

# PaperCut Toshiba MDS V3 Embedded Manual

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# 1 Version history

PaperCut MF version	Date	Details
<b>18.2.0</b>	5 July 2018	2 Overview; 5 Post-install testing; 6 Configuration; 13 Appendix C: Device screenshots for user documentation
<b>18.1.1</b>	26 April 2018	5 Post-install testing; 6.1 HTTPS Security (recommended); 6.3 Inbound connections; 6.6 Shared Account Selection; 6.11 Config Editor; Appendix C: Device screenshots for user documentation

## 2 Overview

This manual covers the Toshiba MDS V3 embedded MFD setup. For general PaperCut MF documentation, please see the [PaperCut MF manual](#).

This manual provides an overview of the installation, configuration and operation of PaperCut's embedded software MFD (Multi-Function Device) solutions. Today's MFDs are smarter – they have touch screens and offer the ability to run applications directly on the device. The goal of PaperCut Software's embedded MFD solution is to leverage these smart devices and to provide walk-up copier users with the same set of rich application features provided in the print control area. These include:

- Secure access to the device via user authentication
- Integration with single sign-on environments
- Print release of held print jobs (Secure & Find Me Printing)
- Monitoring, control and tracking of printing, copying, scanning, and faxing (Quotas, Charging, Allocation, Job Limiting, Zero Stop, and Logging)
- Integrated Scanning
- Card self-association and print release at login
- Allocation of printing, copying, scanning, and faxing costs to different accounts, departments, cost centers, or projects (Shared Accounts)
- Multiple ways to locate Shared Accounts
- Adding comments to invoices of Shared Accounts
- Customization of most device screens, including logos, colors, and messages
- Changing and viewing the settings of held print jobs at the device

### 2.1 Consistency

The embedded solutions are developed in-house by the PaperCut Software development team. This ensures that the copier interface is consistent with the workstation print interface, meaning users only have to learn one system.

### 2.2 Integration

PaperCut is a single integrated solution where print, internet and copier control are all managed in the one system. Users have a single account and administrators have the same level of reporting and administration for all services. The embedded solution interacts with the PaperCut server using a Service Oriented Architecture (SOA) and web services based protocols.

### 2.3 Rate of development

PaperCut is developed under a release-often policy where new features are made available to users as soon as they are complete. Unlike hardware based solutions, new versions can be delivered to users regularly as software updates.

### 2.4 Vendor Neutral

PaperCut remains true to its vendor neutral stance. All embedded solutions are equal and support all server OS's including Windows, Linux and Mac.

## 2.5 Security

A large percentage of PaperCut's user base is in Education environments where security is important. All embedded solutions are developed with security in mind. Where security objectives can't be satisfied, any known deficiencies are fully disclosed.

## 2.6 Which version should I install?

This manual is for Toshiba v3+ devices.

To be compatible, devices must support Toshiba Open Platform SDK version 3 or later, and be listed in "3.3 Supported Toshiba Devices".

Devices supporting only Toshiba SDK 2 should use PaperCut's Toshiba V2 embedded software, documented separately in the manual entitled [PaperCut MF - Toshiba SDK2 Embedded Manual](#).

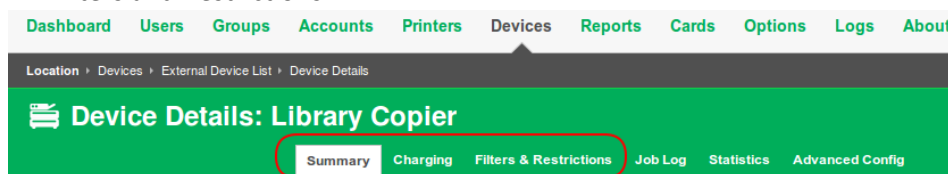
Devices that support Open Platform SDK version 3 that had previously been installed with PaperCut's SDK 2 support, can be migrated using the instructions in "1.7 Migrating from SDK 2 to Toshiba v3+ Devices".

## 2.7 Migrating from SDK 2 to Toshiba v3+ Devices

If you have a compatible device (see 3.3 Supported Toshiba Devices), that is currently using the non-SDK 3 integration, then you need to perform some additional configuration to take advantage of this.

To migrate your current Toshiba SDK2 device (now known as "Toshiba v2") to MDS V3 device (known as "Toshiba v3+"):

1. In the PaperCut Admin web interface Device section, take the following screenshots for the existing Toshiba device:
  - Summary
  - Charging
  - Filters and Restrictions



You will use these as a reference when filling out the new device settings.

2. Delete the existing "Toshiba v2" device.
3. Wait a few minutes so that PaperCut can fully finish all necessary maintenance/uninstall tasks on the device.
4. Create a new "Toshiba v3+" device with the same name you gave the "Toshiba v2" device; then apply any relevant settings from the screenshots.
5. To verify that the "Toshiba v3+" has been successfully registered, check the following:
  - The External Device List page displays "Started – Awaiting user login" in the Status column.
  - The device panel displays the PaperCut login page (you might need to refresh the screen by clicking the "Access" hard key button).

NOTE: When the original device is deleted, all historical log records in the PaperCut database will not be deleted. This data will still be available in all the available usage reports.

## 2.8 Installation methodology for Toshiba v3+ Devices

The following approach is recommended when installing Toshiba v3+ devices:-

1. Set device [08] codes. See 4 MFD Device configuration
2. Add Toshiba v3+ device in PaperCut. See 4.15 Create Toshiba MFD device in PaperCut
3. Quick confirmation test. See 5 Post-install testing
4. PaperCut configuration. See 6 Configuration
5. Scanning setup. See 7 Scanning (optional)



### 3 Installation

This section covers the installation of the PaperCut embedded application for compatible Toshiba devices. The embedded application allows the control, logging, and monitoring of walk-up off-the-glass copier, fax, and scanner usage, and can serve as a Release Station for network prints (for information on tracking network printing, see the [PaperCut manual](#)).

#### 3.1 Upgrading to a newer version of PaperCut

When you upgrade your PaperCut installation, the embedded application will be up to date. No further action is necessary.

#### 3.2 Requirements

Ensure that the following points are checked off before getting started:

- PaperCut is installed and running on your network. For more information, see [Installation](#) in the PaperCut manual.
- Ensure that your Toshiba MFD supports Open Platform SDK version 3 and is in the list of supported devices (see 3.3 Supported Toshiba Devices)
- The Toshiba devices must be directly accessible over the network by the PaperCut server (i.e. not via a NAT network).
- Verify that the Toshiba Embedded Web Browser (EWB) is enabled on your device. This is enabled through the “External Interface Enabler” (Code: GS-1020). This is an option in some markets and you should check with your Toshiba representatives.
- Have available the network name and IP address of the system running PaperCut (e.g. the print server).
- Ensure that the Toshiba MFD is connected to the network.
- Have available the network address of the Toshiba MFD. It is recommended that the MFD is configured with a static IP.

#### 3.3 Supported Toshiba Devices

The following table shows Toshiba devices that support Open Platform SDK version 3, and includes the recommended minimum firmware revision for optimum stability and feature set.

To check the firmware revision, please do the following steps:

1. Log in to the device’s web administration (TopAccess) with a web browser.
2. Select the “Administration” tab and log in as an admin user.
3. Select the Version link and you should see “Copier Firmware Version” as shown below. The firmware version should be set according to the table below depending on the model of the MFD.

Version Information	
Printer Manufacture	TOSHIBA
Copier Firmware Version	<b>T373HD0W1043</b>
Copier Main ROM Version	373M-20
Copier Scanner ROM Version	370S-17

**e-BRIDGE Next**

Minimum Firmware Version

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e-STUDIO 2008A

e-STUDIO 2508A

e-STUDIO 3008A

e-STUDIO 3508A

T410HD0W1043

e-STUDIO 4508A

e-STUDIO 5008A

---

e-STUDIO 2000AC

e-STUDIO 2500AC

T370HD0W1043

---

e-STUDIO 2505AC

e-STUDIO 3005AC

e-STUDIO 3505AC

e-STUDIO 4505AC

T373HD0W1043

e-STUDIO 5005AC

---

e-STUDIO5508A

e-STUDIO6508A

e-STUDIO7508A

T385HD0W1043

e-STUDIO8508A

---

e-STUDIO5506AC

e-STUDIO6506AC

T380HD0W1043

e-STUDIO7506AC

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## 3.4 Setup Procedure

### 3.4.1 Verify Access to the Toshiba Administrative Web Interface

The Toshiba devices have an embedded web server that provides an alternate administration interface. The web interface is used to configure the MFD to connect to PaperCut.

To verify admin access:

1. On a computer, open your web browser
2. Enter the URL of the Toshiba device.  
E.g. `http://xxx.xxx.xxx.xxx/` (device-ip address) or `https://xxx.xxx.xxx.xxx/` (device-ip address)
3. Click the "Administration" tab at the top right of the page.
4. Enter the device administrator username and password; then press "Login". By default, this is Admin/123456.

### 3.4.2 Log in as device Administrator

To display the device Administrator login screen from the PaperCut login screen:

- On Toshiba e-BRIDGE Next models, press shortcut key "1"  
**Note:** This is only available after performing Create Toshiba MFD device in PaperCut

### 3.4.3 Networking/Firewall Configuration

Ensure that your networking/firewall configuration allows:

- Inbound connections from the Toshiba devices to the PaperCut server on ports:
  - 9191 (TCP/HTTP).
  - 9292 (TCP/HTTPS).
- Outbound connections from PaperCut to the Toshiba Device on ports:
  - 49629 (TCP/HTTP)
  - 49630 (TCP/HTTPS)
  - 50083 (TCP/HTTP) (or any other customized port for scanning services)

## 4 MFD Device configuration

This section describes the MFD device configuration using “Service Mode” and “TopAccess” Note: All 08 “service mode” changes should be done **only by a qualified Toshiba technician**. If many 08 codes need to be set, do **not** restart the MFD until all the required settings have been made.

Detailed instructions below (consolidated matrix see Appendix D: 08 Code Check list)

### 4.1 ODCA (Off Device Customization Architecture) (mandatory)

ODCA is mandatory for MDS V3, you can either use a non-secure or secure port for communication.

Non-Secure ODCA using Service Mode is enabled by default (confirmation):

1. Enter FS service mode, enter 08 service mode.
2. Enter “Classic” mode.
3. Enter: 9820
4. Press the “Start” button.
5. Enter: 1 (default value 1)
6. On the LCD screen, press “OK”.
7. Restart the MFD by holding down the “Main Power” button until it stops.
8. Press “Main Power” again to restart.

To enable Secure ODCA using Service Mode (optional):

1. Enter FS service mode, enter 08 service mode.
2. Enter “Classic” mode.
3. Enter: 9819
4. Press the “Start” button.
5. Enter: 1 (default value 0)
6. On the LCD screen, press “OK”.
7. Restart the MFD by holding down the “Main Power” button until it stops.
8. Press “Main Power” again to restart.

Note: you are also required to enable secure ODCA in PaperCut.

### 4.2 Set an “Auto Clear” timeout (recommended)

For security purposes, set the “Auto Clear” timeout to automatically log out MFD users after a specific period of inactivity. PaperCut recommends a value of 60 seconds.

To set an “Auto Clear” timeout value in [08] service Mode:

1. Enter FS service mode, enter 08 service mode.
2. Enter “Classic” mode.
3. Enter: 9110, press “Start”.
4. Enter: 4 (default value 3)
5. On the LCD screen, press “OK”.
6. Restart the MFD by holding down the “Main Power” button until it stops.
7. Press “Main Power” again to restart

### 4.3 Disable Logout pop-up dialogue display (optional)

Sets whether the pop-up dialogue confirmation for user logging out will be displayed

1. Enter FS service mode, enter 08 service mode.
2. Enter "Classic" mode.
3. Enter: 8723, press "Start".
4. Enter: 0 (default value 1)
5. On the LCD screen, press "OK".
6. Restart the MFD by holding down the "Main Power" button until it stops.
7. Press "Main Power" again to restart.

#### 4.4 Disable Automatic logout of users during fax send (optional)

Disables automatic logout of users whilst sending a fax

1. Enter FS service mode, enter 08 service mode.
2. Enter "Classic" mode.
3. Enter: 9987, press "Start".
4. Enter: 2 (default value 0)
5. On the LCD screen, press "OK".
6. Restart the MFD by holding down the "Main Power" button until it stops.
7. Press "Main Power" again to restart.

#### 4.5 Additional 08 code setting (optional)

When using a supported USB card reader for authentication, an additional 08 code setting is required. For more information about the supported card readers and required 08 codes, see Appendix A: Supported Authentication Card Readers and Appendix D: 08 Code Check list.

To enable the card reader:

1. Enter FS service mode, enter 08 service mode.
2. Enter "Classic" mode.
3. Look up the required config code in Appendix A: Supported Authentication Card Readers. For example, Generic Keyboard mode readers, use code 60001.
4. Change setting 3500 to the code for the given card reader:
5. Enter: 3500, press "Start".
6. Enter the appropriate code, example 60001
7. On the LCD screen, press "OK".
8. Restart the MFD by holding down the "Main Power" button until it stops.
9. Press "Main Power" again to restart.

#### 4.6 Enable OCR on the device (optional)

If you have installed MFD Embedded OCR and PaperCut Integrated Scanning enabled, you need to enable OCR using service mode.

1. Enter FS service mode, enter 08 service mode.
2. Enter "Classic" mode.
3. Enter: 3786, press "Start".
4. Enter: 0, press "Start".
5. Enter: 0 (default value of code is 1).
6. On the LCD screen, press "OK".
7. Restart the MFD by holding down the "Main Power" button until it stops.
8. Press "Main Power" again to restart.

## 4.7 Enable Zero Stop functionality for Copy and Scan (optional)

To enable the Zero Stop functionality for both Copy and Scan walk up functions, “Quota Setting” needs to be set to “Job Quota”

1. Enter FS service mode, enter 08 service mode.
2. Enter “Classic” mode.
3. Enter: 6084, press “Start”.
4. Enter: 1 (default value of code is 0)
5. On the LCD screen, press “OK”.
6. Restart the MFD by holding down the “Main Power” button until it stops.
7. Press “Main Power” again to restart

## 4.8 Disable MFD control of print jobs (mandatory)

**Note:** service code replaces the need for the Print Data Converter and affects Authentication, Quota Management and Permissions

1. Enter FS service mode, enter 08 service mode.
2. Enter “Classic” mode.
3. Enter: 3642, press “Start”.
4. Enter: 0, press “Start”.
5. Enter: 1 (default value of sub code 0)
6. On the LCD screen, press “OK”.
7. Restart the MFD by holding down the “Main Power” button until it stops.
8. Press “Main Power” again to restart.

## 4.9 Allow anyone to manage print jobs at the MFD (mandatory)

1. Enter FS service mode, enter 08 service mode.
2. Enter “Classic” mode.
3. Enter: 8726, press “Start”.
4. Enter: 1 (default value 0)
5. On the LCD screen, press “OK”.
6. Restart the MFD by holding down the “Main Power” button until it stops.
7. Press “Main Power” again to restart.

## 4.10 Allow all users to delete their jobs from the Private/Hold screen on the copier (mandatory)

1. Enter FS service mode, enter 08 service mode.
2. Enter “Classic” mode.
3. Enter: 9236, press “Start”.
4. Enter: 3 (default value 1)
5. On the LCD screen, press “OK”.
6. Restart the MFD by holding down the “Main Power” button until it stops.
7. Press “Main Power” again to restart.

Note: print jobs will only need to “managed” after being secularly release from PaperCut.

## 4.11 Configure the Web Services Scan Port (optional)

If a print job was released in error and needs to be deleted or the device has run out of paper and cannot be replenished then you may need to configure the Web Services Scan Port:

1. Enter FS service mode, enter 08 service mode.
2. Enter "Classic" mode.
3. Enter 3760, press "Start"
4. Enter the desired numeric port value (default is 50083)
5. On the LCD screen, press "OK"
6. Restart the MFD by holding down the "Main Power" button until it stops.
7. Press "Main Power" again to restart.

## 4.12 WSD scanning (confirmation)

This is only required when using PaperCut Integrated Scanning (enabled by default)

1. Enter FS service mode, enter 08 service mode.
2. Enter "Classic" mode.
3. Enter: 3755, press "Start".
4. Enter: 1 (default value 1)
5. On the LCD screen, press "OK".
6. Restart the MFD by holding down the "Main Power" button until it stops.
7. Press "Main Power" again to restart.

## 4.13 Disable authentication for WSD scanning (optional)

This disables automatic logout of users whilst sending a fax.

1. Enter FS service mode, enter 08 service mode.
2. Enter "Classic" mode.
3. Enter: 3642 sub-code 2, press "Start".
4. Enter: 1 (default value 0)
5. On the LCD screen, press "OK".
6. Restart the MFD by holding down the "Main Power" button until it stops.
7. Press "Main Power" again to restart.

## 4.14 Disable the "missing home directory" warning (optional)

This disables the missing home directory message. It is optional for MFD native scan to home.

1. Enter FS service mode, enter 08 service mode.
2. Enter "Classic" mode.
3. Enter: 8722, press "Start".
4. Enter: 1 (default value 0)
5. On the LCD screen, press "OK".
6. Restart the MFD by holding down the "Main Power" button until it stops.
7. Press "Main Power" again to restart.

## 4.15 Create Toshiba MFD device in PaperCut

Now that the MFD default settings have been configured PaperCut will perform all remaining MFD settings automatically, as listed (“Toshiba v3+” see below)

- MDS Mode
- Programmable Hard Key “1”
- EWB Login and Home pages
- MFD security settings

To add an Toshiba v3+ MFD in PaperCut:

1. In a web browser, log in to the PaperCut Admin web interface (e.g. <http://papercut-server:9191/admin>).
2. Navigate to “Options > Advanced”.
3. In the “External Hardware Integration” area, select “Enable external hardware”.

<b>External Hardware Integration</b>	<input checked="" type="checkbox"/> Enable external hardware integration (for supported devices only)
--------------------------------------	---

4. Click “Apply”.
5. Select the “Devices” tab.
6. In the Actions menu, click “Create device”.
7. In “Type”, select “Toshiba v3+”.
8. Enter the device details, including the network address / IP address of the Toshiba device.
9. Select the device functions to control/log (e.g. copying, scan, fax, etc).

**Create Device**  
Allows for the creation of an external device, like a photocopier terminal. Supported hardware is required.

**Type**  
 Toshiba v3 +

**Device name (e.g. Staff room copier, Library cash loader)**  
 Library Copier

**Location/Department (Optional)**  
 Main Library

**Hostname / IP**  
 toshiba5005ac

**Device's administrator username**  
 Admin

**Device's administrator password**  
 \*\*\*\*\*

**Function**

Track & control copying

Track & control scanning

Track & control faxing

Enable print release

Additional configuration is available after the device is created.

10. Click “OK”.  
 The Device Details page is displayed.
11. Change any options as required. For example, you can change the costs of copying, scanning, and faxing. You can also select the print queues for which this device will act as a “Print Release Station”.



## 12. Click “OK”.

The device is displayed in the Device List. If the connection to the device is established, the Status column will not display “Error”.

Device Name	Function	Type	Hostname	Status
<a href="#">deviceLibrary Copier</a>	Copier, Scanner, Fax	Toshiba v3	toshiba5005ac	Started

## 5 Post-install testing

After PaperCut MF is installed on the device (i.e. device registration and integration is completed), it is recommended that you test some common usage scenarios. This is important for two reasons:

- To ensure that PaperCut MF works as expected.
- To familiarize yourself with the features and functionality of PaperCut MF.

This section covers the following post-install testing scenarios for *PaperCut MF - Toshiba v3+*:

- [5.2 Simple printing and copying](#)
- [5.3 Advanced copying](#)

### 5.1 Test preparation: create test users

To execute the post-install testing scenarios, ensure at least two test users are created:

- **Simple test user** – A user who performs simple printing and copying.
- **Advanced test user** – A user who performs advanced copying.

To create test users:

1. Log in to the PaperCut MF Admin web interface.
2. Navigate to **Options**.
3. In Internal **User Options**, select **Enable internal users**.
4. Click **Apply**.

**Internal User Options**

Provides management of user accounts in addition to those in the configured source.

[More Information...](#)

**Enable internal users**

**Access control**

Only admins can create users

**Prefix usernames with: (optional)**

guest-

**Confirmation message**

Thank you for registering. Your details are:  
 Full Name: %full\_name%  
 Username: %username%  
 Password: %password%  
 Identity Number: %id\_num%

Also email confirmation message to user

**Apply**

5. Navigate to **Users**.
6. Click **Create internal user...**

- Enter the relevant details for the test users as required (simple test user, advanced test user):

The screenshot shows the 'Create Internal User' page in the PaperCut MF Admin interface. The page title is 'Create Internal User' and the user is logged in as 'admin'. The form is titled 'New User Settings' and includes a note: 'Internal users are managed internally by PaperCut MF, and may be used in addition to those in the configured user directory source.' There is a link for 'More Information...'. The form fields are: Username (Simple Test User), Full Name (Simple Test User), Email Address (simpletestuser@papercut.com), Password (masked with \*\*\*\*), Verify Password (masked with \*\*\*\*), Identity Number (empty), ID PIN (empty), and Verify ID PIN (empty). At the bottom, there is a checkbox for 'Email confirmation message to user' which is unchecked. The 'Register' button is highlighted in green.

- Click **Register**.

## 5.2 Simple printing and copying

### 5.2.1 Test preparation: configure simple test user

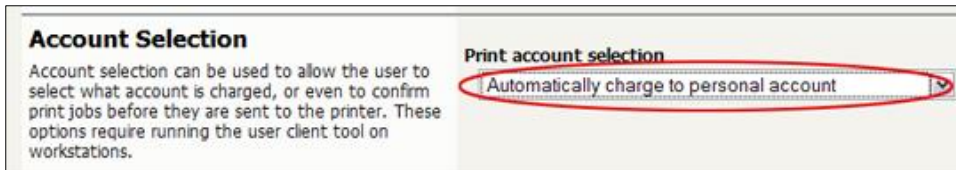
To test the simple test scenarios, ensure at least one simple test user is created. For more information, see [5.1 Test preparation: create test users](#). Once created, ensure the simple test user is configured.

To configure the simple test user:

- Log in to the PaperCut MF Admin web interface.
- Navigate to **Users**.
- From the **User List**, select the simple test user.
- In the **Account Details** area, set the **Balance** to **\$50.00** and select **Restricted**:

The screenshot shows the 'Account Details' section for a user. It includes a text box for 'Balance' with the value '\$50.00' and an 'adjust' link. Below it is a checked checkbox for 'Restricted'. At the bottom, there is an 'Overdraft' dropdown menu currently set to 'Use default overdraft (\$0.00)'. Red circles highlight the 'Balance' field and the 'Restricted' checkbox.

- In the **Account Selection** area's **Print account selection**, select **Automatically charge to personal account**:



**Account Selection**  
Account selection can be used to allow the user to select what account is charged, or even to confirm print jobs before they are sent to the printer. These options require running the user client tool on workstations.

**Print account selection**  
Automatically charge to personal account

- Click **Apply**.

## 5.2.2 Simple printing

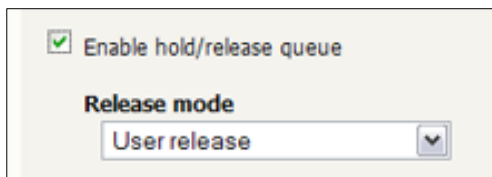
Simple printing does not involve providing the simple test user with a choice of accounts to choose from. Printing is charged to the simple test user's default My Personal Account.

To test simple printing, ensure the following test preparation requirements are met:

- Simple test user** - A simple test user is created and configured. For more information, see [5.1 Test preparation: create test users](#) and [5.2.1 Test preparation: configure simple test user](#).
- Printer queue settings** - The printer queue's Hold/Release Queue Settings are configured. For more information, see the [PaperCut MF manual](#).

To configure the printer queue's Hold/Release Queue Settings:

- Log in to the PaperCut MF Admin web interface.
- Navigate to **Printers**.
- Select the Printer that is applicable to the device being tested.
- In the **Hold/Release Queue Settings** area, select the **Enable hold/release queue**.



Enable hold/release queue

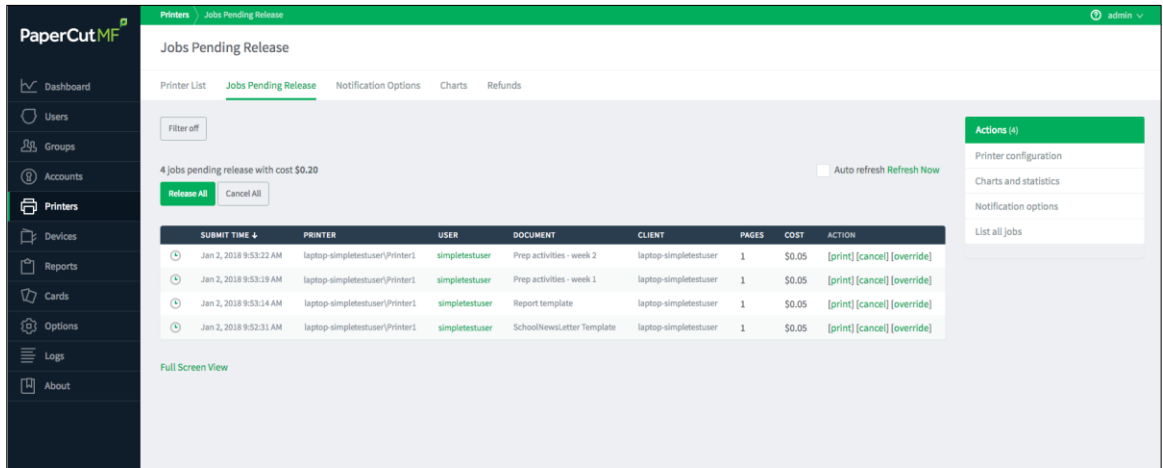
**Release mode**  
User release

- Click **Apply**.  
Print jobs to this printer queue are held until released by a user.
- Device functions** – The printing function is enabled.  
To enable the printing function:
  - Log in to the PaperCut MF Admin web interface.
  - Navigate to **Devices**.
  - Select the device being tested.
  - In the **Print Release** area, select **Enable print release**.
  - In the **This device will display jobs for release from the selected source queues**, select at least one source queue for print release that corresponds to this device's configured printer queue.
  - Click **Apply**.
  - Verify that the **Devices > External Device List** displays the device with **Print Release** in the **Function** column.

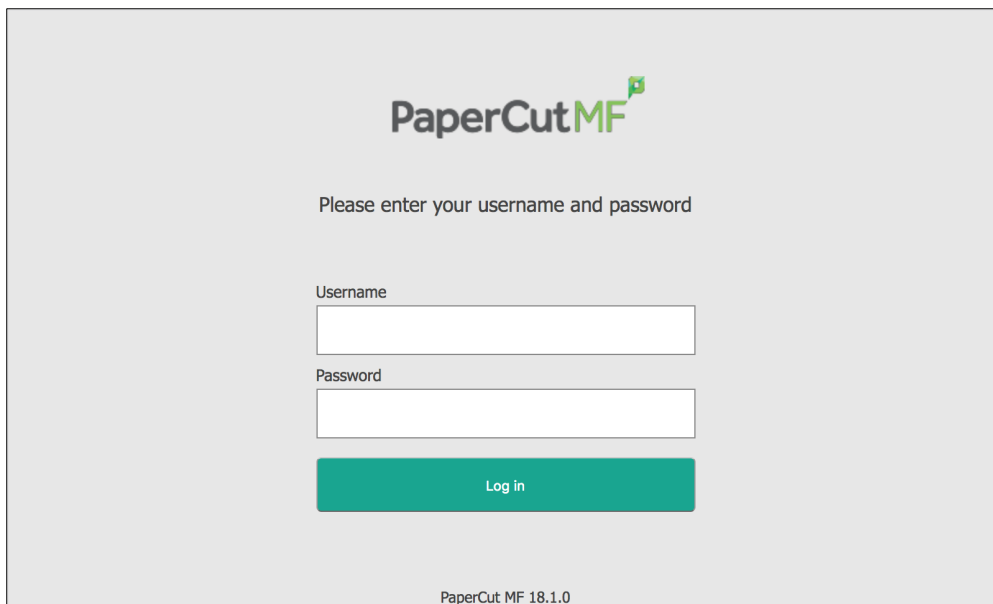
To test simple printing:

- Log in to a computer as the simple test user.

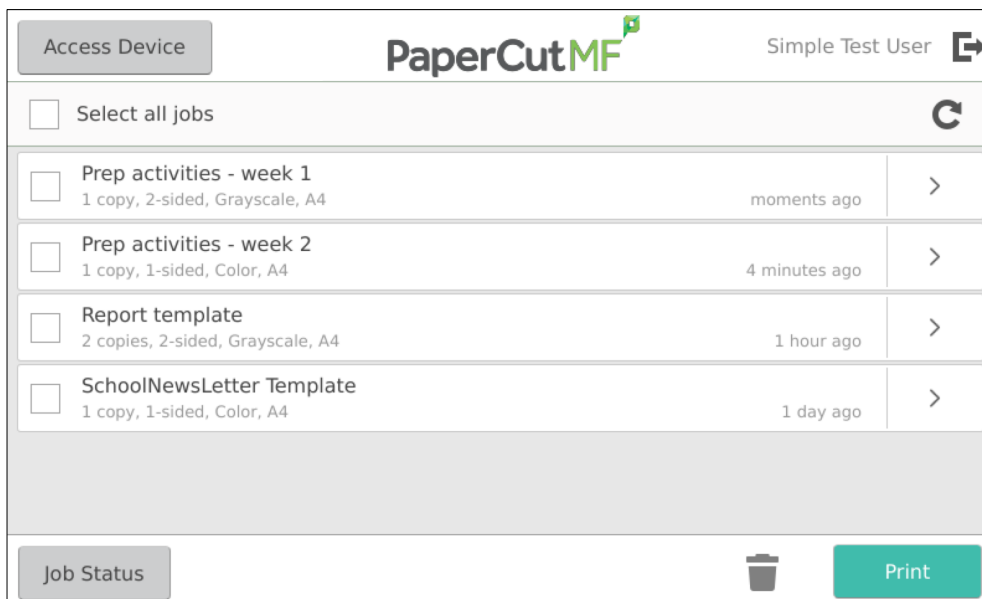
2. Print a few jobs to the source queue that was selected in the **Devices > External Device List > Device Details > Print Release > Enable print release** area of the device being tested.
3. Log in to the PaperCut MF Admin web interface.
4. Navigate to **Printers > Jobs Pending Release**.
5. Verify that the print jobs for the simple test user are being held and listed:



6. Log out of the PaperCut MF Admin web interface.
7. Log in to the device as the simple test user:



8. Verify that the print jobs for the simple test user are being held and listed:

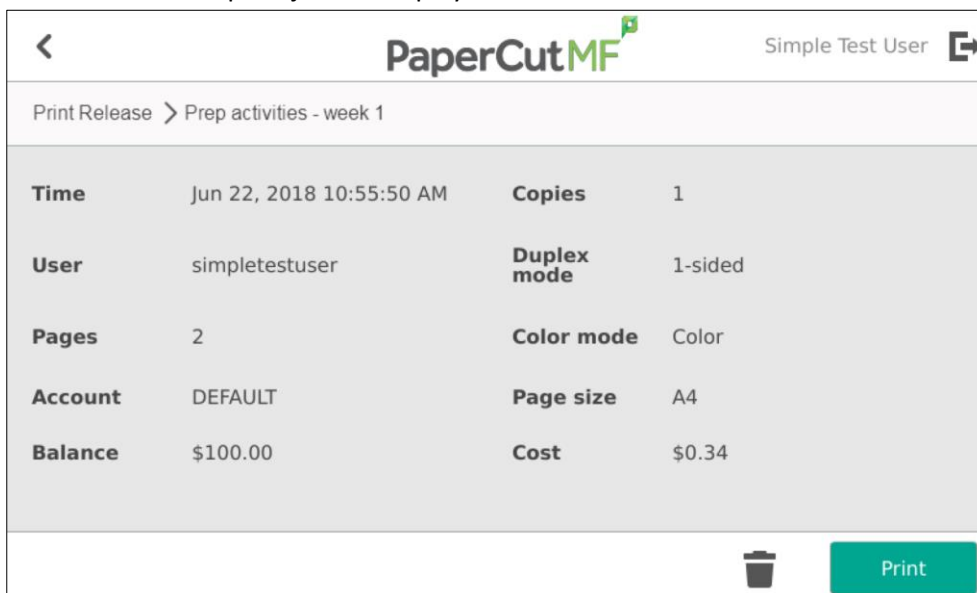


**Note:** You may be able to change the settings of held print jobs on the PaperCut MF Print Release screen before releasing them. For more information, see [6.5 Held print job settings at the device](#).

9. To release one or many held print jobs at once, select all the relevant held print jobs and click **Print**.
10. To delete one or many held print jobs at once, select all the relevant held print jobs and click the **Bin** icon.
11. To view and take actions on a single held print job, click the chevron:



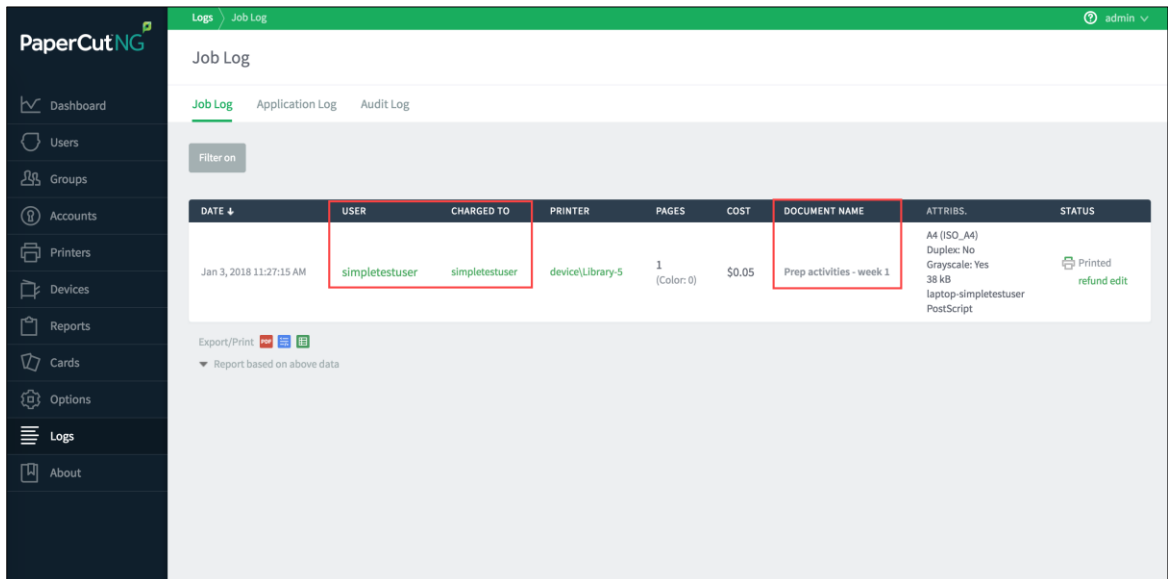
Details of the held print job are displayed:



**Note:** You may be able to change the settings of held print jobs on the PaperCut MF Print Release screen before releasing them. For more information, see [6.5 Held print job settings at the device](#).

12. Log out of the device.
13. Log in to the PaperCut MF Admin web interface.

14. Navigate to **Logs**.
15. After printing is completed, verify that **Job Log** page displays the test user's name, simple test user, in the **User** column and the **Charged To** column:



DATE ↓	USER	CHARGED TO	PRINTER	PAGES	COST	DOCUMENT NAME	ATTRIBS.	STATUS
Jan 3, 2018 11:27:15 AM	simpletestuser	simpletestuser	device/Library-5	1 (Color: 0)	\$0.05	Prep activities - week 1	A4 (ISO_A4) Duplex: No Grayscale: Yes 38 kB laptop-simpletestuser PostScript	Printed refund edit

16. Log out of the PaperCut MF Admin web interface.

### 5.2.3 Simple copying

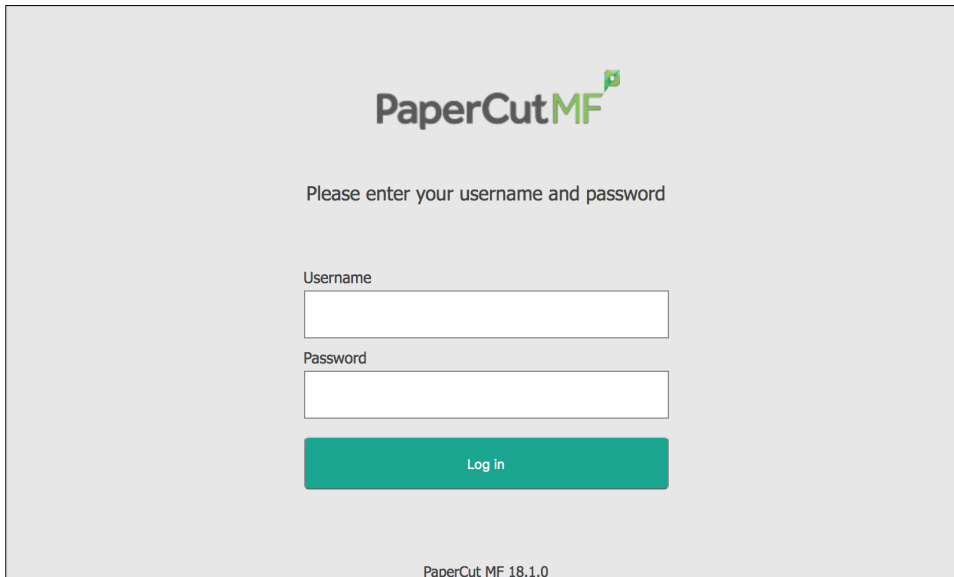
Simple copying does not involve providing the simple test user with a choice of accounts to choose from. Copying is charged to the simple test user's default My Personal Account.

To test simple copying, ensure the following test preparation requirements are met:

- **Simple test user** - A simple test user is created and configured. For more information, see [5.1 Test preparation: create test users](#) and [5.2.1 Test preparation: configure simple test user](#).
- **Device functions** – The copying function is enabled. To enable the copying function:
  1. Log in to the PaperCut MF Admin web interface.
  2. Navigate to **Devices**.
  3. Select the device being tested.
  4. In the **External Device Settings > Tracking** area, select **Track & control copying**.
  5. Click **Apply**.
  6. Verify that the **Devices > External Device List** displays the device with **Copier** in the **Function** column.

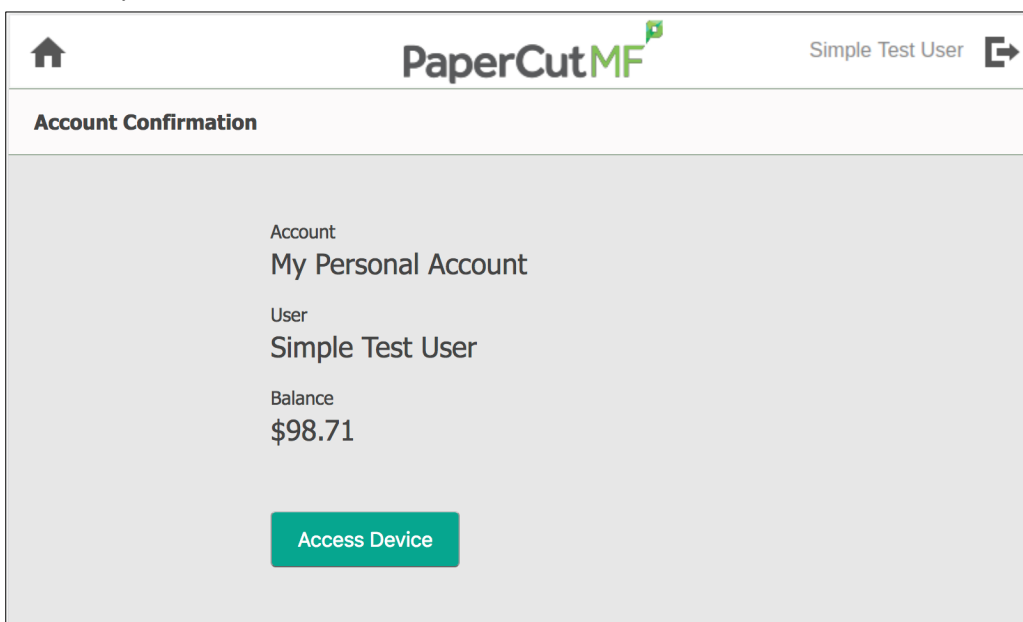
To test simple copying:

1. Log in to the device as the simple test user:



The image shows the PaperCut MF login interface. At the top center is the PaperCut MF logo. Below it, the text reads "Please enter your username and password". There are two input fields: "Username" and "Password". Below the password field is a green "Log in" button. At the bottom center, the version number "PaperCut MF 18.1.0" is displayed.

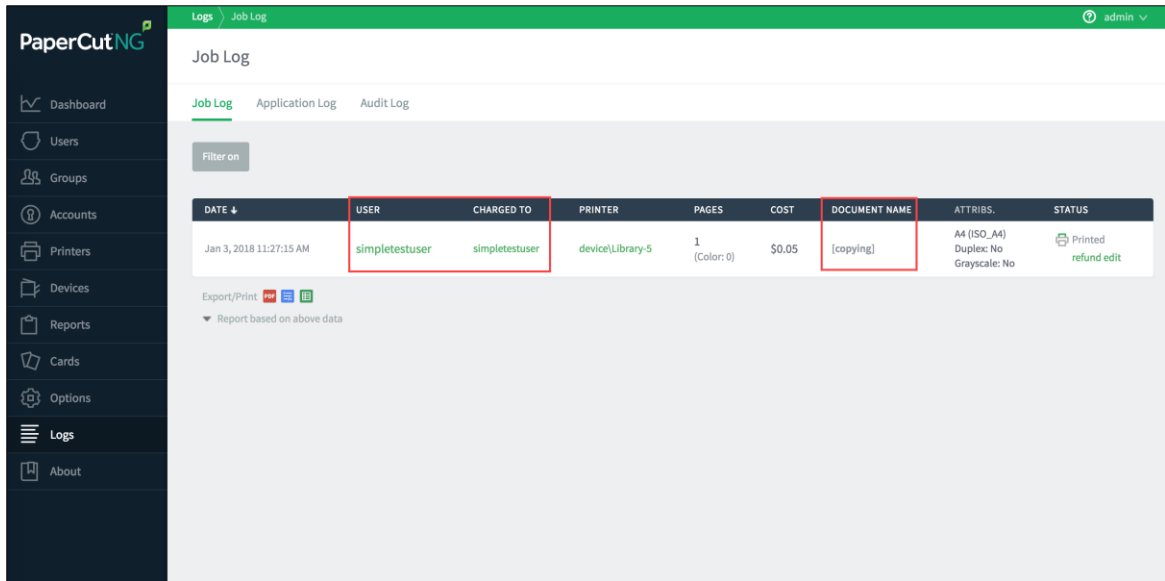
2. Select **Access Device**.
3. Verify that the PaperCut MF Account Confirmation screen does not provide the simple test user with a choice of accounts to choose from, and charges copying to the simple test user's default My Personal Account:



The image shows the PaperCut MF Account Confirmation screen. At the top left is a home icon. In the center is the PaperCut MF logo. At the top right, it says "Simple Test User" with a user icon. Below the header is a section titled "Account Confirmation". The main content area displays the following information: "Account: My Personal Account", "User: Simple Test User", and "Balance: \$98.71". At the bottom center is a green "Access Device" button.

4. Click **Access Device**.
5. Select **Copy**.
6. Complete copying by following the device's workflow.
7. Log out of the device.
8. Log in to the PaperCut MF Admin web interface.
9. Navigate to **Logs**.

- After copying is completed, verify that **Job Log** page displays the test user’s name, simple test user, in the **User** column and the **Charged To** column:



- Log out of the PaperCut MF Admin web interface.

### 5.3 Advanced copying

Advanced copying involves providing the advanced test user with a choice of accounts to choose from. Copying is charged to the account that is selected by the advanced test user.

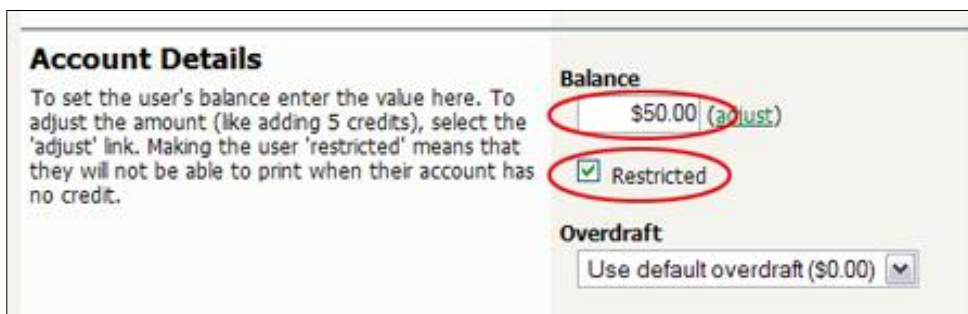
To test advanced copying, ensure the following test preparation requirements are met:

- Advanced test user** – An advanced test user must be created. For more information, see [5.1 Test preparation: create test users](#).

Once created, the advanced test user must be configured.

To configure the advanced test user:

- Log in to the PaperCut MF Admin web interface.
- Navigate to **Users**.
- From the **User List**, select the advanced test user.
- In the **Account Details** area, set the **Balance** to **\$50.00** and select **Restricted**:





5. In the **Account Selection** area's **Print account selection**, select **Standard account selection popup** and in **Information to show in popup**, select all the options:

**Account Selection**  
Account selection can be used to allow the user to select what account is charged, or even to confirm print jobs before they are sent to the printer. These options require running the user client tool on workstations.

**Print account selection**  
Show the standard account selection popup

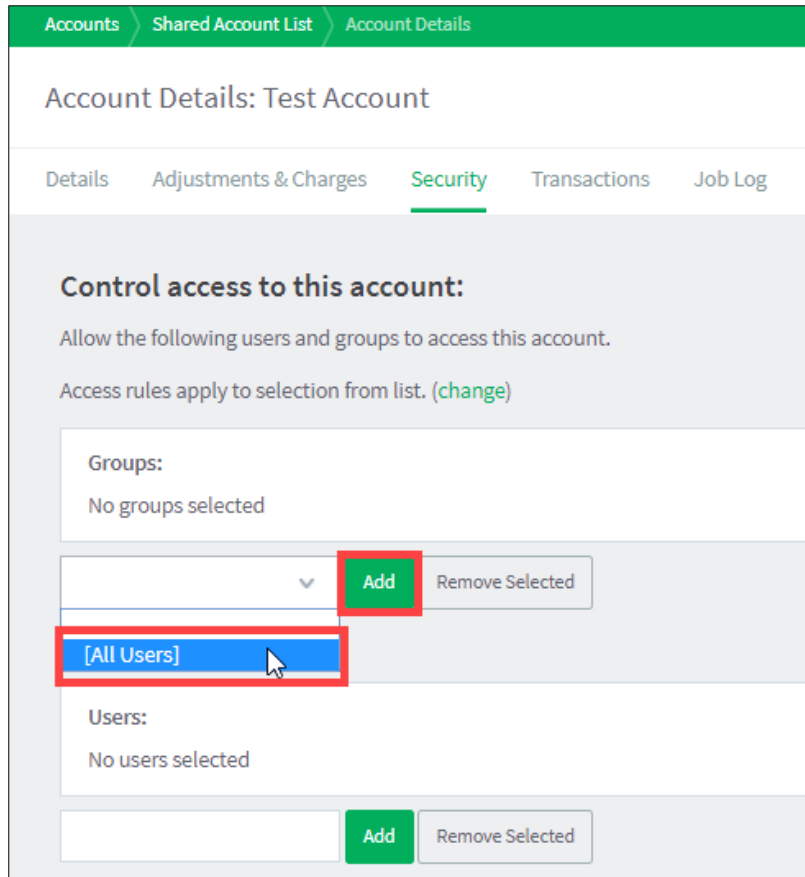
**Information to show in popup**

- Allow user to charge to their personal account
- Allow user to select shared accounts (from list)
- Allow user to select shared accounts (using PIN/code)

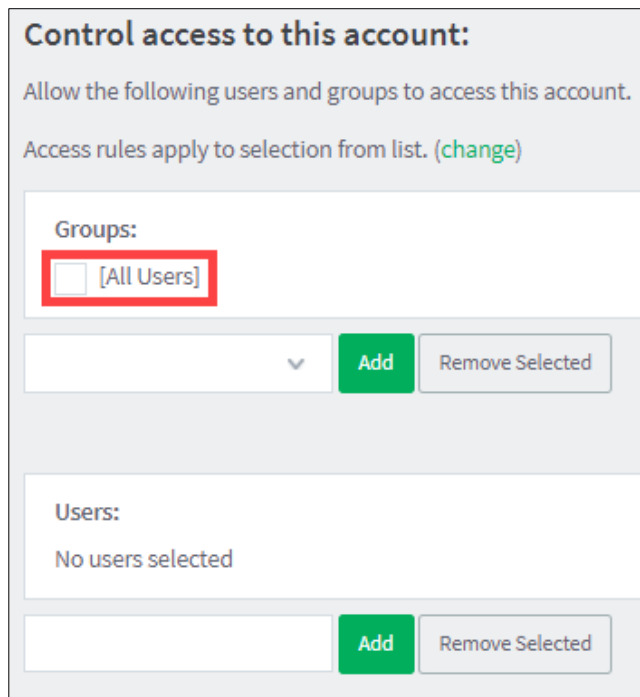
**Warning:** This setting requires this user to run the client software at all times.

6. Click **Apply**.
- **Device functions** – The copying function is enabled.  
To enable the copying function:
    1. Log in to the PaperCut MF Admin web interface.
    2. Navigate to **Devices**.
    3. Select the device being tested.
    4. In the **External Device Settings > Tracking** area, select **Track & control copying**.
    5. Click **Apply**.
    6. Verify that the **Devices > External Device List** displays the device with **Copier** in the **Function** column.
  - **Advanced account** – A test account is created.  
To create a test account:
    1. Log in to the PaperCut MF Admin web interface.
    2. Navigate to **Accounts**.
    3. Click **Create a new account....**
    4. In the **Details & Balance** area's field **Account Name**, enter the name of the test account (test account).
    5. Click **Apply**.
    6. Verify that the **Accounts > Shared Account List** page displays the test account created.
    7. Click the test account.
    8. Navigate to **Security**.

- 9. In the **Control access to this account > Groups** area, select **[All Users]**; then click **Add**:



- 10. Verify that the **Control access to this account > Groups** area displays **[All Users]**:

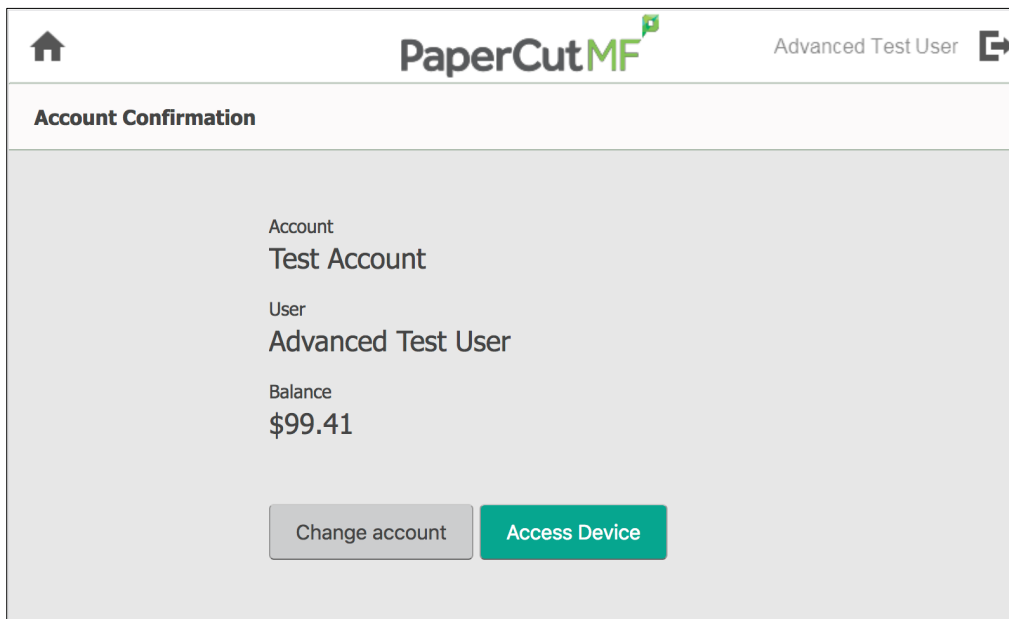


To test advanced copying:

1. Log in to the device as the advanced test user:

2. Select **Access Device**.
3. Verify that the PaperCut MF Select Account screen provides the advanced test user with a choice of accounts to choose from:

4. Select the relevant account, test account.
5. Verify that the PaperCut MF Account Confirmation screen displays the selected account, test account, but continues to provide the advanced test user with the option of changing the account:



6. Click **Access Device**.  
Copying is charged to the account selected by the advanced test user, test account.
7. Select **Copy**.
8. Complete copying by following the device's workflow.
9. Log out of the device.
10. Log in to the PaperCut MF Admin web interface.
11. Navigate to **Logs**.
12. After copying is completed, verify that **Job Log** page displays the test user's name, advanced test user, in the **User** column and the selected account's name, test account, in the **Charged To** column:

Job Log

DATE	USER	CHARGED TO	PRINTER	PAGES	COST	DOCUMENT NAME	ATTRIBS.	STATUS
Jan 5, 2018 4:04:20 PM	advancedtestuser	Test Account	device/Library-5	1 (Color: 0)	\$0.05	[copying]	A4 (ISO_A4) Duplex: No Grayscale: No	Printed refund edit

13. Log out of the PaperCut MF Admin web interface.

## 6 Configuration

After completing the Installation section and registering the device with PaperCut, it has been configured with reasonable default settings that are suitable for most environments. This section

covers how to change the default settings. All the following settings are available via the device's 'Summary' tab in the PaperCut administration interface.

## 6.1 HTTPS Security (recommended)

PaperCut MF can be configured to communicate with the device using the HTTPS (SSL/TLS) protocol, which is a secure and encrypted protocol.

To enable HTTPS:

1. You must have an SSL certificate installed on the PaperCut MF Application Server. The certificate must use the server's fully-qualified domain name. This must be defined either in the **Common Name** (CN) field or included in the **Alternative Names** (AN) of the subject of the certificate. Without this, the device cannot connect to the server, since devices do not work with hostname-only certificates (i.e. not fully qualified). You may use an official Certificate Authority-signed certificate or a self-signed certificate:
  - If you are using an official CA-signed certificate (for example, Verisign, Thawte), it is likely to use the server's fully qualified domain name (or wildcard). This is because Certificate Authorities generally no longer accept certificate requests for either intranet names or IP addresses.
  - If you are using the self-signed certificate that is generated by default when installing PaperCut MF, ensure to regenerate it for a fully qualified domain name. This is because the default self-signed certificate generated during PaperCut MF installation (device registration and integration) is issued using a hostname, instead of the domain name. Regenerate it using PaperCut MF's `create-ssl-keystore` tool in:  
`[PaperCut MF Install Location]\server\bin\[platform]`  
Run the following command to regenerate the certificate using the tool:  
`create-ssl-keystore -f "myserver.fullname.com"`  
For more information, see the [PaperCut MF manual](#).  
After the certificate is regenerated, you must upload it on the device's web interface (TOPACCESS). To upload the regenerated certificate on the device's web interface (TOPACCESS):
    - a. Extract the regenerated certificate that is installed on the PaperCut MF Application Server, using Keystore Explorer (the password is *default*), as a PEM file. For more information, see [SSL with PaperCut and Keystore Explorer](#).
    - b. Log in to the device's web interface (TOPACCESS) as an administrator.
    - c. Navigate to **Administration > Security > Certificate Management**
    - d. In the **CA Certificate** section, select **CA Certificate (PEM)**.
    - e. Click **Choose file** and follow the prompts to upload the extracted regenerated certificate (PEM file):

The screenshot displays the PaperCut Admin web interface for Certificate Management. The navigation menu includes Setup, Security, Maintenance, Registration, AirPrint, Application, Administration, and My Account. The Security section is expanded to show Certificate Management, Password Policy, and Security Stamp. The 'self-signed certificate' option is selected, with sub-sections for 'Installed' (Create, Export) and 'Not Installed' (Choose file, No file chosen, Upload, Delete). Configuration fields include CA Server Address (Primary/Secondary), MFP's Address in Common Name in the Certificate (IP Address), Timeout (10 seconds), CA Challenge, Signature Algorithm (MD5 selected), Poll Interval (1 Minute), and Maximum Poll Duration (8 Hours). Below this are sections for Client Certificate (Not Created, Create), Certificate Setting (Signature Algorithm: SHA1, Public Key: RSA2048), CA certificate (CA Certificate(PEM) selected, CA certificate (DER)), and a Certificate Files table containing 'jetty.pem'.

f. Click **Save**.

- Use the following config keys:  
**ext-device.toshiba.secure-odca**  
**ext-device.toshiba.secure-app-server-url**  
**system.network-address**  
**ext-device.toshiba.secure-scanning**  
 For more information, see [6.12 Config Editor](#).
- Ensure to enable secure ODCA. For more information, see [6.2 Enable secure ODCA in PaperCut](#).
- Ensure to configure inbound connections to PaperCut MF Application Server. For more information, see [6.3.1 Inbound connections to PaperCut MF Application Server](#).

## 6.2 Enable secure ODCA in PaperCut

- In a web browser, log in to the PaperCut Admin web interface (e.g. <http://papercut-server:9191/admin>).
- Select the "Devices" tab.
- Select a device.
- Click "Advanced Config".
- set the `ext-device.toshiba.secure-odca` config key to "Y". For more information, see [6.12 Config Editor](#).

**NOTE:** If the Toshiba Device Advance Configuration parameter of `ext-device.toshiba.port-num` is set to "49629", change it to either "49630" or "DEFAULT". For more information, see [6.12 Config Editor](#).

## 6.3 Inbound connections

### 6.3.1 Inbound connections to PaperCut MF Application Server

To configure PaperCut MF to allow inbound connections from the device to the PaperCut MF Application Server, use the config key **system.network-address**. For more information, see [6.12 Config Editor](#).

### 6.3.2 Inbound connections to PaperCut MF Site Servers

To configure PaperCut MF to allow inbound connections from the device to PaperCut MF Site Servers on the PaperCut MF Admin web interface:

1. Site Servers must already be installed and configured. For more information, see the [PaperCut MF manual](#).
2. Log in to the PaperCut MF Admin web interface.
3. Navigate to **Sites**.
4. Select the Site Server.
5. In the **Configuration** area, enter the network IP address (if using HTTP) or DNS name (if using HTTP or HTTPS) of the PaperCut MF Site Server that the device uses to make inbound connections.
6. Click **Apply**.

## 6.4 Device Function

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

### Tracking

Track & control copying

Page cost \$0.20 ([standard](#))

Track & control scanning

Charging type

Page cost

Track & control faxing

Charging type

Page cost

### Print release

Enable print release

Each device function is discussed in the following table.

Device Function	Description
-----------------	-------------

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Track & control copying      The device will track walk-up off-the-glass copying and on-device printing.

---

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.

---

## 6.5 Held print job settings at the device

PaperCut MF allows you to configure the following:

- [6.5.1 Held print jobs settings that can be changed at the device](#)
- [6.5.2 Held print jobs settings that can be viewed at the device](#)

### 6.5.1 Held print jobs settings that can be changed at the device

PaperCut MF allows users to change the settings of held print jobs on the device. Based on the changes made, PaperCut MF shows the updated cost and savings, to give immediate positive feedback to the user, encouraging behavior change.

Users can make the following changes to print settings for multiple jobs on the device:

- **Force grayscale** (from color to grayscale)
- **Force 2-sided** (from 1-sided to 2-sided)

The screenshot shows the PaperCut MF web interface. At the top, there is a navigation bar with 'Access Device' on the left, the 'PaperCut MF' logo in the center, and 'Advanced Test User' with a user icon on the right. Below the navigation bar is a header section with a 'Select all jobs' checkbox and a refresh icon. The main content area is a list of four held print jobs, each with a checkbox, a title, a description of the job (copy count, sidedness, color, paper size), a timestamp, and a right-pointing arrow. The jobs are: 'Prep activities - week 1' (1 copy, 2-sided, Grayscale, A4, moments ago), 'Prep activities - week 2' (1 copy, 1-sided, Color, A4, 4 minutes ago), 'Report template' (2 copies, 2-sided, Grayscale, A4, 1 hour ago), and 'SchoolNewsLetter Template' (1 copy, 1-sided, Color, A4, 1 day ago). At the bottom of the interface, there is a 'Job Status' button, two checkboxes for 'Force grayscale' and 'Force 2-sided', a trash icon, and a 'Print' button.



Clicking the chevron of a held print job displays all the settings for the individual job, allowing users to make the following additional changes:

- **Copies**
- **Duplex mode** (from 1-sided to 2-sided)
- **Color mode** (from color to grayscale)
- **Account**

The screenshot shows the PaperCut MF mobile interface for a held print job. At the top, there is a back arrow, the PaperCut MF logo, and the user name 'Advanced Test User' with a share icon. Below this, the breadcrumb 'Print release > Prep activities - week 1' is visible. The main content area is a table of settings:

<b>Time</b>	Jun 15, 2018 1:16:33 PM	<b>Copies</b>	- 1 +
<b>User</b>	advanced test user	<b>Duplex mode</b>	1-sided 2-sided
<b>Pages</b>	1	<b>Color mode</b>	Color Grayscale
<b>Account</b>	Test Account	<b>Page size</b>	A4
<b>Balance</b>	\$100.00	<b>Cost</b>	\$1.15 <b>Saved \$1.35</b>

At the bottom, there is a 'Reset to original' button, a trash icon, and a 'Print' button.

If required, you can however, prevent users from being able to change print settings on the device. For more information, see the [PaperCut MF manual](#)

### 6.5.2 Held print jobs settings that can be viewed at the device

By default, PaperCut MF displays the following print settings for individual jobs on the device:

- **Account**
- **Balance**
- **Cost**

PaperCut MF also displays the total cost for multiple jobs on the device.

If required, you can however, prevent users from being able to view print settings on the device. For more information, see the [PaperCut MF manual](#)

## 6.6 Authentication Methods

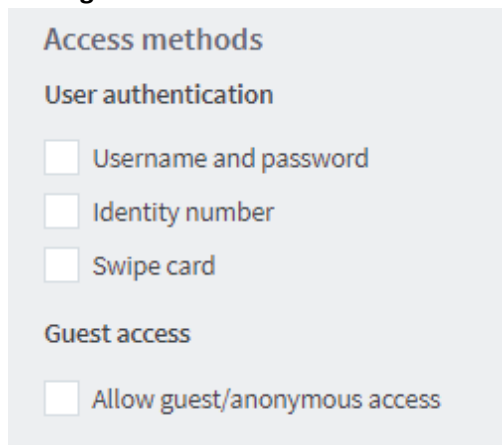
PaperCut MF provides you with several authentication methods to authenticate users when logging in to PaperCut MF on the device.

To access the available authentication methods on the PaperCut MF Admin web interface:

1. Log in to the PaperCut MF Admin web interface.

2. Navigate to **Devices**.
3. Select the device.

The available authenticate methods are in the **Device Details** page's **External Device Settings** area:



**Note:** You may use any one or a combination of all the available authentication methods, including the anonymous access authentication method. However, you cannot use the guest access authentication method. For more information, see [8.1 The guest access authentication method is unavailable](#).

The available authentication methods are:

Authentication Method	Description
<b>Username and password</b>	<p>This is the default authentication method.</p> <p>With this method, users use their domain/network username and password.</p>
<b>Identity number</b>	<p>With this method, users use their ID number. For more information, see the <a href="#">PaperCut MF manual</a>.</p> <p><b>Require PIN:</b> With this method, users use their id number and the PIN associated with the id number.</p> <p><b>Note:</b> Users can use an id number with or without a pre-set and associated PIN. If using an id number without a pre-set and associated PIN, users are prompted to set a valid PIN to associate with the id number.</p>
<b>Swipe card</b>	<p>With this method, users use their registered swipe card (e.g. magnetic strip, smart card, RFID). For more information, see the <a href="#">PaperCut MF manual</a>.</p> <p><b>Require PIN:</b> With this method, users use their registered swipe card and the PIN associated with the card.</p> <p><b>Note:</b> Users can use a swipe card with or without a pre-set and</p>

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associated PIN. If using a swipe card without a pre-set and associated PIN, users are prompted to set a valid PIN to associate with the swipe card.

**Enable self-association with existing user accounts:** With this method, users can use a registered swipe card or a new, unregistered swipe card. If using new, unregistered swipe cards, users are prompted to complete card self-association using their username and password (i.e. associating a new unregistered card with a relevant, valid user account). After card self-association is completed, subsequent use of the registered swipe card does not require users to enter their credentials. You may use the config keys: **ext-device.card-self-association.use-secondary-card-number** and **ext-device.self-association-allowed-card-regex**.

---

### Allow guest/anonymous access

With this method, you may choose to activate **guest** or **anonymous access**, enabling users to be authenticated as guest or anonymous users, as per the user specified in the **Inherit settings from user** field.

**Inherit settings from user:** Enter the username of the PaperCut MF user's profile that is used while authenticating users as guest or anonymous users on the device.

- **Guest access** - Selecting the **Allow guest/anonymous access** authentication method *and also* selecting one or more of the other authentication methods (Username and password, Identity number, Swipe card), activates **Guest access**. With this method:
  - A **Guest** button, which may be customized, is displayed on the PaperCut MF Login screen on the device, together with the other authentication methods selected.

**Note:** To customize the text of the **Guest** button that appears on the PaperCut MF Login screen, use the config key **ext-device.toshiba.guest-access.label**. For more information, see [6.12 Config Editor](#).
  - A user clicking this **Guest** button is authenticated as a guest user, as per the user specified in the **Inherit settings from user** field.
  - This guest user is shown the PaperCut MF Account Confirmation screen only if the user profile of the user specified in the **Inherit settings from user** field is entitled with the option of account selection, irrespective of the **External Device Settings > Device Options > Show account confirmation** checkbox setting.

- **Anonymous access** - Only selecting the **Allow guest/anonymous access** authentication method *without* selecting any other authentication method, activates **Anonymous access**. With this method:
  - A user is authenticated as an anonymous user, as per the user specified in the **Inherit settings from user** field.
  - This anonymous user can view held print jobs belonging to all users.

#### Description of available authentication methods

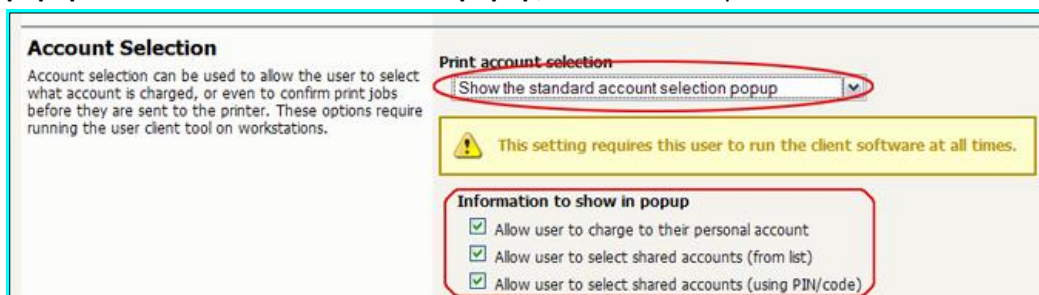
## 6.7 Account selection

The PaperCut MF Select Account screen on the device allows users to select an account via any one of the following ways:

- [6.7.1 By name and by code](#)
- [6.7.2 By name](#)
- [6.7.3 By code](#)

This is based on a user's Account Selection setting on the PaperCut MF Admin web interface. To this on the PaperCut MF Admin web interface:

1. Log in to the PaperCut MF Admin web interface.
2. Navigate to **Users**.
3. From the **User List**, select the user.
4. In the **Account Selection** area's **Print account selection**, select **Standard account selection popup** and in **Information to show in popup**, select all the options:



### 6.7.1 By name and by code

For users who on the PaperCut MF Admin web interface (**Users > Details**) have **Account Selection** set to either of the following, the PaperCut MF Select Account screen displays both methods of selecting accounts – by name and by code:

- **Show the advanced account selection popup**, or
- **Show the standard account selection popup** and **Information to show in popup** set to **Allow user to select shared accounts (from list)** and **Allow user to select shared accounts (using PIN/code)**

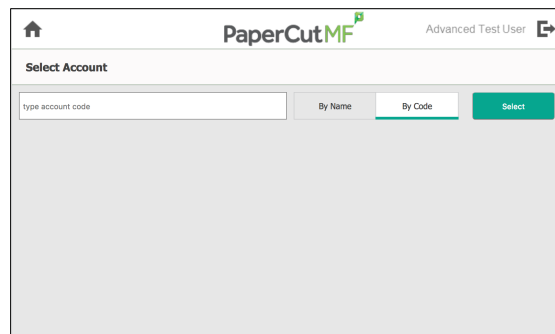
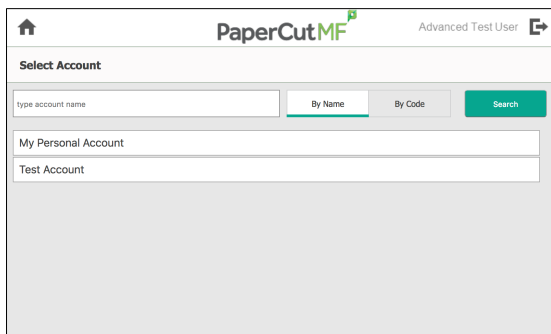
By Name	By Code
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Users select the relevant shared account by scrolling through a list of all applicable shared accounts (maximum of 500, with a scroll bar) or by searching for the shared account using the account’s name.

**Note:** The user’s My Personal Account and the Default Shared Account (if set) is always displayed.

Users select the relevant shared account by using the shared account’s code.

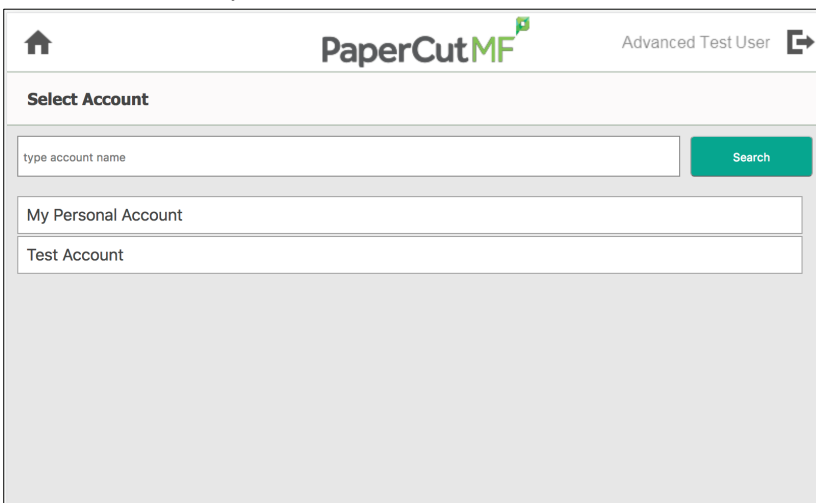
**Note:** The user’s My Personal Account and the Default Shared Account (if set) is not displayed.



### 6.7.2 By name

For users who on the PaperCut MF Admin web interface (**Users > Details**) have **Account Selection** set to **Show the standard account selection popup** and **Information to show in popup** set to **Allow user to select shared accounts (from list)**, the PaperCut MF Select Account screen displays only one method of selecting accounts – by name. Users select the relevant shared account by scrolling through a list of all applicable shared accounts (maximum of 500, with a scroll bar) or by searching for the shared account using the account’s name.

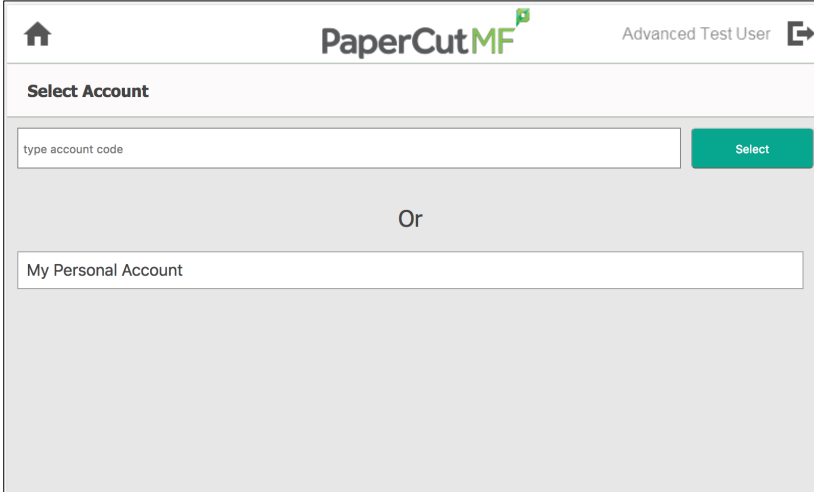
**Note:** The user’s My Personal Account and the Default Shared Account (if set) is always displayed.



### 6.7.3 By code

For users who on the PaperCut MF Admin web interface (**Users > Details**) have **Account Selection** set to **Show the standard account selection popup** and **Information to show in popup** set to **Allow user to select shared accounts (using PIN/code)**, the PaperCut MF Select Account screen displays only one method of selecting accounts – by code. Users select the relevant shared account by using the shared account’s code.

**Note:** The user’s My Personal Account and the Default Shared Account (if set) is always displayed.



## 6.8 Prevent the release of print jobs to devices in error (optional)

Toshiba MDS devices support the prevention of jobs being released to devices in error. For more information, see the PaperCut MF manual. If you enable this feature, one of the default errors that will block the release of jobs is `noPaper`. On Toshiba devices, this error occurs when one paper tray is empty, even if there are multiple trays with paper. You can optionally remove the `noPaper` error from the list of errors that will prevent the release of jobs, using the `ext-device.block-release-on-error.snmp-error-list` config key. For more information, see 6.12 Config Editor.

## 6.9 Customizing Text and Messages

PaperCut allows some text that appears in the device to be customized. The custom text might include instructions or terminology that is more appropriate for the site. An example of text that is customizable is the “welcome text” on the home page that displays on the EWB screen.

The text can be customized by editing the device configuration from the PaperCut administration interface.

## 6.10 Customizing the header logo and colors

The header logo, the header background color, and the header text color appearing on all the screens of the embedded application can be customized.

To customize the header logo:

- Create a 24bit PNG image of the logo, which is 230 pixels wide and 55 pixels high.
- Save the image with the filename “`logo.png`” in the following PaperCut application directory and subdirectory:

```
[PaperCut Install Location]\server\custom\web\device\toshiba-v3\
```

Create the subdirectory if necessary.

To customize the header background color, and the header text color, see the 6.12 Config Editor for more information about configuring the following:

- ext-device.toshiba.header-background-color
- ext-device.toshiba.header-font-color

**Note:** Any customizations made (header logo, header background color, header text color) are globally applied across all the embedded application screens, on all registered Toshiba V3+ devices. Customizations made are not applied to other Toshiba devices on your network.

## 6.11 Configuring Swipe Card Readers

Swipe cards contain numbers that are 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 two ways:

- A typical case is the checksum being reported after the card number, separated by an equals sign, such as in 5235092385=8. PaperCut can handle this case by default; it will extract the number before the equal sign as the card number: 5235092385.
- For some cases, a “regular expression” that will filter the card number from the complete string of characters reported by the card reader *might* be required. Documentation on regular expressions can be found on the Internet, e.g. at [.net](#).
  - The regular expression must be fashioned so that 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 the “Config editor” in the PaperCut Admin Console. Open the Admin Console and select the Options tab, then select “Config Editor (Advanced)” from the left menu. The key is called “ext-device.card-no-regex”.
  - The global setting however 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. Contact your reseller or Authorized Solution Center for help with regular expressions. You can find their contact information in your PaperCut Admin interface on the **About** page.
  - 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*`

## 6.12 Config 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.admin.password	The admin password for the Toshiba copier.
ext-device.admin.username	The admin username for the copier, by default it is "admin".
ext-device.card-no-regex	See chapter section 6.11 Configuring Swipe Card Readers
ext-device.card-self-association.use-secondary-card-number	<p>Select whether user self-association should occupy the primary or secondary card number. It overrides the global setting unless the keyword "GLOBAL" is specified. This is useful when there is a mix of different non-configurable card readers that read different numbers from an ID card.</p> <p>Set to "Y" to use the secondary card number, "N" to use the primary card number. Default: "GLOBAL" to defer to the global configuration option.</p>
ext-device.id-number.label	<p>Customize the "ID Number" field label on the login page.</p> <p>An organization might want to do this if, for example, users need to enter their employee number to log in. Changing the "ID Number" field label to "Employee Number" makes the user experience more intuitive.</p>
ext-device.id-number.in-prompt	<p>Customize the "ID Number" field label on user credential prompts.</p> <p>An organization might want to do this if, for example, users need to enter their employee number to log in. Changing the "ID Number" field label to "Employee Number" makes the user experience more intuitive.</p>
ext-device.id-number.mask	Select whether or not to mask with asterisks (*), the characters entered in the "ID Number" field on the login screen.



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	Default is blank, which means characters entered in the "ID Number" field will be displayed. Set to "Y" to mask the characters entered in the "ID Number" field.
ext-device.toshiba.welcome-text	<p>The text displayed on the 'welcome screen' (the screen displayed after pressing 'Start' from the ready screen). This text can be used to provide specific information about logging in to the device. Default: DEFAULT (uses the default application text).</p> <p><b>Note:</b> This setting is overridden by the ext-device.home-screen.show-balance setting for users who have an auto-chargeable account.</p>
ext-device.toshiba.locale-override	Used to override the language displayed on the device. This is the 2-letter language code for the required language. E.g. "ja" for Japanese.
ext-device.toshiba.limit-reference.duplex	Used at log in time, to assume whether the copying is going to be duplex or not. This is used to decide if we have enough quota to do a single copy.
ext-device.toshiba.limit-reference.grayscale	Used at log in time, to assume whether the copying is going to be grayscale or not. This is used to decide if we have enough quota to do a single copy. By default, this is set to <i>N</i> and we assume a color copy.
ext-device.toshiba.limit-reference.paper-size	Used at log in time, to assume what page size the copying is going to use. This is used to decide if we have enough quota to do a single copy. By default, for the United States this size is <i>Letter</i> and elsewhere it is <i>A4</i> .
ext-device.toshiba.limit-reference.quota.duplex	Whether we consider the page to be duplex for the page quota. By default, we consider the page to be duplex so we don't overcharge the user.
ext-device.toshiba.limit-reference.quota.large-paper-size	The reference paper size that we consider to be a large paper size for the zero stop page costs. By default, for the United States this size is <i>Ledger</i> and elsewhere it is <i>A3</i> .
ext-device.toshiba.limit-reference.quota.small-paper-size	The reference paper size that we consider to be a small paper size for the zero stop page costs. By default, for the United States this size is <i>Letter</i> and elsewhere it is <i>A4</i> .

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ext-device.toshiba.log-highest-id	<p>The highest log id that we have processed so far. Used to determine what log entries to look at next from the copier.</p> <p>If the device's hard disk drive has been erased or replaced, it might stop sending copy job logs to PaperCut. To prevent this from happening, set this value to -1 after erasing the drive.</p>
ext-device.toshiba.port-num	<p>The port number used for ODCA (Off Device Customization Architecture) as set up in TopAccess.</p>
ext-device.toshiba.scan-port-num	<p>The port number used to access scanning service on the device.</p>
ext-device.toshiba.serial-number	<p>The serial number of the device that was last queried from the device. This is used so that we know if the device changes across restarts of the PaperCut Application Server.</p>
system.network-address	<p>Specify the network IP address (if using HTTP) or DNS name (if using HTTP or HTTPS) of the PaperCut MF Application Server that the device uses to make inbound connections.</p> <p>This is a global config key.</p> <ul style="list-style-type: none"><li>• Values: Network IP address (if using HTTP) or DNS name (if using HTTP or HTTPS) of the PaperCut MF Application Server used by the device for inbound connections</li></ul> <p><b>Note:</b> For more information, see <a href="#">6.3.1 Inbound connections to PaperCut MF Application Server</a> and <a href="#">6.1 HTTPS Security (recommended)</a>.</p>
ext-device.toshiba.secure-app-server-url	<p>When set to "Y", the MFP will use SSL for EWB (Embedded Web Browser) login/logout events and for integrated scanning events sent to the PaperCut server.</p> <p>Default: "N" (EWB requests and events will not be encrypted).</p> <p>For more information, see <a href="#">6.1 HTTPS Security (recommended)</a></p>
ext-device.toshiba.secure-odca	<p>When set to "Y", PaperCut will use SSL for the SOAP communications with ODCA. This will ensure the setting of quotas and the Toshiba log information is encrypted.</p> <p>Default: "N" (ODCA messages will not be encrypted).</p> <p>For more information, see <a href="#">6.2 Enable secure ODCA in PaperCut</a> and <a href="#">6.1 HTTPS Security (recommended)</a></p>

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ext-device.toshiba.secure-scanning	<p>When set to "Y", PaperCut will use SSL for the SOAP communications to control integrated scanning. This will, for example, ensure the retrieval of scanned images are encrypted.</p> <p>Default: "N" (Integrated scanning messages will not be encrypted).</p> <p>For more information, see <a href="#">6.1 HTTPS Security (recommended)</a></p>
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ext-device.toshiba.overrun-offset	<p>Used to reduce the chance of the overrun of zero stop causing the balance to go negative. It works by submitting to the MFD for its quota, the balance of the account minus the overrun offset. For example, if the account had \$2 and the overrun offset was \$0.20 then the MFD would be told the account has a balance of \$1.80 to make sure it stops printing earlier to avoid overrun.</p> <p>NOTE: The problem with modifying this setting is that it can then prevent the user from doing any printing when they reach below that threshold. For example, if this amount is set to \$0.20, and they have enough money to print a \$0.10 job, they will be denied (which might not be expected by the user). Do <b>not</b> change this setting unless you understand the repercussions.</p> <p>Default: "0" (Do not subtract anything from the account balance sent to the MFD)</p>
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ext-device.toshiba.login-credit-check	<p>When set to "Y" it will always do a credit check at login time to decide whether to allow the user copier access. If set to "N", then PaperCut will rely on the zero-stop mechanism on the device to prevent doing a copier function without enough credit. Since zero-stop is not supported for Faxing, having this configuration enabled might be useful to prevent users from faxing without enough credit.</p> <p>Default: N (don't do credit check on login; rely on zero-stop)</p>
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ext-device.toshiba.direct-to-release-page	<p>Configure the workflow to display the PaperCut MF Print Release screen after login.</p> <p>Values: Y, N</p> <p>Default: N</p>
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ext-device.toshiba.show-printer-errors	<p>When set to "Y", MFD errors will be shown on the Print Release page.</p> <p>Default: Y</p>
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ext-device.toshiba.no-access-on-printer-errors	<p>When set to "Y", MFD errors will be shown on the Welcome page and the MFD will be locked down so that no operations are allowed.</p> <p>Default: N</p>
ext-device.toshiba.delete-suspended-jobs-on-logout	<p>When set to "Y", any jobs in suspended state on the MFD (such as jobs which cannot continue because of an error on the MFD) will be deleted when the user logs out.</p> <p>Default: N</p>
ext-device.toshiba.calculate-printer-errors-using-tray-data	<p>When set to "Y", we will only consider the MFD to be in "No Paper" error state if all the trays of a particular paper size are out of paper. When set to "N", any tray out of paper will cause the MFD to be in error.</p> <p>Default: Y (always look at the MFD's tray data to determine "No Paper")</p>
ext-device.toshiba.scan-port-num	<p>The Web Services Scan port as configured on the Toshiba MFD. On eBN devices, the value is updated automatically to reflect the value read from the device. On eBX devices, the value needs to be updated manually, depending on the value set.</p>
ext-device.block-release-on-error.snmp-error-list	<p>Defines the error types that will block the release of jobs from the MFD Print Release. Valid values:</p> <ul style="list-style-type: none"><li>• DEFAULT—includes noPaper, doorOpen, jammed,offline, inputTrayMissing, outputTrayMissing, markerSupplyMissing, outputFull</li><li>• 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</li></ul>
ext-device.toshiba.initial-native-screen	<p>Choose the first native device screen that is displayed, when the user clicks <b>Access Device</b> from the PaperCut Home screen. The native device screens available are: <b>Menu, Home, Scan, Fax, Print, eFiling, and Copy.</b></p> <p>Values: Any one of the above native device screens, entered using any case (not case sensitive).</p> <p>Default: DEFAULT (<b>Copy</b> screen)</p>

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ext-device.toshiba.header-background-color	<p>The background color of the header.</p> <p>Values: Any valid HTML color name or hexadecimal notation of the color (#RRGGBB); where “RR” is the red component, “GG” is the green component and “BB” is the blue component.</p> <p>Default: DEFAULT (#fbfafa)</p> <p>See 6.10 Customizing the header logo and colors</p>
ext-device.toshiba.header-font-color	<p>The color of the text in the header.</p> <p>Values: Any valid HTML color name or hexadecimal notation of the color (#RRGGBB); where “RR” is the red component, “GG” is the green component and “BB” is the blue component.</p> <p>Default: DEFAULT (#888888)</p> <p>See 6.10 Customizing the header logo and colors</p>
ext-device.home-screen.show-balance	<p>Configure the PaperCut Home screen to display the following based on the type of user (restricted or unrestricted):</p> <ul style="list-style-type: none"><li>• auto-chargeable account details AND balance on the PaperCut Home screen – for restricted users</li><li>• only auto-chargeable account details on the PaperCut Home screen – for unrestricted users</li></ul> <p>This is applicable only to users who have either of the following Account Selection options enabled on the Admin web interface (Users &gt; User List &gt; User Details):</p> <ul style="list-style-type: none"><li>• Automatically charge to personal account OR</li><li>• Automatically charge to a single shared account</li></ul> <p>This key can set in Options &gt; Config editor (advanced).</p> <p>Values: Y, N, Default</p> <p>Default: DEFAULT (N)</p> <p>Setting this to Y displays the auto-chargeable account and balance, based on the type of user (restricted or unrestricted).</p> <p><b>Note:</b> This overrides the ext-device.toshiba.welcome-text config key.</p> <p><b>Note:</b> If the user has print jobs waiting to be released, then the PaperCut Home screen displays only the print jobs waiting to be released. After the user has actioned the print jobs waiting to be released, the PaperCut Home screen reverts to the</p>

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	display based on the type of user (restricted or unrestricted) as per the config key setting.
ext-device.toshiba.show-job-status-button	<p>Configure the PaperCut Print Release page to display the Job Status button on the Print Release page to allow users to access the native device's job status page and view the status of print/fax/scan jobs.</p> <p>This is applicable only to Toshiba devices with no printer error, running the Embedded Web Browser (EWB) version 2.1.37+.</p> <p>Values: Y, N, Default</p> <p>Default: DEFAULT (Y)</p>
ext-device.toshiba.device-functions-on-login	<p>Configure the workflow to suppress the display of the PaperCut MF Home screen after login.</p> <p>Values: Y, N</p> <p>Default: N</p> <p>Setting this to N – does not suppress the PaperCut MF Home screen after login. Any one of the following screens maybe displayed, based on other settings:</p> <ul style="list-style-type: none"><li>• the PaperCut MF Home screen, <i>or</i></li><li>• the PaperCut MF Print Release screen, <i>or</i></li><li>• the PaperCut MF Select Account screen, <i>or</i></li><li>• the PaperCut MF Account Details screen, <i>or</i></li><li>• the PaperCut MF Account Confirmation screen</li></ul> <p>Setting this to Y – suppresses the PaperCut MF Home screen after login. Any one of the following screens maybe displayed, based on other settings:</p> <ul style="list-style-type: none"><li>• the PaperCut MF Select Account screen, <i>or</i></li><li>• the PaperCut MF Account Details screen, <i>or</i></li><li>• the PaperCut MF Account Confirmation screen, <i>or</i></li><li>• the native device functions screen</li></ul>
ext-device.home-screen.force-show	<p>After accessing PaperCut MF on the device, configure the workflow to display the PaperCut MF Home screen, irrespective of whether or not Integrated Scanning is enabled and irrespective of whether or not print jobs are waiting to be released.</p>

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	<p>Set this global config key in the PaperCut MF Admin web interface: Options &gt; Config editor (advanced).</p> <p>Values: Y, N</p> <p>Default: N</p>
<code>ext-device.toshiba.skip-release-screen-when-no-jobs</code>	<p>After accessing PaperCut MF on the device, configure the workflow to suppress the PaperCut MF Print Release screen, when there are no print jobs waiting to be released and either of the following conditions are met:</p> <ul style="list-style-type: none"><li>• either the config key <code>ext-device.toshiba.direct-to-release-page</code> is set to Y, or</li><li>• Integrated Scanning is not enabled and the config key <code>ext-device.toshiba.app-buttons.enabled</code> is set to N</li></ul> <p>Values: Y, N</p> <p>Default: N</p> <p>Setting this to Y, suppresses the PaperCut MF Print Release screen. Any one of the following screens is displayed, based on other settings:</p> <ul style="list-style-type: none"><li>• the PaperCut MF Home screen, or</li><li>• the PaperCut MF Select Account screen, or</li><li>• the PaperCut MF Account Details screen, or</li><li>• the PaperCut MF Account Confirmation screen, or</li><li>• the native device functions screen</li></ul> <p><b>Note:</b> This is recommended only if the device is used more for copying rather than printing.</p> <p>Setting this to N, displays the PaperCut MF Print Release screen. <b>Note:</b> This is recommended if the device is used for all functions (printing, scanning, copying).</p>
<code>ext-device.toshiba.app-buttons.enabled</code>	<p>Toggle the display of additional buttons to access a third party application from the PaperCut MF Home screen.</p> <p>Values: Y, N</p> <p>Default: N</p> <p>Setting this to Y requires you to configure at least one of the following:</p> <ul style="list-style-type: none"><li>• <code>ext-device.toshiba.app-button1.label</code> and <code>ext-device.toshiba.app-button1.url</code>, or</li></ul>

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- ext-device.toshiba.app-button2.label and ext-device.toshiba.app-button2.url

Setting this to N overrides the configuration of:

- ext-device.toshiba.app-button1.label
  - ext-device.toshiba.app-button1.url
  - ext-device.toshiba.app-button2.label
  - ext-device.toshiba.app-button2.url
- 

ext-device.toshiba.app-button1.label

Toggle the display of an additional button to access a third party application from the PaperCut MF Home screen by configuring the text of the button.

Values: Relevant button text

**Note:** You must set the config keys ext-device.toshiba.app-buttons.enabled and ext-device.toshiba.app-button1.url.

Default: NONE

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ext-device.toshiba.app-button1.url

Specify the relevant third party application's URL that the additional button on the PaperCut MF Home screen links to.

Values: URL of the relevant third party application

**Note:** You must set the config keys ext-device.toshiba.app-buttons.enabled and ext-device.toshiba.app-button1.label.

Default: NONE

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ext-device.toshiba.app-button2.label

Toggle the display of an additional button to access a third party application from the PaperCut MF Home screen by configuring the text of the button.

Values: Relevant button text

**Note:** You must set the config keys ext-device.toshiba.app-buttons.enabled and ext-device.toshiba.app-button2.url.

Default: NONE

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ext-device.toshiba.app-button2.url

Specify the relevant third party application's URL that the additional button on the PaperCut MF Home screen links to.

Values: URL of the relevant third party application

**Note:** You must set the config keys ext-device.toshiba.app-buttons.enabled and ext-device.toshiba.app-button2.label.

Default: NONE

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ext-device.toshiba.release-show-cost

Toggle the display of the cost of held print jobs on the PaperCut MF Print Release screens on the device.

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	<p>This is a device-specific config key.</p> <ul style="list-style-type: none"><li>• Values: Y, N</li><li>• Default: Y</li></ul> <p><b>Note:</b> Setting this to N also hides the account balance and does not display the savings based on other changes made to held print job settings. For more information, see <a href="#">6.5 Held print job settings at the device</a>.</p>
<code>ext-device.toshiba.login-instruction</code>	<p>Customize the text that appears on the PaperCut MF Login screen. For example, instructions to help users log in to PaperCut MF on the device.</p> <p>Values: Any text, DEFAULT</p> <p>Default: DEFAULT (device-specific PaperCut MF text)</p> <p><b>Note:</b> To add a line break, use <code>\n</code>. For example, PaperCut Software\nSwipe your card to log in.</p>
<code>ext-device.toshiba.disable-ocr</code>	<p>This configuration is only applicable to devices which have MFD embedded OCR installed on them. If set to "Y" and Integrated Scanning is used to produce a PDF format document, it prevents it from producing a searchable PDF file using the MFP's OCR software. This should also speed up the scanning process evident particularly on high page count jobs, as no native OCR software is needed to be run.</p> <p>Values: Y, N, DEFAULT</p> <p>Default: DEFAULT (N)</p>
<code>ext-device.inactivity-timeout-secs</code>	<p><b>PaperCut MF timeout:</b> Customize the interval of time (seconds) after which a logged-in user who is detected as being idle on PaperCut MF is automatically logged out.</p> <p>Values: Any positive number (seconds)</p> <p>Default: 60 (seconds)</p> <p><b>Note:</b> This comes into effect only if it is lower than the value of the device's timeout. However, if it is higher, then it is overridden by the lower value of device's timeout.</p>
<code>ext-device.toshiba.timeout.scan-prompt-send.secs</code>	<p><b>PaperCut MF scan complete timeout 1:</b> Customize the interval of time (seconds) after which a user who is detected as being idle on the PaperCut MF Scan Complete (with the two buttons - <b>Add another page, Send</b>) screen is automatically taken to the PaperCut MF Scan Complete (with scan completed or failed status). The</p>

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process of sending the completed scan job to the user (scan transfer) is also automatically initiated, and the user is logged out.

Values: Any positive integer, DEFAULT

Default: DEFAULT (30 seconds)

**Note:** This timeout temporarily deactivates the PaperCut MF timeout (**ext-device.inactivity-timeout-secs**) and the device timeout.

ext-device.toshiba.timeout.complete-scan-job.secs

**PaperCut MF scan complete timeout 2:** Customize the interval of time (seconds) after which a user who is detected as being idle on the PaperCut MF Scan Completes screen (with scan completed or failed status), is automatically logged out.

Values: Any positive integer, DEFAULT

Default: DEFAULT (5 seconds)

**Note:** This timeout temporarily deactivates the PaperCut MF timeout (**ext-device.inactivity-timeout-secs**) and the device timeout.

ext-device.toshiba.guest-access.label

Customize the text of the **Guest** button that appears on the PaperCut MF Login screen.

This is a device-specific config key.

- Values: Any text, DEFAULT
- Default: DEFAULT (Guest)

**Note:** This is applicable only if **guest access** is activated (the **Allow guest/anonymous access** authentication method is selected and at least any one other authentication method is also selected). For more information, see [6.6 Authentication Methods](#).

**Note:** The limit quota reference configurations are used in a different way than the standard limit references, such as, *ext-device.toshiba.limit-reference.duplex*. The standard ones are used at log in time to decide if the user has permission to do copies, assuming they are going to try to do at least one page of a certain page size and whether it will be duplex or not. The limit quota reference configurations are used to set the page costs for quotas on the copier. For example, if PaperCut is told to charge \$0.50 for A3 pages, and *ext-device.toshiba.limit-reference.quota.large-paper-size* is set to A3, then this will tell the copier that large-pages cost \$0.50.

## 7 Scanning

There are now 2 choices regarding scanning in PaperCut:-

- MFD Native Scanning  
scan to email, scan to home drive, scan to network drive

- PaperCut Integrated Scanning  
scan to my email, scan to my home drive, scan to network drive

Whilst very similar in features there are some key differences

- MFD Native Scanning the user will be required to leave the PaperCut interface however it does support address book
- PaperCut Integrated Scanning provides an excellent user experience as all functions are available in a unified interface and where administration is managed centrally.

Although it is technically possible to offer a hybrid of both Toshiba Native Scanning and PaperCut Integrated Scanning, the overall user experience needs to be considered after consultation with your client.

Irrespective of method chosen please be sure to have the latest MFD firmware is installed.

## 7.1 MFD Native Scanning Setup

### Set up Scan-to-Network Folder:

Toshiba devices can be configured to scan to network folders that can be predetermined for each user. This functionality **requires** PaperCut MF version 16.4 or later. To configure scan to network folders:

1. Under the Toshiba TopAccess configuration, navigate to Administration > Security.
2. In the “Home Directory Setting” area:
  - a. Set the “Home Directory” to “Enable”.
  - b. Set the “Home Directory Server” to “Use User Authentication Server”.

**Home Directory Setting**

Home Directory Enable ▾

Home Directory Server

Use Home Directory. Registered as Local User

Use User Authentication Server

Use User Authentication Server(Use specific server for Card Authentication)

Use Specific Server

3. Click “Save”.
4. Under the Toshiba TopAccess configuration, navigate to Administration > Setup > Save As File.
5. In the “Destination” area:
  - a. Select “Use Network Folder Destination”
  - b. Set “Default file path” to “Remote 1”.

**Destination**

Do not allow any network folder to be used as a destination

Use Network Folder Destination

Default file path Remote 1 ▾

6. In the “Remote 1 and Remote 2 Settings” area.

- a. Complete the settings under “Remote 1”. This is the network location that will be overwritten by the user’s home directory attribute. This is used as the default if the user’s home directory is not specified in PaperCut.
- b. Enter the Login User Name and Password for a user account that has read/write permissions to all user home directories. These credentials are used to authenticate to the shared drive if the user authenticates with card authentication. If the user logs into the device with standard credentials, those will be used to authenticate against the network folder.

**Remote 1 and Remote 2 Settings**

Remote 1  Allow the following network folder to be used as a destination Remote Setting List

Protocol  SMB  FTP  FTPS  NetWare IPX/SPX  NetWare TCP/IP

Server Name

Port Number(Command)

Network Path

Login User Name

Password  Retype Password

Connection Test

Allow user to select network folder to be used as a destination

- c. Click “Save”.
7. Optionally, you can configure the device to skip showing a warning message on login when the user has no home directory specified by setting the 08 code “8722” to “1”.

### Set up Scan-to-Email Address:

Toshiba devices can be configured to scan to e-mail addresses that can be predetermined for each user. This functionality **requires** PaperCut MF version 16.4 or later. The process to configure this functionality is:

1. Under the Toshiba TopAccess configuration, navigate to Administration -> Security.
2. In the “Email Address Setting” are, if the “Use Email Address which was registered Local User” option is available under “From Address” (on newer devices), then the device can use the logged in user’s email address. In this case, set the following values.
  - a. Set the “From Address” value to “Use Email Address which was registered Local User”.
  - b. Set the “From Name” value to “Login User Name”.
  - c. Set the “Restriction setting for Email Destination” value to “To”.
  - d. Click Save.

If the “Use Email Address which was registered Local User” option is **not** available under “From Address” (on older devices), then the device still needs an LDAP server to detect the user’s email address. In this case, refer to the Toshiba SDK v2 manual - Enable LDAP User Authentication for how to set up an email address.

## 7.2 PaperCut Integrated Scanning

The PaperCut MF software application for Multifunction Devices provides secure Integrated Scanning. PaperCut MF Integrated Scanning offers a simple, one-touch scanning experience, providing the most common scan job settings, and a consistent interface across Multifunction Device (MFD) brands. You can easily control, track and report on all scan actions on your devices using this scan control application.

### MFD settings:

Enable the device "Web Services Scan" service and allow it to accept any job:

1. Log in to the device's web administration (TopAccess) with a web browser.
2. Navigate to "Administration > Setup".
3. Navigate to "Network > WSD".
4. Under the scan section:
  - "Web Services Scan"—set to "Enable".
  - "Authentication for PC Initiated Scan"—set to "Accept any job".
5. Click "Save".

Scan	
Web Services Scan	Enable
Scanner Name	TOSHIBA e-STUDIO5005AC-11699189
Scanner Information	
Authentication for PC Initiated Scan	Accept any job

Note: Accept any job : Accounted as Guest if user name is invalid. (Enable Guest account with Remote Scan permission.)

**Note:** If MFD Embedded OCR is installed, see 4.6 Enable OCR on the device (optional).

### PaperCut MF settings:

Enable Integrated Scanning for each device (PaperCut MF Admin web interface):

1. Click the "Devices" tab. The External Device List page is displayed.
2. Select a device. The Device Details page is displayed.
3. In the Integrated Scanning area, select the "Enable Integrated Scanning" check box.
4. Click "OK".

**Note:** Additional configuration in PaperCut MF is required. For more information, see the PaperCut MF Manual section on Integrated Scanning.

## 8 Known Limitations and Security

### 8.1 The guest access authentication method is unavailable

Although the anonymous access authentication method is available (only the **Allow guest/anonymous access** authentication method and no other authentication method), the guest access authentication method is currently unavailable (the **Allow guest/anonymous access** authentication method and at least any one other authentication method). As a result, if the **Allow guest/anonymous access** authentication method is selected, all other methods are automatically disabled, and cannot be used as authentication methods on the device. For more information, see [6.6 Authentication Methods](#).

### 8.2 Zero stop when Copying and Scanning

Since SDK version 2, we introduced the Zero Stop capability, enabling jobs to potentially be stopped part way through when the user runs out of quota in PaperCut. In an ideal implementation, PaperCut would be able to control exactly how many pages a user can copy and always prevent the user from overdrawing their account. Toshiba offers the ability to limit page counts but has the following limitations:

- The copier does not seem to stop immediately when limits are reached for copying. There is a small delay meaning that users can overrun their account below zero by about 2 pages. This can be avoided by using *ext-device.toshiba.overrun-offset* and setting to an appropriate amount (please see the advanced configuration section for more details), however, there are drawbacks with doing this.
- Ideally PaperCut would be informed of the user selection prior to copying or scanning and can accept/reject the job at this point. Current Toshiba API implementations prevent this level of pre-approval.
- SDK version 3 supports the page costs of color, grayscale, small page size and large page size. It does not support costs or discounts for duplex and individual pages sizes other than the 2 sizes of small and large. By default, the small paper size is set to *ext-device.toshiba.limit-reference.quota.small-paper-size* which is *US letter* in the United States and *A4* everywhere else. The large paper size is set to *ext-device.toshiba.limit-reference.quota.large-paper-size* which is *Ledger* in the United States and *A3* everywhere else.

When the quota limit is exceeded a popup message on the device will alert the user to having run out of quota.



If the scanning is stopped midway through when scanning off the platen, then the Toshiba error message is different to above, instead it says, *"The quota has been reached. Only the previously scanned documents will be processed"*. Zero stop is not supported when scanning (PaperCut MF's Integrated Scanning and device's scanning). If the scanning is denied from the outset, then the standard message above will be shown.

### 8.3 Zero stop when Faxing

Toshiba devices currently do not stop fax jobs mid-way when users run out of credit. Instead, users can complete the fax job and possibly incur an overdraft in their accounts.

### 8.4 Internal MFD usernames

Logging in to the MDS session is not available for usernames registered internally on the device. These usernames typically include:

- Undefined
- Admin
- Service
- Auditor
- Guest

**NOTE:** Other internal users can be added by an administrator.

If a PaperCut username matches an internal username (not case sensitive), login will fail and an error message will be displayed.

The complete list of internal MFD usernames is available in TopAccess under "User Management > User Accounts".

### 8.5 Bypassing the System

It is important that the administrators take care to prevent users from bypassing the system and directly accessing the copier. Likewise, it's also important that administrators know how to bypass/disable the system if direct copier access is required – say to change advanced system settings. Administrators should take the following precautions:

- The copier's built in admin password should be changed and always kept secure.

- The power and network cable should be securely connected. The system is designed to be robust and record copier usage if the power is lost during copying, but it is possible to start copying before the embedded application starts after restarting the copier.
- Apply IP filtering settings in the MFD to restrict unauthorised direct printing (for more information please refer to online Help in TopAccess or the Administrator Guide)

## 8.6 Scan from feeder

When scanning from the document feeder, the specified paper size and orientation is ignored. The scan job is always the full size of the original document. For example, if the original document is A3 landscape, and you specify to scan it to A4 portrait, the scan will be A3 landscape.



## 9 Uninstalling PaperCut from the MFD

To stop the Toshiba MFD from trying to authenticate with PaperCut and allow free copying on the device, the simplest option is to delete the device from PaperCut and then disable the “User Authentication Setting.” If all you do is this step, then it is very simple to re-enable the MFD for PaperCut again if you change your mind.

To disable the PaperCut authentication:

1. Log in to the device’s web administration (TopAccess) with a web browser.
2. In TopAccess, select “Administration” -> “Security”.
3. In the “User Authentication Setting” area, change “User Authentication” to “Disable”.
4. Click “Save”.

The screenshot shows the PaperCut web administration interface. At the top, there are navigation tabs: Setup, Security (selected), Maintenance, and Registration. Below the tabs, the page title is 'Security', and there are sub-links for Authentication, Certificate Management, and Password Policy. There are 'Save' and 'Cancel' buttons. The main content area is divided into sections: 'Department Setting' with various management options (Copy, FAX, Print, Scan, List) all set to 'Enable'; 'User Authentication Setting' where 'User Authentication' is set to 'Disable' (highlighted with a red box), 'Authentication failed print job/Raw Print Job' is set to 'Print', 'Auto Release on Login' is set to 'Disable', and 'Authentication Type' is set to 'MFP Local Authentication'; and 'Card Authentication Setting' with checkboxes for 'Card ID is used as User Name' and 'Create User Information Automatically'.

### 9.1 Further optional uninstallation steps

When you delete the device from PaperCut, it is making all necessary changes to device configuration to avoid the device communicating with the server in the future.

**NOTE:** Leave the MFD idle without any user interaction for at least the duration of the selected “Auto Clear” option, before deleting the device from PaperCut. If you do not, some of the PaperCut settings might remain on the device and an error message might be displayed.

Theoretically, you could reverse all the steps that you followed during the setup process. You could revert the 08 codes back to what they were and change all the TopAccess menu options back to

what they were. However, disabling the authentication would be the prime thing that is required. Some other steps to be more complete could include:

- Disabling or Removing device in PaperCut device administration
- Disabling MDS Mode (if not done automatically)
- Disabling the ODCA option
- Unselecting the Job Quota Setting
- Reverting EWB settings
- Reverting email settings
- Reverting Home Directory settings
- Reverting settings for PaperCut shortcut on keys "1"

## 10 FAQ & Troubleshooting

### I can't see the PaperCut login screen on the device panel.

If the PaperCut login screen is not displayed, check the following:

- **Check the MFD Embedded Web Browser (EWB) is installed**
- **Ensure the EWB settings are correct**
- **Check MDS mode is enabled**

#### Check the MFD Embedded Web Browser (EWB) is installed

The Toshiba Embedded Web Browser (EWB) is an optional module licensed from Toshiba. It provides a web-based interface for print release, to select accounts/cost-centers, and to associate unknown card numbers from users. If your Toshiba MFD does not have the EWB module enabled, contact your Toshiba dealer.

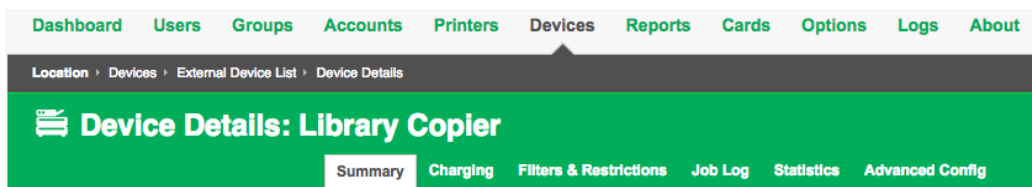
#### Ensure the EWB settings are correct

With "Toshiba v3+", Papercut updates the EWB settings automatically on registration of a new device. There are two EWB settings updated. If you cannot see the PaperCut login screen, review the settings as follow:

1. In your web browser, log in to the MFD web interface (TopAccess) as the "Admin" user.
2. Select the "Administration" tab.
3. Navigate to the "Administration" -> "EWB" page.
4. Under the "Home Page Setting", set the "Home Page" by changing "server-address" to the address of your PaperCut server, and "device-id" to the device id as set up in PaperCut.  
`http://server-address:9191/device-web/toshiba/device-id/home`  
Alternatively, to use an encrypted HTTPS connection (advisable when using card-association)  
enter: `https://server-address:9192/device-web/toshiba/device-id/home`
5. Under the "Login URL Setting in MDS Mode", in "Login URL in MDS Mode", change "server-address" to the address of your PaperCut server, and "device-id" to the device id as set up in PaperCut  
`http://server-address:9191/device-web/toshiba/device-id/login`  
Alternatively, to use an encrypted HTTPS connection (advisable when using card-association)  
enter: `https://server-address:9192/device-web/toshiba/device-id/login`  
**NOTE:** To use HTTPS, you must have an officially signed SSL certificate (e.g. from Verisign, Thawte, etc) installed on the PaperCut Application Server and use the server's DNS name. Without this, the Toshiba embedded web browser displays a certificate warning message before displaying the page. For more information, see [Generating an SSL/HTTPS Key](#) in the PaperCut manual.

#### Determine the device Id

1. Log in to the PaperCut Admin web interface as an Administrator.
2. Click "Devices".
3. Select a device.  
The Device Details page is displayed.



- The browser's URL has the following pattern in the query parameters:  
`?service=direct/1/DeviceList/selectDevice&sp=1<device-id>`  
 where <device-id> is the Id of the device.

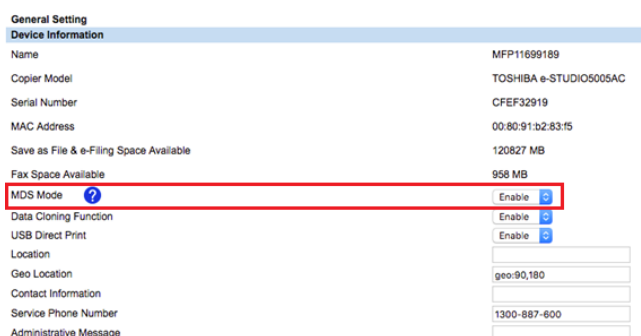
### Check MDS mode is enabled

Toshiba MDS V3 offers a new authentication mode called MDS. With MDS mode, an external authentication server can control the authentication process.

When you register a new "Toshiba v3+" device in PaperCut, the device's MDS mode is enabled. This includes any dependency, such as, the Authentication Type, which is set to MFD Local Authentication.

If you cannot see the PaperCut login screen, review the setting in TopAccess:

- In your web browser, log in to the MFD web interface (TopAccess) as the "Admin" user.
- Navigate to "Administration > Setup".
- Under "Device Information", check that the "MDS Mode" setting is enabled



**NOTE:** If MDS mode is set to disabled, and you are unable to change it manually, click the question mark next to it to check which of the dependencies you need to update first.

### My Toshiba device is not logging any copy/fax/scan jobs? What's wrong?

There are several possible problems. Check the following:

- In the PaperCut admin site, go to the "Devices" tab and select the device:
  - Verify that the "Device hostname / IP" is correct.
  - Verify that the appropriate "Device Functions" are enabled. i.e. To track faxes, ensure "Track & control faxing" is enabled.
  - Check the Device Status on this page (or in Status column of Device List) to ensure no errors are occurring.
  - Check that the Device's administrator username and password are correct.
- Verify that the 08 service mode settings have been changed.
- Verify that ODCA has been enabled and the default port of 49629 was used.
- Verify the correct version of the firmware is running.

### A user has overrun their quota during a copy job. Why didn't it stop them earlier?

There are several possible reasons for this:

- A copy job tends to overrun its quota by at least 2 pages probably because there are at least 2 pages in the device that have not yet come out of the copier. This is a restriction of the device.
- You have used more advanced costs than just color, grayscale, small paper size, or large paper size, which are all that MDS V3 provides direct support for. For example, you have set a duplex discount and by default PaperCut assumes all pages are duplex (according to *ext-device.toshiba.limit-reference.quota.duplex*).

### **The card reader isn't working? What's wrong?**

Firstly, ensure that you are using a compatible card reader (see Appendix A: Supported Authentication Card Readers).

If you are using a compatible card reader the most likely cause is a configuration issue:

- Make sure the card reader is connected while the device is booting up. Try rebooting the device.
- Check the 08 codes used to enable the card reader (e.g. 3500)

### **What is the IP address of my PaperCut Server?**

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

### **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.

### **Login on my Toshiba device is very slow**

This can be caused by incorrect network settings on the copier such as incorrect DNS servers, subnet masks and similar. We recommend checking all network settings. If this fails to address the issue, review the following:

1. Make sure you are running PaperCut 16.4 or above and the latest device firmware.
2. On the device in TopAccess, switch off all DNS servers and enter all network addresses as IP numbers. Bad DNS server settings, or slow reverse DNS can slow down login times.

### **Card self-association is enabled but the user is still prompted for a PIN. If they enter their PIN it doesn't work. What is wrong?**

If Card Authentication is requiring a PIN and card self-association is enabled, then the user must enter a PIN of "0" when prompted for a PIN. If they enter any other PIN including their own PIN associated with the PaperCut account, it will not work.

### **I have enabled Identity Number authentication in PaperCut but it doesn't prompt me for the ID number. Why not?**

You might not have enabled PIN code authentication in TopAccess on the MFD. With the correct firmware on the MFD, you must enable "PIN Code Authentication" in the "PIN Code Authentication Setting" under the Security tab. This requires a firmware version that supports this feature. Please

check your device firmware is at or above the version listed in section 3.3 Supported Toshiba Devices.

### I have enabled Swipe Card requiring a PIN in PaperCut but it doesn't prompt me for the PIN. Why not?

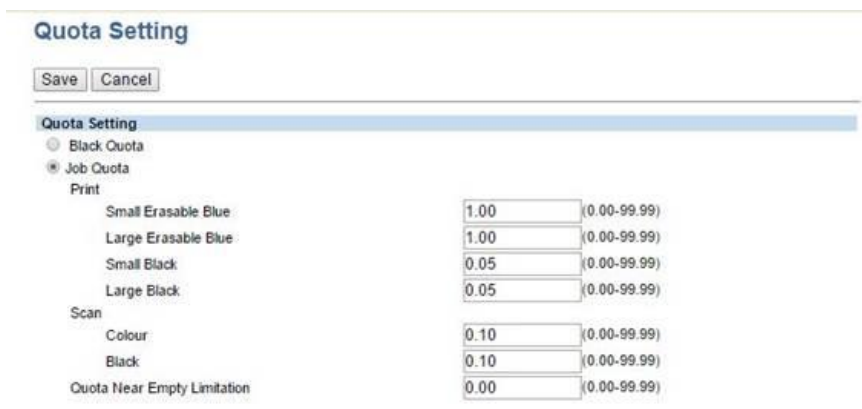
You might not have enabled "Require PIN Code" in the "Card Authentication Setting" in the Security tab in TopAccess. This requires the correct firmware on the MFD mentioned in section 3.3 Supported Toshiba Devices.

### Users are unable to cancel their print jobs at the MFD. How can I fix this?

This is explained in section "4.8 Disable MFD control of print jobs (mandatory)" (Authenticate/Quota/Permission). Basically, to support the zero stop functionality, we have to force network print jobs to be owned by "printope" instead of the real username. Therefore, by default the MFD won't let the authenticated user delete the print jobs which it believes are owned by "printope". To override this, an 08 code needs to be set (it is also listed in the 08 code checklist in the appendix).

### When a user chooses to copy using the Erasable Blue color option, why does the copy cost always default to 1.0 per page?

Even after setting copy color job costs for the "Small Erasable Blue" and "Large Erasable Blue" on the Admin web interface, the costs default to 1.00 on the device's web admin. To override this, manually set the copy color job costs on the device's web admin (**Counter > Quota Setting**) and click **Save**.



The screenshot shows the "Quota Setting" web interface. At the top, there are "Save" and "Cancel" buttons. Below them, the "Quota Setting" section is active, with "Black Quota" and "Job Quota" radio buttons. Under "Job Quota", there are two sub-sections: "Print" and "Scan".

Category	Option	Cost	Range
Print	Small Erasable Blue	1.00	(0.00-99.99)
	Large Erasable Blue	1.00	(0.00-99.99)
	Small Black	0.05	(0.00-99.99)
	Large Black	0.05	(0.00-99.99)
Scan	Colour	0.10	(0.00-99.99)
	Black	0.10	(0.00-99.99)
	Quota Near Empty Limitation	0.00	(0.00-99.99)

# 11 Appendix A: Supported Authentication Card Readers

The Toshiba devices support the following card reader types. Each card reader type requires a different 08 service mode setting configuration which is typically done in the section “Configuring the ‘08 Service Mode’ MFD settings” and is described in the table below.

Card Reader Type	08 Service Code	Service Mode Setting
Elatec TWN3	3500	90001
Magtek Dynamag	3500	70001
	3501	1 or 2 or 3
e-Bridge IDGATE - HID iClass	3500	40002
e-Bridge IDGATE - Mifare	3500	30001
Generic Keyboard mode readers	3500	60001

**NOTE:** e-Bridge IDGATE in the table refers to Toshiba’s own brand of card readers.

## 11.1 Elatec TWN3

The Elatec TWN3 card reader can support a large variety of card types including:

- HID PROX (HID PROX)
- HID iCLASS (HID iCLASS)
- Multi125 (EM410x, HITAG 1, HITAG 2, HITAG S, EM4150, T5567/Q5)
- Inditag (Indala)
- MIFARE (MIFARE, Ultralight, MIFARE Mini, MIFARE 1k/4k, MIFARE DESfire)
- Legic (Legic Prime, Legic Advant)

For this card reader set 08 service mode **3500** setting to: **90001**.

**NOTE:** The Elatec TWN3 might require special firmware to use on the Toshiba devices. This is available from PaperCut. Download and firmware upgrade instructions can be found on the PaperCut knowledge base at the link below:

<http://www.papercut.com/kb/Main/ElatecFirmwareForToshibaMFD>

## 11.2 Magtek Dynamag

Toshiba has magnetic card reader support for the Magtek Dynamag card reader. This is set using the 08 code of **3500** with a mode setting of **70001**. As well as setting the type of reader using the **3500**

code, one also needs to set the **3501** code to specify which track data to use as specified in the table below.

Track data	O8 service mode setting 3501
Use track 1 data	1
Use track 2 data	2
Use track 3 data	3

When entering the track number (for example, track 2 has been used for the banking industry), you will be shown boxes with the letters A to F. Please ignore this and just enter one of the digits 1 to 3 on the key pad. Then press OK. You will be asked to repeat this for confirmation and so just enter the same digit again and press OK.



## 11.3 Generic Keyboard Mode Readers

Card readers in generic keyboard mode are supported in all e-BRIDGE Next Toshiba models.

The following card reader models below have been tested and are supported in generic keyboard mode. Other models not in the table might be supported by calling a Toshiba technician to make the necessary change (to register the new card reader's Product ID (PID) and Vendor ID (VID)).

Vendor	Product Name
Elatec	TWN4
	TWN3
RFideas	pcProx Plus
	pcProx Enroll iCLASS ID#
	pcSwipe Enroll
	RDR-8058AKU-PPCT
	RDR-80581AKU
	RDR-805H1AKU
IDTECH	RDR-805T1AKU
	OMNI combined barcode and magnetic stripe reader
Datalogic	Magellan 800i 2D barcode reader
Magtek	Dynamag
Cartadis	TCM2MIFARE/HID
	TCM3 13.56 MIFARE
	TCM3 125KK HID
FTDI	FT232R USB UART IC
	USB UART IC
Zebra (formerly Motorola)	DS9208 2D Orbital Head
Zebra (formerly Motorola)	DS457 1D/2D barcode imager

## 11.4 Configuring Swipe Card Reader Validation

Supporting Card Reader authentication is as easy as:

1. Connecting a supported card reader to the device via the USB port (Note: On e-BRIDGE Next devices this is hidden under a sticker on the top/front panel).
2. Enabling *Swipe card* as an *Authentication method* under the device's configuration in PaperCut's web interface.
3. Ensure the card number, as read by the reader, is loaded into the Card Number field in the PaperCut database (or consider using user self-association).

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 in 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" that will filter the card number from the complete string of characters reported by the card reader *might* be required. Documentation on regular expressions can be found on the Internet, e.g. at [http://www.regular-expressions.info/](#).
  - The regular expression must be fashioned so that 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 the "Config editor (advanced)" which you will find on the Options tab under Actions. The key is called "ext-device.card-no-regex".
  - The global setting however 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. Contact your reseller or Authorized Solution Center for help with regular expressions. You can find their contact information in your PaperCut Admin interface on the **About** page.
  - 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 might report in hexadecimal format, while the number stored in the source (e.g. Active Directory) is in a decimal format. PaperCut includes several 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 might be quicker to do the conversion in PaperCut rather than manually reprogram 100+ readers!

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

To set globally:

1. In the PaperCut Admin web interface, select "Options".
2. In the "Actions" menu, select "Config editor (advanced)".
3. Search for "ext-device.card-no-converter"
4. Enter the name of the required converter (see table below); then click "Update".

To set at the device level:

1. In the PaperCut Admin web interface, navigate to "Devices -> [select device] -> Advanced Config".
2. Search for "ext-device.card-no-converter"
3. Enter the name of the required converter (see table below); then 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>	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, `ascii-enc|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 the 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 `[install-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 can also be included in the pipeline. For example

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

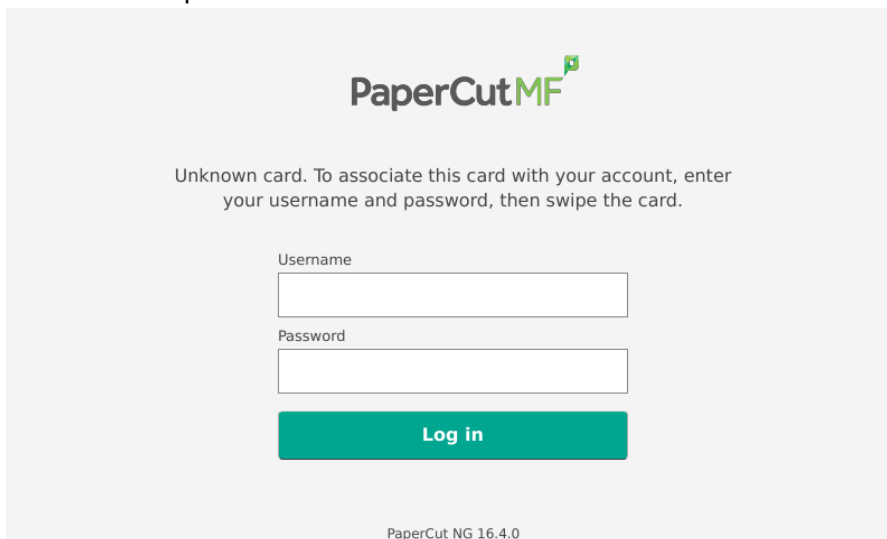
### Other advanced notes

- 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 situations, a custom JavaScript implementation might not be enough. For example, there might 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. Contact your reseller or Authorized Solution Center to discuss development options and costs. You can find their contact information in your PaperCut Admin interface on the **About** page.

## 12 Appendix B: Process for performing user card association

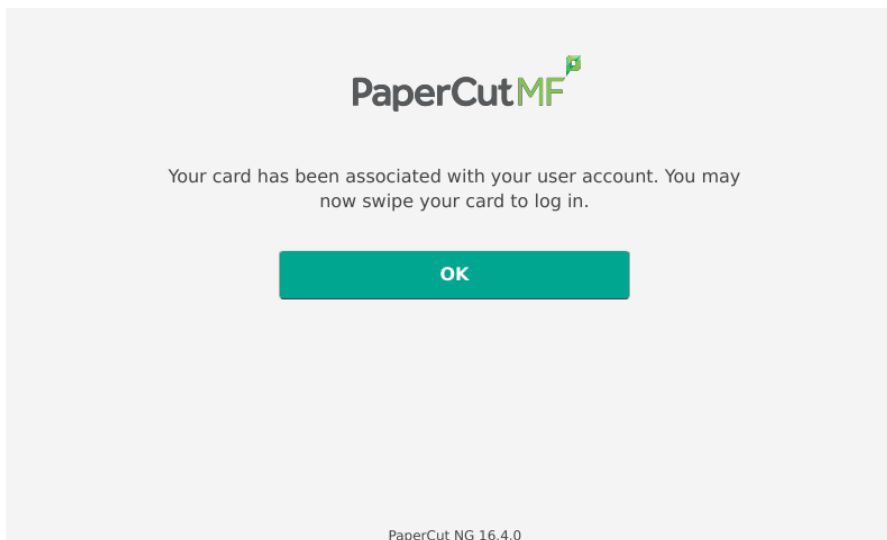
This section describes the process of how a user can associate a new card with their PaperCut account on the Toshiba devices.

1. Present card at the MFD reader (you should hear a beep).
2. If the web screen is not set as the default, bring up the web interface (EWB):
  - a. Press the shortcut “1” hard key on the MFD.
3. The following screen is displayed. This screen allows the user to authenticate with a username and password.



The screenshot shows the PaperCutMF login interface. At the top is the PaperCutMF logo. Below it, the text reads: "Unknown card. To associate this card with your account, enter your username and password, then swipe the card." There are two input fields: "Username" and "Password". Below the fields is a green "Log in" button. At the bottom, the version number "PaperCut NG 16.4.0" is displayed.

4. Enter your “Username” and “Password”; then press “Log in”. If the association is successful, the user is notified on the LCD screen.



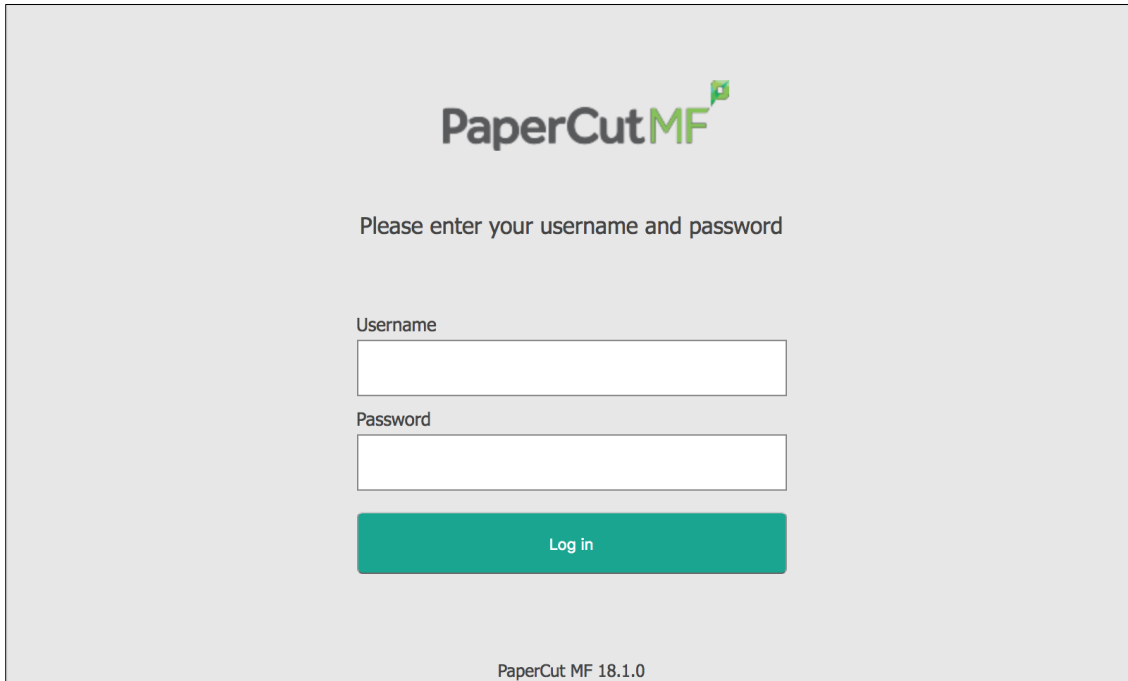
The screenshot shows the PaperCutMF success notification screen. At the top is the PaperCutMF logo. Below it, the text reads: "Your card has been associated with your user account. You may now swipe your card to log in." There is a green "OK" button. At the bottom, the version number "PaperCut NG 16.4.0" is displayed.

5. Click “OK”.

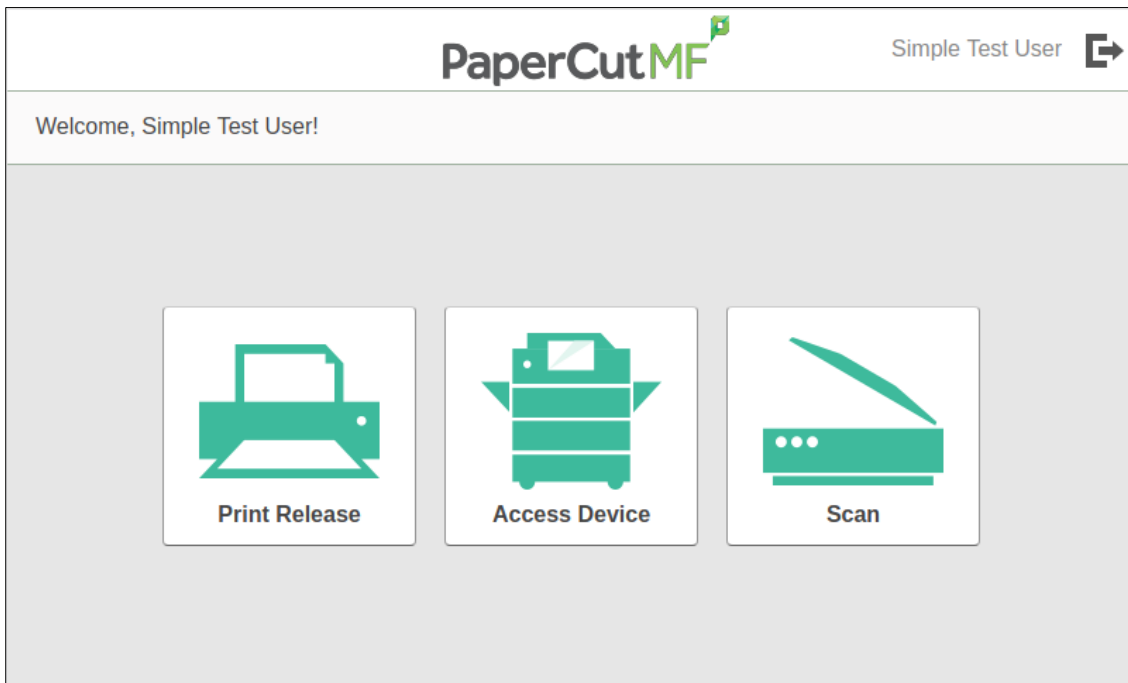
The card is now associated with the user’s account. Swiping the card again allows them to login using the card.

## 13 Appendix C: Device screenshots for user documentation

The PaperCut MF Login screen (default authentication):



The PaperCut MF Home screen with **PaperCut MF Integrated Scanning** icon:



The PaperCut MF Print Release screen with all held print jobs:

- Without the ability to allow users to change settings:

The screenshot shows the PaperCut MF interface for a user named 'Simple Test User'. At the top, there is a 'PaperCutMF' logo and a user profile icon. Below the header, there is a 'Select all jobs' checkbox and a refresh icon. A list of four print jobs is displayed, each with a checkbox, job name, details, and a timestamp. The jobs are: 'Prep activities - week 1' (1 copy, 2-sided, Grayscale, A4, moments ago), 'Prep activities - week 2' (1 copy, 1-sided, Color, A4, 4 minutes ago), 'Report template' (2 copies, 2-sided, Grayscale, A4, 1 hour ago), and 'SchoolNewsLetter Template' (1 copy, 1-sided, Color, A4, 1 day ago). At the bottom, there is a 'Job Status' button, a trash icon, and a 'Print' button.

- With the ability to allow users to change settings:

The screenshot shows the PaperCut MF interface for a user named 'Advanced Test User'. The layout is similar to the first screenshot, but with additional settings options. Below the 'Job Status' button, there are two checkboxes: 'Force grayscale' and 'Force 2-sided'. The rest of the interface, including the job list and 'Print' button, is identical to the first screenshot.

The PaperCut MF Print Release screen with details of one held print job:

- Without the ability to allow users to change settings:

The screenshot shows the PaperCutMF interface for a user named 'Simple Test User'. The page title is 'PaperCutMF' and the user name is 'Simple Test User'. The breadcrumb trail is 'Print Release > Prep activities - week 1'. The job details are as follows:

<b>Time</b>	Jun 22, 2018 10:55:50 AM	<b>Copies</b>	1
<b>User</b>	simpletestuser	<b>Duplex mode</b>	1-sided
<b>Pages</b>	2	<b>Color mode</b>	Color
<b>Account</b>	DEFAULT	<b>Page size</b>	A4
<b>Balance</b>	\$100.00	<b>Cost</b>	\$0.34

At the bottom right, there is a trash icon and a green 'Print' button.

- With the ability to allow users to change settings:

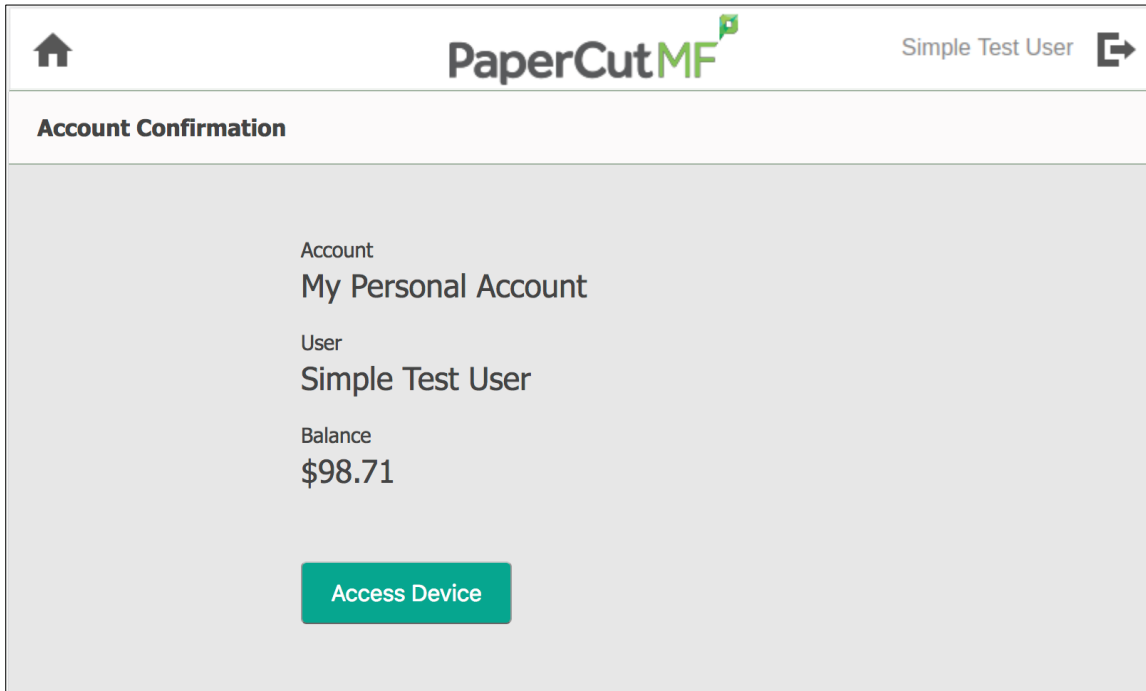
The screenshot shows the PaperCutMF interface for a user named 'Advanced Test User'. The page title is 'PaperCutMF' and the user name is 'Advanced Test User'. The breadcrumb trail is 'Print release > Prep activities - week 1'. The job details are as follows:

<b>Time</b>	Jun 15, 2018 1:16:33 PM	<b>Copies</b>	- 1 +
<b>User</b>	advanced test user	<b>Duplex mode</b>	1-sided   2-sided
<b>Pages</b>	1	<b>Color mode</b>	Color   Grayscale
<b>Account</b>	Test Account	<b>Page size</b>	A4
<b>Balance</b>	\$100.00	<b>Cost</b>	\$1.15

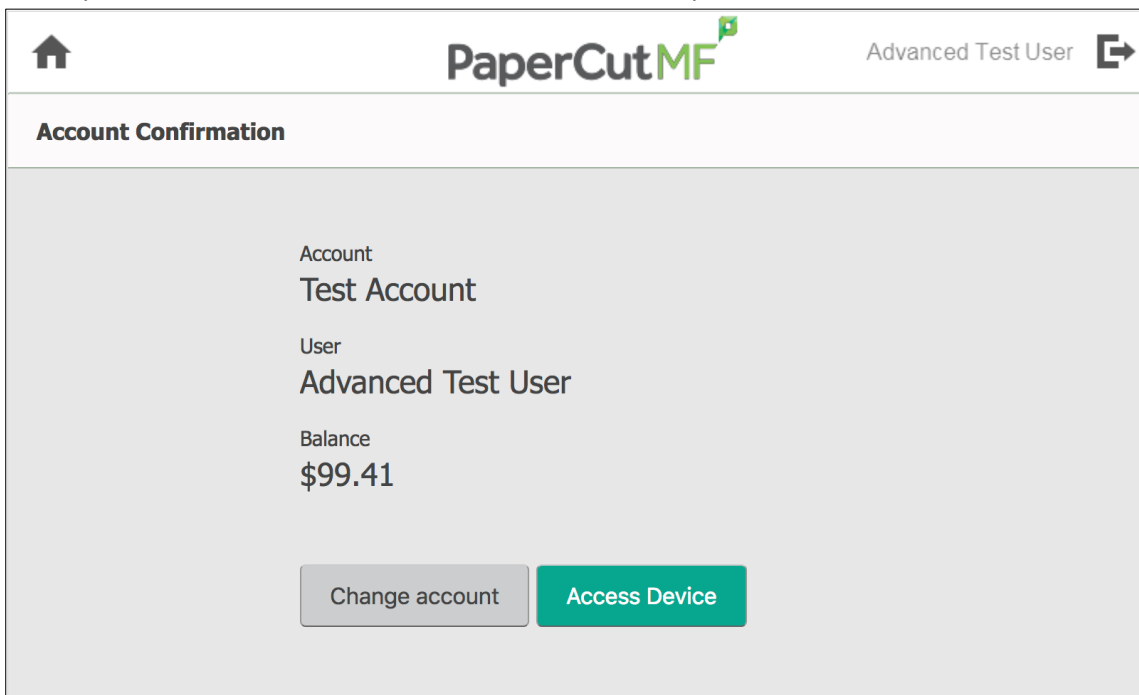
At the bottom left, there is a 'Reset to original' button. At the bottom right, there is a trash icon and a green 'Print' button.



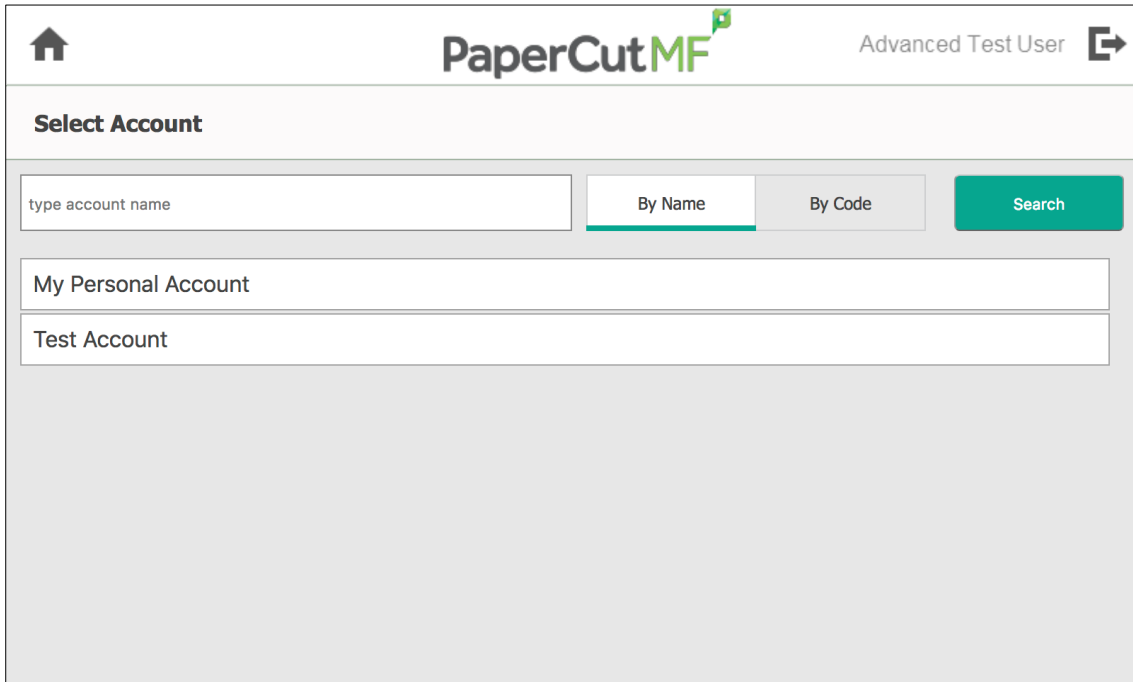
The PaperCut MF Account Confirmation screen without the option of account selection:



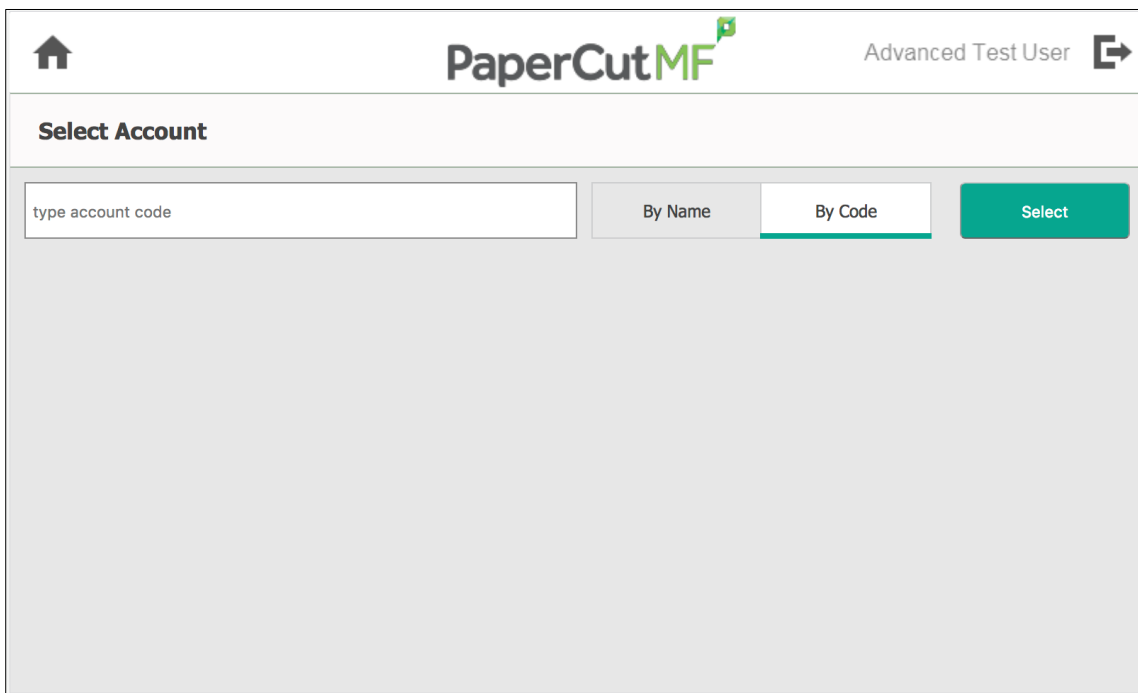
The PaperCut MF Account Confirmation screen with the option of account selection:



The PaperCut MF Select Account screens:



This screenshot shows the 'Select Account' interface in PaperCut MF. At the top, there is a home icon, the 'PaperCutMF' logo, and the user 'Advanced Test User' with an external link icon. The main heading is 'Select Account'. Below this, there is a search bar labeled 'type account name'. To the right of the search bar are two filter buttons: 'By Name' (which is selected and highlighted with a green underline) and 'By Code'. A green 'Search' button is positioned to the right of the filters. The search results are displayed in a list box containing two entries: 'My Personal Account' and 'Test Account'.



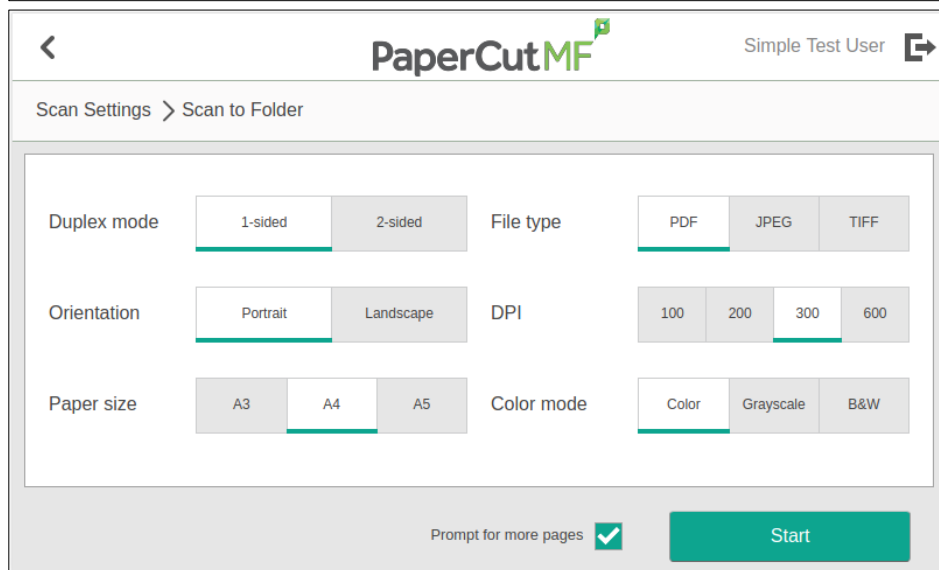
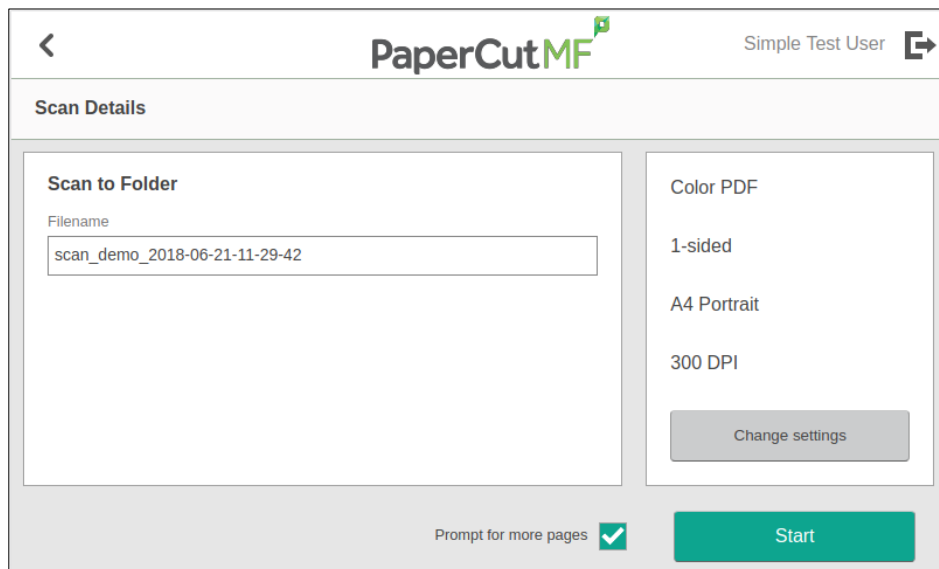
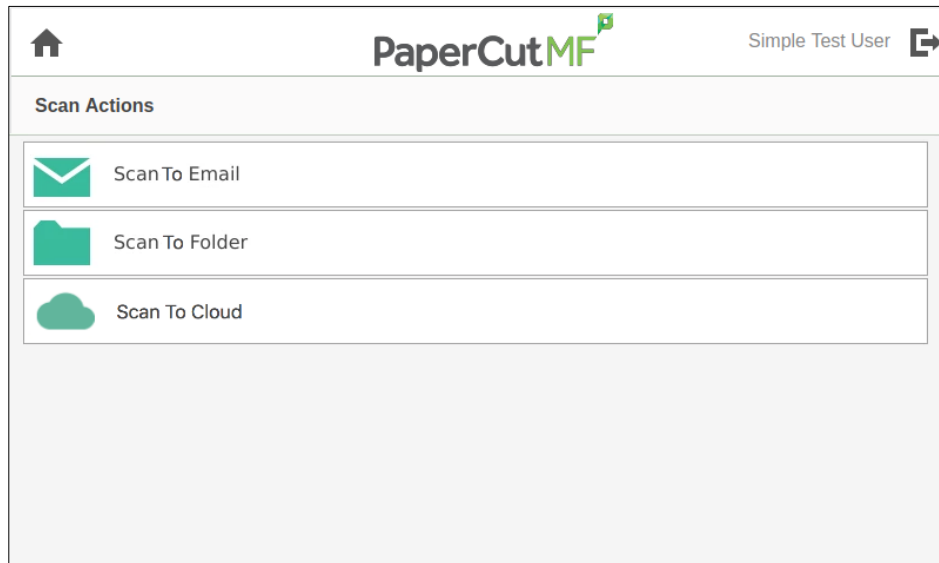
This screenshot shows the 'Select Account' interface in PaperCut MF, but with the 'By Code' filter selected. The layout is similar to the first screenshot, with the home icon, logo, and user information at the top. The heading is 'Select Account'. The search bar is now labeled 'type account code'. The filter buttons are 'By Name' and 'By Code', with 'By Code' selected and highlighted with a green underline. A green 'Select' button is located to the right of the filters. The search results area is currently empty.

The screenshot shows the 'Select Account' interface. At the top, there is a home icon, the PaperCut<sup>MF</sup> logo, and the text 'Advanced Test User' with an external link icon. Below this is a search bar with the placeholder text 'type account name' and a green 'Search' button. Underneath the search bar, there are two list items: 'My Personal Account' and 'Test Account'.

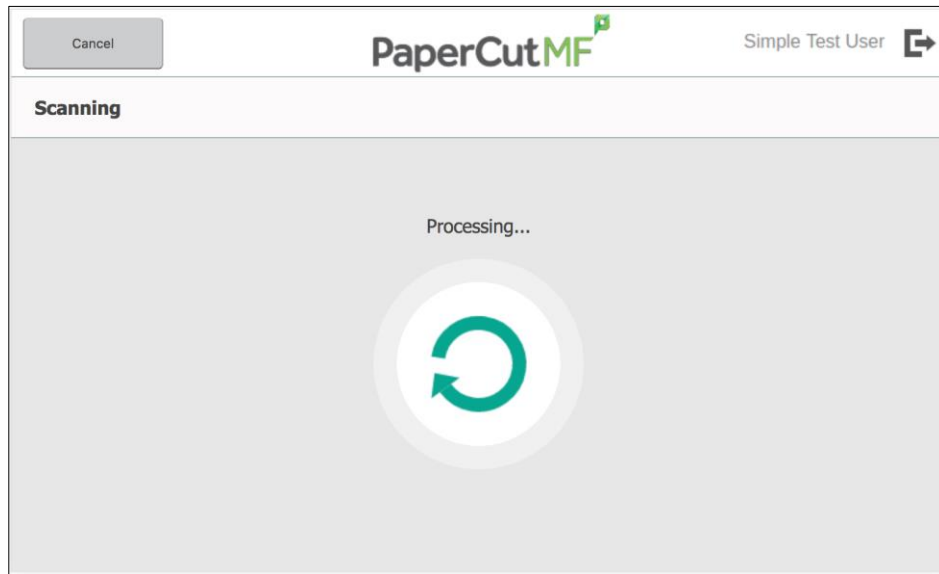
The screenshot shows the 'Select Account' interface. At the top, there is a home icon, the PaperCut<sup>MF</sup> logo, and the text 'Advanced Test User' with an external link icon. Below this is a text input field with the placeholder text 'type account code' and a green 'Select' button. In the center of the page, the word 'Or' is displayed. Below 'Or', there is a list item 'My Personal Account'.

The PaperCut MF Integrated Scanning screens:

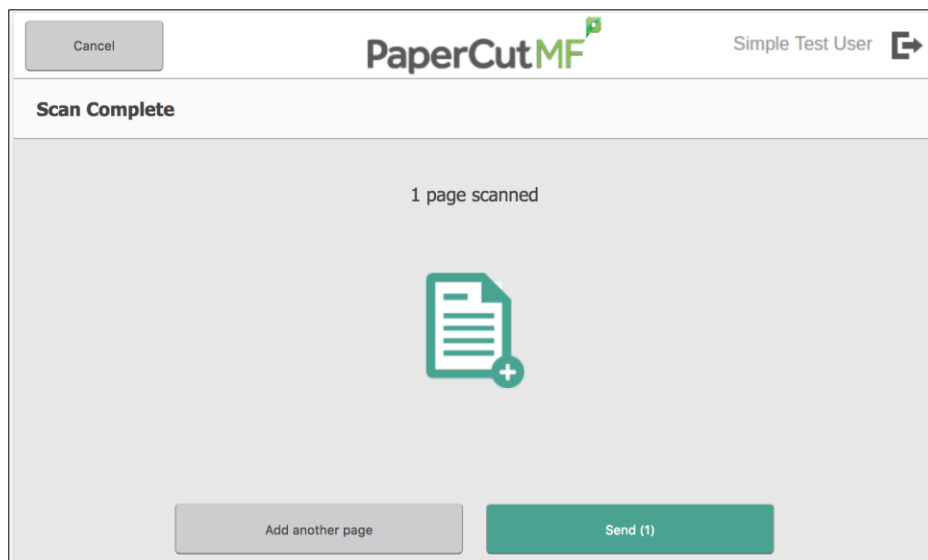
1. The PaperCut MF Scan screens:



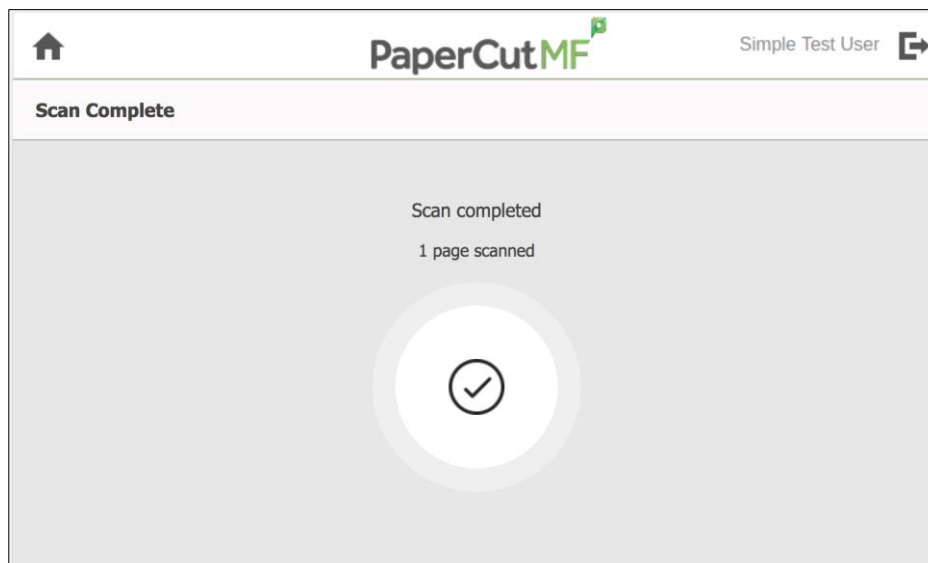
2. The PaperCut MF Scanning (with a processing spinning wheel) screen:

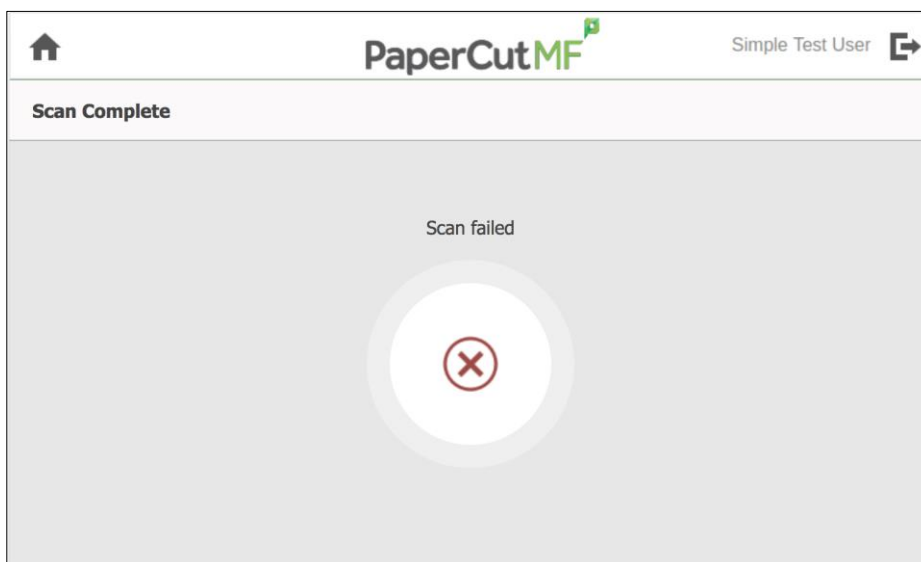


- 3. The PaperCut MF Scan Complete (with the two buttons - **Add another page, Send**) screen:



- 4. The PaperCut MF Scan Complete (with scan completed or failed status) screen:





## 14 Appendix D: 08 Code Check list

Description	Code	Setting	Factory Default	Category
ODCA Non Secure (Off Device Customisation Architecture)	9820	1	1	mandatory
ODCA Secure	9819	1	0	mandatory
Auto Clear timeout	9110	4	3	recommended
Disable Logout popup	8723	0	1	optional
Disable automatic Logout after fax send	9987	2	0	optional
USB Card Reader	3500	60001 (e.g. Generic Keyboard Reader) – see Appendix A: Supported Authentication Card Readers	0	optional
Setting when MFD embedded OCR is installed and PaperCut Integrated Scanning is enabled	3786-0	Sub-code 0 = 0	Sub-code 0 = 1	optional
Zero Stop for Copy and Scan	6084	1	0	optional
Disable MFD control of print jobs (Authenticate/Quota/Permission)	3642	Sub-code 0 = 1	Sub-code 0 = 0	mandatory

Description	Code	Setting	Factory Default	Category
Allow anyone to manage print jobs at the MFD	8726	1	0	mandatory
Allow all users to delete their jobs from Private/Proof print screen on the copier	9236	3	1	mandatory
Web Services Scan Port	3760	Enter alternative port number if required	50083	optional
WSD scanning	3755	1	1	confirmation
No authentication for WSD scanning	3642	Sub-code 2 = 1	Sub-code 2 = 0	optional
Do not show missing home directory warning	8722	1	0	Optional



## 15 Appendix E: TopAccess Settings Check list

Description	Menu
Review EWB (optional)	Administration -> Setup -> EWB
Review MDS Mode (optional)	Administration -> Setup -> General
ODCA Enabling	Administration -> Setup -> ODCA
Configure Home Directory & Email	Administration -> Security
Configure Home Directory	Administration -> Setup -> Save As File