

# How to Deploy Printers with Jamf Pro



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## Preface

Jamf will remove Jamf Admin in an upcoming release of Jamf Pro. Since one of the workflow that Jamf Admin provides is printer creation, an altenative way of printer creation is provided in this guide. You can use the Jamf Pro web app to create printers for deployment with a policy just as you can with the Jamf Admin app. Deploying printers in this fashion is preferred as all printer options such as duplex functionality and additional trays are captured in the printer description file that is deployed. This guide covers the process. Also, while there are workarounds to allow standard (non-administrative) users to self-deploy printers, deploying through Jamf Pro (automatically or on-demand in the Self Service app) does not require administrative privileges on the Mac.

For more information on the deprecation and removal of the Jamf Admin app from Jamf pro, visit:

https://learn.jamf.com/bundle/jamf-pro-release-notes-current/page/Deprecations\_and\_Removals.html

#### Requirements

- A Jamf Pro server, version 11.3
- macOS Sonoma, version 14.3.1
- Knowledge of how to install drivers and create local printers on macOS
- A network printer, connected using Wi-Fi or Ethernet, with a known IP address (static IP preferred)
- The printer driver package from the vendor web site



#### Section 1: Set up the Printer on your Mac

Before you can capture the PPD and create the Printer in Jamf Pro, you must set up the printer on a Mac computer. In the example, this guide is using a RICOH Aficio SP 4100 NL named Office Printer.

1. Obtain the printer driver package from the vendor's web site, then open the dmg.

•••	< > Downloads		»Q
Favorites AirDrop Creates Applications Desktop Documents Downloads	Ricoh_PS_Printer s_Vol20.0.dng 10.1.M8		
Locations	📓 Macintosh HD > 🛅 Users > 🛅 a	karneboge > 📴 Downloa	ads
C iCloud Drive	1 item, 973.2	9 GB available	-0

2. Install the pkg file. When you are asked whether you want to move the installer to the trash, click Keep. You will need to upload this package to your Jamf Pro distribution point. Those instructions are in Section 2: Upload the Printer Drivers and Configure the Printer in Jamf Pro.



3. Open System Settings, then click Printers & Scanners.





4. In Printers & Scanners, click Add Printer, Scanner, or Fax.

•••	< > Printers & Scanners	
Q Search	Default printer	Last Printer Used 🗘
💽 Siri & Spotlight	Default paper size	US Letter 🗘
🖐 Privacy & Security	No D	rinters
🔳 Desktop & Dock	NOP	Inners
🔅 Displays		Add Printer, Scanner, or Fax
🛞 Wallpaper	•	
Screen Saver		
Battery		
Lock Screen		
Touch ID & Password		
😕 Users & Groups		
Passwords		
Internet Accounts		
🥵 Game Center		
🔄 Wallet & Apple Pay		
Keyboard		
Trackpad		
Printers & Scanners		

5. In the Add Printer window click IP.

•	•	Ad	Printer	
		Default	IP Windows	
0	Q Search			
ų	Q pearch			
	Name		^ Kind	
	HP Color Lase	rJet Pro M453-4 [7B92F5]	Bonjour	
		Pro 8720 [0898A4]	Bonjour Multifun	
	RICOH Aficio	SP 4100NL	Bonjour	
	Name:			
	Location:			
	Use:			0
	036.			~
	?			C
	•			Add



6. Select Line Printer Daemon - LPD from the pull down menu.

-	Add Printer
	Default IP Windows
Address:	
	AirPrint
Protoco	/ Internet Printing Protocol - IPP
Queu	Line Printer Daemon - LPD
	HF Jetdirect - Socket
Nama	
Name:	
Name: Location:	
Location:	
Location:	ـــــــــــــــــــــــــــــــــــــ

- 7. Type in the IP address or FQDN (fully qualified domain name) of the printer. Most network printers will automatically discover the driver if it is installed. If it does not, choose Select Software from the "Use" pull-down menu and select the appropriate driver.
- 8. Rename the printer and enter the Location information if desired.
- 9. Click Add.

• • •	Add Printer		
	Default IP Windows		7
Address:	10.0.1.17		
	Valid and complete host name or address.		
Protocol:	Line Printer Daemon - LPD	<b>(</b>	
Queue:			
	Leave blank for default queue.		
			8
Name:	Office Printer		
Location:	Office		
Use:	RICOH Aficio SP 4100NL PS		
?		Add	



- 10.Select any optional modules that the printer has. Like in previous steps, most network printers will auto-discover these options. With the RICOH printer used in this guide, no optional tray or Duplex Unit is installed.
- 11.Click OK.



12.Confirm the printer is now added to the Mac computer. Print a test page of your choice to ensure the printer is working.

•••	< > Printers & Scanners	
Q Search	Default printer	Last Printer Used 💲
💽 Siri & Spotlight	Default paper size	US Letter 💲
🖐 Privacy & Security		
🔳 Desktop & Dock	Printers	
🔅 Displays	Office Printer	>
🛞 Wallpaper	• Idle, Last Used	
Screen Saver		Add Printer, Scanner, or Fax ?
Battery		
Lock Screen		
🎯 Touch ID & Password		
😕 Users & Groups		
Passwords		
Internet Accounts		
🥵 Game Center		
🔁 Wallet & Apple Pay		
Keyboard		
Trackpad		
Printers & Scanners		



### Section 2: Upload the Printer Drivers and Configure the Printer in Jamf Pro

In this section, you will upload the printer drivers package to Jamf Pro and configure the printer in the Jamf Pro web app. At that point you will have the assets to create a policy for deployment.

- 1. Log in to Jamf Pro, then click on Settings.
- 2. In Settings, navigate to Computer management.
- 3. Click Packages.

Pro				¢ å
없 Dashboard	>	Settings		
Co Devices	>	Search		🗸 Display icons
않 Users	÷	All System Global Jamf apps Self Service	Server Network Computer management	Device management User management Informati
ig: Settings		14 settings		
		Packages Upload packages, configure settings, and set deployment priority	Cripts Upload and manage scripts to deploy to computers, set parameters	Printers Configure printers to deploy to computers
		Directory bindings Allow Jamf Pro to bind computers to a directory service	Disk encryption configurations Use to manage and enable FileVault on computers	Dock items Manage Dock items on computers
		Patch management     Add external patch sources and set     number of times to retry deployment	Configure inventory information to collect for computers	Inventory display Select the attributes to display in a simple computer search

4. In Packages, click New (+), then choose a category. Categories are optional, but they are good to help you keep your server organized. They also help your users find the items they're looking for in the Self Service app. In this guide, a category of Printers is used.

Pro								Q 8
股 Dashboard	,	settings : Computer ma ← Package						
Devices	>							+ New
& Users	>	NAME	∧ ↓ CATEGORY	PRIORITY	♦ FUT	FEU	INDEXED	de
Ø Settings								



5. Click Choose File.

	¢	ô
settings : Computer management > Packages ← New Package		
General Options Limitations		
Display Name Display name for the package		
[Required]		
Category Category to add the package to Printers •		
Filename Elename of the nackage on the distribution point (e.g. "MyPackage.pkg") Choose File		
Information to display to the administrator when the package is deployed or uninstalled		
Notes Odisplay about the package (e.g. who built it and when it was built) Cance	H	Ca Save

- 6. Navigate to your printer drivers package.
- 7. Select your printer drivers package.
- 8. Click Upload.





9. Change the display name of the package and add any Info or Notes as desired.

10.Click Save. The package will appear in your packages list.

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Pro		Q 2
입 Dashboard	Settings : Computer management → Packages ← New Package	
Computers	General Options Limitations	
& Users >	Display Name	
Settings	Ricoh_PS_Printers_Vol2_EXP_LIO_Driver.pkg	
	Category Category to add the package to Printers	
	Filename Filename of the package on the distribution point (e.g. "MyPackage.pkg") Choose File Ricoh_PS_Printers_Vol2_EXP_LIO_Driver.pkg	
	Info Information to display to the administrator when the package is deployed or uninstalled	
	Notes Notes to shapley about the peckage (e.g. who built it and when it was built)	⊙ 🛱 Cancel Save

- 11.Click Settings.
- 12.Click Computer management.
- 13.Click Printers.





14.Click New (+).

Pro					<del>Q</del> 8
쭶 Dashboard		Settings : Computer			
Computers	>				
📮 Devices	>				+ New
쏞 Users	,	NAME	へ 中 MODEL	I DEVICE URI	-de-
Settings		No Printers			

15. Enter a display name for the printer and select a Category as desired.

16.Click Definition.

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Pro Pro		Q 8	
🗄 Dashboard	Settlings : Computer management > Printers		
Computers	General Definition Limitations		
쏞 Users > ④ Settings	Display Name Display name for the printer Office Printer Category Category to add the printer to Printers Set as Default Set as Default Information		15
	Information to display to the administrator when the printer is mapped or unmapped Notes Notes about the printer (e.g. who created it and when it was built)	O     Cancel	



- 17.Enter the CUPS Name, and optionally the Model and Location for the printer. The CUPS name is typically the same as the display name, but they do not need to match. The CUPS name will be the name of the printer when deployed to the Mac computer endpoints.
- 18.Enter the Device URI in the form of lpd://<ip\_address> where IP address is your four-octet IP address. In this guide, the printer is at the IP address of 10.0.1.17, thus the device URI is lpd://10.0.1.17.

NOTE: Ensure that your computer and web browser does not change the spelling of lpd.

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Pro		Q 8
🗄 Dashboard	Settings : Computer management > Printers	
Computers >		
Devices >	General Definition Limitations	
& Users >	CUPS Name	
Settings	Oueue name of the printer Office Printer	
	Model Model of the printer	
	RICOH Aficio SP 4100NL PS	
	Location Location of the printer	
	Office	
	Device URI Device URI of the printer (e.g. "ipp://10.1.20.120/")	-
	[pd://10.0.1.17]	
	Use the generic PPD file Use the generic PPD file that is built into macOS many to stort the con-	⊙ 🛱 Cancel Save

- 19.Disable "Use generic PPD file."
- 20.Click Upload PPD.

	••• • • •	🔒 cubswonitall.jamfcloud.com	ů + G
	Pro Pro		Q 8
10	Bit   Dashboard     Computers   Dashboard     Devices   Dashboard     Bit   Devices     Bit   Devices     Bit   Devices     Bit   Devices     Bit   Devices	General     Definition     Limitations       Location     Location of the printer       Office     Device URI       Device URI of the printer (e.g. "ipp://10.1.20.120/")       [ipd://10.0.1.77	
19— 20—		Use generic PPD file Use the generic PPD file Path To PPD File Upload PPD	0 12
			Cancel Save



#### 21.In the PPD dialog, click Choose File.

	PPD		
	FFD		
"ipp://10.1.20.120/")			
	Choose File No File Chosen		
			_
ile			
ile file that is built into macOS		Cancel Upload	

22.Press Shift-Command-G to open the "Go to Folder: dialog.

D Favorites	Choose Files to Uplo	bad
<ul><li>Dropbox</li><li>Recents</li></ul>	< > ( ) ( Downloads	C Search
🙏 Applicati	Yesterday	
e Documents	Add Printers to Jamf Pro.zip	
Desktop		
Downloads	Previous 7 Days	
😭 rgoon	Miller's-Ale-He-ecard-1.pdf Miller's-Ale-House-ecard.pdf	
ir 🛅 OneDrive	PKCS12_Crednline.com.pfx	
🗎 HCS Doc	PKCS12_Credonline.com.zip	
🗎 HCS-Ana	Retrospect Client	
iPadOS 17	welcome to Avice Portal.put	
🖯 Sonoma	Previous 30 Days	
🗎 Getting S	20230131-sta_nts-5912- ndf	
🗀 Creative		Cancel Upload
iCloud		
		Cancel Upload



23.In the Go to Folder dialog, enter /etc/cups/ppd, then press return.

	Choose Files to U	Upload	
	< > IIII • IIII • Townloads	≎ Q Search	
Epson XP-200			
	Yesterday		
odel of the printe	Add Printers to Jamf Pro.zip		
pson XP-200	/etc/cups/ppd	• • • • • • • • • • • • • • • • • • • •	
.p301174=200	Go to:		
ocation	private > etc > cups		
cation of the prir	private > etc > cups > ppd		
Smithtown			
evice URI evice URI of the p			
pp://192.168.23	Previous 30 Days		
pp.//192.100.23	20230131-sta_nts-5912-ndf		
		Cancel Upload	
🗍 Use gent		Cancer Opioad	
Use the ge	s built into macOS	Cancel Upload	
Path To PPD F			

24. Select the ppd file for your printer, then click Upload, then Upload again.

PPD	
Choose File Office_Printer.ppd	
	Cancel Upload



25. This guide uses a printer named Office Printer. You see the printer PPD in the Jamf Pro web app.

26.Click Save.

••• • • • •	La cubswonitalljamfcloud.com ⊘	0 1 + 10
Pro		Q 8
00 Dashboard	Settings: Computer management > Printers ← New Printer	
Computers		
Devices	General Definition Limitations	
🖧 Users 🔅	Location Location of the printer	
Settings	Office	
	Device URI	
	Device URI of the printer (e.g. "ipp://10.1.20.120/")  [pd://10.0.1.17	
	Use generic PPD file Use the generic PPD file that is built into macOS	
	Path To PPD File	
	/Library/Printers/PPDs/Contents/Resources/Office_Printer.ppd	•
	Office_Printer.ppd	
	Upload PPD	
		0
		ancel Save

27.Click Previous ( $\leftarrow$ ).

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Pro					Q 8
B Dashboard	Settings : Computer management ← Printers	ent			
Devices >					+ New
& Users >	NAME	∧ I MODEL		I DEVICE URI	di.
Settings	Office Printer	RICOH Aficio SP 4100NL PS		lpd://10.01.17	

The printer is now configured in Jamf Pro and ready for deployment.



# Section 3: Create a policy in Jamf Pro to deploy the printer through Self Service

In this section, you will create a policy that deploys the printer and its associated driver package in the Self Service app.

- 1. Log into Jamf Pro.
- 2. Click Computers.
- 3. Click Policies.
- 4. Click New (+).

		Pro		\$ S
	88	Computers	Computers Policies	
2 —	L G 8	Inventory Search Inventory	Q Filter Policies	(+ New) (≔ 88)
	\$	Search Volume Content Licensed Software	NAME         ∧ III FREQUENCY         III TRIGGER           ✓         No category assigned         ✓	ili SCOPE ili
3—		Content Management	Update Inventory     Once every week     Check-in	All computers
-		Configuration Profiles Software Updates		
		Restricted Software Mac Apps		
		Patch Management eBooks		
		Groups Smart Computer Groups		
		Static Computer Groups	<ul> <li></li> <li><!--</td--><td></td></li></ul>	



5. Enter a display name for the policy and select a Category as desired.

2	Pro		¢	8
::	Computers	computers : Policies ← New Policy		
G	Inventory	Options Scope Self Service User Interaction		
28 @	Search Inventory Search Volume Content	General General		
	Licensed Software	Packages Display Name Display Name Display Name Office Printer Office Printer		
	Content Management	Software Wudates Not Configured		
	Policies Configuration Profiles	Scripts Category to add the policy to		
	Software Updates	Printers O Printers Trigger		
	Mac Apps	Disk Event(s) to use to initiate the policy Comparison Startup		
	Patch Management	Not Configured When a computer starts up. A startup script that checks for policies must be configured in Jamf Pro for this to work		
	eBooks	Dock items     Dock items     Dock items     Use a user logs in to a computer. A login event that checks for policies must be configured in Jamf Pro for this to a	work	8
	Groups	Local Accounts Network State Change Cancel View a computer network state change (e.g., when the network connection changes, when the computer nerve	\$	Save

6. Set the Execution Frequency to Ongoing. As this policy will be deployed through Self Service, no additional triggers are necessary.

••	• • • •		🔒 cubswonitall.jamfcloud.com		Û	+	0
2	Pro				Ç	ç	8
88		Computers : Policies					
G	Inventory	Options Scope Self Service	User Interaction				
8	Search Inventory Search Volume Content Licensed Software Content Management Policies Configuration Profiles Software Updates	General	Trigger Event(s) to use to initiate the policy				
٢		Packages 0 Packages	Startup When a computer starts up. A startup script that checks for policies must be configured in Jamf Pro for this to work Loain				
		Software Updates Not Configured	Cogn <sup>in</sup> When a user logs in to a computer. A login event that checks for policies must be configured in Jamf Pro for this to work     Network State Change				
		Coripts	When a computer's network state changes (e.g., when the network connection changes, when the computer name changes, whe changes)	en the IP a	ddress		
		Printers 0 Printers	Enrollment Complete     Immediately after a computer completes the enrollment process				
	Restricted Software	Disk Encryption Not Configured	Recurring Check-in At the recurring check-in frequency configured in Jemf Pro				
	Mac Apps Patch Management	Dock Items 0 Dock Items	Custom At a custom event Execution Frequency				
	eBooks	Local Accounts 0 Accounts	Ongoing •				
	Groups Smart Computer Groups	Management Accounts     Not Configured	Make Available Offline     Cache the policy to ensure it runs when Jamf Pro is unavailable				
	Static Computer Groups	Directory Bindings O Bindings	Target Drive The always which the net the particle (a. "Alfordersellike/barsel"). The particip rune are the bend of the bit default		⊙ Cancel	Sav	



- 7. In the payload sidebar select Packages.
- 8. Click Configure.

	Pro		Ф 8
88 L	a compaters	computers : Policies ← New Policy	
	) Inventory	Options Scope Self Service User Interaction	
õ		General General	
¢	Search Volume Content	Packages 0 Packages	
	Content Management	(a) Software Updates Not Confloured	
	Policies	Not Configured	
	Configuration Profiles	Scripts O Scripts Configure Packages	
	Software Updates	Printers Use this section to install, cache, and uninstall packages. Also use this section to install a single	
	Restricted Software	© Printers packages. Also use this section to install a single cached package.	
	Mac Apps	Disk Encryption Not Configured	
	Patch Management	Dock Items	
	eBooks	0 Dock Items	
	Groups	Local Accounts 0 Accounts	
	Smart Computer Groups	Accounts	
	Static Computer Groups	Not Configured	
	Classes	Directory Bindings	Cancel Save

9. Locate your printer drivers package, then click Add. Leave the Distribution Point set to Each computer's default distribution point and the Action set to Install.

••	• • < >		🔒 cubswonitall.jamfcloud.com 🖒	⊕ <sup>†</sup> +	Ō
2	Pro			<i>چ</i> ٤	8
88 12	Computers	Computers : Policies	,		
G	Inventory	Options Scope Self S	Service User Interaction		
ĉ	Search Inventory Search Volume	[a] General	Packages	Packages Settings	)
ø	Content Licensed Software	Packages 0 Packages	NAME	CATEGORY	
	Content Management	Software Updates Not Configured	hp-printer-essentials-UnIPS-6_1_0_1.pkg Install_macOS_Ventura13.2.pkg	Printers Add macOS Upgrades Add	_
	Policies	, i i i i i i i i i i i i i i i i i i i	JamfHelper-BrandedLogo.pkg	macOS Upgrades Add	
	Configuration Profiles	Scripts 0 Scripts	Ricoh_PS_Printers_Vol2_EXP_LIO_Driver.pkg	Printers Add	D
	Software Updates Restricted Software	Printers 0 Printers	Sentinel-Release-22-4-1-6538_macos_v22_4_1_6538.pkg	Security Add	)
	Mac Apps Patch Management	Disk Encryption Not Configured			
	eBooks	Dock Items 0 Dock Items		© 🛱	,
	Groups	Local Accounts		Cancel Save	



10.In the payload sidebar select Printers.

11.Click Configure.

	2	Pro		Ą.	8	
	88 Q	Computers	computers : Policies ← New Policy			
10		Inventory Search Inventory Search Volume Content Licensed Software Content Management Policies Configuration Profiles Software Updates Restricted Software Mac Apps Patch Management eBooks Groups Smart Computer	Options       Scope       Self Service       User Interaction         Image: Configure Printers       Package         Image: Printers       Derivers         Image: Dick Encryption       Configure Printers         Image: Dick Encryption       Configure         Imag			-11
		Groups Static Computer Groups Classes	Accounts Not Configured O Directory Bindings Ocano			

12.Locate your printer, then click Add. Leave the Action set to Map.

2	Pro				Q 8
::	Computers	computers : Policies ← New Policy			
G	Inventory	Options Scope Self S	ervice User Interaction		
(t) (t)	Search Inventory Search Volume Content Licensed Software Content Management Policies Configuration Profiles	<ul> <li>Packages 1 Package</li> <li>Software Updates Not Configured</li> <li>Scripts 0 Scripts</li> <li>Printers</li> <li>Printers</li> </ul>	Printers NAME Office Printer	CATEGORY Printers	( Printers Settings )
	Software Updates Restricted Software Mac Apps Patch Management	Disk Encryption Not Configured Dock Items 0 Dock Items			
	eBooks Groups	Local Accounts 0 Accounts Management			〇 屆 Cancel Save



#### 13.Click Scope.

	2	Pro		¢	8
	88	Computers	computers: Policies ← New Policy		
13 —		inventory	Options Scope Self Service User Interaction		
15	8	Search Inventory Search Volume Content	Targets Limitations Exclusions		
14 —		Licensed Software	Target Computers Target Users Users Users Users Users Users Section 2014 (Computers Computers Section 2014) (Computers Section 2014) (Computer 2014) (Computers Section 2014) (Computer 2014		
		Policies Configuration Profiles Software Updates	Selected Deployment Targets	+ Add	)
		Restricted Software	TARGET TYPE		
		Mac Apps Patch Management	No Targets		1
		eBooks Groups		⊗ Cancel	Cal Save

14.Set Target Computers to All Computers or your desired Scope.

15.Click Self Service.

16. Select the checkbox for Make the policy available in Self Service.

2	I Pro						
::	Computers	Computers : Policies Computers : New Policy 15					
تا 23 (ه	Inventory Search Inventory Search Volume Content Licensed Software	Options Scope Self Service User Interaction					
	Content Management	Display name for the policy in Self Service (Self Service 10.0.0 or later) Office Printer					
	Policies Configuration Profiles Software Updates	Button Name Before Initiation Name for the button that users click to initiate the policy Install					
	Restricted Software	Button Name After Initiation Name for the button that users click to reinitiate the policy Reinstall					
	Patch Management						
	eBooks Groups	Description Description to display for the policy in Self Service Type your description here	⊗ Cancel	C Save			



17.If desired, add an icon for the printer as well as categorize the printer. Selecting a category will enable your users to locate the policy with ease.

18.Click Save.

2	Pro		¢	8
89	Computers	computers : Policies ← New Policy		
Co	Inventory	Options Scope Self Service User Interaction		
8	Search Inventory	Notification		
$\langle 0 \rangle$	Search Volume Content	Display notifications for the policy		
	Licensed Software			
	Content Management	Icon to display for the policy. It is recommended that you use a file with the GIF or PNG format. The recommended size is 512×512 pixels.		
	Policies	and the second se		- 1
	Configuration Profiles			
	Software Updates	ricoh.png		
	Restricted Software	Upload Icon		
	Mac Apps	Select Existing Icon		
	Patch Management			
	eBooks	Categories	Г	
	Groups	Categories in which to display or feature the policy in Self Service		A Save

19.Inspect your policy on the main Policies page to ensure you have a payload, Scope, Trigger, and Execution Frequency.

2	<b>Pro</b> Q							
	Computers	computers ← Policies						
ت %	Inventory Search Inventory Search Volume	> No category assigned						
٢	Content Licensed Software	Printers     Office Printer Ongoing Self Service All computers						
	Content Management Policies	1 😺 Install Ricoh_PS_Printers_Vol2_EXP_LIO_Driver.pkg						
	Configuration Profiles Software Updates	2 🚊 install Office Printer						
	Restricted Software Mac Apps	> Security						
	Patch Management	> Security and Restrictions						
	eBooks Groups	<ul> <li>I ▼     <li>Show:     <li>100 ▼</li> </li></li></ul>						



20.Open Self Service. The policy to install the printer and its associated driver package is visible in the category that this guide selected called Printers.

Self Service	Browse Printers	AZ 📀
Q Search		
Home Browse All macOS Upgrades Printers	Office Printer	
A Notifications	Install	
④ History		
🛆 Log In		

This completes this guide.