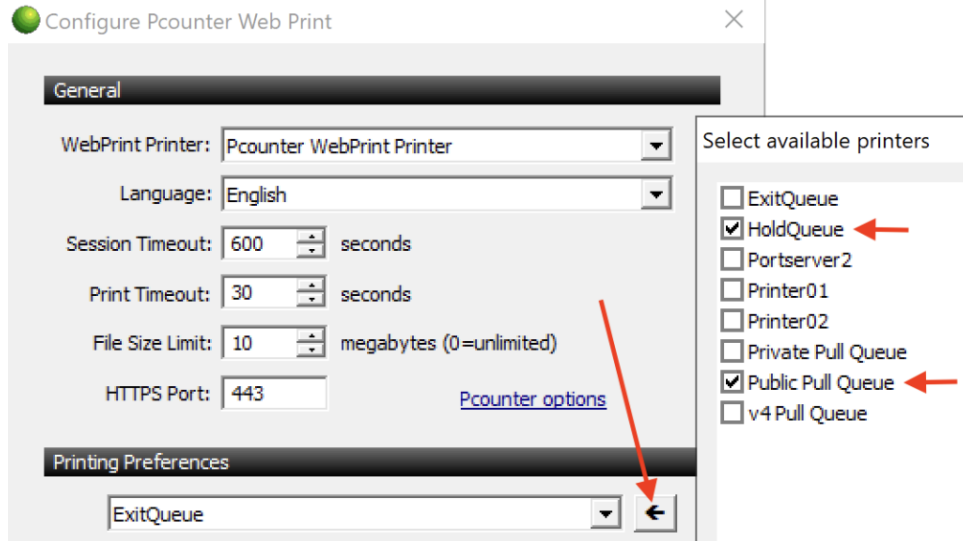


- 3) If the page does not display, then:
  - a. Port 443 may be blocked between the WebPrint server and the test workstation. See section 1.2.0 above.
  - b. Ping the DNS name used to ensure it is resolvable and reachable from the workstation. Contact your network team for assistance if it is not resolvable or reachable. The DNS name in the example above is Print1.
  - c. If DNS is not an option, use the server IP instead.
- 4) If the page is accessible, test WebPrint by logging in as any domain user submitting several jobs to various printers.

### 1.8.0 - WebPrint Device List - Adding\Removing Printers

Use this process to make newly added printers available, or remove any unneeded printers, in WebPrint.

- 1) Browse to C:\Program Files (x86)\Pcounter WebPrint (or wherever it is located) and launch WebPrint64.exe.
- 2) Click the small arrow button (in the middle of the window, on the right) to open a selection window. Choose the printers that will be available in Pcounter WebPrint with checkboxes.
- 3) Make any needed changes, then click OK, and OK again to close the window.



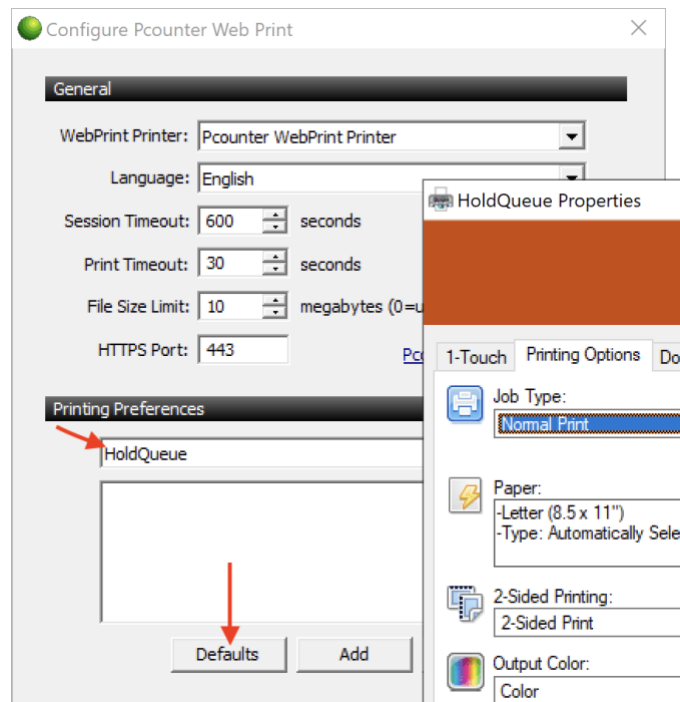


### 1.9.0 - Configure Default Driver Settings\Copy Paste Printing Preferences

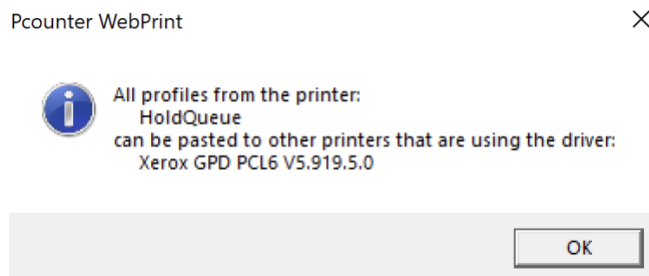
Every printer added to WebPrint can have a unique driver. WebPrint allows individual configuration for each printer that can be set differently than normal printing. WebPrint driver defaults can be configured differently than normal printing, allowing the default behavior of jobs that are received via WebPrint to differ from normal printing.

To modify driver default settings for printers added to WebPrint:

- 1) Browse to and launch WebPrint.exe, located at C:\Program Files (x86)\Pcounter for NT\NT\Pcounter WebPrint.
- 2) Choose the printer you wish to modify in the dropdown, then click the defaults button right below and the driver's printer properties will open.
- 3) Make changes as needed to the driver's settings such as color, duplex/simplex, and effects.  
e.g



- 4) These default settings will apply to jobs received via WebPrint only. Normal printing is configured in Print Management as usual.
- 5) Printing preference profiles can be copied and pasted between printers that use the exact same driver. Select a printer in the dropdown and then click the 'Copy all' button.



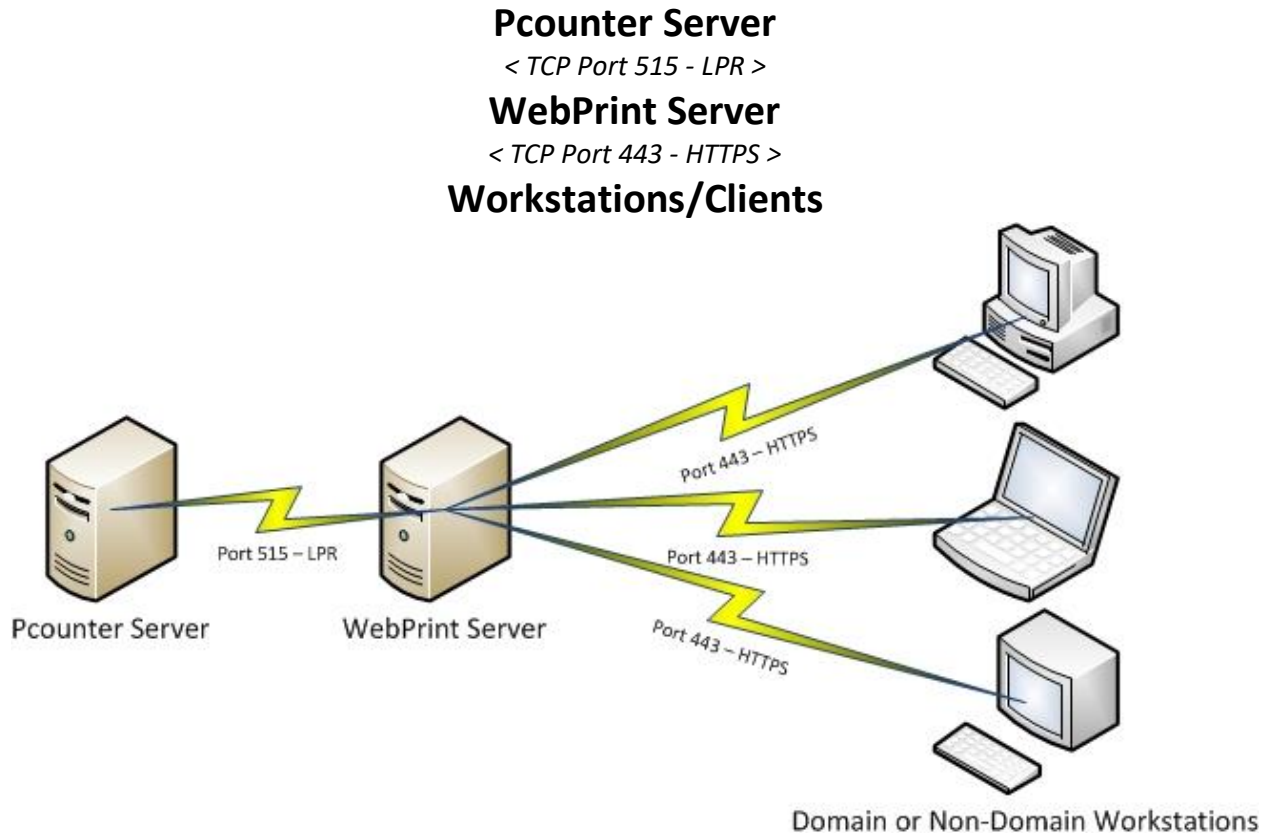
- 6) Change the dropdown to another printer using the **exact** same driver and click the 'Paste all' button.

## 2.0.0 - 'Separate Server' Installation

This section of the guide covers how to install Pcounter WebPrint on a server separate from Pcounter. If WebPrint will be on the same server as Pcounter, see Section 1.0.0 - Local Installation.

### 2.0.1 - Network Communication Overview

Clients will communicate with the WebPrint Server over TCP Port 443 - HTTPS using a web browser. The WebPrint server will communicate with the Pcounter server over TCP Port 515 - LPR using the Pcounter LPD Server.



### 2.1.0 - Install WebPrint

- 1) Return to the beginning of the guide and complete sections 1.1.0 - 1.7.0 to install WebPrint on the server.
- 2) Once the WebPrint portal is confirmed to be accessible to user workstations as shown in 'Section 1.7.0 - Test WebPrint User Portal Access' then proceed to the next section, 'Section 2.2.0 - Prepare Pcounter LPD Server'.

## 2.2.0 - Prepare Pcounter LPD Server

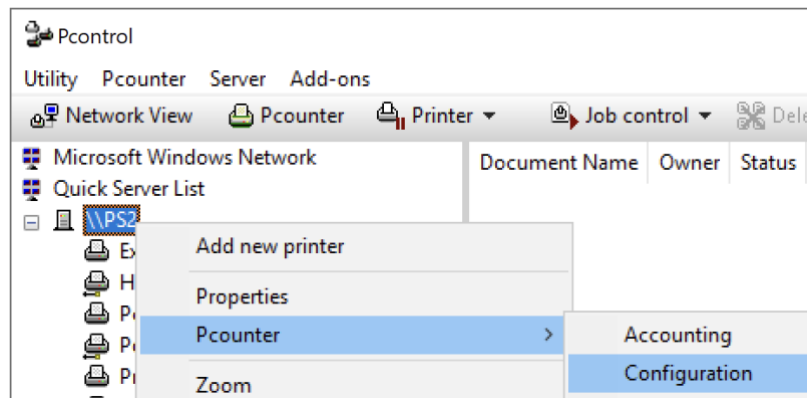
WebPrint hands print jobs to the Pcounter Server via LPR. The Pcounter Server accepts the job via the built in Pcounter LPD Server.

For each printer that will be available to WebPrint, their box must be checked in the Pcounter LPD Server configuration, and a valid LPR queue name must be set.

The Pcounter Server must also have TCP Port 515 opened in the firewall.

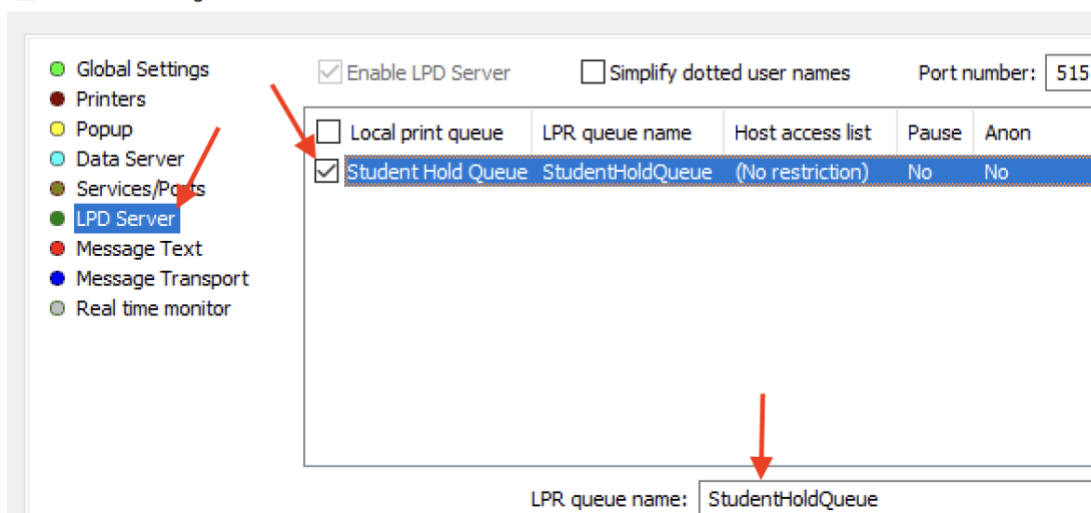
### 2.2.1 - Configure Pcounter LPD Server

- 1) On the Pcounter Server (not the WebPrint Server), open Pcontrol.
- 2) Double click Quick Server List to expand it, then right click the server and choose Pcounter > Configuration.



- 3) Navigate to the LPD Server bullet.
- 4) Confirm the box 'Enable LPD Server' is checked and grayed out at the top. If not grayed out then upgrade to the latest version of Pcounter.
- 5) Check the box for each print queue that is needed in WebPrint making sure to type a LPR queue name in each entry field in the center of the window.

Pcounter Configuration: \\PS3



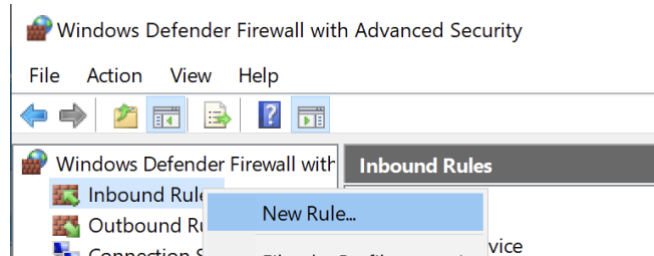
- 6) Once all changes have been made OK to accept and close the window.
- 7) Go to Services.msc and restart the Pcounter Printer Control service and the Pcounter Data Server service to complete the change.

## 2.2.2 - Windows Defender Firewall Exception - Port 515 - LPR

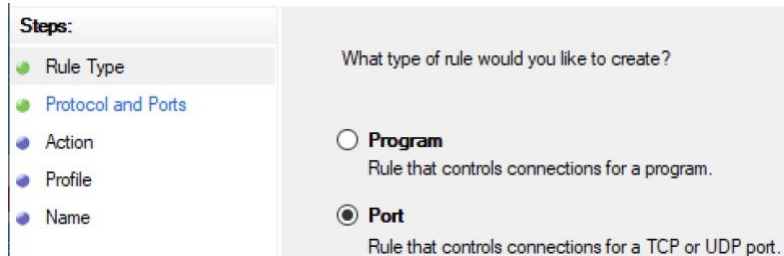
Port 515 is the default port for LPR traffic. By default, the Windows Firewall will block this port and thus it must be opened for WebPrint to send print jobs to Pcounter.

Open the Windows Defender Firewall and create an inbound exception for TCP Port 515.

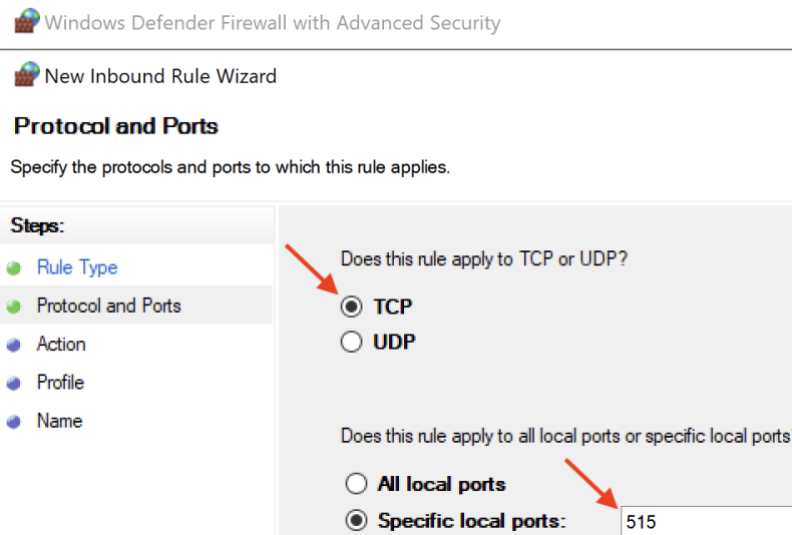
- 1) On the Pcounter Server (not the WebPrint Server), open 'Windows Defender Firewall with Advanced Security' on the Pcounter WebPrint server.
- 2) Right click Inbound Rules and choose 'New Rule'.



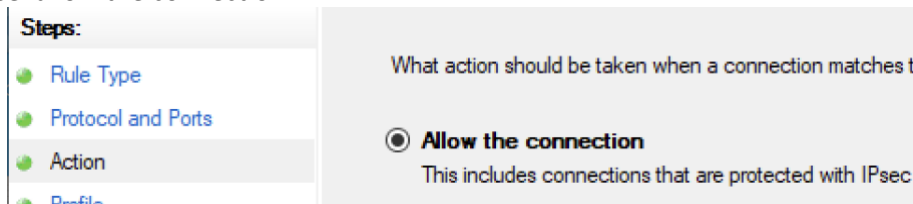
- 3) Choose Port.



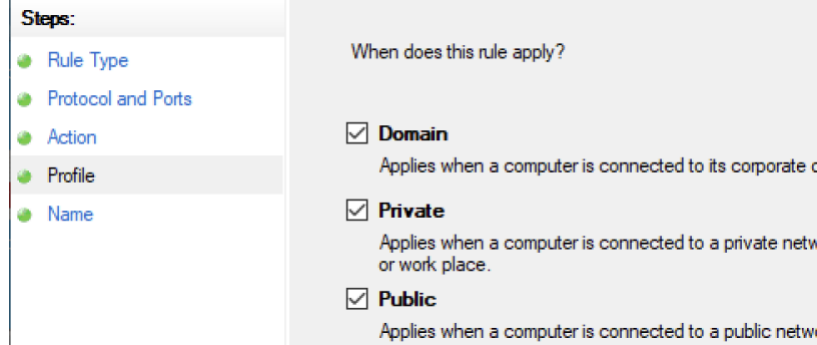
- 4) Choose TCP and enter 443 as the specific local port.



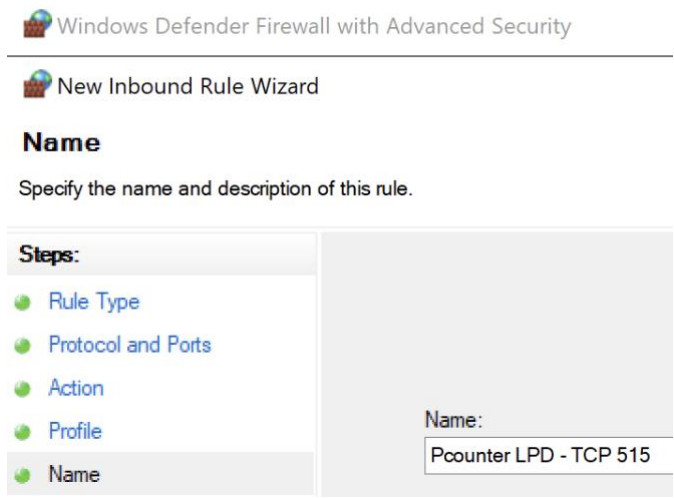
- 5) Choose 'allow the connection'.



6) Ensure all 3 boxes are checked for the zones to apply.



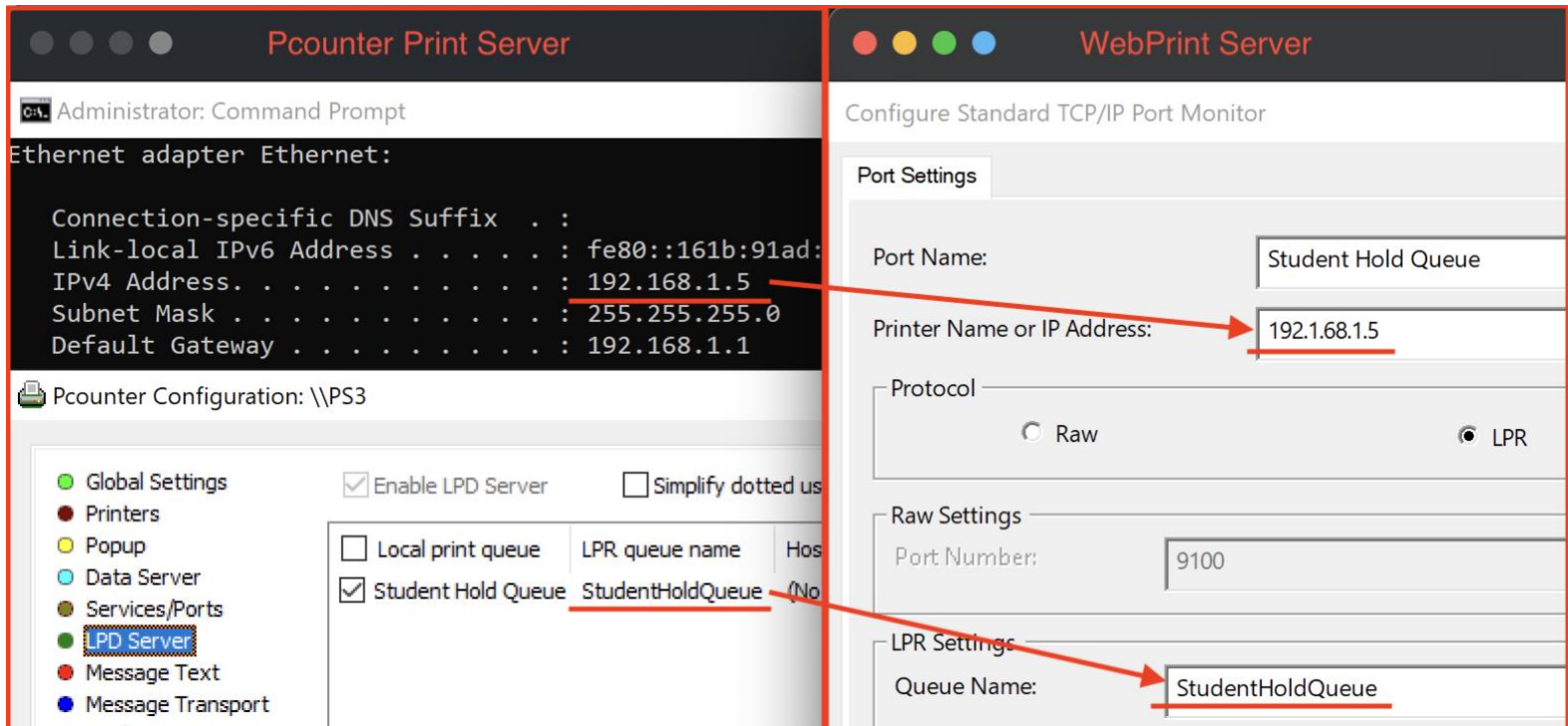
7) Enter a name such as 'Pcounter LPD - TCP 515' and click Finish to complete the process.



### 2.3.0 - Create LPR Passthru Printers

In the walkthrough below the printer “Student Hold Queue” located on a Pcounter server is utilized by the WebPrint server. The WebPrint server sends jobs to the Pcounter server via manually created printers that use a LPR port configured to send the job to the Pcounter server’s IP and the previously configured LPR queue name from section 2.2.1.

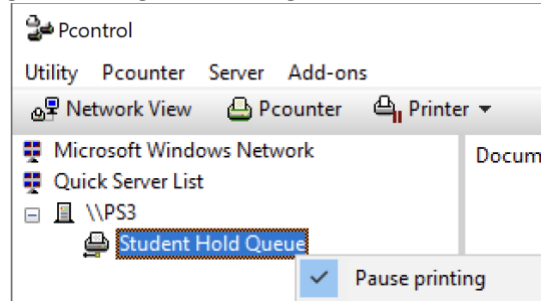
- 1) On the WebPrint Server (not the Pcounter Server), create a new printer using a standard TCP/IP port. Use the same driver that is in use by the destination server/queue.
- 2) Once the printer has been created, go into Printer Properties > Ports and click ‘Configure Port’.
- 3) In the port configuration:
  - a. for IP Address, define the IP or DNS name of the Pcounter Print Server.
  - b. Set ‘Protocol’ to ‘LPR’.
  - c. For ‘Queue Name’, specify the LPR Queue Name for the corresponding queue as defined in Pcontrol on the Pcounter Print Server.
- 4) Repeat the process as many times as needed until all printers are created.



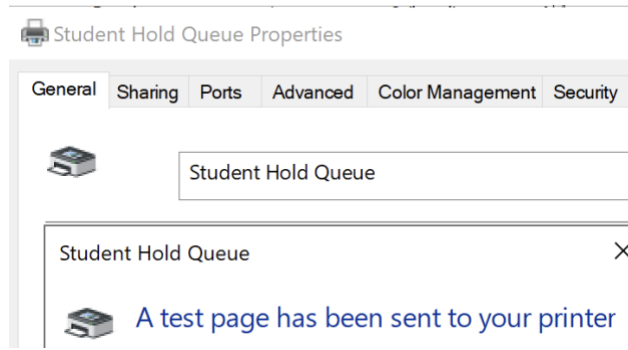
## 2.4.0 - Test LPR Passthru Printers

Send a test print and ensure it is received on Pcounter Print Server.

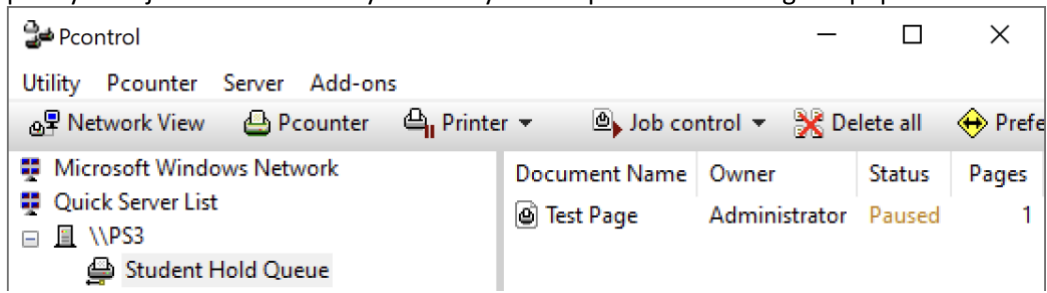
- 1) On the Pcounter Print Server, pause the receiving queue by right clicking it in Pcontrol and clicking 'Pause Printing'. When right clicked again the box should be checked.



- 2) On the WebPrint Server, open printer properties for the corresponding LPR Passthru and send a test page.



- 3) On the Pcounter Print Server, the test page should show in the paused, receiving queue very quickly. The job status will likely be 'ready' if the queue is not using PPopup.

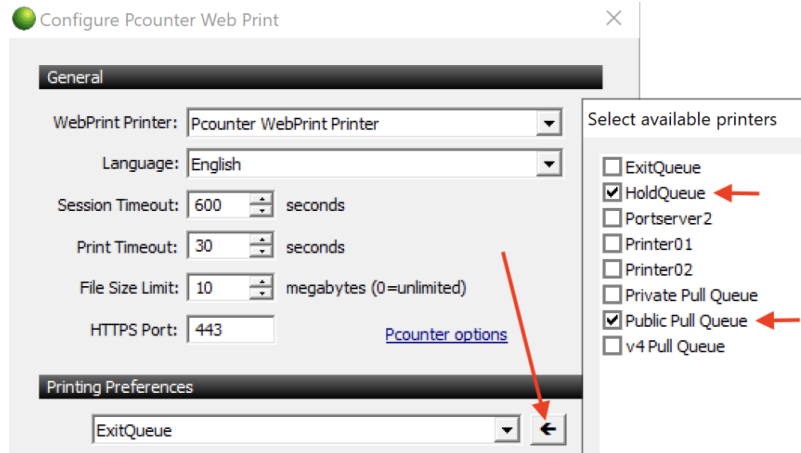


- 4) On the Pcounter Print Server, unpause the queue, and the job should both print and disappear from Pcontrol immediately after spooling. Confirm the test page prints at the appropriate printer.

## 2.5.0 - WebPrint Device List - Adding\Removing Printers

Use this process to make newly added printers available, or remove any unneeded printers, in WebPrint.

- 1) Browse to C:\Program Files (x86)\Pcounter WebPrint (or wherever it is located) and launch WebPrint64.exe.
- 2) Click the small arrow button (in the middle of the window, on the right) to open a selection window. Choose the printers that will be available in Pcounter WebPrint with checkboxes.
- 3) Make any needed changes, then click OK, and OK again to close the window.





## 3.0.0 - WebPrint Customization

In the WebPrint User Portal, the 'Set Options' dropdown contains all available printer/job options. Many can be customized.

### 3.1.0 - Setting Default Color Mode

WebPrint defaults to grayscale printing mode. The 'Color printing mode' dropdown will be set to 'Grayscale' by default.

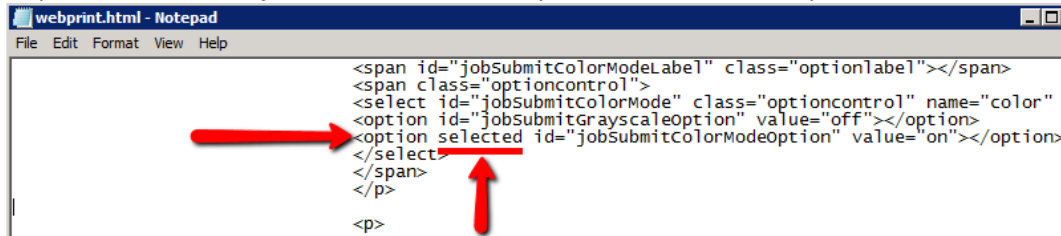
To change the default 'Color printing mode' to 'Color', perform the following steps:

- 1) On the WebPrint server, browse to the WebPrint installation directory, default path is C:\Program Files (x86)\Pcounter for NT\NT\Pcounter WebPrint
- 2) Open WebPrint.html in Notepad.
- 3) Search for:  
id="jobSubmitColorModeOption
- 4) Change the line from:

```
<option id="jobSubmitColorModeOption" value="on"></option>
```

To:

```
<option selected id="jobSubmitColorModeOption" value="on"></option>
```



- 5) After making the change, save and overwrite the existing WebPrint.html. The change will take effect after a page refresh.

### 3.2.0 - Configure Allowed Paper Sizes

When submitting a file to be printed, users can specify the paper size they want to use. The paper sizes available to the user come automatically from the available sizes detected in the corresponding printer's driver. The available sizes can then be further customized with the WebPrintPaperSizes.ini file on the WebPrint server.

#### Set Options ▼

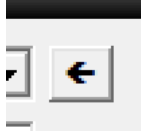
Paper Size:	Letter
Orientation:	Letter
Color printing mode:	Tabloid
	Legal
	A3
	A4

-user paper size selection dropdown-

To customize the paper sizes available in WebPrint using **WebPrintPaperSizes.ini**:

- 1) Navigate to the Pcounter WebPrint directory and double click the WebPrint64.exe to launch the Pcounter Web Print Configuration interface.
- 2) If Microsoft Office is not installed on the server currently an info message will be displayed each time WebPrint is launched. Just click OK to dismiss the message.

- 3) In the 'Configure Pcounter Web Print' window, click on the left facing arrow button in the center of the right side to open the printer selection window.



- 4) Click OK to close the printer selection window, then click OK again to close the 'Configure Pcounter Web Print' window. **This process has generated the file WebPrintPaperSizes.ini.**
- 5) Next, navigate to the Pcounter WebPrint directory and open the file WebPrintPaperSizes.ini using Notepad.
- 6) In the .ini there will be a list of all detected paper sizes per printer. By default, all detected paper sizes will be enabled. To disable a paper size, first locate the printer's listed sizes and then in that printer's section locate the needed paper size and change from =1 to =0. In the example image below 'HoldQueue' has been customized to have Letter, A3, and A4 sizes disabled.

WebPrintPaperSizes.ini - Notepad

File Edit Format View Help

```
[ExitQueue]
Letter=1
Tabloid=1
Legal=1
A3=0
A4=0
[HoldQueue]
Letter=0
Legal=1
Executive=1
11x17=1
A4=0
A3=0
A5=1
B5=1
A6=1
#10 Envelope=1
```

- 7) Open a web browser, navigate to the WebPrint user portal, and login as any user.
- 8) Select a test document, select the printer that has had its paper sizes customized, and then click the paper size dropdown to view the available paper sizes.

**Select Printer**

HoldQueue

**Set Options ▼**

Paper Size: Legal ▼

Orientation: Executive

Color printing mode: 11x17

Copies: A5

B5

A6

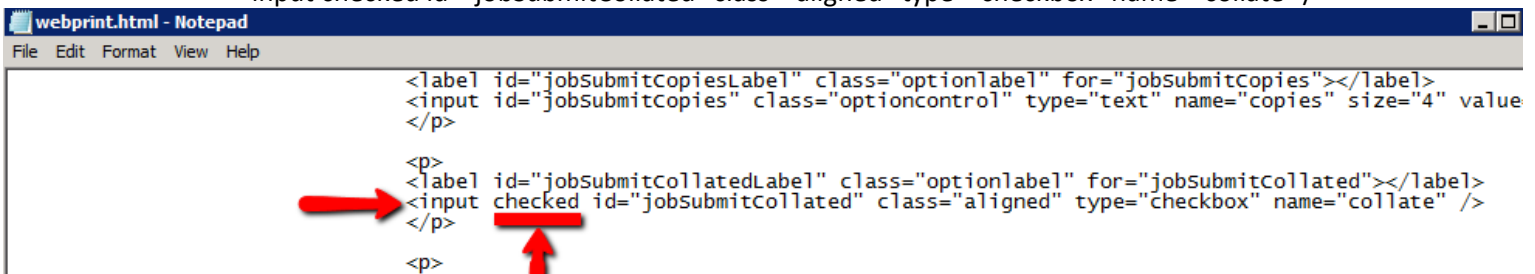
#10 Envelope

### 3.3.0 - Setting Default Collate Mode

WebPrint defaults to an uncollated printing mode. The 'collated' check box in the options area will be unchecked by default.

To change the default mode to be collated, thus checking the box in options, perform the following steps:

- 1) On the WebPrint server, browse to the WebPrint installation directory, default path is C:\Program Files (x86)\Pcounter for NT\NT\Pcounter WebPrint
- 2) Open WebPrint.html in Notepad.
- 3) Search for:  
id="jobSubmitCollated"
- 4) Change the line from:  
<input id="jobSubmitCollated" class="aligned" type="checkbox" name="collate" />  
To:  
<input checked id="jobSubmitCollated" class="aligned" type="checkbox" name="collate" />



```
webprint.html - Notepad
File Edit Format View Help

<label id="jobSubmitCopiesLabel" class="optionlabel" for="jobSubmitCopies"></label>
<input id="jobSubmitCopies" class="optioncontrol" type="text" name="copies" size="4" value
</p>

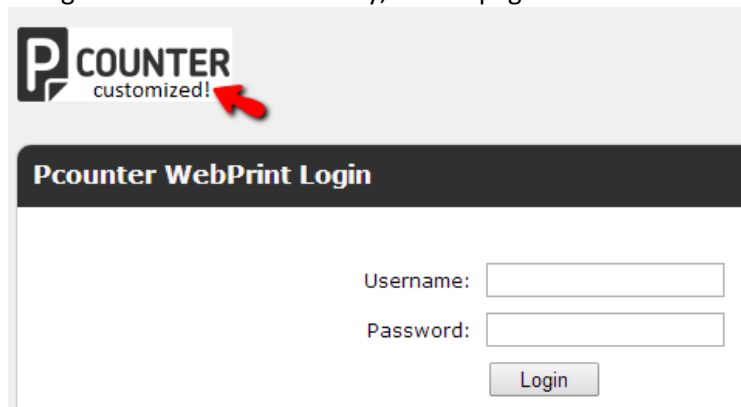
<p>
<label id="jobSubmitCollatedLabel" class="optionlabel" for="jobSubmitCollated"></label>
<input checked id="jobSubmitCollated" class="aligned" type="checkbox" name="collate" />
</p>

<p>
```

- 5) After making the change, save and overwrite the existing WebPrint.html.  
The change will take effect immediately, after a page refresh.

### 3.4.0 - Banner Icon Customization

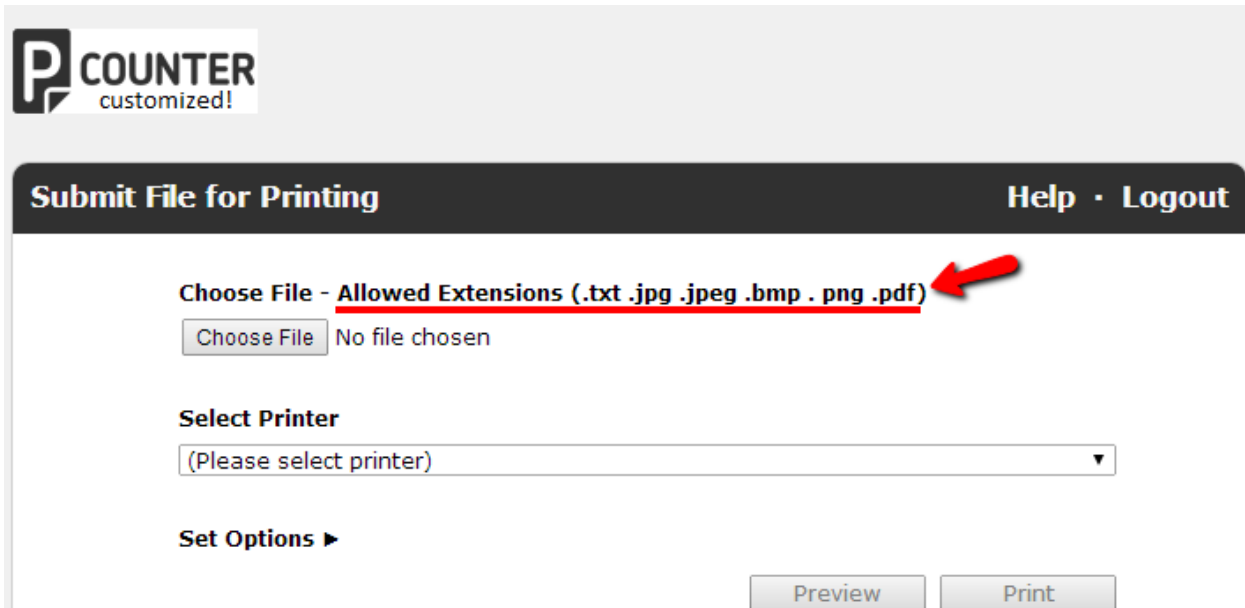
- 1) On the WebPrint server, browse to the WebPrint installation directory, default path is C:\Program Files (x86)\Pcounter for NT\NT\Pcounter WebPrint
- 2) Locate the file "Pcounter\_Logo\_48.png".
- 3) Either edit the file in MSPaint, or take a custom logo in .png format and overwrite the existing Pcounter\_Logo\_48.png, making sure to retain the file name.
- 4) Changes to the logo take effect immediately, after a page refresh.



### 3.5.0 - Display Allowed File Extensions

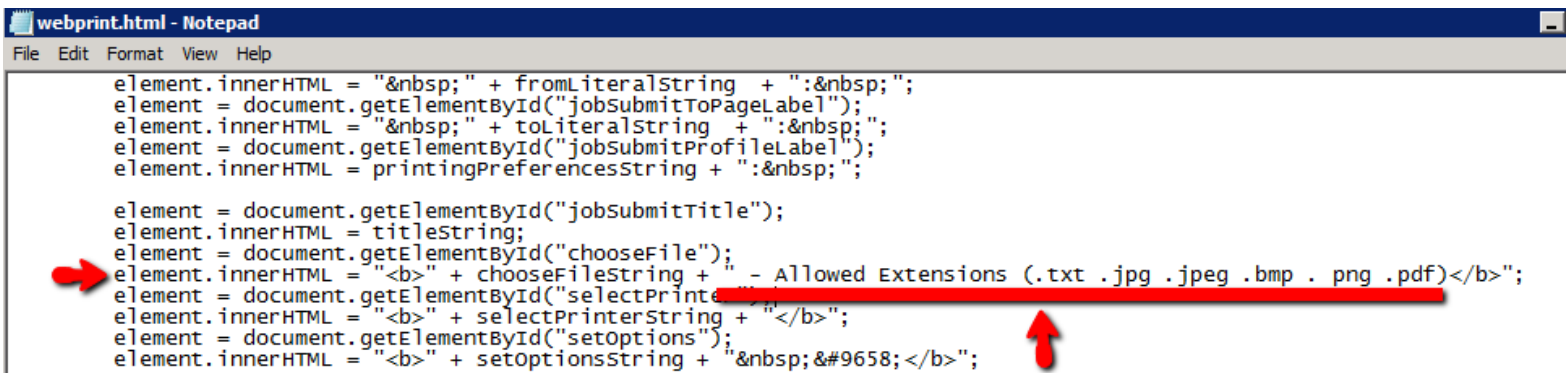
The 'choose file' text can be customized to display allowed file extensions.

IE:



To make this change, perform the following steps.

- 1) On the WebPrint server, browse to the WebPrint installation directory, default path is C:\Program Files (x86)\Pcounter for NT\NT\Pcounter WebPrint
- 2) Open WebPrint.html in Notepad.
- 3) Search for:  
element.innerHTML = "<b>" + chooseFileString
- 4) Change the line from:  
element.innerHTML = "<b>" + chooseFileString + "</b>";  
To:  
element.innerHTML = "<b>" + chooseFileString + " - Allowed Extensions (.pdf .txt .jpg .png .etc)</b>";



- 5) After making the change, save and overwrite the existing WebPrint.html. The change will take effect immediately, after a page refresh.

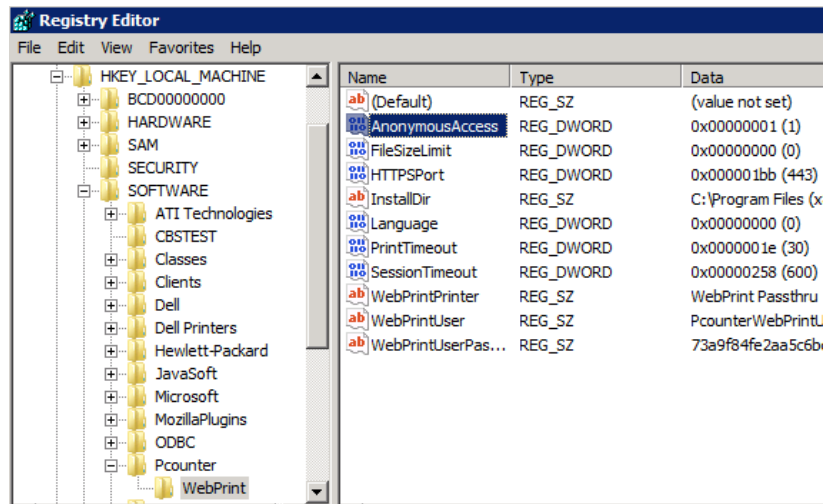
### 3.6.0 - Anonymous User Access

In certain environments where no authentication is required to login to a workstation and submit print jobs, Pcounter WebPrint can also be configured to not require authentication.

To enable Anonymous User Access in Pcounter WebPrint:

- 1) Open regedit on the Pcounter WebPrint server.
- 2) Browse to HKEY\_LOCAL\_MACHINE\SOFTWARE\Pcounter\WebPrint (Not in Wow6432Node)
- 3) Create a new DWORD named 'AnonymousAccess'
- 4) Set the value to 1 to enable anonymous access. Set the value to 0 to require login.

e.g.

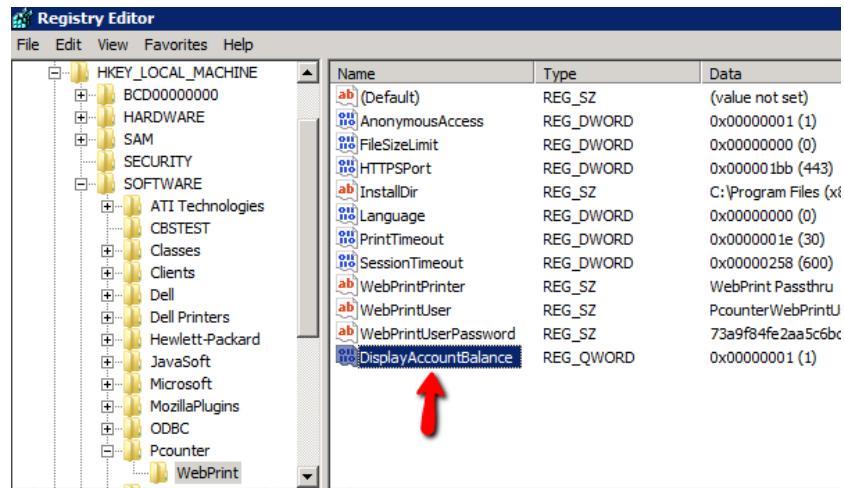


### 3.7.0 - User Balance Display

#### 3.7.1 - 'DisplayAccountBalance' Registry Entry

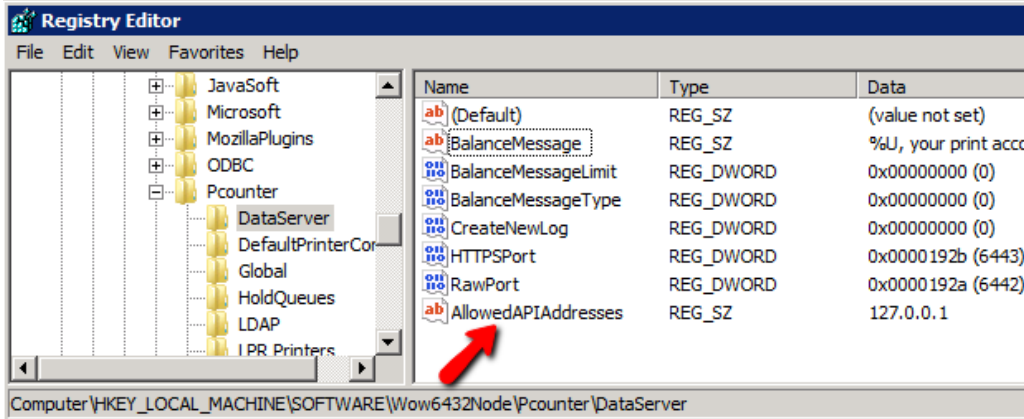
- 1) Open regedit on the WebPrint Server.
- 2) Browse to HKEY\_LOCAL\_MACHINE\SOFTWARE\Pcounter\WebPrint (**Not** in Wow6432Node)
- 3) Create a new DWORD named 'DisplayAccountBalance'
- 4) Set the value to 1 to display 'balance only'  
Set the value to 2 to display 'balance and free quota'.  
Set the value to 0 to display no balances.

e.g.

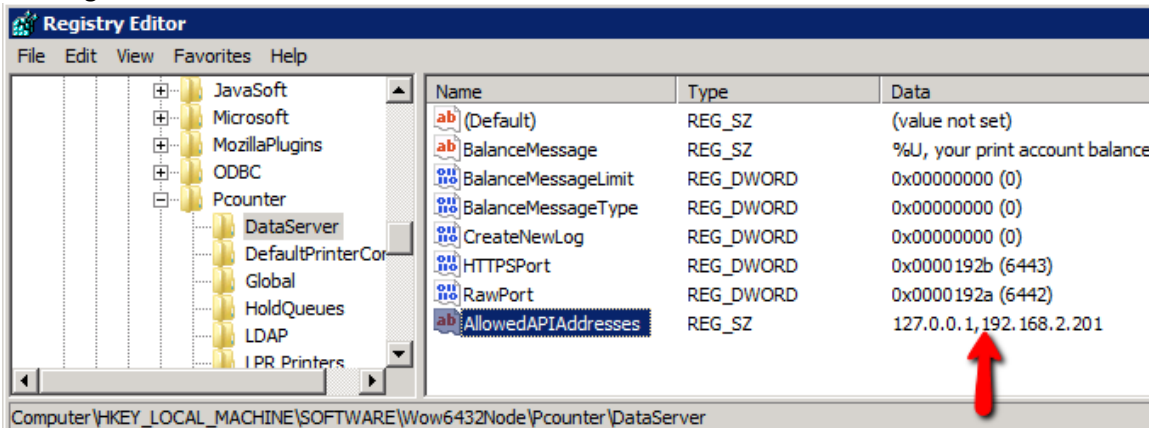


### 3.7.2 'AllowedAPIAddresses' Registry Entry

- 1) Open regedit on the Pcounter Print Server.
- 2) Browse to HKEY\_LOCAL\_MACHINE\SOFTWARE\Pcounter\Wow6432Node\DataServer
- 3) Create a new 'String' named 'AllowedAPIAddresses'.
- 4) If the Pcounter Print Server is also the WebPrint Server then only 127.0.0.1 is required.  
e.g.



- 5) If the Pcounter Print Server is separate from the WebPrint server then enter 127.0.0.1 then the IP address of the other server with a comma as a separator. As many servers can be added as are required, so long as each IP address is separated with a comma.  
e.g.



### 3.8.0 - Customized DNS WebPrint Access

This section of the guide is intended as an educational resource to help domain administrators understand DNS modification. If additional support is needed with anything DNS related, [escalate internally](#), [Google it](#), or [contact Microsoft](#).

**Disclaimer:** AND Technologies [does not provide support](#) for the processes in this section involving Microsoft Server Snap-in's such as DNSMGMT.msc (DNS Manager). This section is a mere example of one way access to the user portal can be customized.

- In the screenshot below the WebPrint server is named 'Print1'. With WebPrint fully configured, the default path to access the WebPrint User portal would be <https://print1>.
- Since Print1 is a member of the domain the DNS server automatically has a Host record that allows other users to access the server using the name Print1.
- A CNAME record in DNS can be used to provide an alternate path to the WebPrint user portal.
- In the example screenshot below, we see the host record for the server 'Print1' and we have created a CNAME record for 'Printing' that points to the FQDN of the server Print1 as the target host.
- With the configuration pictured below both '<https://printing>' and '<https://print1>' will navigate the user to the WebPrint Portal.

The image displays a composite screenshot illustrating DNS configuration for WebPrint access. On the left, the DNS Manager console shows the hierarchy for the domain pcountersf.com. The DNS records table is as follows:

Name	Type
_msdcs	Start of Authority (SOA)
_sites	Name Server (NS)
_tcp	Host (A)
_udp	Host (A)
DomainDnsZones	(same as parent folder)
ForestDnsZones	(same as parent folder)
mercury	Host (A)
print1	Host (A)
printing	Alias (CNAME)

Below the DNS Manager, the 'printing Properties' dialog box is shown with the following fields:

- Alias name (uses parent domain if left blank): printing
- Fully qualified domain name (FQDN): printing.pcountersf.com
- Fully qualified domain name (FQDN) for target host: print1.pcountersf.com

Red annotations highlight the 'printing' field as the 'shortcut name', the 'printing.pcountersf.com' field as the 'actual name', and the 'print1.pcountersf.com' field as the target host. To the right, two browser screenshots show the WebPrint login pages. The top browser shows the URL <https://print1/login>, and the bottom browser shows <https://printing/login>. Red arrows point from the 'print1' and 'printing' records in the DNS Manager to their respective browser URLs.

### 3.9.0 - Alternate PDF Processor 'PDF-XChange'

By default, WebPrint uses the built in PDF processor 'PDFPrint'. This is the original PDF processor used to create/develop WebPrint. Occasionally PDFPrint does not properly resize margins or properly print embedded images in PDF documents. We have found a workaround using the alternate PDF processor 'PDF-XChange'. As of writing PDF-XChange is free software that can be downloaded, installed, and used to process PDFs in WebPrint without needing a license or separate registration.

To download, install, and enable PDF-Exchange as WebPrint's PDF Processor:

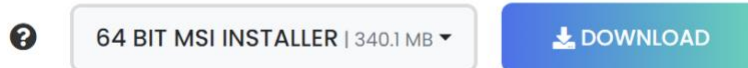
- 1) On the WebPrint server, navigate to the PDF-XChange's website: <https://www.pdf-xchange.com/product/downloads>
- 2) Download PDF-XChange Editor 64-bit MSI installer:

#### PDF-XChange Editor

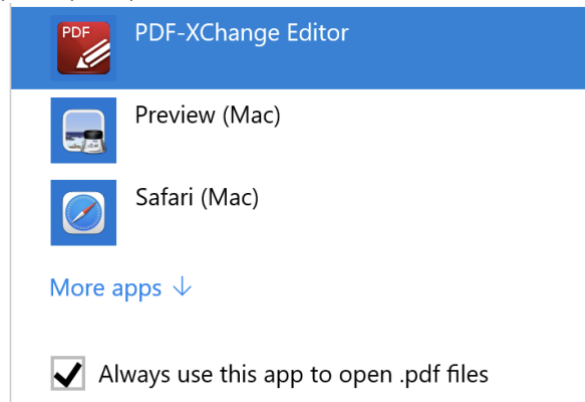
Latest Stable Release: **10.2.1.385**

(Updated on 22 Jan 2024)

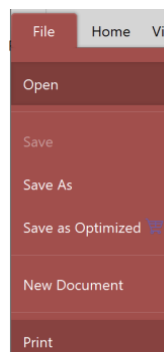
**Supported Operating Systems:** All current versions of MS Windows operating system updates from Microsoft, are supported for this product.



- 3) Install PDF-XChange 64-bit MSI on the server and take all the defaults.
- 4) Login to the server as the special **PcounterWebPrintUser**.
- 5) Locate any PDF on the server, right click and choose Open With > Choose another app.
- 6) Click on More apps if necessary and locate PDF-XChange Editor, make sure to check the box 'Always use this app to open .pdf files' and click OK.

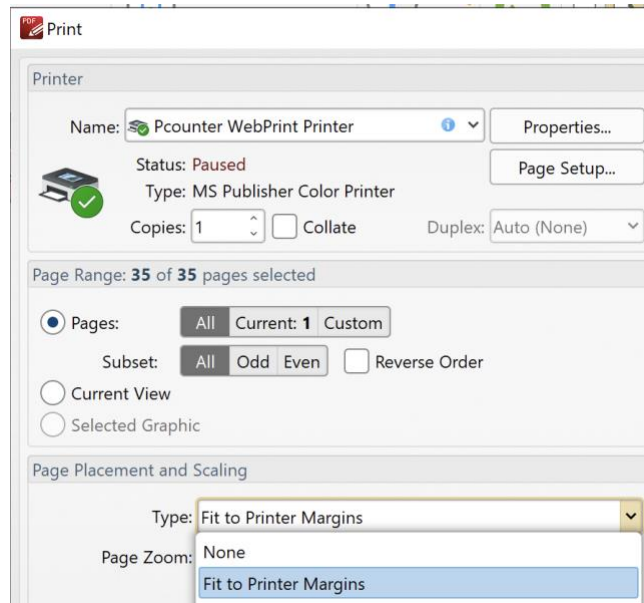


- 7) Open at least one PDF using PDF-XChange until the document is visible, then click on File > Print to open the Print window.

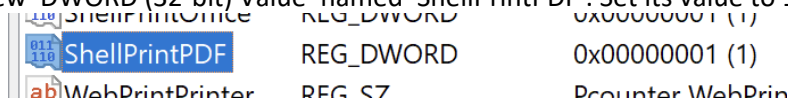




- 8) Set Page Placement and Scaling > Type to 'Fit to Printer Margins' and click Print to save the needed settings. The document can be deleted from the print queue before it prints to prevent waste.



- 9) Click on Start > Run and type Regedit to open the Windows Registry Editor.  
 10) Navigate to HKEY\_LOCAL\_MACHINE\SOFTWARE\Pcounter\WebPrint  
 11) Create a new 'DWORD (32-bit) Value' named 'ShellPrintPDF'. Set its value to 1.



- 12) If all the above steps were performed successfully, PDF processing will now utilize PDF-XChange. After refreshing the WebPrint webpage any issues with margins/embedded images should be resolved.

## 4.0.0 - Pcounter SSL Guide

### 4.0.1 - Introduction

This section of the WebPrint guide demonstrates how to use a trusted SSL certificate to allow fully trusted HTTPS access to the WebPrint user portal.

Using a trusted SSL certificate will stop certificate errors from being displayed to users when they access the Pcounter web sites using HTTPS.

AND Technologies uses [DigiCert](#) as a Certificate Authority (CA) for this guide. Obtaining and installing a trusted SSL certificate is not a process supported by AND Technologies.

### 4.0.2 - Overview

Here is an overview of the entire process of enabling HTTPS:

- 1) Obtain a trusted SSL certificate from a CA.
- 2) Install the trusted SSL certificate on the Pcounter server that will host Pcounter WebPrint and/or Pcounter Web Administrator.
- 3) Export a PFX from the trusted SSL certificate using the Windows Certificate Manager.
- 4) Use MakePEM to generate a PEM from the PFX.
- 5) Test the new PEM by browsing to Pcounter WebPrint and Pcounter Web Administrator using HTTPS.

### 4.1.0 - Install Trusted Certificate

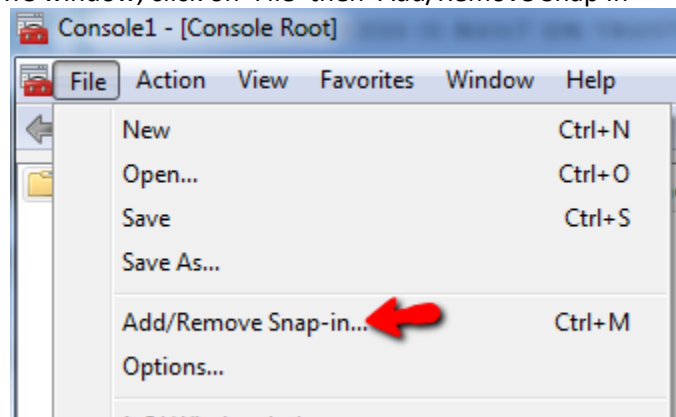
Obtain a trusted certificate from a CA and install it on the Pcounter server where the Pcounter Data service resides. Usually, a certificate can be installed by simply double clicking it once it is located on the server, then choosing the Local Computer certificate store. Google this for more info.

**NOTE.** AND Technologies does not provide support for obtaining and installing certificates. Please contact a CA like [DigiCert](#) for help obtaining and installing a certificate.

### 4.2.0 - Create\Export PFX

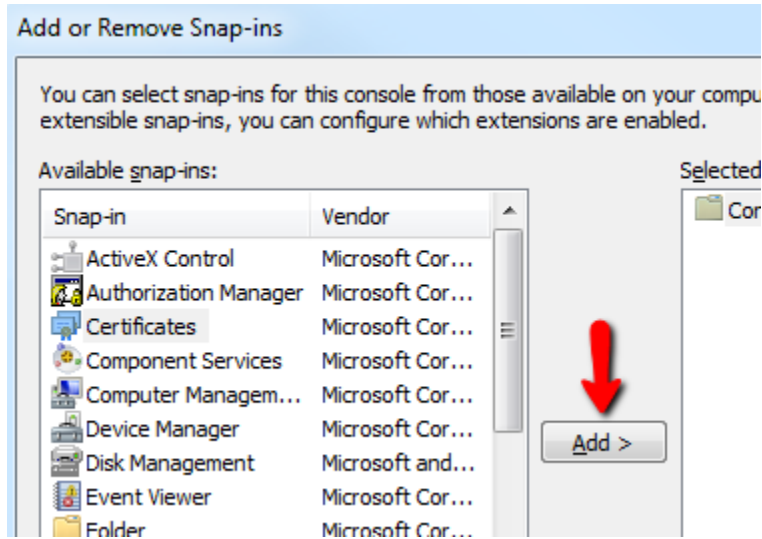
This process creates a PFX file using an installed, trusted SSL certificate.

- 1) On the Pcounter Data server, open a blank MMC at start>run, type MMC and click OK.
- 2) In the blank MMC window, click on 'File' then 'Add/Remove Snap In'

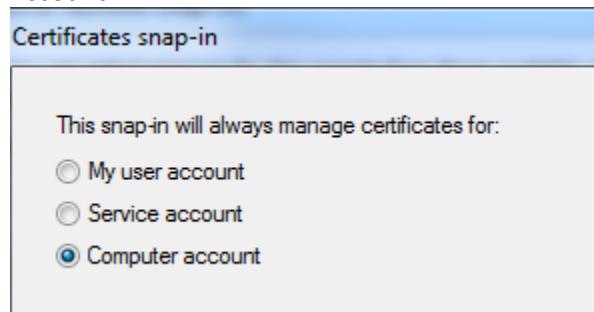


#### 4.2.0 - Create\Export PFX - Continued

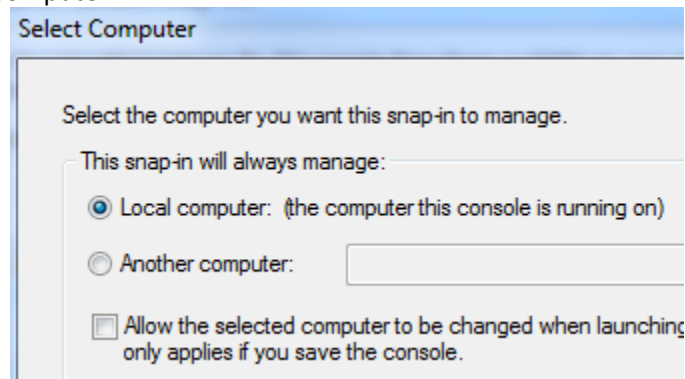
- 3) Choose 'Certificates' and click 'Add'



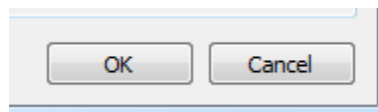
- 4) Choose 'Computer Account'



- 5) Choose 'Local Computer'

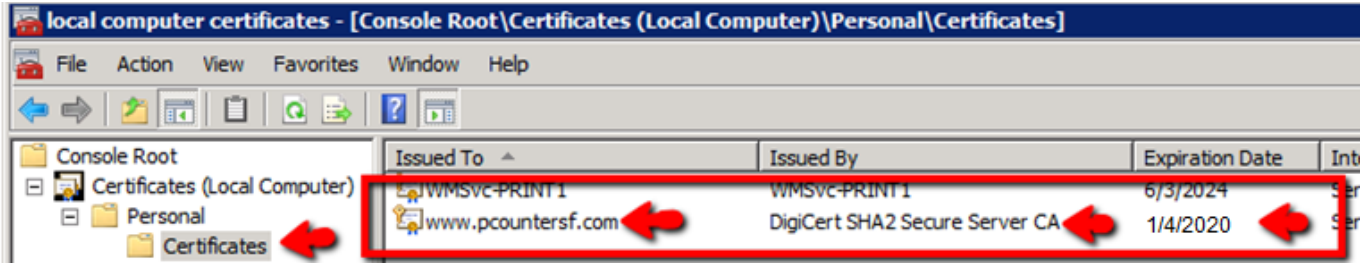


- 6) Click OK.

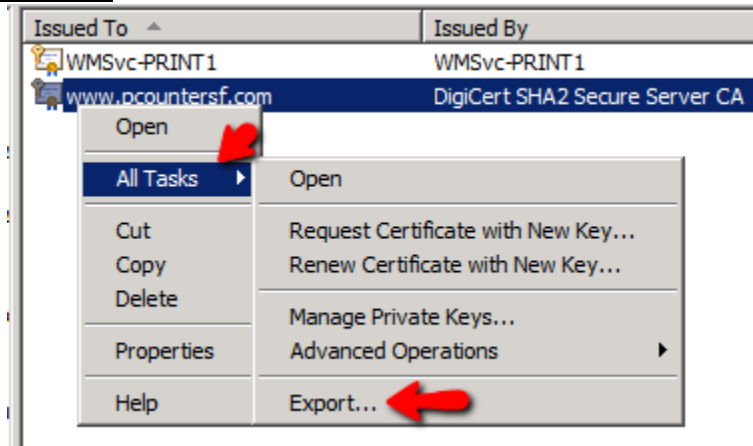


#### 4.2.0 - Create\Export PFX - Continued

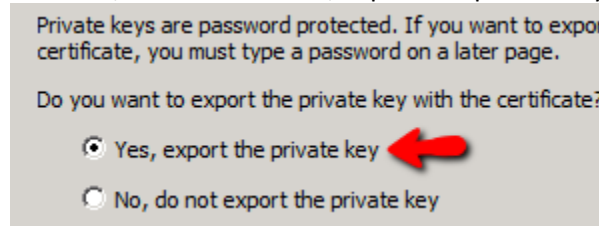
- 7) In the explorer pane on the left, browse to Certificates > Personal > Certificates. This will display local machine certificates that are currently installed.



- 8) In the example screenshot above, there is a trusted certificate installed for [www.pcountersf.com](http://www.pcountersf.com), issued by DigiCert, expiring 1/4/2020.
- 9) Right click the trusted certificate and choose 'All Tasks' > 'Export'.  
(NOTE, certificates that start with, and are issued by, WMSVC are not trusted and cannot be used for this process)



- 10) Click next on the first screen, then choose 'Yes, export the private key' and click next.



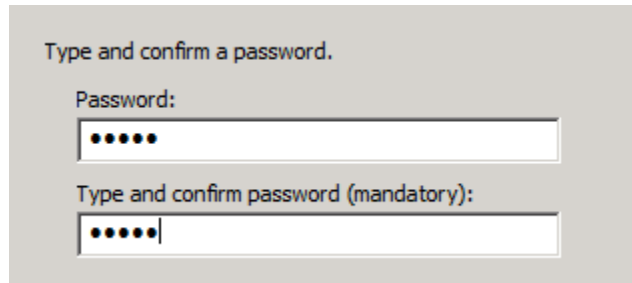
- 11) Check the box for 'include all certificates in the certification path if possible' and click next.



#### 4.2.0 - Create\Export PFX - Continued

12) Confirm a password and click next.

**NOTE.** This password will be used again, make a note of it.

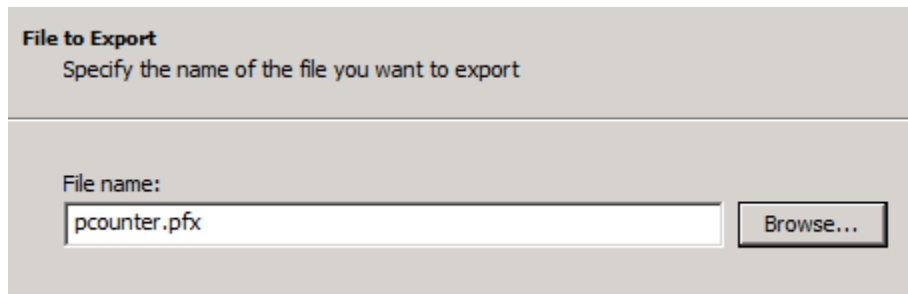


Type and confirm a password.

Password:

Type and confirm password (mandatory):

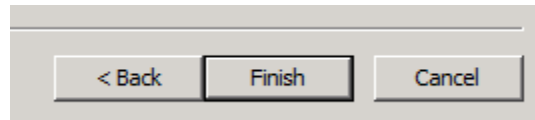
13) Specify a location, like c:\, and a file name, like Pcounter.PFX, and click next.



**File to Export**  
Specify the name of the file you want to export

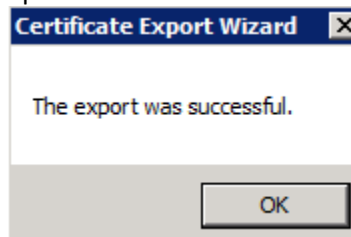
File name:

14) Click Finish.



< Back   Finish   Cancel

15) 'The export was successful' should display in a popup window if successful, and the PFX will be in the directory specified in step 13.



**Certificate Export Wizard** [X]

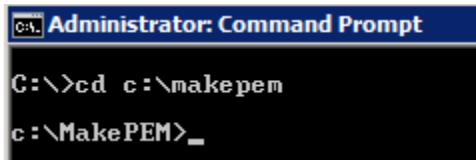
The export was successful.

OK

### 4.3.0 - Create PEM

Using the PFX created in the previous section, we will generate a PEM that Pcounter can use for web services.

- 1) Download makepem.zip at: <https://apps.pcounter.com/supportfiles/MakePEM.zip>
- 2) Open the makepem.zip and extract the MakePEM folder to c:\
- 3) Open a command prompt.
- 4) Use a CD command and change to c:\MakePEM or wherever the MakePEM directory was extracted to.



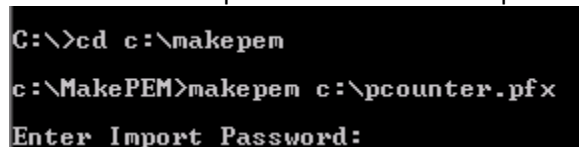
```
Administrator: Command Prompt
C:\>cd c:\makepem
c:\MakePEM>_
```

- 5) Run the command:  
makepem c:\pcounter.pfx




```
c:\MakePEM>makepem c:\pcounter.pfx
```

- 6) Enter the PFX password created in step 12 of section 1.1 and press enter.



```
C:\>cd c:\makepem
c:\MakePEM>makepem c:\pcounter.pfx
Enter Import Password:
```

- 7) When prompted to copy the Pcounter.pem to c:\windows\syswow64\pcounter, type y and press enter.
- 8) If successful, the message '1 file(s) copied' will be displayed.

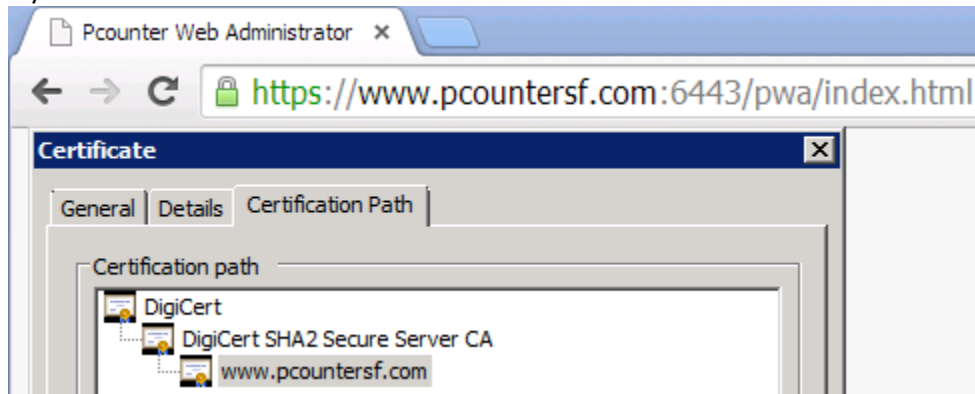


```
C:\>cd c:\makepem
c:\MakePEM>makepem c:\pcounter.pfx
Enter Import Password:
MAC verified OK
Copy pcounter.pem to C:\Windows\SYSWOW64\PCOUNTER? (Y/N) y
1 File(s) copied
```

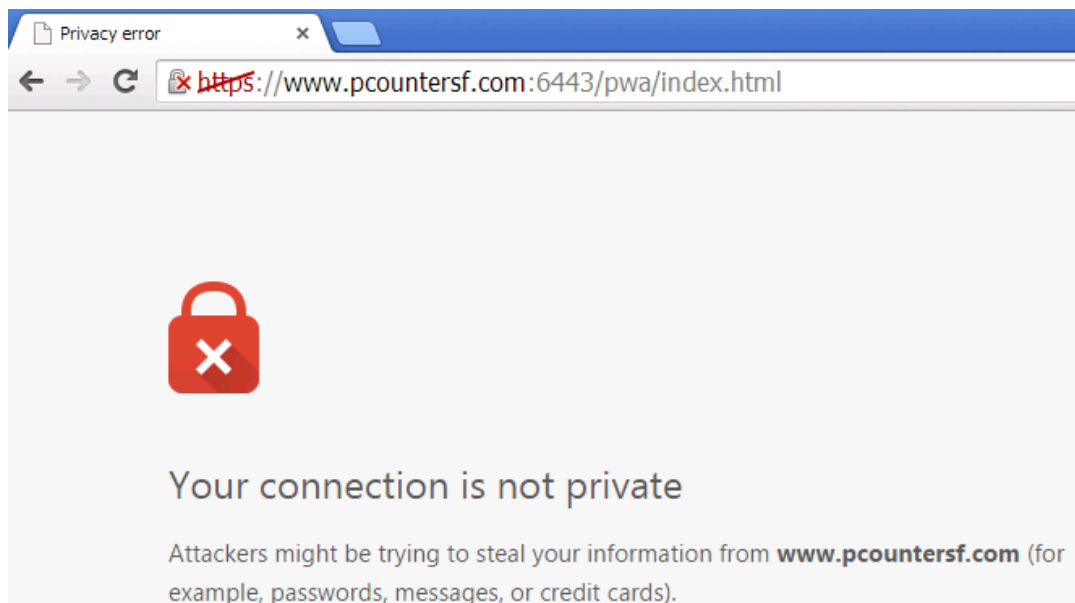
- 9) Go to services.msc and restart the Pcounter Data service to accept the new PEM.

#### 4.4.0 - Testing HTTPS

- 1) To test, browse to Pcounter WebPrint using HTTPS.
- 2) If successful, there will be no certificate warning message displayed in the browser. Also, the certification path will show the root, intermediary, and server certificates in a tree layout.



- 3) If **unsuccessful**, there will be a privacy or SSL error displayed.



## 5.0.0 - Conclusion & Links

This concludes the guide. If there are any questions, please email [support@pcounter.com](mailto:support@pcounter.com).

Links to common Pcounter Videos:

Pcounter for Windows - Prepare, Install, Configure: <https://www.youtube.com/watch?v=hyOaYOnVp3k>

Pcounter Administrator Training Video Part 1: <https://www.youtube.com/watch?v=FxwmXCE6ebU>

Pcounter Administrator Training Video Part 2: <https://www.youtube.com/watch?v=5jLsOj4tKJw>

Pcounter Popup Training Video: <https://www.youtube.com/watch?v=chSbuDZJlhQ>

Pcounter for Windows - Balance.exe as a Web App: [https://www.youtube.com/watch?v=J\\_IVgsgopnl](https://www.youtube.com/watch?v=J_IVgsgopnl)

All Pcounter Videos: <https://www.youtube.com/user/andtechsf>