Chrome OS printing using LPD

Users can print from their Chromebooks to a Windows machine running PDAgent using LPD. This has an advantage over Google Cloud Print in that the print spool data never leaves the local network.

Before you begin

Download the PPD driver file to the Chromebook

In this example we will be using a Konica Minolta driver downloaded from the Konica Minolta website. Please download the correct driver for your printer to the Chromebook. Example:

Driver	Utilities	User's Guide				
English		Ŧ	Windo	ws 10 (64bit)		
					C	Open all categories
Printer Driver						~
Universal Prin	ter Driver					~
Universal Prin	ter Driver V4					~
PPD	-					^
I	Emulation	Release Da	ite 👻	Version	Description	Download
PostScript		2018-07-26		110001.0000	More +	

Create or import the users

Before we set up the printer on the Chromebook, ensure the user exists in Print Director. Use your normal sync routine (Active Director or G Suite) or manually create the user. If the user is not created before we first print from the Chromebook, they will be automatically created depending on the device's Unregistered users setting:







For this example, we will be setting up a Chromebook for a user named John Smith who has a **Logon code** in Print Director of **JohnSmith**. Note that seeing as we are leveraging the LPR protocol Queue field for authentication on Chromebooks, we cannot support spaces in the Logon code for users since the LPR protocol doesn't allow it.

\delta User - John Smith		-	- 🗆 X
General Billing Account	Access Software Acces	s Rules Tel	Auth & Importing
User name:	John Smith		
Logon code:	John Smith 🛟 No sp	aces	
Controller User ID:	1234 A	ito	

Configuring the PDAgent

Before we set up the Chromebook, we will configure the PDAgent in Resource Manager.

Ensure a print queue exists that is matched to a device

When the PDAgent receives a job from LPR, it needs to know which print queue it should use for the job's processing (i.e. the device settings for the queue's Matched Device and whether to send to the device's main network adapter or the Fiery adapter if it has one). First it will try to match a queue using the Queue field it receives from LPR. If it can't match a queue it will simply use the first queue it can find that is matched to a device.

In the example below we have created a print queue called PrintDirector (no spaces allowed) and it is matched to a device:

😵 Resource Manager							_	· 🗆	×
File View Tools Help									
ColWin10VM DEV	Print Queue Name	PDAgent	Matched to Device	Port Name	Port Monitor	Host or IP	Driver	Share Name	1
PD Agents	🖶 Print Director	COLWIN10VM	Upstairs Colour	192.168.0.63	TCPMON.DLL	192.168.0.63	KONICA MINOL	Not shared	
Device Management									
Personal Printers									
Regions									
Print Queues									

Enable the LPD service on the PDAgent

The PDAgent we choose here will be acting as the print server for the Chromebooks. We enable the LPD service, choose the default print queue and specify that usernames will be extracted from the LPR Queue field in between curly braces {}:





	5							
General	Advanced	Devices	Users	PDServers	Print Ser	vices		
Sp	ool file folder							
(Use Windo	ows defaul	t spool f	older				
(Use path:							
⇒⊵] Enable LPD) Service						
U	se TCP port:	515		•				
lf i Pl	the LPR Que DAgent, then	ue name c match to th	annot be ne follow	e matched to a ing queue:	a Print Qu	eue on	the	
⇒Pr	int queue:	PrintD	irector			~	•	
U	ser authentic	ation field:						
=>Fi	rst, try:	extrac	t usemar	me between c	urly brace	s in LPI	Rc ~	
⇒ 5	then try:	LPR U	Jser Nam	ie			\sim	
	then try:						\sim	
				0	ĸ	C	ancel	

As soon as this PDAgent refreshes, it will be able to receive jobs via LPR. Note that if the Windows LPD Service is installed and running, the PDAgent will stop it.

Configuring the Chromebook

- Open the settings menu by clicking the bottom right of the screen.
- Select the settings icon at the top of the menu:



• In the settings window, type **printers** in the search field, then click **Printers** when it appears:



- 3 -



				- 5	×
Sett	ings	Q printers	8		
Ŧ	Network	Printing			
*	Bluetooth	Printers	•		
	Connected devices	printere			
*	Media Plugins	rint	•		
•	People	printers			

• Now click Add Printer:

			_
Setti	ings	Q printers	8
Ŧ	Network	← Printers	Q Search printers
*	Bluetooth		
	Connected devices	Set up or manage CUPS printers. Learn more	Add Printer

• In the Add nearby printer window, click the Add Manually button:

Add a nearby printer	
HP Color LaserJet MFP M577	
KONICA MINOLTA bizhub 958	
Chris-Dev.printer	
Add Manually	Cancel Add

- Now we need to enter the printer settings.
 - \circ ~ In the Name field you can enter any name you want.
 - The **Address** field must have the address for the machine running PDAgent (i.e. not the printer's address).
 - \circ ~ Choose LPD for the protocol.
 - The first part of the Queue field should be the name of the print queue on the PDAgent.
 The user's Logon code (this is different to their PIN) should be entered between the curly braces.
 - $\circ \quad \text{Click } \textbf{Add}.$





Add a printer manually Name
PrintDirector Any name for your printer
Address
192.168.0.85
Protocol
Line Printer Daemon (LPD)
Queue
PrintDirector{JohnSmith}
Queue name to match on the PDAgent machine
Add Nearby Printers Cancel Add

• Now we need to specify the driver file for the printer. Ensure that you have downloaded the correct PPD file for your printer. Click the **Browse** button.

Advanced printer configuration	
PrintDirector could not be configured automatically. Please specify adva details. Learn more	nced printer
Manufacturer	
Model	
Or specify your printer PPD Learn more	
	Browse
Cancel	Add

• Locate your PPD file and then click **Open**.



Blue Swift

Select a file to open	Select a file to open X				
My files > Downloads > IT5PPDLinux_1100010000MU > English > CUPS1.2 Q III AZ					z :
() Recent	Name	Size	Туре	Date modified 👻	
✓ ➡ My files	KOC759UX.ppd	303 KB	PPD file	Feb 9, 2018, 10:30 AM	
🗸 🖶 Downloads	KOC759opn.ppd	26 KB	PPD file	Feb 8, 2018, 9:37 AM	
IT5PPDLinux_110001000					
> 🖿 Chinese_Simplified					
> 🖿 Chinese_Traditional					
🗸 🖿 English					
CUPS1.1					
CUPS1.2					
> 🖿 French					
> 🖿 German					
> 🖿 Italian					
> 🖿 Jananese					
				CANCEL	OPEN

• Now click the **Add** button.

Advanced printer configuration	
PrintDirector could not be configured automatically. Please details. Learn more	e specify advanced printer
Manufacturer	
Model	
Or specify your printer PPD Learn more	
KOC759opn.ppd	Browse
Cancel	Add

• Now the printer is available:





How to print to the newly created printer

The example below shows printing from the Chrome application.

• Press control P to print. Select the **See more...** option from the **Destination** drop-down:

New	/ Tab	× (+
÷		arch Google or type a URL
*	Print	
	Total: 1 page	
		Cancel Save
	Destination	Save as PDF
	Pages	colindev Save as PDF
	Layout	See more
	More settings	~

• Select your newly created printer:

Select a destination		
Q Search destinations		
Save as PDF		
🖶 PrintDirector		
🖶 HP Color LaserJet MFP M577		
Manage	Cancel	
Print to Google Docs and other cloud destinations. Sign in to print to Google Cloud Print.		×

• Now click **Print**. After this, the printer will be saved to the recently used destinations.



User can now release their job

At this point, the job will be sent to the PDAgent. If the queue's matched device is set for Secure Document Release/Follow Me, the job will wait for the user to release it at the printer. You can check the list of waiting jobs on the PDAgent by right-clicking the PDAgent in Resource Manager and choosing **View Print Jobs**.

PD Agents	<default s<="" th=""><th>setting</th><th>s></th><th></th><th></th></default>	setting	s>		
Device Management	PCOLWIN	10\/M	2019/09/23 15-17-17 Onlig	e Colir	h
		9	Edit COLWIN10VM		
		2	Refresh		
Regions			Sync Offline DB		
Manual Print Queues Monica Minolta Integrated		8	Reset DB Settings		
Pricing Schedules		۵,	View Print Jobs		
Paper Sizes			Select All		
		8	Delete COLWIN10VM		
🗄 - 🔏 User Management	l '	_			

The user's job should appear in the list:

P Waiting print jobs on PDAgent: COLWIN10VM (total: 1)						_		Х		
Document	User	Status	Waiting	Device	Submitted	Print Server	Workstation	Queue	•	Pag
Untitled	JOHNSMITH	File - Queued	Waiting for Secure Release.	Upstairs Colour	2019/09/23 12	COLWIN10VM	192.168.0.49	PrintD	irector	1
<										>
arefresh	Auto-refr	esh Interval: 5	▲ seconds						Close	

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