

KYOCERA Net Manager Desktop Client Win™

2023.08

KNMDCWKDEN100



Table of Contents

1	Release Notes	4
1.1	10.0 (patch 3)	4
1.2	10.0 (patch 2)	4
1.3	10.0 (patch 1)	4
1.4	10.0 RTM	4
1.5	10.0 RC	5
2	Basic Information	6
2.1	Requirements on the client's workstation	6
3	Installation	8
3.1	Installation via the setup wizard	8
3.2	Silent Installation	15
3.3	PowerShell Execution Policy Information	18
4	Modify Settings	21
4.1	Via the Setup Wizard	21
4.2	Via the Silent Setup	21
5	KNM Desktop Client features	23
5.1	User Identification	23
5.2	User Account Information	26
5.3	Job Management	27
5.4	Client Printing Options	32
6	Uninstallation	40
6.1	Uninstallation via the Setup Wizard	40
6.2	Silent uninstallation	40
6.3	Uninstallation via the Uninstall KNM Desktop Client 10.0.exe	40

KYOCERA Net Manager Desktop Client for Windows™ 10.0

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

It is the result of merging the **KNM** Smart Job Manager 8.2 for Windows™ and **KNM** Smart Print Services 8.2 software clients.

Once installed on the **KNM** users Windows™ workstations, it provides additional **KNM** features to the users, such as user identification, communication between the users and the server, accounting, secure printing, alternative printing methods, and monitoring of local printing devices.

1 Release Notes

KYOCERA Net Manager Desktop Client for Windows™ 10.0

1.1 10.0 (patch 3)

31 March, 2023

Improvements

- **NEW FEATURE** Show application name in popup messages.

Bug Fixes

- Agent crashes if get server address from CSV file is used.
-

1.2 10.0 (patch 2)

Bug Fixes

- Login fails when using credit from Central Server.
 - DC blocks printing with some drivers.
 - Append domain name to username not assigning the print job to the user.
 - SPL files are not being deleted.
 - Server disconnects after 1 minute when using Windows™ Single Sign on.
-

1.3 10.0 (patch 1)

Bug Fixes

- When Remember me is disabled, client will stay logged in for 5 minutes or until job interaction is complete.
 - Background operation errors are shown to the user as "internal error".
 - DC 10.0 registers its REST API application with SW version 8.2.
 - DC installation fails when PowerShell execution policy is set to AllSigned.
-

1.4 10.0 RTM

Improvements

- **NEW FEATURE** Get IP address of Site server based on client IP address range. **Supported on CS 10 (Patch 4).**
- **NEW FEATURE** DC configuration improvements.
- **NEW FEATURE** Added option to close DC pop-up when jobs are pending.
- Data folder moved to "ProgramData/Brand/Desktop Client".
- Process names changed.

Bug Fixes

- After disabling remember me, the user is logged in, as the previous user if "Remember me" as Always was used.
 - LPM job cannot be printed because accounts are not known.
-

1.5 10.0 RC

Improvements

- **NEW FEATURE** Reduce the number of API calls when connecting DC.
- Encryption Algorithms table updated.
- **NEW FEATURE** Add option to close DC popup when jobs are pending.
- Data folder moved to "ProgramData/Brand/Desktop Client".
- Process names changed.
- Visual Studio updated.
- DC updated to .NET 6.0.
- **NEW FEATURE** Search results return more items.

Bug Fixes

- Job sender's hostname limit is 15 characters when client spooling is not enabled.
 - DC periodically disconnects with MS Cluster.
 - Reduce the number of requests when DC starts.
 - Reduce the number of requests when the user logs into DC.
 - IPP fallback printing.
 - Currency format adjusted according to language.
-
-

2 Basic Information

KNM Desktop Client for Windows™ is a software client of the **KNM** server. Once installed on the **KNM** users Windows™ workstations, it provides additional **KNM** features to the users, such as user identification, communication between the users and the server, accounting, secure printing, alternative printing methods, and monitoring of local printing devices.

It is the result of merging the **KNM Smart Job Manager 8.2 for Windows™** and **KNM Smart Print Services 8.2** software clients.

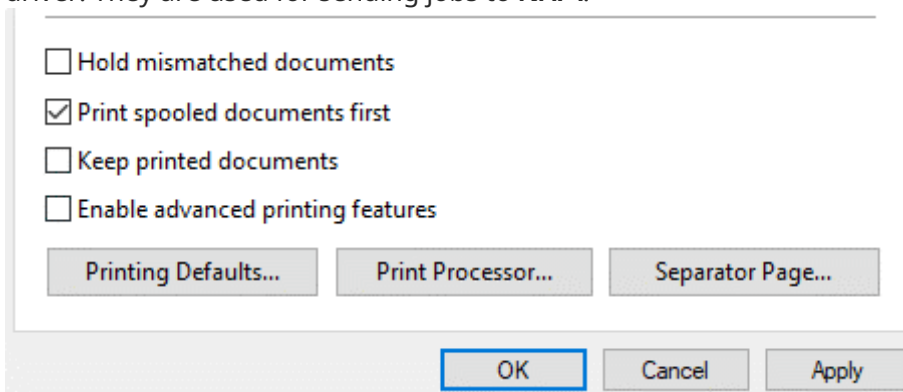
Upgrading from **KNM SJM for Windows™/KNM SPS** versions 7.5+ is possible (if the *.msi* installers were used during their installation), and all their features are still supported.

The maximum recommended number of concurrent **KNM Desktop Clients** connected to one **KNM** server is *1000*.

- i** **KNM Print Server 8.2 Patch 24+**, **10.0 patch 8**, or **10.1 Beta 2+** is required.
KNM Central Server 8.2 Patch 19+, **10.0 Patch 4+**, or **10.1 Beta 3+** is required.

2.1 Requirements on the client's workstation

- Supported OS: Windows™ 8.1+/ 10/ 11 64bit
- Microsoft .NET Framework 4.7.2 or higher
- To make sure that **KNM Desktop Client** works properly, deselect the **Keep printed documents** option, and the **Enable advanced printing features** option on the **Advanced** tab of the print driver. They are used for sending jobs to **KNM**.



Certificate requirements

A trusted SSL certificate can be optionally installed on the client PC, and on the **KNM Print Server**.

To create a certificate on the **KNM** web administrator interface:

1. Go to **KYOCERA, Settings, Network**.
2. In the **Communication Security** section, select the **Built-in Certificate Authority** mode.
3. In **Server alternative names** add the **KNM Print server's IP Address**, and then click **Save**.
4. Click **Generate new Server certificate**, and then click **Save**.

5. Once your changes are saved, click **Export CA Certificate**.
6. Copy and paste the exported certificate to the client PC, where **KNM Desktop Client** will be installed.
7. Double click on the certificate to install it.
8. Click **Install Certificate**.
9. Set **Store Location** to *Local Machine*.
10. Place all the certificates in the following store: **Trusted Root Certification Authorities**.
11. Click **Next**, and then **Finish**.
12. Install **KNM Desktop Client** using the **KNM** server's hostname, found in **KYOCERA, Settings, Network, General**.

Limitations

- **Client spooling and local print monitoring** - Only a secure https port (default 8090) supports these features.
- **Client spooling to Print&Follow queue** - This setting works for Kyocera only with the embedded version and not with the embedded lite one.

Change user when the KNM Desktop Client Service is running

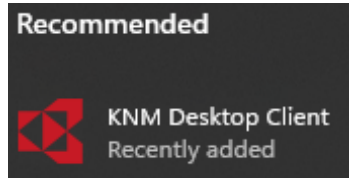
It can happen that **KNM** does not receive print jobs if the **KNM Desktop Client Windows™** service runs under another user. To change the user:

1. In **Task Manager, Services**, right-click **SmartPrintServices** and select **Open Services**. The Services window opens.
2. Right-click **KNM Desktop Client**, and click **Stop**.
3. Click **Properties**. The **KNM Desktop Client Properties** window opens.
4. Click **Log on**. You can change the user in this tab. The user will get temporary admin rights.
5. Click **Browse** to search and select another user, and then click **OK**.
6. Click **OK** in the **KNM Desktop Client Properties** window.
7. Log in as the user you set to run the **KNM Desktop Client** service.
8. Run the Command Prompt window as an administrator.
9. Change the path to *C:\Program Files\Kyocera\Desktop Client\Service*.
10. Run SmartPrintServices.exe encode.
11. Start the **SmartPrintServices** service by following steps 1 and 2, but click **Start** instead.
12. Remove the admin rights from the changed user.

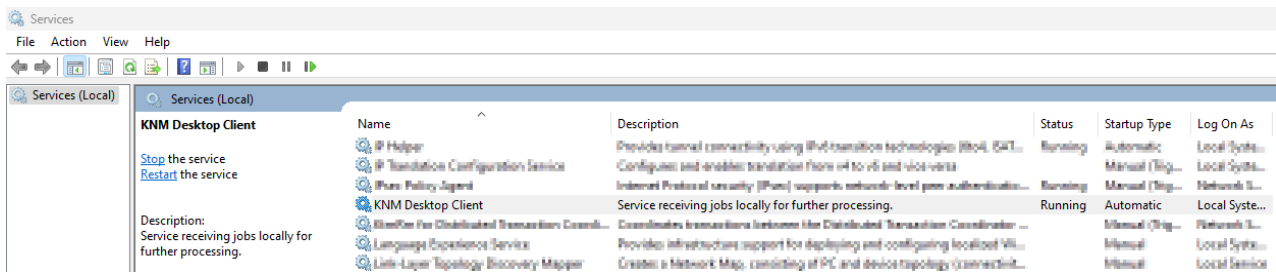
3 Installation

You can install the application either via the setup wizard or silently via a command line with parameters.

Once the installation is finished, **KNM Desktop Client** starts running in the background. The application can be found in the Windows™ Apps menu.



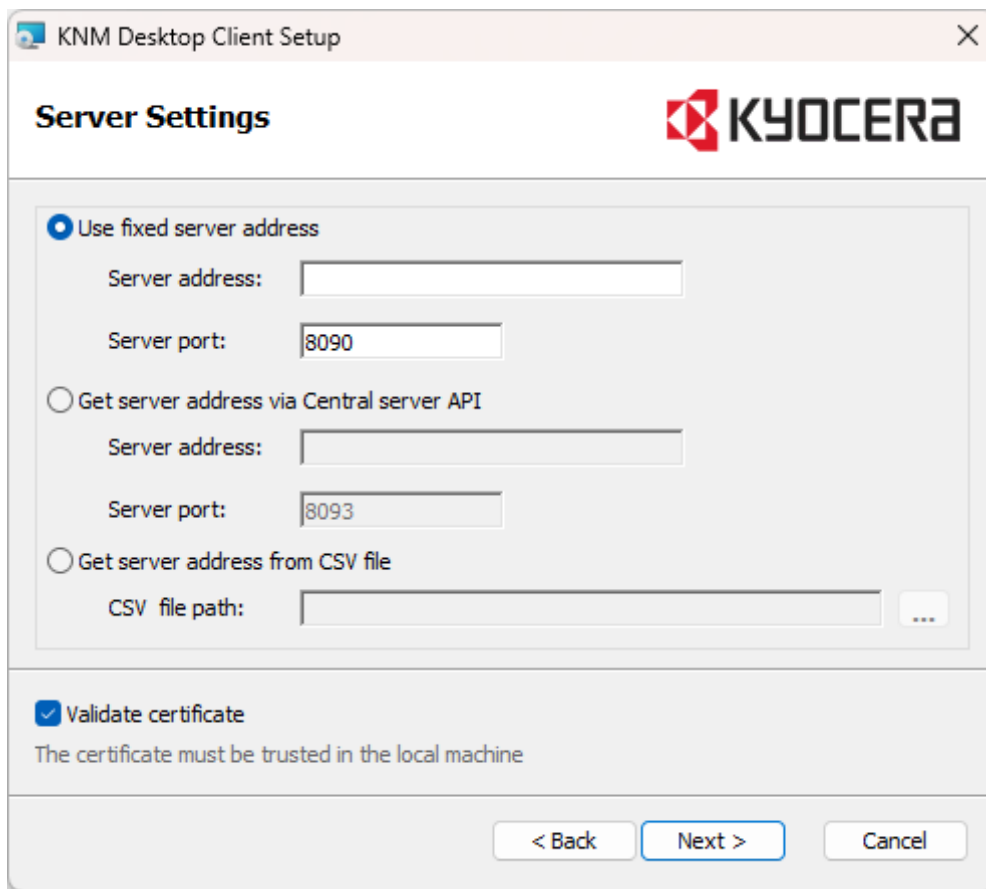
The **KNM Desktop Client** Windows™ service also starts running in the background, and can be found in Windows™ Services.



3.1 Installation via the setup wizard

To install **KNM Desktop Client** via the setup wizard, follow the steps below:

1. Download the latest available version of the installation file.
2. Run the installation file. The **KNM Desktop Client** setup wizard dialog opens.
3. Click **Next**. The End-User License Agreement window opens.
4. Select **I accept the terms in the License Agreement**, and click **Next**. The Select Installation Folder window opens.
5. Accept the default folder (*C:\Program Files\Kyocera\Desktop Client*) and click **Next**, or click **Browse** to select a different path, and click **Next**. The Server Settings window opens.
6. Fill in the server settings:



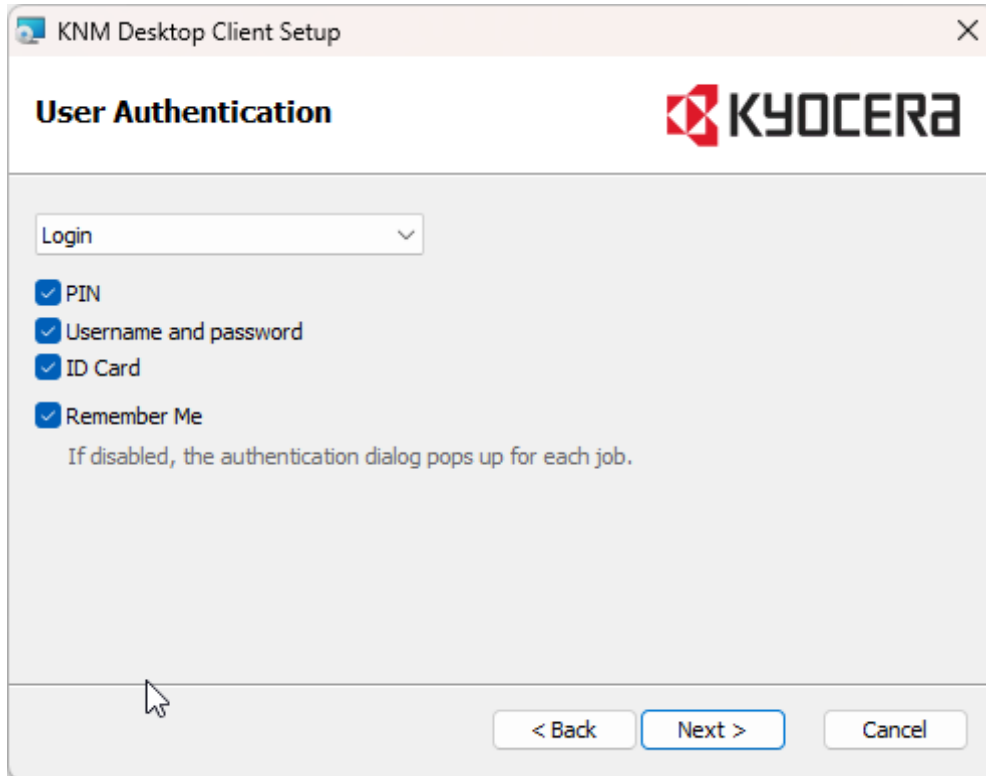
- **Use fixed server address:**
 - **Server address:** Enter the IP address or host name of the **KNM** server.
 - **Server port:** Enter the **KNM** server's port. By default, it is **8090** for a secure (SSL) connection.
- **Get server address via Central server API:**

When using this option, you must also set up the IP range of the client PC's that will be using DC.

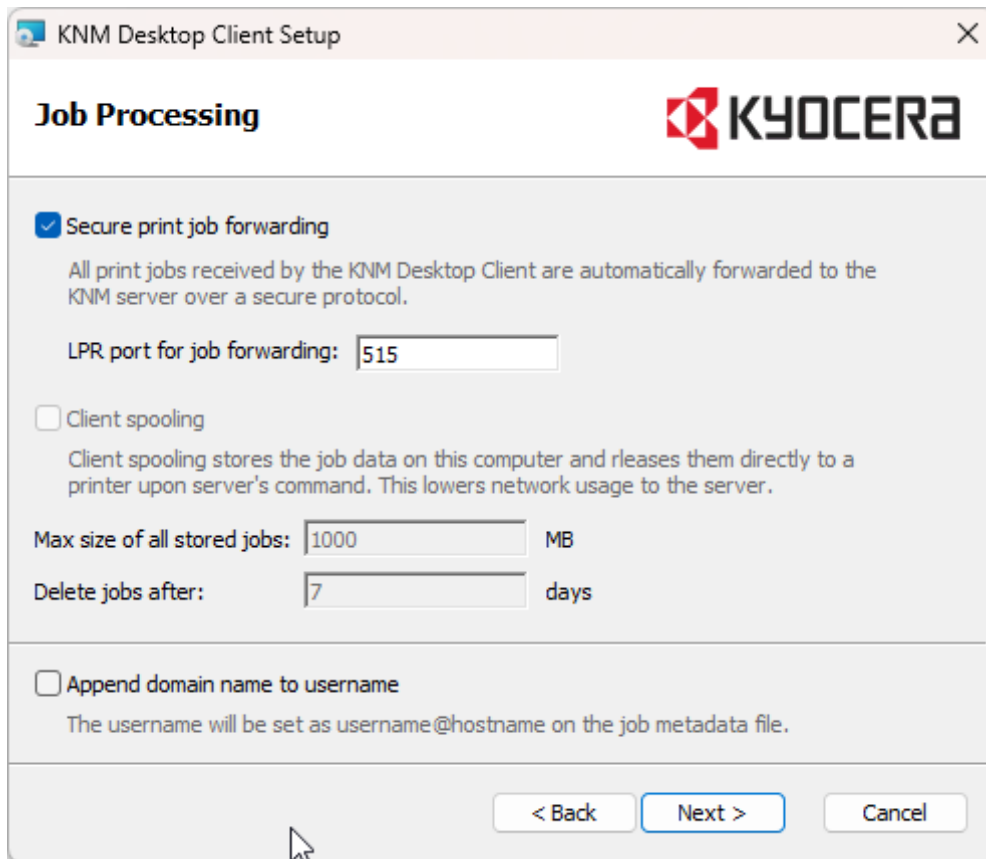
 - **Server address:** Enter the IP address or host name of the **KNM** Central server.
 - **Server port:** Enter the **KNM** Central server's port. By default, it is **8093** for a secure (SSL) connection.
- **Get server address from CSV file:** Select this if you wish DC to automatically switch between multiple servers on an IP subnet. This is done by uploading a CSV file with the required information, by adding the exact path to the file in the **CSV file path** field, or by clicking ... and browsing for the file. In case the configuration for the current subnet does not match or something is incorrect on the file or it can't be opened, DC will go to the disconnected state. The CSV file's headers should be **subnet, serveraddress, serverport, and lprport**, as seen on the image below.

	A	B	C	D	E
1	subnet	serveraddress	serverport	lprport	
2	10.14.4.0/24	10.14.4.51	8090	515	
3	10.14.5.0/24	10.14.5.133	8090	515	
4	10.14.6.0/24	10.14.6.53	8090	515	
5					

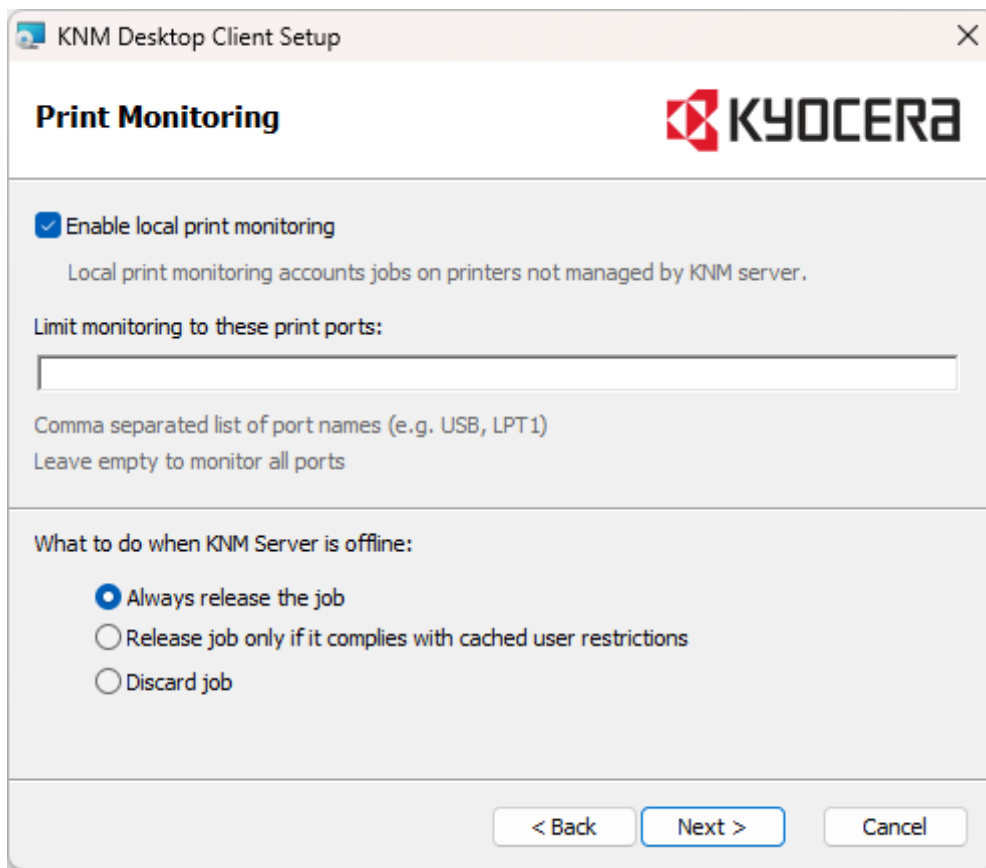
- **Validate certificate:** If enabled, the connection between the client and the server requires a certificate. The option is enabled by default.
7. Click **Next** once done. The User Authentication window opens.
 8. Select one of the authentication methods and click **Next**:



- a. **Windows single sign-on:** With this option selected, the job sender is identified as the OS user account, where the jobs are sent from.
 - b. **Login:** With this option selected, the job sender has to log in under their **KNM** credentials. The job sender is then identified as the logged in **KNM** user. You can select up to three login options: *PIN*, *Username and password*, and *ID Card*, as well as the **Enable** the “Remember Me” feature, which is used to display/hide the option to remember the logging user.
 - c. **List of users:** With this option selected, the job sender has to select one of the **KNM** user accounts from the list of all **KNM** users. The job sender is then identified as the selected **KNM** user.
9. Click **Next** once done. The Job Processing window opens.



- a. **Secure print job forwarding:** If enabled, all print jobs received by DC are automatically forwarded to **KNM** Server over a secure LPR protocol.
 - i. **LPR port for job forwarding:** Enter the LPR port of the **KNM** server. This is the port that the **KNM** Desktop Client listens to and receives print jobs via the LPR protocol. The default port is 515.
 - b. **Client spooling:** Check the box to enable it. This option sets the local storage for the jobs spooled on the user's computer. Add the desired values to the fields below:
 - i. **Max size of all stored jobs:** This is the limit of the local storage (in MB). After the maximum size of the job folder is reached, jobs will be deleted starting from the oldest one, until the size of all stored jobs is below the limit.
 - ii. **Delete jobs after:** The spooled job is stored only for the duration of this period (in days).
 - c. **Append domain name to username:** Check the box if you want the jobs to be sent to the **KNM** server, spooled as follows: **username@computerdomain** (*eliot.kate@companyx.com* instead of *eliot.kate*). This is an advanced option of the **KNM** system. Use it only if you need the information about the computer's domain included in the job sender's name.
10. Click **Next** once done. The Print Monitoring window opens.



- a. **Enable local print monitoring:** If enabled, jobs on printers not managed by **KNM** server will be accounted.
 - i. **Limit monitoring to these print 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 the ports.
 - b. **What to do when KNM server is offline:** Select one of the available options - *Always release the job*, *Release job only if it complies with cached user restrictions*, *Discard job*.
11. Click **Next**. The Fallback Printing window opens. Configure your fallback printing settings (make sure to select **Windows single sign-on** as the user authentication method if you want to enable fallback printing):

- a. **Enabled fallback printing:** Select this if you want to enable fallback printing, which means when the server is offline, jobs will be released on a selected printer.
- b. **Printer:**
 - i. **Select from the list of last used printers:** Select this to enable fallback printing by showing a pop-up to select the fallback printer from a list of the last used printers.
 - ii. **Prompt for an address:** Select this to enable fallback printing by showing a pop-up where you can type the fallback printer's IP address.
 - iii. **Use preconfigured printer:** Select this to enable fallback printing by setting the fallback printer's IP address to print jobs automatically. **Address:** Enter the IP address or hostname of the backup printing device that you want to use for fallback printing.
- c. **Printing method:**
 - i. **KNM device spool** - This option will release the job to the failover printer with an embedded terminal and the printer will report the released job once the connection to the server is back. For more information about the feature, check the **KNM Print Server** guide. Select one of the following port options:
10010: Client spooling port for direct print. The job is automatically printed after it is received by the printing device.

10011: Client spooling port for secured hold print. The job is spooled by the printing device and waits there until the user logs in and releases it. It is not possible to release this job on any other printing device.

10012: Client spooling port for Print&Follow. The job is spooled by the printing device. Once the user logs on any of the devices connected to the same subnet, information about this job is provided, the job is displayed in the list of the available jobs and can be released there.

10013: Client spooling port for delegated print. It works the same as Client spooling Print&Follow, except that the job can be released by delegates of the sending user.

- ii. **Device printer port** - Select the printer protocol for sending the job to the backup printing device. The job will be reported to the server by the client once the connection to the server is back. After you change the protocol, the **Port** number automatically changes according to it. The following protocols can be used:
 - RAW** (default port: 9100): Basic printing protocol, set by default.
 - IPP** (default port: 631): Internet printing protocol, no port is used (or needed); all the information is inside the printer address.
 - IPPS** (default port: 443): Secure version of IPP.
 - LPR:** (default port: 515): Line Printer Remote protocol. In the **Queue** field, enter the name of the queue where the jobs will be sent.

- d. **Release options:** Choose to *Always release the job* or *Release job only if it complies with cached user restrictions*.

12. Click **Next**. The Options windows opens.

Options

Enable job parser
Job parser provides job metadata like page count or colour detection.
This switch applies to the client spooling, local printing monitoring and fallback printing. Server spooled jobs are always parsed on the server.

Delete pending jobs when the client is idle
Pending jobs will be deleted, if the user does not authenticate and confirm the job for printing in time.
Timeout: minutes

Caching of user information used when app is offline:

Only when user interacts with the app
 With every logon to the operating system
This option may create a higher load on the server.
Cached user information is used only when KNM Desktop Client cannot connect to KNM Server.

< Back Next > Cancel

- a. **Enable job parser:** Check the box to enable the job parser for client spooling, local print monitoring, and fallback printing. Server spooled jobs are always parsed on the server. Job properties that are parsed and reported: *job name, user, computer, job size, BW pages, color pages, copies, paper format, duplex, toner saving, staple, punch, printer language*. If the job parser is disabled, only the *job name, user, computer, and job size* are reported to the server.
 - b. **Delete pending jobs when the client is idle:** Enable this option to delete any pending jobs when the client is idle. Set the duration of the **Timeout** in minutes. The default is 5 minutes.
 - c. **Caching of user information used when app is offline:** This is used only when DC cannot connect to **KNM** server. Select if you want to cache user information *Only when user interacts with the app* or *With every logon to the operating system* (this option may create a higher load on the server).
13. Click **Next**. The Ready to Install window opens. Click **Install** to begin the installation.
 14. Once the installation is done, click **Finish** to exit the setup wizard.

3.2 Silent Installation

To silently install the application, download the latest available version of the installation file, open the Windows™ command line, and use the following command:

```
msiexec /i *InstallationFile* /log "install_dc.log" /qn <*Parameters*>
```

InstallationFile is the name of the installation file (for example *KNM Desktop Client-10.0.1.1.msi*).

The **/log** command is highly recommended, as it creates a log of the installation process.

Parameters is a string consisting of the following parameters (if you do not include a parameter in the command, its default value is used for the installation):

Installation Parameters

- **SERVERSOURCE (NEW):** Use *0* to connect to a standalone server, *1* to get the server address via the Central server API, and *2* to get the server address from a CSV file.
- **SERVERADDRESS:** **KNM** Server's IP address or hostname (the default value is an empty string).
- **SERVERPORT:** **KNM** Server's port. The default value is *8080* for **KNM** versions lower than 8.0. For **KNM** version 8.0 and higher, the default value is *8090*.
- **ALLOWUNSECURECOMMUNICATION:** Use *1* to disable the certificate validation and *0* to enable the certificate validation (the default value is *1*).
- **CSVSERVERTABLEINFO:** The path to the CSV file that contains information about the server to be used.
- **LOGINTYPE:** A letter code with a combination of the these three letters: "**p**" for PIN, "**u**" for Username and password and "**c**" for ID Card. (The default value is an empty string as the default authentication type is the user list selection).
 - **LOGINTYPE="p"** Enables only PIN
 - **LOGINTYPE="u"** Enables only Username and password
 - **LOGINTYPE="c"** Enables only Card
 - **LOGINTYPE="cp"** enables Card or PIN login
 - **LOGINTYPE="puc"** enables all three login types
- **AUTHENTICATIONTYPE:** The methods of authentication of the job sender. Select one of the following (the default value is *0*):
 - **AUTHENTICATIONTYPE=0:** With this option selected, the job sender has to select one of the **KNM** user accounts from the list of all **KNM** users. The job sender is then identified as the selected **KNM** user.

- **AUTHENTICATIONTYPE=1:** With this option selected, the job sending user has to log in under their **KNM** credentials. The job sender is then identified as the logged in **KNM** user.
- **AUTHENTICATIONTYPE=2:** With this option selected, the job sender is identified as the OS user account where the job is sent from.
- **REMEMBERME:** If you set this parameter to *0*, it will hide the **Remember me** option during the user login. If you set it to *1*, the **Remember me** option will be visible. (The default value is *0* as the default authentication type is the user list selection).
- **CONNECTTOSERVERAFTERSTART (NEW):** Caching of the user information used when the client is offline. Use *0* to cache the user info only when the user interacts with the app (default option), and use *1* to cache the user information with every logon to the operating system.
- **REINSTALL=ALL:** Use this parameter in case you need to update some parameters after maintenance.
- **CLIENTSPOOLING:** **KNM** Desktop Client only supports Secure Printing or Client Spooling. Set this parameter to *0* to enable Secure Printing (default), or set it to *1* to enable Client Spooling.
- **SECUREPRINTING (NEW):** If enabled, all print jobs received by the client are automatically forwarded to the server over a secure LPR protocol. Set it to *0* to disable it, and set it to *1* to enable it (Client Spooling should be disabled).
- **CSJOBPARSERENABLED:** Configure if the job will be parsed (using MAKO) before it will be sent to the server. *0* = Disabled, *1* = Enabled (the default value is *1* - Mako parser is enabled).
- **APPENDDOMAIN:** *0* = Disabled, *1* = Enabled (the default value is *0*). When this option is enabled, the jobs sent to the **KNM** server are spooled as follows: **username@computerdomain** (*eliot.kate@companyx.com* instead of *eliot.kate*). Use it only if you need the information about the computer's domain included in the job sender's name.
- **LPMENABLED:** Local Print Monitoring; *0* = Disabled, *1* = Enabled (the default value is *0*).
- **LPMPORTS:** Enter a comma-separated (,) list of the names of the ports that you want to monitor. You can use a substring to monitor all local ports whose names contain the string, such as *USB* for the ports *USB1*, *USB2* etc. If you leave this setting empty, all local ports are monitored.
- **IDLECLIENTTIMECHECKER:** Time (in minutes) to log out once the client application gets to the idle state. The default is 5 minutes.
- **ENABLEDELETEPENDINGJOBS:** Configure if pending jobs should be deleted when the client application gets to the idle state. Use *0* for disabled and *1* for enabled (the default value is *0*).
- **OFFLINEMODE:** Define DC's behavior for LPM when the server is offline. *0* = Always print the job (default). *1* = Do not print the job if the user has restricted policies, quota or credit. *2* = Do not print the job in offline mode.
- **FBOFFLINEMODE (NEW):** Define DC's behavior for releasing jobs to a fallback printer while the server is offline. *0* = Always print the job (default). *1* = Do not print the job if the user has restricted policies, quota or credit.
- **JOBEXPIRATION:** The spooled job is stored only for the duration of this period. The period is set in days (the default value is 7). **When LPM is enabled, SPL files are also deleted.**
- **MAXJOBFOLDERSIZE:** This is the limit (in MB) of the local storage for the Client Spooling feature. After the maximum size of job folder is reached, jobs will be deleted starting from the oldest one, until the size of all stored jobs is below the limit (the default value is 1000).
- **HEARTBEAT:** Sets how many seconds **KNM** Desktop Client will wait until it informs **KNM** that the job has been printed. This only affects the Client Spooling configuration. The default value is 60 seconds.
- **FBJOBACCOUNTING:** Enable accounting of print jobs sent to the fallback printer. When **FBJOBACCOUNTING=0** (default), the job will be accounted and reported to the server by the printer (EMB Terminal required). When **FBJOBACCOUNTING=1**, the job will be accounted and reported to the server by the client.
- **FALLBACKPRINTING:** Fallback printing; *0* = Disabled, *1* = Enabled (the default value is *0*).

- **FALLBACKPRINTERADDRESS:** Enter the IP address of the backup printing device that you want to use for the fallback printing (the default value is an empty string).
- **LASTNPRINTERUSED:** Number of printers listed in the fallback printer selection list; the recommended number to set is 5, the maximum recommended number is 20.
- **ALTERFALLBACKPRINT:** Enables pop-up windows for alternative printers. 1 = Enabled.
- **FALLBACKPRINTERPORT:** Set the port number according to the selected printing protocol (the default value is 9100).

If you want to use the Client Spooling feature on the printing devices, select one of the following options:

- **10010:** Client spooling port for direct print. The job is automatically printed after it is received by the printing device.
- **10011:** Client spooling port for secured hold print. The job is spooled by the printing device and waits there until the user logs in and releases it. It is not possible to release this job on any other printing device.
- **10012:** Client spooling port for Print&Follow. The job is spooled by the printing device. Once the user logs on any of the devices connected to the same subnet, information about this job is provided and the job is displayed in the list of the available jobs and can be released there.
- **10013:** Client spooling port for delegated print. It works the same as Client spooling Print&Follow, except that the job can be released by delegates of the sending user.
- **FALLBACKPRINTERPROTOCOL:** Select one of the following printer protocols (the default value is "RAW").
 - **"RAW"** (default port: 9100): Basic printing protocol; no extra information is required.
 - **"IPP"** (default port: 631): Internet Printing Protocol, no port is used (or needed); all the information is inside the printer address.
 - **"IPPS"** (default port: 443): Secure version of the IPP.
 - **"LPR"** (default port: 515): Line Printer Remote protocol; it requires setting the queue's name where the jobs will be sent to.
 - **FALLBACKPRINTERQUEUE:** Enter the name of the Queue where jobs will be sent if the LPR protocol is used (the default value is an empty string).

Below, you can see an example of the silent installation command:

```
msiexec /i "KNM Desktop Client-10.0.1.1.msi" /log "install_dc.log" /qn
SERVERADDRESS="localhost"
SERVERPORT=8090 ALLOWUNSECURECOMMUNICATION=1 AUTHENTICATIONTYPE=1
IDLECLIENTTIMECHECKER=300 ENABLEDELETEPENDINGJOBS=0 LOGINTYPE="puc"
CSVSERVERTABLEINFO="C:\MyFiles\networkInformation.csv" CLIENTSPOOLING=0
LPMENABLED=1 LPMPORTS="USB" APPENDDOMAIN =0 FALLBACKPRINTING=1
FALLBACKPRINTERADDRESS="fallbackprinteripaddress" FALLBACKPRINTERPORT=9100
FALLBACKPRINTERPROTOCOL="RAW" OFFLINEMODE=1
```

3.2.1 Deprecated Parameters

From the **KNM DC WIN 8.2 Patch 15** version, the following parameters should not be used:

Parameter
ALTERSERVER
LPMJOBPARSERENABLED
FBJOBPARSER

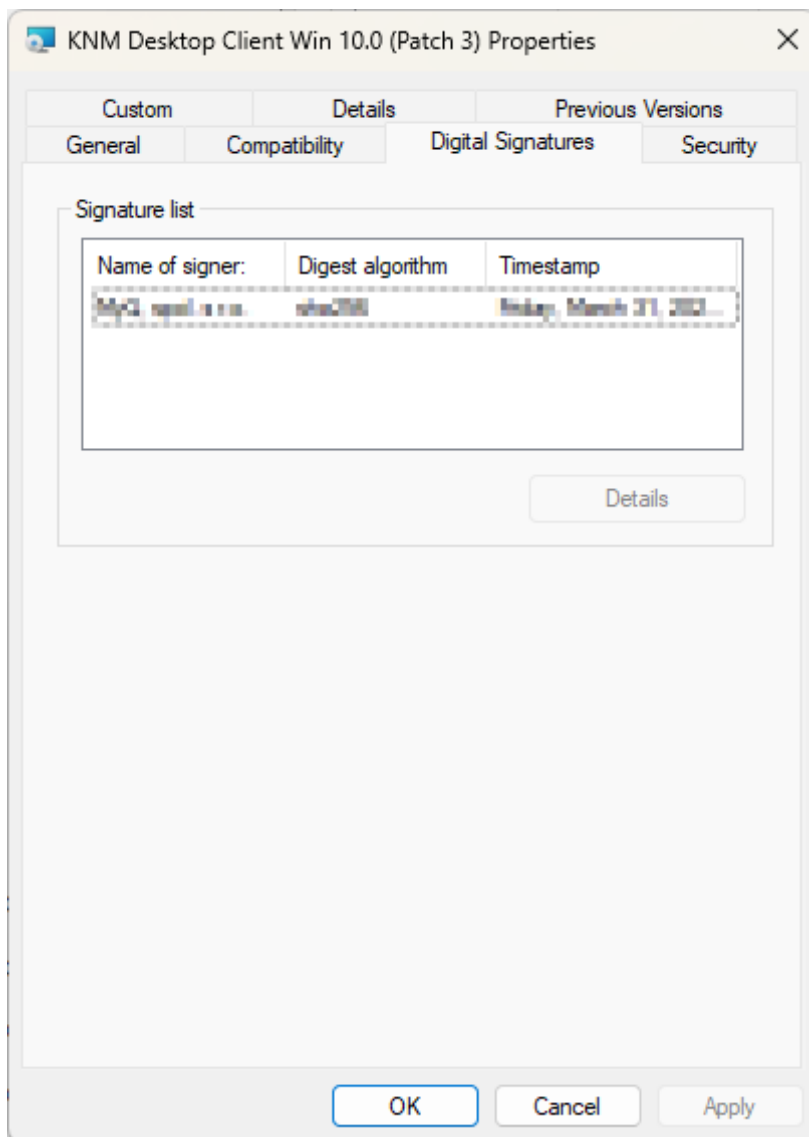
3.3 PowerShell Execution Policy Information

If Windows™ has set [Powershell ExecutionPolicy](#) to *AllSigned*, it is not possible to run scripts unless a script is signed and also a certificate added to the Trusted Publishers in a certificate store. If the script is unsigned, it is not possible to execute it at all.

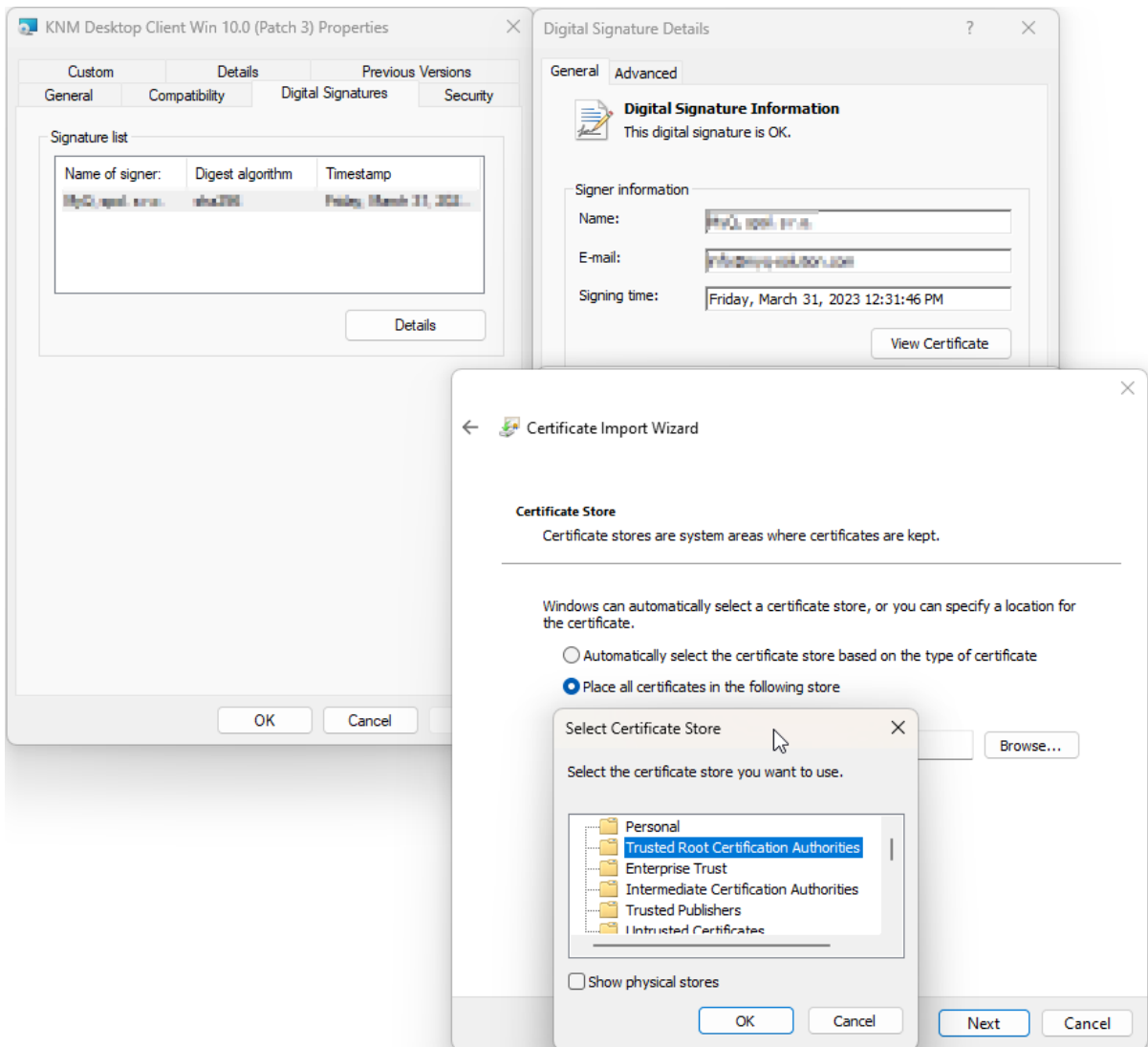
Open Local Group Policy Editor, navigate to Administrative Templates\Windows Components\Windows PowerShell, set "Turn on Script Execution" to "Enabled", and set the Execution Policy to "Allow only signed scripts". Then export and install the certificate.

To export and install the certificate:

1. Open the properties of the signed file.
2. Select Digital Signatures and open the **KNM** Certificate **Details**.



3. Click on **View Certificate**.
4. Click on **Install Certificate**.
5. Select the Local Machine store where you want to apply the certificate.
6. Select **Place all certificates in the following store**.
7. Click on **Browse**, choose **Trusted Publishers** and click **OK**.



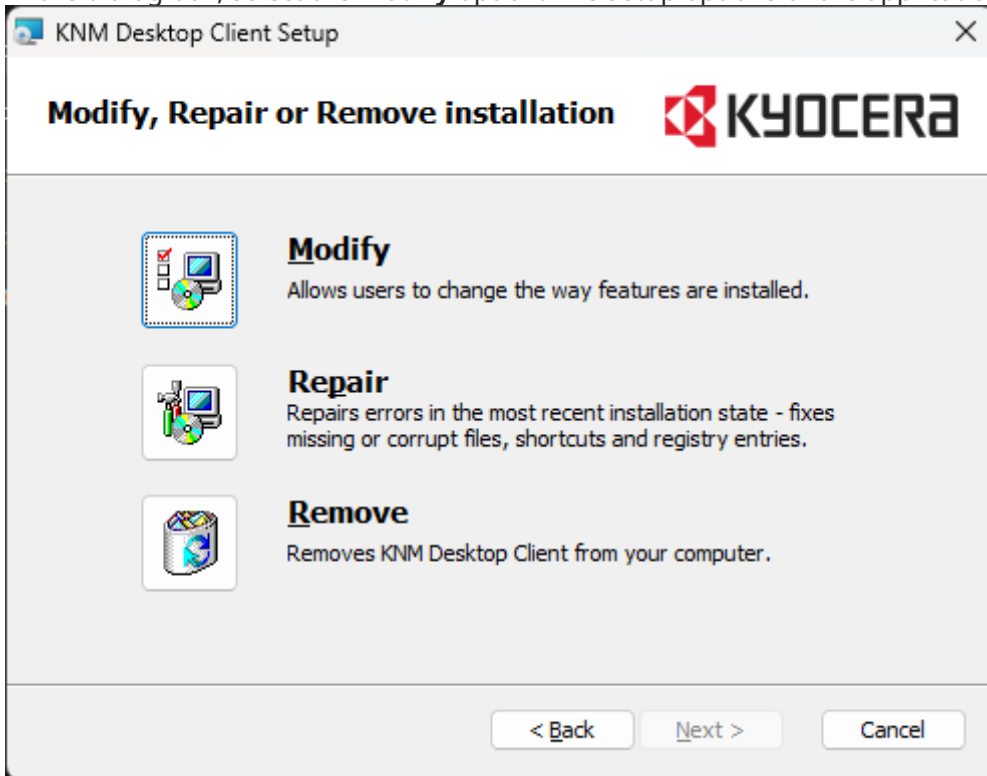
8. Finish the certificate installation.

4 Modify Settings

The settings can be changed either via the application's setup wizard, or via the silent update command on the Windows™ command line.

4.1 Via the Setup Wizard

1. Run the installation file. The **KNM Desktop Client** setup dialog box opens.
2. In the dialog box, select the **Modify** option. The setup options of the application are opened.



3. Change the application settings, and then click **Next**.
4. Click **Install** to begin the installation.
5. Click **Finish** to leave the setup. The settings are now modified and the application is running in the background.

4.2 Via the Silent Setup

Perform the silent installation with all the parameters' values defined in the command line, and add **REINSTALL=ALL** to the parameters' list.

Below, you can see an example of the silent update command:

```
msiexec /i "KNM Desktop Client-10.0.1.1.msi" /log "install_dc.log" /qn
SERVERADDRESS="localhost"
SERVERPORT=8090          ALLOWUNSECURECOMMUNICATION=1          AUTHENTICATIONTYPE=1
IDLECLIENTTIMECHECKER=300      ENABLEDELETEPENDINGJOBS=0          LOGINTYPE="puc"
CSVSERVERTABLEINFO="C:\MyFiles\networkInformation.csv"      CLIENTSPOOLING=0
LPMENABLED=1      LPMPORTS="USB"      APPENDDOMAIN      =0      FALLBACKPRINTING=1
```

FALLBACKPRINTERADDRESS="fallbackprinteripaddress" FALLBACKPRINTERPORT=9100
FALLBACKPRINTERPROTOCOL="RAW" OFFLINEMODE=1 REINSTALL=ALL /qn

5 KNM 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, Secure Printing, Local Print Monitoring, Fallback Printing, Offline Operation.

5.1 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.

Once a job is sent to a queue, the status changes to **Paused**, and the user is set to ***unauthenticated** until they authenticate themselves in **KNM** Desktop Client. For the **List of Users** and **Login** authentication methods, while the jobs are pending, users have the option to close the DC tab by clicking on the **X** button on the top-right side, without losing their pending jobs (if the pending jobs are LPM jobs, closing the DC tab cancels the jobs).



Once a user logs in, the job's status changes to **Ready**, the user changes to the now authenticated job owner and the jobs can be released. If the authentication in **KNM** Desktop Client fails or if the user is not present in the **KNM** server, the user is no longer created (needs to be created in **KNM**) and the job is rejected.

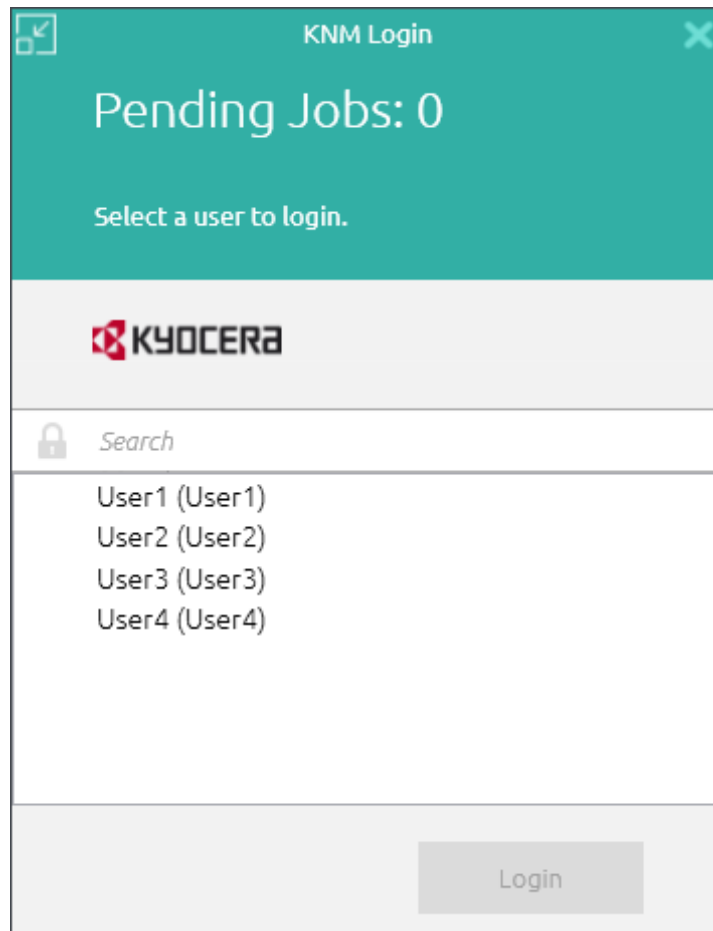
Depending on how **KNM** Desktop Client was set up, the user is either identified as the currently opened OS account or they can identify themselves.

If the **Append domain name** option was enabled, **KNM** Desktop Client automatically adds the host computer's domain name to the username. This is a must 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*.

- i** For each of the user authentication options, you need to set up a queue on the **KNM** server, with the user detection method set to **KNM** Desktop Client. If projects or credit or quota is enabled, the queue will be automatically set to **KNM** Desktop Client.
- For information on how to set up the queues, see **User detection methods** in the **KNM Installation Guide**.

5.1.1 List of Users

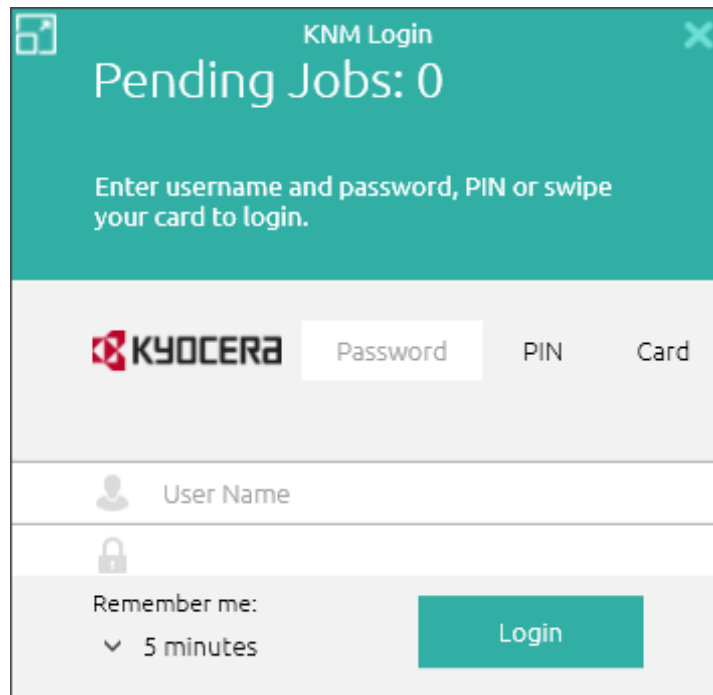
With the **List of Users** authentication method selected, the user can open the list of **KNM** users by clicking **Login** in the application's window (to open the application's window, click the **KNM** icon on the Windows™ system tray).



Each time a job is sent to the queue with the **Prompt to select a user from a list** detection method, the user is automatically prompted to select one of the **KNM** user accounts from the list.

5.1.2 Login

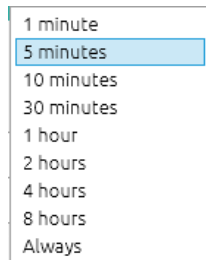
With the **Login** authentication method selected, the user can open the sign in options by clicking **Login** in the application's window (to open the application's window, click the **KNM** icon on the Windows™ system tray). Each time a job is sent to the queue with the respective user detection method (either Prompt for a PIN/Card, or Prompt for a user and password), the user is automatically prompted to log in.



Remember me:

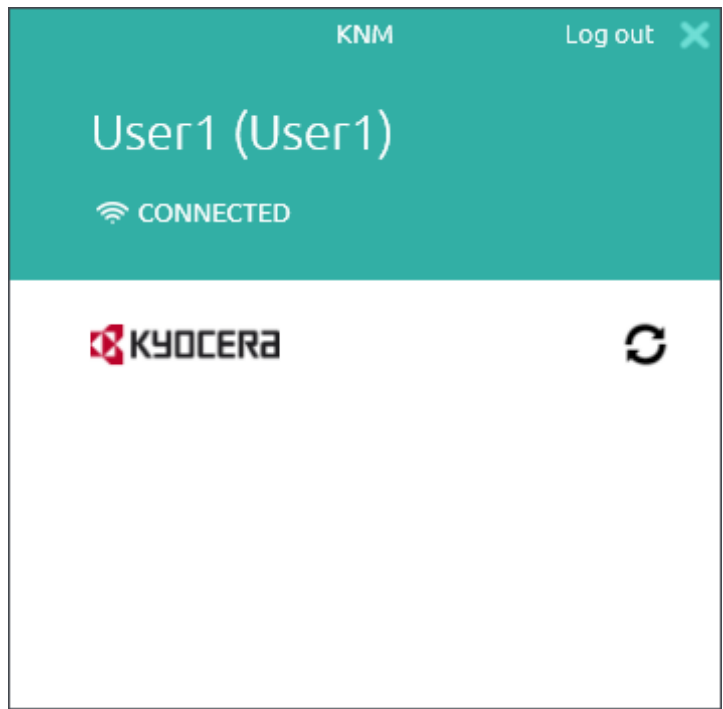
The logging users can select how long they are going to stay signed in for. At the end of the selected time period, the users are signed out and the login credentials are forgotten. Select **Always** to stay logged in even when the OS session is terminated.

If the Remember me feature was not enabled during the installation and therefore is not available, the user will remain logged in until logged out manually or the machine is restarted.



5.1.3 Windows single sign-on

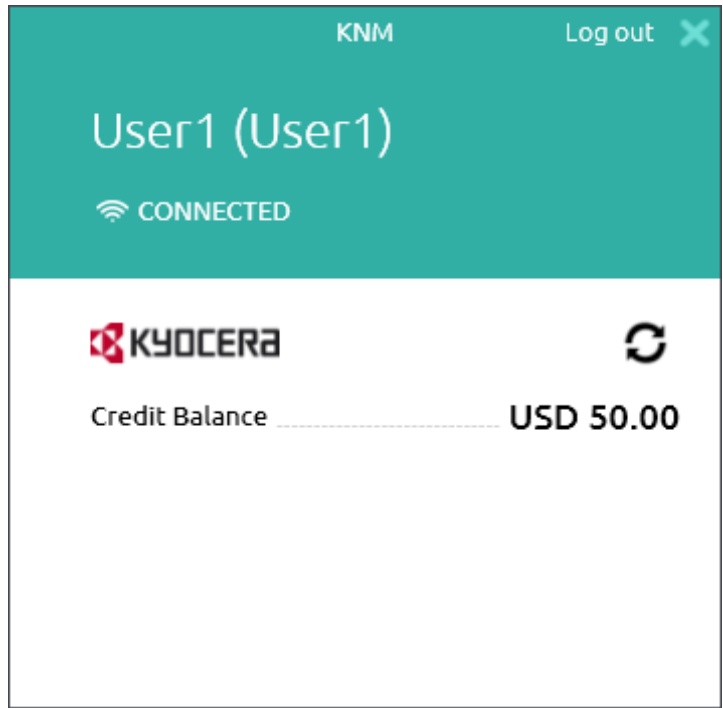
With the **Windows single sign-on** authentication method selected, the user is identified as the currently opened OS account user, and is automatically logged in **KNM** Desktop Client.



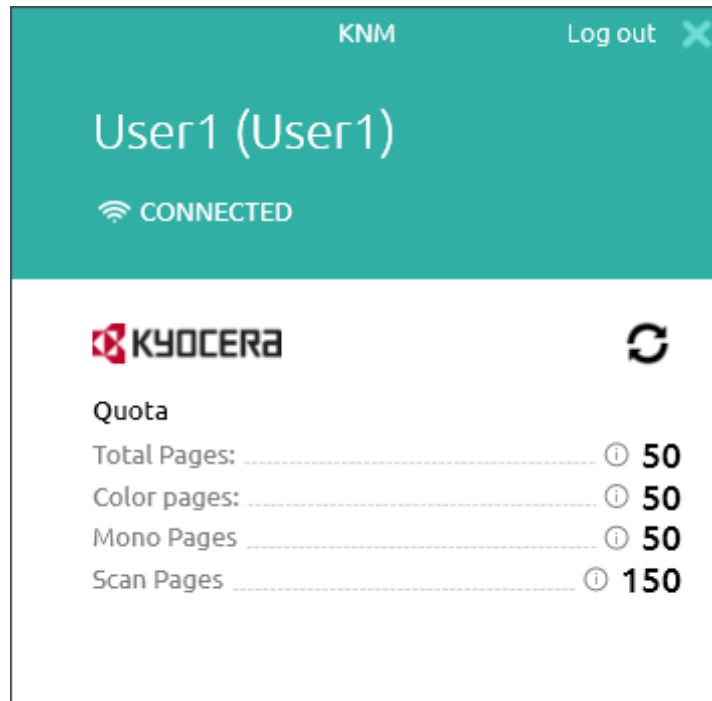
5.2 User Account Information

Once the user signs in, they can click **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 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.



The **Log out** button logs the user out of the account.

5.3 Job Management

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

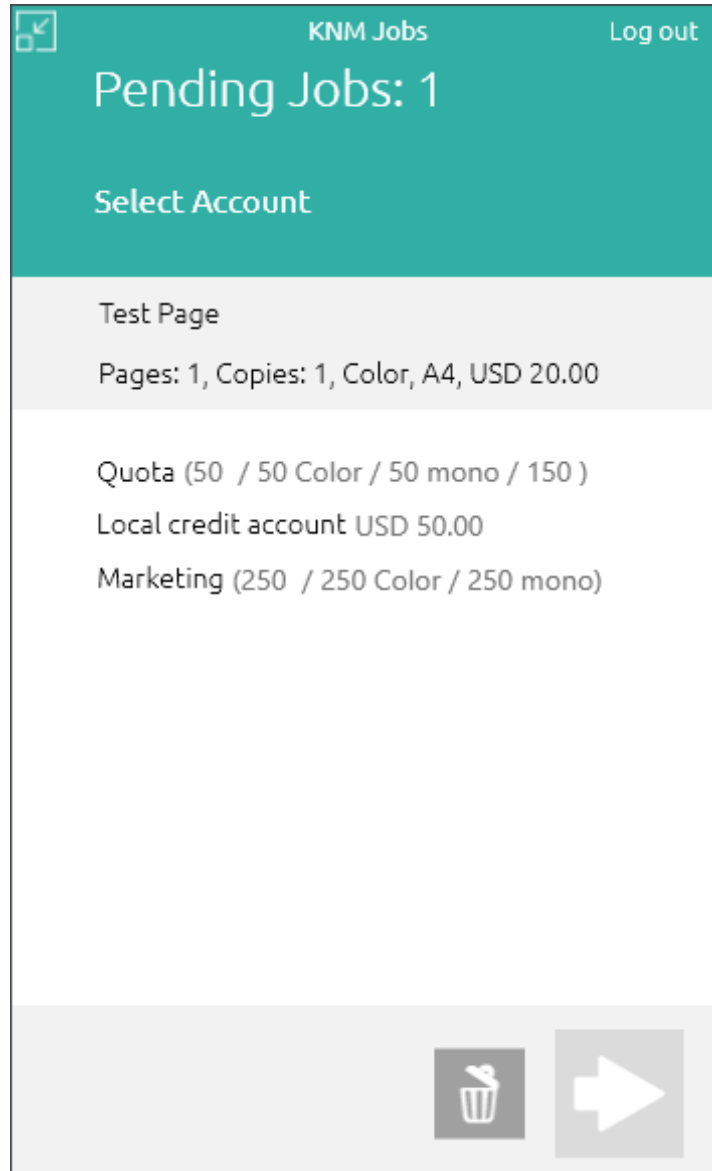
- The queue where the job is sent has the user detection method set to **KYOCERA Net Manager Desktop Client**. User detection methods are described in User Identification.
- User interaction script is set on the queue where the job is sent to; described in Interactive job processing.
- Projects are enabled and the sending user has access to more than one project; described in Project management.

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 to.

- **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.



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

5.3.1 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.

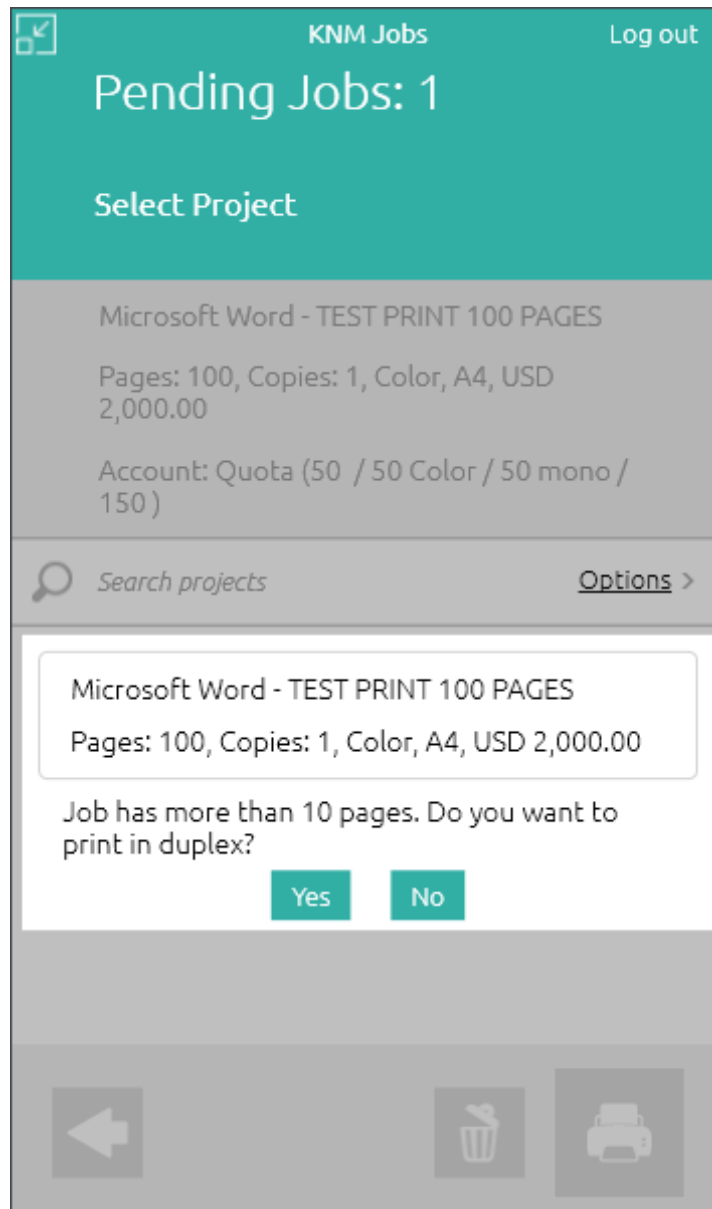
To enable this option, the **KNM** administrator has to add a PHP script to the queue where the job is sent.

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

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.



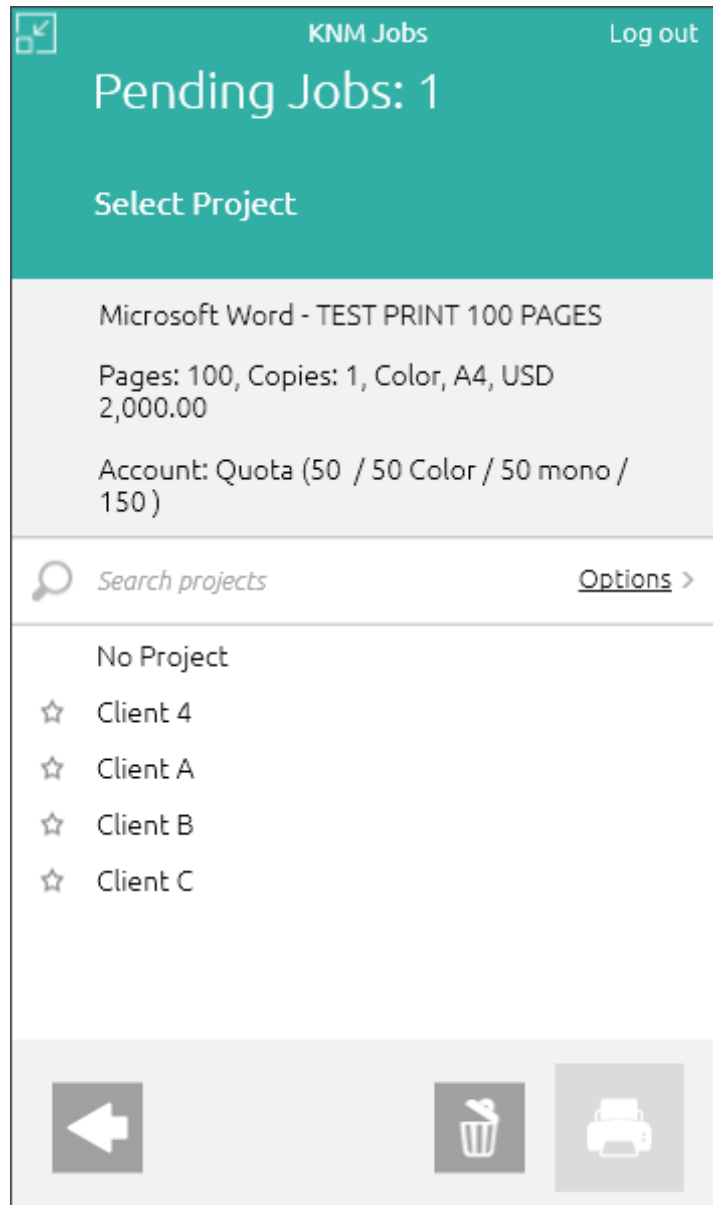
 For more information on PHP job scripting, contact your support.

5.3.2 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. If the user is not identified yet, they need to identify themselves to open the job management options window, where

they can select the project. If they are already identified, they are directly shown the project management options.



On the job management window, the user needs to select a project (or the *No Project* option), and then click the printer icon. 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 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.

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.

5.4.1 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.

There is a dependency on queue types:

- A job from a Direct queue is printed immediately.
- A job from a Print&Follow and/or Delegated queue waits until the user has selected it.
- A job from a queue marked as private is deleted immediately after printing.

For further information, see **Client Spooling** in the **KNM** Installation guide.

Be aware that when **KNM** Desktop Client receives a job, only the metadata for this job are sent to **KNM**.

 Note that release options, watermarks, and print job policies are **not applied** to your jobs when the Client Spooling feature is used. The print jobs are sent to the server and printed as configured in the driver.

The data file of the job is stored in **KNM** Desktop Client on the machine. There is a limitation that job parameters as *Color*, *Copies*, and *Format* are not transferred to **KNM**.



- 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.
- Client Spooling is not available on **KNM** Embedded Lite devices.

5.4.2 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 server.

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

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.

For further information, see **Monitoring local printers** in the **KNM** Installation guide.

5.4.3 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.

5.4.4 Offline Operation (LPM and Fallback Printing)

The administrator can setup how the **KNM** Desktop Client should behave if the connection to **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 DC, 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 DC.

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.

5.4.5 Configure Job Processing

KNM Desktop Client has **3 possible configuration options** of Job Processing, configurable in the DC setup wizard:

1. Secure print job forwarding
2. Client spooling
3. No Job Processing (disabled)

Secure Print Job Forwarding

If you enable this feature, jobs sent to DC 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.

Setup in DC

In the setup wizard in the **Job Processing** window, you'll want to make sure the **Secure print job forwarding** checkbox is checked.

When the **Secure print job forwarding** feature is **enabled**, DC will listen to all jobs sent to the **localhost** or **127.0.0.1** and automatically forward them to the **KNM** Print Server address set in the Server Settings window in the setup wizard.

Printer and driver setup

The printer and driver must be installed on the workstation where DC will be running. The recommended printer driver port configuration is that the **Printer Name or IP Address** should be **localhost** or **127.0.0.1**, as this is the address DC is listening to on port 515, and the **Queue Name** should be the **KNM** queue.

Configure Standard TCP/IP Port Monitor

Port Settings

Port Name: 101site1-Default

Printer Name or IP Address: 127.0.0.1

Protocol

Raw LPR

Raw Settings

Port Number: 515

LPR Settings

Queue Name: Default

LPR Byte Counting Enabled

SNMP Status Enabled

Community Name:

SNMP Device Index: 1

OK Cancel

Client Spooling

If you enable this feature, jobs sent to DC 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.

Setup in DC

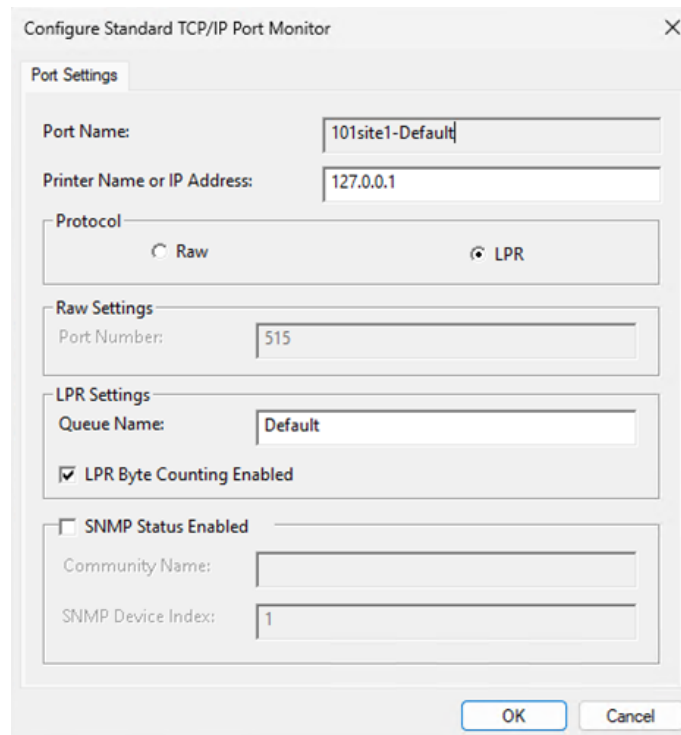
In the setup wizard in the **Job Processing** window, make sure that the **Client spooling** checkbox is checked.

Uncheck the **Secure print job forwarding** checkbox and then check the **Client spooling** checkbox, as these options are **mutually exclusive**.

When the **Client spooling** feature is **enabled**, DC will listen to all jobs sent to the **localhost** or **127.0.0.1**, it will spool them locally and securely store them on the user's computer.

Printer and driver setup

The printer and driver must be installed on the workstation where DC will be running. The recommended printer driver port configuration is that the **Printer Name or IP Address** should be **localhost** or **127.0.0.1**, as this is the address DC is listening to on port 515, and the **Queue Name** should be the **KNM** queue.




No Job Processing

KNM Desktop Client is full of features that can be combined with other **KNM** software to provide enhanced job processing, user authentication, accounting, monitoring, failover mechanisms, and much more.

However, sometimes you may want to use other features, but you don't want to use DC for job processing.

Setup in DC

In the setup wizard in the **Job Processing** window, make sure that the **Secure print job forwarding** and **Client spooling** checkboxes are unchecked.

 In this configuration, jobs sent to the **localhost** or **127.0.0.1** will **not** be processed by DC; **jobs will be discarded**.

Printer and driver setup

In this setup, since DC is not 'listening' for jobs, the printer driver and its port must send jobs directly to the **KNM Server** via LPR. This driver and port configuration is the basic setup to print to **KNM Print Server**, where the **Printer Name or IP Address** should be **KNM Server's** address or hostname, the **Protocol** should be LPR, and the **Queue Name** should be the **KNM** queue.


This method of printing is described more in detail in Printing to **KNM**, in the **KYOCERA Net Manager Installation** guide. This printer, driver port, and the DC configuration is typically used in environments where DC is **ONLY** used for its other features and there is no requirement for job processing.

Some of the **KNM Desktop Client's** features are dependent on its Job Processing capabilities.

5.4.6 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. This can be a printer that has to be specified by an IP address or a hostname, a preset printer, or a printer from a printer list. Jobs are sent one by one with a 45 seconds delay where every job must be confirmed.

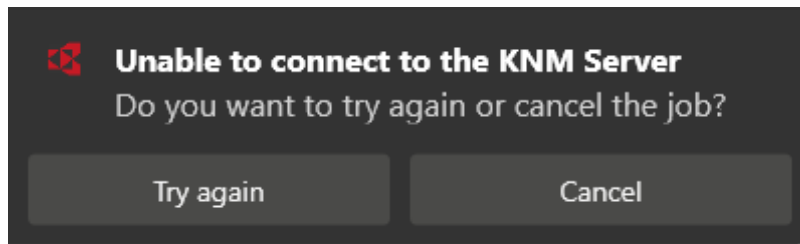
 Fallback Printing only works with the **Windows single sign-on** authentication method in **KNM Desktop Client**.

The following fallback printing workflows are available:

- Failing server with Fallback Printing disabled.
- Failing server with a preset IP address set as a fallback option.
- Failing server with printer selection set as a fallback option.
- Failing server with IP address/hostname set as a fallback option.

Fallback Printing disabled

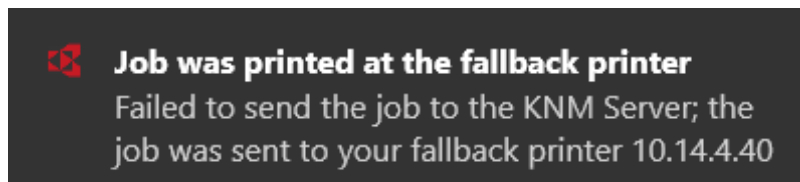
If you want to print and the server is offline but fallback printing is disabled, the following message appears:



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

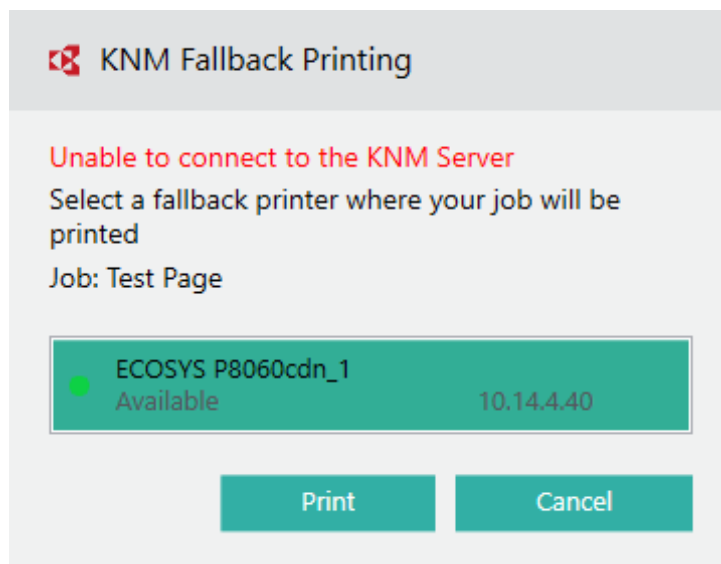
Preset IP address as fallback

If you want to print and the server is offline, and you have enabled the **Set fallback printer IP address** selected as the Fallback Printing option, the job is automatically sent to the specified printer. Once the job is printed, the following message is displayed:

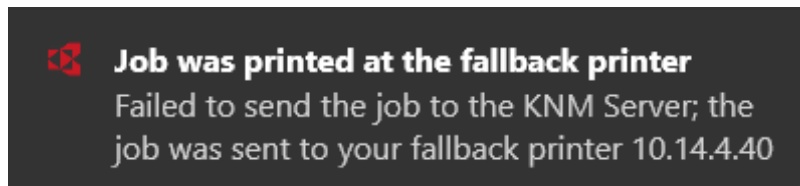


Printer selection as fallback

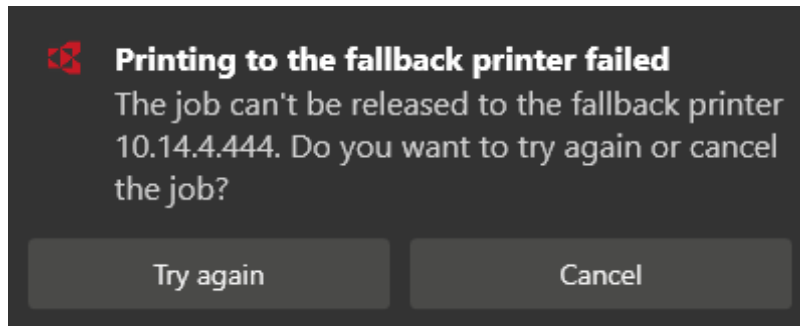
If you want to print and the server is offline, and you have selected the **Show popup to select fallback printer from the list of last used devices** as the Fallback Printing option, a pop-up with a list of printers to choose from is displayed:



Select a printer from the list, and click **Print**. The job is printed and the following message is displayed, after which the job is deleted.



In case the job cannot be printed at the selected fallback printer, the following message is displayed:

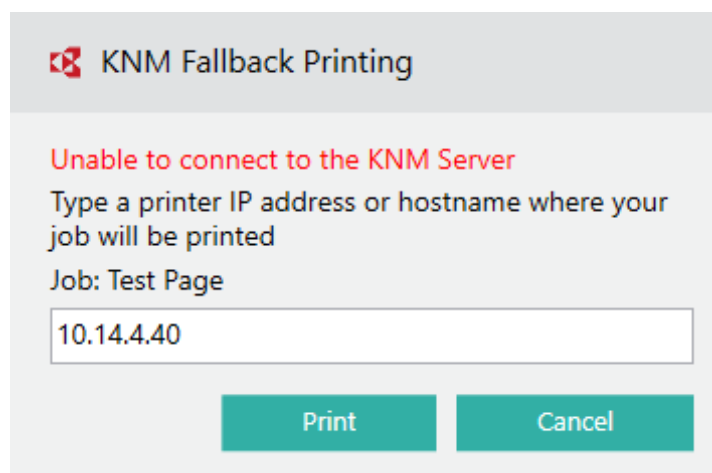


- Click **Try again** to return to the fallback printers list, to try another printer.
- Click **Cancel** to delete the job.

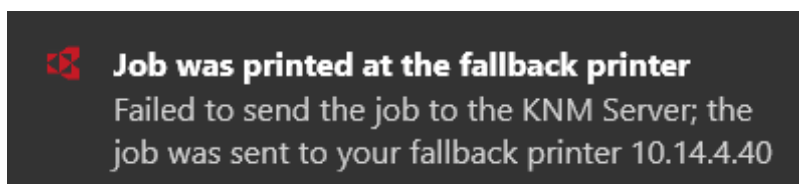
i The displayed printers can be found in the *printers.csv* file, stored in the *C:\ProgramData\SPS\Users\[username]* folder on the user's computer. The printers in this file are updated when the **KNM** Desktop Client starts, the user logs in to their computer, the PC changes IP address, and once per day when the user is logged in.

IP address/hostname as fallback

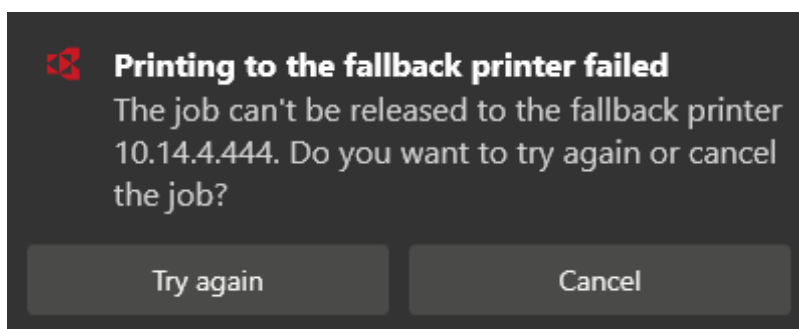
If you want to print and the server is offline, and you have selected the **Show pop-up to type fallback printer IP address** as the Fallback Printing option, a pop-up with job specifications and a field for entering an IP address/hostname is displayed:



Enter the printer's IP address or hostname, and click **Print**. The job is printed and the following message is displayed, after which the job is deleted.



In case the job cannot be printed at the selected fallback printer, the following message is displayed:



- Click **Try again** to return to the fallback printers list, to try another printer.
- Click **Cancel** to delete the job.

6 Uninstallation

The application can be uninstalled via the setup wizard, via silent uninstallation on the Windows™ command line or via the *Uninstall KNM Desktop Client 10.0.exe*.

6.1 Uninstallation via the Setup Wizard

To uninstall the application via the setup wizard:

1. In Windows™ Settings, click **Apps**. The Apps and features menu opens.
2. On the menu, select the **KNM** Desktop Client app and click **Uninstall**. When asked, confirm the uninstallation. The **KNM** Desktop Client setup dialog box opens.
3. In the dialog box, select the **Remove** option.
4. Click **Remove** to confirm the uninstallation.
5. Click **Finish** to leave the setup wizard. **KNM** Desktop Client is removed from the computer.

6.2 Silent uninstallation

To silently uninstall the application, open the Windows™ command line, and:

1. Find the **IdentifyingNumber** of the **KNM** Desktop Client application via the following command:
`wmic product where "Name like '%Desktop%" get Name, Version, IdentifyingNumber`
2. Uninstall the application via the following command:
`msiexec.exe /x *{IdNumber}*
where *{IdNumber}* is the Identifying Number of the application.`

6.3 Uninstallation via the Uninstall KNM Desktop Client 10.0.exe

The *Uninstall KNM Desktop Client 10.0.exe* is a universal uninstaller. It removes any traces of **KNM** Smart Job Manager, **KNM** Smart Print Services, and **KNM** Desktop Client from your computer.

Once you double-click on it, the *Uninstall KNM Desktop Client 10.0.exe* runs and uninstalls **KNM** SJM, SPS, and DC. Once finished, you can view a newly created log file with the uninstallation information.

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

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

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