PaperCut

PaperCut MF - Dell MFP Embedded Manual

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1 Document revision history

Published date or release	Details of changes made
19.2.0	2.3.7 Install PaperCut MF
19.0.0	4.5 PaperCut Server Configuration; 6.3 SNMP



2 Installation

This section covers the installation of the PaperCut embedded application for compatible Dell MFP devices. The embedded application will enable access control, secure printing and "Find-Me" printing, and allow logging of copying, scanning and faxing (for information on tracking network printing see the PaperCut user manual).

2.1 Requirements

Before installing the PaperCut Embedded Application on to the Dell MFP device, ensure that basic monitoring of network printing has been setup up and tested for this device. The device would show up in the printer list in the PaperCut web interface and have a few print jobs in its print history.

After that, ensure the following points are checked off before getting started:

- PaperCut is installed and running on your network. Please see the 'Introduction -> Quick Start Guide' section of the PaperCut user manual for assistance.
- Ensure that your Dell MFP device is supported.
- Ensure that the Dell MFP device is connected to the network.
- Have available the network name or IP address of the Dell MFP device.
- It is recommended that the device be configured with a *static IP address*.
- Verify that firewalls or other network restrictions do not prevent the device access to the PaperCut server on ports 9191 and 9193.

2.2 Device Compatibility

Integration is supported for compatible Dell devices. For a list of supported models, see http://www.papercut.com/tour/embedded/dell#supported.

Please check with your local Dell supplier that your devices are running an up to date firmware version.

2.3 Setup procedure

To install PaperCut MF (i.e. device registration and integration):

- 2.3.1 Log in to the device's web interface as an administrator
- 2.3.2 Create a digital certificate
- 2.3.3 Enable Secure Sockets Layer (SSL)
- 2.3.4 Enable Plug-in Settings
- 2.3.5 Deploying plugin-ins (Dell C5765dn only)
- 2.3.6 Disable Print Accounting
- 2.3.7 Install PaperCut MF
 - o 2.3.7.1 Install PaperCut MF on multiple devices
 - 2.3.7.2 Install PaperCut MF on each device

2.3.1 Log in to the device's web interface as an administrator

The following installation steps are based on the Dell C7765dn interface. The administration web interface and steps may differ for your model or model version.

Access the device's web interface at http://<device-url> and login as the administrator.

Deel		Dell	C7765dn Color N	AFP	🔓 System A	dministrator - Logout
Status	Jobs	Print	<u>Scan</u>	Address Book	<u>Properties</u>	<u>Support</u>
Status General		General				
Trays Consumables Counters Total Runtime			IP 4	Name:C7765dn Color Address: IPv4: 10.100.6 Status:Ready Energy Saving Status	MFP 4.59	
			Re	fresh Reboot Mac	chine	

Dell Printer Configuration Web Tool for Dell C7765dn Color MFP Version 1.8

The default administrator username and password is detailed in the device manuals. At time of writing, the default administrator username is "admin" and password "1111". It is recommended to change the administrator password as soon as possible.

2.3.2 Create a digital certificate

For secure communications between the device and PaperCut server, a digital certificate needs to be created.

- 1. From the web interface, select the **Properties** tab.
- 2. Select the **Security** group.

3. Select Machine Digital Certificate Management.

BELL	Dell C7765dn Color MFP			🔓 System	🏖 System Administrator - Logout	
<u>Status</u> <u>Jobs</u>	Print	Scan	Address Book	Properties	<u>Support</u>	
Properties	Machine D	ioital Certifi	rate Man	agement		
Configuration Overview		ightar cortain		agement		
Description	Machine Digital Ce	rtificate				
General Setup						
▶ Connectivity		Create New Self Sign	ed Certificate	Upload Signed Certific	ate	
 Services 						
▶ Accounting						
Authentication Configuration						
User Details Setup						
Create Authorization Groups						
Remote Authentication Servers						
IP Filtering						
Unbounded Port						
Audit Log						
Machine Digital Certificate Managemen	t					
IPSec						
Certificate Revocation Retrieval Settings	š					
IEEE 802.1x						
SSL / TLS Settings						
PDF / XPS Signature Settings			Ν			
• Watermark			15			
Force Annotation	De	11 Printer Configuration	Web Tool for Del	l C7765dn Color MFP Vers	sion 1.8	
Job Status Default					· · · · · · · · · ·	
 Plug-in Settings 						
System Administrator Settings						
Smart Card Settings						

- 4. Select the **Create New Self Signed Certificate** button.
- 5. You can leave the certificate settings at their default, or change to taste.

(real)		Dell	C7765dn Color	MFP	_ ∂ Syst	em Administrator - Logo	
<u>Status</u>	Jobs	<u>Print</u>	Scan	Address Book	Properties	<u>Support</u>	
Properties		Machine Di	ioital Certif	icate Manage	ment		
Configuration Overvi	iew	Machine Di		icate Manage	ment		
Description		Create Self-Signed C	Certificate				
▶ General Setup							
▶ Connectivity		Digital Signature Al	gorithm:	RSA/SHA-	256 🔻		
Services		Public Key Size:		2 048 Bits	•		
► Accounting				2,010 210			
 Security 		Issuer:		DL-C93326	5		
Authentication Co	onfiguration	Days of Validity:		365	(1 - 9999)		
User Details Setu	p						
Create Authorizat	tion Groups						
Remote Authent	ication Servers			Apply Undo			
IP Filtering							
Unbounded Port							
Audit Log							
Machine Digital C	Certificate Management						
IPSec	tion Datainat Cations						
UEFE 002 1m	ation Ketrievai Settings						
SSI / TI S Setting	-						
PDF / YPS Signal	so tura Sattingo						
Watermark	ture settings						
Force Annotation	n						
Job Status Default		Del	I Printer Configuration	1 Web Tool for Dell C770	65dn Color MFP V	ersion 1.8	
Plug_in Settings							
System Administr	rator Settings						
Smart Card Sett	ings						
	•						

6. Press the **Apply** button.

2.3.3 Enable Secure Sockets Layer (SSL)

- 1. From the web interface, select the **Properties** tab.
- 2. Select the **Security** group.
- 3. Select SSL / TLS Settings .
- 4. Tick the **HTTP SSL / TLS Communication** checkbox.

Deel	Dell C7765dn Color MFP	🎝 System Administrator - Logout
Status Jobs	<u>Print</u> <u>Scan</u> <u>Addres</u>	s Book Properties <u>Support</u>
Properties Configuration Overview	SSL / TLS Settings	
Description	SSL / TLS Settings	
▶ General Setup		_
▶ Connectivity	HTTP - SSL / TLS Communication:	🖉 Enabled
 Services 	HTTP - SSL / TLS Communication Port Number:	443 (1 - 65535)
▶ Accounting		
✓ Security	LDAP - SSL / TLS Communication:	🖉 Enabled
Authentication Configuration	SMTP - SSL / TLS Communication:	*Disabled 🔻
User Details Setup	ThinPrint SSL / TLS Communication:	Fridad
Create Authorization Groups	Thin Thit - 5527 TES Communication.	
Remote Authentication Servers	S/MIME Communication:	Enabled
IP Filtering	Verify Remote Server Certificate:	Enabled
Unbounded Port		
Audit Log	Arrely	
Machine Digital Certificate Management	Арру	Undo
IPSec		
Certificate Revocation Retrieval Settings	N	
IEEE 802.1x	A Company	
SSL / TLS Settings		
PDF / XPS Signature Settings		
▶ Watermark		
▶ Force Annotation	Dell Printer Configuration Web Tool	for Dell C7765dn Color MFP Version 1.8
▶ Job Status Default		
▶ Plug-in Settings		
System Administrator Settings		
Smart Card Settings		

- 5. Press the **Apply** button.
- 6. The settings will be saved and the machine will request a reboot. Press the **Reboot**

Machine button, and confirm you want to reboot the device.

Once the device is rebooted, you will only be able to connect to the device via the secure https://<device-url>.

2.3.4 Enable Plug-in Settings

- 1. From the web interface, select the **Properties** tab.
- 2. Select the **Security** group.
- 3. Select the **Plug-in Settings** sub-group.
- 4. Select the **Plug-in Settings** list item.
- 5. Tick the **Plug-in Settings** checkbox.

<u></u>	Dell C7765dn Color MFP			澹 System Administrator - Logout	
<u>Status</u> <u>Jobs</u>	Print	Scan	Address Book	Properties	<u>Support</u>
Properties	Plug-in Settin	igs			
Configuration Overview					
Description	Plug-in Settings				
General Setup	Ding in Cattings				
Connectivity	Plug-in Settings:		🗷 Enabled		
Services					
Accounting			Apply Undo		
▼ Security					
Authentication Configuration					
User Details Setup					
Create Authorization Groups					
Remote Authentication Servers					
IP Filtering					
Unbounded Port					
Audit Log					
Machine Digital Certificate Management					
IPSec					
Certificate Management					
Certificate Revocation Retrieval Settings					
IEEE 802.1x					
SSL / TLS Settings					
PDF / XPS Signature Settings					
Watermark					
Force Annotation					
Job Status Default					
✓ Plug-in Settings					
Plug-in Settings	Dell Pri	nter Configuration W	eb Tool for Dell C7765d	In Color MFP Versio	n 1.8
List of Embedded Plug-ins					
Service Representative Restricted Operati					
System Administrator Settings					
Smart Card Settings					

6. Press the **Apply** button. You will be asked to reboot the device.

2.3.5 Deploying plugin-ins (Dell C5765dn only)

The solution requires embedded component plugins to be deployed to the device for operation. These are normally automatically deployed as part of device creation in PaperCut.

C5765dn requires that the plugins be deployed by the administrator via the administration UI.

- 1. From the web interface, select the **Properties** tab.
- 2. Select the **Security** group.
- 3. Select Plug-in Settings .
- 4. Select List of Embedded Plug-ins .
- 5. Use **Upload** button to upload each plugin JAR file located under:

[PaperCut Install Location]\providers\hardware\dell



(met)		Dell C5765dn Colo	or MFP		System Administrator - Logou		
<u>Status</u> <u>Jobs</u>	Prin	t <u>Scan</u>	Address Book	Properties	<u>Support</u>		
Properties Configuration Overview Description	List o	f Embedded Plug-i	ins				
Description	Plug-in Platform						
Connectivity	Version:	1.1.2					
Services							
▶ Accounting							
✓ Security	Upland	Lindata Dolata			Details Start Stap		
Authentication Configuration	Opioad	Opdate Delete			Details Start Stop		
User Details Setup		Plug-in Name Statu:		Status			
Create Authorization Groups							
Remote Authentication Servers		PanarCut Authentiaction Physic		A ativate d			
IP Filtering		PaperCut Authentication Flugin		Activated			
Unbounded Port	0	PaperCut Card Reader Plugin		Activated			
Audit Log							
Machine Digital Certificate Managem							
IPSec							
Certificate Management							
Certificate Revocation Retrieval Settir	Datt Printer Configuration Web Tool for Datt 0576540 Color MED Version 1.8						
FIPS140 Validation Mode		Dear Hinter Colligue	addit web 1001101Der	0570541 00101 1411	· • • • • • • • • • • • • • • • • • • •		

If you're upgrading plugins on a device, before proceeding with update the plugins need to be stopped and device rebooted.

Once the plugins have been installed or updated the device will instruct to perform a reboot prior to activation.

2.3.6 Disable Print Accounting

When PaperCut is monitoring print queues, it has control of what print jobs are allowed to print. If PaperCut allows a job to print, we do not want the device to deny the print job or track printing twice (duplicate charging). This requires that print accounting is disabled in the printer driver and on the device, as described below.

Set up a print queue for the MFP on the print server using vendor provided print drivers. The driver has to be configured to allow unauthenticated printing. For Windows, right-click the corresponding printer icon in the Printers section of Windows Control Panel and select "Printer Properties". Select the "Configuration" tab:

General	Sharing	Ports	Advanced	Color Management						
Securit	у	Device Set	tings	Configuration						
- Bi-Directio	onal Communi	cation								
D: Discution										
machine, in	Bi-Directional communication will allow you to receive status information(job, machine, installed options), Select the Bi-Directional button to setup									
bi-direction	al communicatio	n.								
	Bi-Directi	onal Setup								
- Installable	Ontions									
Coloct the		na huttan ta asl	act the options th	at are installed on						
your system	installable Optiol 1.	ns button to sei	ect the options th	at are installed on						
	Installab	e Options								
Accountin	g									
Select the	- Accounting butt	on to setup acc	ounting for your s	vstem						
				,,						
	Acco	unting								
About										
About										
			UK	Cancel Apply						

On this tab, select "Accounting", then select "None" in the drop down and save.

2.3.7 Install PaperCut MF

To install PaperCut MF (i.e. device registration and integration):

- 1. Log in to the PaperCut MF Admin web interface.
- 2. Navigate to Options > Advanced.
- 3. In the External Hardware Integration area, select Enable external hardware integration (for supported devices only).
- 4. Click Apply.
- 5. You can use any one of the following options:
 - 2.3.7.1 Install PaperCut MF on multiple devices
 - 2.3.7.2 Install PaperCut MF on each device

2.3.7.1 Install PaperCut MF on multiple devices

PaperCut MF 19.2.0 introduced a feature to create multiple devices in bulk through a CSV file via server commands. In 20.0.0 we added a way to load this CSV file via the PaperCut MF UI. You can find the feature under: PaperCut MF > Devices > Create multiple devices.

Using this feature increases your operational efficiency by significantly reducing the time taken to add devices to PaperCut MF. From version 20.0, this feature also allows for you to add devices to PaperCut MF before such devices are delivered to their installation site, such devices are added with a "Staged" status. The scenario for "Staged" devices applies when the system admin already knows all the device's attributes prior to its delivery. For more information, see the Enhanced Deployment Project.

2.3.7.2 Install PaperCut MF on each device

Note: If you are running a version prior to PaperCut MF 19.2.0, then this is the only applicable option.

To install PaperCut MF on each device:

- 1. Log in to the PaperCut MF Admin web interface.
- 2. Navigate to the "Devices" tab.
- 3. Click "Create Device" in the left pane.
- 4. From the "Type" drop down, select "Dell MFP".
- 5. Enter a descriptive name for the device under "Device name".
- 6. Enter the device's network name or IP address under "Hostname / IP".
- 7. Optionally enter location/department information.
- 8. Enter the device administrator username and password.
- Under "Function", tick "Track & control copying" and "Enable print release". (Enabling both copy and print release functionality allows for post-installation testing).
- 10. Click "OK".

The device summary screen will now display with a section titled "Device status". The device will take up to two minutes to initialize and install plugins, and will automatically reboot one or more times during the process. Various status messages will be displayed as initialization progresses. Once complete, the device status will show **"Started – Waiting for user to login"**:

Device status

```
Started - Waiting for user to login.
```

[Refresh]

Before proceeding with testing, ensure the device has started successfully and no warnings or errors are shown on the device status.

Installation process requires the device to be not in use, please ensure the device status shows up as "Ready" in the status tab of the device administrative interface. The device may be in use due to the presence of a person in front of the sensor, use of the device panel or during execution of jobs.

Please note that additional configuration settings need to be applied to the device after the first reboot. The MFP screen may temporarily show an error message until the install process resumes, completes, and reboots the device one more time. It's therefore advised to wait before using the device until the device status in PaperCut reflects that it has started, with no further setup activities to do.

Once the device is successfully created in PaperCut, the device screen should change to display the PaperCut login screen:

PaperCut	Log In
	Please enter your username and password.
	Username:
	Password:
	Log In

This first screen reflects the currently allowed authentication methods for the device in PaperCut, and will change depending on the authentication methods selected on the device details page. If the MFP is not showing PaperCut login screen and is instead showing an error message suggesting that the screen cannot be displayed please verify that the "Login Type" setting is set to "Customized Login".

- 1. From the web interface, select the **Properties** tab.
- 2. Select the **Security** group.
- 3. Select Authentication Configuration
- 4. Set Login Type to "Customized Login"
- 5. Reboot as instructed

(pest)	Dell C5765dn Co	olor MFP	🎝 System Administrator - Logou
<u>Status Jobs</u>	<u>Print</u> <u>Scan</u>	Address Book Properties	<u>Support</u>
Properties Configuration Overview	Authentication Configu	ration > Step 1 of 2	
Description	Authentication Configuration		
General Setup			
Connectivity	Login Type:	*Customized Login	~
Services	Print Stored File from Folder:	✓ Enabled	
Accounting	Folder to PC / Server	Finabled	
✓ Security	roller to r c / server.	C Ellabled	
Here Details Seture	Non-account Print:	Enabled	
Create Authorization Groups	Guest User:	*Off 🗸	
Parente Authonization Groups	Cwart Pagaada		
ID Eiltering	Guest i asscoue.		
Unbounded Port	Retype Guest Passcode:	•••••	
Audit Log	Smart Card Link Mode:	*Enter Passcode	\checkmark
Machine Digital Certificate Managem			
IPSec	Save accounts in this machine:	*Disabled V	
Certificate Management	Delete Remote Accounts:	*Do Not Delete Automatio	cally 🗸
Certificate Revocation Retrieval Settir			
FIPS140 Validation Mode	Dell Printer Configu	iration Web Tool for Dell C5765dn Color M	IFP Version 1.8

3 Post-install testing

After completing installation and basic configuration it is recommended to perform some testing of the common usage scenarios. This is important for two reasons:

- 1. To ensure that the embedded application is working as expected.
- 2. To familiarize yourself with the features and functionality of PaperCut and the embedded application.

This section outlines four test scenarios that are applicable for most organizations. Please complete all the test scenarios relevant for your site.

3.1 Test Preparation

To complete these tests it is recommended you use two test users so each can be configured differently. These users are:

- 'testusersimple' Used to perform basic copier monitoring and control and to perform print release tests.
- 'testuseradvanced' Used to perform copier monitoring and control with the account selection enabled (i.e. to charge copying to accounts/departments/costcenters/etc.).

If you have existing users that can be used for these tests, then they can be used instead.

To setup these users in PaperCut:

- 1. Create the 'testusersimple' and 'testuseradvanced' users in your Active Directory or LDAP directory.
- 2. Log into the PaperCut's admin web interface
- 3. Go to the "Options->User/Group sync" page and press "Synchronize Now".
- 4. Once the sync is complete, the users will be added to PaperCut.

The next step is to configure the users. To configure 'testusersimple':

- 1. In PaperCut, select the "Users" tab
- 2. Select the 'testusersimple' user.
- 3. Set the user's balance to \$50.00 and verify the account is set to "Restricted".

Account Details	Balance	
To set the user's balance enter the value here. To adjust the amount select the 'adjust' link	\$50.00	(adjust)
Making the user 'restricted' means that they will not be able to print when their account has	Restricte	d
no credit.	Overdraft	
	Use default	t overdraft (\$0.00) 🔍

4. Verify that this user is set to "Automatically charge to personal account" in the "Account selection" options.

Account Selection	Print account selection
Account selection can be used to allow the user	Automatically charge to personal account $~~$ $~~$
to select which account is charged. However,	
some options may require the user to run the	
User Client.	
More Information	

5. Press the "OK" button to save.

To configure 'testuseradvanced':

- 1. In PaperCut, select the "Users" tab
- 2. Select the 'testuseradvanced' user.
- 3. Change the "Account Selection" option to "Show Standard account selection" and enable the relevant account selection options.



4. Press the "OK" button to save.

3.2 Scenario 1: Standard copying

Standard copying involves monitoring/charging printing to a user's personal account. This is most commonly used for student printing or basic staff monitoring. Users can also be configured for unrestricted printing, which is commonly used for staff/employee use.

At the photocopier:

- 1. The photocopier should display a screen to prompt the user to login. Follow the prompts to login.
- 2. When prompted, enter username ('testusersimple') and password in the login fields.
- 3. At this point the copier will be enabled for usage.
- 4. Follow the onscreen instructions and perform some test copying, i.e. press the "Copy" key on the device and perform a copy as normal.
- 5. Once completed copying press the "Logout" button on the device's keypad.

Back in the PaperCut application verify that the copier activity was recorded and the user's account deducted.

- 1. Log into PaperCut.
- 2. Select the device from the "Devices" tab.
- 3. Select the "Job Log" tab. This will list all recent copying activity on the copier. The copying just performed as the test user should be listed. Verify the details of the copy job that was just performed.

<u>Usage Date</u> 🔻	User	Charged To	Pages	Cost	Document Name	Attribs.
Apr 16, 2008 2:59:30 PM	testusersimple	testusersimple	2 (Color: 0)	\$0.20	[copying]	A4 (ISO_A4) Duplex: No Grayscale: Yes

- 4. Click on the user's name in the user column to view the user's account details
- 5. Select the "Job Log" tab to display all print/copy activity for the user.
- 6. Select the "Transaction History" tab and verify that the cost of the photocopying was deducted from the user's account.

Transaction date	Transacted by	Amount	Balance after
Apr 16, 2008 3:05:40 PM	[system]	-\$0.20	\$49.80
Apr 16, 2008 3:04:15 PM	admin	\$40.20	\$50.00

3.3 Scenario 2: Copying with account selection

Firstly a test account should be created:

- 1. Log into PaperCut, select the "Accounts" tab.
- 2. Select the "Create a new account..." action link on the left.
- 3. Enter an account name "Test Account 1".
- 4. Enter PIN/Code "2233".
- 5. Select the "Security" tab and allow all users to access that account by adding the "[All Users]" group.
- 6. Press "OK".

At the photocopier:

- 1. The photocopier should be displaying a screen to prompt the user to login. Follow the prompts to login.
- 2. When prompted, enter the username, 'testuseradvanced', and the password in the login fields.
- 3. You will now be presented with the Account Selection page:

PaperCut	Sele	ect Accou	nt	Log Out
From List	Search	By Code		
My Personal Account				
Mathematics Account				
Envirotech				
Finance Account				

You may select your account from a list, by search or by an account code/PIN. From the list, select the "Test Account 1" created earlier.

- 4. At this point the copier will be enabled for usage. Follow the onscreen instructions and perform some test copying. I.e. press the "Copy" key on the device and perform a copy as normal.
- 5. Once completed copying press "Logout" button.

Note: The account selection workflow can vary according to the user options selected, such as "Advanced account selection" or "Show standard account selection". For more information, see the <u>PaperCut MF manual</u>. At the device level, you may also configure whether you wish to see the Account Summary screen or not.

Back in the PaperCut application verify that the copier activity was recorded and the user's account deducted.

- 1. Log into PaperCut
- 2. Select the device from the "Devices" tab
- 3. Select the "Job Log" tab. This will list all recent copying activity on the copier. The copying just performed as the test user should be listed.
- 4. Verify the details of the job (i.e. that the job was charged to the selected account).
- 5. In the log details, click on the "Charged To" account name to view the account's details.
- 6. Selecting the "Job Log" tab will display all print/copy activity for the account, and will show the test photocopying that was performed.

3.4 Scenario 3: Print release

The embedded application may also be used for print release. For a full description of PaperCut hold/release queues and release stations, please read the PaperCut manual.

Skip this scenario if hold/release queues will not be used at your site.

To perform print release testing, a hold/release queue must be enabled:

- 1. In PaperCut, select the "Printers" tab.
- 2. Select the print queue (i.e. not the 'device') for the Dell MFP that will be used for testing.
- 3. Enable the "Hold/release queue" option.

•	Enable hold/release queue	
	Release mode	
	User release	~

4. Press OK/Apply to save the changes. All printing to this queue will now be held until released by a user.

The photocopier device must also be enabled as a "Print Release Station":

- 1. In PaperCut, select the "Devices" tab.
- 2. Select the Dell MFP.
- 3. Under "Device Function" tick "Enable release station".

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4. Select the print queue that was enabled for hold/release above. The Dell MFP will allow jobs on the selected queues to be released.

🖉 E	nable print release
Dis	plays jobs for release from the selected queues
	✓ win7x64-papercu\108 (a 5235)
	win7x64-papercu\iR-ADV C2220

- 5. Press "OK" to save.
- 6. Login to a computer workstation as 'testusersimple'.
- 7. Print a few jobs to the print queue that was configured above. The jobs will be held in the hold/release queue.
- 8. Confirm that the jobs are held, by checking that the jobs are listed in the "Printers -> Jobs Pending Release" page of the PaperCut administration interface.
- 9. Confirm that the username is 'testusersimple'.

At the device:

- 1. Log into the device as "testusersimple" as described above.
- 2. Upon successful login you will be presented with the Held Print Jobs page:

PaperCut	Held Print J	Obs Log Out
research paper.pdf		Document: Making the perfect coffee
Making the perfect coffee		Printed By:
Presentation - LibreOffice Impress		
Untitled1 - LibreOffice Writer		Time: 2:58:16 PM
		Client: DESKTOP
		Pages: 52
		Cost: \$2.60
		Print Cancel Job
Use Copier Functions	Refresh Print All	

- 3. Select "Print All" to release all jobs. The jobs will begin to print to the destination printer. (The "Print All" button will not appear if there are no jobs to print)
- 4. Once completed press the "Logout" button on the device keypad.

3.5 Scenario 4: Scanning and faxing

The Dell MFP can also scan documents and send them by email. If a phone line is attached, they can send faxes. You can enable tracking scanning and faxing. Users can be prevented from scanning or faxing when they are out of credit.

To enable tracking of scans and faxes:

- 1. In PaperCut, select the "Devices" tab.
- 2. Select the MFP device.
- 3. Under "Device function" tick "Track & control scanning" and tick "Track & control faxes".
- 4. Select the charging type "advanced" in both cases and set some numbers for page costs and thresholds. The cost after the threshold should be lower than the standard cost as it represents a volume discount. As an example, the screen shot below shows that the first page of a fax is charged at \$0.20 and any subsequent page at \$0.10.

Track & control scanning
Charging type advanced 💌
Page cost \$0.10
Page cost after threshold \$0.05
Page count threshold 1
Track & control faxing
advanced 💌
Page cost \$0.20
Page cost after threshold \$0.10
Page count threshold 1

At the photocopier, log in and scan a few documents and send a few faxes. At the end, make sure to press the "Logout" button on the device's keypad.

In the PaperCut administration interface verify that the scan and fax activities were recorded and the user's account was deducted. This can be done as follows:

- 1. Log in to the PaperCut administration interface.
- 2. Select the device from the "Devices" tab.

3. Select the "Job Log" tab. This will list all recent activity on the copier, including copying, scanning and faxing. The jobs just performed as the test user should be listed. Verify the details of the jobs that were just performed.

Usage Date 🔻	<u>User</u>	Charged To	Pages	Cost	Document Name	Attrib
Dec 9, 2009 11:45:23 AM	<u>testusersimple</u>	testusersimple	2	\$0.30	[fax]	
Dec 9, 2009 11:44:35 AM	testusersimple	testusersimple	5	\$0.30	[scanning]	

- 4. Click on the user's name in the user column to view the user's account details.
- 5. Select the "Job log" tab to display all activity for the user.
- 6. Select the "Transaction History" tab and verify that the cost of the scans and faxes was deducted from the user's account.

Transaction date	Transacted by	<u>Amount</u>	Balance after
Dec 9, 2009 11:45:23 AM	[system]	-\$0.30	\$4.40
Dec 9, 2009 11:44:35 AM	[system]	-\$0.30	\$4.70

4 Configuration

After completing the Installation section and registering the device with PaperCut, it will have been configured with reasonable default settings that are suitable for most environments. This section covers how to change those default settings. All the following settings are available via the device's 'Summary' tab in the PaperCut administration interface.

4.1 Additional Network Security (optional)

The MFP communicates with the PaperCut server over the network (e.g. to authenticate users or release print jobs). To provide an additional level of security, PaperCut may be configured to only allow device connections from a restricted range of network addresses. This ensures that only approved devices are connected to the PaperCut servers

By default PaperCut will allow device connections from any network address. To restrict to a subset of IP addresses or subnets:

- Logon to the PaperCut administration web interface at http://<papercutserver>:9191/admin
- 2. Go to the "Options \rightarrow Advanced" tab and find the "Security" section.
- 3. In the "Allowed device IP addresses" field enter a comma-separated list of device IP addresses or subnets (in the format <ip-address>/<subnet-mask>).
- 4. Press the "Apply" button.

4.2 Device Function

The device function setting defines which functions will be available on the device and how it will be used. Not all function settings are supported on all devices.

Device function (e.g. copy, release station or both)
☑ Track & control copying
Page cost
\$0.10 (simple)
Track & control scanning
Track & control faxing
Enable release station

Each device function is discussed in the following table.

Device Function	Description
Track & control copying	The device will track walk-up off-the-glass copying.
Track & control scanning	The device will track scanning such as scan-to-email or scan-to-file.
Track & control faxing	The device will track the sending of faxes.
Enable release station	The device will act as a print release station.

4.3 Authentication Methods

PaperCut supports a number of different ways to authenticate users who walk-up to the devices to perform copying. The default authentication method is username and password authentication.

The available authentication methods can be modified in the 'External Device Settings -> Authentication methods' section.



Authentication methods available for a device

Not all authentication methods are supported on all devices. A grayed-out option indicates that the option is not supported on this device.

Each authentication method is discussed in the following table.

Authentication Method	Description
Username and password	The user may use their domain/network username and password to log into the device.
Identity number	The user may log in with their identity number. Identity numbers are convenient when usernames are long or cumbersome to enter. For example, rather than entering a username like 'john.smith.001', it may be more convenient to enter an employee ID of '1234'. See the PaperCut user manual for information about user identity numbers, including importing identity numbers from an external source.
Identity number -> Require PIN	When a user logs in with their identity number, they must also provide their associated PIN. This provides additional security for identity number logins.
Anonymous (No login required)	Specifies that this device should always automatically log in as the specified user. This option overrides all other authentication methods

Description of authentication methods

4.4 Card Reader support

PaperCut supports using swipe cards for authentication at the copier. This is often more convenient than entering a username and password, or ID and PIN to log in.

PaperCut on the Dell MFP supports the following USB card readers:

- RFIDeas PcProx Plus (RDR-7081AKU and related models)
- RFIDeas Air ID (RDR-7581AKU and related models)
- RFIDeas Playback (RDR-7585AKU and related models)
- RFIDeas MS3-00m1aku Mag reader
- Magtek Mini Keyboard emulating swipe reader (21040110 and related models)
- OmniKey 5427
- Elatec TWN3/TWN4 (Dell A06 firmware or later required)

Please ensure swipe card support is enabled as per the setup instructions in section 4.5 above.

4.5 Enable swipe card support

To enable swipe card readers with the device:

- 1. From the web interface, select the **Properties** tab.
- 2. Select the **Security** group.

- 3. Select the **Smart Card Settings** sub-group.
- 4. Select the **General** list item.
- 5. Set Smart Card to Enabled.
- 6. Press the **Apply** button.

4.6 Change the administrator password

- 1. From the web interface, select the **Properties** tab.
- 2. Select the **Security** group.
- 3. Select System Administrator Settings .
- Enter a new password in the Administrator's Passcode and Retype Administrator's
 Passcode fields.
- 5. Press the **Apply** button.

4.7 Lock Media-Print related services (on supported devices)

Some devices support printing from USB drives, either as a built-in feature or as an optional add-on kit.

In the MFD's Admin UI, set access to this service to 'Locked' so that users cannot access it without first logging in:

1. In the MFD's admin UI, select **Properties > Security > Authentication Configuration >**

Next > Service Access .

- 2. Click Configure .
- 3. Set all **Media Print** items to one of the **Locked** states.

4.8 SNMP

PaperCut MF uses SNMP to:

- block the release of jobs to the device when it is in error, and
- <u>retrieve the device's printer toner levels</u>.

By default, PaperCut MF uses SNMPv1/v2c to perform these actions. You can, however, select to use SMPv3 for better security and encryption.

For more information about SNMP, see the <u>PaperCut MF manual</u>.

To configure PaperCut MF to use SNMP:

- 1. Log in to the PaperCut MF Admin web interface.
- 2. Navigate to "Devices".
- 3. Select the device.
- 4. In "External Device Settings":
 - for SNMPv1/v2c, ensure the Use SNMPv3 for Toner Retrieval and Device Error Monitoring checkbox is not selected (default).
 - for SNMPv3, select the Use SNMPv3 for Toner Retrieval and Device Error Monitoring checkbox; then enter:
 - Context name, Username, Privacy password, Authentication password If these values are available at the device web interface, then use the same values. It not, leave them blank or enter your own value.
 - Authentication protocol Select either "MD5" or "SHA".
 - Privacy protocol Select either "DES" or "AES".
- 5. Click "Apply".

4.9 Setting an explicit PaperCut Server Network Address

The copier connects to the PaperCut server to validate user credentials, display print jobs for release, etc. The device makes inbound network connections to the PaperCut server using a network address of the PaperCut server. By default PaperCut will use the server's IP address (if the server has multiple IPs (i.e. multi-homed) then PaperCut will select one of them), but on some networks this address may not be publicly accessible from other parts of the network.

If the PaperCut server has a "public" IP address or DNS name then this can be used instead, which allows the copiers to use the "public" network address instead of the IP address that PaperCut detects. To do this:

- Login to PaperCut
- Go to the "Options" tab.
- Select "Config Editor (advanced)", from the action links on the left.
- Find the "system.network-address" setting.
- Enter the public network address for the PaperCut server.
- Press the "Update" button next to the setting and confirm the setting is updated.

When connecting devices to a PaperCut site server, you can configure the sites' "Network address used by devices":

- Login to PaperCut
- Go to the "Sites" tab.

- Select the site to edit.
- Change the "Network address used by devices".
- Save the site details.

To have either of these changes take effect immediately, restart the PaperCut Application Server service (i.e. on Windows use: Control Panel->Admin Tools->Services).

4.10Configuring Swipe Card Readers

Swipe cards contain numbers used to identify users according to the card number configured in the User Details screen under "Card/Identity" number. Some readers report information in addition to the number encoded on the card, such as checksums. PaperCut can treat these cases in three ways:

Card Number Needs No Conversion

• A typical case is the checksum being reported after the card number, separated by an equals sign, such as 5235092385=8. PaperCut can handle this case by default; it will extract the number before the equal sign as the card number: 5235092385.

Regular Expression Filters

- For some cases, a "regular expression" *may* be required that will filter the card number from the complete string of characters reported by the card reader. Documentation on regular expressions can be found on the Internet, e.g. at <u>www.regular-expressions.info</u>.
 - The regular expression must be fashioned so the card number is returned as the first match group.
 - Usually one regular expression will be used for all the devices managed by PaperCut. This must be entered in "Config editor (advanced)" which is located on the "Options" tab under "Actions". The key is called "ext-device.card-no-regex".
 - Additionally, the global setting can be overridden on a per-device basis: The key "ext-device.card-no-regex" can also be found on the "Advanced Config" tab in the device details screen. This setting will override the global setting unless the keyword "GLOBAL" is specified.
 - PaperCut developers will gladly assist in producing a regular expression when supplied with a few sample outputs from your card reader. Please contact PaperCut support.
 - If you would like to write your own regular expressions, here are some examples:
 - Use the first 10 characters (any character): (. {10})
 - Use the first 19 digits: (\d{19})
 - Extract the digits from between the two "=" characters in "123453=292929=1221": \d*= (\d*) = \d*

Card Number Format Converters

In addition to extracting parts of the card numbers using regular expressions, converting numbers from one format to another is a common requirement. For example a card reader may report in hexadecimal format, while the number stored in the source (e.g. Active Directory) is in a decimal format. PaperCut includes a number of inbuilt converters to assist here.

Note: Many card readers are configurable - the number format can be changed at the hardware level via utility or configuration tools. PaperCut's software-level converters are there to support card readers that don't offer this level of configuration, or where a global software-level conversion is a better choice. For example it may be quicker to do the conversion in PaperCut rather than manually reprogram 100+ readers!

Like regex's, the convertors may be defined on either a global (all devices) or a per-device basis.

To set globally:

- Options -> Actions -> Config Editor
- Search for "ext-device.card-no-converter"
- Enter the name of the required converter (see table below) and click Update

To set at the device level:

- Devices -> [select device] -> Advanced Config Editor
- Search for "ext-device.card-no-converter"
- Enter the name of the required converter (see table below) and click **Update**

Standard Converters

Convertor	Description
hex2dec	Convert a hexadecimal (base 16) encoded card number to decimal format. Hexadecimal numbers usually contain 0-9 and A-F. This will convert "946EBD28" to "2490285352".
dec2hex	Convert a decimal encoded card number to hexadecimal format. This will convert "2490285352" to "946EBD28".
ascii-enc	Unpack an ASCII encoded card number string. E.g. given the number "3934364542443238", the ASCII code "39" is converted to 9, "34" -> 4, "45" -> E, with the entire number resulting in "946EBD28".
javascript: <path></path>	Advanced: Define a custom conversion function in JavaScript (see below)

It is possible to chain or pipeline converters by delimiting with a pipe (|). For example, ascienc|hex2dec will first unpack the encoded ASCII number then convert it to a decimal.

Tip: Not sure which converter to use? Often trial and error is a good approach. After presenting a card, the number will appear in an application logger message with conversions applied (assuming the card is unknown to the system). Try different converters and inspect the resulting numbers in the application log.

Using custom JavaScript

If the inbuilt converter functions are unable to meet requirements, it is possible to define your own function using JavaScript. This is an advanced exercise and it is expected that any implementer be familiar with programming and JavaScript. To implement your own converter:

- 1. Create a file text file [app-path]/server/custom/card.js
- 2. Define a single JavaScript function in this file called "convert" It should accept and return a single string. Here is a trivial example: function convert(cardNumber) { return cardNumber.substring(3,10).toLowerCase(); }
- 3. Enter a converter in the form: javascript:custom/card.js

Tip: Check the file [install-path]/server/log/server.log when testing. Any scripting errors will be displayed as warning messages in the log.

Tip: A Javascript script may also be included in the pipeline. For example

ascii-enc|hex2dec|javascript:custom/card.js

Other advanced notes

- If *both* a regular expression and a converter are defined, the regular expression is applied first. This means a regular expression can be used to clean up the input (e.g. remove checksum or delimiters) before passing to a converter.
- In some special situations, a custom JavaScript implementation may not be enough. For example, there may be a requirement to use a 3rd party system to decrypt the number. PaperCut includes an advanced plugin architecture that the PaperCut Software development team uses to implement these advanced converters. Please contact support to discuss development options and costs.



4.11Customizing the Header Logo

The embedded application displays a logo in the top left corner of the device screen. This logo can be replaced with your organization's own logo image.

The image must be saved as a PNG file with the filename "logo.png" and be 42 pixels high.

Save the image on the PaperCut application server at the location:

[PaperCut Install Location]\server\custom\web\device\dell\

You will need to create these folders if not present.

The embedded application will fetch the logo image from this location if present. After copying your logo into position, verify it correctly appears in the embedded application.

4.12Customizing the Header Colors

The header colors are defined in the "Advanced Config" tab in the device details screen, see Config Editor. The options to change are:

- ext-device.dell.header.color the background color (type DEFAULT for the default setting of dark green)
- ext-device.dell.header.textcolor the text color (type DEFAULT for the default setting of white)

The colors are specified using the hexadecimal web/HTML notation (#RRGGBB) where "RR" is the red component, "GG" is the green component and "BB" is the blue component.

4.13Config Editor

The common configuration options for a device in PaperCut are available on the device's "Summary" tab, and are discussed in more detail in the Configuration section. This section covers the more advanced or less common configuration options which are available via the "Advanced Config" tab in the device details screen.

Config name	Description
ext-device.card-no- converter	See <u>Configuring Swipe Card Readers</u> .
ext-device.card-no- regex	See <u>Configuring Swipe Card Readers</u> .
ext-device.card-self- association.use-	Select whether user self-association should occupy the primary or secondary card number. This overrides the global setting unless the keyword "GLOBAL" is specified. This is useful when there is a mix of

secondary-card- number	different non-configurable card readers that read different numbers from an ID card.	
	Set to "Y" to use the secondary card number, "N" to use the primary card number. Default: "GLOBAL" to defer to the global configuration setting.	
ext-device.self- association-allowed- card-regex	Specify a regular expression that limits which card numbers are accepted for associating swipe cards with user accounts. See <u>Authentication Methods</u> for details. Defaults to ".*" (dot-star) which includes all card numbers.	
ext-device.block- release-on- error spmp-error-list	Defines the error types that will block the release of jobs from the MFD Print Release. Valid values:	
error.snmp-error-list	 DEFAULT—includes noPaper, doorOpen, jammed,offline, inputTrayMissing, outputTrayMissing, markerSupplyMissing, outputFull 	
	 A comma-separated list of error types. Valid error types include lowPaper, noPaper, lowToner, noToner, doorOpen, jammed, offline, serviceRequested, inputTrayMissing, outputTrayMissing, markerSupplyMissing, outputNearFull, outputFull, inputTrayEmpty, overduePreventMaint 	
ext- device.dell.release.sh	Specify whether to show the job cost for each print job in the job release screen.	
ow-cost	Values: Y, N. Default: Y	
ext-device.dell.show- release	Specify whether to include Print Release in the login workflow when the device is configured as a release station.	
	Values: Y, N. Default: Y	
ext- device.dell.release.list -format	Allows configuring the format of the job listing on the print release screen. This is a customisable format string that can be built up using a combination of well-known tokens such as:	
	%document% - job title	
	%user% - job user	
	%pages% - job pages	
	%time% - job time	

	%cost% - job cost	
	%client% - job client	
	Default: %document%	
ext- device.dell.accounts.i	Set the account selection screen to start on the "from List", "Search" or "by Code" tab.	
nitial-tab	If you have many shared accounts you may wish to set this to the "Search" tab. An example of this is legal firms who use shared accounts for matter codes.	
	Values: DEFAULT ("from List"), SEARCH, CODE. Default: DEFAULT	
ext-device.dell.limit- reference.paper-size ext-device.dell.limit- reference.duplex	PaperCut will deny device access to restricted users who do not have enough balance to copy. To determine if a user has enough balance to copy, a reference copy is required. By default PaperCut checks if the user has enough balance to copy a single sided Letter (North America) or A4 (worldwide) page. In some situations it may be desirable to change the reference copy, such as when the device allows smaller page sizes like A5.	
	Default for ext-device.dell.limit-reference.paper-size	
	in North America: Letter	
	Default for ext-device.dell.limit-reference.paper-size	
	worldwide: A4	
	Default for ext-device.dell.limit-reference.duplex: N (No)	
ext-device.dell.force- device-login-tries	Allows to specify and control the number of administrative login attempts performed by the server while installing and configuring the device. Occasionally, the MFP may be busy and not allow any logins, this setting controls the retry behaviour before the operation is considered as failed and given up. Default: 10	
ext-device.dell.force- device-login-tries- sleep-secs	Controls the wait period in seconds between any administrative login retry attempts, used in conjunction with 'force-device-login-tries' setting.	
	Default: 5 seconds	

ext-device.dell.force- install-reboot	Specify whether to force the device to be rebooted at the end of the install sequence, even when no changes are deemed as requiring a reboot.
	Values: Y, N. Default: N
ext-device.dell.force- install-services	Specify whether to force the registration of all custom services on the device each time the device is started from PaperCut.
	This will perform the install regardless of the detected service versions on the device.
	Values: Y, N. Default: N
ext-device.dell.force- uninstall-plugins	Specify whether embedded plugins should be deleted from the device if the device is removed from PaperCut. If the plugins are not deleted they will be left on the device in a stopped state.
	Values: Y, N. Default: Y
ext-device.dell.set- authentication-mode- enabled	Specify whether to automatically configure the login type used by the device (under Security > Authentication Configuration > Login Type). When PaperCut manages the device, the configuration will be set to "Customized Login".
	Values: Y, N. Default: Y
ext-device.dell.force- configure- authentication	Specify whether to force the configuration of the login type used by the device (under Security > Authentication Configuration > Login Type). When PaperCut manages the device, the configuration will be set to "Customized Login". Values: Y, N. Default: N
ext- device.dell.integration .enabled	Specify whether integration with the device is enabled. When enabled, PaperCut embedded plugins and services are installed to the target device, and managed by PaperCut. This option allows the device to be temporarily decoupled from PaperCut without deleting it.
	Values: Y, N. Default: Y

ext-device.dell.locale	Enter the locale (language setting) for display on the device in the form xx or xx_XX (if different from the server). Examples: "fr" or "pt_PT".
ext- device.dell.email.pers onalized-sender	Controls whether all logins on the device have their e-mail address pre-populated from the PaperCut user details. This will determine the "from" address inside e-mail related functions. If set to N, the e-mail address will not be pre-populated automatically, enabling it to be set by individual users each time. Otherwise the address value is fixed. Values: Y, N. Default: Y

ext-	Specify an initial destination screen after unlocking the device	
device.dell.ui.initial- screen	By default the "Services Home" screen is displayed.	
	Values:	
	allservice	Services Home screen (Default)
	сору	Copy screen
	copy_easy	Simple Copy screen
	box	Extended Folder screen
	scan_mbox	Scan To Folder screen
	scan_email	Scan To Email screen
	scan_pc	Scan To PC screen
	scan_url	Store & Send Link screen
	scan_media	Store to USB screen

Fax screen

fax_easy Simple FAX screen

Internet FAX screen

Server FAX screen

jobmem Stored Programming screen

jobflow Job Flow Sheets screen

web1-10 Web Application 1-10

cstm1-9 Custom Service 1-9

extdevice.dell.ui.headertext-color

Customizes header color, see section 4.11

fax

ifax

sfax

ext- device.dell.ui.header- color	Customizes header text color, see section 4.12	
ext- device.dell.ui.connecti on-check-timeout- millis	Set the time in milliseconds, a connection check should wait for a response from the PaperCut server. Default: 5000	
ext- device.dell.plugin.log-	Defines how often an embedded plugin log events are sent to the server (and saved).	
app-server-frequency	If set to a positive number the log events are pushed to the server (the value defines how frequently – by buffering as many events as defined by this value before sending over).	
	If set to zero the remote logging is disabled.	
	If set to 1 then every log event is immediately sent to the server as it occurs (imposing a performance penalty)	
	Default: 0. Example: 10.	
ext- device.dell.plugin.log- syslog-server	Defines whether embedded plugin remote logging to syslog server is activated. If set to a valid hostname or an IP address and there is a syslog service running (UDP port 514) then all logging events will be sent there.	
ext- device.dell.plugin.log- file-max-number	Defines maximum number of embedded plugin log files to keep. This affects both the log files saved locally on the device and those sent remotely to the server if "ext-device.dell.plugin.log-app-server- frequency" is set. Default: 10	

ext- device.dell.plugin.card -hold-time-millis	Defines the duration of time in milliseconds that any card swipe data is retained for. Increase on slower performing device/card reader combinations to ensure card swipes are always detected. Do not adjust unless experiencing issues. Restart the device after changing this setting.
	Default: Configured automatically by the Application Server depending on the platform version.
ext- device.dell.plugin.card -poll-time-millis	Defines the duration of time in milliseconds that determines how often the card reader is polled for card data. Do not adjust unless experiencing issues. Restart the device after changing this setting.
	Default: Configured automatically by the Application Server depending on the platform version.

5 Known Limitations

5.1 Zero-Stop

The zero stop capability prevents users from overrunning their available credit when using a device. Limited zero stop capabilities are available in the form of Job Limiting.

Job Limiting is based on specifying the maximum allowed page counts for each device function accessible to the user. PaperCut calculates a user's job limits at the time of login, factoring in the user's current balance and costs assigned to each MFP function.

This calculation is based on configurable assumptions regarding paper size and simplex or duplex job types; irrespective of the actual attributes of a job. It is therefore possible for a restricted user to go in to a negative balance if they perform scan, fax or copy jobs that are more expensive than the assumed costs (e.g. the paper size is larger).

These assumptions (or limit reference options) can be adjusted via the following configuration keys (see section 4.13 for more information):

ext-device.dell.limit-reference.paper-size

ext-device.dell.limit-reference.duplex

The restricted user may also go into negative balance by performing different job types. E.g. a mix of color/BW copies, scans, etc.

5.2 Card reader and USB ports

When one of the supported USB card readers is used on the device, and the card setting in the web administration tool is enabled (Security > Smart Card Settings > General), then the card reader cannot be unplugged without disabling the above setting first.

If the card reader is unplugged, the device will treat it as an error, and register a fault. In general, if the device is equipped with back USB ports, it's recommended to plug in any card readers to these ports and leave the front port for USB media.

5.3 Use of card reader after returning the device from sleep mode.

When the device resumes from sleep mode and the power was cut to the USB ports the card reader may be inoperable for a few seconds as the device fully wakes.

The login screen may show up before the card reader has fully become ready. Swiping during this time may not work. It is possible to tell when this occurs if the card reader beep function is configured on the device and the reader did not beep.

6 FAQ & Troubleshooting

What is the IP address of my PaperCut Server?

Use operating system command-line tools such as ipconfig or ifconfig to determine this.

The device setup in the PaperCut server doesn't complete. The error message shown is "device is currently in use, unable to initiate exclusive lock on the device"

The device setup process requires an administrative login to connect and lock the device temporarily, in order to complete its configuration. The error indicates that the setup process was unable exclusively to lock the device at this time.

- The device may be already in use by someone at the device or busy processing another job.
- The built-in movement sensor may have detected a person in front of the device.
- If this has occurred during device setup, you can restart and resume the setup once the device is ready again, by hitting 'Apply' on the 'Device Details' page in PaperCut.

The embedded application shows "Connecting to server..."

This indicates that the embedded application is unable to connect to the PaperCut server over the network. The embedded application will continually try to connect to the server, so if there is a temporary network outage it will start working once the connection is available again.

Common causes of this problem are:

- The PaperCut application server is not running.
- There are firewalls or network routing configuration that is stopping the network connection from being established. Check firewalls on the PaperCut server or with your network administrator.
- There is a network outage that is stopping the connection being established. Try accessing the web interface of the Dell MFP to check that a network connection can be established.
- The PaperCut server name or IP was not set correctly.

The embedded application shows "Incomplete configuration: the card reader is not enabled on this device"

This indicates a discrepancy between the PaperCut carder reader configuration and that on the device. The card reader might be enabled as an authentication option in PaperCut, but not enabled under Security > Smart Card Settings > General > Smart Card.



The embedded application shows "Incomplete configuration: unable to communicate with the device"

This indicates that the device is not allowing the embedded application to talk to it. This is caused if the login type option is not set to "Customized Login" under Security > Authentication Configuration > Login Type.

The install process performed by PaperCut automatically tries to configure this setting, this message may display intermittently while the setup process is still running, always confirm using the "Device Status" window on the Device Details page that the setup and configuration has completed before using the device.

Print jobs released on the MFP do not print, the device beeps and aborts the jobs.

The MFP job log may list the job status as "Aborted(016-757)". Please ensure that the printing option is set as "Unlocked" under Properties > Security > Authentication Configuration > Next > Service Access.

Confirm that the printer driver has the accounting option switched off. See section 2.3.6

Jobs performed on the MFP are not tracked in PaperCut?

Have you enabled device job logging?

Confirm that the appropriate job type is being tracked within PaperCut on the device details page.

Why would a card reader not work?

Not all card readers are supported. See Configuring Swipe Card Readers and Card Reader support.

- Card readers need to be a USB HID type device (keyboard emulating) and configured to emit a terminating keystroke (newline). Ensure the card reader being used sends a newline by connecting it to a PC and performing some swipes with notepad started.
- Magnetic swipe readers that read multiple tracks of data from magnetic cards may result in slow or unreliable reads due to a large number of keystrokes being output by the card read, they can usually be reconfigured to output just the track of interest (e.g Track 2).

I have thousands of accounts representing my clients. Will the system handle this?

Yes. We have designed the system to handle thousands of Shared Accounts. Users with many accounts will also be presented with some "power options" to help them find accounts including keywords based search.

Copier functions are enabled when the user is out of credit.

A user with no access or credit normally has certain device functions disabled. For example, a user without credit may have copying and faxing disabled, while still being allowed to scan.

Access to some MFP functions may be allowed even if the user has no credit and the function has a cost assigned in PaperCut.

This can happen if the access to any given MFP function is set to "unlocked" inside MFP configuration interface, thus overriding access control provided by PaperCut.

This can be set by logging-in to web administrative interface and visiting Security > Authentication Configuration > Service Access and ensuring that every desired function that should have strict controls managed by PaperCut is set to "Locked".

Authentication Configuration > Service Access

Authentication required for:		
Installed Services Lock All Unlock All		
Copy:	*Locked (Show Icon) 🗸	
E-mail:	*Locked (Show Icon) 🗸	
Store to Folder:	*Locked (Show Icon) 🗸	
Scan to PC:	*Locked (Show Icon) 🗸	
Store to USB:	*Locked (Show Icon) 🗸	
Store & Send Link:	*Locked (Show Icon) 🗸	
Send from Folder :	*Locked (Show Icon) 🗸	
Stored Programming:	*Unlocked V	
Job Flow Sheets:	*Locked (Show Icon) 🗸	
Print:	*Unlocked V	
Media Print - Text:	*Unlocked V	
Media Print - Photos:	*Unlocked V	
Web Applications:	*Locked (Show Icon) 🗸	
Apply	Undo	



How is user's email address populated on the device?

If the user's record in PaperCut has an email address associated with it, when a user is scanning to email, the "from" address will be pre-populated with this value. This address is set automatically when the user logs on.

Using current user's email as the "to" address can also be easily done by using the "Add me" button available in the native application interfaces.

If the addresses are not being pre-populated for a user, first check the user details in PaperCut to ensure an email address is set.

I'm receiving the error: Started (with errors)... System is Locked.

This error may present in the Device's Status if you have not enabled the Embedded Plugins. See step: 2.3.4 Enable Plug-in Settings

How do I access embedded logs?

On C7765dn, the embedded plugin logs can be downloaded from the device's web administration tool:

- 1. Login to the device admin tool by navigating the browser to the IP/hostname of the device.
- 2. Select Security > Plug-in Settings > List of Embedded Plug-ins.
- 3. Click the "Set" button.
- 4. The logs can be downloaded by accessing the authentication plugin UI

List of Embedded Plug-ins

Plug-in Platform	
Version:	1.3.220

Upload	Update Delete	Set Details Start Stop
	Plug-in Name	Status
۲	PaperCut Authentication Plugin	Activated
0	PaperCut Card Reader Plugin	Activated

On C5765dn the facility to download the logs is not available and only remote logging is possible from the embedded plugins.

Remote logging can incrementally send log events from the device to either the Application Server or an third party syslog server.

Logging to the application server can be enabled via ext-device.dell.plugin.log-app-server-frequency advanced configuration key.

By setting the value to a positive number, the logs will be automatically saved under [PaperCut Install Location]\server\tmp\device-<id>-<name> folder (where <id> and <name> are internal device identifier and device name respectively).

See config editor 4.13.

7 Uninstalling

To remove the PaperCut embedded application from the device, simply delete the device from the Application Server.

The PaperCut plugins will be automatically removed and the device restored to a pristine state. The device may reboot one or more times during the process.

Note: Deletion of the components from the device requires an administrative login in to the device. The login is attempted multiple times during this process but it's possible that all logins are denied and the uninstallation of the plugins and services from the device is aborted.

Please ensure that the device doesn't report itself as in use in the "Status" tab of its administrative interface before proceeding.

It is possible to remove all components from the device without deleting it from PaperCut by use of an advanced configuration key 'ext-device.dell.integration.enabled'.

Refer to section 4.13.