PaperCut MF – FujiFilm Business AIP 6 Embedded Manual

Contents

1   Document revision history

Published date or release	Details of changes made
21.2.1	New Guide
22.8.26	Tie to AIP 6 and document deprecation.

2 Installation

This section covers the installation of *PaperCut MF - FujiFilm Business*.

2.1 Supported devices

Ensure that the devices on the network are listed as supported devices on the PaperCut MF for FujiFilm Business page.

2.2 System requirements

Ensure that the following system requirements are met:

- The following entities are available:
    - Physical device – administrator and user access, and credentials
    - Device's web interface – administrator access, URL, and credentials
    - PaperCut MF Admin web interface – administrator access, URL, and credentials
- The latest version of PaperCut MF is installed and running on the network. For more information, see the PaperCut MF manual.
  Note: The minimum compatible version is 21.2.1. The maximum compatible version is 22.0.4. If using a version higher than 22.0.4, please refer to the PaperCut MF - FujiFilm BI AIP 7+ Embedded Manual.
- The networking/firewall configuration allows inbound connections to the PaperCut MF Application Server from the devices on the configured ports. For example:
    - 9191 (TCP/HTTP)
    - 9192 (SSL/TLS/HTTPS)

2.3 Setup procedure

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

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

- 2.3.2 Uninstall

- 2.3.3 Configure the device's security certificate settings

- 2.3.4 Configure the device's secure communication protocol settings

- 2.3.5

- 2.3.6 Configure the device's web browser settings

- 2.3.7 Configure the device's user access permission settings

- 2.3.8 Configure the device's accounting and billing settings

- 2.3.9 Configure the device's printer driver's accounting system settings

- 2.3.10 Install PaperCut MF

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

To access the device's web interface as an administrator:

1. Open a web browser and enter the device's IP address
2. Login using the Administrator ID and Password. See your device's User Manual for the default ID and Password if they have not been set.
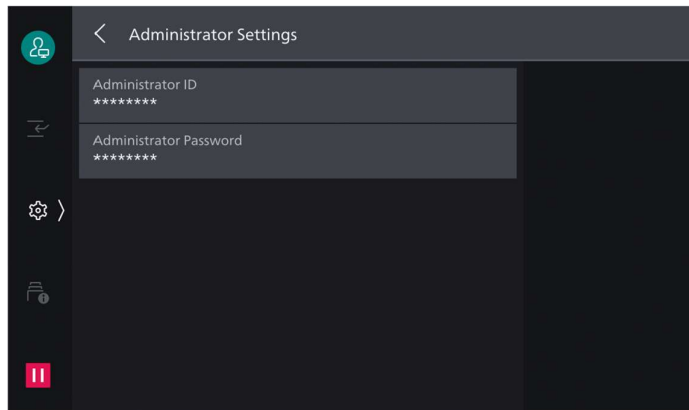
2.3.2   Uninstall *PaperCut MF - FujiFilm Business*

If PaperCut's embedded software solution *PaperCut MF - FujiFilm Business* is already installed, then first uninstall it before attempting to install *PaperCut MF - FujiFilm Business*.

To uninstall *PaperCut MF - FujiFilm Business*:

1. Log in to the PaperCut MF Admin web interface.
2. Navigate to **Devices**.
3. Select the device.
4. Click **Advanced Config**.
5. Set the config key **ext-device.fujifilm.force-uninstall-plugins** to **Y.**
6. Click **Actions > Delete this device:**
7. Click **Ok:**
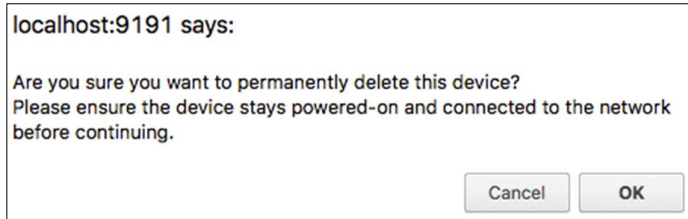
8. Click **Devices**; then verify that the device is no longer listed (*PaperCut MF - FujiFilm Business* is permanently uninstalled).
9. Verify that *PaperCut MF - FujiFilm Business* is not available on the device to users on the home screen.

2.3.3   Configure the device's security certificate settings

To configure the device's security certificate settings:

1. Log in to the device's web interface as an administrator.
2. Navigate to **System > Security > Certificate Settings**
3. Click **Create > Generate Self-Signed Certificate**
4. Leave defaults on creation page and click **Start**

2.3.4   Configure the device's secure communication protocol settings

To configure the device's secure communication protocol settings:

1. Log in to the device's web interface as an administrator.
2. Navigate to **System > Security > SSL / TLS Settings**
3. In **HTTP – SSL / TLS Communication**, select **Enabled HTTP/HTTPS**
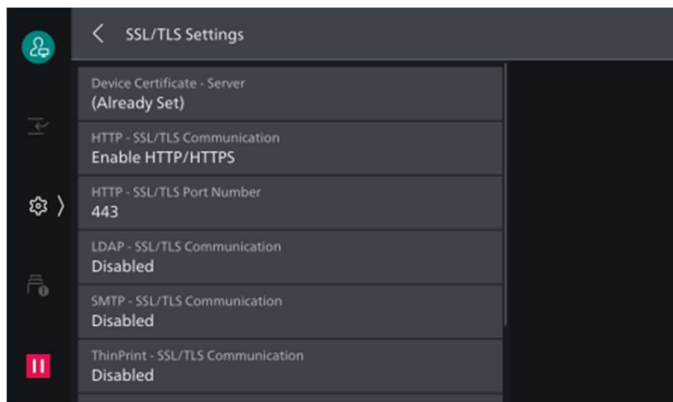
4. Click **Apply**.

2.3.5   Enable Plugins

To configure the device's custom services settings:

1. Log in to the device's web interface as an administrator.
2. Navigate to **Apps > Custom Services Settings**
3. Set to **Enable**

2.3.6   Configure the device's web browser settings

To configure the device's web browser settings:

1. Log in to the device's web interface as an administrator.
2. Navigate to **Apps > Web Browser Setup > Web Applications Version**
3. Select **V5** (Depending on device version, this may be the only option)

2.3.7   Configure the device's user access permission settings

To configure the device's user access permission settings for required device jobs:

1. Log in to the device's web interface as an administrator.
2. Navigate to **Permissions > Authentication and Accounting > Authentication/Accounting Type**
3. Set **Authentication/Accounting Type** to **Network**
4. On the following screen (**Network Account Settings**) set **Print** to **Unlocked.**

5. For the other device jobs, select the appropriate **Authentication Access** (**Locked** or **Unlocked**):
   - **Unlocked** - This allows unauthenticated users to access the device job.
   - **Locked** - This allows only authenticated users to access the device job.
   Note: This applies to all device jobs except **Print**, which must be set to **Unlocked**. This is to allow PaperCut MF to track and control printing.

2.3.8   Configure the device's accounting and billing settings

To configure the device's accounting and billing settings:

1. Log in to the device's web interface as an administrator.
2. Navigate to **Permissions > Accounting/Billing Device Settings > Jobs Tracked by Accounting/Billing Device**
3. Set **Scan/Fax** = **true**

2.3.9 Configure the device's printer driver's accounting system settings

To configure the device's printer driver's accounting system settings:

1. Log in to a Windows-based computer.
2. Navigate to **Windows Control Panel > Devices and Printers.**
3. Right click the printer.
4. Select **Printer Properties:**
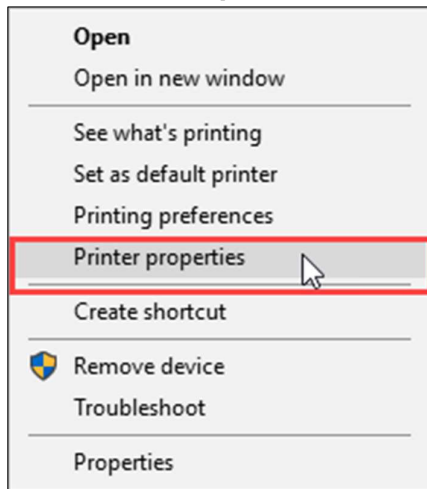
5. Navigate to **Configuration.**
6. Click **Accounting**:
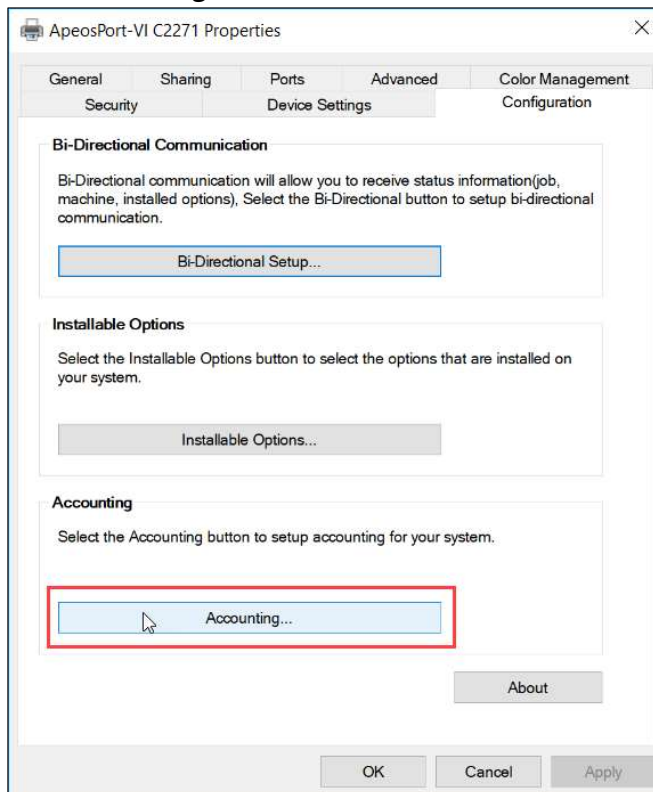
7. In **Accounting System**, select **None**:
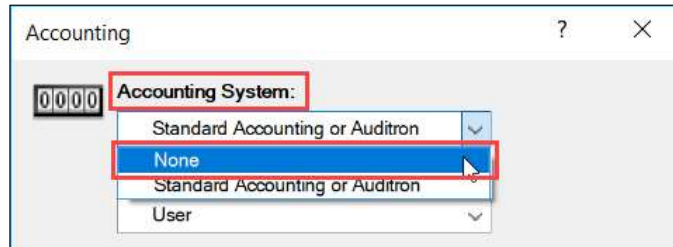
8. Click **Ok**.
9. Click **Apply**.

2.3.10   Install PaperCut MF

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

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

2.3.10.1   Install PaperCut MF on multiple devices

You can upload a CSV of device details within **PaperCut MF > Devices > Create multiple devices**.

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

2.3.10.2   Install PaperCut MF on each device

To install PaperCut MF on each device:

1. Log in to the PaperCut MF Admin web interface.
2. Navigate to **Devices.**
3. Click **Create Device.**
4. In **Type**, select **FujiFilm Business**
5. In **Device name**, enter a descriptive name for the device.
6. Optionally, in **Location/Department**, enter location or department details of the device.
7. In **Hostname / IP**, enter the network name or IP address of the device.
8. In **Device's administrator username** and **Device's administrator password**, enter the same administrator credentials (username and password) used for the device's web interface. For more information, see 2.3.1 Log in to the device's web interface.

9. In **Function**, select the required device jobs:
    - **Track & control copying**
    - **Track & control scanning**
    - **Track & control faxing**
    - **Enable print release**

    Note: For more information, see 4.6 Secure Print Release and 4.7 Device jobs.
10. Click **Ok**.
11. Verify that PaperCut MF is installed on the device (i.e. device registration and integration is completed):
    - The PaperCut MF Admin web interface's **Device Status** displays the status **Started - Device is ready for user to login**.

      Note: If the **Device Status** displays any other status, then see:
        - 6.2 Device Status "Started (with errors) – Unknown error"
        - 6.3 Device Status "Operation not supported"
        - 6.4 Device Status "Started (with errors)… System is Locked"
        - 6.5 Device Status "Device is currently in use, unable to initiate exclusive lock on the device"
        - 6.7 Device Status "Connecting to server…"
    - The first screen on the device displays the PaperCut MF Login screen:
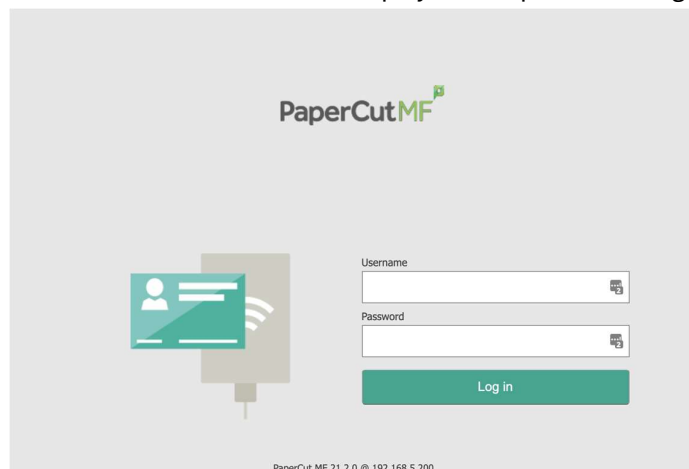
      Note: If the first screen on the device displays any other screen, then see 6.6 "Invalid embedded web browser setup" error.
    - The device's web interface list of installed plugins displays **PaperCut Authentication Plugin** (*PaperCut MF - FujiFilm Business is installed*)

3 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 - FujiFilm Business*:

- 3.2 Simple printing and copying

- 3.3 Advanced copying
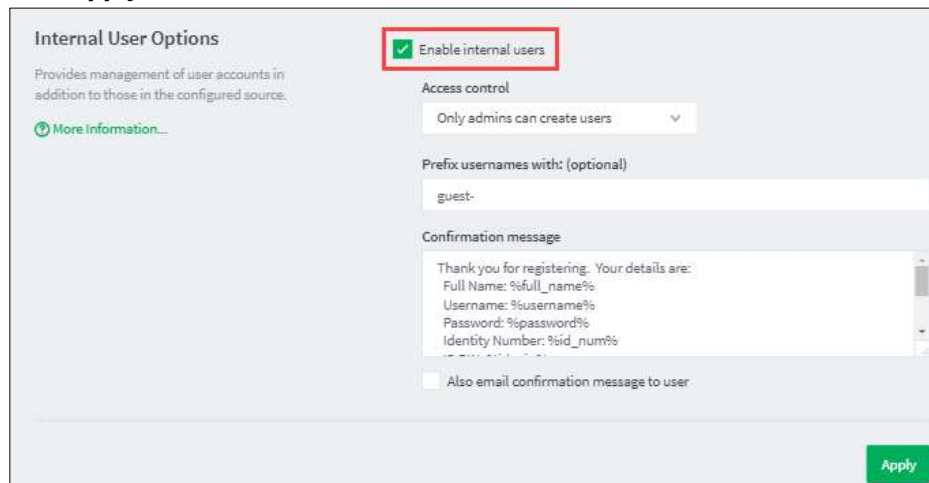
3.1 Test preparation: create test users

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 > User/Group Sync**.
3. In **Internal User Options**, select **Enable internal users**.
4. Click **Apply**.
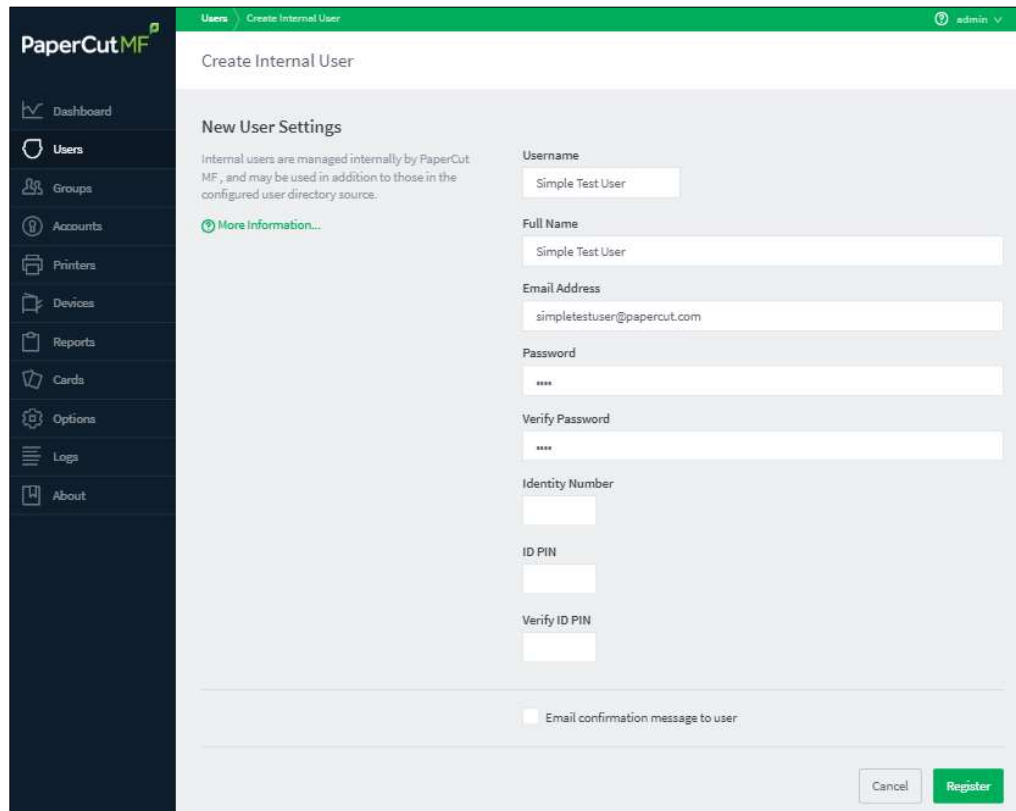
5. Navigate to **Users**.
6. Click **Create internal user…**

7. Enter the required details for the test users as required (simple test user, advanced test user):

8. Click **Register**.

3.2   Simple printing and copying

3.2.1   Test preparation: configure simple test user
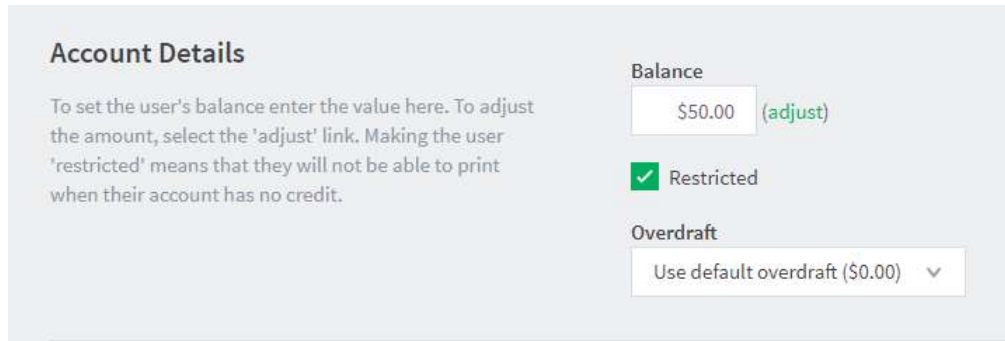
To test the simple test scenarios, ensure at least one simple test user is created. For more information, see Test preparation: create test users. Once created, ensure the simple test user is configured.

To configure the simple test user:
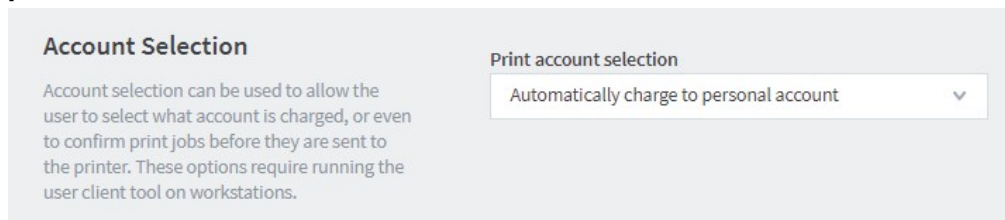
1. Log in to the PaperCut MF Admin web interface.
2. Navigate to **Users**.
3. From the **User List**, select the simple test user.

4. 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 **Automatically charge to personal account**:

6. Click **Apply**.

3.2.2 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 3.1 Test preparation: create test users and 3.2.1 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:
    1. Log in to the PaperCut MF Admin web interface.
    2. Navigate to **Printers**.
    3. Select the Printer that is applicable to the device being tested.
    4. In the **Hold/Release Queue Settings** area, select the **Enable hold/release queue**.

    5. Click **Apply**.
       Print jobs to this printer queue are held until released by a user.
- **Device functions** – Printing is enabled. To enable printing:
    1. Log in to the PaperCut MF Admin web interface.
    2. Navigate to **Devices**.

3. Select the device being tested.
4. In the **Print Release** area, select **Enable print release**.
5. 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.
6. Click **Apply**.
7. Verify that the **Devices > External Device List** displays the device with **Print Release** in the **Function** column.

To test simple printing:

1. 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:

PaperCutMF

Please enter your username and password

Username

Password

Log in

PaperCut MF 18.1.0

8. Select **Print Release**:

PaperCutMF   Simple Test User

Welcome, Simple Test User!

Print Release   Access Device

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

10. To release one or many held print jobs at once, select all the required held print jobs and click **Print**.

11. To delete one or many held print jobs at once, select all the required held print jobs and click the **Bin** icon.

12. To view and take actions on a single held print job, click the chevron:
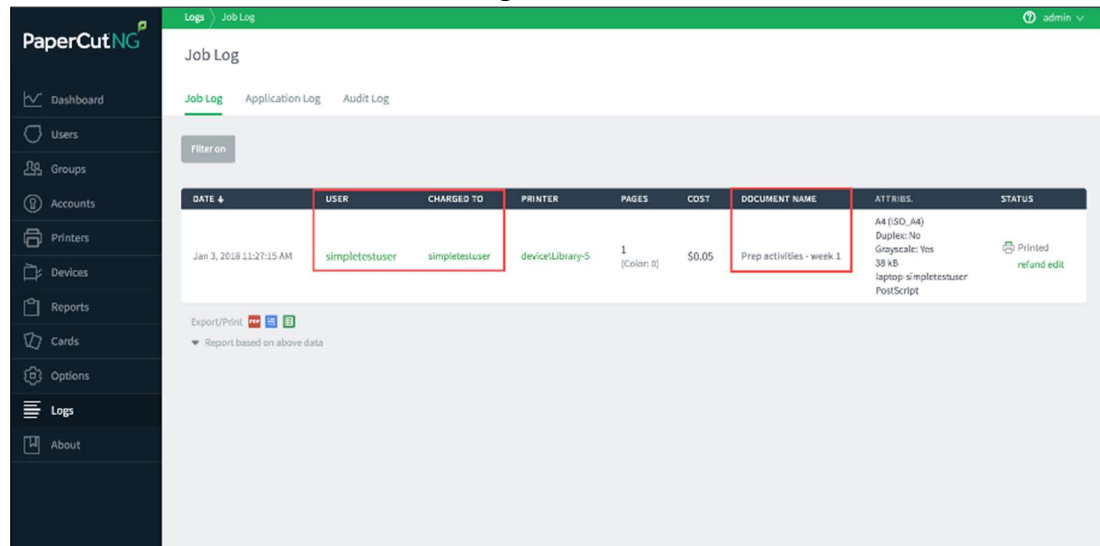
Details of the held print job are displayed:
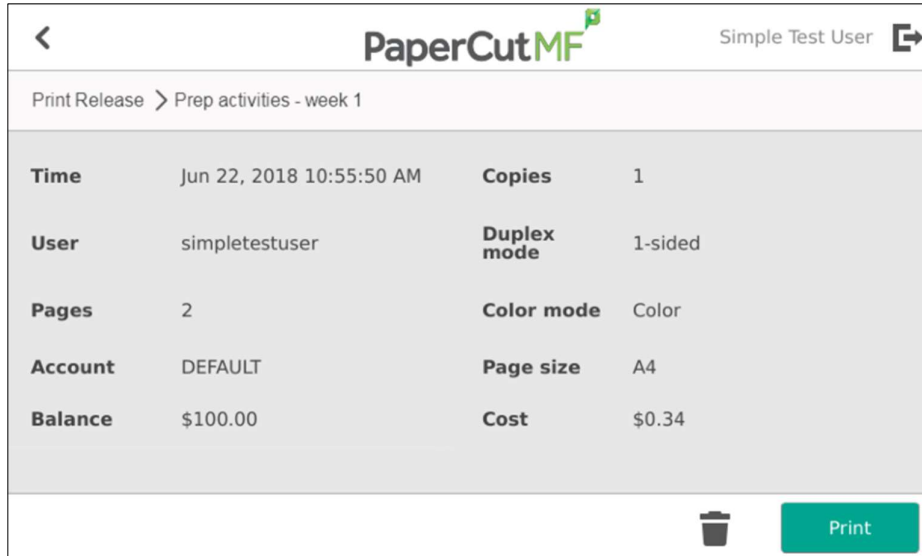
13. Log out of the device.

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

15. Navigate to **Logs**.

16. 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:

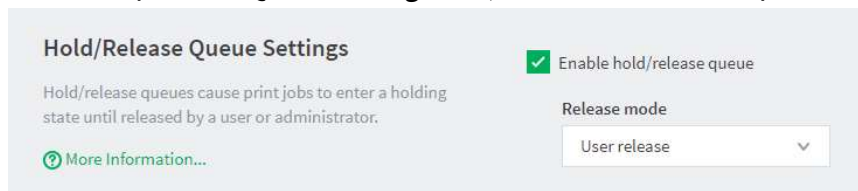17. Log out of the PaperCut MF Admin web interface.

3.2.3   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.
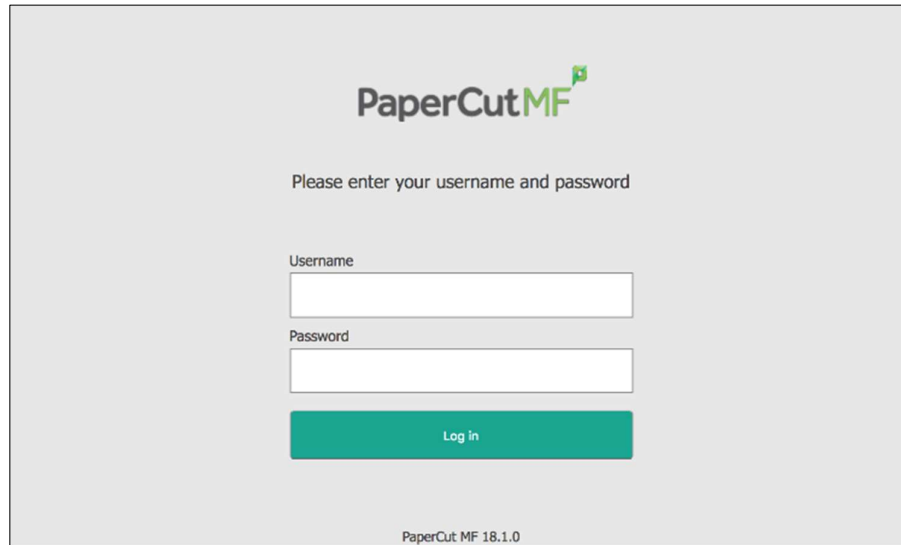
To test simple copying, ensure the following test preparation requirements are met:

- **Simple test user** - A simple test user is created and configured. For more information, see 3.1 Test preparation: create test users and 3.2.1 Test preparation: configure simple test user.
- **Device functions** – Copying is enabled. To enable copying:
    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:

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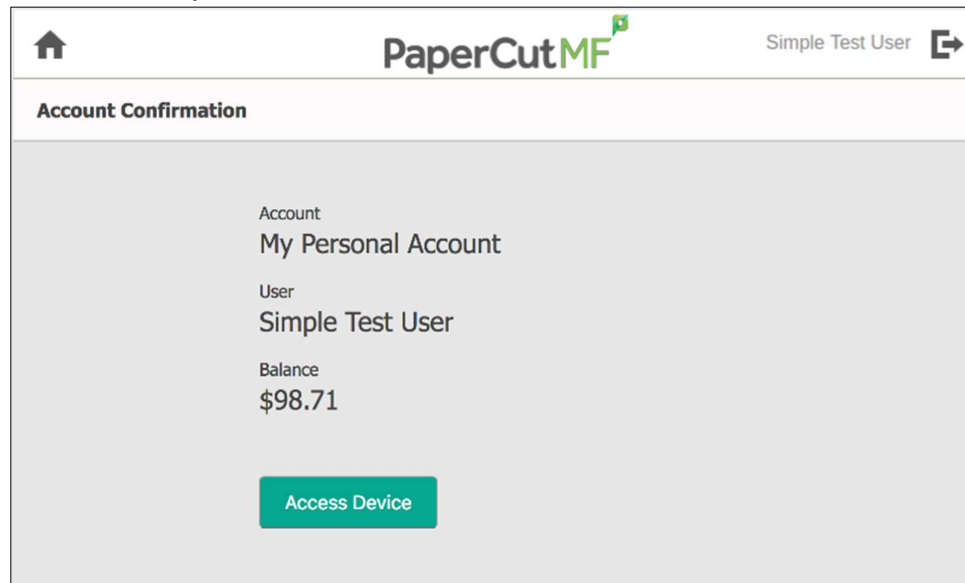
4. Click **Access Device.**
5. Select **Copy**.
6. Complete copying by following the device's workflow.
7. Log out of the device.
8. Log in to the PaperCut MF Admin web interface.
9. Navigate to **Logs**.
10. After copying is completed, verify that **Job Log** page displays the test user's name, simple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

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

3.3   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 3.1 Test preparation: create test users.

  Once created, the advanced test user must be configured.

  To configure the advanced test user:

  1. Log in to the PaperCut MF Admin web interface.
  2. Navigate to **Users**.
  3. From the **User List**, select the advanced test user.
  4. 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 **Show standard account selection** and select the required options**:**

  6. Click Apply.
- **Device functions** – Copying is enabled. To enable copying:
  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 required 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:
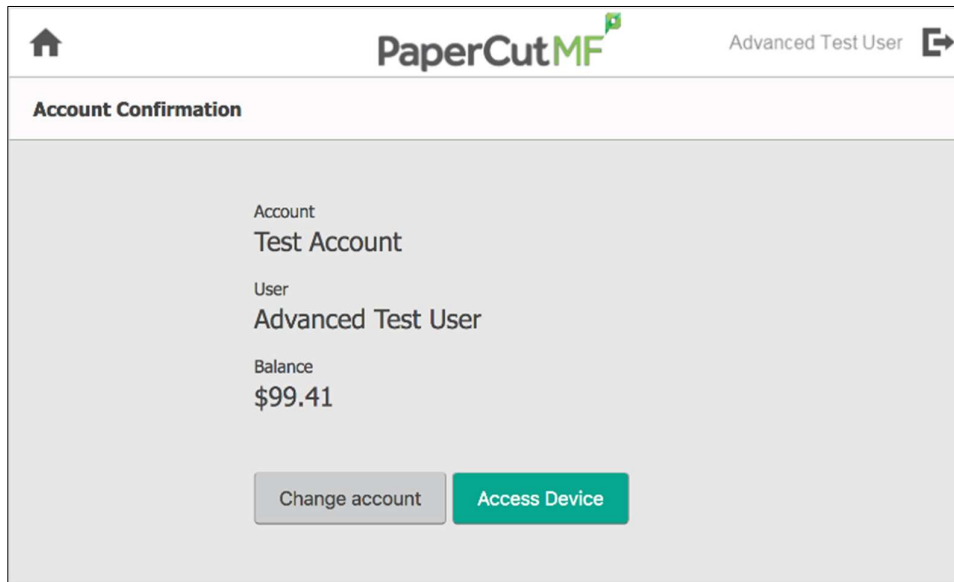
6. Click **Access Device.**

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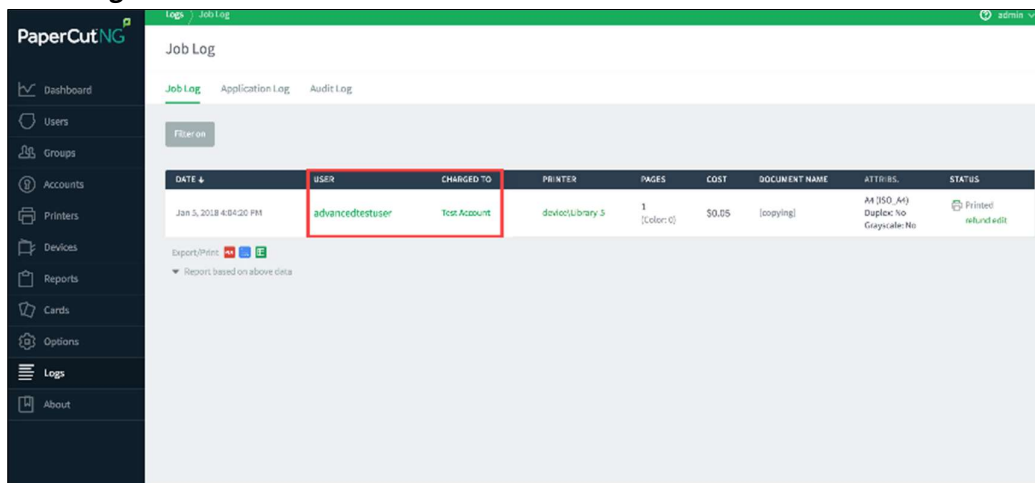
13. Log out of the PaperCut MF Admin web interface.

4 Configuration

PaperCut MF is installed on the device with default settings, which are reasonable for most environments. However, these settings can be further tweaked to suit your environment.

This section covers the configuration changes that can be made to the default settings of *PaperCut MF - FujiFilm Business*.

4.1 Inbound connections

4.1.1 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 4.11 Config Editor.

4.1.2 Inbound connections to PaperCut MF Site Servers

To configure PaperCut MF to allow inbound connections from the device to PaperCut MF Site Servers:

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 IP address or DNS name of the PaperCut MF Site Server that the device uses to make inbound connections.
6. Click **Apply**.

4.2 Additional network security

By default, the PaperCut MF Application Server allows device connections from any network address. However, communication between the PaperCut MF Application Server and the device can be further restricted to a set range of network addresses. This provides an additional level of security and ensures that only approved devices are connected to the PaperCut MF Application Server.

To restrict communication between the PaperCut MF Application Server and the device to a subset of IP addresses or subnets:

1. Log in to the PaperCut MF Admin web interface.
2. Navigate to **Options > Advanced**.
3. In the **Security** area's field **Allowed device IP addresses**, enter a comma-separated list of device IP addresses or subnets (<ip-address1 or subnet-mask1>, <ip-address2 or subnet-mask2>).
4. Click **Apply**.
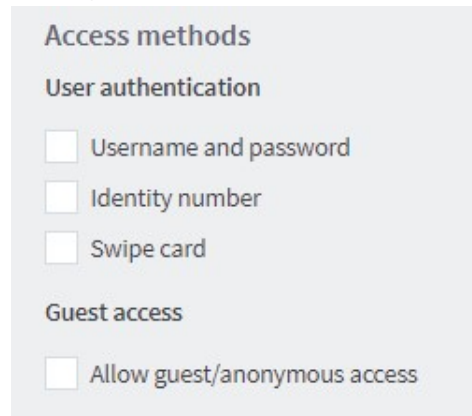
4.3   User authentication options

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

To configure the device's user authentication:

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:

   Access methods

   User authentication

   ☐ Username and password

   ☐ Identity number

   ☐ Swipe card

   Guest access

   ☐ Allow guest/anonymous access

   Note: You may use any one or a combination of all the available authentication methods, including the guest and anonymous access authentication methods.

The available user authentication options are:

User authentication option	Description
Username and password	This is the default authentication option. With this option, users use their domain/network username and password.
Identity number	With this option, users use their ID number. For more information, see the PaperCut MF manual. • **Require PIN:** With this option, users use their id number and the PIN associated with the id number. **Note:** 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.

Swipe card	With this option, users use their registered swipe card (e.g. magnetic strip, smart card, RFID). For more information, see the PaperCut MF manual.
	Note: If you select this option, then see 4.4 User authentication via swipe cards.
	• **Require PIN:** With this option, users use their registered swipe card and the PIN associated with the card. **Note:** Users can use a swipe card with or without a pre-set and 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 option, 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 required, 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.** For more information, see 4.11 Config Editor.
Allow guest/anonymous access	With this option, you may choose to activate **guest** or **anonymous access**, enabling users to be authenticated as a guest user or an anonymous user, 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 a guest user or an anonymous user on the device.
	• **Guest access** - Selecting **Allow guest/anonymous access** *and also* selecting one or more of the other options (Username and password, Identity number, Swipe card), activates **Guest access**. With this option:
	○ A **Guest** button, which may be customized, is displayed on the PaperCut MF Login screen on the device, together with the other options selected. **Note**: To customize the text of the **Guest** button that appears on the PaperCut MF Login screen,

use the config key **ext-device.fujifilm.guest-access.label.** For more information, see 4.11 Config Editor.

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

4.3.1   Duration of PaperCut MF's user authentication process

PaperCut MF's user authentication process on the device starts from when a user is detected as being active on the PaperCut MF Login screen to when the user accesses a device job (such as, scan, copy, fax, or on-device print job). To configure the interval of time (milliseconds) for the completion of PaperCut MF's user authentication process:

1. Log in to the device's web interface as an administrator.
2. Navigate to **System > Plug-in Settings**
3. Select the **PaperCut Authentication Plugin**; then click **Show**
4. On the **PaperCut Plugin Configuration** screen's **Configuration property** field, enter the required interval of time in milliseconds for the completion of PaperCut MF's user authentication process.
   The default value is 5000 milliseconds (i.e. 5 seconds).

PaperCut Plugin Configuration

Configuration property	Value
plugin.login.in-progress-time-millis	5000

Save

Note: If this is not configured as required, clicking the PaperCut MF icon on the device does not display the required PaperCut MF screen. For more information, see 6.8 Clicking the PaperCut MF icon does not display the PaperCut MF screen.

4.4   User authentication via swipe cards

If the **Swipe card** authentication option is selected (see 4.3 User authentication options, 4.4.2 Handling card identifiers), then:

1. Log in to the device's web interface as an administrator.
2. Navigate to **Permissions > Authentication and Accounting > Advanced Settings**
3. Set **Use of IC Card** to **On**:

Advanced Settings	
Failed Access Log	On
Limit Login Attempts of System Administrator	On
Hide User ID (***)	Show
Guest User	Off
Use of IC Card	On
	Off
	On
User ID for Login	Case Sensitive

Cancel   Save

4. Set **Hide User ID (***)** to **Show**
5. Click **Save**
6. Access the physical device.
7. Connect the supported card reader (see 4.4.1 Supported card readers).
   Note: If the device has USB ports on both its front and rear panel, it is recommended that the USB ports on the device's rear panel be used to plug in card readers, instead of the USB ports on the front panel. This is to allow the USB ports on the front, visible panel to be used by users for USB media.

4.4.1   Supported card readers

PaperCut MF - FujiFilm Business supports the following configured and compatible card readers:

- IC Card Reader B (Omnikey5127CK-MINI)
  Note: This is the recommended card reader.

4.4.2   Handling card identifiers

By default, PaperCut MF handles each card's unique identifier using the following pre-configured method:

- Cards whose identifiers consist of a number followed by special character and a checksum, are modified to include only the number (the special character and everything after it is ignored). This extracted, shortened identifier is used to identify the card and the corresponding user within PaperCut MF. For example, a card with the unique identifier 5235092385=8 is modified to 5235092385.

You can also tweak the way PaperCut MF handles each card's identifier by using any of the following methods:

- Using utility or configuration tools directly on the card reader's hardware.
- Using third party applications to decrypt card identifiers. For more information, contact your reseller or Authorized Solution Center.
- Using the following methods within PaperCut MF:
  - Regular expression filters
  - Converters (standard format converters and custom JavaScript converters)

  Note: If you use both an expression *and* a converter, then the card's identifier is handled first by the expression and then further by the converter

  Verify the results of the expressions, convertors, or both applied using the PaperCut MF Admin web interface's **Application Log**.

4.4.2.1   Regular expression filters

To extract card identifiers using regular expression filters, use the config keys **ext-device.self-association-allowed-card-regex** and **ext-device.card-no-regex**. For more information, see 4.11 Config Editor.

Some regular expression filters include:

Expression	Description	Example
(.{10})	Extract the first 10 characters	AST%123456789 is modified to AST%123456
(\d{5})	Extract the first 5 numbers	AST%123456789 is modified to 12345
\d*=(\d*)=\d*	Extract only the numbers between the 2 special characters	123453=292929=1221 is modified to 1234532929291221

For more information, see www.regular-expressions.info.

4.4.2.2   Standard format converters

To modify card identifiers using standard format converters, use the config key **ext-device.card-no-converter**. For more information, see 4.11 Config Editor.

Some examples of standard format converters are:

Converter	Description	Example
hex2dec	Convert a hexadecimal (base 16) encoded card identifier to the decimal format. **Note:** Hexadecimal numbers usually contain 0-9 and A-F.	946EBD28 is modified to 2490285352

dec2hex	Convert a decimal encoded card identifier to the hexadecimal format.	2490285352 is modified to 946EBD28
ascii-enc	Unpack an ASCII encoded card identifier to its encoded ASCII number.	3934364542443238 is modified to its ASCII code 946EBD28.
ascii-enc|hex2dec	First unpack an ASCII encoded card identifier to its encoded ASCII number. Then convert it to the decimal format. **Note:** Use a delimiting pipe (|) to chain or pipeline converters.	

4.4.2.3   Custom JavaScript converters

To use a custom JavaScript converter:

1. Create a JavaScript file. For example:
   [install-path]/server/custom/card.js
2. Define a single JavaScript function in this file called **convert**. It must accept and return a single string. For example:
   function convert(cardNumber) {
   **   return cardNumber.substring(3,10).toLowerCase();**
   }
3. Include a converter in the form: **javascript:custom/card.js**
4. Optionally, include a JavaScript script in the pipeline. For example:
   ascii-enc\|hex2dec\|javascript:custom/card.js
5. Verify the JavaScript converter from the following log:
   [install-path]/server/log/server.log
6. Use the config key **ext-device.card-no-converter** to modify card identifiers using custom JavaScript converters. For more information, see 4.11 Config Editor.

4.5   SNMP

PaperCut MF uses SNMP to:

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

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

For more information about SNMP, see the PaperCut MF manual.

To configure PaperCut MF to use SNMP:

1. Log in to the PaperCut MF Admin web interface.
2. Navigate to **Devices**.
3. Select the device.

4. In the **External Device Settings,** to enable PaperCut MF to use:

- SNMPv1/v2c, ensure the **Use SNMPv3 for Toner Retrieval and Device Error Monitoring** checkbox is not selected (default).
- SNMPv3, select the **Use SNMPv3 for Toner Retrieval and Device Error Monitoring** checkbox; and enter the following fields:
    - **Context name, Username, Privacy password, Authentication password** - If these values are available at the device web interface, then use the same values. It not, leave them blank or enter your own value.
    - **Authentication protocol** – Select either **MD5** or **SHA**.
    - **Privacy protocol** – Select either **DES** or **AES**.

5. Click **Apply.**

4.6   Secure Print Release

Secure Print Release causes all print jobs to be held at the device until a user releases the job. If the device is configured with Secure Print Release, then when releasing held print jobs, users can select the following:

- [the account](#)
- [the job attributes](#)

To configure Secure Print Release:

1. Log in to the PaperCut MF Admin web interface.
2. Navigate to **Devices**.
3. Select the required device.
4. In the **Print Release** area, select **Enable print release**.
5. In the **This device will display jobs for release from the selected source queues**, select the required Hold/Release queue. For more information, see the [PaperCut MF manual](#). **Note:** Ensure this does not contradict the settings configured on the device's web interface. For more information, see 2.3.7 Configure the device's user access permission settings 2.3.8 Configure the device's accounting and billing settings.

4.6.1   User selection of an account

All print jobs must be allocated to an account before they can be released (printed). This account can be either:
- a user's personal account, or
- a shared account for cost centre, faculty, or client billing purposes.

Users can allocate an account to a print job via the User Client and/or at the device. For more information about configuring cost allocation for users, see the [PaperCut MF manual](#).

At the device, users can:

- allocate the same account to *multiple* held print jobs without an account:

- allocate an account to a *single* held print job without an account or change a previously allocated account:

Note: By default, PaperCut MF allows users to select accounts at the device. However, you also have the option of disabling this. For more information, see the PaperCut MF manual.

4.6.2   User selection of job attributes

PaperCut MF allows users to change the attributes of held print jobs at the device, before releasing (printing) them. 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 one or many jobs, simultaneously:

- **Print as grayscale** (from color to grayscale)
- **Print as 2-sided** (from 1-sided to 2-sided)

Clicking the arrow to the right of a single held print job displays all the attributes for that job, allowing users to make the following additional changes:

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

To toggle the display of the cost of held print jobs on the PaperCut MF Print Release and Print Settings screens on the device, use the config key **ext-device.fujifilm.release-show-cost**. For more information, see 4.11 Config Editor.

Note: By default, PaperCut MF allows users to select jobs attributes at the device. However, you also have the option of disabling this. For more information, see the PaperCut MF manual.

4.7 Device jobs

Device jobs include jobs initiated at the device, such as, scan, copy, fax, on-device printing.

4.7.1 Tracking device jobs

To specify the device jobs that PaperCut MF tracks and controls:

1. Log in to the PaperCut MF Admin web interface.
2. Navigate to **Devices**.
3. Select the required device.
4. In the **External Device Settings** area, select the required device jobs:
   - **Track & control copying** – PaperCut MF tracks and controls copy jobs and on-device print jobs
   - **Track & control scanning** – PaperCut MF tracks and controls scan jobs
   - **Track & control faxing** – PaperCut MF tracks and controls fax jobs

   Note: Ensure this does not contradict the settings configured on the device's web interface. For more information, see 2.3.7 Configure the device's user access permission settings 2.3.8 Configure the device's accounting and billing settings.

4.7.2 User selection of an account

If tracked device jobs (scan, copy, fax, on-device printing) are also being charged, then users must

allocate them to an account.

This account can be either:

- a user's personal account, or
- a shared account for cost center, faculty, or client billing purposes.

The options available to users at the device, is based on the way users and the device are configured:

- For more information about configuring cost allocation for users, see the PaperCut MF manual.
- To toggle the display of the PaperCut MF Account Confirmation screen, use the **Show account confirmation** checkbox on the PaperCut MF Admin web interface (**Devices Details > Summary > External Device Settings > Device Options**).
- To toggle the display of the PaperCut MF Select Account screen, use the config key **ext-device.fujifilm.account-selection.bypass-for-default-account.** For more information, see 4.11 Config Editor.

4.7.3   Job costs and account balances (Zero Stop)

When printing, if a restricted user's account balance is insufficient to cover the cost of the user's entire print job, PaperCut MF prevents the user from being able to start the print job. This ensures that the restricted user's account balance never drops below zero for print jobs.

When scanning, copying, faxing, or on-device printing, PaperCut MF calculates the cost of a single page (i.e. the Reference Page Cost, which is based on configured values). Using this Reference Page Cost, PaperCut MF calculates the number of reference pages that the restricted user's account balance will allow (i.e. the maximum number of Reference Pages Allowed). As a result:

- If restricted user's account balance is insufficient for even one Reference Page Allowed, then PaperCut MF prevents the user from being able to start a scan, copy, fax, or on-device print job.
- If restricted user's account balance is sufficient for at least one Reference Page Allowed, then PaperCut MF allows the user to start a scan, copy, fax, or on-device print job.
  As the job is in progress, if the maximum number of Reference Pages Allowed is reached, then PaperCut MF:
    - stops the job,
    - prevents it from being completed, and
    - deletes the job from the device's Job Status screen.

This ensures that the restricted user's account balance never drops below zero for scan, copy, fax, or on-device print jobs. For more information, see 4.7.3.1 Reference Page Cost and maximum number of Reference Pages Allowed.

Further restrictions can also be applied to restricted users to prevent their account balances from dropping below zero. For more information, see 4.7.3.2 Job Limits.

4.7.3.1   Reference Page Cost and maximum number of Reference Pages Allowed

To configure the Reference Page Cost that is used to calculate the maximum number of Reference Pages Allowed for scan, copy, fax, or on-device print jobs, use the following config keys:

- **ext-device.fujifilm.limit-reference.duplex**
- **ext-device.fujifilm.limit-reference.paper-size**

For more information, see 4.11 Config Editor.

Note: This Reference Page Cost that is used to calculate the maximum number of Reference Pages Allowed for scan, copy, fax, or on-device print jobs, has some limitations. For more information, see 5.2 Limitations of the configured Reference Page Cost and maximum number of Reference Pages Allowed.

4.7.3.2   Job Limits

To further prevent restricted users' account balances from dropping below zero, you can use the config key **ext-device.fujifilm.login.job-limits**. For more information, see 4.11 Config Editor

4.7.3.3   Device's Scan to Email

To auto-populate users' email addresses that are already configured while creating and configuring users in PaperCut MF (**Users > User List > User Details > Primary email**) on the device's **Scan to Email**, use the config key **ext-device.fujifilm.email.personalized-sender.** For more information, see 4.11 Config Editor.

4.7.4   PaperCut MF's Integrated Scanning

To enable users to use PaperCut MF's Integrated Scanning:

1. Configure it on the PaperCut MF Admin web interface.
   For more information, see Integrated Scanning or the PaperCut MF manual
2. Depending on the needs of your environment, you may need to change the default settings of the following config keys:
   - **ext-device.fujifilm.scan.prompt.checkbox.checked**
   - **ext-device.fujifilm.timeout.scan-transfer.mins**
   - **ext-device.fujifilm.timeout.scan-interrupted.secs**
   - **ext-device.fujifilm.timeout.scan-prompt-send.secs**
   - **ext-device.fujifilm.timeout.complete-scan-job.secs**

   For more information, see 4.8 Timeouts, 4.11 Config Editor.

4.7.4.1   Integrated scan workflow

If Integrated Scanning is enabled, then you can use the config key **ext-device.fujifilm.scan.prompt.checkbox.checked** to specify whether the **Prompt for more pages** checkbox on the Scan Details screen and the Scan Settings screen, is checked or unchecked by default (See 4.11 Config Editor).

- A checked **Prompt for more pages** checkbox enables the device to display the Scan More or Finish screen, providing users with the ability to start new scan jobs retaining the current scan job's settings and account selection attributes:
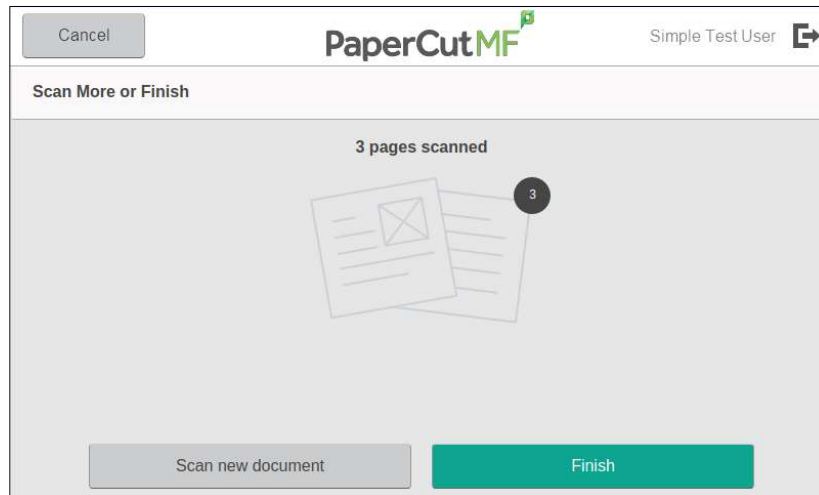
Note: To specify the user inactivity timeout on this screen, use the config key **ext-device.fujifilm.timeout.scan-prompt-send.secs**. For more information, see 4.8 Timeouts, 4.11 Config Editor.

- An unchecked **Prompt for more pages** checkbox enables the device to complete the current scan and send it to the user (scan transfer).
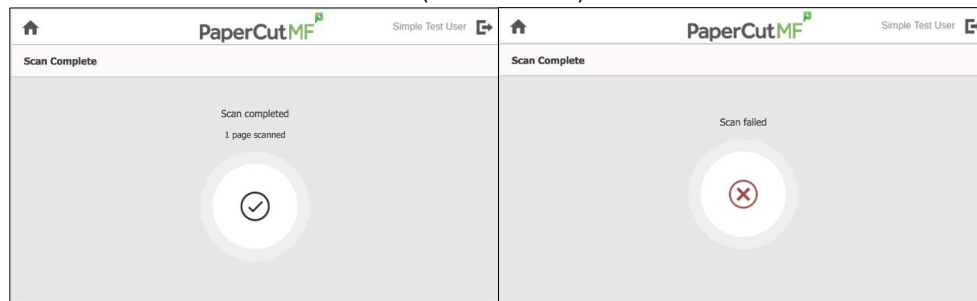
Note: To specify the user inactivity timeout on this screen, use the config key **ext-device.fujifilm.timeout.complete-scan-job.secs**. For more information, see 4.8 Timeouts, 4.11 Config Editor.

4.8 Timeouts

A user who is detected as being idle (on a PaperCut MF screen or a non-PaperCut MF device screen) is automatically logged out after a certain interval of time, based on the following conditions:
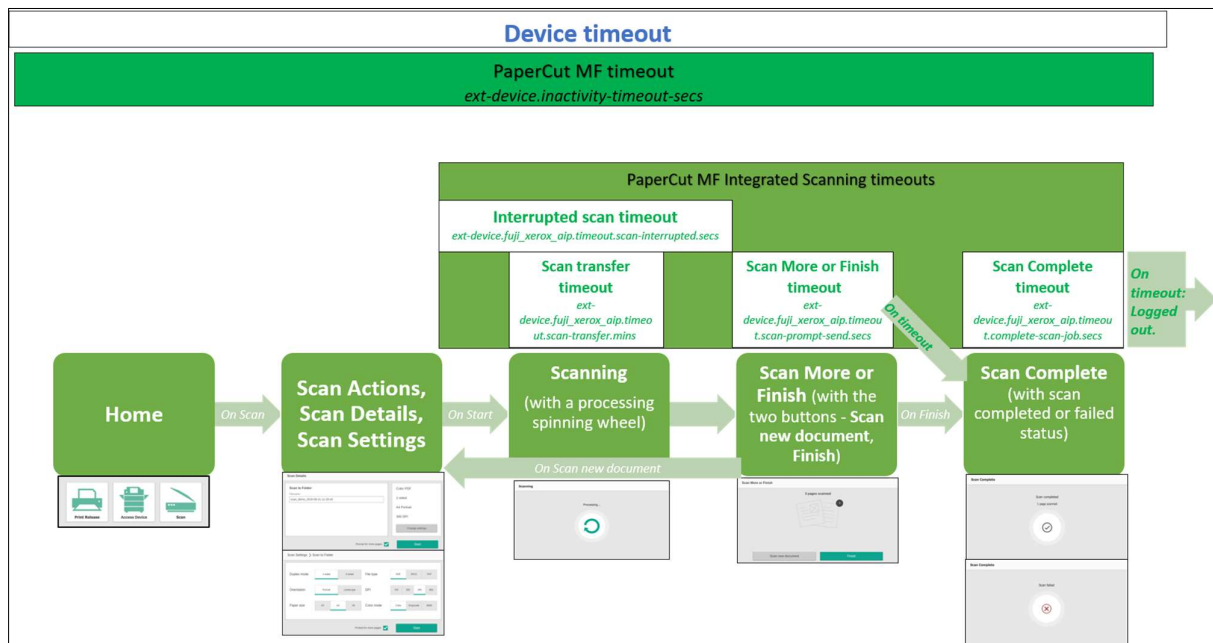
- **Device timeout** - If the user is idle on a non-PaperCut MF device screen, then the user is logged out based on the device's timeout.

  To configure the device's timeout on the device:
  a. Log in to the device as an administrator.
  b. Navigate to **System > Timeouts:**

  c. Alter the **Auto Clear** timeout value and then click **Save**

     Note: If the user is idle on a non-PaperCut MF device screen, then the user is logged out based on this value. However, if the user is idle on a PaperCut MF screen and if this value is lower than the PaperCut MF timeout (the config key **ext-device.inactivity-timeout-secs**), then the user is logged out based on this value (i.e. this value supersedes and overrides the higher value of the config key). For more information, see 4.8 Timeouts and 4.11 Config Editor.
  d. Click **Save**.

- **PaperCut MF timeout** - If the user is idle on a PaperCut MF screen, then the user is logged out based on the config key **ext-device.inactivity-timeout-secs** or the device's timeout, whichever has the lower value. For more information, see 4.11 Config Editor.
- **PaperCut MF integrated scanning timeouts** – If the user is using Integrated Scanning, then timeouts are based on the following config keys:
  - **PaperCut MF scan transfer timeout**
    ext-device.fujifilm.timeout.scan-transfer.mins
  - **PaperCut MF interrupted scan timeout**
    ext-device.fujifilm.timeout.scan-interrupted.secs
  - **PaperCut MF Scan More or Finish timeout**
    ext-device.fujifilm.timeout.scan-prompt-send.secs
  - **PaperCut MF Scan Complete timeout**
    ext-device.fujifilm.timeout.complete-scan-job.secs

  For more information, see 4.7.4.1 Integrated scan workflow, 4.11 Config Editor

4.9   Screen headers

4.9.1   Header colors

To customize the colors (background and text) of the headers on all PaperCut MF screens:

1. Use the following config keys:
   ext-device.fujifilm.ui.header-color
   ext-device.fujifilm.ui.header-text-color
   For more information, see 4.11 Config Editor.
2. Log in to the device as a test user (simple test user).
3. Verify that the device's header background and text colors are as required.

4.9.2   Header logo

To customize the logo on the headers of all PaperCut MF screens:

1. Create the device's header logo as per the following specifications:
   - Image height = 50 pixels
   - Image width = 360 pixels
   - Image file format = `.png`
   - Image filename = `logo.png`
   - Image file location = `[PaperCut Install Location]\server\custom\web\device\fx-apeos-vi\`
2. Log in to the device as a test user (simple test user).
3. Verify that the device's header logo is as required.

4.10 Home Screen Customization

PaperCut MF allows you to specify native device functions or third-party applications that will be displayed on the home screen along with any PaperCut functions that you have enabled. Using the

config key **ext-device.fujifilm.app-to-destination**, you can specify function name to display name pairs that will create new buttons on the home screen that open the specified function.

The format of the config key is as follows: `{function_name, display_name}, {function_name_2, display_name_2}`. Each pair will create a button on the PaperCut home screen with the specified display name and clicking on it will open the specified function.

Custom buttons will be added to the home screen in order of their definition in the config key. The following is a picture of the home screen with an example config key of `{Copy, Use Copy}, {All Services, Device Menu}`.

NAME ↑	VALUE		
ext-device.fuji_xerox_aip.app-to-destination	{Copy, Use Copy}, {All Services, Device Menu}	Update	Remove
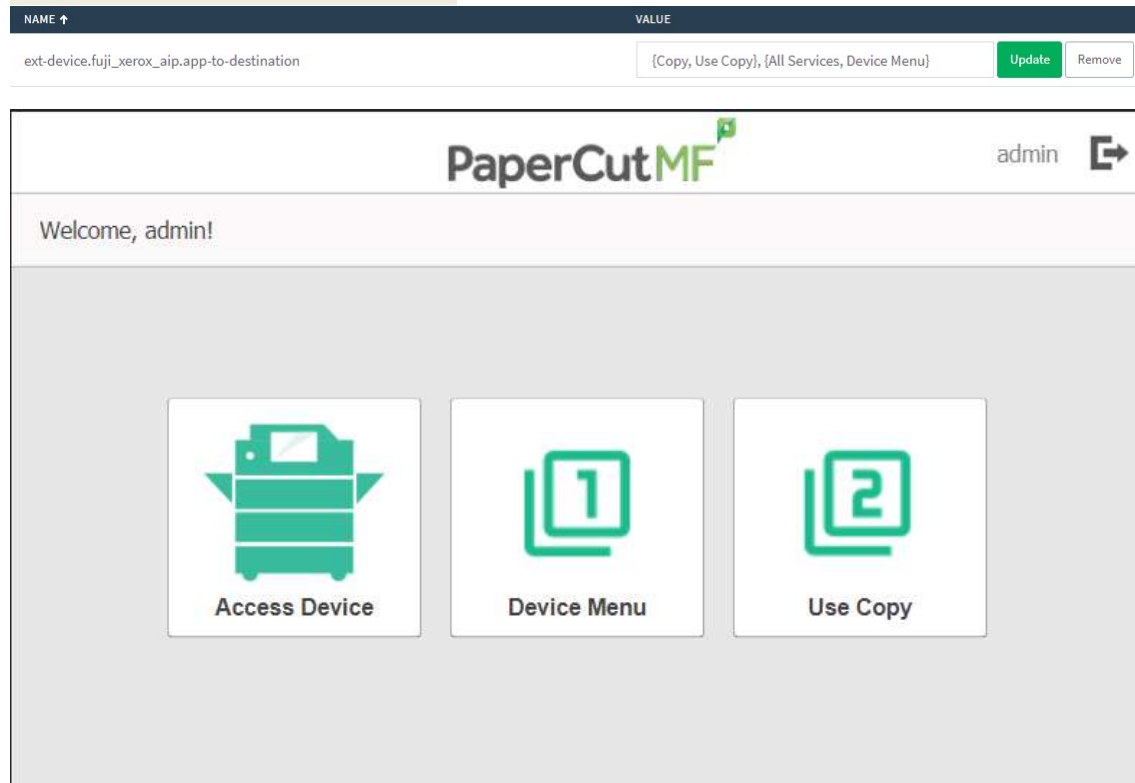
When Integrated Scanning and Print Release are enabled with the same config key as above, the home screen will appear as follows:
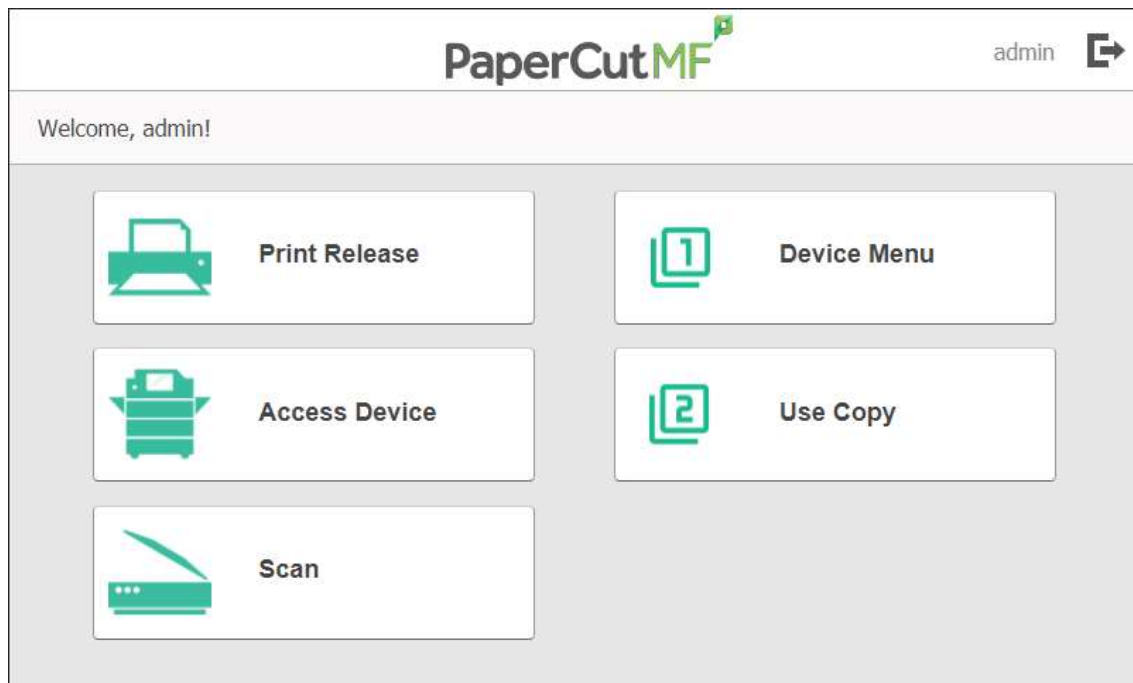
Additional values that can be used in the config key can be found in 4.11 Config Editor.

4.11 Config Editor

PaperCut MF provides you with several global and device-specific config keys that you can modify to suit your environment. While some keys are *only* global (impacting PaperCut MF on all devices) or *only* device-specific (impacting PaperCut MF on the selected device), other keys are *both* global *and* device-specific simultaneously. Such keys initially inherit their global settings (GLOBAL) as their default settings. However, changes made at the device-level overrides these globally inherited default settings.

To configure the device using the available global config keys (impact PaperCut MF on all devices):

1. Log in to the PaperCut MF Admin web interface.
2. Navigate to **Options > Actions > Config editor (advanced).**
   Note: For more information, see the [PaperCut MF manual.](#)

To configure the device using the available device-specific config keys (impact PaperCut MF on the selected device):

1. Log in to the PaperCut MF Admin web interface.
2. Navigate to **Devices.**
3. Select the required device.
4. Click **Advanced Config.**

The available config keys are:

Config name	Description
Device screens	
ext-device.fujifilm.locale-override	Specify the default language of the device, if it is different to the language of the locale in which the device was installed.
	This is a device-specific config key.
	- Values: xx (language), xx_XX (language_region), DEFAULT For example, ja (Japanese), en_US (English_United States of America) - Default: DEFAULT (language of the locale in which the device was installed)
	Note: Changing this config key's default value, does not change the device's currency and paper size values to correspond to the geographical locale of config key's value. For example, if the device is installed in Canada,

	and this config key's value is French, the device's currency does not change to Euros. It remains Canadian Dollar.
ext-device.fujifilm.ui.header-color	Customize the background color of headers on all PaperCut MF screens. This is a device-specific config key. • Values: Valid [CSS color specifications](#) (color names or HTML RGB, HEX #rrggbb, HSL, RGBA, HSLA values), DEFAULT • Default: DEFAULT (dark green) **Note:** For more information, see 4.9.1 Header colors.
ext-device.fujifilm.ui.header-text-color	Customize the text color of headers on all PaperCut MF screens. This is a device-specific config key. • Values: Valid [CSS color specifications](#) (color names or HTML RGB, HEX #rrggbb, HSL, RGBA, HSLA values), DEFAULT • Default: DEFAULT (white) **Note:** For more information, see 4.9.1 Header colors.
ext-device.fujifilm.login-instruction	Customize text that appears on the PaperCut MF Login screen. For example, instructions to help users log in to PaperCut MF on the device. This is a device-specific config key. • Values: Any text, DEFAULT • Default: DEFAULT (device-specific PaperCut MF text) **Note:** To add a line break, use *\n.* For example, *PaperCut Software\nSwipe your card to log in*.
ext-device.fujifilm.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 option is selected and at least any one other authentication option is also selected). For more information, see 4.3 User authentication options.

ext-device.fujifilm.login.id-field.auto-focus	Toggle the auto-focus (via a blinking cursor) on the PaperCut MF Login screen's **ID number** field.

This is a device-specific config key.

- Values: Y, N, DEFAULT
- Default: DEFAULT

Note:

- This is applicable only if the **Identity number** authentication option is selected. For more information, see 4.3 User authentication options.
- Retaining the default setting (DEFAULT) is recommended for all devices.

ext-device.fujifilm.ui.force-virtual-keypad	Toggle the display of the soft numeric keyboard.

This is a device-specific config key.

- Values: N, Y
- Default: N

Note:

- Setting this to N –
  - hides the soft numeric keyboard **ONLY** if the config key **ext-device.fujifilm.login.id-field.numeric** is ALSO set to **N.**
  - is overridden (i.e. displays the

soft numeric keyboard) if the config key **ext-device.fujifilm.login.id-field.numeric** to **Y**.

- Setting this to Y –
  - o displays the soft numeric keyboard.
  - o overrides the **N** setting of the config key **ext-device.fujifilm.login.id-field.numeric**

ext-device.fujifilm.login.id-field.numeric	Toggle the display of the soft numeric keyboard for entering an ID number during user authentication.
	This is a device-specific config key.

- Values: N, Y
- Default: N

Note:

- This is applicable only if the **Identity number** authentication option is selected; and users' **Identity Numbers** have only numbers. For more information, see 4.3 User authentication options.
- Setting this to Y –
  - o displays the soft numeric keyboard on FujiFilm Business devices
  - o overrides the **N** setting of the config key **ext-device.fujifilm.ui.force-virtual-keypad**
  - o hides the soft alpha-numeric keyboard on all devices.
- Setting this to N –
  - o hides the soft numeric keyboard on FujiFilm Business devices *ONLY* if the config key **ext-device.fujifilm.ui.force-virtual-keypad** is ALSO set to **N**
  - o is overridden (i.e. displays the soft numeric keyboard) if the

	config key **ext-device.fujifilm.ui.force-virtual-keypad** to **Y**. ○ displays the soft alpha-numeric keyboard on all devices
ext-device.fujifilm.welcome-text	Customize text on the PaperCut MF Home screen's header (after users have successfully logged in to the device from the PaperCut MF Login screen). For example, "Hello there!". This is a device-specific config key. • Values: Any text, patterns using {0} for username substitution, DEFAULT • Default: DEFAULT ("Welcome, {0}", where "{0}" is used to substitute the user's name) **Note:** To add a line break, use \n. For example, *PaperCut Software\nHello there!*
ext-device.fujifilm.access-device.label	Customize the text of the **Access Device** button or icon name that appears on PaperCut MF screens. This is a device-specific config key. • Values: Any text, DEFAULT • Default: DEFAULT (Access Device)
ext-device.fujifilm.integrated-scanning.label	Customize the text of the **Integrated Scanning** button or icon name that appears on PaperCut MF screens. This is a device-specific config key. • Values: Any text, DEFAULT • Default: DEFAULT (Scan)
ext-device.fujifilm.ui.initial-screen	Specify the device job that the device defaults to when users attempt to access device jobs. This is a device-specific config key. • Values: DEFAULT, any one of the

following device jobs:

- o copy
- o copy_easy
- o box
- o scan_mbox
- o scan_email
- o scan_pc
- o scan_url
- o scan_media
- o fax
- o fax_easy
- o ifax
- o sfax
- o jobmem
- o jobflow
- o web1-10
- o cstm1-9
- Default: DEFAULT (allservice)

Note: If this config key's default value is changed, then:

- when users attempt to access device jobs, the device always defaults to the first screen that corresponds to this config key's changed value (i.e. the device job specified);
- as a result, if users need to access other device jobs, they must click the **Services Home** hard button on the device's panel.

ext-device.fujifilm.device-functions-on-login	Configure the workflow after users have successfully logged in to the device to: • Either, show the PaperCut MF Home screen • Or, show the device's home screen with all the device jobs This is a device-specific config key. • Values: N (show the PaperCut MF Home screen), Y (show the device's home screen with all the device jobs)

- Default: N

ext-device.fujifilm.app-to-destination	Configure the custom apps that will show on the home screen.

- Apps will appear on the home screen in the order they are defined.
- Apps are defined as pairs of function name and display name and separated by a comma: `{function_name, display_name}, {function_name2, display_name2}`

This is a device-specific config key.

- Values for function name: DEFAULT, any of the following device screens:
    - All Services
    - Copy
    - Simple Copy
    - Extended Folder
    - Store to Folder
    - E-mail
    - Job Template
    - Scan to PC
    - Store & Send Link
    - Store to USB
    - BMLinkS Scan
    - Internet Fax
    - Media Print – Photos
    - BMLinkS Print
    - BMLinkS Menu
    - Server Fax
    - Media Print – Text
    - Simple Fax
    - Scan (WSD)
    - Charge Print
    - Delayed Print
    - Stored Programming
    - Job Flow Sheets
    - Fax
    - Private Charge Print
    - Secure Print

o   Sample Print
- The function name can also be set to the name of any third-party web application or custom application.
- Default: DEFAULT (no custom applications)

ext-device.fujifilm.direct-to-release-page	When the device is configured to show the PaperCut MF Home screen, further configure the workflow to**:**
	• Either, show the PaperCut MF Home screen
	• Or, show the PaperCut MF Print Release screen
	
	This is a device-specific config key.
	
	• Values: N (show the PaperCut MF Home screen), Y (show the PaperCut MF Print Release screen)
	• Default: N
	
	Note:
	
	• This is only applicable if the device is configured to show the PaperCut MF Home screen (i.e. the config key **ext-device.fujifilm.device-functions-on-login** is set to **N**).
	• Setting this to N –
	   o enables the config key **ext-device.home-screen.force-show** to take effect.
	• Setting this to Y –
	   o is required if **Enable print release** is selected
	   o enables the config key **ext-device.fujifilm.skip-release-screen-when-no-jobs** to take effect.

ext-device.fujifilm.skip-release-screen-when-no-jobs	When the device is configured to show the PaperCut MF Home screen and the PaperCut MF Print Release screen, further configure the workflow to**:** • Either, always show the PaperCut MF Print Release screen • Or, hide the PaperCut MF Print Release screen, if there are no held print jobs

waiting to be released

This is a device-specific config key.

- Values: N (always show the PaperCut MF Print Release screen), Y (hide the PaperCut MF Print Release screen, based on other settings)
- Default: N

Note: This is only applicable if the device is configured to:
- show the PaperCut MF Home screen (i.e. the config key **ext-device.fujifilm.device-functions-on-login** is set to **N)**, and
- show the PaperCut MF Print Release screen screen (i.e. the config key **ext-device.fujifilm.direct-to-release-page** is set to **Y**).

ext-device.home-screen.force-show	When the device is configured to only show the PaperCut MF Home screen, further configure the workflow to**:** - Either, always show the PaperCut MF Home screen - Or, hide the PaperCut MF Home screen, if BOTH **Enable print release** AND **Integrated Scanning** are not enabled This is a global config key. - Values: N (hide the PaperCut MF Home screen, based on other settings), Y (always show the PaperCut MF Home screen) - Default: N **Note:** This is only applicable if the device is configured to show the PaperCut MF Home screen (i.e. the config key **ext-device.fujifilm.device-functions-on-login** and **ext-device.fujifilm.direct-to-release-page** are set to **N**).

ext-device.fujifilm.account-selection.bypass-for-default-account	Toggle the display of the PaperCut MF Select Account screen. This is a device-specific config key. • Values: N (show the PaperCut MF Select Account screen), Y (hide the PaperCut MF Select Account screen, based on other settings) • Default: N **Note:** Setting this to Y – hides the PaperCut MF Select Account screen when the user accesses device jobs only if: • the user is configured with the required cost allocation option (jobs are charged to a pre-configured account by default, not requiring further user interaction), • the device is configured to display the PaperCut MF Account Confirmation screen. For more information, see 4.7.2 User selection of an account.
ext-device.fujifilm.release-show-cost	Toggle the display of the cost of held print jobs on the PaperCut MF Print Release screens on the device. This is a device-specific config key. • Values: Y, N • Default: Y **Note:** Setting this to N – • hides the account balance, and • does not display the savings based on other changes made to held print job settings. For more information, see 4.6.2 User selection of job attributes.
ext-device.fujifilm.home-directory.personalized	Specify whether or not the device's **Scan to PC** auto-populates the configured user home directory network path. This is a device-specific config key. • Values: Y, N

	• Default: Y
	Note: This is only applicable if user' home directory network path is configured as required.
ext-device.fujifilm.email.personalized-sender	Specify whether or not the device's **Scan to Email** auto-populates the **From** and **Sender** fields with the user's email address as configured in PaperCut MF. This is a device-specific config key. • Values: Y, N • Default: Y **Note:** This is only applicable if users' email addresses are already configured while creating and configuring users in PaperCut MF (**Users > User List > User Details > Primary email**). For more information, see 4.7.3.3 Device's Scan to Email.
ext-device.fujifilm.scan.prompt.checkbox.checked	Specify the default setting of the PaperCut MF Scan screens' **Prompt for more pages** checkbox (checked or unchecked) and the display of the PaperCut MF Scan More or Finish screen (with the two buttons – **Scan new document, Finish**). This is a device-specific config key. • Values: Y (checked by default; can be changed by the user), N (unchecked by default; can be changed by the user) • Default: Y **Note:** For more information, see 4.7.4.1 Integrated scan workflow.

"Swipe card" authentication option

ext-device.card-self-association.use-secondary-card-number	Specify the use of the primary or the secondary card number slot to save card identifiers during card self-association.

This is a global and device-specific config key.

Device-specific:

- Values: Y, N, GLOBAL (inherited from global settings)
- Default: GLOBAL (inherited from global settings)

Global:

- Values: N (Primary), Y (Secondary)
- Default: N

Note: This is only applicable if the **Swipe card** - **Enable self-association with existing user accounts** authentication option is selected. For more information, see 4.3 User authentication options.

---

ext-device.self-association-allowed-card-regex

Specify the regular expression filter to be used to validate card identifiers during card self-association.

This is a device-specific config key.

- Values: Any valid regular expression, DEFAULT
- Default: DEFAULT

Note: This is only applicable if the **Swipe card** - **Enable self-association with existing user accounts** authentication option is selected. For more information, see 4.3 User authentication options and 4.4.2 Handling card identifiers.

---

ext-device.card-no-regex

Specify the regular expression filter to be used to extract card identifiers for authentication.

This is a global and device-specific config key.

Device-specific:

- Values: Any valid regular expression, GLOBAL (inherited from global settings)
- Default: GLOBAL (inherited from global

settings)

Global:

- Values: Any valid regular expression

Note: This is only applicable if the **Swipe card** authentication option is selected. For more information, see 4.3 User authentication options and 4.4.2 Handling card identifiers.

ext-device.card-no-converter	Specify the converters (standard format converters, custom JavaScript converters, or both) to be used to modify card identifiers for authentication. This is a global and device-specific config key. Device-specific: - Values: Any valid converter (standard format converters, custom JavaScript converters, or both), GLOBAL (inherited from global settings) - Default: GLOBAL (inherited from global settings) Global: - Values: Any valid converter (standard format converters, custom JavaScript converters, or both) **Note:** This is only applicable if the **Swipe card** authentication option is selected. For more information, see 4.3 User authentication options and 4.4.2 Handling card identifiers.

Job costs and account balances (Zero Stop)

ext-device.fujifilm.login.job-limits	Specify whether or not Job Limits are applied on restricted users during user authentication. This is a device-specific config key. - Values: Y, N - Default: Y

Note:

- This is only applicable to restricted users.
- Setting this to Y –
    - applies Job Limits on restricted users during user authentication, only if the value of the config key **ext-device.fujifilm.logs.download-period-after-login** is *LOWER* than the value of the config key **ext-device.fujifilm.period.ping,**
    - is recommended to ensure that restricted users' account balances do not drop below zero.

---

ext-device.fujifilm.limit-reference.duplex

When configuring the Reference Page Cost that is used to calculate the maximum number of Reference Pages Allowed for device jobs (such as, scan, copy, fax and on-device print jobs), specify whether the Reference Page used is a simplex page or a duplex page.

This is a device-specific config key.

- Values: N (simplex), Y (duplex)
- Default: N

Note: For more information, see 4.7.3.1 Reference Page Cost and maximum number of Reference Pages Allowed

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

When configuring the Reference Page Cost that is used to calculate the maximum number of Reference Pages Allowed for device jobs (such as, scan, copy, fax and on-device print jobs), specify the paper size of the Reference Page used.

This is a device-specific config key.

- Values: Any valid paper size, DEFAULT
- Default: DEFAULT (Worldwide: A4;

North America: Letter)

Note: For more information, see 4.7.3.1 Reference Page Cost and maximum number of Reference Pages Allowed.

Network resilience, security, logs, uninstallation

system.network-address	Specify the network IP address or FQDN (Fully Qualified Domain Name) of the PaperCut MF Application Server that the device uses to make inbound connections. This is a global config key. • Values: Network IP address or FQDN (Fully Qualified Domain Name) of the PaperCut MF Application Server used by the device for inbound connections. **Note:** For more information, see 4.1.1 Inbound connections to PaperCut MF Application Server.
ext-device.fujifilm.force-device-login-tries	Specify the number of attempts made by PaperCut MF to connect to the device, to establish an exclusive lock on the device when installing PaperCut MF on the device (i.e. device registration and integration). • Values: Any positive number • Default: 10 **Note:** If PaperCut MF is unable to connect to the device to establish an exclusive lock, within the configured number of attempts, then the **Device Status** displays **Device is currently in use, unable to initiate exclusive lock on the device**, implying that PaperCut MF installation is unsuccessful because the device could not be temporarily locked. For more information, see 6.5 Device Status "Device is currently in use, unable to initiate exclusive lock on the device".
ext-device.fujifilm.force-device-login-	Specify the interval of time (seconds) between

tries-sleep-secs	each attempt made by PaperCut MF to connect to the device, to establish an exclusive lock on the device when installing PaperCut MF on the device (i.e. device registration and integration). • Values: Any positive number (seconds) • Default: 5 (seconds)
ext-device.fujifilm.period.error	Specify the interval of time (seconds) between each attempt made by PaperCut MF to connect to the device, after encountering an error when installing PaperCut MF on the device (i.e. device registration and integration). This is a device-specific config key. • Values: 1-3600 (seconds) • Default: 60 (seconds)
ext-device.fujifilm.logs.download-period-after-login	Specify the interval of time (seconds) between each attempt made by PaperCut MF to connect to the device if user activity on the device is detected. This is a device-specific config key. • Values: 1-3600 (seconds) • Default: 20 (seconds) **Note:** Only if the value of this config key is *LOWER* than the value of the config key **ext-device.fujifilm.period.ping**, is Job Limits applied on restricted users during user authentication (i.e the config key **ext-device.fujifilm.login.job-limits** comes into effect).
ext-device.fujifilm.period.ping	Specify the interval of time (seconds) between each attempt made by PaperCut MF to connect to the device, after successfully installing PaperCut MF on the device (i.e. device registration and integration). This is a device-specific config key.

- Values: 1-3600 (seconds)
- Default: 300 (seconds)

Note: Only if the value of this config key is *HIGHER* than the value of the config key **ext-device.fujifilm.logs.download-period-after-login**, is Job Limits applied on restricted users during user authentication (i.e the config key **ext-device.fujifilm.login.job-limits** comes into effect).

ext-device.fujifilm.force-install-plugins	Specify whether or not the version of the PaperCut MF embedded plug-in as detected on the PaperCut MF Application Server, is forced to be installed on the device, if a version mismatch is detected between the two. This is a device-specific config key. - Values: N, Y - Default: N
ext-device.fujifilm.force-install-services	Specify whether or not the version of the PaperCut MF custom service as detected on the PaperCut MF Application Server, is forced to be installed on the device, if a version mismatch is detected between the two. This is a device-specific config key. - Values: N, Y - Default: N
ext-device.fujifilm.force-install-reboot	Specify whether or not the device is forced to be rebooted if any device change is made on the PaperCut MF Admin web interface (**Devices > External Device List > Device Details**). This is a device-specific config key. - Values: N, Y - Default: N
ext-device.fujifilm.set-authentication-	Specify whether or not the device's user

mode-enabled	authentication mode is PaperCut MF.

This is a device-specific config key.

- Values: Y, N
- Default: Y

Note: Setting this to Y –

- sets the device's user authentication mode to PaperCut MF (i.e. the device's web interface's **Properties > Security > Authentication Configuration > Login Type** is set to **Customized Login**),
- uses PaperCut MF to authenticate users to log in to the device.

ext-device.fujifilm.disable-conflicting-custom-services	Specify whether or not the PaperCut MF Login Screen is displayed when user authentication is required.

This is a device-specific config key.

- Values: N, Y
- Default: N

Note:

- Setting this to Y – is recommended. This is to enable the device to always display the PaperCut MF Login screen when user authentication is required in the workflow; making it convenient for users.
- Setting this to N – is not recommended. This is because, this prevents the device from displaying the PaperCut MF Login screen when user authentication is required in the workflow; making it inconvenient for users. Users need to perform an additional step to navigate to the PaperCut MF Login screen and start the process of user authentication.

ext-device.block-release-on-error.snmp-error-list	Specify the errors that will prevent jobs from being released.
	
	This is a global config key.
	
	• Values: DEFAULT, any one or a comma-separated combination of the following printer error types (not case sensitive):
	    o lowPaper
	    o noPaper
	    o lowToner
	    o noToner
	    o doorOpen
	    o jammed
	    o offline
	    o serviceRequested
	    o inputTrayMissing
	    o outputTrayMissing
	    o markerSupplyMissing
	    o outputNearFull
	    o outputFull
	    o inputTrayEmpty
	    o overduePreventMaint
	• Default: DEFAULT (noPaper, doorOpen, jammed,offline, inputTrayMissing, outputTrayMissing, markerSupplyMissing, outputFull)

ext-device.fujifilm.integration.enabled	Specify whether or not *PaperCut MF - FujiFilm Business* is removed from the device.
	
	This is a device-specific config key.
	
	• Values: Y, N
	• Default: Y
	
	Note:
	
	• Setting this to Y –
	    o retains *PaperCut MF - FujiFilm Business* on the PaperCut MF Admin web interface and on the device,
	    o is required when attempting to

temporarily disable *PaperCut MF - FujiFilm Business* on the device (see 7.1 Disable *PaperCut MF - FujiFilm Business*

- Setting this to N –
    - removes *PaperCut MF - FujiFilm Business* from the device, but continues to retain it on the PaperCut MF Admin web interface,
    - deactivates user authentication on the device,
    - overrides the **Authentication Access** (**Locked** or **Unlocked**) that is configured for **Installed Services,** allowing all users to access all device jobs (see 2.3.7 Configure the device's user access permission settings).
    - activates the config key **ext-device.fujifilm.force-uninstall-plugins.**
    - For more information, see 7.2 Remove *PaperCut MF - FujiFilm Business*.

ext-device.fujifilm.force-uninstall-plugins	When removing or deleting *PaperCut MF - FujiFilm Business* from the device, specify whether: • *BOTH* the PaperCut MF embedded plug-in *AND* the custom service is permanently uninstalled from the device, or • *ONLY* the PaperCut MF custom service is permanently uninstalled from the device. This is a device-specific config key. • Values: Y (*BOTH* the PaperCut MF embedded plug-in *AND* the PaperCut MF custom service), N (*ONLY* the custom service)

- Default: Y

Note: This comes into effect only if:

- Either, PaperCut MF is removed (i.e. the config key **ext-device.fujifilm.integration.enabled** is set to **N**). For more information, see 7.2 Remove *PaperCut MF - FujiFilm Business*
- Or, PaperCut MF is deleted from the PaperCut MF Admin web interface. For more information, see 7.3 Delete *PaperCut MF - FujiFilm Business*.

Timeouts

ext-device.inactivity-timeout-secs	**PaperCut MF timeout:** Specify the interval of time (seconds) after which a user who is detected as being idle on PaperCut MF is automatically logged out. This is a device-specific config key. - Values: Any positive number (seconds) - Default: 60 (seconds) **Note:** This is only applicable 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. For more information, see 4.8 Timeouts.
ext-device.fujifilm.timeout.scan-transfer.mins	**PaperCut MF scan transfer timeout:** Specify the interval of time (minutes) after which a scan job that is still not sent to the user (failed scan transfer), is cancelled. The user is automatically taken to the PaperCut MF Scan Complete screen (with scan completed or failed status), displaying **Scan failed**. This is a device-specific config key. - Values: 1-15 (minutes) - Default: 5 (minutes) **Note:** This timeout temporarily deactivates

the PaperCut MF timeout (**ext-device.inactivity-timeout-secs**) and the device timeout. For more information, see 4.8 Timeouts.

ext-device.fujifilm.timeout.scan-interrupted.secs	**PaperCut MF interrupted scan timeout:** Specify the interval of time (seconds) after which a user with an interrupted scan on the PaperCut MF Scanning (with a processing spinning wheel) screen, who is detected as being idle, is automatically logged out and the scan job is cancelled. This is a device-specific config key. • Values: 0-900 (seconds) • Default: 30 (seconds) **Note:** This timeout temporarily deactivates the PaperCut MF timeout (**ext-device.inactivity-timeout-secs**) and the device timeout. For more information, see 4.8 Timeouts.
ext-device.fujifilm.timeout.scan-prompt-send.secs	**PaperCut MF Scan More or Finish timeout:** Specify the interval of time (seconds) after which a user who is detected as being idle on the PaperCut MF Scan More or Finish (with the two buttons – **Scan new document, Finish**) screen is automatically taken to the PaperCut MF Scan Complete (with scan completed or failed status). The process of sending the completed scan job to the user (scan transfer) is also automatically initiated, and the user is logged out. This is a device-specific config key. • 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. For more information, see 4.8 Timeouts.

ext-device.fujifilm.timeout.complete-scan-job.secs	**PaperCut MF Scan Complete timeout:** Specify the interval of time (seconds) after which a user who is detected as being idle on the PaperCut MF Scan Complete screen (with scan completed or failed status), is automatically logged out. This is a device-specific config key. • 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. For more information, see 4.8 Timeouts.

5 Known Limitations

5.1 Swipe card authentication is unavailable after power supply interruption

If the **Swipe card** authentication option is selected (see 4.3 User authentication options), and power supply to the USB ports is interrupted while the device is in sleep mode, then when the device wakes up from sleep mode, the card reader may continue to be unavailable for a short period of time until the device has completely woken up. As a result, user authentication using swipe cards during this time is unavailable.

5.2 Limitations of the configured Reference Page Cost and maximum number of Reference Pages Allowed

The Reference Page Cost that is used to calculate the maximum number of Reference Pages Allowed for scan, copy, fax, or on-device print jobs, has the following limitations.

5.2.1 Limitation 1: Reference Page Cost is unavailable for Integrated Scan jobs

The Reference Page Cost that is used to calculate the maximum number of Reference Pages Allowed for device jobs is only available for copy, scan, fax, and on-device print jobs. It is unavailable for scan jobs using PaperCut MF's Integrated Scanning. As a result, when scanning using PaperCut MF's Integrated Scanning, a restricted user's account balance can drop below zero.

5.2.2 Limitation 2: Reference Page Cost is lower than the actual per page cost

If the Reference Page Cost is lower than the actual per page cost of the restricted user's scan, copy, fax, or on-device print jobs, then the restricted user's account balance could drop below zero. This

is because the cost of the equivalent number of pages of the actual job would be much higher than the cost of the same number of Reference Pages Allowed.

Example – Reference Page Cost is lower than actual job cost

The following is an example of what could happen if the Reference Page Cost is based on an A4 paper size (which costs less than Letter), but the actual job is a Letter paper size. The job is allowed, and the restricted user's account balance drops below zero.

- **Account's opening balance** = *$4.50*
- **Attributes and costs of references:**
  - Configured attribute of one Reference Page = A4
  - Calculated cost of one Reference Page = $1.00
  - Maximum number of Reference Pages Allowed = 4
  - Total cost of maximum number of Reference Pages Allowed = $4
  - **Account's closing balance using References** = *$0.50 (actual job is allowed)*
- **Attributes and costs of actuals:**
  - Attribute of actual page = Letter
  - Cost of actual page = $1.50
  - Number of actual pages = 4
  - Total cost of actual pages = $6
  - **Account's closing balance using actuals** = *$-1.50 (account balance is negative)*

5.2.3 Limitation 3: Reference Page Cost is higher than the actual per page cost

If the Reference Page Cost is higher than the actual per page cost of the restricted user's scan, copy, fax, or on-device print jobs, then even if the restricted user's account balance has enough funds to cover the actual cost of the job, the following could occur:

- the user could be incorrectly prevented from starting a scan, copy, fax, or on-device print job,
- the user could be prematurely stopped in the middle of a scan, copy, fax, or on-device print job.

This is because the cost of the number of Reference Pages Allowed would be higher than the cost of the equivalent number of pages of the actual job.

Example – Reference Page Cost is higher than actual job cost

The following is an example of what could happen if the Reference Page Cost is based on a Letter paper size (which costs more than A4), but the actual job is an A4 paper size. The job is not allowed although the account balance has enough funds to cover the job without dropping below zero.

- **Account's opening balance** = *$1.50*
- **Attributes and costs of references:**
  - Configured attribute of one Reference Page = Letter
  - Calculated cost of one Reference Page = $2.00
  - Maximum number of Reference Pages Allowed = 0 *(actual job is not allowed)*
- **Attributes and costs of actuals:**
  - Attribute of actual page = A4
  - Cost of actual page = $0.50

- o   Number of actual pages = 2
- o   Total cost of actual pages = $1.00
- o   **Account's closing balance using actuals** = *$0.50 (account balance would not have been negative, if the actual job was allowed)*

5.3   Attempting a new Integrated Scan job after an interrupted scan job causes an error

If when using Integrated Scanning to perform a scan job, it is interrupted, and the user voluntarily logs out of the device, then if the same user or a different user logs back in to the device and attempts another scan job, the user could get the following error on the PaperCut MF Scan screens with **Start** button (Scan Details, Scan Settings):

Unable to start scan. The device is busy processing a previous job.	×

The server log file in `[PaperCut MF Install Location]\server\logs\server.log` has the following entry:

```
WARN ScanLifecycleController:218 - Aborting due to a client-side
scanner error for job null on device 158158:Previous scan job still
active. Clear incomplete active jobs from device job list [https-104]
```

This error implies that the automatic removal of the previous interrupted scan job from the queue has not been completed. When this automatic clean-up task is completed, the error is resolved, and the device can be used again for scan jobs.

5.4   Duplex Integrated Scan jobs using the glass is unavailable

If using Integrated Scanning to perform a duplex scan job, the pages to be scanned must be placed on the document feeder.

Placing the pages to be scanned on the glass, instead of on the document feeder, produces the following message:

Please place the document in the document feeder before continuing.	×

This occurs because the document feeder is detected as being empty (pages that are to be scanned cannot be detected). As a result, the user is unable to start the scan job, until the pages to be scanned are placed on the document feeder.

6   FAQ & Troubleshooting

6.1   IP addresses of the PaperCut MF Application Server

To get the IP addresses of the PaperCut MF Application Server, run any one of the following applicable commands from the command line prompt:

- For Windows: `ipconfig`
- For Linux, Mac OS: `ifconfig`

6.2   Device Status "Started (with errors) – Unknown error"

After attempting to install PaperCut MF on the device, if the **Device Status** displays **Started (with errors) – Unknown error**, it implies that PaperCut MF installation is unsuccessful because of the configuration of the device's signature verification settings.

6.3   Device Status "Operation not supported"

After attempting to install PaperCut MF on the device, if the **Device Status** displays **Operation not supported**, it implies that PaperCut MF installation is unsuccessful because of the configuration of the device's custom services settings. For more information, see 2.3.5 Enable Plugins.

6.4   Device Status "Started (with errors)... System is Locked"

After attempting to install PaperCut MF on the device, if the **Device Status** displays **Started (with errors)... System is Locked**, it implies that PaperCut MF installation is unsuccessful because of the configuration of the device's embedded plug-ins settings.

6.5   Device Status "Device is currently in use, unable to initiate exclusive lock on the device"

After attempting to install PaperCut MF on the device, if the **Device Status** displays **Device is currently in use, unable to initiate exclusive lock on the device**, it implies that PaperCut MF installation is unsuccessful because the device could not be temporarily locked. This occurs because of any one of the following reasons:

- either, the device is being used by a user to process a job,

- or, although the device is not being used to process a job it "appears" to be in use, because of the configuration of the device's Smart WelcomEyes settings, which is detecting motion.

A similar issue can occur when changing admin settings via the device's web interface
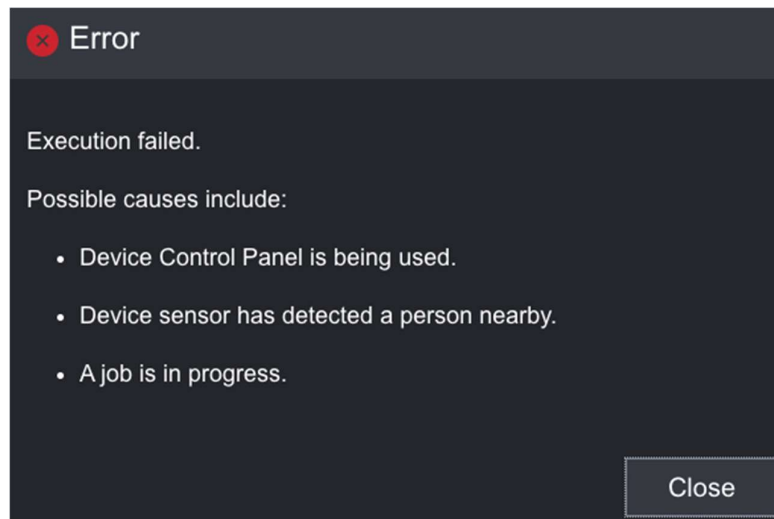
To resolve this:

1. Ensure the device is not being used by a user to process a job.

2. Temporarily disable the device's Smart WelcomEyes feature during PaperCut MF installation:
   a. Log in to the device's web interface as an administrator.
   b. Navigate to **System > Power Saver**
   c. In **Smart WelcomEyes**, ensure **Enable** is not selected:

Power Saver	
Power Saver Timers	
Time to Low Power Mode	1–120 Minutes 1
Time to Sleep Mode	1–120 Minutes 1
Sleep Mode Settings	Prioritize Power Saver
Enter Power Saver After Printing Ends	Immediately After Auto Printing Ends
Power Saver Deactivation	
Power Saver Deactivation	Deactivate Partially as Required
Smart WelcomEyes	
Enable	
Scheduled Power Off	
Auto Power Off	Off
	Cancel Save

   d. Click **Save**

If this does not rectify the issue, then put the device to sleep before attempting to install PaperCut or make Admin changes, as this can resolve this issue.

6.6   "Invalid embedded web browser setup" error

After attempting to install PaperCut MF on the device, if the device displays the following message, it implies that PaperCut MF installation is unsuccessful because of the configuration of the device's web browser settings:
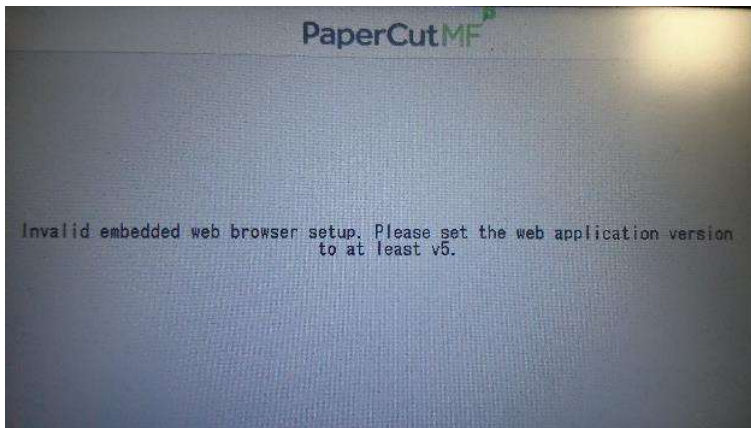
For more information, see 2.3.6 Configure the device's web browser settings.

6.7   Device Status "Connecting to server…"

If the **Device Status** displays **Connecting to server…**, it implies that the device is unable to establish connection with the PaperCut MF Application Server. This occurs because of any one of the following reasons:

- There is a network outage that is preventing network connection
- The PaperCut MF Application Server is not running
- The PaperCut MF Application Server's firewall or network routing configuration is preventing network connection
- There are errors in the **Create Device** fields (**Type, Device name, Hostname / IP, Device's administrator** credentials)

To resolve this:

1. Ensure the following:
   - there is no network outage
   - the PaperCut MF Application Server is running
   - the PaperCut MF Application Server's firewall or network routing configuration is not preventing network connection
2. Log in to the PaperCut MF Admin web interface.
3. Navigate to **Devices**.
4. Verify that the information in all the fields is accurate.
5. Click **Apply**.

6.8   Clicking the PaperCut MF icon does not display the PaperCut MF screen

After PaperCut MF is successfully installed on the device, if clicking the PaperCut MF icon on the device does not display the required PaperCut MF screen, it is because of the configuration of the duration of PaperCut MF's user authentication process. For more information, see 4.3.1 Duration of PaperCut MF's user authentication process.

6.9   Job Log Status "Aborted(016-757)"

After PaperCut MF is successfully installed on the device, if the device's **Job Logs** page on the PaperCut MF Admin web interface, displays a log with the **Status "Aborted(016-757)"**, it implies that:

- Either, released print jobs are not printed
- Or, released print jobs that are printed are being incorrectly tracked and charged twice (duplicate tracking and charging).

This is because of the configuration of the device's printer driver's accounting system settings. For more information, see 2.3.9 Configure the device's printer driver's accounting system settings.

6.10   Device job tracking and charging is incorrect

If device jobs are incorrectly tracked and charged, it is because of the configuration of the device's accounting and billing settings. For more information, see 2.3.8 Configure the device's accounting and billing settings.

6.11   Unplugging card readers from USB ports

If the **Swipe card** authentication option is selected (see 4.3 User authentication options), then before attempting to unplug card readers from USB ports, ensure to first disable the device's **Smart Card**:

1. Log in to the device's web interface as an administrator.
2. Navigate to **Permissions > Authentication and Accounting > Advanced Settings**
3. Set **Use of IC Card**, to **Off**
4. Click **Save**.
5. Click **Reboot Machine**.

7   Uninstall *PaperCut MF – FujiFilm Business*

7.1   Disable *PaperCut MF - FujiFilm Business*

Disabling *PaperCut MF - FujiFilm Business*:
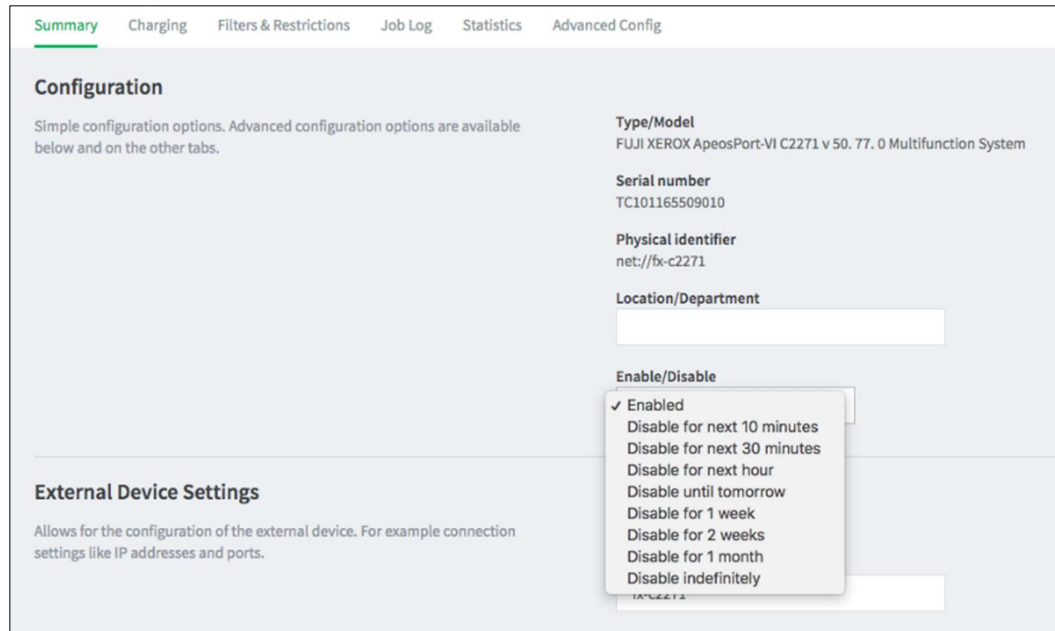
- retains *PaperCut MF - FujiFilm Business* on the PaperCut MF Admin web interface and on the device,
- deactivates user authentication on the device,
- retains the overriding the **Authentication Access** (**Locked** or **Unlocked**) that is configured for **Installed Services** (see 2.3.7 Configure the device's user access permission settings)

To disable *PaperCut MF - FujiFilm Business*:

1. Log in to the PaperCut MF Admin web interface.
2. Navigate to **Devices**.
3. Select the device.

4. Click **Advanced Config**.

5. Ensure the config key **ext-device.fujifilm.integration.enabled** is set to **Y**.

6. Click **Summary**.

7. In the **Configuration** area's **Enable/Disable**, select a **Disable** option:

8. Verify that *PaperCut MF - FujiFilm Business* is disabled:

9. On the device, verify that the following error message is displayed:
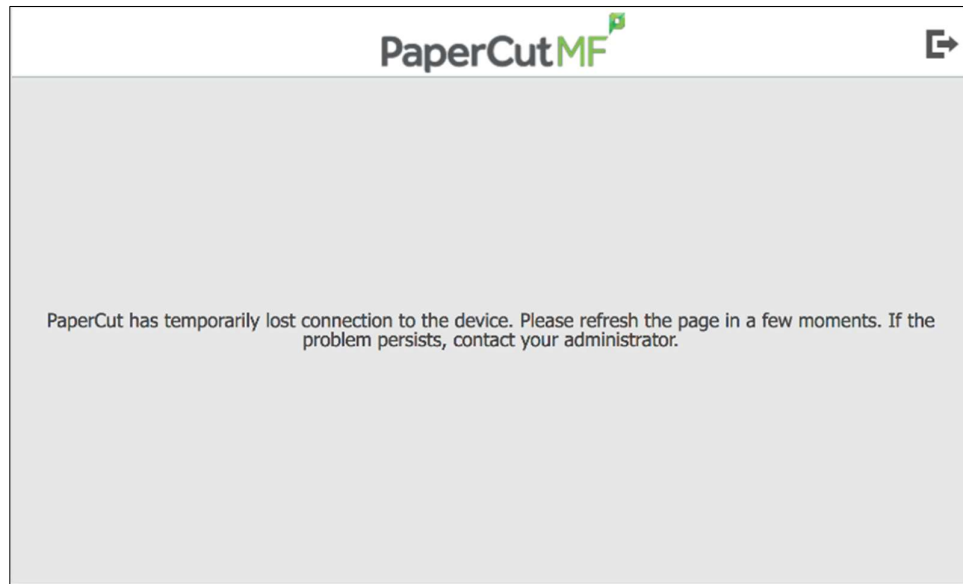
7.2   Remove *PaperCut MF - FujiFilm Business*

Removing *PaperCut MF - FujiFilm Business*:

- removes *PaperCut MF - FujiFilm Business* from the device, but continues to retain it on the PaperCut MF Admin web interface,
- deactivates user authentication on the device,
- overrides the **Authentication Access** (**Locked** or **Unlocked**) that is configured for **Installed Services,** allowing all users to access all device jobs (see 2.3.7 Configure the device's user access permission settings).

To remove *PaperCut MF - FujiFilm Business*:

1. Log in to the PaperCut MF Admin web interface.
2. Navigate to **Devices**.
3. Select the device.
4. Click **Advanced Config**.
5. Set the config key **ext-device.fujifilm.integration.enabled** to **N**. For more information, see 4.11 Config Editor.
6. Use the config key **ext-device.fujifilm.force-uninstall-plugins** to specify whether:
    - *BOTH* the PaperCut MF embedded plug-in *AND* the custom service is permanently uninstalled from the device, or
    - *ONLY* the PaperCut MF custom service is permanently uninstalled from the device.
    For more information, see 4.11 Config Editor.
7. Click **Update all**.
8. Verify that *PaperCut MF - FujiFilm Business* is not available on the device to users
9. If the config key **ext-device.fujifilm.force-uninstall-plugins** was set to **Y**, then:
    a. Log in to the device's web interface as an administrator.
    b. Navigate to **System > Plug-in Settings**
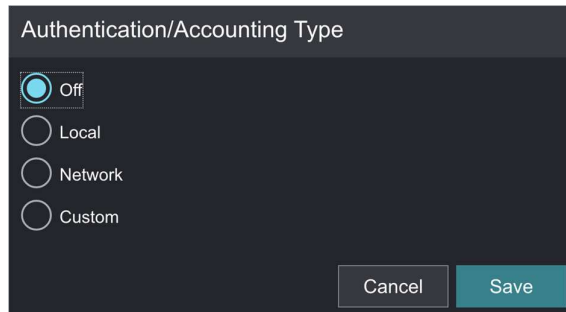
c. Verify that the **PaperCut Authentication Plugin** is no longer listed (*PaperCut MF - FujiFilm Business* is removed)

7.3 Delete *PaperCut MF - FujiFilm Business*

Deleting *PaperCut MF - FujiFilm Business* triggers the following actions:

- removes *PaperCut MF - FujiFilm Business* from the device and from the PaperCut MF Admin web interface,
- deactivates user authentication on the device,
- overrides the **Authentication Access** (**Locked** or **Unlocked**) that is configured for **Installed Services,** allowing all users to access all device jobs (see 2.3.7 Configure the device's user access permission settings).

To delete *PaperCut MF - FujiFilm Business*:

1. Remove login type:
    a. Log in to the device's web interface as an administrator.
    b. Navigate to **Permissions > Authentication and Accounting > Authentication/Accounting Type**

    c. Set to **Off**

    d. Click **Save**
2. Log in to the PaperCut MF Admin web interface.
3. Navigate to **Devices**.
4. Select the device.
5. Click **Advanced Config**.
6. Use the config key **ext-device.fujifilm.force-uninstall-plugins** to specify whether:
    - *BOTH* the PaperCut MF embedded plug-in *AND* the custom service is permanently uninstalled from the device, or
    - *ONLY* the PaperCut MF custom service is permanently uninstalled from the device.

    For more information, see 4.11 Config Editor
7. Click **Update all**.

8. Click **Actions > Delete this device:**

9. Click **Ok:**

10. Click **Devices** and verify that the device is no longer listed (*PaperCut MF - FujiFilm Business* is deleted).

11. Verify that *PaperCut MF - FujiFilm Business* is not available on the device to users on the device homescreen

12. If the config key **ext-device.fujifilm.force-uninstall-plugins** was set to **Y**, then:
    a. Log in to the device's web interface as an administrator.
    b. Navigate to **System > Plug-in Settings > List of Embedded Plug-ins**
    c. Verify that the **PaperCut Authentication Plugin** is no longer listed (*PaperCut MF - FujiFilm Business* is deleted)
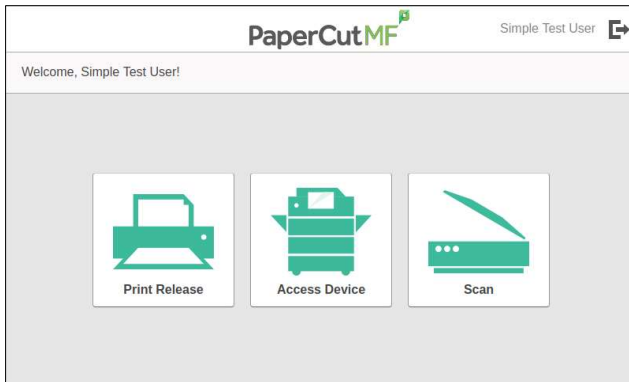
8 Appendix A: Device screens

User authentication:

Home:

Secure Print Release:

Charging of jobs:

PaperCut MF Integrated Scanning: