

KYOCERA Net Manager Desktop Client macOS™

2024.12

KNMDCMKDEN100



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1 About

1.1 KYOCERA Net Manager Desktop Client for macOS 10.2 RC1

KNM Desktop Client for macOS is a software client of the **KNM** server.

Once installed on the **KNM** users macOS workstations, it provides additional **KNM** features to the users, such as user identification, support of credit, quota, projects, secure printing, easier management of print jobs, alternative printing methods, and monitoring of local printing devices

2 (10.2) Release Notes

2.1 KYOCERA Net Manager Desktop Client for macOS 10.2

2.2 MyQ Desktop Client for macOS 10.2 RTM

27 November, 2024

Improvements

- Desktop Client deployment via Intune.

Bug Fixes

- LPM reports that jobs are cancelled when server is offline.
 - Custom application logo needs Print Server service restart to reflect on the Desktop Client.
 - Fixed glitch in the system tray icon when multiple displays are connected.
-

2.3 KYOCERA Net Manager Desktop Client for macOS 10.2 RC1

01 November, 2024

Improvements

- **NEW FEATURE** Printer provisioning can automatically install print drivers and configure printers for printing to **KNM**. Users will be provisioned with the correct drivers and queues they have access to. Administrators can use the Desktop Client to capture print drivers and printing defaults to utilize them for Printer provisioning.
- UDP communication was replaced with WebSockets and HTTP, improving the communication capabilities of the client
- Updated **KNM** Desktop Client service to use API v3
- The new authentication page supports login with **KNM** credentials (username + PIN, username + password) as well as Sign in with Microsoft (if enabled on the server).
- All jobs sent by the Desktop Client to the **KNM** server are authenticated from the start, this improves security and also enables roaming users to finish their pending jobs (e.g. assign account or project) from any computer they sign in.
- Mako updated to version 7.3.1
- Information about the **KNM** server can be embedded in the Desktop Client's installer filename; this improves managed deployments such as with MDM tools and allows administrators to send users links to download the client which will automatically connect to the corresponding server once installed.
- After upgrading to macOS Sonoma, the client can automatically read the local CUPS configuration and make necessary adjustments to function properly.
- Open SSL updated to 3.3.0.
- Added support for IPv6 environments.
- **KNM** Desktop Client user interface has been largely redesigned and modernized.
- Allow users to generate a new PIN via the client when this option is enabled on the server.
- Local printers that have target address 127.0.0.1/localhost will be ignored in Local Print Monitoring to avoid double accounting when all ports are set to be monitored.

Changes

- **KNM** Desktop Client now registers only one REST API application on the server (instead of separate applications for Agent and Service)
- List of users removed as an authentication method
- The unsecure connection option was removed, Desktop Client can operate in two modes – "Strict" for secure-only connection and "Normal" which warns the user when the **KNM** server certificate is not trusted. Make sure to deploy the correct CA certificates on clients running the Desktop Client.
- Client Spooling can now operate without IPPS enabled on the server side.

Bugs

- LPM is not working if the language is not set to English.
- Parsing of some PDF files fails because of an unknown font.
- Resolved an issue in the LPM job parser on MacOS where Black & White (B&W) settings from the print dialog were not correctly reflected.
- The Desktop Client might not recover properly if the signed-in user was anonymized or deleted.
- When the client's login method is changed from Integrated Windows Authentication to using **KNM** credentials, the user is not logged out to use the new login method.
- The "Capture driver" option might not be translated to the language the client is switched to according to the system it runs on.
- LPM allows printing in Color even if the Policy is set to Force Mono.

3 (10.2) System Requirements

Upgrading from previous versions of **KNM** Smart Job Manager or **KNM** Desktop Client is possible, and all the features are still supported.

The maximum recommended number of concurrent **KNM** Desktop Clients connected to one **KNM** server is estimated to *10,000*.

The logs can either be accessed via the action menu or can be found in the following directory: */Library/Application Support/KNM/Desktop Client/logs*

3.1 Requirements on the client's workstation

- **KNM requirements:**
 - **KNM** Print Server 10.2 (Patch 3+).
 - **KNM** Central Server 10.2.
- **OS requirements:** Apple macOS 13 (Ventura) and higher.
- **Memory:** 2GB minimal requirement, client consumes 256 MB depending on the print job load.
- **Hard disk:** 250 MB for installation, with additional requirements in cases where jobs are spooled.

3.2 Certificate Management

Before the installation of **KNM** Desktop Client, it is recommended to install a trusted certificate on the client's MAC to establish a secure connection to the **KNM** Print Server.

You can achieve that by generating a CA certificate on the **KNM** Print Server.

Log in to the **KNM** web administrator interface and go to **Kyocera > Settings > Network**.

In the **General** section, in the **This server hostname** field add the hostname of the computer running **KNM** and click **Save** (this is usually generated by default when installing **KNM** Print Server).

In the **Certificates** section, do the following:

Certificates

KYOCERA Net Manager secures communication with certificates which is an industry standard. Choose how certificates are managed.

Certificate authority mode: • ☒ **Built-in Certificate Authority**
 Server and clients are secured by certificates generated by the built-in certificate authority (CA). The CA certificate is self-signed. Export the CA certificate and install it to clients so they trust KYOCERA Net Manager Server. If the CA certificate is compromised, generate a new one. Server certificate will be regenerated automatically.

☐ **Company Certificate Authority**
 Your company CA generates an intermediate CA certificate which KYOCERA Net Manager uses to sign certificates for the server and clients. To generate an intermediate CA certificate create Certificate Signing Request (CSR), sign it by your CA and finish CSR by importing signed certificate. Server certificate will be regenerated automatically.

☐ **Manual Certificate Management**
 Provide a certificate for the KYOCERA Net Manager Server. KYOCERA Net Manager creates no certificates, all certificates are managed by you.

Server alternative names:

Comma separated list of DNS names and/or IP addresses. To set new Subject Alternative Name (SAN) for KYOCERA Net Manager Server generate new Server certificate. Server hostname is included automatically.

- In the **Server alternative names** field, add the IP address of the computer running **KNM**.
- Click **Generate new Server certificate** and then click **Save**.
- Click **Export CA certificate**.
- Install the exported certificate on the client's MAC workstation by copying the .crt file on the machine, double-clicking to install, and entering the user's password.
- Go to KeyChain Access, locate the certificate, and double-click on it. Under the Trust section, in **When using this certificate** select *Always Trust*. Close the window and enter the user's password again.

Before starting the installation, create a queue on the **KNM** web administrator interface with the **User Detection Method** set to **KNM Desktop Client**.

You can now proceed with the **KNM** installation, described in [Installation](#).

4 (10.2) Installation

KNM Desktop Client for macOS can be manually installed on a single user's workstation, or remotely installed on multiple workstations using Apple Remote Desktop.


4.1 Before the Installation

4.1.1 Parameters in the Installer Name

The **Server Address**, **Server Port**, and **Security Mode** can be set by editing the Installer file name.

The installer can be named following the structure:


(KNM-)DesktopClient ServerAddress-ServerPort(-Normal|Strict).pkg

 A space between **KNM** Desktop Client (or any other name you choose to use for the installation), and the server address is required. If a hyphen is used the entire string (for example knm-contoso.knm.com-8090) will be interpreted as a valid hostname and an error will prevent installation.

ServerAddress, ServerPort, and Normal|Strict are properties that need to be set; content shown in rounded brackets is optional. If the security mode is omitted, Strict is used as default. Examples:

- **KNM**Desktop Client 10.2 contoso.knm.com-443.pkg
 - ServerAddress: contoso.knm.com
 - ServerPort: 443
 - SecurityMode: Strict
- Desktop Client 10.2 (Patch 2) acme.com-8090-Normal.pkg
 - ServerAddress: acme.com
 - ServerPort: 8090
 - SecurityMode: Normal

4.1.2 Editing the preference.plist File

 The preference.plist should be placed next to the installer .pkg file before the installer is run; **KNM** Desktop Client will use it to configure itself on the client startup.

The **Server Address**, **Server Port**, and **Security Mode** can be set by editing the preference.plist file which is included in the installation package. The available security modes are **Strict** and **Normal**.


```

1  <?xml version="1.0" encoding="UTF-8"?>
2  <!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
3  <plist version="1.0">
4  <dict>
5      <key>ConnectionInfo</key>
6      <dict>
7          <key>ServerAddress</key>
8          <string>127.0.0.1</string>
9          <key>ServerPort</key>
10         <integer>443</integer>
11     </dict>
12     <key>Security</key>
13     <dict>
14         <key>SecurityMode</key>
15         <string>Strict</string>
16     </dict>
17     <key>Version</key>
18     <string>1020</string>
19 </dict>
20 </plist>

```

Edited preference.plist file

4.2 Desktop Client Configuration

4.2.1 Creating and Editing Configuration Profiles

Administrators now have the option to save multiple different configurations for **KNM** Desktop Client in **KNM**, so that they can deploy different configurations based on locations; for example, define different fallback printers in each of their offices or enable client spooling only for selected workstations.

i It is possible to configure profiles before deploying **KNM** Desktop Client 10.2+. Once **KNM** Desktop Client connects to the server, it starts automatically using settings from applicable profiles if this feature is enabled.

On the **KNM** Desktop Client Settings tab (**Kyocera > Settings > Kyocera Net Manager Desktop Client**), you can configure the Desktop Client settings and deployment.

You can create multiple configuration profiles, assign them to specific locations, and configure the Desktop Client's features for that particular location.

Clients that are not matched in any of the profiles will use settings from the Default profile. If the client matches multiple profiles, the highest-matched profile in this list will be used.



To create a new configuration profile for the Desktop Client:

Desktop Client Configuration: <no name>

General Printing

Name:

Clients

Assign clients to this configuration profile. Define them by IP address ranges or hostnames. Hostnames support regular expressions.

Method: ☒ IP range From To

☐ Hostnames

Exclude:

Authentication

Client mode:

Use Public computer for public spaces such as libraries, and school printing rooms. One-off authentication and print via KYOCERA Net Manager Desktop Client are expected in these environments.

Login methods: ☒ Sign in with KYOCERA Net Manager ☐ ID Card ☐ Integrated Windows Authentication

Select how the user can sign in to the Desktop Client.

Printer Provisioning ☒

When disabled, printers and drivers on clients using this profile will not be updated. Already provisioned printers are preserved.

Desktop Client Configuration: Test

General Printing

Job Processing

Processing method: ☒ Secure print job forwarding

All print jobs received by the Desktop Client are automatically forwarded to the KYOCERA Net Manager Print Server over a secure port. Desktop client is only used for authentication and accounting.

☐ Client Spooling

The Desktop Client stores the job data on the computer and releases it directly to a printer upon server's command. This lowers network usage to the server.

Append domain name: ☒

TO USERNAME: The username will be set as username@domain on the job.

Fallback Printing ☐

With Fallback Printing, users are given an alternative method of printing during server downtime. Configure how the fallback printer is selected, printing method, and release conditions.

Printers or group:

Release conditions:

Device port

Protocol:

Port:

Queue:

Local Print Monitoring ☐

Allow accounting of jobs released on local printers not managed by KYOCERA Net Manager.

Monitored ports:

Comma-separated list of ports (e.g., USB, LPT). If empty, all ports are monitored.

Release conditions:

1. On the **KNM Desktop Client Settings** tab, click **Add** in the top-right corner.
2. On the **General** tab enter a **Name** for your configuration profile.
3. In the **Clients** section specify which clients this configuration profile should apply to, either using an **IP range** or **Hostnames regex**. You can also add exclusions.
4. In the **Authentication** section select a **Client mode**. In **Private mode**, the **KNM Desktop Client** offers a more lenient authentication and session management approach, acknowledging the trust level of a personal or assigned device. **Public mode** is designed with communal device security in mind, ensuring that print jobs and user sessions are managed to prevent unauthorized access. Read more about Private and Public mode <https://myq-online-help.atlassian.net/wiki/spaces/DC/pages/1673593439>.

5. In the **Authentication** choose the appropriate **Login methods**, from **Sign in with KYOCERA Net Manager, ID Card** (requires a card reader on the user's device), and **Integrated Windows Authentication** ([read more about Integrated Windows Authentication here](https://myq-online-help.atlassian.net/wiki/spaces/DC/pages/1673593407)).
6. In **Printer Provisioning** choose to enable or disable Printer Provisioning. When disabled, printers and drivers on clients using this profile will not be updated, which can be helpful to prevent unwanted changes, while preserving past ones.
7. On the **Printing** tab in the **Job Processing** section select a **Processing method** from:
 - a. **Secure print job forwarding**: All print jobs received by the Desktop Client are automatically forwarded to the **KNM** Print Server over a secure port. Desktop client is only used for authentication and accounting.
 - b. **Client spooling**: The Desktop Client stores the job data on the computer and releases it directly to a printer upon server's command. This lowers network usage to the server.
8. Choose if you want to **Append domain name to username**, if enabled the username will be set as username@domain on the job.
9. Enable or disable <https://myq-online-help.atlassian.net/wiki/spaces/DC/pages/1673593407>, which allows users to be given an alternative method of printing during server downtime. Configure how the fallback printer is selected, the printing method, and release conditions.
10. Enable or disable **Local Print Monitoring**, which allows the accounting of jobs released on local printers not managed by **KNM**.
 - a. **Local Print Monitoring**: If enabled, jobs on printers not managed by **KNM** server will be accounted.
 - b. **Monitored ports**: Enter the names of the ports that you want to monitor, separated by comma (.). You can use '*' to monitor all name-related ports (i.e.: *USB** for ports *USB1*, *USB2*, etc.). Leave the field empty to monitor all ports.
 - c. **Release conditions**: Select one of the available options - **Always release the job, Only if the user has enough credit/quota, Only if print server is online**.
11. Click **Save**, your configuration profile is created and automatically applied to the **KNM** Desktop Clients of the specified clients.

4.3 Connecting to a Central Server

It is also possible to connect **KNM** Desktop Client to a site via a Central Server.

1. Edit the installer name or config file as described above to correspond to the Server Address and Server Port of the Central Server.
2. Navigate to **Sites**, **Edit** the relevant site, and enter the **IP range** of the devices to be connected to this location with **KNM** Desktop Client (it is also possible to create exclusions).
3. **KNM** Desktop Client will now connect to the specified Site server.

4.4 Manual installation

This option allows users to manually install **KNM** Desktop Client, preferences are handled by the configuration profile described above.

1. Download the latest available version of the installation (.pkg) file from the Community portal.
2. Double-click on the installation file. The installation wizard opens; click **Continue**.
3. The Software License Agreement window opens; click **Continue**.
4. In the next prompt, select **Agree** to agree to the terms of the software license agreement.
5. The Destination Select window opens and you can select where you would like to install **KNM** Desktop Client, and click **Continue**.

6. The Installation Type window opens, where you can select the installation destination. Click **Change Install Location** to browse for a new destination or click **Install** to start the installation to the predefined destination.
7. You are redirected to the Installation Type window, where you can click **Install** to start the installation.
8. On the Authentication prompt window, enter your MacOS user's **Password** and click **Install Software**.
9. The Installation window opens where you can see the installation's progress.
10. The Summary window opens. It should indicate that the installation was successful. Click **Close**.
11. The **KNM** Desktop Client app is now installed and open. Check [Preferences](#) for the steps to configure it.

If the security mode is set to **Normal**, not **Strict**, a warning is displayed after installation.

4.5 Remote installation with Apple Remote Desktop

It is highly recommended to go through the manual installation in one workstation before deploying the app to multiple workstations. This way, the administrator can make sure that the installation and configuration is successful. Another advantage is that the administrator can copy the settings file of this manual installation and deploy it to the other workstations before remotely installing **KNM** Desktop Client. The settings then are applied to all the workstations, without the need to set them up individually after the installation.

The following options must be enabled in the Mac workstations to allow remote installation from the [Apple Remote Desktop](#) tool:

1. In OS X, open **System Preferences** and click **Sharing**.
2. In the Service list, select **Remote Management** and then click **Options**.
3. Select the following options: **Observe, Control, Open and quit applications, Change settings, Delete and replace items, Restart and shut down, Copy items**.
4. Click **OK**.

4.5.1 Deploying the settings file

If you have manually installed and setup **KNM** Desktop Client, you can copy the settings file (available in `/Users/<MacOSUserName>/Library/Preferences/cz.knm.knm.plist`) to the **System Preferences Folder**, and those settings will be applied to **all the users in the Mac workstations**.

1. On the administrator Mac, open Finder and click **Applications > Remote Desktop** to display the main window of Apple Remote Desktop (ARD).
2. Click **All Computers** in the left section of the ARD main window. The Mac workstations connected to your network are displayed in the right pane of the window.
3. Select the desired destination Macs and click **Copy** in the ARD toolbar (or select **Manage > Copy Items** menu). The **Copy Items** window opens.
4. Click **Copy** to copy the items to selected Macs. The progress is displayed in the main window. The result of the copy to each Mac is displayed in the **Status** column.
5. The settings file is copied in: `/Library/Preferences`.

If the settings file is not copied, after the package installation finishes the user can configure **KNM** Desktop Client from the app's **Preferences** option (see [Preferences](#)). The settings file will be created under the user's home folder: `~/Library/Preferences`.

4.5.2 Deploying the Package

To deploy the package to multiple Mac workstations:

1. On the administrator Mac, open Finder and click **Applications > Remote Desktop** to display the main window of Apple Remote Desktop (ARD).
2. Click **All Computers** in the left section of the ARD main window. The Mac workstations connected to your network are displayed in the right pane of the window.
3. Select the desired destination Macs and click **Install** in the ARD toolbar (or select **Manage > Install Packages** menu). The **Install Packages** window opens.
4. Add the *KNM Desktop Client.pkg* file (available for download in the Community portal) to the **Packages** list either by drag-and-drop or by locating the package using the plus (+) button.
5. Click **Install** to distribute the package to the selected Macs. The installation progress is displayed in the main window. The result of the package distribution to each Mac is displayed in the **Status** column.

4.6 Installation by Admin for Normal User on the same Device

After installation of the **KNM Desktop Client**, set up the connection to the **KNM** server and save it with the admin user. Then navigate to `\Library\Preferences` and find `cz.knm.knm.plist`.

Modify the permissions on the file - either add the other, non-admin MAC user(s) with Read & Write permissions or change rights of **everyone** from **No access** to **Read & Write**. After this, when logging in as the non-admin user, they will be connected to the **KNM** server and after authentication, they can use **KNM Desktop Client**.

5 (10.2) KYOCERA Net Manager Desktop Client Features

KNM Desktop Client offers the following features:

- **User Identification** - users are identified via multiple authentication methods.
- **User Account Information** - once authenticated, users can view their account information, along with their credit and quota status.
- **Job Management** - print jobs management related to payment accounts (credit, quota, cost center selection), project management, and user interaction via custom scripts.
- **Client Printing Options** - Client Spooling and Secure print forwarding.
- **Printer Provisioning** - allows users to get easy access to the right printers that are supposed to be available to them, and the administrator to deploy **KNM** queues more efficiently, requiring as little manual configuration as possible.
- **Print Driver Capture** - allows administrators to take a snapshot of the settings for a print driver and upload the driver to a centralized driver repository on the **KNM** Print Server for easy deployment with Printer Provisioning.

5.1 (10.2) User Identification

One of the essential functions of the **KNM** Desktop Client application is identifying the **KNM** user on the computer where it is installed. Thanks to this identification, **KNM** Desktop Client can mediate communication between the user and the **KNM** server; it can inform the user about the state of their account, it enables the user to manage their print jobs, and it also enables the server to determine the job sender.

Before a job can be sent to a queue, the sending user must authenticate themselves in **KNM** Desktop Client.

If the **Append domain name** option was enabled, **KNM** Desktop Client automatically adds the host computer's domain name to the username. This is often required in environments with multiple domains, where users with the same log in may exist. The username's format is *login@domainname*. For example, *john.doe@KNMUS* and *john.doe@KNMUK*.

5.1.1 Sign in with KYOCERA Net Manager/ID Card

With the **Sign in with KYOCERA Net Manager**, or **ID Card** authentication method selected, the user can open the sign-in options by clicking the **KNM** icon on the Windows system tray. The user is can then log in with their **KNM** credentials or swipe their ID card at an attached terminal.

5.1.2 Integrated Windows Authentication

With the **Integrated Windows Authentication** method selected, the user is identified as the currently opened OS account user and is automatically logged in **KNM** Desktop Client.

5.1.3 Authentication in Private vs Public Mode

Depending on the **Client mode** selected in the relevant configuration profile, users will be logged in either in <https://myq-online-help.atlassian.net/wiki/spaces/DC/pages/1673593439>.

A user logged in to the client in the **Private mode** of authentication is always remembered after login.

A client in **Public mode** is automatically logged out after printing a document or one minute of inactivity.

5.2 (10.2) User Account Information

Once the user signs in, they can click the **KNM** Desktop Client's icon on the Windows system tray to open it. In this window, they can see their username and full name. If personalization settings on the server have been edited, they may also see their company logo and a link specified by their administrator.

5.2.1 Credit and Quota Information

If credit accounting is enabled on the **KNM** server and applied to the user, they can also see the current state of their credit.

If quota is enabled on the **KNM** server and applied to the user, they can also see the current state of their quota.

5.2.2 Additional Options

The **Log out** button logs the user out of the account. If selected in the **Personalization** tab of **KNM** settings, a custom link may be shown in the **KNMDesktop Client** tab.

5.3 (10.2) Job Management

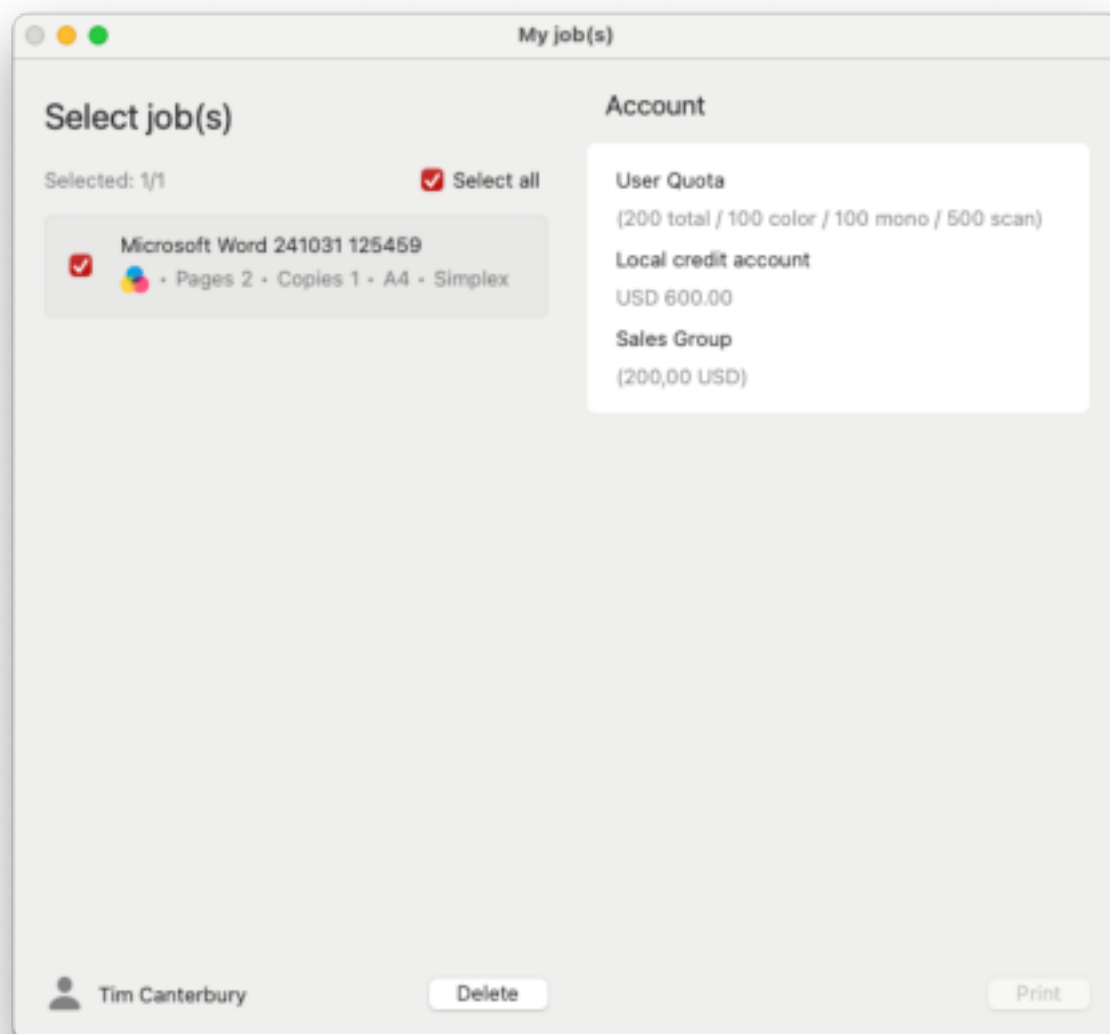
The **KNM** Desktop Client application enables the user to simply manage their print jobs on the computer from which jobs are sent. This option is available if at least one of the three following features is enabled on the **KNM** server:

- User interaction script is set on the queue where the job is sent to; described in <https://myq-online-help.atlassian.net/wiki/spaces/DC/pages/1673593317>.
- Projects are enabled and the sending user has access to more than one project; described in <https://myq-online-help.atlassian.net/wiki/spaces/DC/pages/1673593344>.

If the user has credit, quota, and projects disabled, the job management window is not displayed, and the print job is directly sent to the server.

Depending on the Accounting settings (accounting group or cost center) on the server, the user may be prompted to select an account where the job will be charged.

- **In the Accounting Group mode:**
 - Internal credit, external credit, and combined quotas (personal, shared, both) are the possible account options.
 - In case of combined quotas, only the lowest quota value is displayed.
 - If credit is used, no quota is spent (even when the quota is later edited and recalculated).
 - In case the user has personal quota "pages" and shared quota "cost" or vice versa, both pages and cost are displayed. For example: *Quota (10 total/9 color/8 mono/7 scan /3 USD)*
- **In the Cost Center mode:**
 - Internal credit, external credit, personal quota, and multiple shared quotas are the possible accounts options.
 - Only one (selected) quota is spent, so all quotas should be displayed as separate accounts.



- Cost Center selection in **KNMDesktop Client** should appear only for **Direct Print** queues. If there is only one account available for the user, it is selected and charged automatically, thus there is no **Select Account** prompt.

5.3.1 (10.2) Interactive Job Processing

With this feature, users can be informed about important print job properties and can be asked if they want to change some of them; for example, to print in duplex or in black and white.

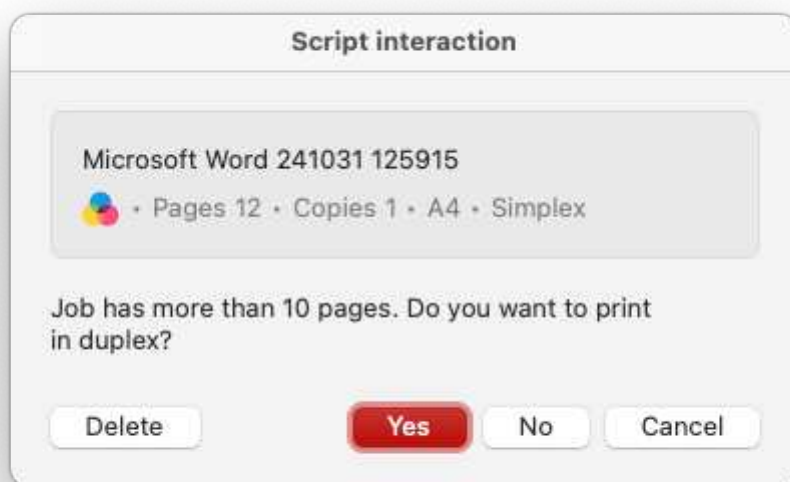
To enable this option, the **KNM** administrator has to add a PHP script to the queue where the job is sent.

There are three dialog options available for this feature:

- A dialog box with a text content and Yes/No options.
- A dialog box with a text content and Print/No options.
- A dialog box with a text content and Yes/No/Cancel options.
- A dialog box with a list of options the user can select from (selection can be limited to one option or allow checking multiple options).

Jobs sent to a queue with a user interaction script are automatically paused and the job management window with basic information about the job appears on the screen. After the user submits the job, the user interaction dialog box appears.

For example, if a user sends a job with more than 10 pages and submits the job in the job management window, they are informed that the job is large and asked if they want to print it in duplex.

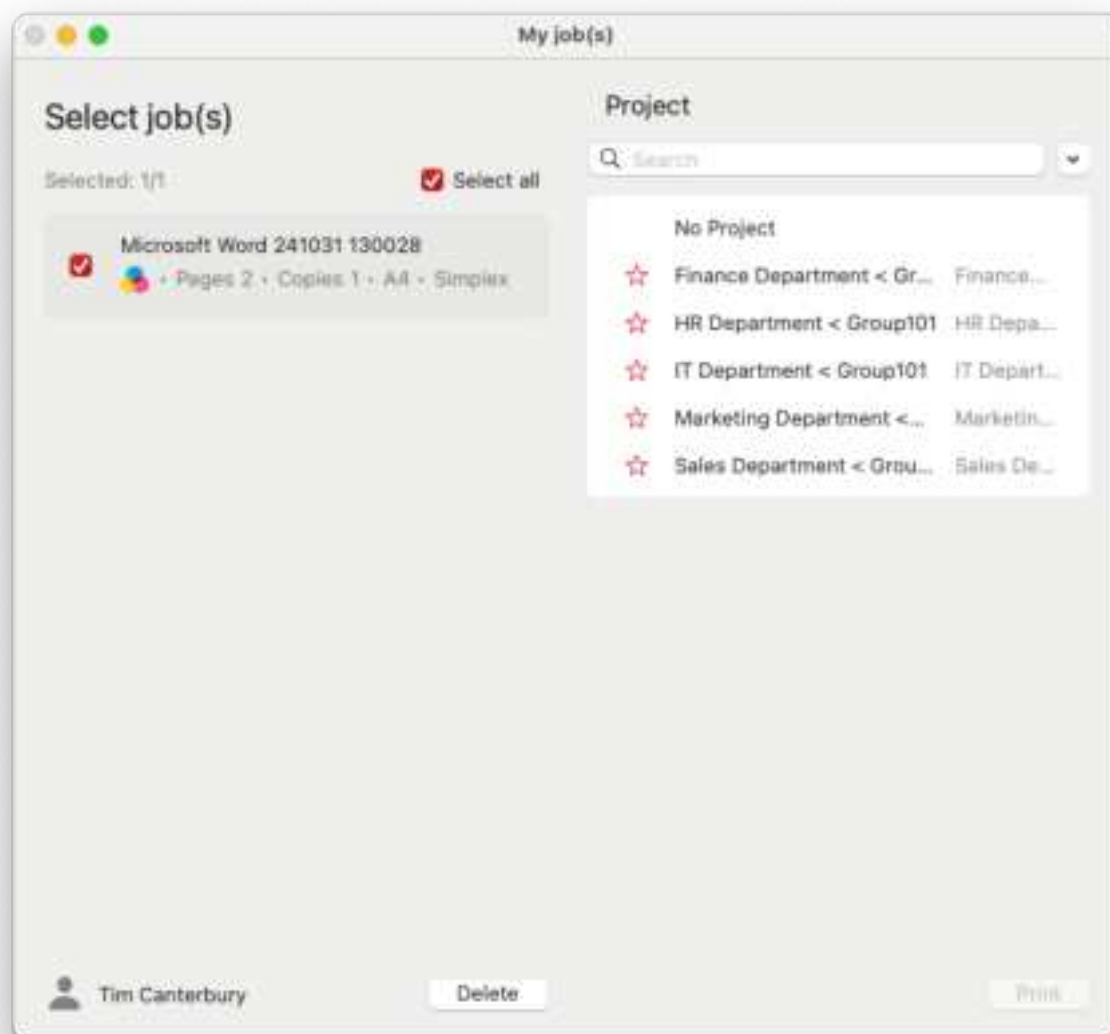


 For more information on PHP job scripting, contact your support.

5.3.2 (10.2) Project Management

When project accounting is enabled on the **KNM** server, the user who sends the print job needs to select a project (or the **No Project** option) to be allowed to print it. With **KNM** Desktop Client, they can select the project directly on their computer.

After the print job is sent to **KNM**, the application's pop-up window appears, where they can select the project to account the print job to.




On the job management window, the user needs to select a project (or the **No Project** option), and then click **Print**. After this, the project is assigned, and the job can be printed. The maximum number of items displayed at once is 15. Refreshing the list will deselect a selected item.

If only one project is available to the user, it is automatically assigned to the print job, and the job is sent to the server. The job management window is not displayed.

5.4 (10.2) Client Printing Options

KNM Desktop Client is capable of monitoring all the print jobs printed over the host computer, and even receiving the print jobs and forwarding them directly to the desired printer.

It uses the same embedded job parser as the **KNM** server, so it is able to provide the same level of accounting for locally printed jobs. It can also apply all the rules related to the print job policies, project accounting, and payment accounts.

 The job parser supports the majority of available printer drivers in PCL5, PCL6 and PostScript. For further information, check <https://myq-online-help.atlassian.net/wiki/spaces/PS/pages/1040187770>.

Print Job Security - The print job security feature allows you to set up a time (in seconds) to log the user out as soon as the client gets to the idle state. If the option to delete all the pending jobs once the client is idle is enabled, that's another step to protect your users and their print jobs.

Client Spooling - With the Client Spooling feature enabled, users' print jobs are not sent to the **KNM** server but stay stored at the users' computer. For further information, check [Client Spooling](#).

Local Print Monitoring - **KNM** Desktop Client is able to monitor the number of printed pages on devices connected locally via a parallel port or a USB port. For further information, check [Local Print Monitoring](#).

Secure Printing (LPR over TLS) - With secure printing enabled, print jobs are sent from **KNM** Desktop Client to the **KNM** server over the TLS security protocol. This allows printing over **KNM** to be end-to-end encrypted. A must in environments where confidential data are often printed.

Offline Operation (LPM and Fallback Printing) - The administrator can set up how the **KNM** Desktop Client should behave if the connection to the **KNM** server is interrupted: automatically printing all the local jobs despite restrictions, rejecting the jobs if the user had any restrictions before the server was disconnected, or strictly rejecting all the jobs.

When using Local print monitoring or Offline accounting in **KNM** Desktop Client, local printers are automatically created with @ at the beginning of their name.

In case of Local Print Monitoring, it is the name of the port being monitored by **KNM** Desktop Client. In case of offline accounting, it is the name of the PC.

The purpose of creating these local printers is that the print job can be accounted but since they were not printed on a printer that is monitored by **KNM**, a local printer is created.

For further information, check [Local Print Monitoring](#) and [Fallback Printing](#).

5.4.1 (10.2) Client Spooling

With the Client Spooling feature enabled, users' print jobs are not sent to the **KNM** server but stay stored at the users' computer. After they authenticate at a printing device and select the jobs to be printed, the jobs are released from the computer directly to the device. This method dramatically decreases traffic to the **KNM** server and is suitable especially for small offices with limited network connection to the **KNM** server.

When a user prints their job while this feature is activated, only the print metadata are sent to the server and the actual print job does not leave the computer (in fact, it is stored there as a RAW file). It waits until the user is authenticated at a printing device and selects to print the job there. Then, the printing device notifies the server, the server notifies the computer, and the computer sends the job to the printing device where it is printed. Release options set on the embedded terminal, print policies, and watermarks are supported when using this method.

There is a dependency on queue types:


- A job from a Direct queue is printed immediately.
- A job from a Pull-Print and/or Delegated queue waits until the user has selected it.

- A job from a queue marked as private is deleted immediately after printing.

You can find the jobs folder location in */Library/Application Support/KNM/Desktop Client/jobs*

Check [Job Processing Preferences](#) for information on how to enable the feature in **KNM** Desktop Client.

Be aware that when **KNM** Desktop Client receives a job, only the metadata for this job are sent to **KNM**. The data file of the job is stored in **KNM** Desktop Client on the machine.

 The protocol used for Client Spooling is decided by the Protocol setting in the corresponding KNM Queue. Supported protocols are RAW, LPR, IPP, and IPPS.

For further information, see **Client Spooling** in the <https://myq-online-help.atlassian.net/wiki/spaces/PS/pages/13828147> guide.


Limitations

- **Job processing:**
 - The queue's user detection methods currently supported are "Job sender" and "KNM Desktop Client". Detection from the job's PDL headers is not supported.
 - Job processing defined on the queue cannot be applied.
 - **Prologues/epilogues** are **not applied** to jobs. The print jobs are printed as configured in the print driver.
- If the client PC is offline, the job is not printed, but it is marked as printed on the server. User is not notified.
- Jobs cannot be marked as favorite.
- The jobs are deleted after 7 days. The Delete jobs older than option on the System maintenance settings tab should be set to 168 hours (as it is by default) in order to prevent discrepancy between the data stored in **KNM** and the data stored on the client computer.
- Client Spooling is not available on Kyocera Embedded Lite devices.

5.4.2 (10.2) Local Print Monitoring

KNM Desktop Client is able to monitor the number of printed pages on devices connected locally via a parallel port or a USB port. In such cases, the number of printed pages is extracted from the print spooler as it is being processed by the print driver. If the job is rejected due to breaking the policies or insufficient balance, the reason for rejection is reported to the server.

If Credit or Quota (cost) is used, then a Price List needs to be assigned to the 'No Terminal' configuration profile.

 CUPS web interface must be enabled and running on the Mac workstations for LPM to work.

Known limitations:

- LPM is supported on LPT, USB, TCP/IP and IPP ports. Monitoring of other ports may work, but it is not guaranteed.

- LPM does not work properly with a printer that has the **Keep printed document** option enabled in the Advanced printer properties.
- LPM does not work properly with a printer that has the **Enable advanced printing features** option enabled in the Advanced printer properties. This option is automatically switched off (if possible) for all monitored printers when LPM starts.

Check [Local Print Monitoring Preferences](#) for information on how to enable the feature in MDC.

For further information, see **Monitoring local printers** in the <https://myq-online-help.atlassian.net/wiki/spaces/PS/pages/1263174758> guide.

5.4.3 (10.2) Fallback Printing


With **KNM** Desktop Client installed and running on the end user's workstation, you can set a backup printing device to be used for printing when the connection to the **KNM** Server is lost. The Fallback printing feature serves as an important backup tool in case of a server outage. After the connection to the server is re-established, the job is automatically accounted.

Fallback printing means that when a job cannot be spooled to **KNM**, the job is spooled to a specified network printer.

Enable Fallback Printing

Fallback printing can be enabled or disabled in any given **KNM** Configuration Profile in the **KNM** Web Interface.

1. In the web interface, navigate to **Kyocera > Settings > KYOCERA Net Manager Desktop Client** and select the configuration profile for which you want to enable fallback printing.
2. Open the **Printing** tab of the configuration profile and expand and enable **Fallback Printing**.

▼ Fallback Printing 

With Fallback Printing, users are given an alternative method of printing during server downtime. Configure how the fallback printer is selected, printing method, and release conditions.

Printers or group: * All printers

Release conditions: * Always release the job

▼ Device port

Protocol: * LPR

Port: * 515

Queue: * default

3. Specify the **Printers or group** which should be used for fallback, and set the **Release conditions**, you can choose to **Always release the job** or **Only if the user has enough credit/quota**. Set up the **Device port** which should be used during fallback printing.

Printing Using Fallback

When a user attempts to print a file, but the server is offline, in cases where their configuration profile allows fallback printing, there are two possible outcomes:

- If the user has only used one printer in the past, and fallback is enabled there, the job will print automatically on that printer, and the user receives a notification.
- If the user has used multiple devices and more than one is available for fallback printing, they will be prompted to choose the fallback printer they wish to use. A search filter can be used to identify certain types of printers (for example, large format, color, or B&W).

Fallback Printing Disabled

If you want to print and the server is offline but fallback printing is disabled, the following message appears:

- Click **Try again** to check whether the server is now online.
- Click **Cancel** to delete the job.

5.5 (10.2) Public vs Private Mode

The MDC operates in two distinct modes: **Private** and **Public**. These modes are determined by the configuration profile specified by the Administrator in **KNM** Desktop Client settings in the **KNM** Web User Interface. The primary goal is to adapt the client's behavior based on its operational environment, enhancing user convenience and security. In **Public mode**, the system is geared towards environments like shared workspaces or public access computers, where multiple users might access the same device. **Private mode**, conversely, is tailored for personal or dedicated workstations.

5.5.1 Private Mode

In **Private mode**, the MDC offers a more lenient authentication and session management approach, acknowledging the trust level of a personal or assigned device.

It acknowledges the trust and security inherent in personal or assigned workstations, allowing for a more seamless and uninterrupted workflow. Users benefit from persistent authentication and the flexibility to manage print jobs over extended periods.

- **Persistent Authentication:** Users remain signed in until the expiry of their refresh token or they log themselves out.
- **Continuous Job Management:** Users can spool jobs before and after authentication, selecting the relevant account/project and confirming the print queue as needed.
- **Job Retention:** Spooled jobs are not automatically canceled on the server side as there is no user-session timeout.

5.5.2 Public Mode

Public mode is designed with communal device security in mind, ensuring that print jobs and user sessions are managed to prevent unauthorized access.

It is an essential feature for environments where users access communal devices. It ensures that print jobs are securely managed and that sessions do not remain active beyond their necessary scope, thereby mitigating the risk of job misassignment or unauthorized access.

- **Authentication on Job Spooling:** Upon spooling a job, users are prompted for authentication. This ensures that each job is associated with an authenticated session.
- **Timeout for Authentication and Job Confirmation:** If a user does not complete authentication or job confirmation (including account/project selection) within 1 minute, the pending job is canceled and removed from the local storage of MDC and the user gets logged out preventing abandoned jobs misuse.
- **Automatic Sign-out After Printing:** Post-authentication, users can complete their print jobs. The system then automatically signs them out, securing the session once the intended action is completed.

5.6 (10.2) Printer Provisioning

Installing printers and print drivers manually can be tedious, especially if you are setting up print for a whole department or an entire company. You need to not only prepare the **correct drivers for devices** you have in your environment but then install Windows or macOS printers on each computer, install these print drivers, and test if everything works as intended.



This page serves as an introduction to the Printer Provisioning feature. Our complete guide to Printer Provisioning is available <https://myq-online-help.atlassian.net/wiki/spaces/OD/pages/1622507532>.

Printer provisioning allows you to always deliver the right printers to your users. Together with the rest of **KNM's** Quick Deployment features, such as Printer Discovery and **KNM** Desktop Client's configuration profiles, the entire process can be largely automated.

- Install and Update Printers in Domain Environments.
- Install and Update Printers for BYOD Devices.
- Deploy Print to both Windows and MacOS.
- Update Available Printers as needed.

5.6.1 Set up Printer Provisioning

1 Deploy KNM Desktop Client

To start with printer provisioning, you must start using the **KNM** Desktop Client in your organization.

KNM Desktop Client is used for creating print driver configuration profiles as well as for installing drivers on target machines.

2 Capture and upload drivers

You install print drivers and assign them to printers, simply configure printers the way you would manually.

With the Desktop Client, you then create print driver configuration profiles and upload your drivers.

3 Assign and deploy

Once your print drivers are stored in the **KNM** driver store, you can attach these driver profiles to selected queues.

The rest will happen automatically. Users running **KNM** Desktop Client will be provisioning the correct printers.

5.6.2 Prepare and Capute Template Printers

5.6.3 Install Print Drivers


The first step for this deployment is to collect the print drivers you will want to install and create printers as if you were doing it on a user's machine. Source these drivers from the manufacturers' download pages.

Recommendations for print drivers:

- Use official manufacturer's drivers.
- Preferably, use device-specific or universal drivers in a traditional mode configured on a physical device. Universal drivers in dynamic mode might display prompts to the user to search devices on the network. Also, some drivers may not allow for print in color when not configured on a specific model.
- In a mixed fleet environment, try selecting drivers published for your target devices to achieve the best compatibility. You might be able to print successfully to a device even through a driver of a different manufacturer thanks to **KNM's** cross-vendor printing support, but you will not get all the functionalities of the device.

5.6.4 Create Printers and Assign Print Drivers


1. Add your printers as normal: System Settings, then click Printers & Scanners – + option or via CUPS configuration.
2. Select the installed driver in the printer's settings: During the printer creation or, if the printer already exists, via CUPS configuration.
3. Assign a TCP/IP port to the printer: During the printer creation or, if the printer already exists, via CUPS configuration.

 The queue name in the LPR port can be used to automatically attach the print driver configuration profile to a queue. If a queue with the same name already exists in **KNM**, the profile is automatically assigned to it. This way you can instantly deploy or update the driver without further configuration.

4. Configure the desired driver's capabilities and settings such as finishing options: During the printer creation or, if the printer already exists, via CUPS configuration.
5. Test your configuration.

5.6.5 Capture Driver and Settings

1. Run the **KNM** Desktop Client on the template computer.
2. Sign in to the Desktop Client as a user with *Administrator* or *Manage settings* rights.
3. Right-click on the **KNM** Desktop Client icon to open a context menu and select **Capture print driver**, a dialogue is opened with a list of printers.
4. Select printers that are using drivers you want to capture.

 By clicking the printer once, you select it for capture and open the Driver details for this printer. By clicking it again, you deselect this printer. If you select another printer (and select it), clicking another printer once opens its details, click again to deselect it.

5. Specify the name of the print driver configuration profile; if it does not exist in **KNM** already, a new profile with this driver will be created. If you specify an existing profile, the driver will be added to it. Read about the print driver configuration profiles below.
6. Once you select all required printers and specify the profiles they should be uploaded in, click **Upload**. Drivers will be compressed into ZIP files and uploaded to the **KNM** Print Server.

6 (10.2) Configure Printers and Job Processing

KNM Desktop Client has **two possible configuration options** of Job Processing, configurable in the KNM Desktop Client setup wizard:

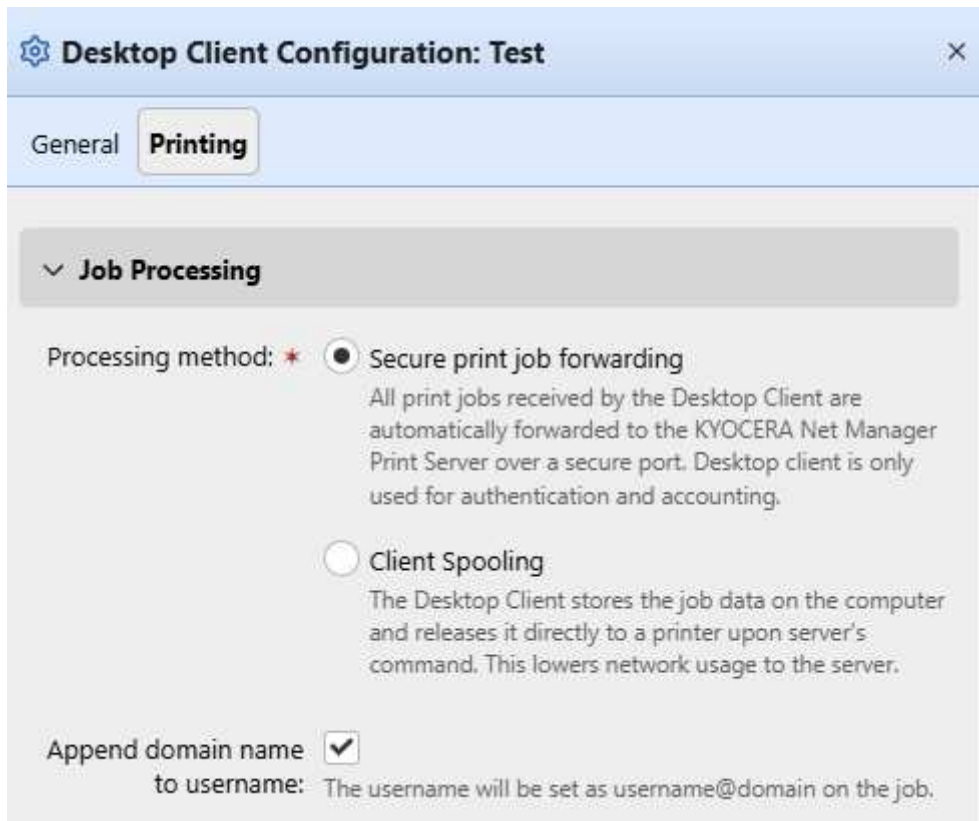
1. Secure print job forwarding
2. Client spooling

6.1 Secure Print Job Forwarding

If you enable this feature, jobs sent to **KNM Desktop Client** will be automatically forwarded to the **KNM Print Server** over a secure encrypted LPR protocol. This feature requires significantly more network resources than Client Spooling, as all jobs are forwarded to the **KNM Server**.

6.1.1 Setup in KNM Web User Interface

In the **KNM Desktop Client** tab of the **Settings** in the **KNM Web User Interface**, make sure that the **Job Processing** method of the relevant configuration profile is set to **Secure print job forwarding**.



Desktop Client Configuration: Test

General **Printing**

▼ **Job Processing**

Processing method: * ☒ **Secure print job forwarding**
All print jobs received by the Desktop Client are automatically forwarded to the KYOCERA Net Manager Print Server over a secure port. Desktop client is only used for authentication and accounting.

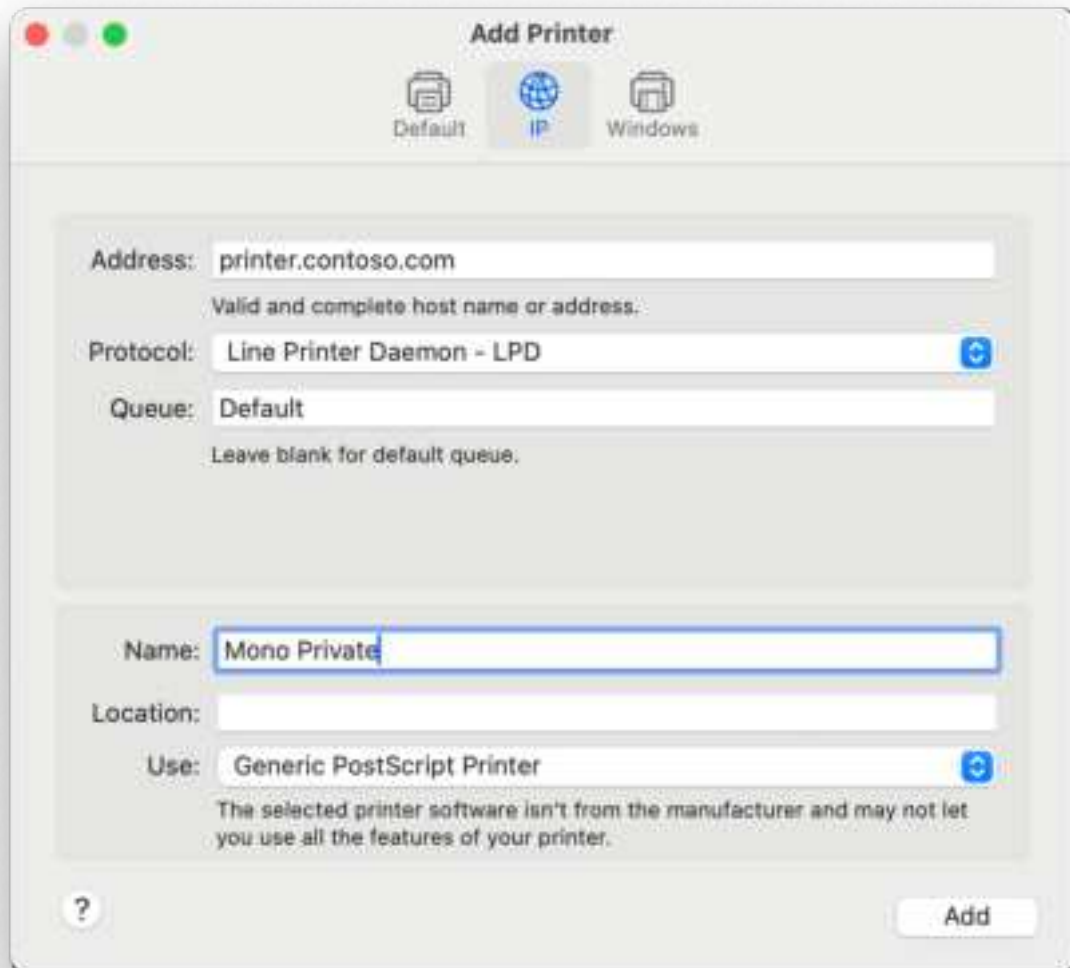
☐ **Client Spooling**
The Desktop Client stores the job data on the computer and releases it directly to a printer upon server's command. This lowers network usage to the server.

Append domain name ☒
to username: The username will be set as username@domain on the job.

6.1.2 Printer and Driver Setup

The printer and driver must be installed on the workstation where **KNM Desktop Client** will be running. The recommended configuration is that the **Address** should be **localhost** or **127.0.0.1**, the

Protocol should be Line Printer Daemon - LPD, and the **Queue Name** should be the **KNM** queue. **Use** should be set to the best drivers for your fleet, we recommend **Generic PS Printer**.



6.2 Client Spooling

If you enable this feature, jobs sent to **KNM** Desktop Client are locally spooled and stored in the user's computer. This feature is helpful when the network resources are limited since the jobs are spooled locally and stored in the user's computer; only metadata is sent to the **KNM** Print Server.

6.2.1 Setup in KNM Web User Interface

In the **KNM Desktop Client** tab of the **Settings** in the **KNM** Web User Interface, make sure that the **Job Processing** method of the relevant configuration profile is set to **Client Spooling**.

Desktop Client Configuration: Test

GeneralPrinting

Job Processing

Processing method: *

☐

Secure print job forwarding

All print jobs received by the Desktop Client are automatically forwarded to the KYOCERA Net Manager Print Server over a secure port. Desktop client is only used for authentication and accounting.

☒

Client Spooling

The Desktop Client stores the job data on the computer and releases it directly to a printer upon server's command. This lowers network usage to the server.

Maximum size of all jobs stored: *

1800

MB

Delete jobs after: *

7

days

Append domain name to username: ☒

The username will be set as username@domain on the job.

7 (10.2) Uninstallation

To uninstall KNM Desktop Client:

1. Use the **Activity Monitor** app to check if **KNM** Desktop Client is running, and quit if it does. For more information see: <https://support.apple.com/guide/activity-monitor/quit-a-process-actmntr1002/mac>
2. Click **Finder**, and then open the **Applications** tab.
3. On the tab, right-click the MDC application, and then select **Move to Bin**. You are asked to confirm the changes.
4. Enter the credentials of the administrator's account and click **OK**. The application is uninstalled.

For the KYOCERA contact in your region, see Sales Sites sections here:

<https://www.kyoceradocumentsolutions.com/company/directory.html>