KYOCERA Net Manager
Administrators Guide

KYOCERA
Document Solutions

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Appendix . Special Email Commands

1 Basic Information

KYOCERA Net Manager System Documentation

KYOCERA Net Manager New Features Guide	Provides an overview of the new features available in KYOCERA Net Manager.
KYOCERA Net Manager Administrators Guide	Describes administration and configuration features such as accounting, cloud licensing, remote terminal management, upgrade, server backup, uninstallation.
KYOCERA Net Manager Embedded Terminal Guide	Describes the installation and configuration of the KYOCERA Net Manager Embedded Terminal and use of Terminal Manager.
KYOCERA Net Manager Installation Guide	Provides instructions for installing software and initial configuration, searching printing devices, adding users, creating print queues, assigning terminals to printing devices, and setting up printer drivers.
KYOCERA Net Manager User Guide	Describes the KYOCERA Net Manager web interface and the KYOCERA Net Manager Embedded Terminal.

What is KYOCERA Net Manager?

KNM is a server-based web application that manages your print devices and user policies to provide secure printing and copying and to provide accounting of print-related expenses. Efficient use of your printing resources is provided by the **Print&Follow** function which allows users to securely print to any printer managed by KYOCERA Net Manager.

KYOCERA Net Manager offers many advantages:

Authentication

Access the devices in one step by PIN, ID card or user name/password or in a two-step authentication combination such as ID-Card and PIN

Security

Secure printing, data encryption and the **Print&Follow** function ensure that your documents can only be accessed and printed by authorized people

Reporting

KYOCERA Net Manager keeps detailed statistics about all aspects of printing and printers, scanning and copying, projects, accounting and users and groups

Personalized Features

KYOCERA Net Manager allows IT administrators to show different functions and applications per user based on the user's requirements

Easy Scan

One click changes the destination of your scanned documents and their metadata. You may choose between your home folder, fax server, or email address

Mobile printing

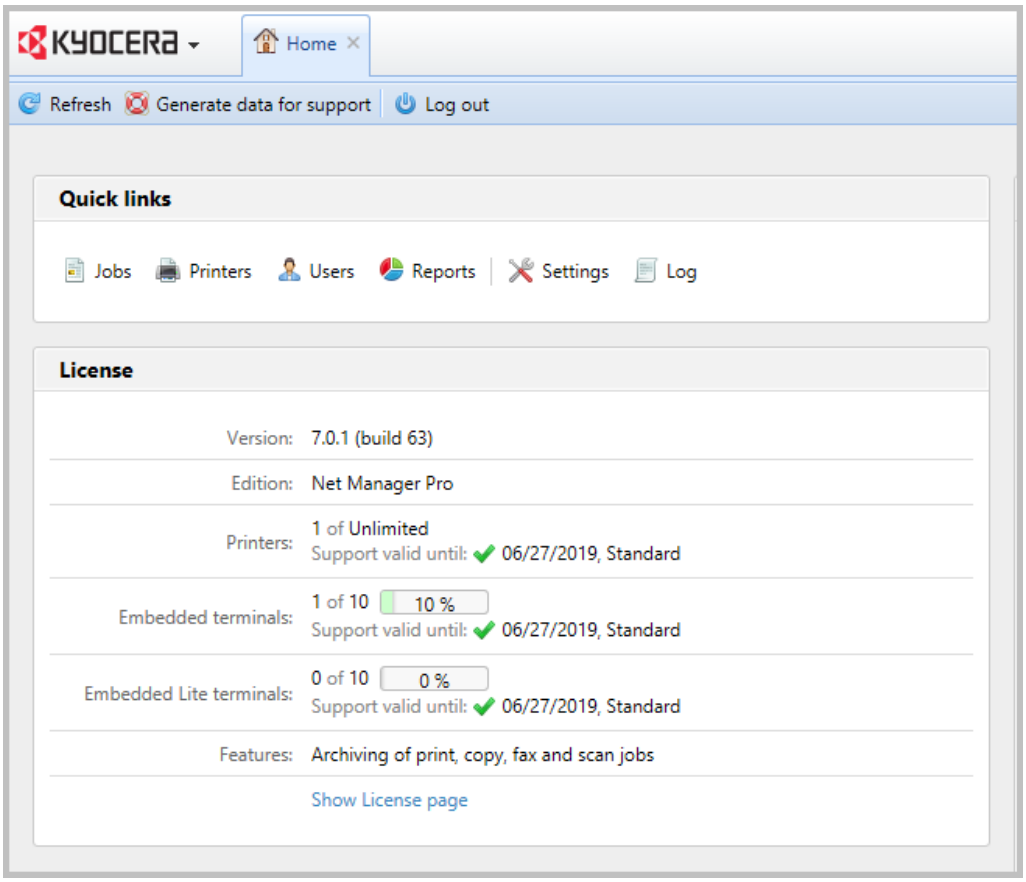
Print documents from your mobile device by sending the job to the KYOCERA Net Manager server or using the mobile app

2 Overview of KYOCERA Net Manager

This chapter gives you an overview of the organization of KYOCERA Net Manager, and points to chapters or other guides to reference for full information.

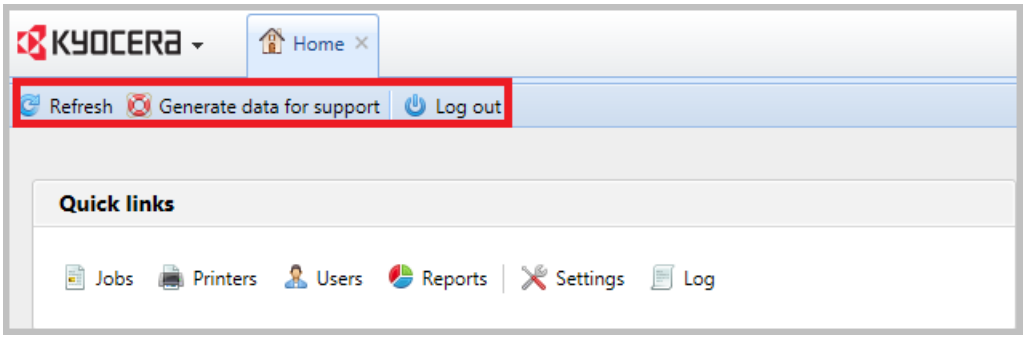
Home screen

When you first log in to KNM, the Home screen presents options for navigating the system.



Quick Access options

Directly under the logo menu and Home tabs are three quick access options:



Refresh

Click to refresh the home screen with current data.

Generate data for support

When you contact KNM support, you can provide them with details about your system. Click this option to generate a .zip file to use when contacting KYOCERA Net Manager support. The Log file generated for support includes the following information:

- KNM log as XLSX
- KNM log as CSV (fallback in case the XLSX is invalid)
- KNM-helpdesk.xml - XML file with all necessary information about KNM configuration
- Optional: Logs directory from KNM data folder (added if Include log files is checked)

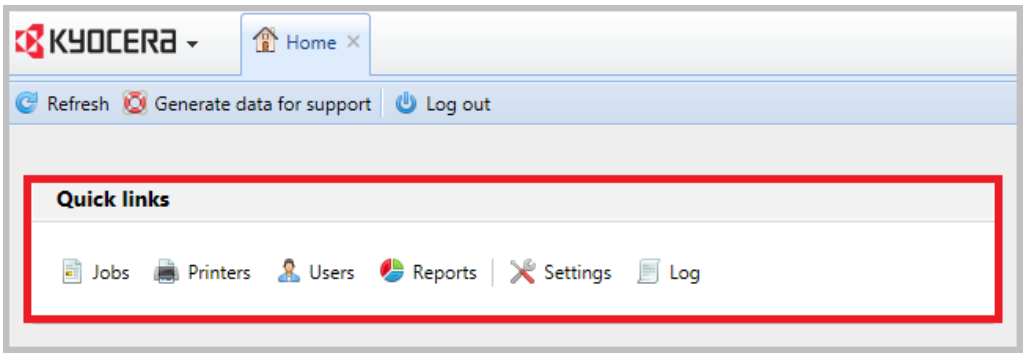
The maximum number of log rows that can be exported is 15000.

Log out

Click to log out of KNM.

Quick links

The next menu bar presents Quick links, used to jump directly to some commonly used screens:



Jobs

View and manage print jobs.

Printers

Add, configure, delete, edit properties for printers being managed by KNM.

Users

Manage user and group properties.

Reports

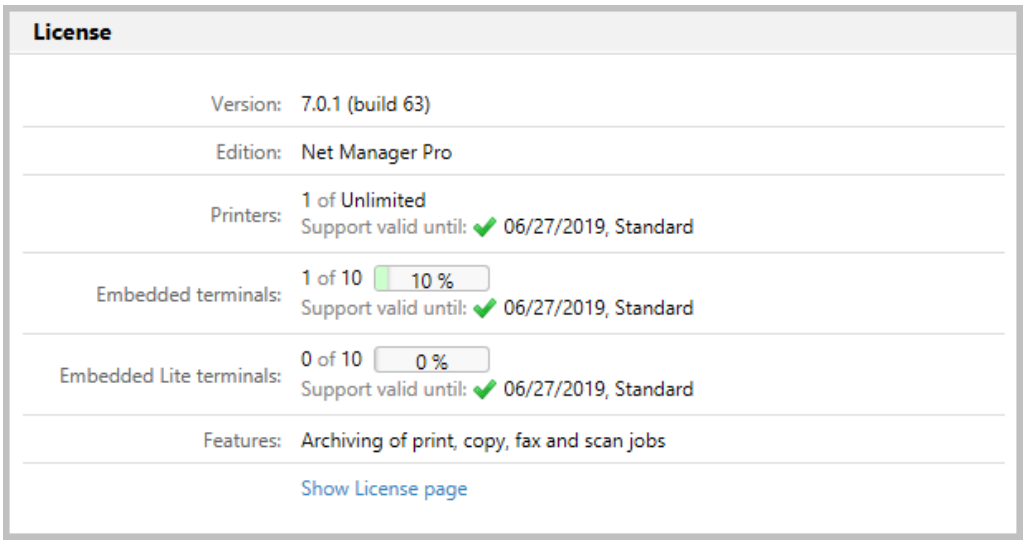
Select and configure system reports to run or schedule.

Log

View system logs, select types of logs to view, export logs to Excel or CSV format.

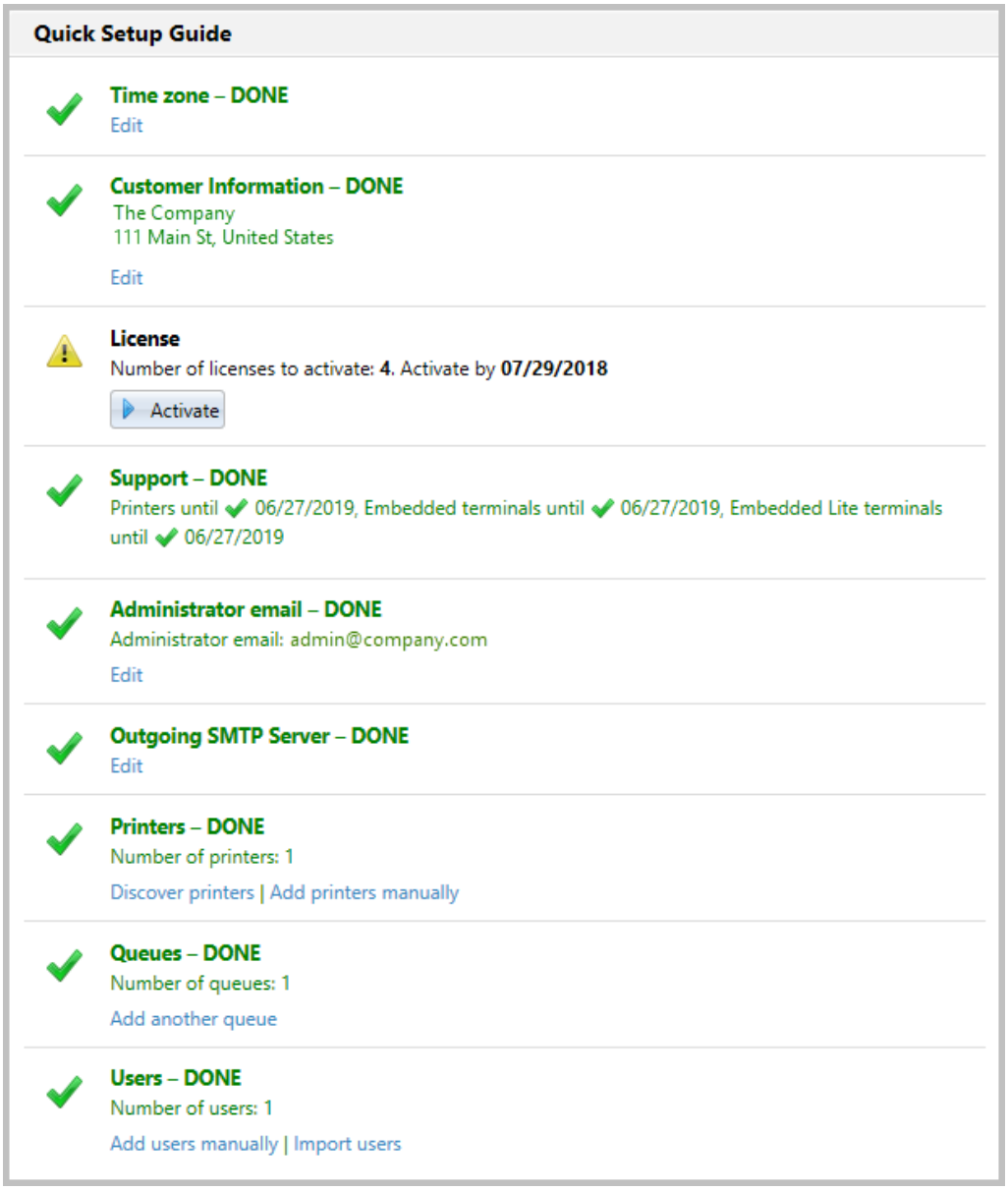
Licenses

Under the Quick links icons, the License section displays the system version, edition, number of printers being managed, number of licenses being used and support expiration date. Click the Show License page link at the bottom of the section to jump to the Settings: License page, where you can manage licenses and your customer information.



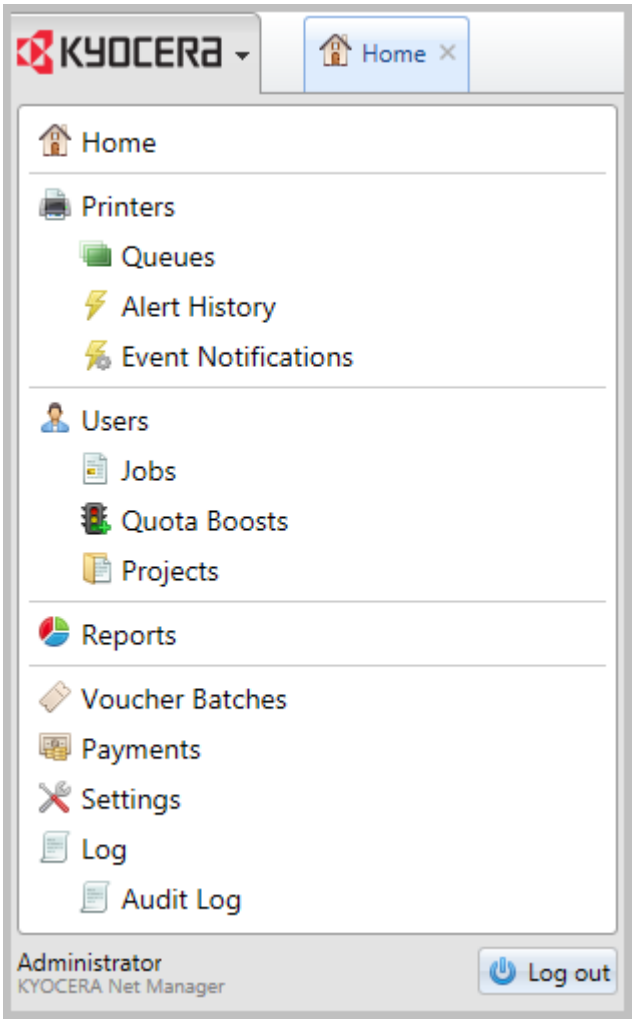
Quick Setup Guide

The next section shows the Quick Setup Guide, which walks you through initial configuration steps post installation. For more information, see the KYOCERA Net Manager Install Guide.



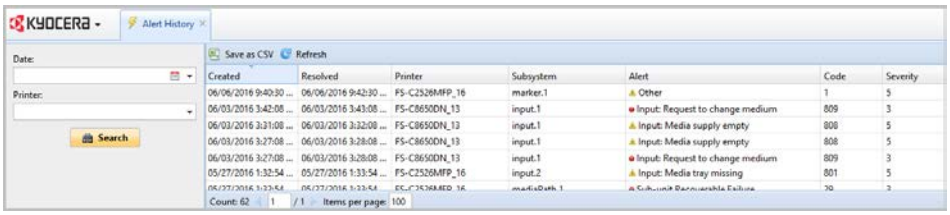
KYOCERA Menu

The other default tab on the main KNM screen is the KYOCERA logo, a drop-down menu with links to basic administration functions.



The following options are found on the logo menu:

- **Printers**: same as clicking **Printers** from the Quick links options on the Home screen
  - **Queues**: add and manage print queues
  - **Alert History**: by default, this page displays alerts for all printers. You can select a date or date range and a specific printer to filter the alerts listing

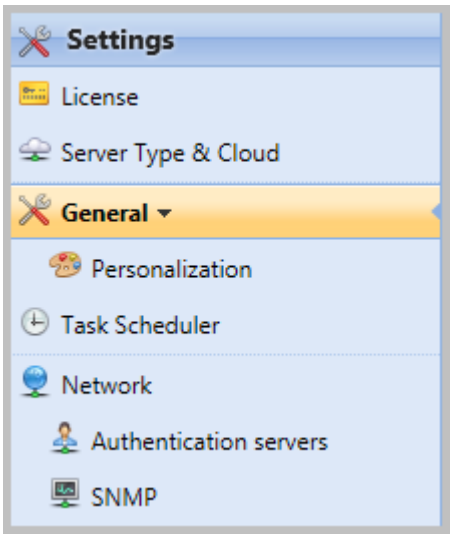


  - **Event Notifications**: Manage and set up notifications for selected events
- **Users**: same as clicking **Users** from the Quick Links options on the Home screen
  - **Jobs**: Same as clicking **Jobs** from the Quick Links options on the Home screen

  - **Credit Statement**: If credit is enabled, there will also be a link to view credit statements.
  - **Quota Boosts**: Admins can boost quotas for users or groups in urgent situations; see Accounting
  - **Projects**: Add, delete and manage projects; see Accounting
- **Reports**: same as clicking **Reports** from the Quick Links options on the Home screen
- **Voucher Batches**: create, manage, export and print vouchers for distribution; see Accounting
- **Payments**: Generates a report about payments
- **Settings**: detail in the next section
- **Log**: same as clicking **Log** from the Quick Links options on the Home screen
- **Audit log**: see System Log chapter.
- **Log out**: another option for logging out of KNM

Settings Menu

Click **Settings** to access options for managing the KNM system.

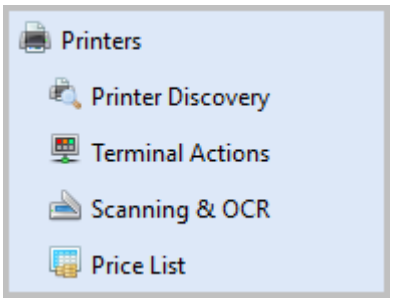


- **License**: Add, manage and activate licenses and support licenses
  - The top portion of the License screen displays the current status of licenses and version of KNM and has a link to export the HW Code for this installation on this hardware
  - The middle section displays the current licenses with links to activate, delete, add new licenses and manage support licenses
  - Add or edit your company information in the Customer Information section
  - Enable or disable Virtual machine high availability, if licensed, in the last section
- **Server Type & Cloud**: Configure this installation of KNM as a standalone, master or site server; see Server Type & Cloud.

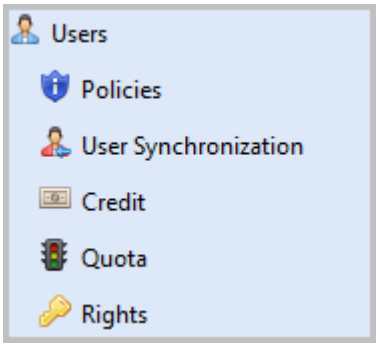
- **General**: Manage some basic system settings on this screen; see Basic System Settings
- **Personalization**: Manage customizations such as logos, messages and help links.
- **Task Scheduler**: Manage scheduled operations such as backup, log backup, system maintenance tasks and user synchronization; see Basic System Settings
- **Network**: Manage communication security, server types, proxy settings, firewalls and authentication servers; see System Settings
- **Authentication servers**: Add, edit and test authentication servers
- **SNMP**: View and manage SNMP settings, see SNMP v3 support
- **Easy Cluster**: A high availability feature managed from this screen; see Easy Cluster

  Easy Cluster will not display by default and must be configured.

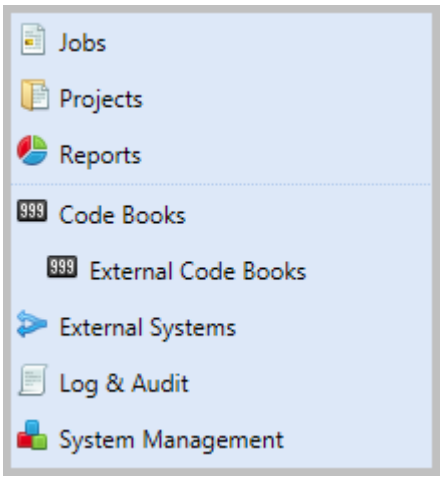
- **Printers**: Basic overall settings for printers such as admin username and password, card access, enabling local print spooling. Use the **Filter for terminal** menu to view only settings for a particular terminal type.



  - **Printer Discovery**: Add, edit, enable and run printer discovery for specified IP ranges; see Printing Devices
  - **Terminal Actions**: Terminal actions define the appearance and the features that will be shown on the Embedded terminal of the user. You may define different features and appearance for different departments, even users; see Printing Devices – Terminal Actions for more
  - **Scanning & OCR**: Enable and disable KNM submodules. You can modify the look of the notification email for the scan process and define the connection to the Optical Character Recognition (OCR) software; see Scan Management
  - **Price list**: Define price categories for printing services and associate price lists printers; see Accounting
- **Users**: Settings that affect all user accounts; see Users and Groups



- **Policies**: Manage the two policy types: Print job and Printer policies; see Users and Groups
- **User Synchronization**: Add, edit and enable synchronization sources and run synchronization task; see Users and Groups
- **Credit**: Enable and manage credit settings; see Accounting
- **Quota**: Enable and manage quota settings; see Accounting
- **Rights**: Add or remove user or group rights, such as Manage printers, Recharge credit, etc; see Users and Groups



- **Jobs**: Manage general settings for printing; see Print Job Management
- **Projects**: See Accounting
- **Reports**: Add custom reports and set permissions on existing reports
- **Code Books**: Define your own code lists and add multiple codes for each of them. Code lists can be used as parameters for specific functions of KNM terminals; see the Embedded Terminal Guide
  - **External Code Books**: Access code books from other sources
- **External systems**: Configure access for integrating applications that are external to KNM
- **Log & Audit**: Manage Log Notifier rules

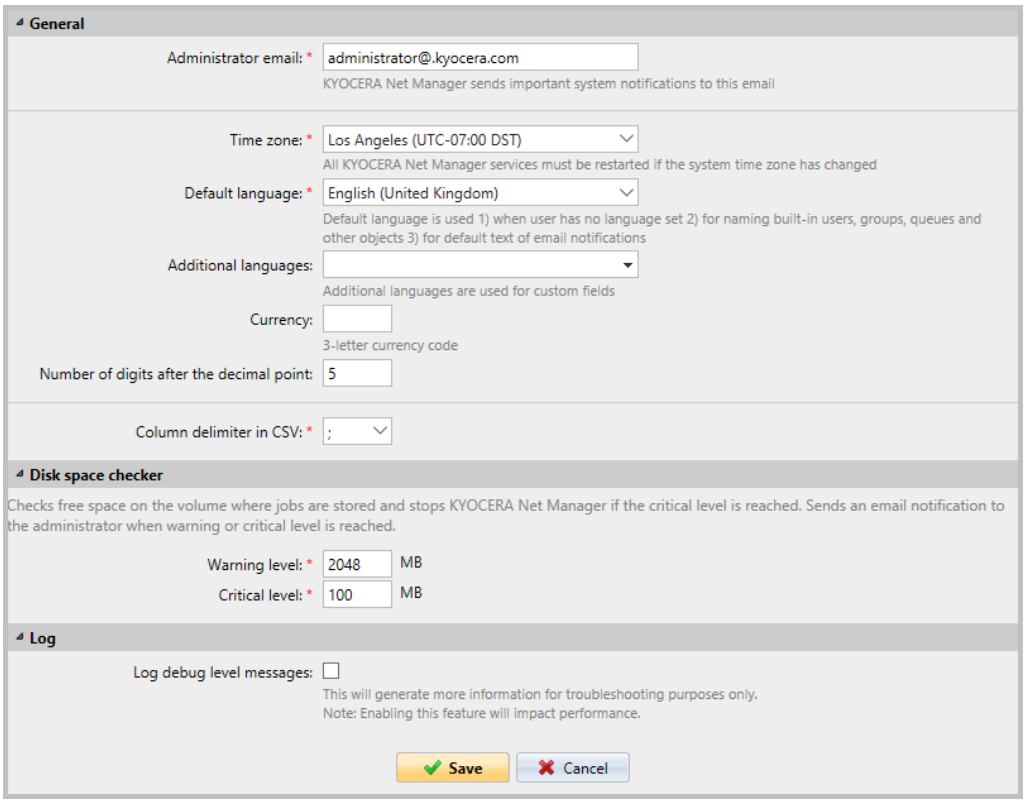
- **System maintenance**: Set retention limits for jobs, users, log history and permanently delete users, printers and data that has been deleted elsewhere in KNM

3 Basic System Settings

Most of the Net Manager system settings are available from the Settings tab. To open this tab, select the Settings option from logo menu. After the Settings tab is open, select the required submenu.

General Settings

General



Fields in the **General** section:

Administrator email

Main email for communicating with KYOCERA Net Manager.

Time zone

Time zone provides options in a drop-down list. If you make a change to Time zone, you will be prompted to restart the HTTP Server (Apache).

Default language

Defines the language of all the email sent from Net Manager as well as the language used for the connected embedded terminals and interactive Net Manager readers.

Additional languages

Other languages used for custom fields.

Currency

Defines the currency used in Credit, Report and Quota. The Currency format sets how the currency symbol is used.

Number of digits after the decimal point

Can be set from 0 to 5.

Column delimiter in .CSV

Defines the delimiter in source/destination files used for all the import/export operations from/to CSV file format. The default value is based on regional settings of the operating system.

Disk space checker

Disk Space Checker protects the system from failure caused by insufficient disk space. Two levels can be specified.

- If the Warning level is reached, an alert email is sent to the Net Manager Admin.
- It the Critical level is reached, an alert email is sent to the admin and the Net Manager service is automatically stopped to prevent file corruption in the Net Manager database.

  Both events are displayed in the Net Manager log at the same time.

Log

If enabled, **Log debug level messages** will have an impact on your system performance. Enable this option only for troubleshooting or at the request of support.

Personalization

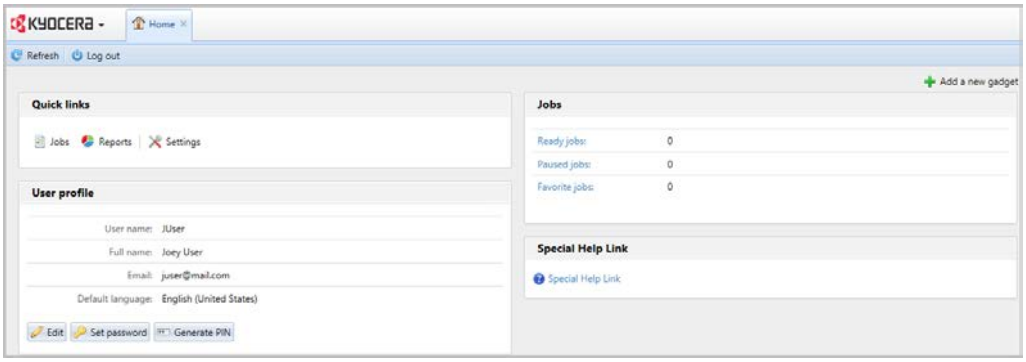
Use Personalization to set several custom display options.

Dashboard custom message

Change the message that displays on the web accounts of KNM users.

Custom help

Provide a link to users for specialized or custom help. Enter a Title and provide the URL in the Link field. This specialized link displays on the user's home page in the KNM web interface.



Custom application logo

Add your company's logo to appear in the web interface, in reports, on credit vouchers, and in Smart Job Manager. Supported picture formats are .jpg/.jpeg/.png/.bmp and the recommended size is 398px x 92px. To import the logo, click **+Add**, then **Choose File**, locate the logo file and click **Save** at the bottom of the tab. A preview of the new logo displays on the tab.

Terminal personalization

Custom logo

Set your company's logo to be used on all embedded terminals. Supported picture formats are .jpg/.jpeg/.png/.bmp and the recommended size is 340px x 92px. To import the logo, click **+Add**, then **Choose File**, locate the logo file and click **Save** at the bottom of the tab. A preview of the new logo displays on the tab.

Themes for Embedded Terminal

Embedded terminal icons and colors can be customized via themes that can be purchased from KNM.

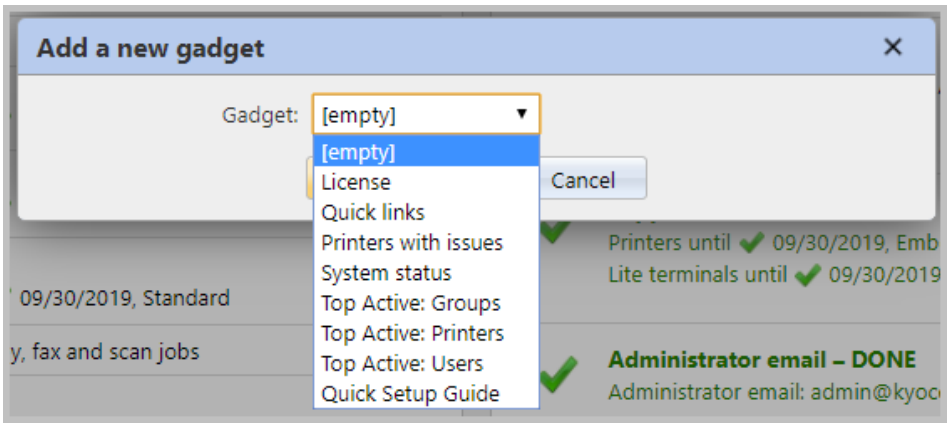
Custom link in Smart Job Manager

Add a link to your own web-based help that will be displayed in Smart Job Manager. To add the custom help link, enter the title and the link of your custom help, and click **Save** at the bottom of the tab.

Adding and managing gadgets on the dashboard

You can add a gadget to the Home tab dashboard. Once the gadget appears, you can edit, delete, or change the gadget's position. Users and Administrators have different lists of available gadgets.

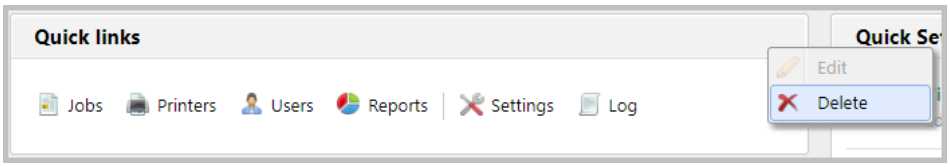
1 Click **Add a new gadget**.



2 In the Gadget drop-down list, select a gadget and click **OK**.

3 To relocate a gadget, hover over the gray bar at the top of the gadget until a cross symbol appears. Click, hold, and drag the gadget to a new location.

4 To delete a gadget, click the drop-down menu and select **Delete**.



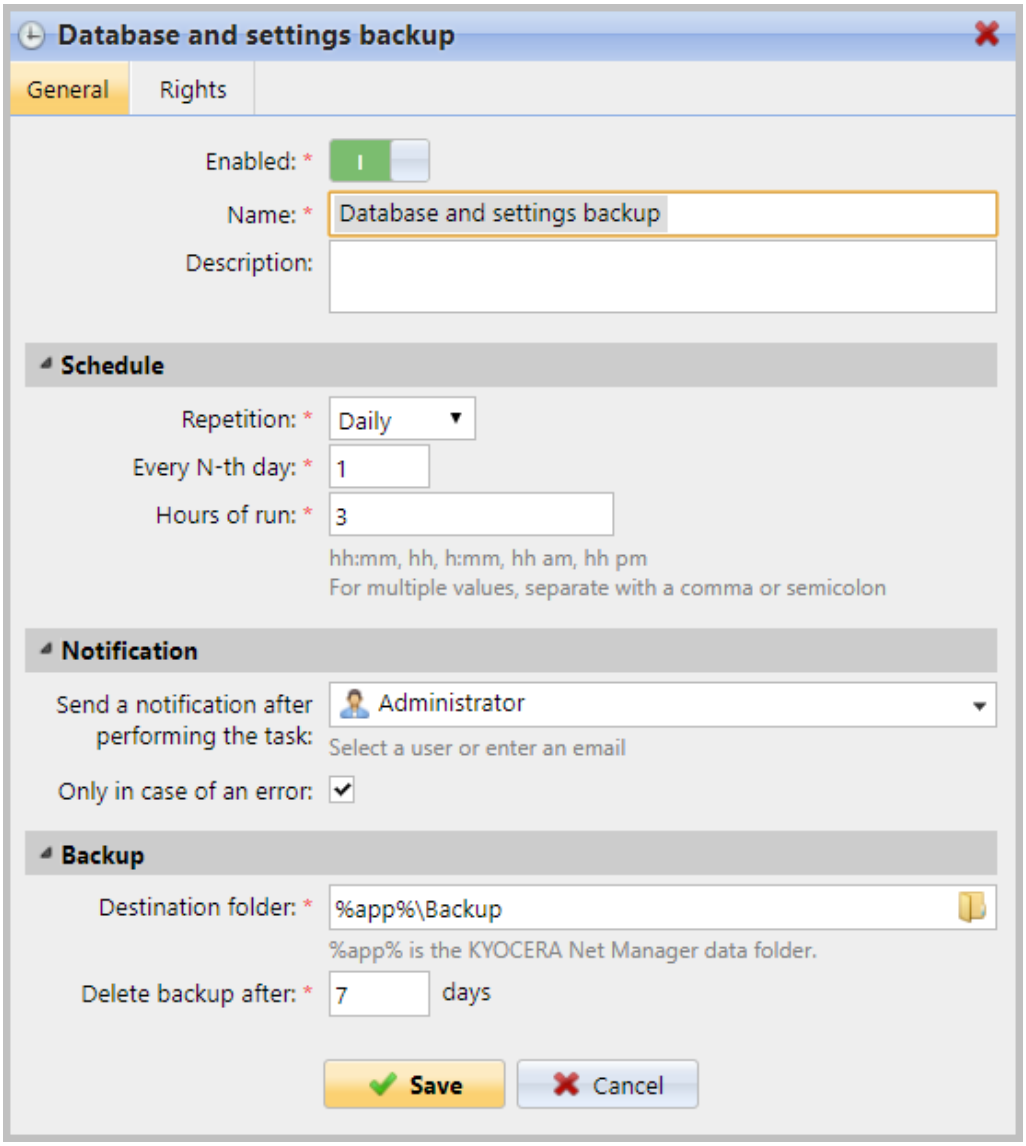
Task Scheduler

Task Scheduler let you plan regular operations in Net Manager such as scheduling user import and sending regular reports to email or folder. User imports can be planned directly from the Task Scheduler menu. Reports can be scheduled from the Reports menu.

Predefined tasks include: Database and settings backup, Disk space checker, History deletion, Log backup, Printer Discovery, System maintenance, and User Synchronization.

Automatic database and log backup process

There are two automatic backup tasks in the Task scheduler: Database and settings backup and Log backup. After installation is completed and the licenses are entered into Net Manager, the backup system will start an automatic backup of the database and log. The files are compressed and saved to the backup folder, C:\ProgramData \Kyocera\KYOCERA Net Manager\Backup. The backup schedule and destinagion folder can be modified in the settings window.



Automatic system maintenance process

System maintenance is needed for fixing system defects, error correction, enhancements of capabilities, deletion of obsolete capabilities, and system optimization.

Network Settings

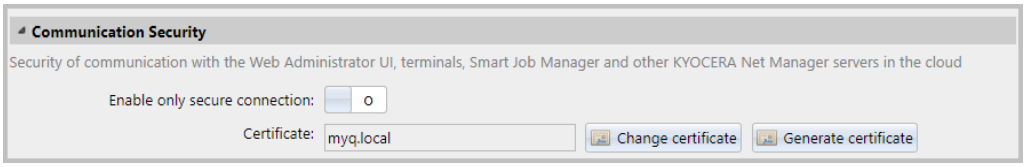
General

This server hostname - Terminals, Smart Job Manager and other components use this hostname when communicating with the server.

Communication security

This option enables you to set security for communication with the Web Administrator UI, terminals, Smart Job Manager, and other Net Manager servers in the cloud. From this menu, you can add or change your security certificate. Click **Generate certificate** to generate a new, self-issued certificate.

If you set **Enable only secure connection** to **ON**, unsecured ports such as port 8080 become unavailable.



Certificate in KNM

To implement the certificate in the system, open the KNM web interface and select **Settings** > **Network** > **Communication security**. You must add the certificate issued for the KNM server and the Private key. Both should be issued for the KNM server. The supported certificate format is Privacy Enhanced Mail (PEM).

Certificate for devices with HyPAS Technology

To add a certificate to your printing device, type the device's IP address on port 8080 or 8083. The port varies by device. For information, refer to the documentation for your device. Type the Admin User name and Password (User name: Admin, Password: Admin). Select the **Certificate** > **Server Certificate** tab and add the security certificate to the printer. Click **Import**. The root certificate must be added. This procedure is required for secure communication between the terminal and the server. To enable this function, the certificate must be also uploaded to the server.

Most devices require a restart after certificate upload.

Secured communication in the Cloud

To ensure secure communication in the cloud, select **Enable secure connection** while configuring Site server settings. (**Settings** > **Server Type & Cloud**) The port is changed to 8090 and communication is secured by the SSL certificate.

Encrypted print jobs between server and printer

The print jobs may be sent through the IPPS protocol.

- Enable IPPS on the printing device.
- Open the queue that will use the encrypted jobs feature.
- In the Output to printer section, change the Protocol from **Raw** to **IPPS (secure connection)**. The port is changed from 9100 to 443.

Port 443 should not be used by any other application. Set an exception for KNM (on this port) in the firewall settings of the server's operating system.

Secured communication between local stations and print server

To ensure secured communication between local stations and print servers, the drivers must be installed on the local station and Smart Job Manager must be installed on each of the stations. Microsoft Windows is the required operating system on the local station. Before driver installation, install KNM Smart Job Manager. Install drivers installed locally on the stations and set the target IP address to localhost, not the KNM server. The application forwards all jobs to the server.

KNM HTTP server

KNM can be run in the secured mode when all the communication between the system, printers and terminal is encrypted (secured by the SSL certificate). The basic version of KNM uses port 8080. To use the encrypted version, you may access the system through port 8090. You may disable the availability of the 8080 port in your operating system's firewall settings.

If port 8090 is already used by any other application, you may change it in the web interface **Settings** > **Network** > **KYOCERA Net Viewer HTTP Server (Apache)**.

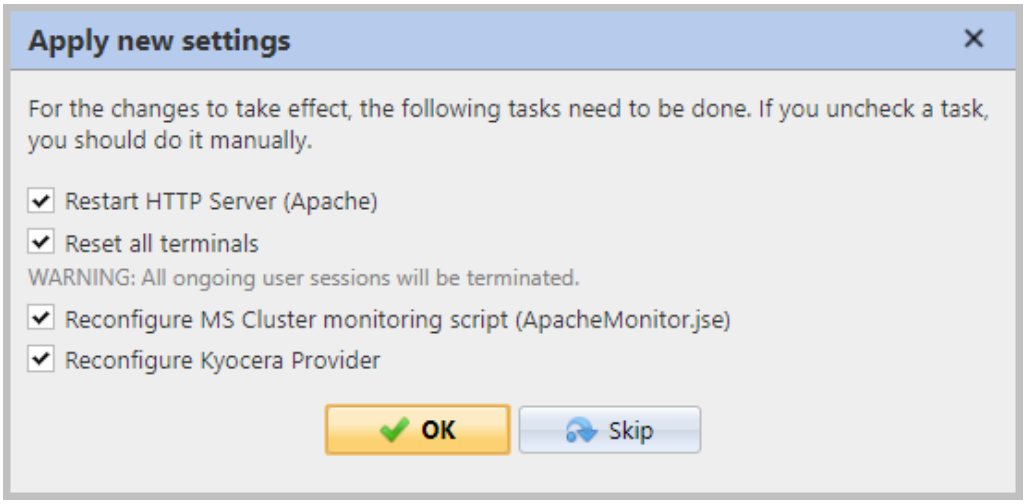
When changing the ports used for KNM, do not forget to make an exception for these ports in your system firewall.

To access the system in the secured mode, type **HTTPS://localhost:8090** into your browser window.

Modify ports for HTTP (Apache) and SMTP server for incoming files

You can change the communication ports for a Net Manager Apache server and the incoming SMTP server.

Every port change requires an Apache server restart. When you click **Save**, the following window displays. Make sure all checkboxes are selected and click **OK**.



This SMTP server is not used for outgoing communication. For outgoing communication, define the connection to an SMTP server that will forward system messages.

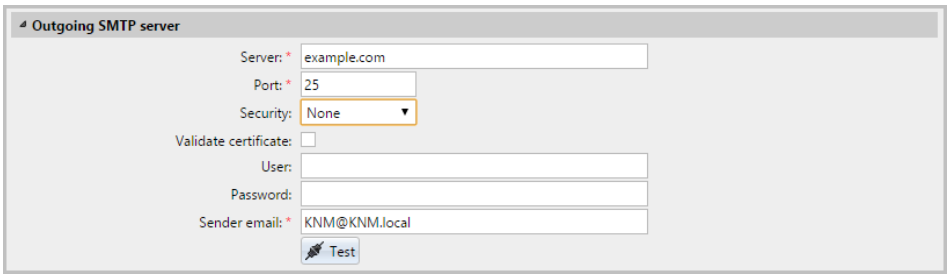
KYOCERA Net Manager SMTP server

Match the port in this section to a scanning device's SMTP settings.

Configuring an outgoing SMTP server

Configure an SMTP server to send reports to email, send error messages to users, send automatically generated PINs to users, and forward scanned jobs in Scan Management.

1. Click **Configure the outgoing SMTP server** in the Quick Setup Guide.
2. In the Outgoing SMTP server area, enter the SMTP server's IP address or hostname into the **Server** text box.
3. If the mail server listens on a port other than 25, match it to the value in the Port text box.
4. If used, select the Security protocol: SSL, STARTTLS, or None.
5. Select **Validate certificate**, if required.
6. [Optional] Add the User and Password if the credentials are required by the SMTP server.
7. Enter an address in the Sender email text box to display as the sender for the PIN, alert and report emails (the default is KNM@KNM.local).
8. Click **Test** to check the availability of the mail server.

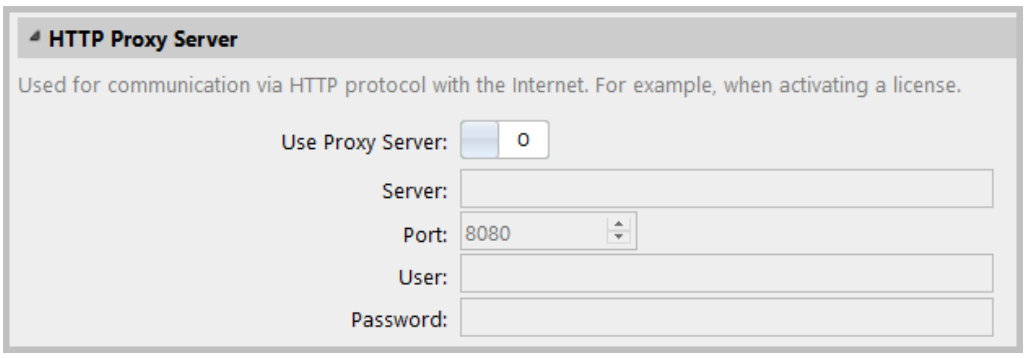


9. Click **Save**.
10. Close the Settings: Network tab.

HTTP proxy server

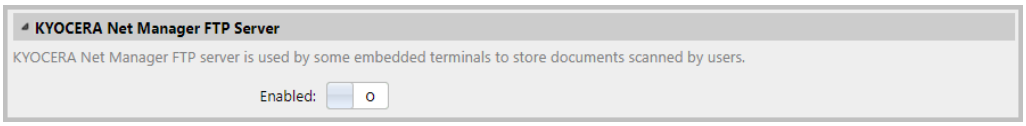
Proxy server settings may be required for transmitting data when activating the license (see Saving customer information and license activation). Enter the proxy server IP

address or hostname, a communication port and access data. After license activation, the proxy server data can be deleted.



KYOCERA Net Manager FTP server

If KNM has been configured to act as an FTP server for scanned documents, this section will appear in the Network options. For more on configuring the FTP server, see **Scan Management / KNM as FTP Server**.



Firewall

This feature will open all ports necessary for to run the system in the server's firewall. When some of the ports are changed the system will open the new ones. Ports required for installation are automatically configured.

Kyocera provider

Provides port settings for eight areas:

- Mobile Print IPP
- Mobile Print IPPS
- Authentication/Authorization
- Driver access, Mobile access
- Spooler service
- Log information event
- Job status event
- Thrift access
- User Session service

SNMP v3 support

SNMP v3 is supported in KNM. SNMP v3 extends SNMP v1/v2c and adds administration and security. An Administrator can assign an SNMP profile to an

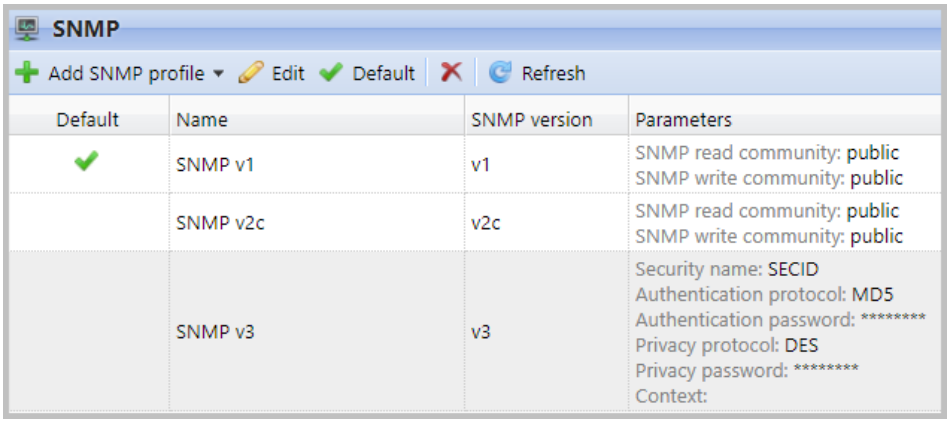
individual device and applies only to this device. The default SNMP profile in Global settings is used for any device with no assigned profile.

Printer Discovery allows you to discover devices based on their SNMP profile.

Setting the default SNMP version

1 Go to **Settings** > **Network** > **SNMP**.

2 Select the SNMP version and then select **Default**.



Creating new SNMP profiles

You can create and manage new SNMP profiles that can be assigned to devices.

1 Go to **Settings** > **Network** > **SNMP**.

2 Click **+Add SNMP Profile**.

3 Enter settings and click **Save**.

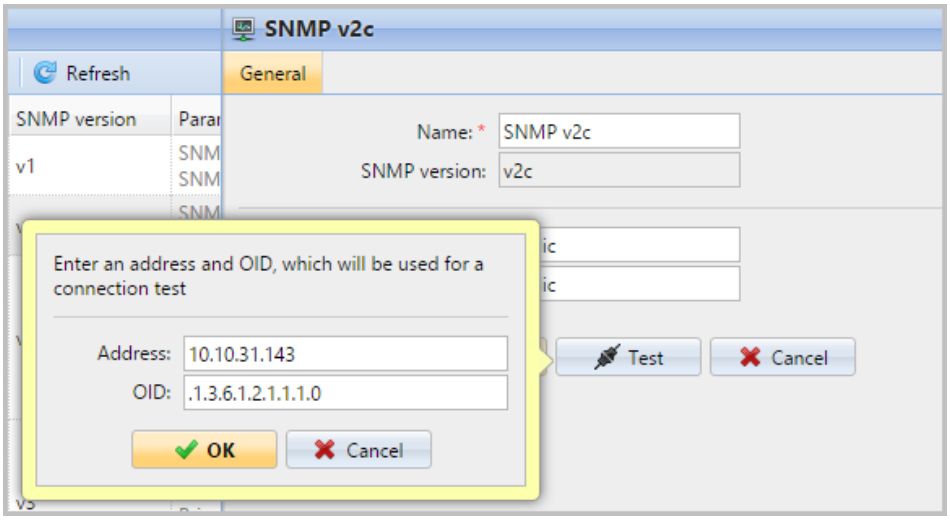
The following settings apply to the different SNMP versions:

SNMP Profile Parameters	SNMP Version	Choice
Name	All versions	
SNMP version	All versions (set by selection of the profile type)	
SNMP read community	v1, v2	
SNMP write community	v1, v2	
Authentication / Protocol	v3	None MD5

SNMP Profile Parameters	SNMP Version	Choice
		SHA1
Authentication / Security name	v3	
Authentication / Password	v3	
Privacy / Protocol	v3	DES 3DES IDEA AES128 AES192 AES256
Privacy / Password	v3	
Context	v3	

Testing SNMP v1 or v2c profile settings

1. Go to **Settings** > **Network** > **SNMP**.
2. Double-click the default SNMP version name and select **Test** in the Properties window that opens.
3. Enter the IP address of a device and click **OK**.

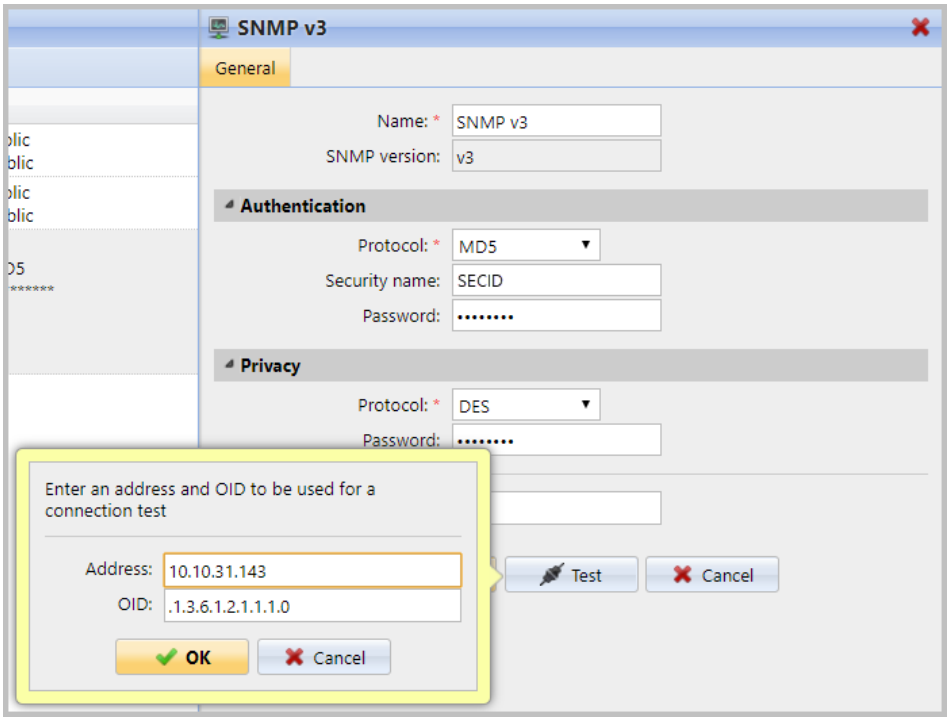


OID stands for object identifier.

Testing SNMP v3 profile settings

SNMP v3 uses two types of credentials – Authentication and Privacy (message encryption). The default password for both of them is 'Admin001'.

1. Go to **Settings** > **Network** > **SNMP**.
2. Double-click the SNMP v3 name and select **Test** in the Properties window that opens.
3. Enter the IP address of a device that supports SNMP v3 and click **OK**.

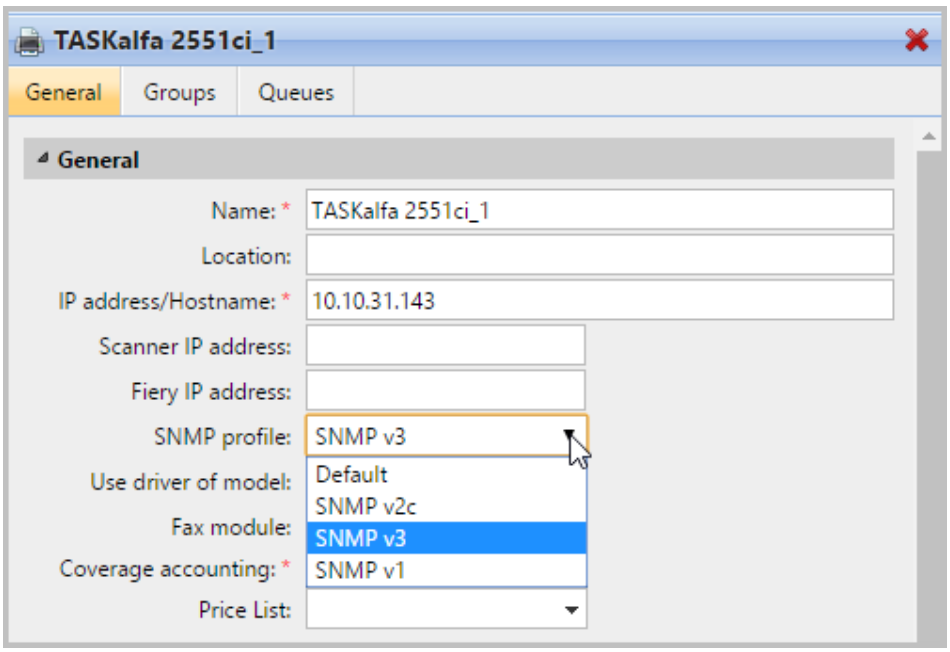


SNMP v3 is turned off by default. If a test fails, check the SNMP protocol setting.

Setting SNMP profile for a device

1. Go to **Printers**.
2. Double-click the name of a device.

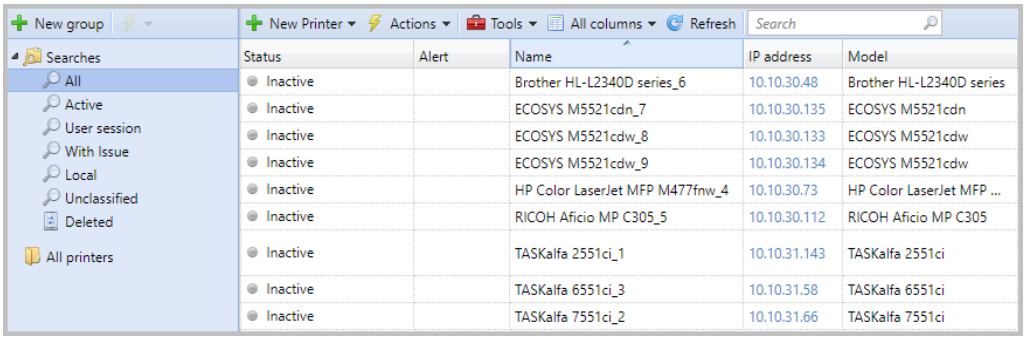
3 In the **General** tab of the **Properties** window select the SNMP version to use for this device.



4 Click **Save**.

4 Printing Devices

To view all the printing devices, select **Printers** from the logo menu. If any devices are not visible, you may not have active licenses for the devices.



You can filter the list by selecting one of the following items under Search:

All

A list of all printers.

Active

Only active printing devices.

User session

Only printing devices that are currently in use.

With issue

Printing devices reporting trouble.

Local

Locally connected printing devices (USB, LPT).

Unclassified

Printing devices that do not belong to any group.

Deleted

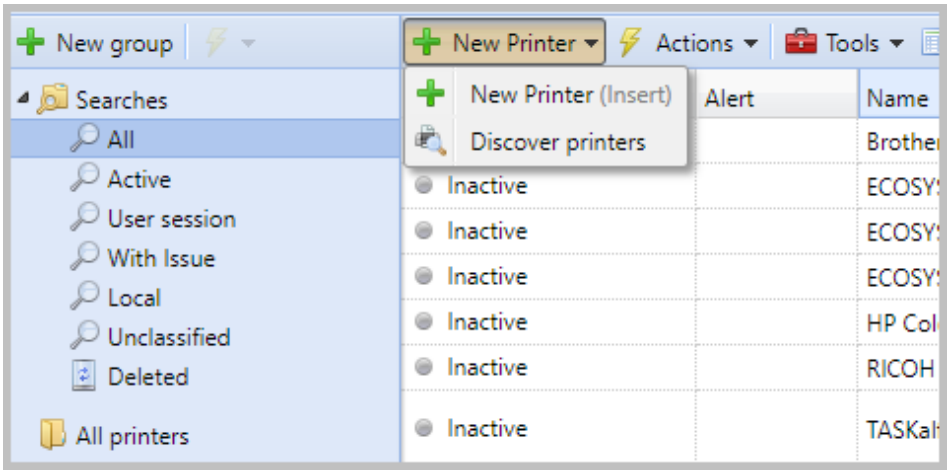
Deleted printing devices.

Adding printing devices manually

You can add printing devices to KNM manually.

1. Go to the **Printers** main tab.
2. Click **+ New Printer**.

3 In the drop-down menu, select **+ New Printer (insert)**.



4 Enter the device name and IP address in the printer properties panel and click **Save**.

Printing device configuration settings

Each individual printing device has its own properties panel. To open the panel, double-click the printing device on the list of printing devices on the **Printers** main tab (or right-click the printing device, and then click **Properties**).

There are three configuration tabs:

- **General** - Configure the device settings
- **Groups** - Add the device to groups
- **Queues** - Add the device to queues

Printers - General configuration settings

Click **New printer** to display printer **Properties**. Some printer properties can be edited manually; others are automatically downloaded from the printer after it is connected to the network and activated.

TASKalfa 2551ci_1

General | Groups | Queues

General

Name: * TASKalfa 2551ci_1
Location:
IP address/Hostname: * 10.10.31.143
Scanner IP address:
Fiery IP address:
SNMP profile: Default
Use driver of model:
Fax module:
Coverage accounting: *
Price List:

Administrator user name:
Administrator password:

Terminal type

Terminal type: * Embedded
Login methods: * Simple
- ID Card
- PIN
- User name and password

ID Card and PIN
ID Card and password

Terminal ID: 00C0EEAFBF6E
Secondary terminal ID:

Information

Brand: Kyocera
Model: TASKalfa 2551ci
Serial number: ZHC3500005
MAC address: 00-C0-EE-AF-BF-6E
Asset number:
Contact:
Purchase date:
Notes:

Toner capacity

C: 12000
M: 12000
Y: 12000
K: 18000

Page Counters Expand

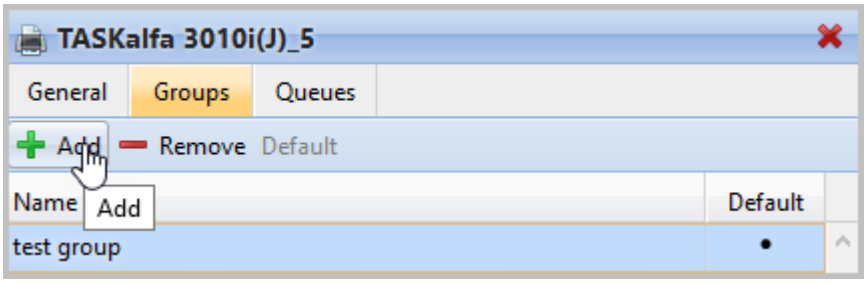
Save | Cancel

Printer Properties	
Name	Custom name of the device. Any string can be used.
Location	If required, the placement of the device should be specified.
IP address/Hostname	IP address or hostname of the device.
Scanner IP address	IP address of the scanner if the device scanner uses a different IP from the printer.
Fiery IP address	IP address of the Fiery module if the device is equipped with one.
SNMP Profile	Create and manage new SNMP profiles that to assign to devices.
Use driver of model	If your device is not listed in the current database of supported models, choose a device with a similar name.
Fax module	If selected, all printed faxes are accounted to fax user. Select only if the device is physically equipped with fax module. Select this option when fax is equipped so that fax usage is reflected to the reports.
Coverage accounting	Select to use coverage accounting.
Price list	Assign a price list to a device.
Admin user name	Administrator credentials for this device.
Admin password	Administrator credentials for this device.
Terminal type	
	If the device has terminal software installed, this field will be visible. Choose the terminal type that is used by the device from the drop-down list. Make selections for Login methods and fill in the fields for the terminal ID. The secondary terminal ID is used when a device is equipped with another terminal (for example, with special authentication technology).
Information (information imported from the device)	

Printer Properties	
Brand	Information about the manufacturer of the device
Model	Model name
Serial number	Device serial number automatically detected
MAC address	Device MAC address automatically detected. The MAC address is used for device identification in Net Manager. Only one device per MAC address can be activated.
Asset number	Unique device identification used for statistics and alerts.
Contact	Contact of the individual responsible for toner, paper, etc.
Purchase date	Date of device purchase
Notes	Additional information about the device.
Toner Capacity	
	Capacity of the device toner containers (automatically detected if available on the device)
Page Counters	
Page Counters	Device total counters automatically detected from the device
Printer total counter adjust for load balancing	Counter adjustment for Tandem printing

Adding printing devices to groups

1 After selecting the **Groups** tab under **Printer properties**, click **+Add**.



2 In the **Select group** dialog box, select the groups where you want to add the device, and click **OK**.

You can also add a device by selecting **All** under **Searches** and dragging printers onto groups.

Removing printing devices from groups

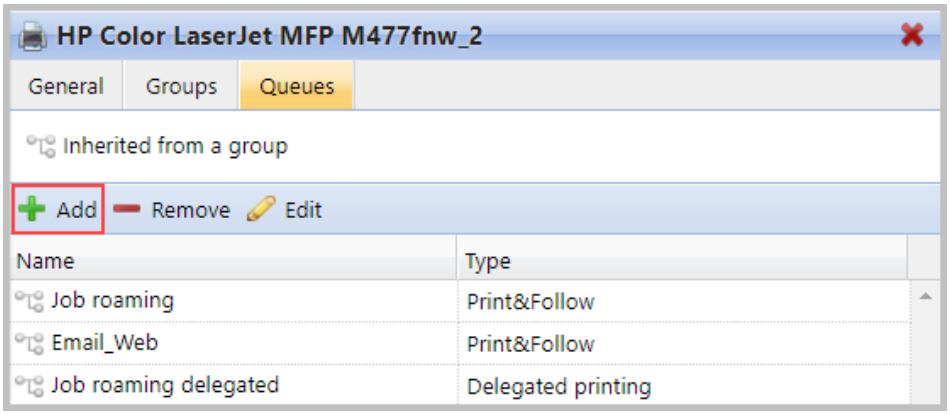
1 Select the group or groups to remove.

2 Click **Remove**.

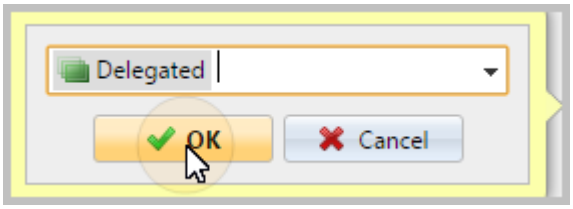
You can also remove selected printing devices from a group on the **Printers** main tab. Select the group, select the printing devices to remove, click **Actions**, and click **Remove from group**.

Adding printing devices to queues

1 After selecting the **Queues** tab under **Printer properties**, click **+Add**. A search dialog box displays.

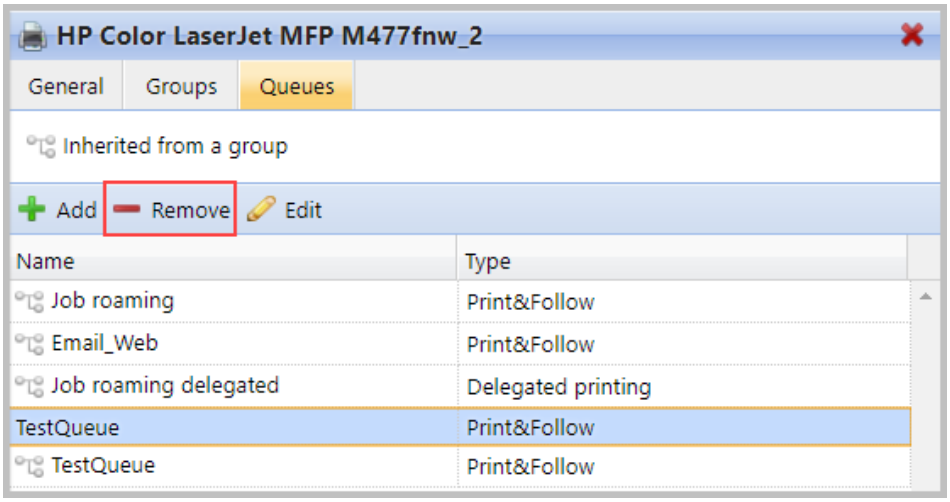


2 In the dialog box, find the queue where you want to add the device, and click **OK**.



Removing printing devices from a queue

1. On the **Queues** tab, select the Queue you want to remove.
2. Click **Remove**.



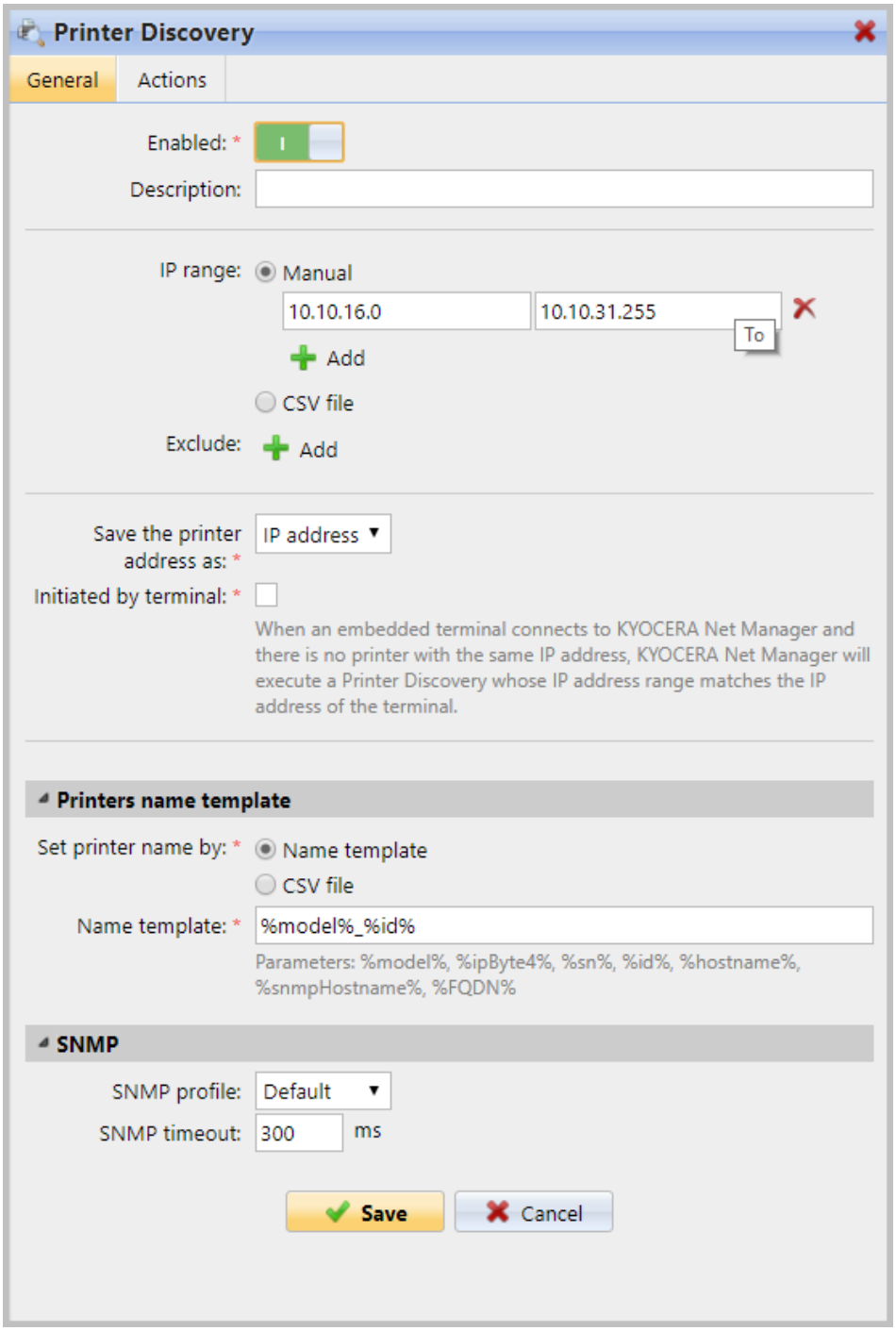
Changes to MAC addresses

A device with a changed MAC address is moved to the deleted queue. It can be returned to the ready queue however, the device cannot be reactivated using the original MAC address. You cannot replace a device that uses the same IP address.

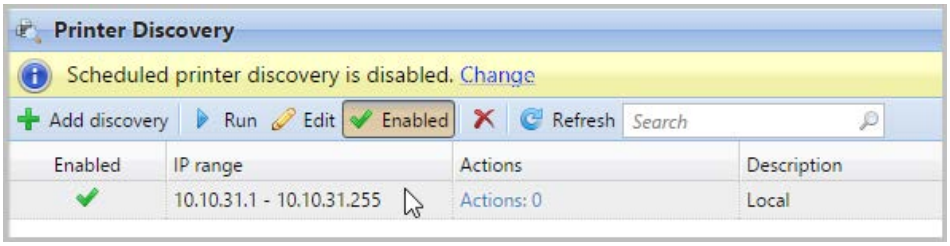
Adding devices with Printer Discovery

For first time configuration, accept the default settings. For configuration options, see "Printer Discovery general settings" and "Printer Discovery action settings".

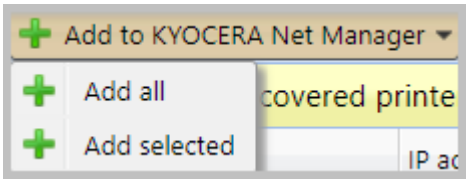
1. Go to **Printers** > **+ New Printer** > **Discover printers**.
2. Click **+ Add discovery**.
3. Enter an IP address range.
4. Click **Save**.



5 Select the new Printer Discovery and click **Run**.



6 To add discovered printers:



Option	Description
Add all discovered printers	Click the +Add to button and click **Add all**
Add selected printers	Click the +Add to button and click **Add selected**

Printer Discovery general settings

Option	Description
Enabled	Set Enabled to **ON**.
Description	The description is optional.
IP range	You can define the IP range manually or by importing a .csv file. Click **+Add** under IP range to add multiple IP address ranges or **+Add**next to Exclude to exclude multiple IP addresses.
Save printer address as	You can define the device added to the system by its IP address or hostname.
Initiatied by terminal	When an Embedded Terminal connects to KNM and there is no printer with the same IP address, KNM executes Printer Discovery with an IP address range that includes the IP address of the terminal.
Printers name template	**Name Template** Special parameters define the template for the naming of printers. The following parameters are available: %model%, %ipByte4%, %sn%,

Option	Description
	%id%, %hostname%, %snmpHostname%, and %FQDN% (fully qualified domain name). **.csv file** Select a .csv file to import that includes your devices. You can select the first column in the table from the following options: empty, IP address, serial number, or hostname.
SNMP	You can choose the SNMP profile to associate with all discovered devices and set the default timeout.

Printer Discovery actions settings

In the **Actions** tab, you can set actions to be done during the discovery process. Actions are optional; you do not have to define them if they are not needed. Options that can be used for printer discovery are described in the following table.

Option	Description
Filter	Use **Filter** to define how actions will be applied for specific models. You may select the models by their names. Separate multiple models with commas. You may also filter the devices by color or copier.
Every run actions	
Add to queue	Adds the device to one queue or multiple queues.
Terminal type	Activates Embedded Lite or Embedded Terminal. Available only for supported devices.
Add printer to group	Adds printers to defined groups.
Remove current groups	Removes printers from their current groups.
Price list	If the Price list is set, you can automatically assign it to the printers.
Coverage accounting	Activates color coverage accounting. Three level color accounting must be supported and activated on the device.
Location	Use the %location% parameter to obtain the printer's location via SNMP, manually enter a location or leave empty.
First run actions	

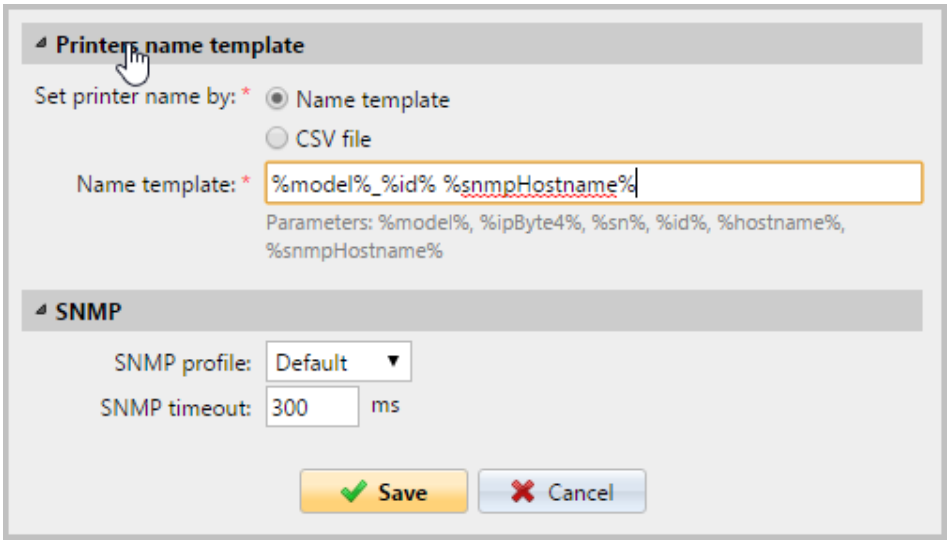
Option	Description
Activate	Activates the device from an available license.
Create direct queue	Creates a direct queue for the device. The name of the queue is the same as the name of the printer.
Copy settings from the queue	Choose an existing Direct queue from which to copy settings.
Print test page	Sends a test page to the selected device.
Print as	Selects the account under which the test page is printed.
Install windows printer	Installs the Windows printer (including ports) from the driver for this device. Set up is required.
Full path of a file with the printer driver	Sets the complete path to the folder with the driver installation file and the OEMSETUP.INF file.
Printer model	Selects the model from the list.
Full path of a file with the driver settings	(Optional) Sets the complete path to the driver settings file.

Using Printer Discovery to discover location and hostname of devices

Printer Discovery can discover the location and hostname assigned to the device. It can also assign a location to discovered devices.

Discovering device hostname

1. Go to **Settings** > **Printer Discovery**.
2. Select a configured Discovery option and click **Edit**.
3. Under **Printers name template**, enter %snmpHostname% in Name template.



4 Click **Save** and run a Printer discovery.

The hostname will appear in the Printer Discovery results.

If the search fails, the device's IP address will be used instead.

Adding device location to printer information with Printer Discovery

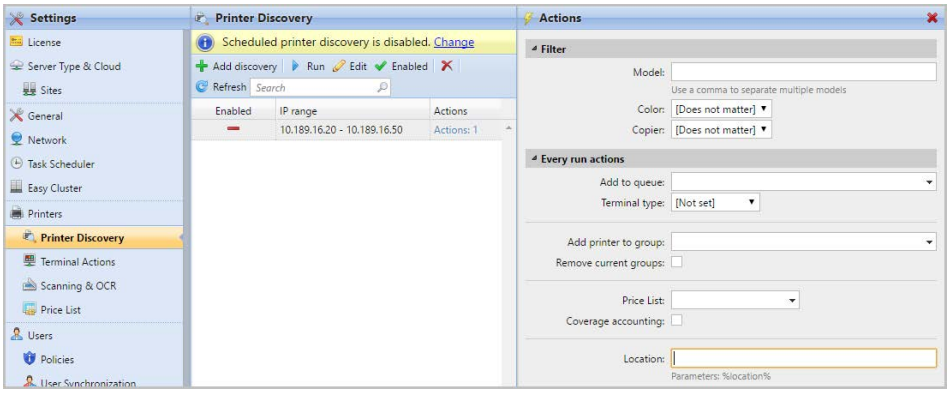
The location listed in the device can be discovered and used as the location in KNM printer information. You can also assign custom text to use as the location for any discovered printers.

1 Go to **Settings** > **Printers** > **Printer Discovery**.

2 Select a configured Discovery option or add a new one, and select the **Actions** tab.

3 Double-click an existing **Action** to change or click **+New action** to add an action.

4 Choose what to type into the **Location** field.



There are three possible choices:

Custom text

Sets the printer location information based on your custom text.

%location%

Set printer location to location returned from the device.

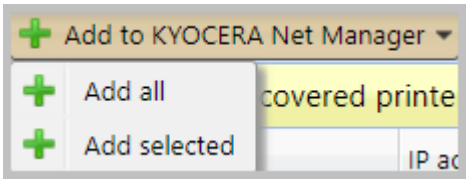
Empty

Leaves device location as it is (existing device) or empty (new device).

5 Click **Save**.

6 Run Printer Discovery.

7 To add discovered printers:

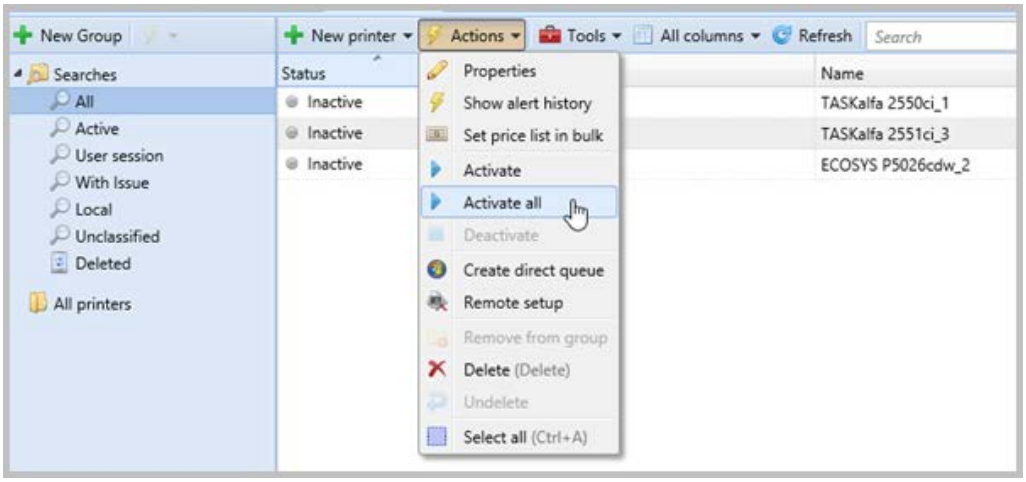


Option	Description
Add all discovered printers	Click the +Add to button and click **Add all**
Add selected printers	Click the +Add to button and click **Add selected**

8 On the Printers tab, double-click the printer name to see the location in the printer properties screen.

Activating printing devices

Unless automatically activated during discovery, a newly added device is not active. This means the device is not available for use and some of the device data is not displayed (serial number, type, counters, etc.)



Activating selected devices

1. On the list of printers on the **Printers** main tab, select the devices that you want to activate, and click **Actions**.
2. In the **Actions** drop-down list, select **Activate**.

Activating all devices

Although there is no limit on the number of printing devices you can add to KNM, you cannot activate more printing devices than your license allows.

1. Click **Actions**.
2. In the **Actions** drop-down box, select **Activate all**.

Deactivating printing devices

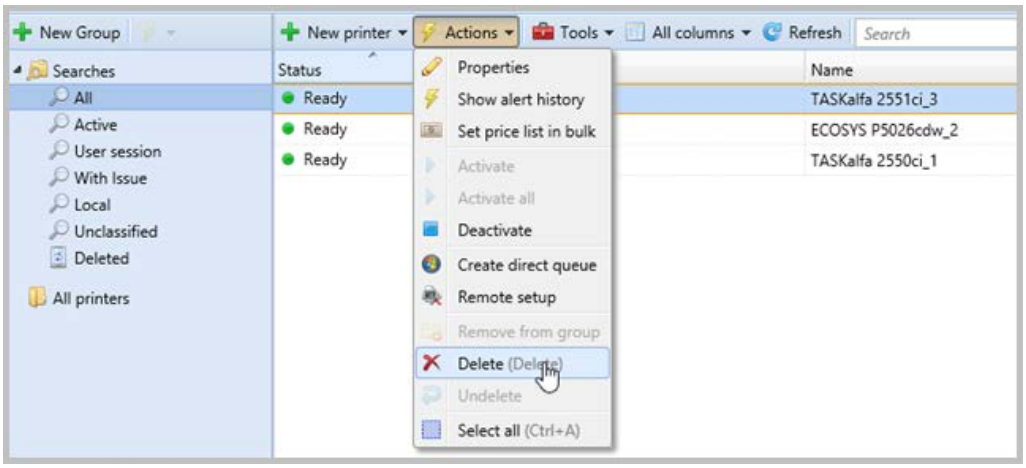
1. On the list of printers on the **Printers** main tab, select the devices that you want to deactivate, and click **Actions**.
2. In the drop-down box, click **Deactivate**.

Deleting and undeleting printing devices

If you delete a printing device, you will not be able to use it, but its data is permanently stored in the KNM database. If you want to use the deleted printing device, undelete it and reactivate it.

KNM uses the device's MAC address to identify it. This address is unique. This means that you cannot activate the same device twice.

Deleting printing devices

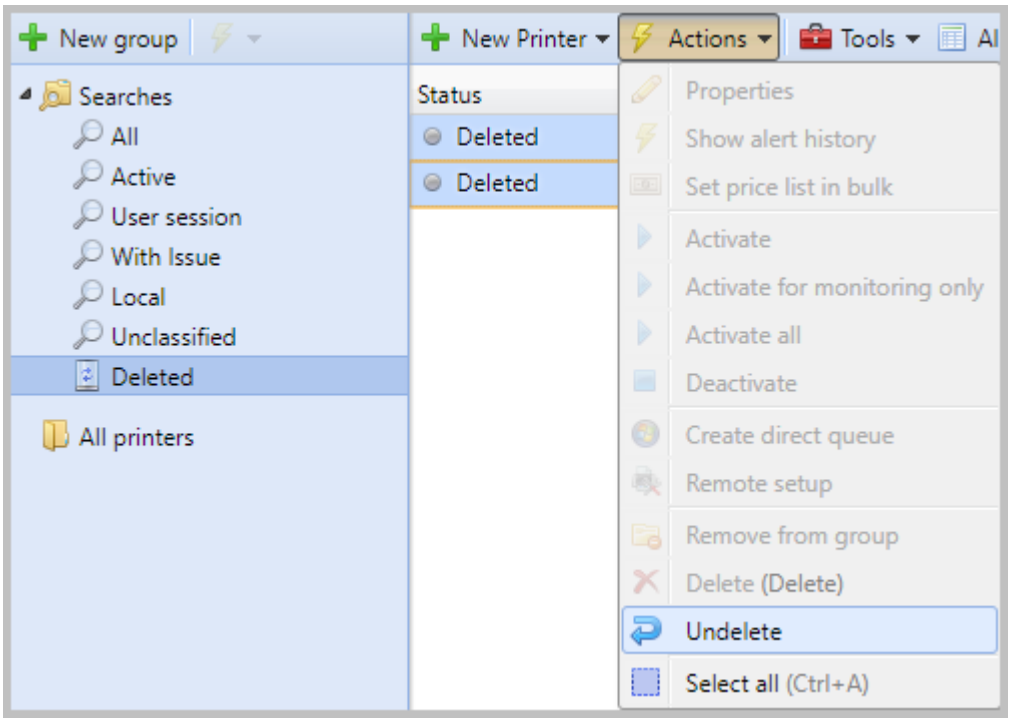


1 In the list of printing devices on the **Printers** main tab, select the printing devices that you want to delete, and click **Actions**.

2 In the **Actions** drop-down box, click **Delete**.

To see the list of deleted printing devices, select the **Deleted** search option.

Undeleting printing devices



1 In the group panel, under **Searches**, select the **Deleted** search option.

2 In the list of deleted printing devices, select the printing devices that you want to undelete and click **Actions**.

3 In the **Actions** drop-down box, click **Undelete**.

Although no longer deleted, the devices remain unavailable until activated.

Printing device groups

All printing devices in KNM can be divided into groups based on their location, model, vendor, category, etc. On the **Printers** main tab, you can create new groups of printing devices.

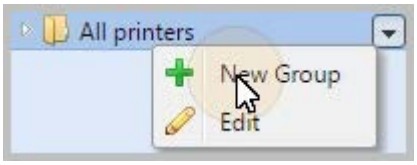
KNM functions that use groups include the following:

- Assign groups to print queues
- Grant rights or apply restrictions to groups of users
- Set report access only for selected groups

Creating groups of printing devices

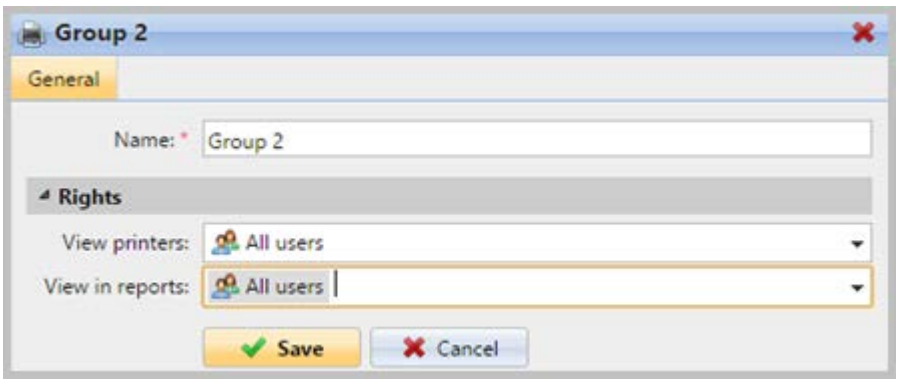
1 On the group panel, right-click **All printers** and click **+New Group** on the shortcut menu.

The new group properties panel opens.



If you want the new group to be placed under an already existing group, select the parent group, and click **+ New Group** (or right-click the parent group, and click **+ New Group** on the shortcut menu).

2 On the panel, enter the name of the new group, assign rights to users or groups of users, and click **Save**.



3 Select the users that will have rights to the group from the drop-down menus.

View printers

Permission to see and manage printers from this group on the user interface

View in reports

Permission to see this group of printers in reports

Deleting groups of printing devices

1 On the group panel, right-click the group you want to delete.

2 Click **Delete**.

Exporting a list of printing devices as CSV

On the **Printers** main tab, you can export the list of printing devices with all the information that displays on the current view to a CSV file.

1 Click **Tools**.

2 In the Tools drop-down box, select **Export** and save the file.

If color coverage has been enabled for the printer in KNM and in maintenance mode on the physical device, you can add columns showing information on color pages. Contact support for more information.

- PCCL1 - Print color pages (L1)
- PCCL2 - Print color pages (L2)
- PCCL3 - Print color pages (L3)
- CCCL1 - Copy color pages (L1)
- CCCL2 - Copy color pages (L2)
- CCCL3 - Copy color pages (L3)

AJ	AK	AL	AM	AN	AO
a Print color pages (L1)	Print color pages (L2)	Print color pages (L3)	Copy color pages (L1)	Copy color pages (L2)	Copy color pages (L3)
0	0	0	0	0	0

Settings > Printers

Global settings are created in **Settings** > **Printers** > **General**.

Other settings are available at **Settings** > **Printers**:

Printer Discovery

This link goes to the same Printer Discovery section that is available from the main **Printers**tab (**+New Printer** > **Discover printers**).

Terminal Actions

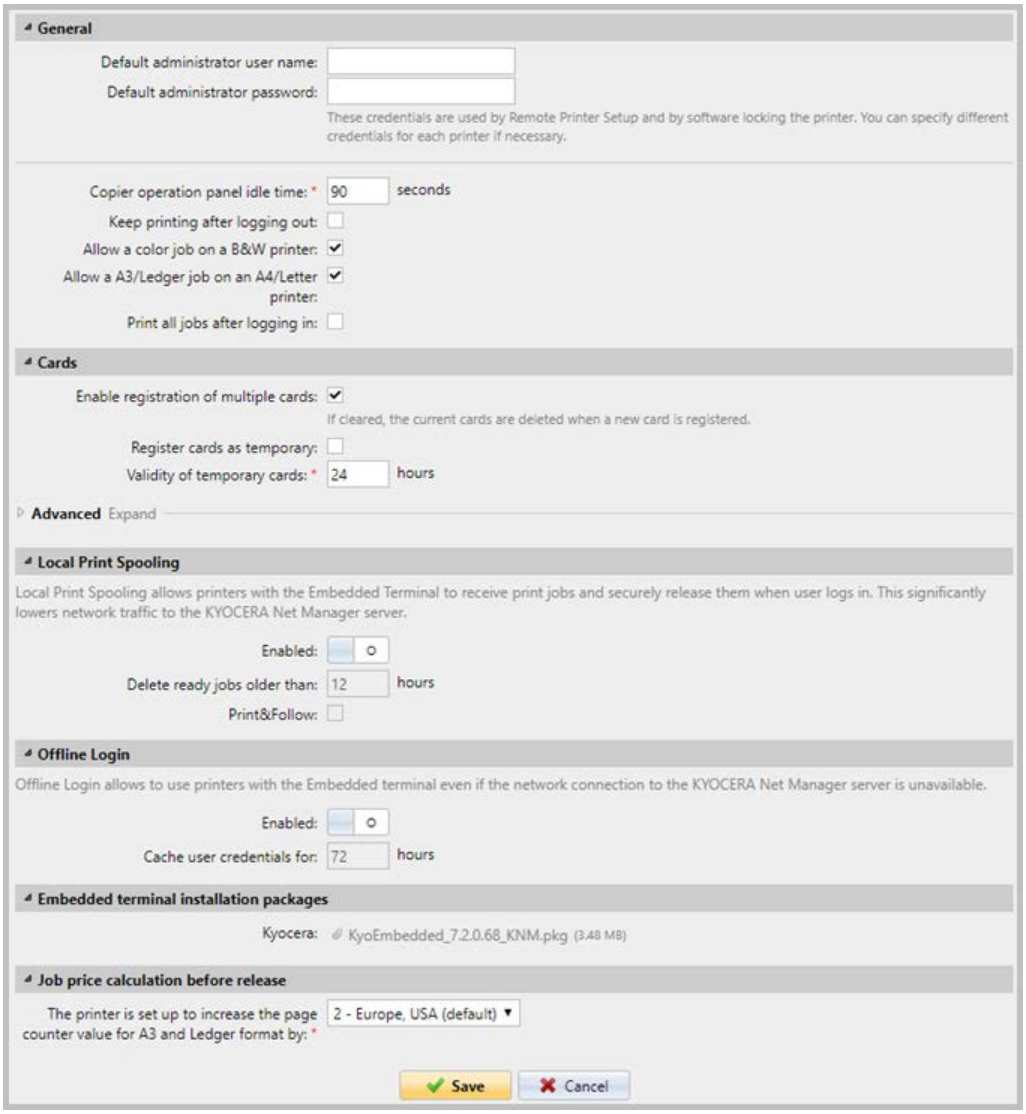
Procedures for creating terminal actions are available in the Embedded Terminal Guide.

Scanning & OCR

Enable and manage scan and OCR settings.

Price list

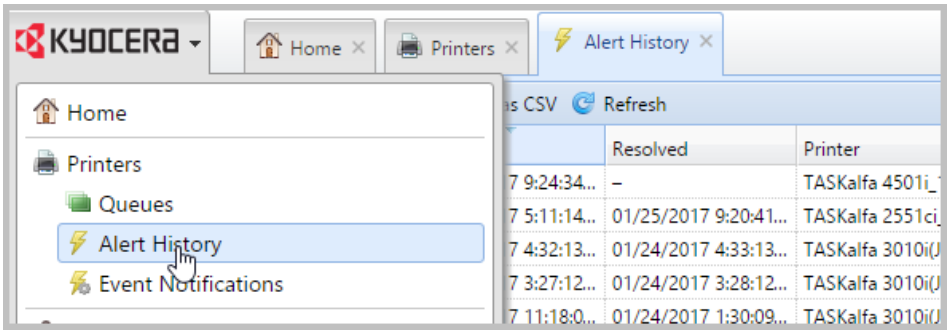
Settings for associating printing devices with price lists.



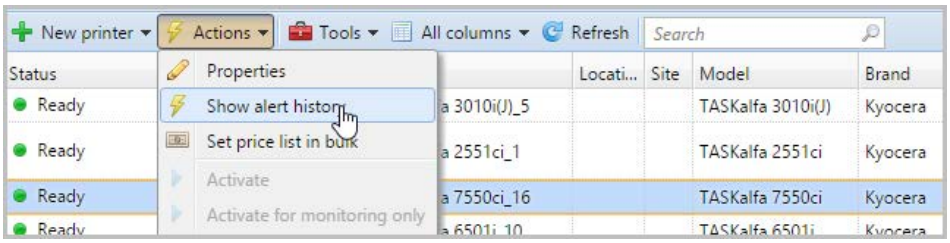
Displaying printer errors and alerts

Display printer alerts

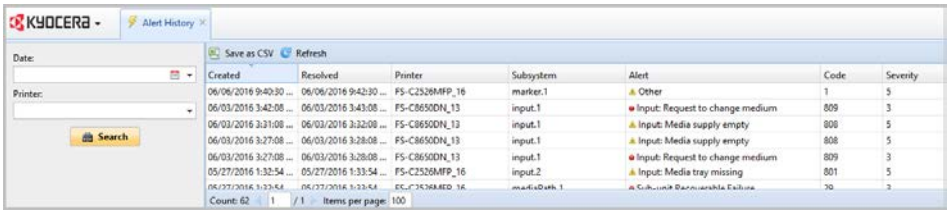
1 To see all error messages, go to **Printers** > **Alert History** from the logo menu. A complete list of all the errors and alerts will be displayed.



2 To show alerts for specific devices, select a printer from the list, click **Actions** and select **Show alert history**.

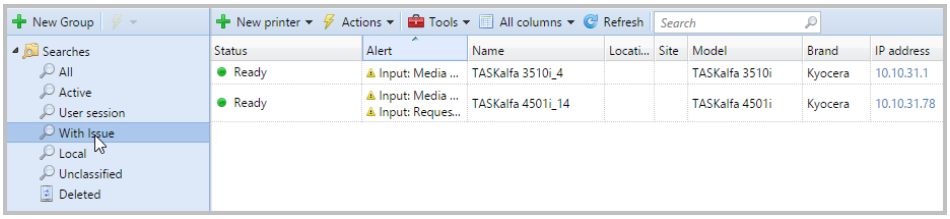


3 To export the Alert history table to CSV, click **Save as CSV** on the **Alert History** tab.



Display printers with issues

To filter the list of devices to show only devices reporting alerts or errors, open the **Printers** tab and select **With Issue**.



Printers with issues can also be added as a gadget on the Dashboard.

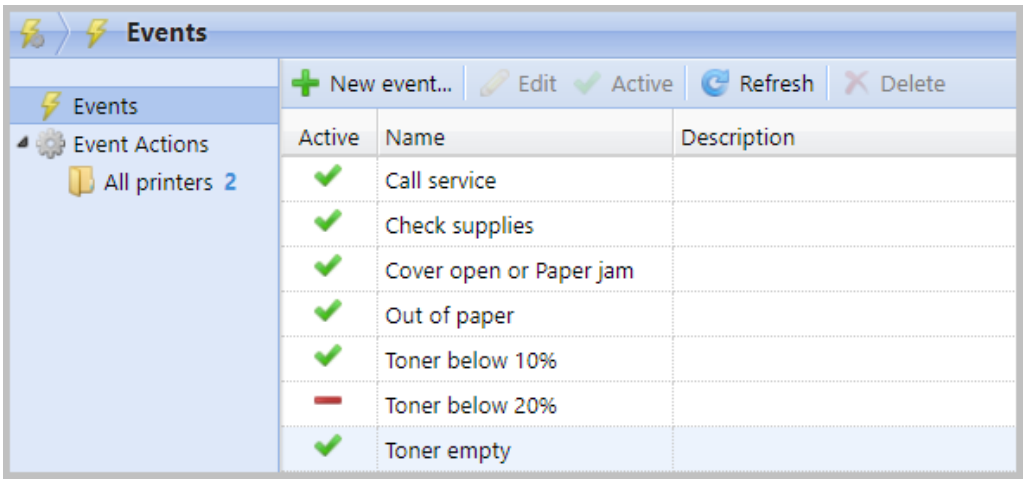
Possible alerts or errors include:

- Network unavailability of printing device or Net Manager terminal
- A serious printing device error
- Empty paper cassette or low toner

Event Notification

Event notifications are customizable email reports notifying recipients about changed states of monitored printing devices. They are initiated by alerts of the printing devices.

Events and Event Actions can be set on the **Event Notifications** main tab.



There are seven predefined events. These events correspond to common situations, such as empty toner or jammed paper, or to states of printing devices that require particular actions, such as calling technical support or checking supplies. The events are triggered by the following states of a printing device:

Call service

The printing device requires authorized technical service.

Check supplies

Check printing device consumables.

Cover open or Paper jam

Either a cover of the printing device is open or there is a paper jam.

Out of paper

The printing device is out of paper.

Toner below 10%

One or more toners of the device are almost empty.

Toner below 20%

One or more toners of the device are below 20%.

Toner empty

One or more toners of the device are empty.

There are two types of **Event Actions**.

Send email

This event action sends an email to a recipient with information about the event.

Terminate user session

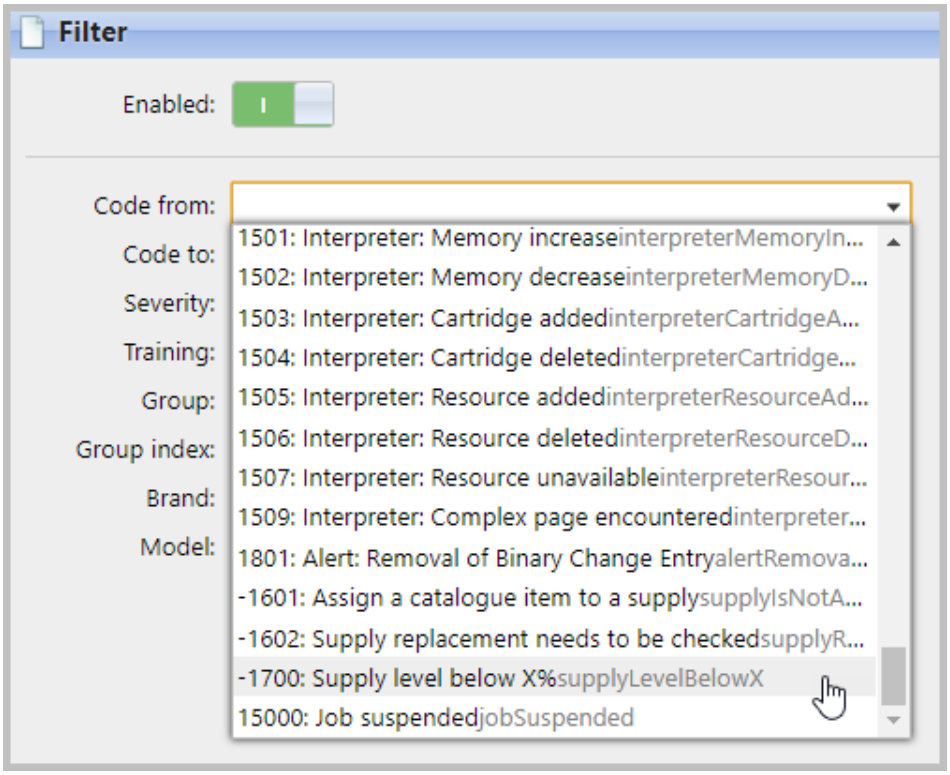
This action terminates a user session after an event occurs. A delay period can be set before the termination. This feature can be useful when a paper jam occurs and a user who is using credit is logged in. Since a user using credit can only log in to another device after their session is terminated, they are unable to do anything further until the paper jam is fixed. Using this feature, the user session can be terminated when a paper jam alert occurs, thus allowing users to print on a different device.

Creating a new event notification

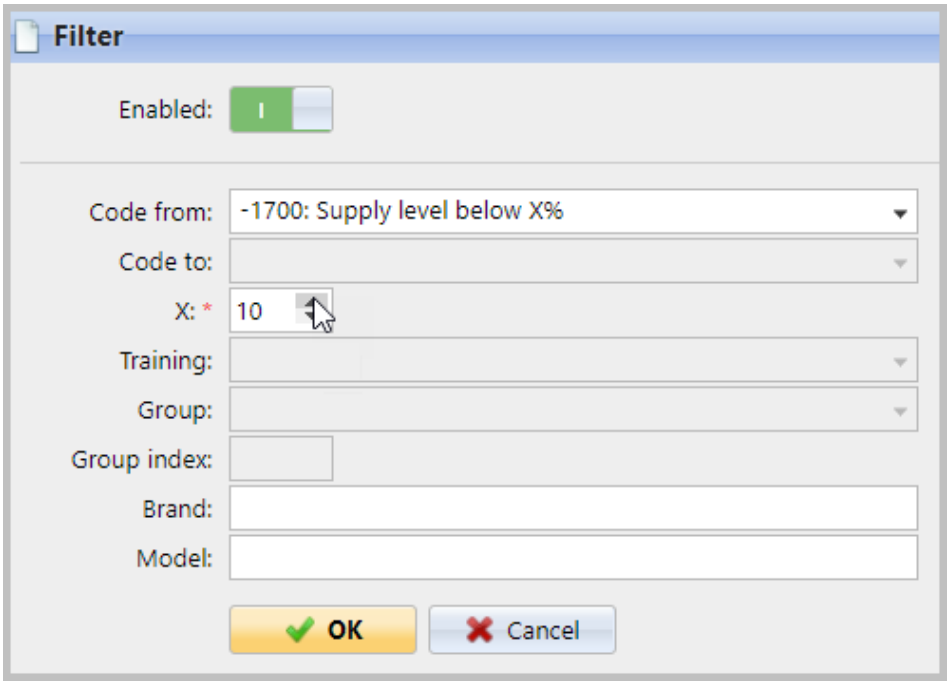
The following is an example of creating a new Event Notification.

By default, toner level notification is set to 20%. It must be set to Active before it will send a notification. To have a different toner level notification event, create a new event and set it to Active.

1. Go to **Event Notifications** > **Events.**
2. Click **+ New event…**.
3. Enter a name for the event, such as, Toner below 10%.
4. Click **Save**.
5. Under **Filters**, click **+ Add**.
6. In the Code from field, select **-1700: Supply level below X %supplyLevelBelowX**.



7 In the X field, select the % level, such as 10.

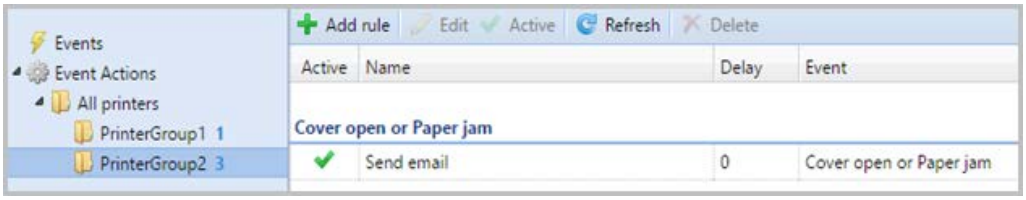


8 Click **OK**.

By default, the new filter is Active. Clicking the Active button toggles an event notification between active and deactivated.

Configuring event actions

You can create actions with specific settings and custom email. Select from the available events and compile the email message from available parameters. You can apply these actions to all printers, or you can restrict them to groups of printers.



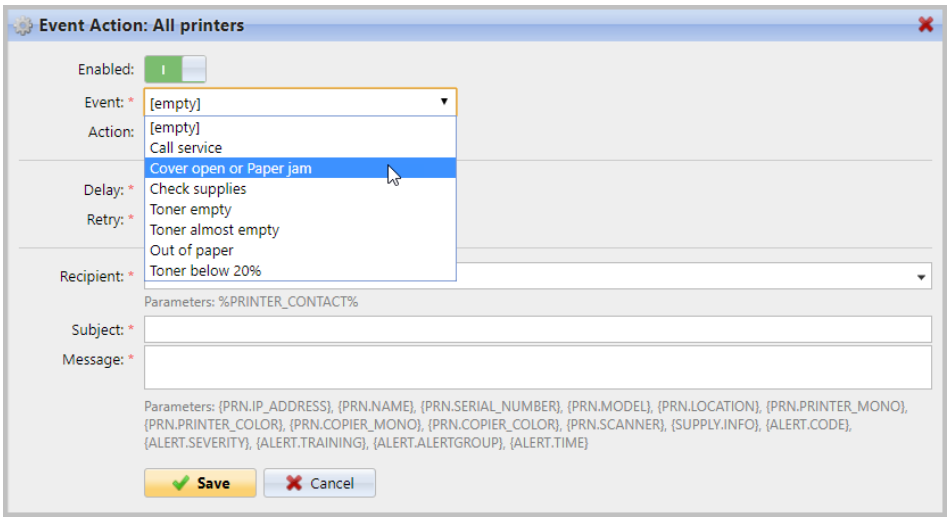
1 Go to **Event Notifications** > **Event Actions.**

2 Click **+ New action**.

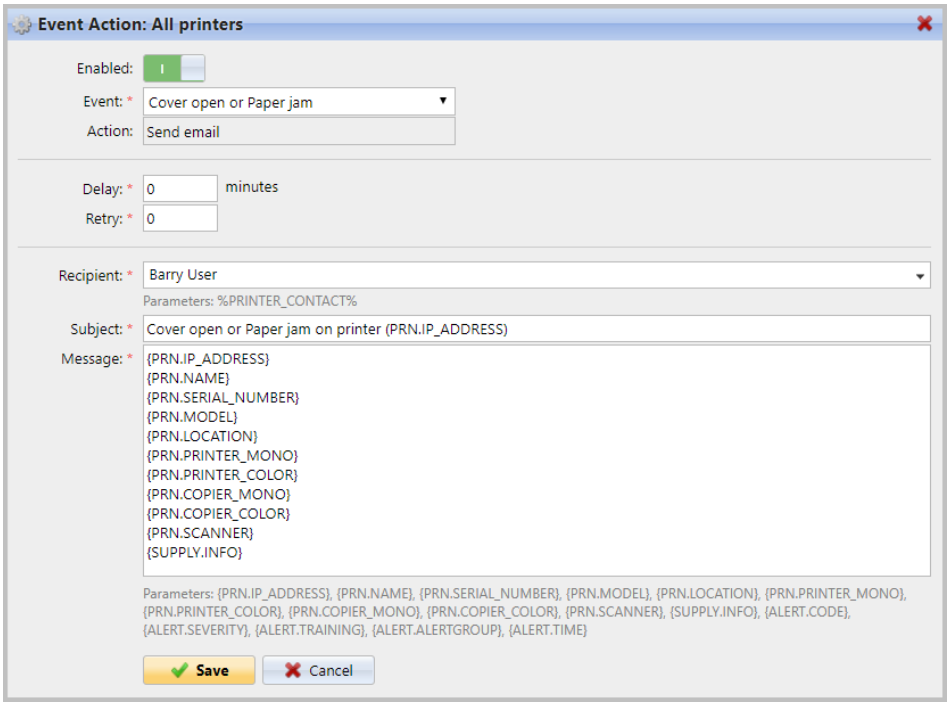
You can select **Send email** or **Terminate user session**.

For this example, select **Send email.**

3 Set Enabled to **ON** and select an Event.



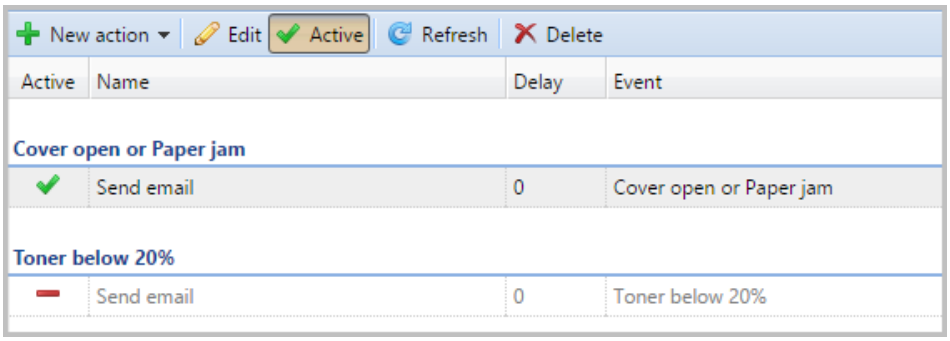
4 Enter the **Recipient** and a **Subject** for the email. In the **Message** field, enter the information you want to have in the message. You can copy in the parameters for the message from the text below the **Message** field.



5 Click **Save.**

The new action displays in the Action list.

By default, the new event action will be set to Active. Clicking the Active button toggles an event action between active and deactivated.



Remote setup

There are many settings that must be made on a printing device so KYOCERA Net Manager to can manage the device.

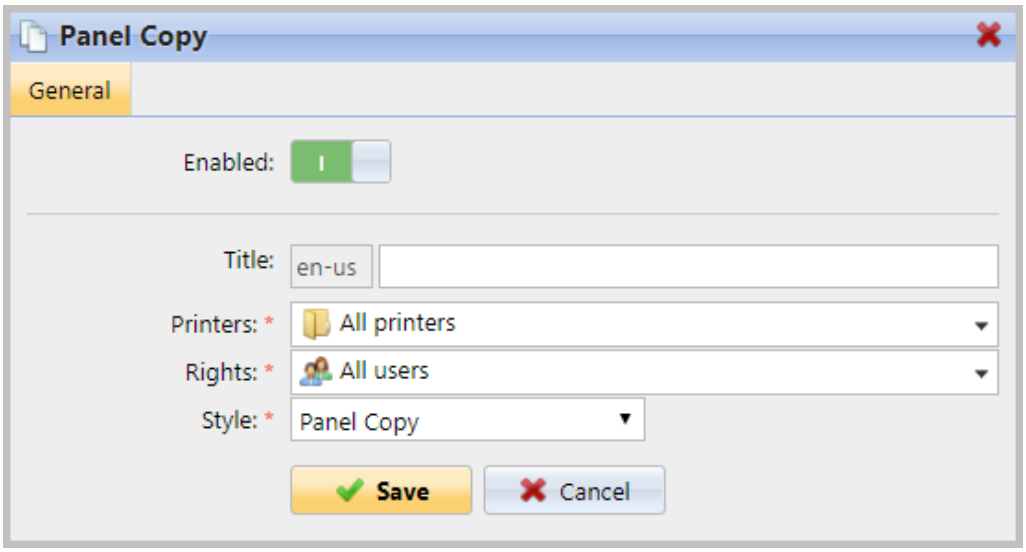
You can log in to the device and make changes, but the Remote Setup feature will allow you to set up a device or multiple devices remotely and install the needed system components.

For more information, see Remote Installation from the KNM web interface in the Embedded Terminal Guide.

Terminal Actions - Set rights for printers and printer groups

An Administrator can change the access rights of a terminal action to a specific printer, printer groups, or a mixture of both. By default **All Printers** is selected.

Rights to a folder in terminal actions cannot be changed.



5 Local Print Spooling

Under normal circumstances, print jobs are sent to the server until released. This means that every print job is sent from the user computer to the server and then from the server to the printing device. This is fine for networks with strong bandwidth, but might not be optimal for customers with many small branches and limited bandwidth to the central server.

Local Print Spooling solves this problem. With Local Print Spooling enabled, the print job is sent directly to an Embedded Terminal device and saved to its hard disk, where it waits to be released.

Local Print Spooling allows you to spool print jobs directly to an Embedded Terminal device instead of spooling through the KNM server. The Embedded Terminal device requests authorization from the server and stores the authentication and user policies. If the server goes offline, the print job can still be released directly from the Embedded Terminal device.

The locally stored credentials allow you to send a **Direct Print**, **Hold Print,** or **Print&Follow** job from your client computer and to collect the job from an Embedded Terminal device with Local Print Spooling enabled.

For a list of devices that support Local Print Spooling and Offline Login, contact support.

Advantages to Local Print Spooling include:

Bandwidth conservation

Network bandwidth is conserved by routing the print jobs directly between the client computer and the HyPAS application in the Embedded Terminal device, eliminating the roundtrip to the server.

High confidentiality

Print jobs and user information are not shared outside of the specified Embedded Terminal device.

Availability of printing when the server is offline

Once credentials are locally stored, you can print, copy, scan, fax, and use Panel USB even if the server is offline.

Limitations of Local Print Spooling include:

Mobile printing / Smart Job Manager

Not supported

Project Accounting

If the server goes offline, the Embedded Terminal device will allow you to log on, but project accounting is not supported in offline mode.

KX Driver

Although you can use any Embedded Terminal device which supports Local Print Spooling, the KX Driver must be configured to use that specific device IP, or you can use Port Monitor for failover. If you want to use additional Embedded Terminal devices, install and configure KX Driver for those devices.

Limited Storage

Maximum storage available on the Embedded Terminal device for user information and job records is device-dependent. Also, if there are other HyPAS applications in addition to Local Print Spooling on the Embedded Terminal device, they will reduce the amount of available memory.

Some functions are not available when an Embedded Terminal device is in deep sleep

Print jobs are not spooled, and job data and user credentials are not automatically deleted.

No display of color jobs

When color printing is restricted, local color print jobs are not displayed.

Server print jobs display before local print jobs

Local print jobs and server-based print jobs are sorted separately.

Some terminal actions are not supported in offline mode

In offline mode, only the following terminal actions are supported: Print All, My Jobs, Panel Copy, Easy Copy, Panel USB, Panel Fax, and Send to FTP/SMB and email with company SMTP server from Panel Scan.

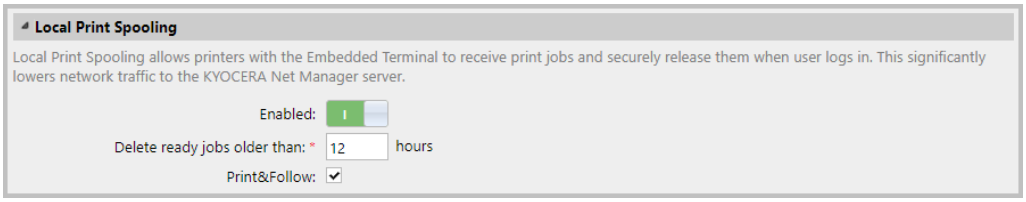
The Embedded Terminal device will not print spooled jobs if the network cable is unplugged.

Local Print Spooling configuration

To use the Local Print Spooling feature, configure the following:

- KNM server
- Embedded Terminal device
- Client computer printer driver (KX Driver)

Setting up Local Print Spooling



1 Go to **Settings** > **Printers**.

2 Configure the Local Print Spooling settings:

Enabled

Click to enable or disable the feature.

Delete ready jobs older than

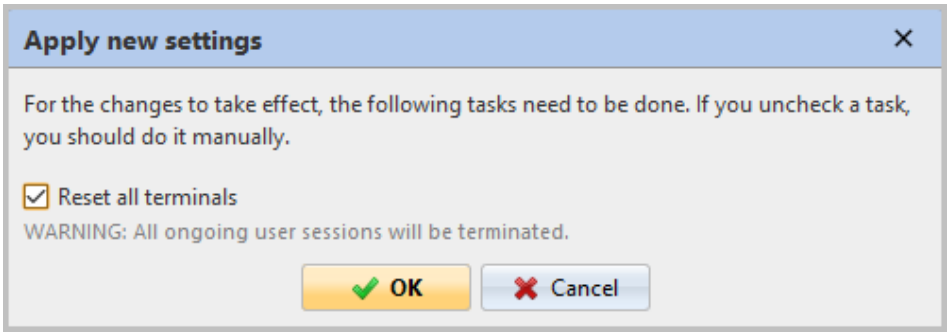
Number of hours to hold jobs before deletion.

Print&Follow

Select to activate Print&Follow for Local Print Spooling.

3 Click **Save**.

The Apply new settings dialog box displays.



4 Keep the **Reset all terminals** option selected and click **OK**.

The settings are distributed to all connected terminals.

Configuring the KNM server to use an Embedded Terminal device

1 Open **Printers** and double-click the Ready Embedded Terminal device. You must have added and activated the printing device and have run Remote Printer Setup previously.

2 Select one of the Login methods.

3 Click **Save**.

Configuring the Embedded Terminal device

When you run Remote Printer Setup, you are given an option to set up IP filters. The filters limit connections to only the specified IP address of the KNM server. In this case, for Local Print Spooling to work, the IP address of the device must be added manually.

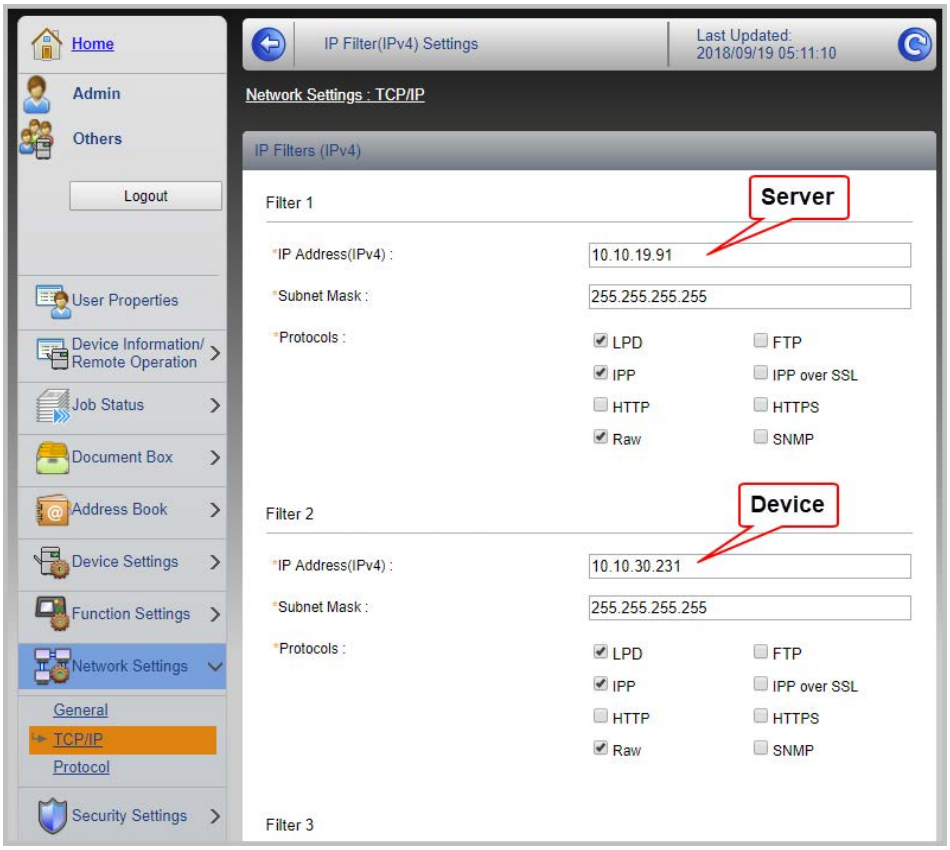
If you did not set up IP filters, then do not set an IP filter for the device.

1 Enter the IP address of the Embedded Terminal device in a web browser and open Command Center RX. If you get a warning message, ignore it and continue to the website.

2 Log on to Command Center RX using the device Admin credentials. The default settings are User Name: Admin and Password: Admin.

3 Open **Network Settings** > **TCP/IP**.

4 Scroll down the page to IP Filters (IPv4) and click **Settings**.



Filter 1 should already be pointing to the KNM server, as this is automatically set when you run the remote printer setup procedure, unless **Set up IP filters** is cleared for Remote Printer Setup.

5 In Filter 2, enter the IP address of the Embedded Terminal device. Enter 255.255.255.255 as the subnet mask and select **LPD**, **IPP**, and **Raw** as the protocols.

6 Click **Save**.

Configuring the KX Driver

A printer port on your computer must be configured to point to the Embedded Terminal device that is using Local Print Spooling. You can add a new port or edit the configuration of an existing port.

1. Open the KX Driver interface. On your computer, open **Control Panel** > **Hardware and Sound** > **Devices and Printers** and right-click the printer you want to use.
2. Select **Printer Properties**.
3. Select the **Ports** tab, and click **Add port**.
4. Select **Standard TCP/IP Port** and click **New Port**.
5. Click through the wizard.
6. In the **Printer Name** or **IP Address** field, enter the IP address of the printer or the printer hostname.
7. Click **Finish**.
8. Select the port you just created and click **Configure Port**.
9. For **Protocol**, select **RAW** and one of the following four port numbers:

10010

Port for direct print. The job is automatically printed after it is received by the printing device.

10011

Port for secured hold print. The job is spooled by the printer and waits until the user logs in and prints it. It is not possible to print on another printing device.

10012

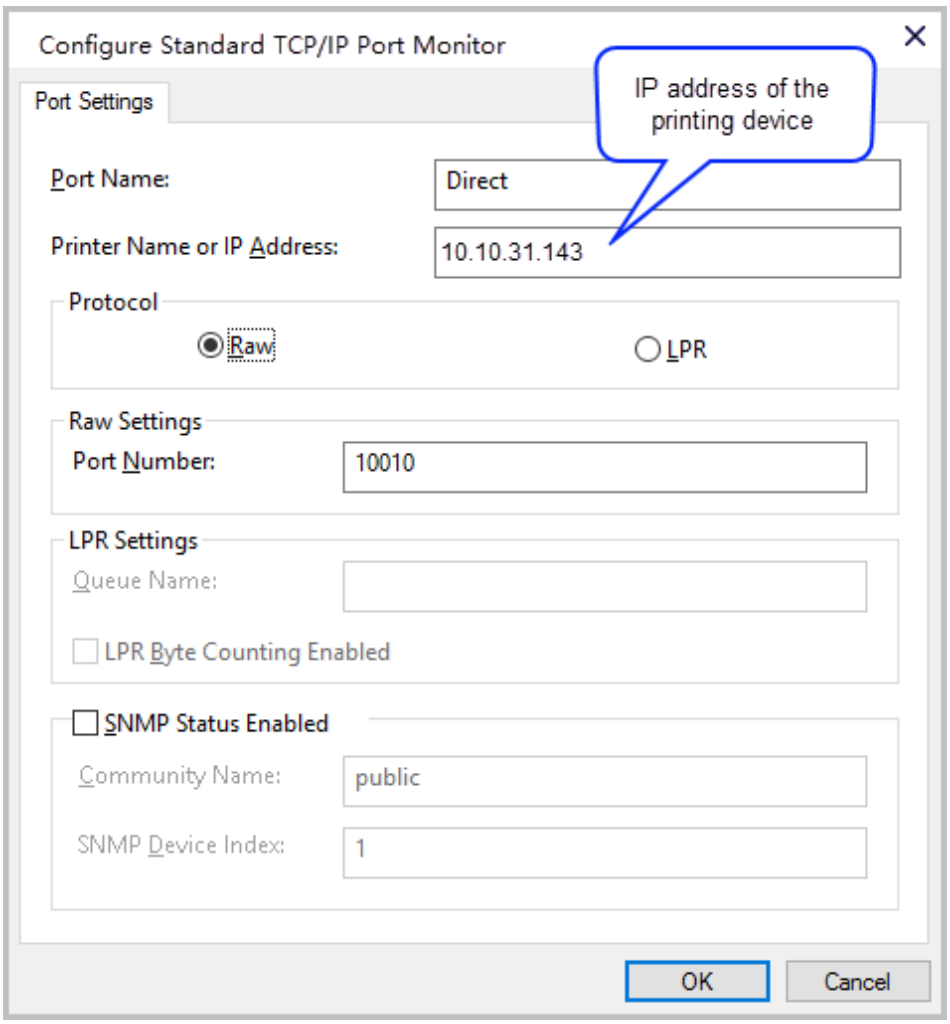
Port for Local Print Spooling Print&Follow. The job is spooled by the printing device. Once the user logs in to any of the devices connected to the same subnet, information about this job is provided. The job displays in the list of the available jobs and can be printed.

10013

Port for Local Print Spooling delegated print. This port works the same way as the Local Print Spooling Print&Follow, except that the job can be printed by delegates of the job sender.

For the LPR protocol, change the port to 10020 and set the Queue Name to delegate. You must also change the port in the Windows registry. Contact support for more information.

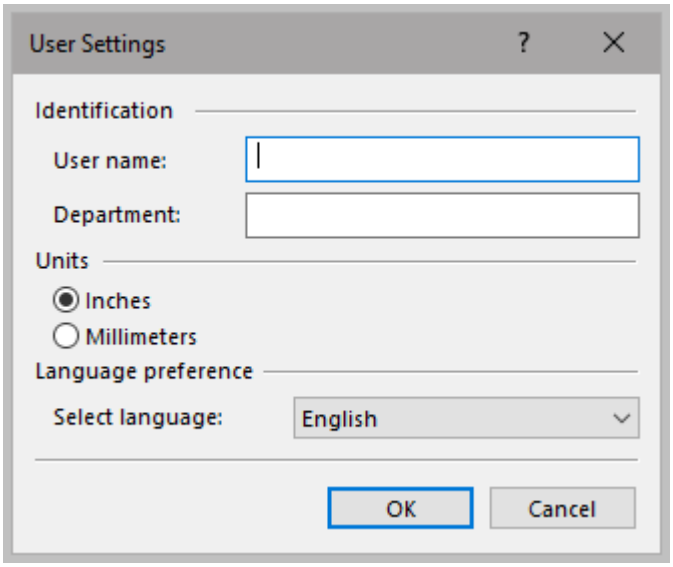
10 Clear **SNMP Status Enabled**.



11 Click **OK**.

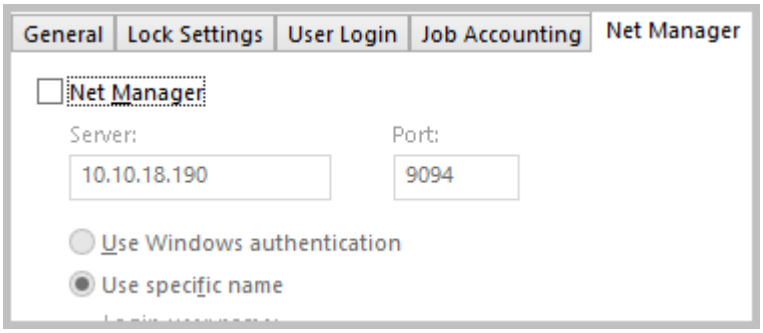
12 Select the **Device Settings** tab and click **User**.

13 Enter a user name or leave blank to have KYOCERA Net Manager use the Windows user name.



14 Click **Administrator** and select the Net Manager tab.

15 Clear **Net Manager** and click **OK**.



Configuring Port Monitor

With the Port Monitor utility for KNM, a port can be easily configured for failover capability. Please refer to the Installation Guide for more information and installation instructions.

Port Monitor - Spool large jobs directly to devices

Port Monitor can send jobs above a certain size directly to devices, rather than sending them to the server and having the server send the jobs to the devices. This reduces network traffic and improves the document workflow.

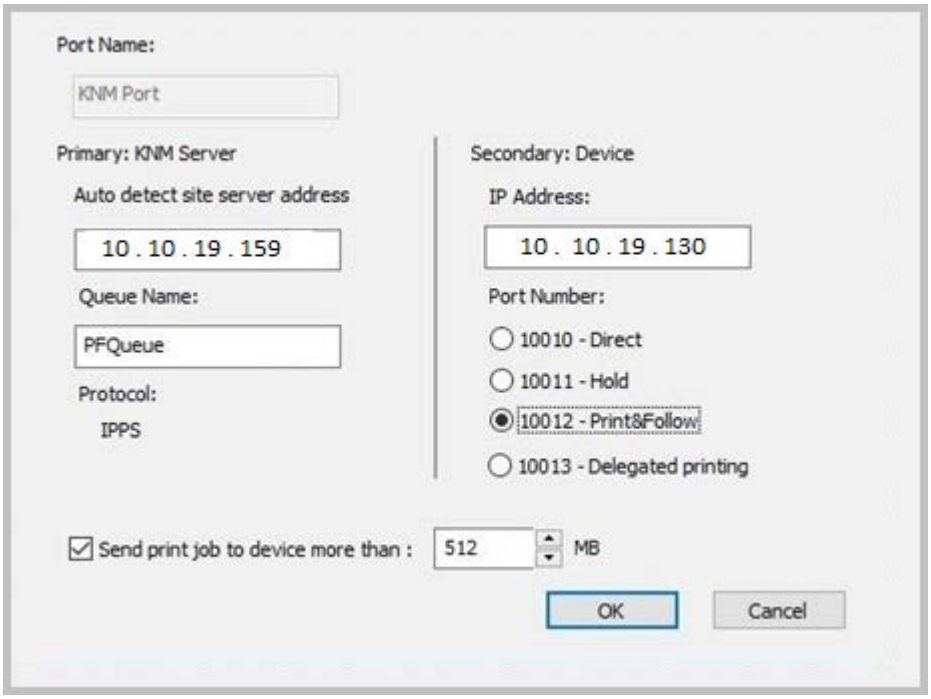
Local print spooling must be enabled on the server and on the device.

Install the latest version of Port monitor to see this feature. Previous versions must be uninstalled before installing the latest version.

1 Open Port Monitor.

2 Select **Send print job to device more than:**

3 Set size of job in the drop-down menu. The size range is 1-9999 MBs.



4 Click **OK**.

Print&Follow for Local Print Spooling

With the Print&Follow extension activated, jobs sent to one printing device can be printed on any other printing device connected to the same local area network. If there are more devices at the branch, the jobs spooled on the devices can be shared between them. In this case, jobs sent to one device can be printed on other devices. The Print&Follow feature is limited to devices on the same subnet.

! For local Print&Follow functionality, set the same time and time zone set on all of the participating devices. The easiest way to do this is to synchronize the devices with a time server.

Delegated printing for Local Print Spooling

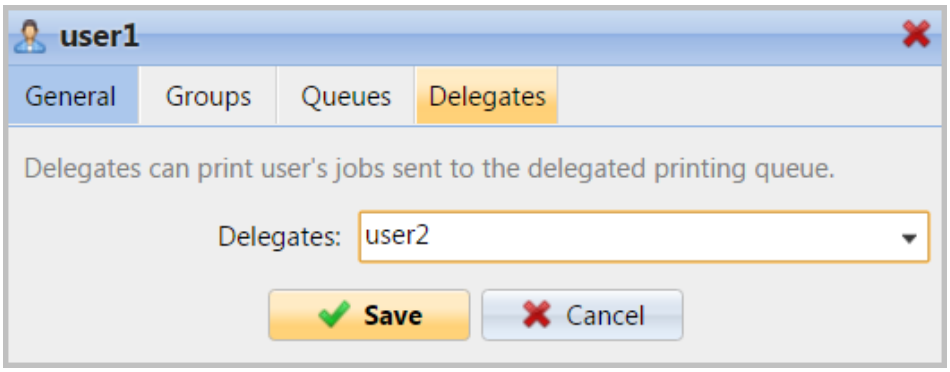
The delegated printing feature makes the spooled jobs available to delegates. This way, all delegates of the job sender can print jobs sent via the dedicated delegated printing port 10013 or LPR "delegate" queue.

Using Delegated printing with Local Print Spooling

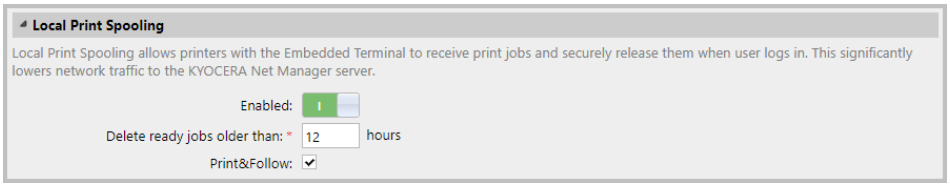
Local Print Spooling supports the Delegated printing feature, in addition to Direct, Hold, and Print&Follow features.

To use Delegate user printing in Offline mode, a user must have previously logged in in online mode.

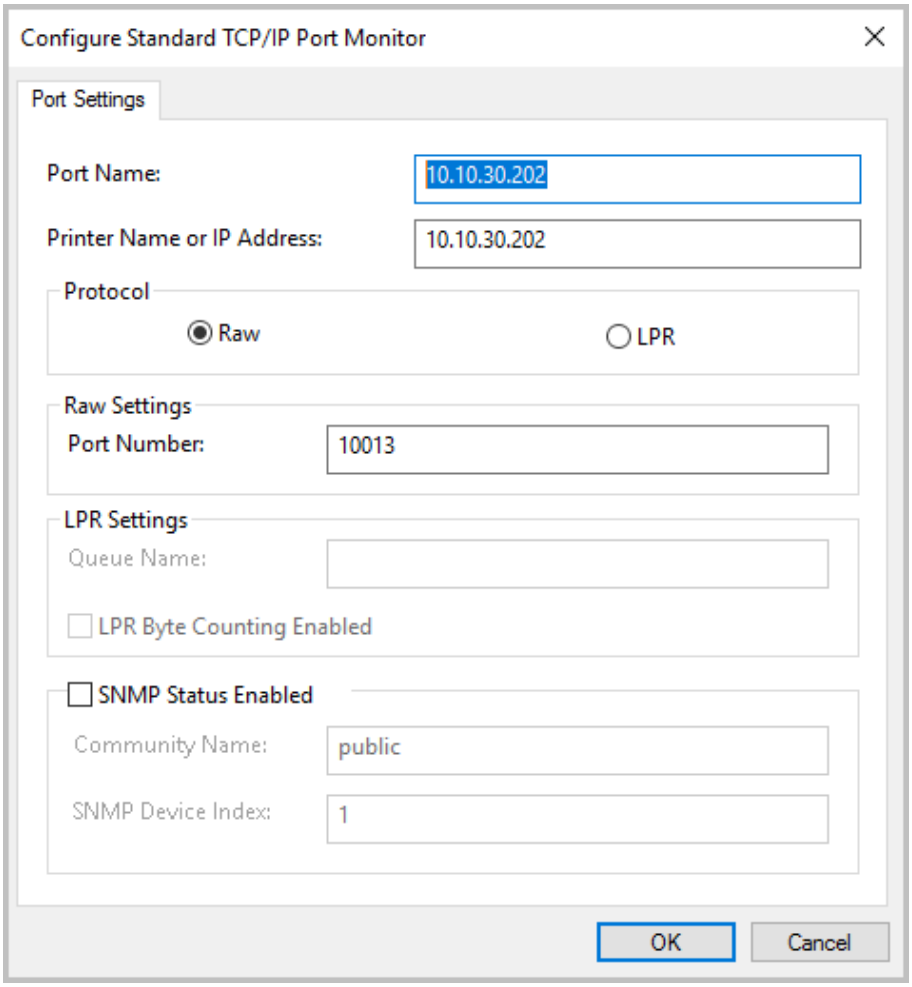
1. Go to **Users** and double-click the name of a user to open the settings panel. Click **Delegates** and select a delegate for the user.
2. Click **Save**.



3. Go to **Settings** > **Printers** > **Local Print Spooling** and set **Local Print Spooling** to **Enabled**.
4. Click **Save**.



5. Open the driver Printer Properties and go to **Ports** > **Configure Port**.
6. In Port Settings, choose either the RAW protocol or the LPR protocol.
   - For the RAW protocol, set the Port Number to 10013.
   - For the LPR protocol, change the port to 10020 and set the Queue Name to **delegate**. You must also change the port in the Windows registry. Contact support for more information.



7 Click **OK**.

8 Log in to the device terminal as user2 (delegate of user1).

You will see the job as "**(user1) [actual job name]**".

Offline login

Proper operation depends on 100% reliable network connection. Connection problems can prevent users from starting user sessions on printing devices and performing copy, print, or scan operations. Setting Offline Login prevents these problems.
User information, including credentials, is cached at the device and if the server is unavailable, cached data is used for user authentication. Users can log in and perform all the operations that do not require network access to the server. When combined with Local Print Spooling, the offline login feature offers a robust backup plan for server outage.

Features not supported in offline mode

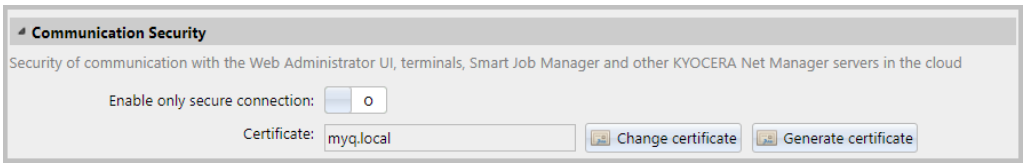
- Credit, Quotas and Project Accounting

- Scanning terminal actions (Panel Scan may be available)
- Unlock Panel terminal action
- Edit Account terminal action
- Password login
- Network Fax
- Favorite jobs
- Restart of device during session – jobs printed during the interrupted session will be accounted to the *unknown user account

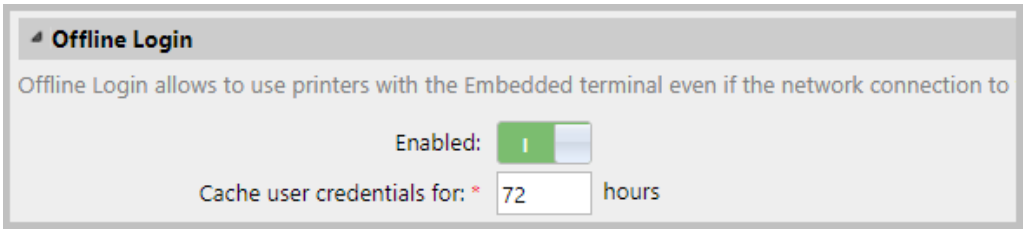
While the Offline Login feature is enabled, printing devices that support the feature and have an Embedded Terminal assigned cannot be added to direct queues. On these devices, you can use the direct print option of Local Print Spooling instead.

Offline login requirements

Enable SSL only mode on the server, by setting **Enable only secure connections** to **On** on the **Settings** > **Network** page. UDP broadcasts have to be enabled on the network.



Enabling offline login

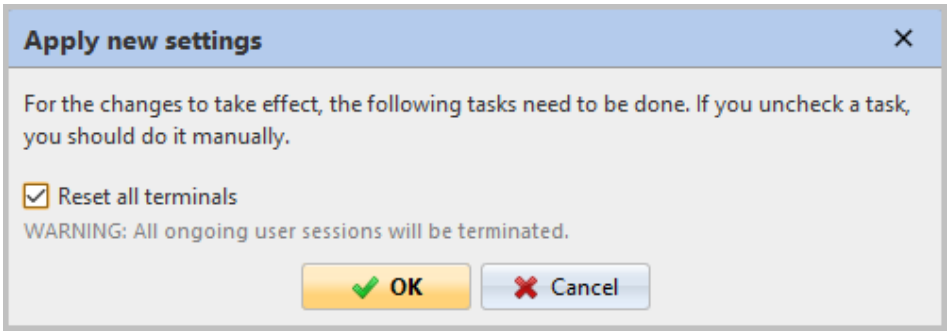


1. Go to **Settings** > **Printers**.
2. Set the **Enabled** switch under **Offline Login** to **On**.
3. Set the number of hours for **Cache user credentials for**.

   To use **Offline Login**, a user must have logged in using online mode at least once during the Cache user credentials period. The default is 72 hours.

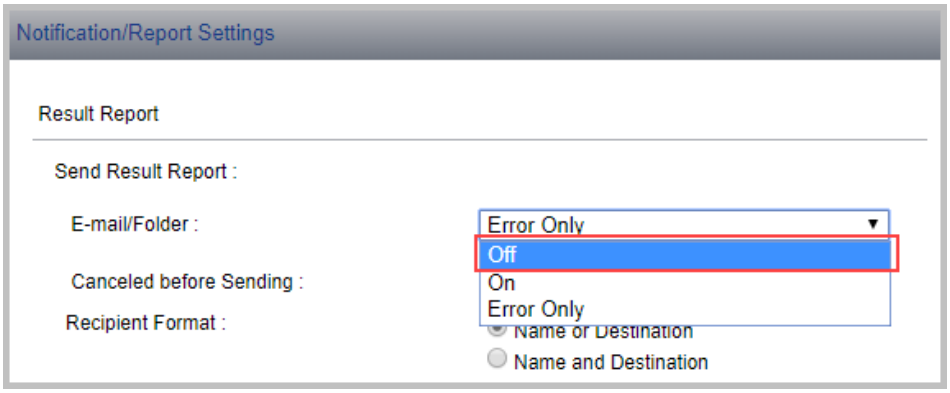
4. Click **Save**.

   The Apply new settings dialog box displays.



5 Keep the **Reset all terminals** option selected and click **OK**.

> The **Send Result Report** option (**Management Settings** > **Notifications/Reports**) on the printing device's web interface should be turned Off (it defaults to Error Only). Otherwise, when a connection fails during an online session, a report about this event is printed on the printing device and accounted to the logged user. If the Offline login feature is off, the printed report is accounted to the *unknown user account.



The settings are distributed to all connected terminals.

Local print spooling behavior when the KNM server is online

When the KNM server transitions from offline mode to online mode, active print jobs are allowed to finish before the Embedded (HyPAS) Terminal device goes into online mode. Print jobs can be either Direct Print, Hold Print, or Print&Follow.

Direct Print workflow when the server is online

- The KX Driver spools a Direct Print job to the Embedded Terminal Device
- The Embedded Terminal device checks with the remote KNM server to see if your user credentials exist
- If your credentials are valid, the job is printed and your credentials are stored
- If your credentials are not valid, the job is not printed

- The remote KNM server collects accounting information so that an Administrator can generate usage reports

Hold Print and Print&Follow workflow when the server is online

Hold Print and Print&Follow have similar behavior. However, Print&Follow allows you to print to all local Embedded Terminal devices once the login information and authorization are stored locally. Hold Print only allows printing on the device with the login information and authorization.

- The KX Driver sends a Hold Print or Print&Follow job to the Embedded Terminal device.
- The user enters authentication information into the Embedded Terminal device using an ID card, PIN, ID card and PIN, ID card and password, or user name and password.
- The Embedded Terminal device asks the remote KNM server for authorization and authentication credentials and stores the ID card and PIN locally. Password information is not stored.
- The user selects which jobs to print and they are released.
- The remote server collects accounting information so that an Administrator can generate usage reports.

Local Print Spooling behavior when the server is offline

When you are printing and the KNM server goes offline, the default behavior is that your user session is immediately terminated and Hold Print and Print&Follow jobs are canceled. Direct Print jobs will complete. You must log in again to complete your Hold Print or Print&Follow jobs.

To have all of your print jobs complete when the server goes offline, open **Settings** > **Printer**. Under General, select **Keep printing after logging out**.

If you have not been authenticated on the Embedded Terminal device at least once, with an ID card, PIN, or ID card and PIN before the server goes offline, you will not be able to log in, as there are no stored credentials.

Direct Print workflow when the server is offline

- The KX Driver spools a Direct Print job to the Embedded Terminal device
- The Embedded Terminal device performs authentication with your stored credentials and prints your jobs
- If there are no credentials, the job will not be printed

Hold Print and Print&Follow workflow when the server is offline

Hold Print and Print&Follow have similar behavior. However, Print&Follow allows you to print to all local Embedded Terminal devices after the login information and authorization are stored locally. Hold Print only allows printing on the device with the login information and authorization.

- The KX Driver sends a Hold Print or Print&Follow job to the Embedded Terminal device.
- The user enters authentication information into the Embedded Terminal device using an ID card, PIN, or ID card and PIN. You cannot use ID card and password, or user name and password to log on, as passwords are not stored.
- The Embedded Terminal uses the stored credentials to validate authentication information.
- The user selects which jobs to print and they are released.

6 Client Spooling

Both Client Spooling and Local Print Spooling are useful when the KNM server is connected over a low-bandwidth or unreliable network connection.

The decision as to whether Client Spooling or Local Print Spooling is better for a situation depends on the types of devices used in the branch office.

- If the branch office only has printing devices without HDD or SSD storage, then Client Spooling is the better option, as the user's computer can spool and release the job to the device when the user logs in.
- If the branch office has printing devices with HDD/SSD storage, then Local Print Spooling is the better option, as the devices can spool and release the print jobs when the user logs in.

An important difference between the two features is that Client Spooling requires an online server, while Local Print Spooling works when the server is offline.

As the Client Spooling print jobs do not go to the server, the following limitations apply:

- Job filters are not applied
- If the client computer is offline, the job is not printed, but it is marked as printed on the server. The user is not notified.
- Jobs cannot be marked as favorites
- Job properties are not available in KNM
- Job processing:
  - The job is not parsed (number of pages, color, etc., are unknown)
  - User detection: Methods requiring the job data file are not supported: @PJL USERNAME=',,,'
  - Computer detection: Methods requiring the job data file are not supported: @PJL HOSTNAME='...'
  - The job name cannot be read from the PJL
  - Job processing defined on the queue cannot be applied
  - User policies cannot be applied

Client spooling requirements

Client Spooling requires:

- Smart Print Services must be installed on the client computer and configured to use Client Spooling
- A Print&Follow queue must be configured in KNM so that it can be used by the Client Spooling print driver
- The KX Driver must be configured on the client computer

Client Spooling is different from other queue configurations in that it is set on the client computer and the Net Manager plugin cannot be enabled in the KX Driver. This is because the connection to KNM is managed by Smart Print Services.

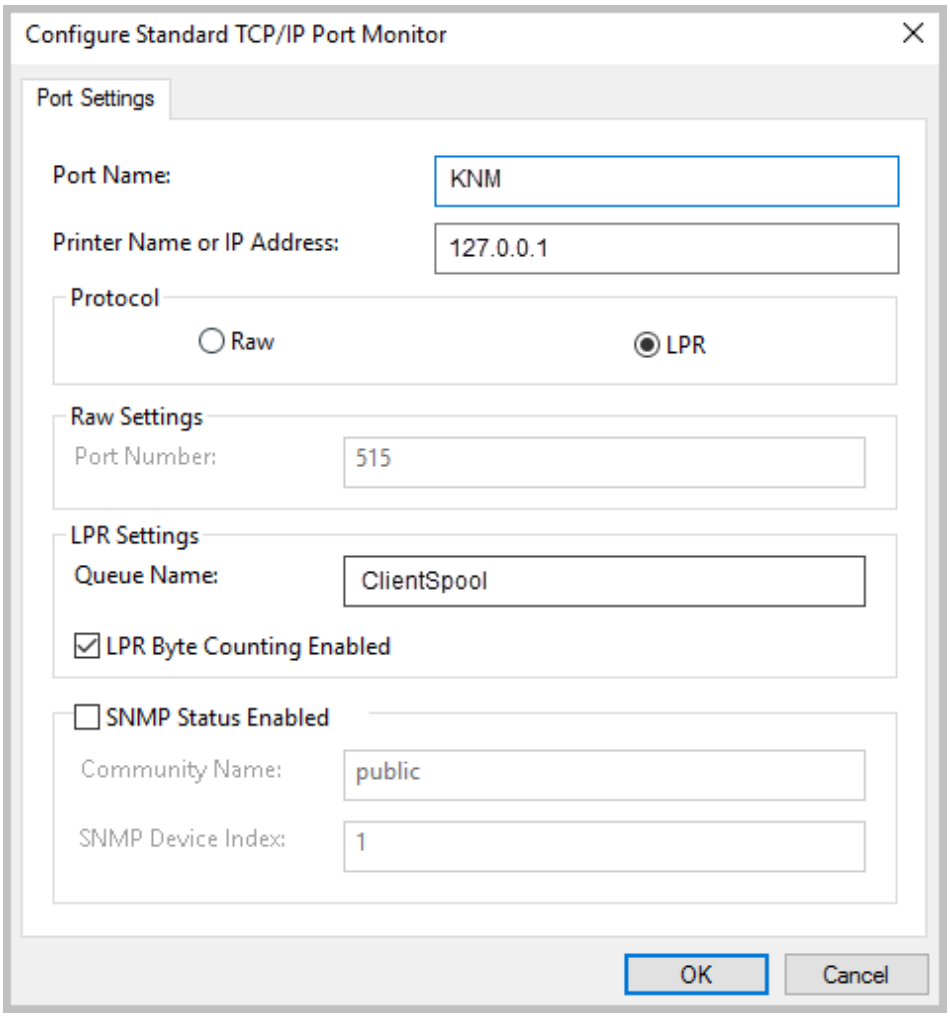
See the Installation Guide for more information on Smart Print Services.

Configuring KNM client spooling

1. In KNM, create a Print&Follow queue.
2. Set the **User detection method** to **Job Sender**.
3. Click **Save**.

Configuring printer driver for client spooling

1. Go to Devices and Printers on the client computer.
2. Open Printer Properties for the KX Driver you are going to use for Client Spooling.
3. Select the **Ports** tab and click **Add Port** > **Standard TCP/IP Port** > **New Port.**



4 Enter the following settings:

- Set Printer Name or IP Address to 127.0.0.1
- Set the Port Number to 515
- Select LPR for the Protocol
- Set the name of the Print&Follow queue that you created in KNM
- Select LPR Byte Counting Enabled
- Clear SNMP Status Enabled

5 Click **OK**.

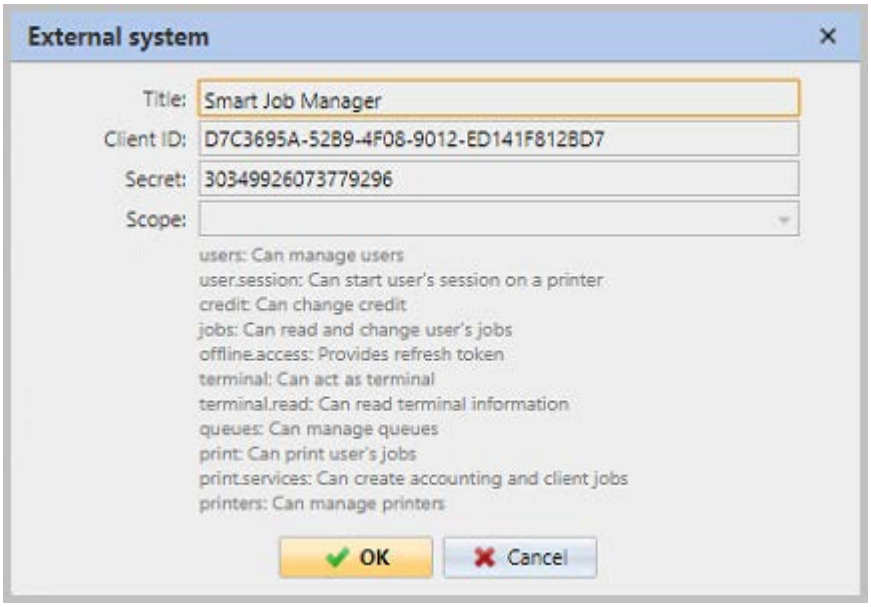
6 Print a test page using the Client Spooling driver.

7 Log in to the device and verify that the job has been sent.

7 Smart Job Manager (SJM)

Easy Job Manager (EJM) 2.0 has been replaced by Smart Job Manager (SJM). The functionality is the same and the installation and modification procedures are the same, except for the location of the API key. The API key for SJM configuration is called the Client ID.

The Client ID is obtained from **Settings** > **External systems** > **Smart Job Manager** > **Show Information**.



Smart Job Manager service enables the following advanced features:

- Project Accounting
- User identification on shared computers
- Credit Accounting (other than PCL5 drivers)
- Quotas (other than PCL5 drivers)

Smart Job Manager must be installed on the computer where the Net Manager print drivers are installed. This is either the dedicated print server or a user computer, depending on the print environment infrastructure and required functionality.

Smart Job Manager service communicates with the print spooler, extracts the data, and sends the data to the server with the print job.

Smart Job Manager can pause the job in the spooler and keep it waiting for user interaction. It communicates with the server bidirectionally, collects information from the server, manages popup windows and provides dataflow between the user and the server. This service is useful for project accounting and user identification on shared computers.

The following features are not supported in SJM. However, these features are supported by the new client application Smart Print Services (SPS).

- Detecting pages from print spooler
- Secure printing
- Client spooling
- Failover printing

You can also use EJM 1.0, which supports all features.

For Smart Job Manager installation instructions, see the Installation Guide.

For information on using Smart Job Manager to send jobs, see the User Guide.

SJM user interaction script

SJM allows a user to interact with the server by confirming or rejecting certain settings suggested by the server by using PHP scripting in queue setting.

These user interaction dialogs are supported:

$this->dialogYesNo($text)	Creates a dialog with $text as text content and Yes, No buttons.
$this->dialogPrintNo($text)	Creates a dialog with $text as text content and Print, No buttons.
$this->dialogYesNoCancel($text)	Creates a dialog with $text as text content and Yes, No, and Cancel buttons.
$this->terminate()	Terminates script processing.

When a button is clicked by a user, the on{ButtonName} function is called, where you can add code to accomplish desired actions.

onCancel calls $this -> terminate() by default. It can be overwritten if needed.

Configuring SJM user interaction PHP script

1. Go to **Queues** and double-click a queue.
2. Select **Scripting (PHP)** > **User interaction** and enter PHP scripts for the user interaction.
3. Click **Save**.

KNM settings required to print jobs in SJM

In order to print jobs with SJM, one of the following conditions must be met:

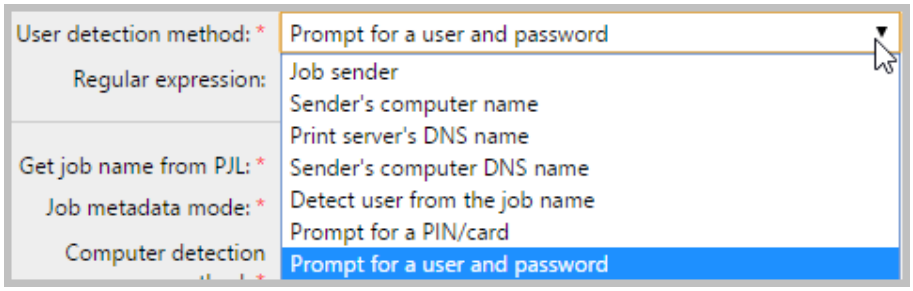
- Projects are enabled, and the user has at least one project assigned

- A user interaction script is set on the queue
- Queue has the user detection method set to one of the following:
  - Prompt for PIN/Card
  - Prompt for Username and Password
  - Select the user from a list

The user detection mode in KNM does not need to be the same as the user authentication mode used in SJM, as the SJM authentication takes precedence and will authorize the user to print.

Configuring user detection method for a queue in KNM

1. Log in to KNM as Administrator.
2. Open the queue on which the user will have rights.
3. Change the queue's User detection mode to one of the following:
   - **Prompt for a PIN/card**
   - **Prompt for a user and password**
   - **Prompt to select a user from a list**



4. To verify that the settings work, login to SJM with user credentials. Send a job to the users queue on the client device where SJM is installed.
   The number of pending jobs and the first job name displays. The user has the option to Delete or Print.

   If there is more than 1 pending job, the user may select the **Apply to all jobs** check box to make the same decision for all print jobs. Job name is no longer displayed if this check box is selected.

8 Smart Print Services (SPS)

Smart Print Services (SPS) provides additional features to those that Smart Job Manager provides.

- Detecting pages from print spooler
- Secure printing
- Client spooling
- Failover printing

SPS is only available for Windows.

For information on installing and configuring Smart Print Services, see the Installation Guide.

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. 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. After they authenticate themselves at a printing device and select the jobs to be printed, the printing device notifies the server, the server notifies the computer and the computer sends the job directly to the printing device, where it is printed. This method decreases traffic to the server; good for offices with limited network connectivity.

Failover printing

With the Smart Print Services application installed and running on the end user's workstation, you can set a backup printing device to be used for print when connection to the server is lost. The Failover printing feature serves as a backup tool in case of server outage.

Local print monitoring

Besides monitoring network printing devices, KNM is able to monitor the number of printed pages on devices connected locally via parallel port or USB port. The system extracts the number of printed pages from the print spooler when it is processed by the print driver.

This extraction requires installing the Smart Print Services Windows service on all computers from which you print and setting up local print monitoring on each. All Jobs sent to selected types of ports will be detected from the print spooler.

Communication with the local printing device is one-sided and restricted to sending print data. It is not possible to confirm that printing actually finishes. KNM charges for the whole number of pages extracted from the

spooler when they are sent to the printing device, even if the print job is canceled.

Local printing devices monitoring is available only on computers with MS Windows.

Local printer accounting

After the print job is sent to a local printing device, the number of pages and other information about the print job are saved to the Smart Print Services folder on the sending computer. Once a connection with the server is established information is automatically transferred to the server, so it is not necessary to have a permanent connection to the server.

Once the server has connected and received the print job data, information about the job appear in an Info entry in the log. Each entry contains information about who printed, the printing device used, and the number of printed pages. The Net Manager server automatically creates a new printer with a status of **Local** and a name in the format of printer@computer (**LPT@nb115**).

Administrators can set a price list for local printers to include in monetary reports.

If the user printing through the local printer already exists in Net Manager, the jobs are assigned to them; if not, the job is accounted to ***unknown user**.

9 Print Job Management

On the **Settings** > **Jobs** page, you can set options for managing print jobs. Main areas on the screen are:

General/Maximum job size

Defines the maximum size of the job that can be received by the system. Jobs over this limit are rejected.

Notification on job receiving errors

Select **Notify the Administrator via email** to inform the admin of jobs rejected by the system.

Select **Notify the job sender via email** to send email (job sender is always notified by Smart Job Manager).

Job parser

Enable to detect information about the job before it is printed, used for credit, quota and PHP scripting.

Jobs via LPR protocol

Enable and set the LPR port.

Jobs via Email/Web

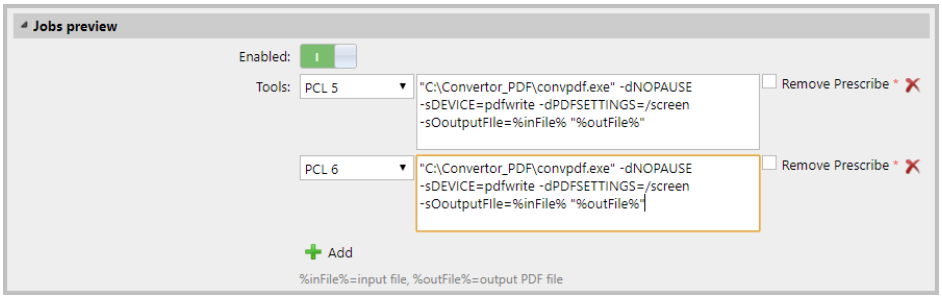
See full description that follows.

Job roaming

Used to share jobs between different servers. Select users and manage queues for job roaming.

Jobs preview

This feature requires third party software. Set the path to the software you would like use for previews and add it with the parameters required for the software to function. Define input and output file parameters: %inFile%=input file, %outFile%=output PDF file. Define for each emulation (PCL 5, PCL 6, or PostScript) to be used.



Jobs archiving

This feature stores all jobs as PDF including job metadata to the archive folder. Configure a DMS application which will pick up the jobs and clean the folder regularly. Archiving print jobs uses the Jobs preview feature, which must be turned on and configured. This feature requires a job archiving license.

Advanced

Metadata generator

Printing jobs via email, web user interface, or mobile app

Users can print jobs by sending an email to a special email account without installing a print driver or applications such as MS Word on the client device.

The following formats are supported:

- PDF/a
- .jpeg, .bmp, .tif, .png
- .txt (UTF8)
- MS Office, OpenOffice and LibreOffice documents. The corresponding suite must be installed on the KNM server. MS Office must be MS Office 2007 or later with the latest service pack.
- Email body in plain text and HTML

All print jobs sent by email, web user interface, or mobile apps are assigned to the Email_web queue and can only print to devices assigned to this queue.

Enabling printing from email and web printing

Once **Jobs via Email/Web** is enabled, all users with rights to the Email_Web queue will have the **Print File** button displayed on their web user interface.

1. Go to **Settings** > **Jobs** > **Jobs via Email/Web**.
2. Set **Enabled** to **ON**.
3. In the **Allowed Users** drop-down box, select the users of this function.

- If you select **Always generate a new PIN after a job is received** , a new PIN is generated every time a user sends an email with a print job.
- If the user already has a PIN, it is replaced by the new one.
- If you select this option, make sure that you select the Send new PIN via email option on the Users settings menu, under PIN. Otherwise users will not receive the new PIN and cannot access their KNM accounts.

User options for sending print jobs by email

If **Jobs via Email/Web** is enabled, a user can print a document by attaching it to an email and sending to a special email account dedicated to printing.

An admin can set **Default Print Options** such as:

- B&W
- Economic mode
- Duplex

Users can change the parameters of their print jobs by adding keywords to the email subject line. These changes have priority over the Default Print Options set by the admin. Users can choose from the following keywords:

- **#color** - color print
- **#mono** - B&W print
- **#duplex** - print on both sides of a sheet of paper
- **#simplex** - print on one side of a sheet of paper
- **#ecoon** - toner-save print mode on
- **#ecooff** - toner-save print mode off

The keywords can be used as any part of the subject line and do not have to be separated. For example, an email with the subject: **MyPrintJob #mono#duplex** will force the job to be printed in B&W and duplex.

Receiving print jobs sent via email on the KNM server

There are two ways of receiving print jobs sent via email on the KNM server.

- Set KNM as an SMTP server and forward all emails with print jobs to KNM
- Set KNM as an SMTP email client that fetches all emails from a special email account on your SMTP server via POP3 or IMAP protocol

Configuring KNM as an SMTP server

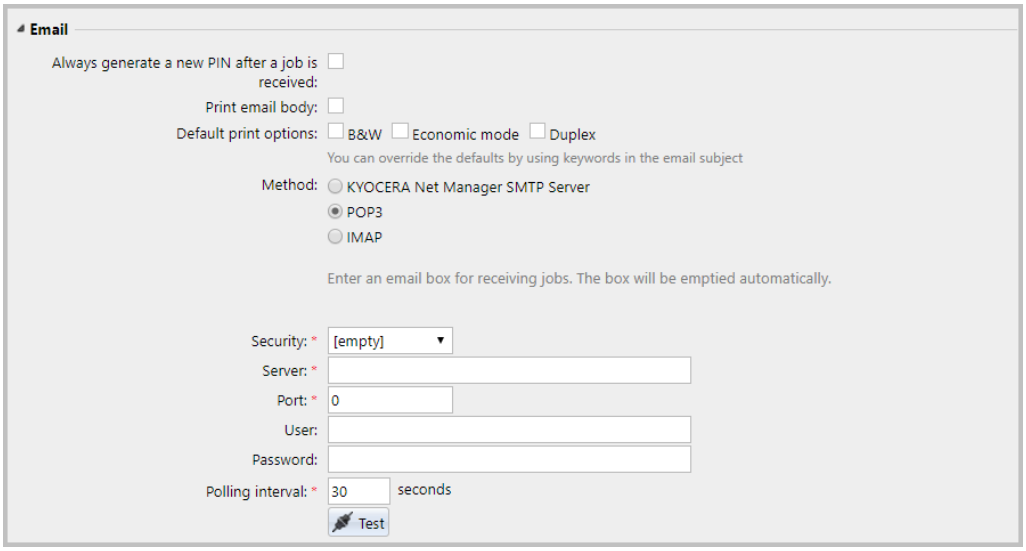
This configuration forwards print jobs that are sent from the company mail server to the KNM server.

1. Create an email account for receiving print jobs on the company mail server.
2. Redirect the emails to print@IP_Address, where IP_Address is the IP address of the KNM server.

   Any email received on this address will be processed as a print job and its owner will be identified by their email address.
3. Go to **Settings** > **Jobs** > **Email** and select **KYOCERA Net ManagerSMTP server** as the **Method**.
4. Click **Save**.

Configuring KNM as an email client

This configuration has KNM monitor a special email account on the company mail server. KNM then fetches any print jobs sent via email from the mail server.



1. Create an email account for receiving print jobs on the company mail server.
2. Go to **Settings** > **Jobs** > **Jobs via Email/Web**.
3. In the **Email** section, select **Method**, either **IMAP** or **POP3**.

   Additional options appear.
4. Enter the settings for accessing the mail server.

   Security, **Server**, and **Port** are required.

   User refers to the email account that receives the print jobs. **Password** is for that email account.
5. Click **Test** to check that the connection to the mail server is working.
6. Click **Save**.

Processing print jobs in Office format

Print jobs that are in any Microsoft Office format and sent via email can be processed with Microsoft Office, OpenOffice, or LibreOffice. The applications must be installed on the server. The applications must be run under a user account with Windows administration privileges.

To select the method of printing, go to **Settings** > **Jobs** > **Office file formats**.

Select one of two methods:

Convert to PDF

KNM opens the document in the Office application, saves the job as PDF and sends it directly to the printing device. The printing device must support direct print of PDF. See "Creating an Account for Processing Print Jobs" for the configuration procedure.

Via a Windows printer

KNM opens the document in the Office application and prints it using a selected Windows printer (print driver). Select the printer from the drop-down box. See "Printing via a Windows Printer" for the configuration procedure.

Creating an account for processing print jobs

A Windows account with full administration privileges is required for running applications that are used to process print jobs sent via email.

1. Create a Windows Administrator account on the KNM server that will be used when processing print jobs sent via email.
2. Log in to the new account.
3. Install the Office application package on the server.
4. Run all of the applications that will be used for conversion, such as Word, Excel, PowerPoint, etc. Close all welcome screens and dialog boxes that might appear on application startup.
5. Open Windows Services, select **MyQ** > **Open Services**. In the Local Services window select **MyQ** > **Properties**.
6. In the **Properties** window select the **Log on** tab.
7. Select **This account** and enter the name and password of the new Administration account.
8. Click **OK**.
9. In Easy Config, restart all services.

Printing via a Windows printer

With the **Via a Windows printer** option, you have to select one of the printers that are locally installed on the KNM server. The selected printer is used for processing the print jobs. You also have to change the printer security settings to allow KNM to print from the print driver.

1. Go to **Settings** > **Jobs** > **Office file formats** > **Method of printing** and select the **Via a Windows** printer option.
   The Windows printer setting displays.
2. Select the printer from the drop-down box and click **Save**.
3. Go to **Devices and Printers** in Windows and right-click the printer.

4 In the drop-down box, click **Printer properties**.

5 In the dialog box, select the **Security** tab.

6 Select the new Administration account and select **Allow** for **Print** and **Manage this printer** permissions.

7 Click **OK**.

Job parser

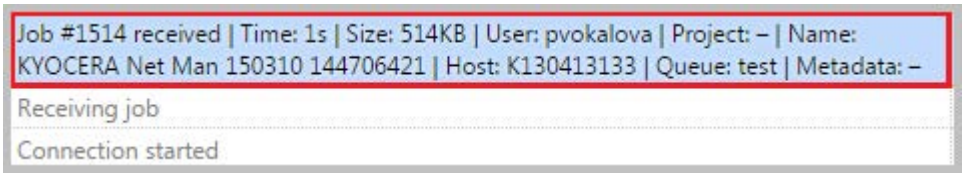
KNM uses the embedded print job parser to get additional information from a print job during its processing on the server. You can use this information to apply additional security rules, control the price of the job, and to avoid wasting paper by printing simplex. The following data can be discovered by the job parser:

- Page description language (PDL)
- Number of B&W pages
- Number of color pages
- Number of copies of the document
- Simplex / duplex option
- Paper format

The data can be used for:

- Offline Accounting for devices not supporting SNMP communication
- Pausing / deleting print jobs with a large number of pages
- Pausing / deleting simplex print jobs
- Pausing / deleting color print jobs
- Pausing / deleting A3 print jobs sent to A4 printer
- Determine the price of the job for credit accounting

After you send the print job to KNM, check whether the parser works properly in the log. The following information displays when the parser receives the print job metadata:



The job parser works with all print languages if used with the KX Driver.

Evaluating print job parameters

For KNM to precisely manage policies, quotas, and account credit functions, the following print job parameters must be evaluated before it is printed:

- Number of pages

- Color or B&W
- Paper size

These print job parameters are checked by the job parser. Job parsing is also required for enabling PHP scripting on a queue.

The job parser generates job information that the device can then use to reject or accept the job.

Job parsing works with third-party drivers and is disabled by default.

Enabling job parsing

1. Open **Settings** > **Jobs**.
2. Under **Job parser**, set **Enabled** to **ON**.
3. Click **Save**.

Print job monitoring

To view print jobs, go to **KYOCERA** > **Users** > **Jobs**. They are organized in subfolders according to their current status. Print jobs can have one of the following statuses:

Ready

Job is in queue waiting to be printed – waiting either for user authorization or for completion of the previous print job.

Paused

Job paused automatically by the system or manually by the user.

Printed

Job printed and saved on the server.

Favorite

Jobs saved by the user for future reprinting.

Deleted

Job deleted from the server.

All

All of the above job statuses.

With the exception of deleted jobs, all other print jobs can be marked as a Favorite. Favorite print jobs are not automatically deleted within the interval defined in **Settings** > **System Management** > **History** > **Delete jobs older than** and are stored on the server regardless of how old the print job is.

The availability of items in the **Actions** menu is dependent on the status of the print job.

Click **Edit** to display information including the print job name, job size, the computer from which the print job was sent, the name under which the print job was saved, and the directory with the job reception date. If the job contains metadata, then information about the number of B&W and color pages, copies, duplex, paper format, and print language are displayed.

There are two methods to see the job metadata – from the print spooler or by parsing the print job.

Parameters for Queue, Owner, and Project are not fixed and can be changed depending on the user rights.

Assigned print queue change

The print queue can be changed only if the user has access rights to the new queue.

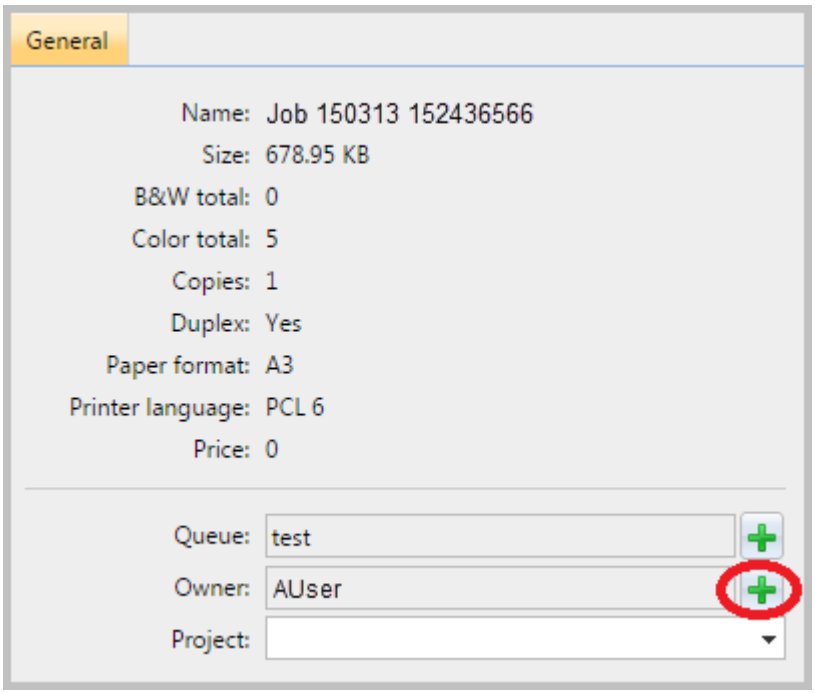
1. Open the job details by double-clicking a job and click the drop-down list next to for **Queue**.
   A list of queues displays.
2. Select the new queue and click **OK**.
   The new print queue name will be displayed in job details.

Only queues that the logged on user has rights to will appear in the list.

Job owner change

The Job Owner can be changed only if the user has sufficient rights. The Net Manager system Administrator can shift print jobs between users and user group managers, and transfer print jobs between users within a group.

1 Open the job details and click the plus sign next to **Owner**.



2 In the list, select the user who will be the new print job owner and click **OK**. The new print job owner displays in the job details. If the new owner has no rights for printing in the print queue to which the print job is assigned, the change of owner is not supported and an error message displays.

Enabling failover printing

KNM Smart Print Services supports Failover Printing.

If KNM SPS is unable to communicate with a KNM server, Failover Printing forwards the job to a device's RAW port.

The RAW port choices are port 9100 (default), 10010 (direct print), 10011 (secured hold print), 10012 (LPS Print&Follow), or 10013 (LPS delegated printing.)

Local print spooling and Embedded Terminal must be enabled to use port 10010, 10011, 10012, or 10013 on the device. Projects can be used with this feature (except in offline mode.)

If port 9100 is selected, printed jobs are charges to the unknown user. This configuration can be used when Local print spooling and Embedded Terminal are not available.

1 Open Windows Control Panel / Programs and Features.

2 Double-click KNM Smart Print Services.

3 Click **Modify** and click **Next**.

4 Click **Next** on the **Additional settings** screen.

5 Click the **Enable** check box for Failover printing.

6 Enter the backup printer address, port and printer protocol.

7 Click **Install**.

Job roaming - Print&Follow

In a Master/Site server configuration, users can transfer print jobs from one branch office site to another. This feature requires a valid Net Manager Pro license to be installed at each branch.

Job management depends exclusively on KNM server settings at each location, not on a centralized management system. This reduces the amount of data traffic between locations as jobs are not transferred unless requested by a user.

Using the Job roaming feature

When Net Manager server configuration is completed, users can display remote jobs in the KNM web interface or Embedded terminal (on the device assigned to the Job roaming queue) and select the jobs they want to download to the current location.

After the jobs are downloaded, they are deleted from the original location.

Only jobs assigned to Print&Follow queues are discovered by the Job roaming feature and can be moved to another location. Jobs assigned to Direct and Tandem queues are ignored.

Set up the Job roaming queue

Job roaming settings determine the devices where remote jobs can be printed and designate which users are allowed to use job roaming.

1 Go to the **Printers** tab and select the devices that will be used to display, download and print remote jobs.

2 Open the list of print queues,select **Job roaming**, and set options, such as the common print queue.

3 Switch to the **Rights** tab and select the users or groups to be allowed to use the job roaming feature.

Only the users assigned to the Job roaming queue will be able to connect to other servers and download jobs.

Direct printing

With the direct printing method, users can send their print jobs to be immediately printed on a particular printing device via a dedicated queue. The queue is created only for this device and cannot have any other devices attached to it. As soon as KNM receives the job, it sends it to the printing device.

From the user's point of view, a direct queue works in the same way as the common method of printing where the job is sent directly to a selected printing device.
The main difference is that KNM collects the job data to be used for reports and accounting.

For information on how to create a direct print queue, see Queues.

Tandem printing

Use Tandem queues with multiple printing devices and high print volume. Jobs sent to a tandem queue are evenly distributed among the devices in the queue and immediately printed on a free device. With more than one idle printing device, the print job is sent to the device with the lowest printed pages count.

To balance the load between devices in the queue, make sure that the Page Counters on all printing devices in the queue are similar. Otherwise the printing devices with lower printed page volume might be overused. You can manually change the page counter on the **Printer total counter adjust for load balancing** setting, found on the printer properties **General** tab (scroll to the bottom of the tab and expand the **Page Counters** section.)

For information on how to create a direct print queue, see Queues chapter.

Printing from other operating systems

Linux

When printing from Linux, use the LPD/LPR Host or Printer options and enter the IP address of the KNM server, not the printer device's IP address. In Queue, enter the name of the print queue that you entered at its creation in KNM.

Various distributions of Linux have different interfaces and print settings. Always choose the LPD protocol and enter the correct name of the queue.

MS-DOS (and other command lines)

Print jobs can be sent to KNM from the DOS command line or from other operating systems. The only requirement for sending a print job to KNM is the protocol (LPR/LPD on TCP 515 port), the IP address or server hostname for KNM, and the name of the print queue to which you want to print.

A simple example of printing from the command line:

c:\>LPR -S 192.168.1.101 -P Monochrom testfile.prn

The testfile.txt job will be sent to IP address 192.168.1.101 and Monochrom queue by the LPR command.

Mac OS

Print jobs can be sent to KNM from the Mac OS. Enter the protocol, the address of the server, and the queue name (leave blank to use the default queue).

10 Users and Groups

This chapter covers users and groups in KNM including:

- Adding users
- Importing and synchronizing users from external sources
- Adding users to groups
- Managing user accounts

Adding new users manually

1. Go to **Users** from the logo menu.
2. Click **New User**.

   Tabs on the user screen are:

   - General
   - Groups - to assign a user to existing groups
   - Queues - to view queues for this user
   - Delegates - to add delegates
3. Enter the **General** tab fields. Required fields are User name and Full name.
4. Add one or more **Aliases**. An Alias is an alternative name, for example, for printing from other operating systems where the user has a different login.
5. Assign one or more **Cards** to the user. The card can be set as persistent or temporary.

   While it is not marked as a “required” field, you must select a PIN or Password or the user will not be able to log on to KNM through a web interface or Embedded Terminal.

   Set a **PIN** on the user setup screen. Set the **Password** by right-clicking a User name in the list after Save.
6. Click **Save**.

   The User name, Card, PIN and Personal number fields must be unique. If there is duplication, KNM displays an error message and the user properties are not saved.

Adding users to groups

1. To add a user to a group, click **+Add** on the user's profile **Groups** tab.
2. Select from the list of available groups and click **OK**.

Adding delegates for users

Select a delegate or delegates for the user. Delegates are able to print all of the delegating user's jobs sent to a Delegate printing type of queue. The delegate will see the jobs on an Embedded Terminal and be able tell them apart from their own print jobs.

1. Click the drop-down menu and select a user to assign as a delegate.
2. Repeat to add more delegates for this user.
3. Click **Save**.
4. To remove delegates, hover over an assigned delegate, click the **x** to remove, and click **Save**.
5. To see all delegates assigned, either individually or via a group, expand the Tools area and click **Show resultant delegates**.

Editing delegates

Any user can assign and edit delegate users to their account.

The Administrator sets up the ability to edit delegates in KNM at **Settings** > **Users** > **General**, by selecting **Enable delegate changes**.

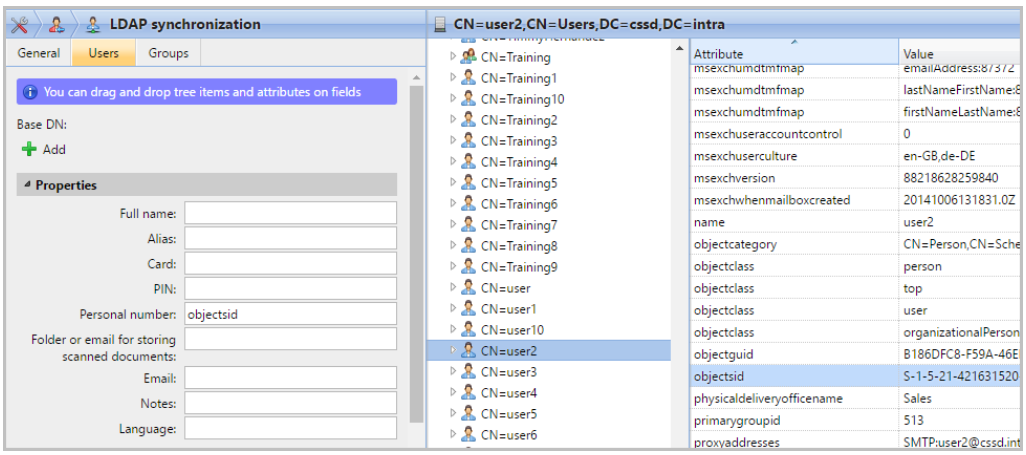
The user can then use the **User profile** gadget, by clicking **Edit**.

The user manage their **Delegates** by selecting groups and users to add or delete.

Use personal number to represent users in LDAP synchronization

The LDAP attribute objectsid can be used as a personal number in KNM LDAP synchronization. This personal number will be used as unique information to represent

users, which means that even after user name has been changed in LDAP, KNM can still recognize that user.



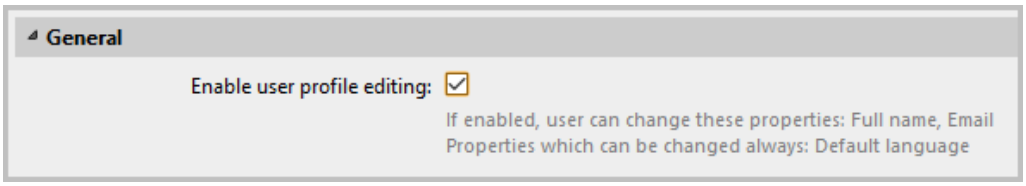
Enabling user login via LDAP

You can allow users to authenticate against the LDAP server.

1. If LDAP is already configured (for user import/synchronization), and **Use authentication server** was checked in setting up the import, imported users will have LDAP authentication set by default.
2. For manually created users, select **Use authentication server** on the user's profile **General** tab and select the server from the drop-down menu for Authentication server.
3. If LDAP is not already configured, see Importing Users from LDAP.

If LDAP authentication is enabled on a user account, the user cannot change their password on the KNM web interface.

Enable user profile editing



Select **Enable user profile editing** to give users the ability to change **Full name** and **Email** themselves. Users can always change the **Default language** field.

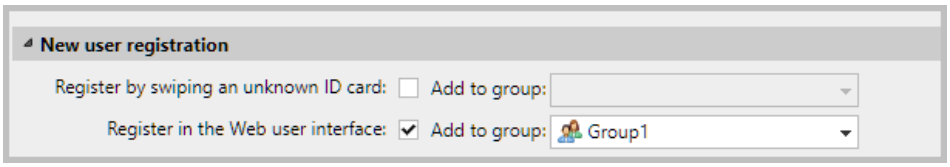
User self-registration

If configured in **Settings** > **Users** > **New user registration**, users can add themselves to KNM using one of the following methods. These methods can be configured to automatically place new users into specified groups.

Configuration for self-registration on the web

You can set up KNM so new users can choose their own user name when registering. After new users complete the registration, KNM displays their User name and PIN.

1. In **Settings** > **Users** > **New user registration**, select **Register in the Web user interface**.



2. In the **Add to group** drop-down menu, select a group.
3. Edit the config.ini file in the KYOCERA Net Manager folder to add 2 lines. You might need to change file permissions to apply the change to the config.ini file.

```
[ExtraFeatures]
registerUserName=1
```

4. Restart all KNM services.

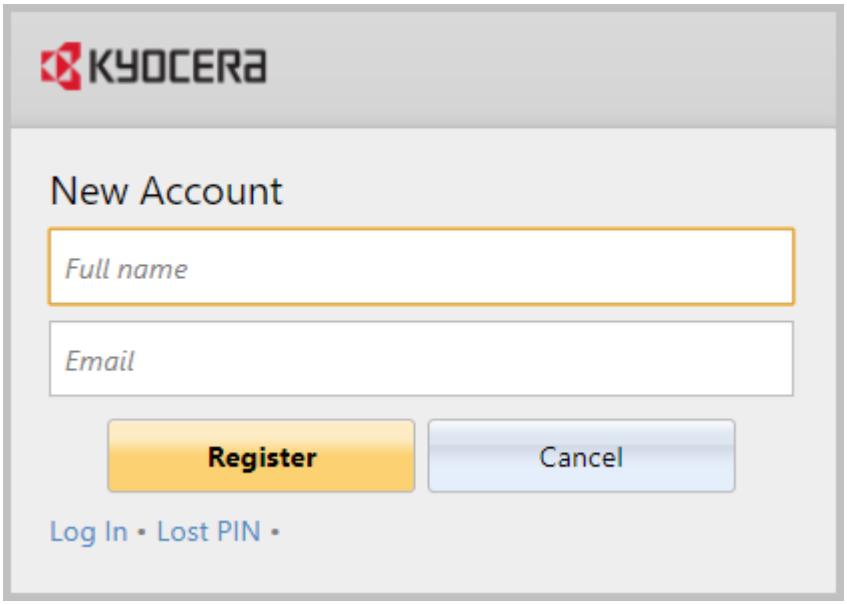
Users will now have an option on the login screen to create a new account. See Register in the web user interface for user instructions.

Register in the web user interface

You can provide these instructions to new users wishing to register from the web interface.

This option only appears on the Login screen if **Register in the Web user interface** is checked in **Settings** > **Users** > **New user registration**.

1. From the KNM Login screen, click **New Account**.
2. Type your full name and email address.

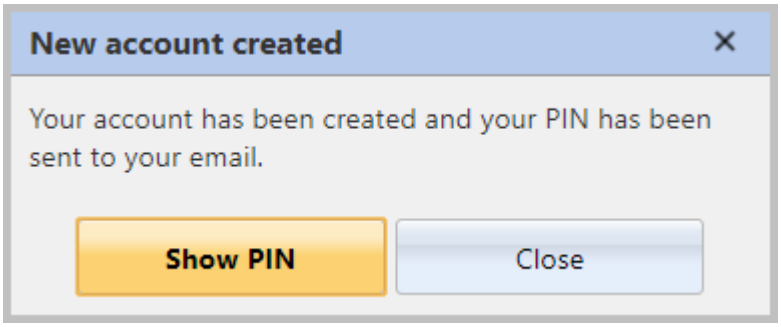


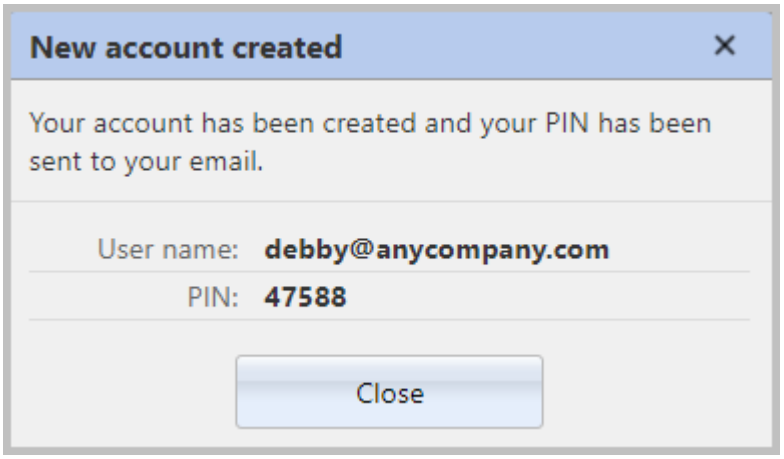
The email address must be unique to the KNM system because it is set as the User name.

3 Click **Register**.
A new account is created.

4 Click **Show PIN** in the pop up to show the assigned User name and PIN for the new account.

You see a **New account created** screen with your User name and PIN, which are also sent to you in an email.





Register by swiping an unknown ID card

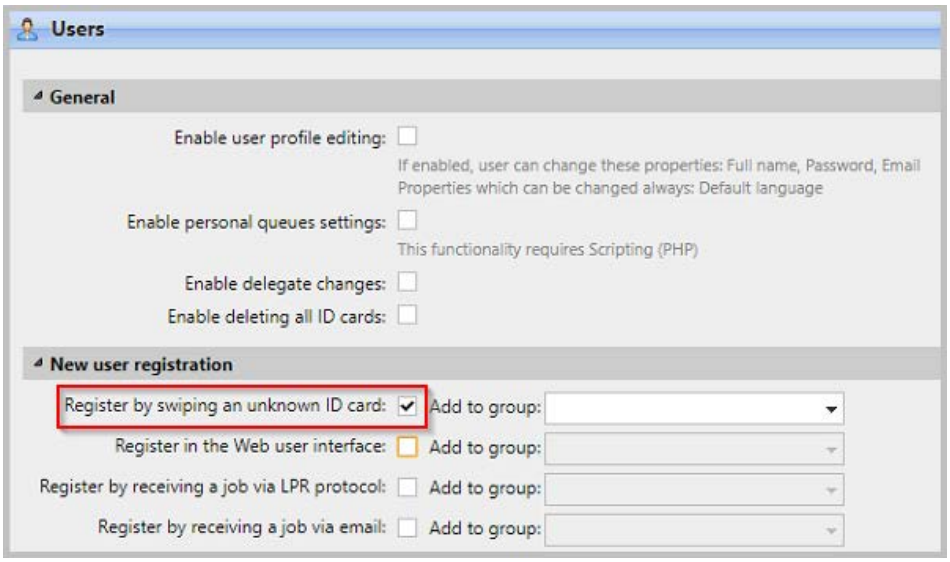
When a user taps a new ID card on the reader, KNM starts the process of user registration, creating a new anonymous user.

New user registration with an unknown card via SJM

A new user can swipe their ID card via the Smart Job Manager (SJM) window and log in on a client computer that has a card reader.

There must be at least one queue already set up with User detection mode set to **Prompt for a PIN/Card**, **Prompt for a user and password**, or **Prompt to select a user from the list** before you can use this feature.

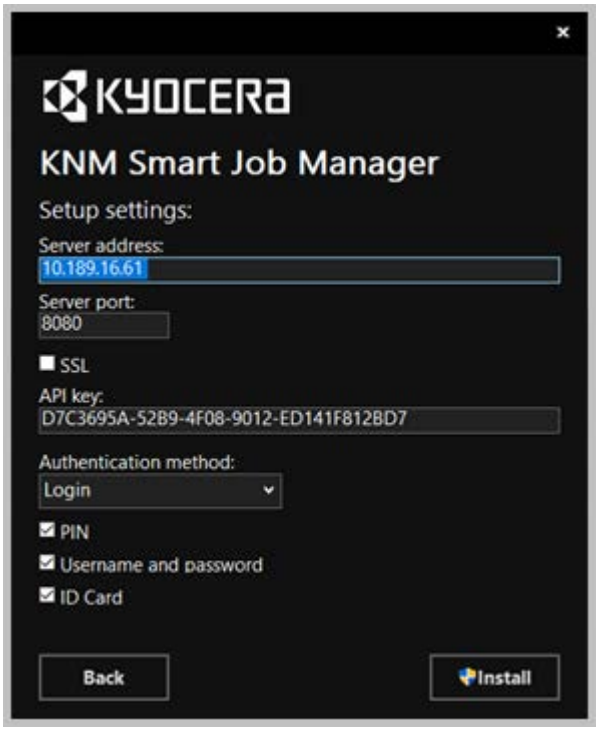
1 Enable **Register by swiping an unknown ID card** from **Settings** > **Users**.



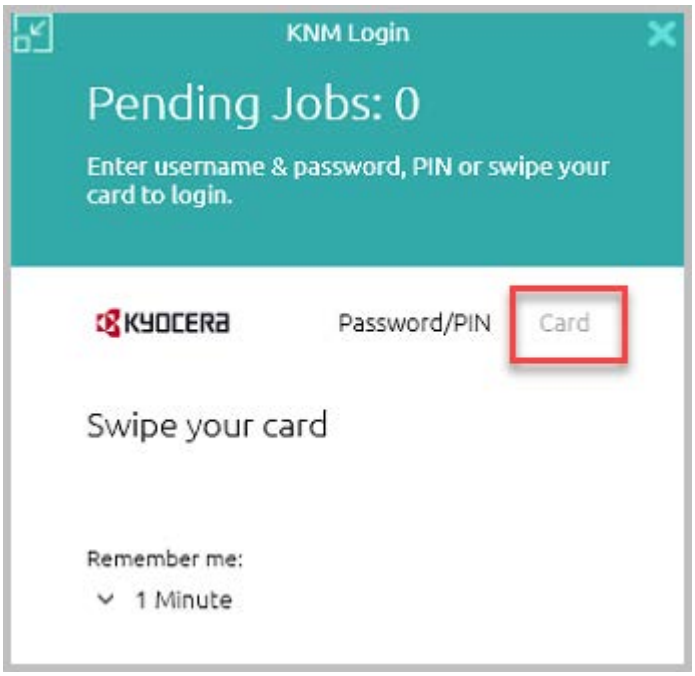
2 Insert a USB-connected ID card reader on the client computer.

3 Change the SJM Authentication method to **Login** and select the ID card option.

4 Click **Install**.



5 Open the SJM widget and click **Card** on the widget.



6 Click the SJM widget to keep it as current the active application and swipe an ID card that does not belong to any KNM user on the ID card reader.

A new anonymous user is created on the KNM server. This event will be visible in the log.

The newly created user is now logged in through SJM.

Register by receiving a job via LPR protocol

KNM creates a new user account using data received when an LPR job is submitted.

Register by receiving a job via email

KNM creates a new user account using the sender's email address when a job is sent to a special email account.

Import Users

Import users from LDAP

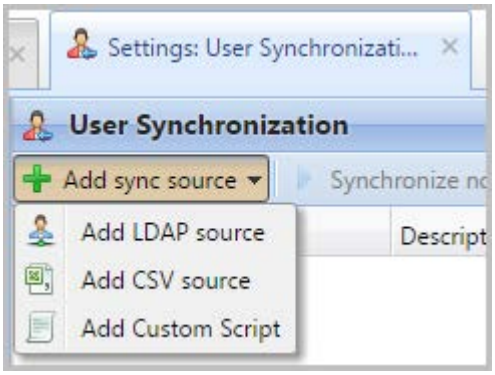
The most common way to add users to the KNM database is to import them through Active Directory. Both the user properties and the tree structure of user groups can be imported according to organizational units (OU) in Active Directory.

Adding the LDAP source

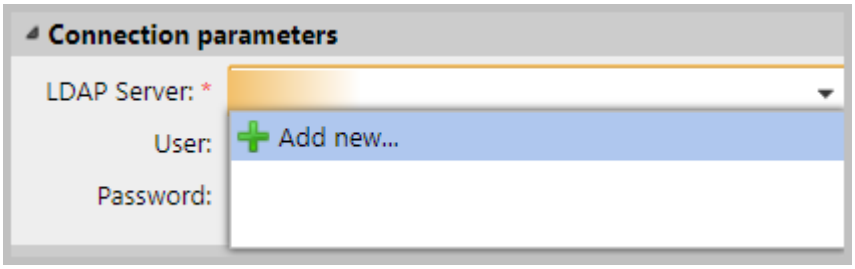
You can set up an LDAP server (or servers) for user import and synchronization.

1 Click **Import users** in the Quick Setup Guide/Users section on the Home tab. (Or go to **Settings** > **User Synchronization**.)

2 Click **Add sync source** and select **Add LDAP source** from the drop-down list.

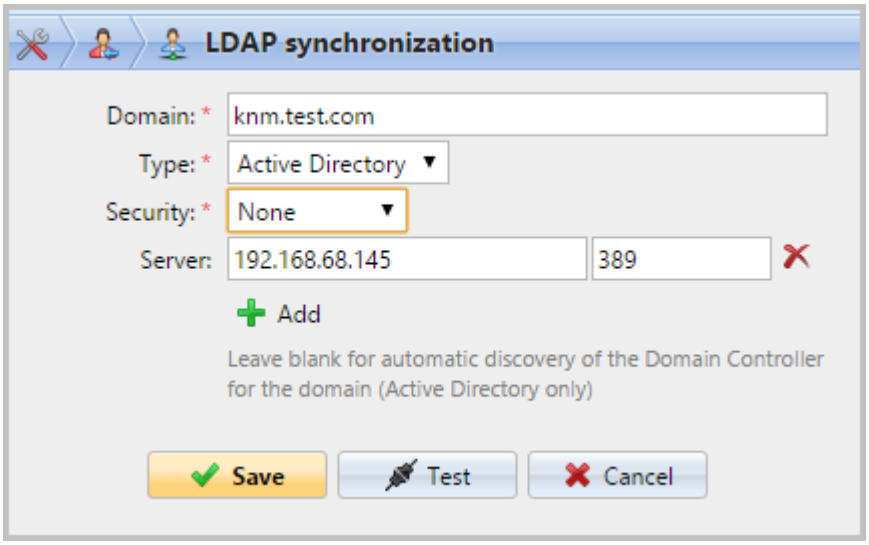


3 In **Connection parameters**, click the drop-down list by LDAP Server.



4 If there are no servers in the list, click **Add new**.

5 Provide the following:



- Domain
- Server type (Active Directory, Novell, Open LDAP, or Lotus Domino)
- Security (None, SSL, or START TLS)
- Server IP address or hostname and port

Microsoft Azure Active Directory synchronization is also supported. To synchronize with Azure Active Directory, it must be enabled and

configured and the feature must be enabled via config files. Please contact support for more information.

6 Click **Save**. (Click **Test** to check the connection.)

The LDAP settings and information in this manual are based on Active Directory, although most of these settings are similar for all supported LDAP servers, including Novell, OpenLDAP and Lotus Domino.

LDAP - General tab settings

When configuring a new LDAP source or editing an existing one, apply the following settings:

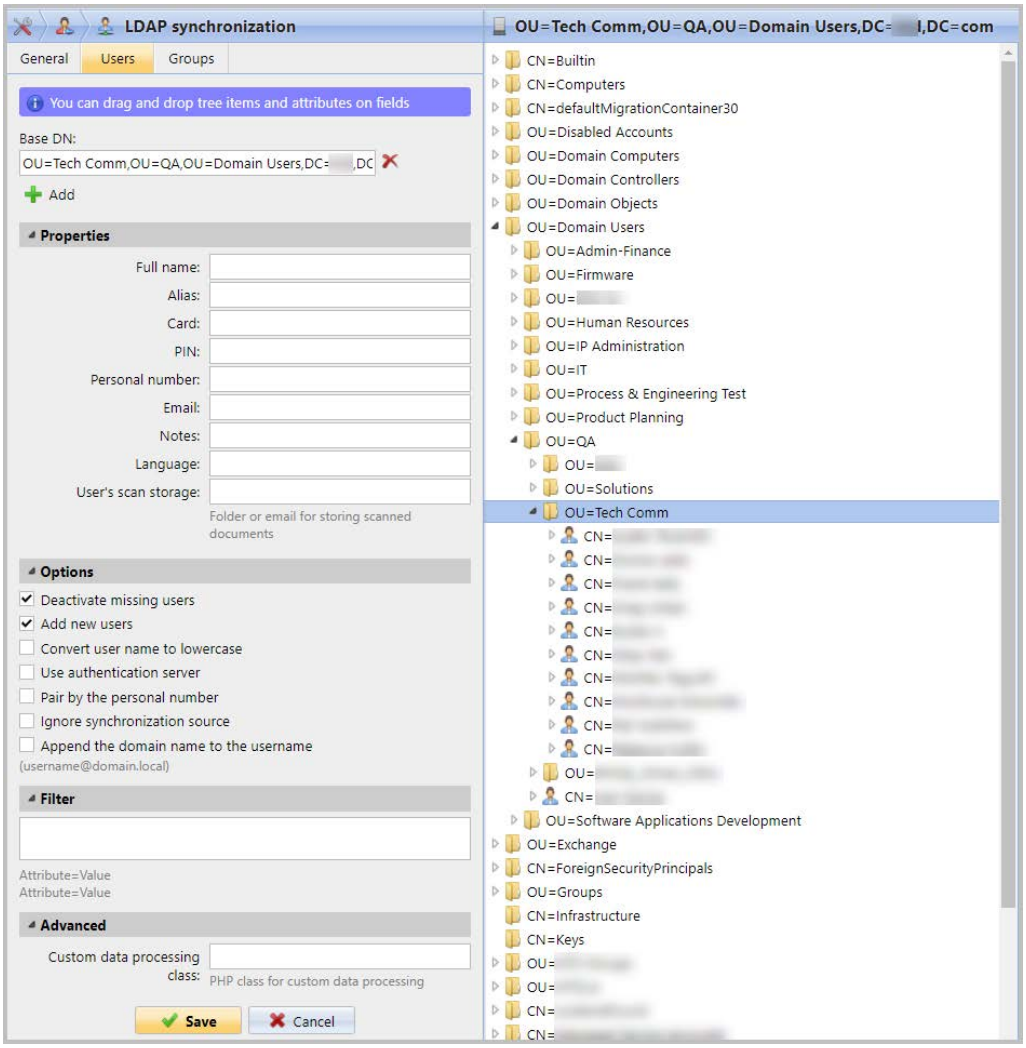
1 Under **Connection parameters**, enter the LDAP server domain, and the User and Password for logging in to the LDAP server.

2 To protect against an LDAP malfunction select **Enabled** to export to a .csv file after a successful import. You can use this .csv file as a synchronization source in the future.

3 Click **Save**.

LDAP - Users tab settings

Enter LDAP import parameters from the Users tab.



1 Click the **Users** tab.

2 Click **Add** to add a new Base DN.

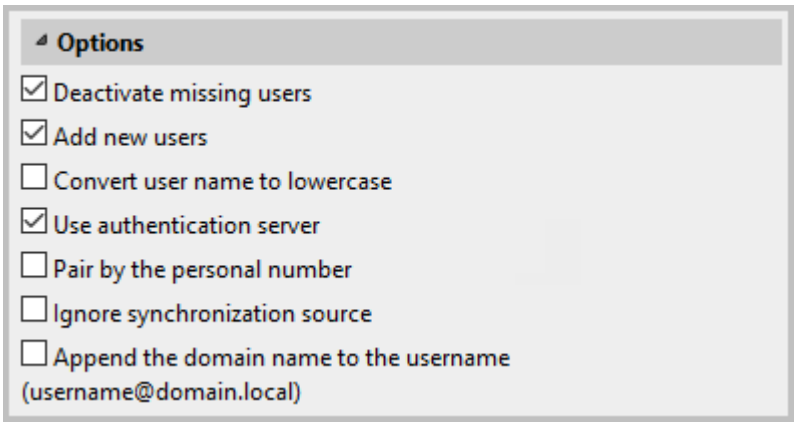
3 Drag a folder containing the users you want from the LDAP tree into the Base DN field.

4 Click **Add** again to add an additional Base DN.

You can map LDAP user attributes to KNM User Properties for inclusion when importing and synchronizing. KNM automatically finds and assigns the user's SAM account name to User name, cn to Full name, and mail to Email. This mapping applies to Active Directory and Open LDAP only. If any of the Properties are not used in your KNM installation, leave the field blank.

5 To add specific user attributes, drag and drop or copy an item listed under Attribute on the right into the appropriate Properties field.

6 Select or clear Options as needed, and click **Save**.



7 [Option] Create filters.

You can filter user import by specifying attribute values. Add conditions in the form: Attribute=Value.

Use the * symbol to search for substrings in the values. The symbol can be appended on both sides. For example, if you add a cn=*in* condition, only users whose common name attribute contains "in" are accepted.

Add one condition per row. Users are imported if they satisfy at least one condition.

Designating a folder or email for storing scanned documents

KNM can set a path to a shared folder for storing scanned documents and apply it as users are imported from LDAP.

To create a shared folder for users:

1 On **Settings** > **User Synchronization**, edit LDAP synchronization and select the Users tab.

2 Populate the field **Folder or e-mail for storing scanned documents** with one fixed parameter (folder path) and two variables for the user in LDAP.

The general syntax for definition of the folder is: Path for the shared folder\ %attribute%-%attribute%

Example: C:\Users\userID\Documents\%mail%-%logoncount% (where userID refers to the local user).

3 Click **Save**.

If the folder doesn’t exist, a new folder will be created according to the variable attributes. For storing scanned documents from email, mail and logoncount LDAP parameters are used.

LDAP - Groups tab settings

Configure how groups of users are imported from LDAP on the Groups tab. Settings and options are described below. Some sections have an option to **Make default**. Click the radio button to use that setting as a default for all imported users.

Do not change default group

Do not change the default group of the user during synchronization.

Import groups under this group

Select an existing KNM group and import the LDAP groups into that group.

Group stored in users's attribute: Attribute

If there is a special attribute for defining groups in LDAP, insert it here. Administrators can choose more attributes for grouping and can create a tree structure with a main group and sub group using "%attribute1%|%attribute2%". (**Example**: %company%|%cn%)

Group stored in user's DN: OU component index

This option will add the group according to the component of the users DN (distinguished name) in the database server. To use it, define the index of the component. For example, “Claude Monet” has the following DN:

CN=Claude Monet,OU=Painters,OU=famous_people, OU=KNM_import_test,DC=testAD,DC=local

The user’s name (CN=Claude Monet) has index #1, OU=Painters has index #2, OU=famous_people is #3, and OU=KNM_import_test is #4.

Set the component index to 2 to use Painters as the group for Claude Monet, and whatever is defined in position #2 for other users' groups.

Tree group stored in user’s DN

Used to import the whole tree structure of groups. Select which part of the structure will be imported by stripping DN components from the left and the right of the DN. You must strip one component from each side, using the two counters (Components to strip from the left and Components to strip from the right.) Note that the right is unavailable until a value has been entered for the left. Using the sample DN:

CN=Claude Monet,OU=Painters,OU=famous_people,OU=KNM_import_test,DC=testAD,DC=local

There are six components. If you strip one from the left and two from the right, you will import the following group structure:

OU=Painters,OU=famous_people,OU=KNM_import_test

Group stored in users's memberOf attribute: Groups base DN

Define the base distinguished name (DN) where the groups are stored. The DN does not have to be in the same OU as the users’ base domain.

Filter

Filter user import by specifying values of attributes. Add conditions in the form: Attribute=Value.

Use the * symbol to search for substrings. The symbol can be appended on both sides. For example, if you add a cn=*in* condition, only users whose cn attribute contains "in" are accepted.

Add one condition per row. Users are accepted if they satisfy at least one condition.

Import empty groups

With this option checked, groups are imported even if there are no users with them in their memberOf attribute.

Import tree of groups

With this option checked, groups are imported even if there are no users with them in their memberOf attribute.

Importing users from a .csv File

Import users from a .csv file that is either obtained from a database export or prepared manually.

1. Go to **Settings** > **Users** > **User Synchronization**
2. Select **Add CSV Source** from the **Add sync source** drop-down menu.
3. In the CSV Synchronization panel, enter the requested information as follows, and click **Save**.

.csv import setup options	Description
Enabled	Synchronization is on or off
CSV file	Location of the .csv file
Encoding	Character encoding
Column delimiter in .csv	Data delimiter used in this file. The default is set in the Column delimiter in .csv field at **Settings** > **General**. Choices are: Default, comma (,), semi-colon (;), Tab
Skip header line	Skip the first row in the file.
Import groups under this group	Import all groups under one main group.
Synchronization source	Defaults to .csv

.csv import setup options	Description
Ignore synchronization source	This check box only has an effect on the synch operation IF **Deactivate missing users** is checked. If checked: deletes all users not found in the current synchronization source, regardless of source type. If unchecked: only deletes users not found in the current source that have the same synch source type (see User detail on the **General** tab, **Synchronization source**). ! If used incorrectly, you can accidentally delete/deactivate active users.
Use authentication server	If you select this option, an LDAP or RADIUS server is used for authentication of the imported users. Set the domain in the Authentication server field.
Authentication server	Select the LDAP or RADIUS domain for user authentication.
Deactivate missing users	Deactivate users that were imported from this source file earlier, but are no longer in the present version. Users imported from a different source will remain, unless Ignore synchronization source is selected.
Add new users	Add new users from the current synchronization source.
Pair users by personal number	Pairs multiple accounts that have the same personal number.
Convert user name to lowercase	Convert imported user names to lowercase
Cards, PIN, Groups, and Delegates	In each of the three drop-down boxes, you can select from these synchronization options for the respective parameter (Cards, PIN, Groups): **Do not synchronize** Value of the respective parameter in KNM is not changed. **Full synchronization** Value of the respective parameter in KNM is always replaced by the value in the .csv file. If the value in the source file is empty, the value in KNM is erased. **Synchronize if not empty** If the respective field in the .csv file is not empty, the parameter value in KNM is replaced by the

.csv import setup options	Description
	value in the .csv file. Otherwise, the parameter value remains unchanged. This is the default setting. **Add new** If the parameter is already set in KNM, it is not replaced. Only new values are added.

Manually created .csv file

A manually created .csv file must contain the parameters in the table.

Parameters	Description
FULLNAME	Displays the name of the user in double quotes, for example "John Doe".
USERNAME_ALIASES	Login of the user and of any aliases. Should be the same as the user's domain login name, for example, "doe". When using aliases, separate them with a comma, for example, "doe,director".
EMAIL	Email of the user.
CARDS	Sets the authentication card of the user. Enter the number as it is read by the card reader, for example, "7E9700C9".
GROUPS	You can import a whole branch of the group's tree structure. The groups on the imported branch have to be separated by vertical bars. If you want to import multiple groups (or groups' tree branches), separate them by commas. For example, if you add two branches separated by a comma: "Activities| Outdoor|Swimming, Activities| Outdoor|Birdwatching", KNM imports a single parent group Activities with a single child group Outdoor, with two child groups Swimming and Birdwatching. (Activities > Outdoor > Swimming, Birdwatching) Commas and vertical bars cannot be used in group names as they are used as group delimiters.

Parameters	Description
CODE	Defines the personal number of the user. This parameter is useful when using multiple sync sources, for example, "1250".
SCANSTORAGE	Specifies the shared folder/email for a Scan Management function of KNM, for example, \ \nb128\scan. Note: Available only in Net Manager Pro.
PINS	Generates PINs in KNM so you do not have to manually add them to the .csv file. The PINs should be hashed MD5, for example, "14BFA6BB14875E4".
MANAGED_GROUPS	You can make the user the manager of a particular group by adding the group or path to the group here in the way in which you would import the group. If you want the user to be a manager of a child group, enter a whole branch ending with this group. For example, enter the branch "Activities|Outdoor| Swimming" to make the user a manager of the Swimming group. If there are no parents of the group in the group structure, enter just the group name, for example, Activities. Commas and vertical bars cannot be used in group names as they are used as group delimiters.
AUTHSERVER	Defines the domain for user authentication.
PHONE	The telephone number of the user.
LANG	Sets the default language for the user.
PWD	To authenticate the user against LDAP, insert parameter ldapAuth. If not, leave this parameter undefined.
EXTID	Internal parameter, leave empty.
DELEGATES	You may import any number of delegates for each user. For multiple delegates, separate the user names with commas: "BUser, CUser, EUser".

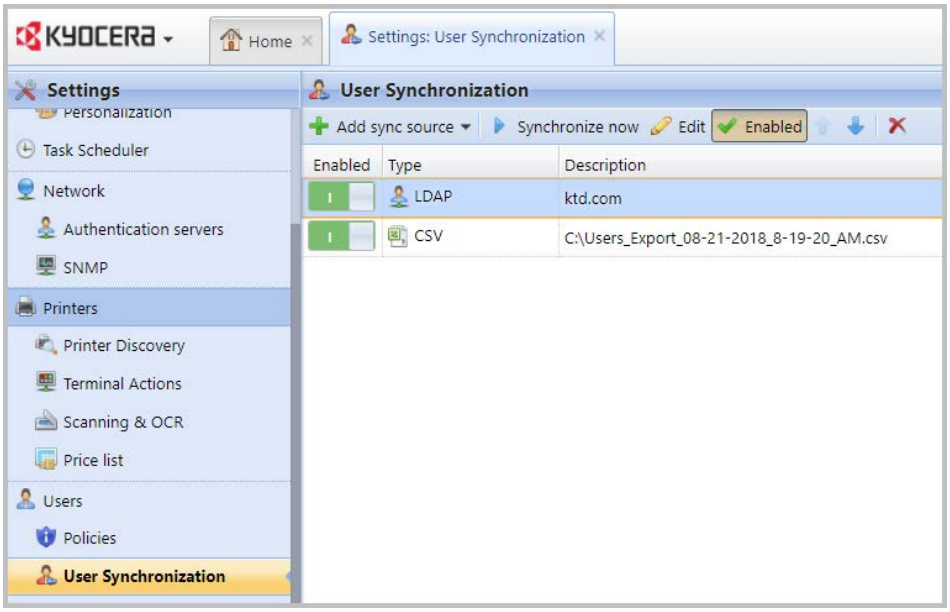
If you don't know what the data is for a parameter, enter an extra separator (comma or semi-colon) to indicate an empty field: ,, or ;;

```
"FULLNAME";"USERNAME_ALIASES";"EMAIL";"CARDS";"GROUPS";"CODE";
"SCANSTORAGE";"PINS";"MANAGED_GROUPS";"AUTHSERVER";"PHONE";
"LANG";"PWD";"EXTID";"DELEGATES"
```

Running LDAP or .csv synchronization

After the import source is configured, you can run synchronization immediately or configure a scheduled task to run it later.

1. Go to **Settings** > **User Synchronization**.
2. Enable one or more synchronization sources.
3. Click **Synchronize now**.



Synchronization can also be scheduled using **Task Scheduler**.

Enabling user login via LDAP

You can allow users to authenticate against the LDAP server.

1. If LDAP is already configured (for user import/synchronization), and **Use authentication server** was checked in setting up the import, imported users will have LDAP authentication set by default.
2. For manually created users, select **Use authentication server** on the user's profile **General** tab and select the server from the drop-down menu for Authentication server.
3. If LDAP is not already configured, see Importing Users from LDAP.

If LDAP authentication is enabled on a user account, the user cannot change their password on the KNM web interface.

Offline LDAP authentication and SMTP access on Embedded Terminal

In **Offline** mode, the Embedded Terminal can use some features that normally require KNM:

- Offline login with a user PIN and ID card and by LDAP user name and password
- Embedded Terminal can send scans to the SMTP server when the KNM server is offline

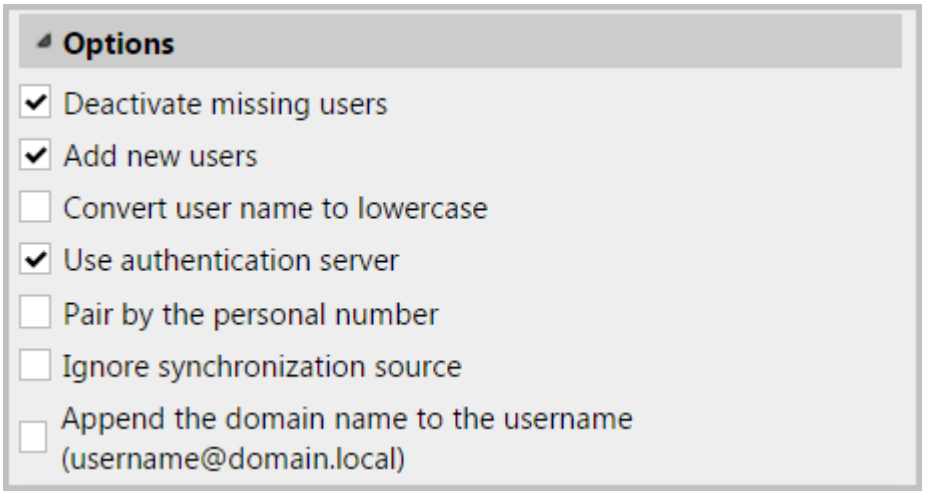
Before using Offline LDAP:

- Enable SSL
- Log in to Embedded Terminal in online mode to cache the user properties

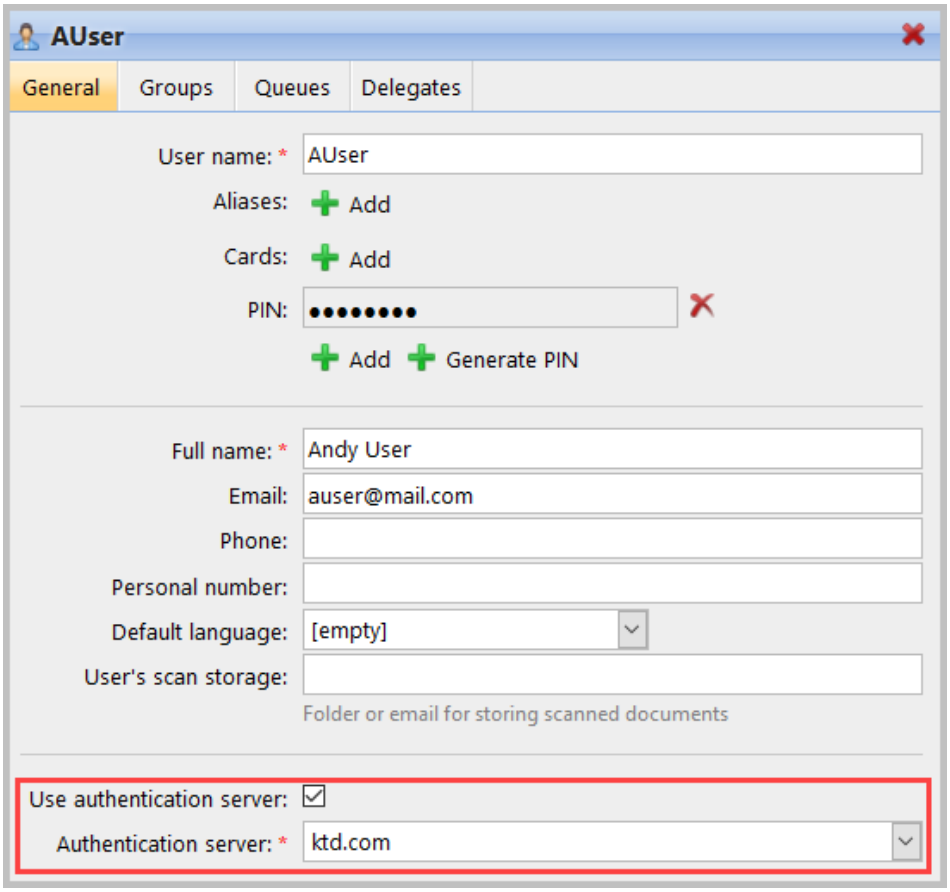
Enabling offline LDAP authentication from Embedded Terminal

1. Set the LDAP server as a synchronization source for users. In the synchronization options, select **Use authentication server**.

   By checking this option, KNM will check credentials against LDAP.



2. Perform a user synchronization.
3. Confirm that **Use authentication server** is selected in the **User General** tab. The option should be selected, but may be modified after synchronization.



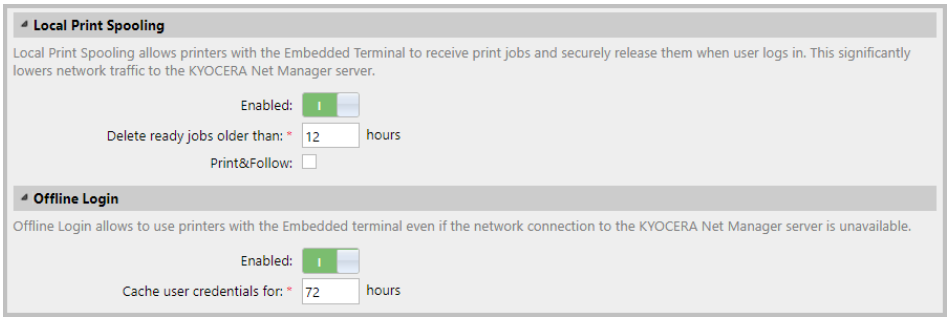
Accessing the SMTP server from Embedded Terminal when the KNM server is offline

A user can send emails from Embedded Terminal when the server is in **Offline** mode (Panel Scan only). Easy Scan does not allow emails to be sent in Offline mode.

Once the device is configured to cache SMTP server information, the scanned document will be sent from Panel Scan.

SSL must be enabled on the KNM server. Do not enable it on the device.

1. Go to **Settings** > **Printers.**
2. Under **Offline Login**, set **Enabled** to **ON.**
3. Click **Save**.

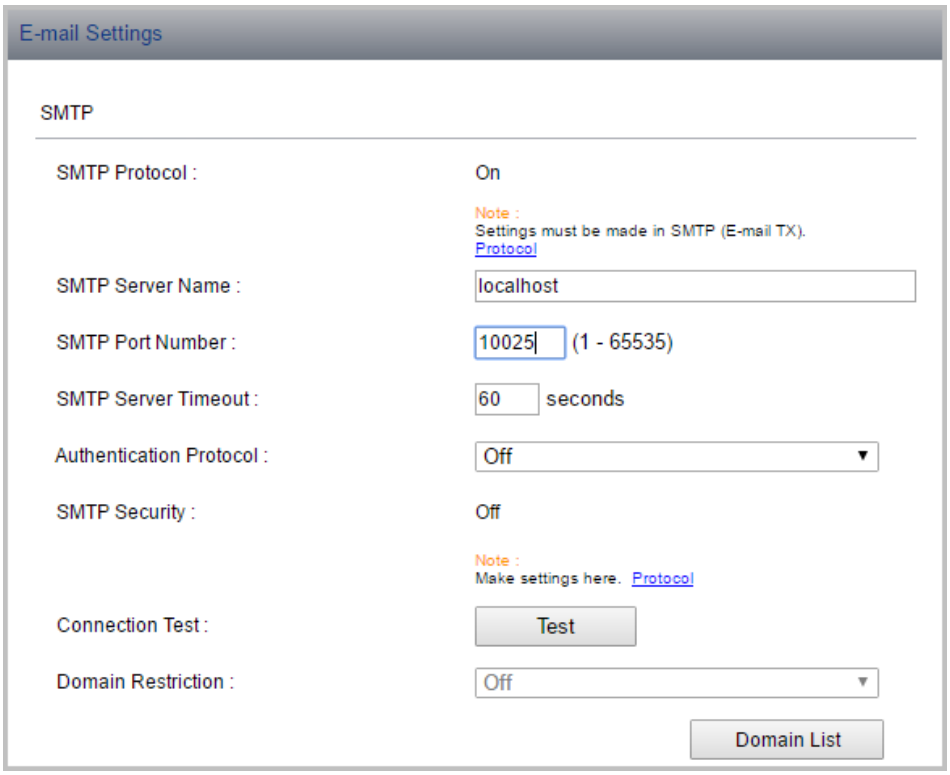


4 Log in to the device as an Administrator through the **Command Center**.

5 Go to **Function Settings** > **E-mail**.

6 Enter ‘localhost’ or ‘127.0.0.1’ for SMTP Server Name.

7 Change the SMTP Port Number to 10025.



8 Click **Submit**.

Microsoft Azure Active Directory support

You can synchronize KNM users from MS Azure Active Directory. Azure Active Directory must be enabled and configured and Azure AD Domain Servers must be configured to use LDAPS (LDAP over SSL). Contact support for more information.

Enabling a NAS identifier for communication with a RADIUS server

KNM supports adding a NAS Identifier to the authentication package for communication with a RADIUS server. This can be useful when two SSIDs use the same RADIUS server. An Administrator can configure and enable this setting with the following steps:

1. Edit the config.ini file located in the KYOCERA Net Manager folder. You may be required to change file permissions so the file can be edited.
2. Add the following 2 lines to the config.ini file where the value uses the NAS Identifier:

```
[RADIUSServer]
nasIdentifier=value
```

3. Restart all KNM services.

An Administrator must add user synchronization with a RADIUS server to complete the configuration.

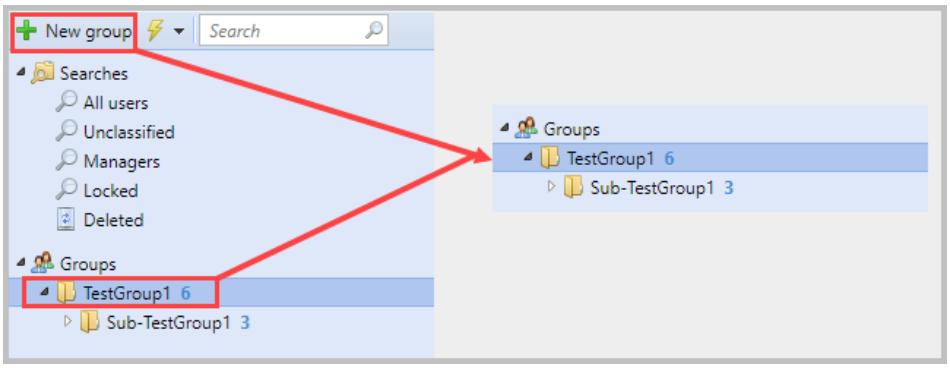
Users - Groups

Groups can be used to control access rights to print queues, print functions, such as color printing or scanning, and reports. Group users to monitor expenses for individual cost centers. Users designated as a group's Manager can access print jobs and statistics for all users in the group. Groups can have multiple Managers.

On the **Users** main tab, you can view existing groups and create new groups of users.

Creating groups

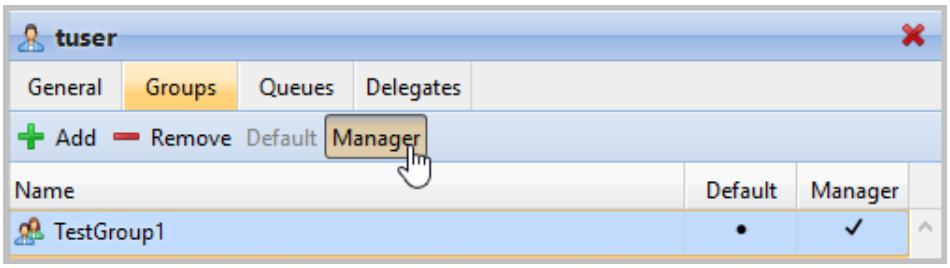
1. Click **+ New Group** on the main Users tab.
2. Enter a Name for the group and click **Save**.
3. To create a subgroup, first select an existing group under which to add the new group and click **+ New Group**.



Assigning users to groups

1. Select a user and click **Edit** on the **Actions** menu.
2. Select the **Groups** tab.
3. Click **Add**.
4. Select a group and click **OK**.
5. To assign the selected user to be a group Manager, click **Manager**.

   The **Manager** column will have a check mark.



You can drag and drop users onto groups to add them.

For instructions on configuring automatic group registration for new users, see New user registration.

Removing users from groups

1. Select a user and click **Edit** on the **Actions** menu.
2. Select the **Groups** tab.
3. Click a group name and click **Remove**.

Deleting groups

1. Select a group from the list and click **Delete** on the **Actions** menu.
2. Click **OK**.

   To delete all groups, right-click **Groups**, select **Delete all groups**, and click **OK**.

Manage users

KNM Administrators can manage settings that control user configuration and access, credit, quotas, and rights through the **Settings** > **Users** screens.

Settings > Users

The main tab for managing user settings is divided into five major sections.

- General
- New user registration
- PIN
- Password complexity
- Account lockout

Users general settings

The General section of Settings > Users has five check boxes for user configuration.

Enable user profile editing

Allows users to change the following properties for themselves, using the User Profile gadget:

- Full name
- Password
- Email

Users can always change their default language.

Show more info about user profile

Adds Personal number, Phone, PIN, Card, Aliases, and Notes to the infomation displayed on the User profile gadget. None are user editable

Enable personal queues settings

Users can have multiple personal queues and can choose to send a job to one of them without needing to have the printer driver settings changed by an Administrator.

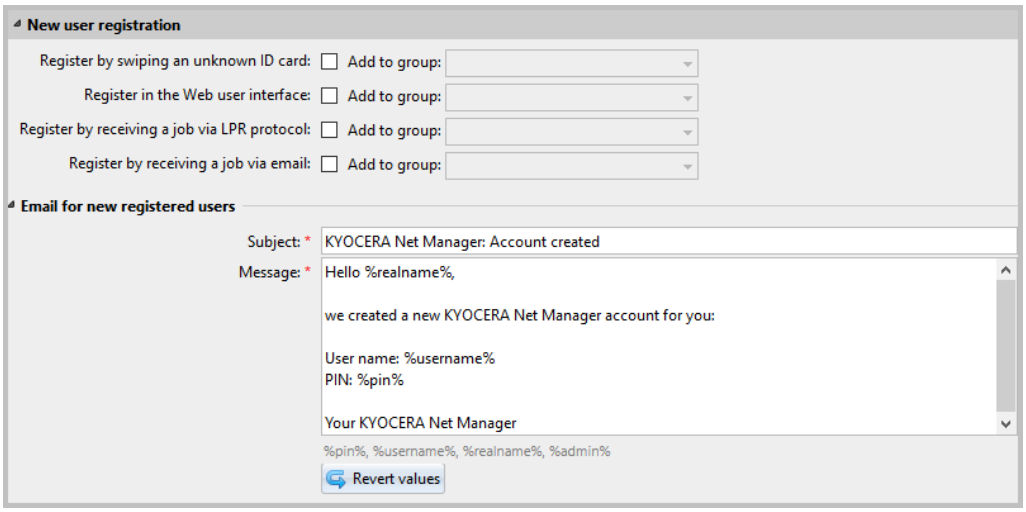
Enable delegate changes

Lets the user manage their own delegates.

Enable deleting all ID cards

Enables users to delete their own ID cards if they are lost, for example.

Configuring new user registration options

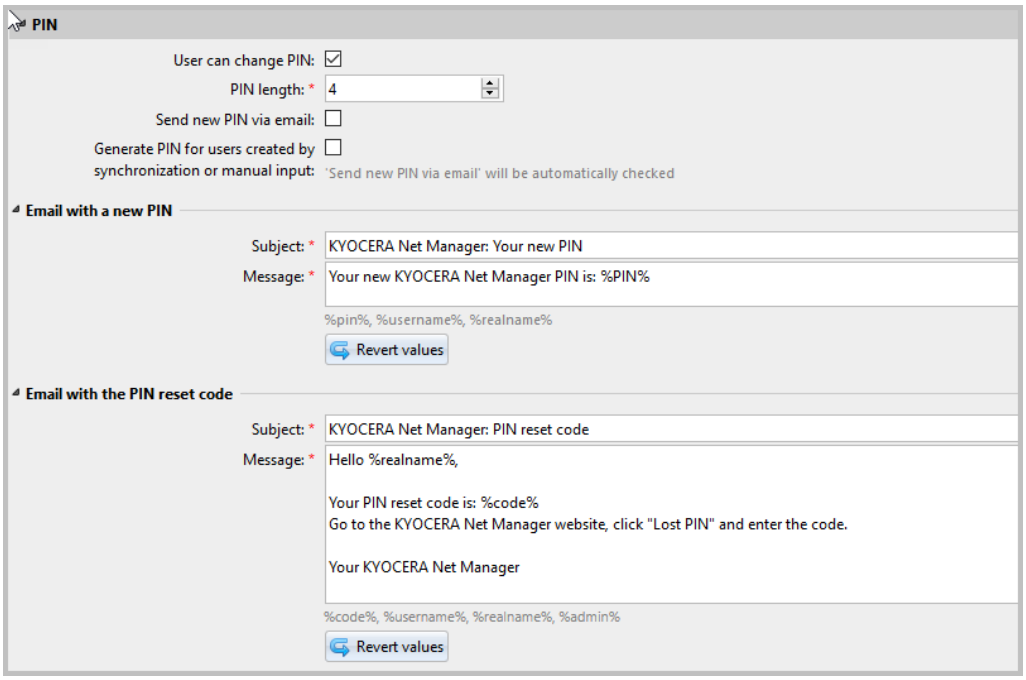


1. Select or clear boxes to set user self-registration options:
   - Register by swiping an unknown ID card
   - Register in the web user interface (when this option is selected, a New Account self-registration option is added to the logon screen)
   - Register by receiving a job via LPR protocol
   - Register by receiving a job via email
2. For each enabled option, select a default group in which to place the user on registration (optional).
3. In the **Email for new registered users** section set the format and text for email sent to newly registered users, or leave at default.

   The message uses variables %pin%, %username%, %realname%, and %admin% to customize the message.

   Click **Revert values** to reset the message defaults.

Configuring user PIN options



1. Select **User can change PIN** to allow users to change their own PINs through the web user interface.
2. Enter an integer for PIN length from 4 to 12 characters.

   The required minimum PIN length is based on the number of KNM users.

   - < 1,000 - 4 digits
   - 1,000-10,000 - 5 digits
   - 10,000-100,000 - 6 digits

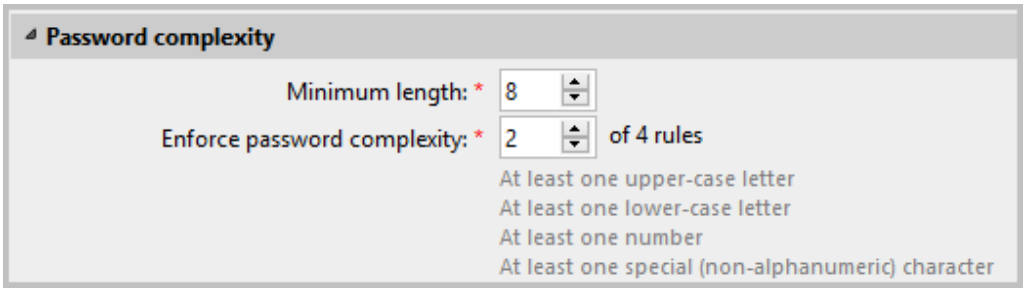
3. Select **Send new PIN via email** to allow the system to email users with a new PIN.
4. Select **Generate PIN for users created by synchronization or manual input** to generate a new PIN each time a user is created.
5. In **Email with a new PIN,** set the format and text for email sent to users with a new PIN, or leave as default.

   The message uses variables %pin%, %username%, %realname%, and %admin% to customize the message.
6. Click **Revert values** to reset the message defaults.
7. In **Email with the PIN reset code**, set the format and text for email sent to users requesting a PIN reset.

   The message uses variables %code%, %username%, %realname%, and %admin% to customize the message.

8 Click **Revert values** to reset the message defaults.

Setting password complexity



The Password complexity feature allows an Administrator to determine the minimum length of a user password and to require between 1-4 different ASCII character types in the password.

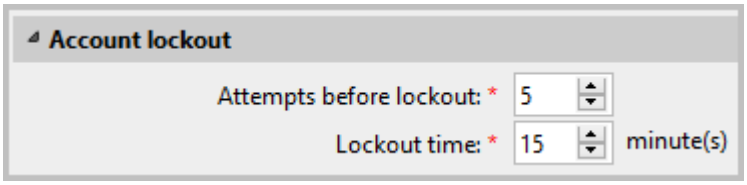
1 Go to **Settings** > **Users** > **Password complexity**.

2 Enter an integer from 1-100 in the **Minimum length** field. The default is 8.

3 Enter an integer from 1-4 in the **Enforce password complexity** field.

The default is 2. This determines how many of the 4 preset rules to follow when determining required character types in the password. For example, if ‘2’ is set, any 2 of the 4 rules can be used when creating the password.

Configuring account lockout



Account lockout lets an Administrator set the number of times a user can fail at logging in during a configured period before the account is locked.

The lockout timer begins with the first bad login attempt; however, the lockout does not occur until the number of allowed attempts is reached. A locked account can be unlocked by a user who has the **Manage users** right.

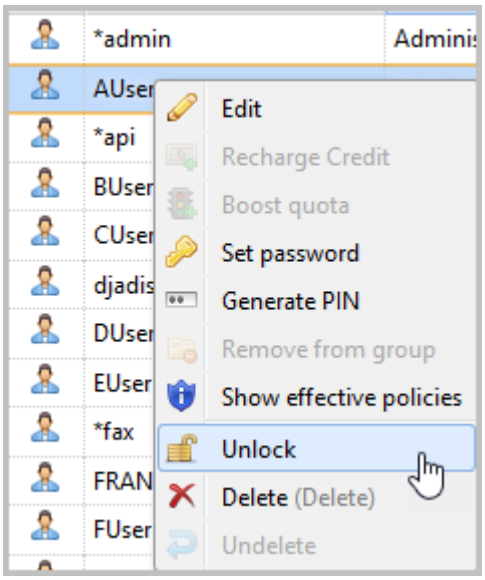
1 Go to **Settings** > **Users** > **Account lockout**.

2 Enter an integer from 1-100 in the **Attempts before lockout** field. The default is 5.

3 Enter an integer from 1-144000 in the **Lockout time** field. The default is 15 minutes.

When the number of failed logins during this period reaches the number set in the **Attempts before lockout** field, the user will be locked out of Net Manager.

Unlocking a locked account



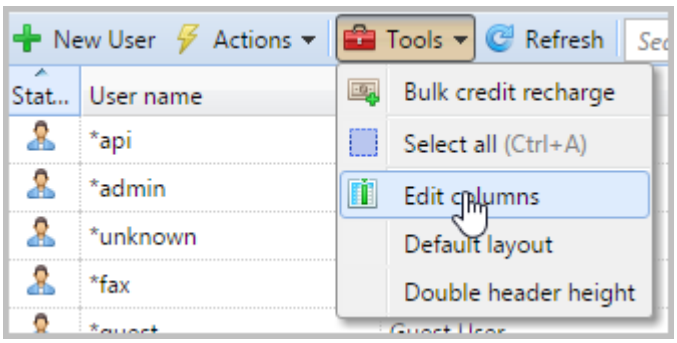
A user must be an Administrator or have the **Manage Users** permission to unlock an account.

1. Go to **Users**.
2. Right-click the name of the user with the locked account and select **Unlock**.

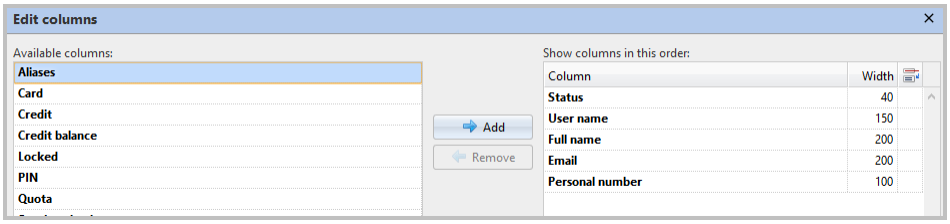
Showing alias in the user list view

You can add a column to the **User List** view to show the users' aliases.

1. Go to **Users** on the logo menu.
2. Select **Tools** > **Edit columns** from the drop-down menu.



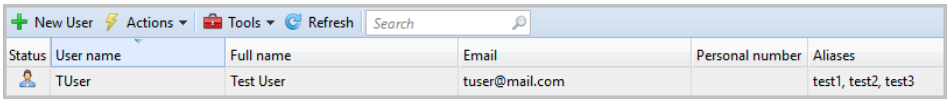
3. Select **Aliases** in the **Available columns** list and click **Add**.



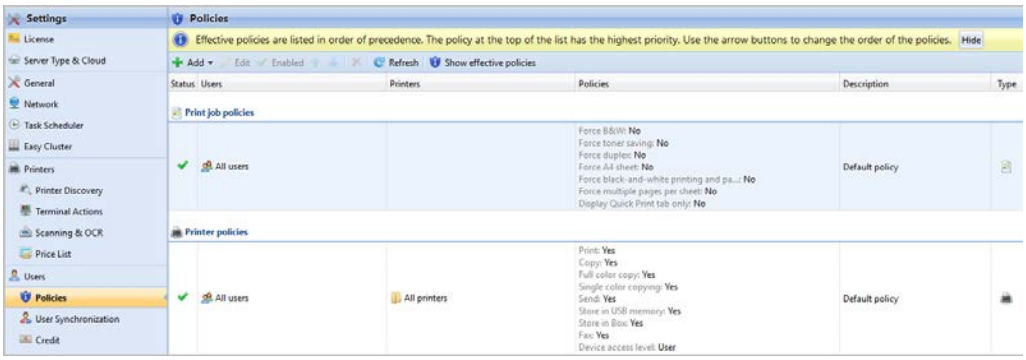
Aliases are moved to the **Show columns in this order** list.

4 Click **OK.**

The Aliases column is added to the **User List**.



Settings > Users > Policies



The **Settings: Policies** tab is divided into two sections:

Print job policies

Apply to all print jobs, all printers and selected users or groups of users.

Printer policies

Apply to all queues, all print jobs, selected users (or groups of users) and selected printers.

Printer policies have the highest priority – they apply to all queues and all of the selected users regardless of queue settings and print job policies.

Policies in both sections are listed in order of precedence – each policy has higher priority than the policies below it. Default policies have the lowest priority and are always at the bottom of the list. Other policies can be moved up and down the list by clicking the up or down arrow buttons on the toolbar.

Policy toolbar options

The **Settings** > **Users** > **Policies** screen shows the following controls:

Add

Use to add either a new Print job or new Printer policies.

Edit

Click to edit the settings for a selected policy.

Enabled

Click to toggle a policy on or off, does not apply to default policies.

Up/Down arrows

Move a policy up or down the precedence order.

Delete (x)

Delete selected policy (you cannot delete default policies).

Refresh

Show effective policies

Displays a pop-up window of how policies in place affect the selected user or the selected user with a specified printer.

Default policies

You can change all settings in the two default policies except:

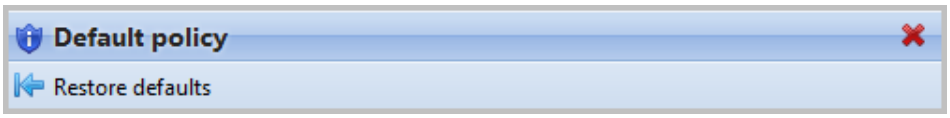
- Policy name
- Users and Groups (All users)
- Description (Default policy)
- Printers (All printers - only found in the default Printer policy)

After installation, only the default **Printer policy** is configured. It applies to all users, all printers, has no restrictions and gives users User access to embedded terminals.

Restoring default policies

If you have made changes to either of the default policies, you can quickly restore them to their defaults.

1. Go to **Settings** > **Users** > **Policies**.
2. Click one of the two default policies.
3. Click **Edit**.
4. Click **Restore defaults**.



5. Click **OK** to confirm.

Adding new print job policies

1. On the **Policies** screen, click **+Add**, and then click **+Add print job policy**.

   The new print job policy settings screen opens with the **Enabled** switch set to **On**.
2. Select the users and groups to which the policy will apply.
3. Write a description of the policy (optional).
4. In the **Print Job Properties** section, set the following options:
   - Force B&W
   - Force toner saving
   - Force duplex
   - Force A3/B4 to A4 format (KX Driver and Mobile Print only)
   - Force B&W printing and page limit in MS Outlook (KX Driver only)
   - Force multiple pages per sheet (KX Driver and Mobile Print only)
   - Display Quick Print tab only (KX Driver only)
   - Allow job history
   - Allow job modification
5. Click **Save**.

Setting print job policy on queues

By default, **Print Job Policy** processing is enabled on a per queue basis. If you want to disable the **Print Job Policy** for a queue and use a different policy on a queue, you must clear **Force User policy**.

To disable a **Print Job Policy** on a queue:

1. Go to **Printers** > **Queues** from the logo menu.
2. Double-click the name of a queue.
3. Select the **Job processing** tab.
4. Clear **Force user policy**.
5. Click **Save**.

Adding new printer policies

1. On the Policies screen, click **+Add**, and click **+Add printer policy**.
   The new print job policy settings screen opens with the **Enabled** switch set to **On**.
2. Select the users and groups to which the policy will apply.

3 Write a description of the policy (optional).

4 Select the printers or printer groups to which this policy will apply.

5 In the **Allowed Actions** section, check or clear each option and select **Yes** or **No** from the list to allow or disallow:

- Print
- Copy
- Full color copy
- Single color copying
- Send
- Store in USB memory
- Store in Box
- Fax

6 In the **Other policies** section set **Device access level** to **User** or **Administrator**.

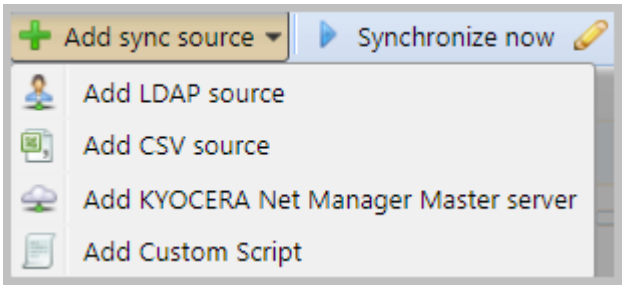
7 Click **Save**.

Settings > Users > User Synchronization

Synchronization from the Master server

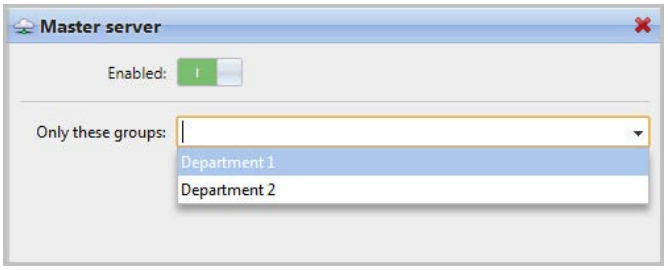
When using Net Manager Cloud, you may synchronize users with the Master server. Before synchronizing with the Master server, you must import the user data to the Master server database.

1 Open **Settings** > **User Synchronization**, click **Add sync source**, and select the Master server option from the drop-down list.



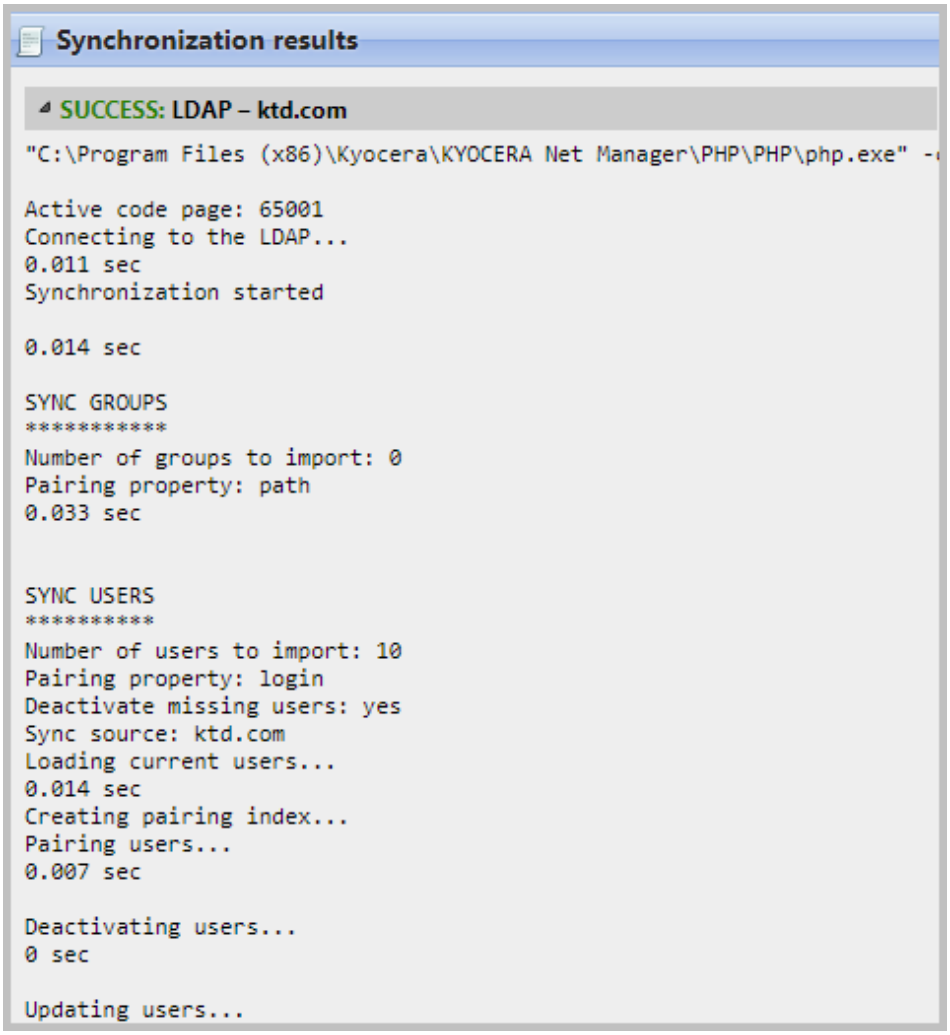
When synchronizing with the Master server, you must disable all user auto creation on the site servers. You should not modify any user on the site server. The purpose of this system setting is to manage users from the Master server. If not, you may cause replication to fail.

2 In the setup window, select the groups of users to import to this server.



3 Click **Synchronize now** to start the first synchronization.

4 If the settings are correct, a success screen will display with synchonization results such as added users, groups, etc.



Authentication against an LDAP domain

To select user authentication against an LDAP domain (for example, for the login to Net Manager), you must define that domain on the site server.

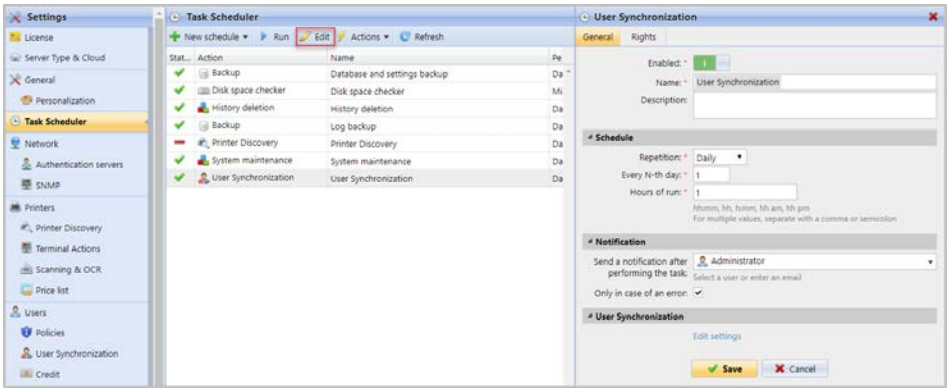
1. Open **Settings** > **User Synchronization**.
2. Click **Add sync source**.
3. Click **Add LDAP source**.
4. Define the Connection parameters:
   - Server
   - User
   - Password
5. Click **Save**.

Now, users can authenticate against LDAP.

Scheduling user synchronization

You do not need to run synchronization manually every time the Master server database changes. With the built-in task scheduler, you can schedule synchronization.

1. Go to **Settings** > **Task Scheduler**.



2. Select the **User Synchronization** task.
3. Click **Edit**.

   You can also enable or disable the **User Synchronization** task from the **Actions** menu.

4. Create the schedule.

   Repetition

   Choose Minute, Daily, Weekly, Monthly, or Quarterly.

Every N-th ...

This selection changes based on the repetition type selected.

Hours of run

Enter the time of day for the task.

5 Select recipients for notifications. You can notify any number of users or groups. You can also type an email address.

6 Select **Only in case of an error** to limit notifications.

7 Click **Save**.

Settings > Users > Credit

See Accounting / Credit.

Settings > Users > Quota

See Accounting / Quotas.

Settings > Users > Rights

Grant additional rights to users or groups.

Adding user rights

1 Go to **Settings** > **Users** > **Rights**.

2 Click **+Add user**, select a user or group, and click **OK**.

3 The listing of assignable rights displays. Use the check boxes to select which rights to assign and click **OK**.

User rights options:

Administrator	Has the same rights as the Administrator (*admin).
Manage settings	View and change KNM settings. This does not give the user access to the License or Rights settings.
Manage users	Grants access to the User main tab, the User setting tab and the Policies setting tab, can add users and change their settings and rights.
Recharge credit	Recharge credit for all users.
Boost quotas	Boost quotas for all users.
Manage vouchers	Access to the Voucher batches main tab.

View printers	Access to the Printers tab to monitor printers.
Manage printers	Access to the Printers tab to monitor and change printer settings.
Manage queues	Access to the Queues tab to change queue settings.
Read jobs	Can see other users' jobs.
Manage jobs	Can edit other users' jobs.
Manage projects	Access to the Projects tab, add and change project settings.
Manage reports	Manage all reports.
View log	Access to view the KNM logs.
Manage payments	Access to the KYOCERA > Payments tab.
View licenses	View licenses page but cannot make changes.

User list

On the **Users** main tab, you can see users, user information, and access actions and tools to manage users. With the All users search option selected, you see a list of all users that are currently in the system. The following search options are available:

Unclassified	Display only those users that do not belong to any group.
Managers	Display only managers of groups.
Locked	Display users whose accounts have been locked.
Deleted	Display only deleted users.

Users - Action menu

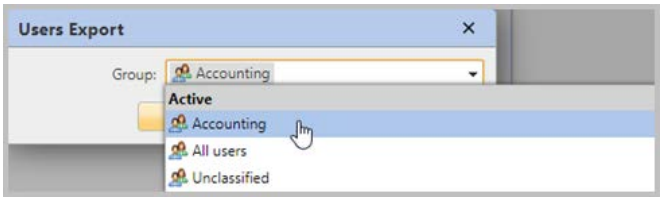
The following actions may be performed on individually selected users:

Edit	Modify selected user account.
Recharge credit	Recharge credit of the selected user. **Credit accounting** must be enabled.
Boost quota	Modify the quota of the selected user. **Quotas** must be enabled.
Set password	Change selected user's system access password. Not available if the user authenticates through LDAP.
Generate PIN	Generate a new PIN for the selected user.
Remove from group	(Only available when a group is selected in the Groups panel.)

	Removes the selected users from the group.
Show effective policies	Show how policies in place affect the selected user or the selected user with a specified printer.
Unlock	Unlock a locked account.
Delete	Delete the selected user.
Undelete	Use with the **Deleted** search. Select previously deleted users to restore.
Anonymize	Use to secure users' personal information, **Anonymize** removes selected users from the system and replaces them with a randomly generated name in all relevant reports.

Users - Tools menu

Click the **Tools** drop-down list to act on the user list or selected users.

Bulk credit recharge	Add credit to user accounts. See Importing Credit from CSV file.
Export	Exports a .csv file of all system users (the **All users** group) or a selected group of users. 
Select all (Ctrl+A)	Select all users in the selected search.
Edit columns	Rearrange, add and remove, set the width and word wrap for columns in the user display.
Default layout	Restore the default column layout.
Double header height	Use to display more header information when text is wrapped.

Users - Special user accounts

By default, KNM has five special users who cannot be deleted:

*admin	The default admin account. The admin can change the email address and reset the password for this account.
*api	Used to connect to external applications. No changes allowed.

*fax	The charging account for fax documents on printing devices. Since faxes cannot be blocked, they are printed even if no one is logged on to the device. To view the number of fax prints on all devices, generate reports for the *fax user. No changes allowed.
*guest	The default account for guest access to embedded terminals. All prints, copies, and scans made on the guest login screen are charged here, unless you use a different account for this purpose. The Administrator can change the password.
*system	*system user has all rights. It is used for tasks such as user synchronization or report scheduling. This user is for internal use and is not visible in logs or settings
*unknown	All prints, copies, and scans not assigned to a specific user are changed to this account, for example, printing during maintenance in service mode. No changes allowed.

An increase in printed, copied, or scanned pages to the *unknown user account may indicate that the printing device has incorrect security settings.

Users - Random PIN generation

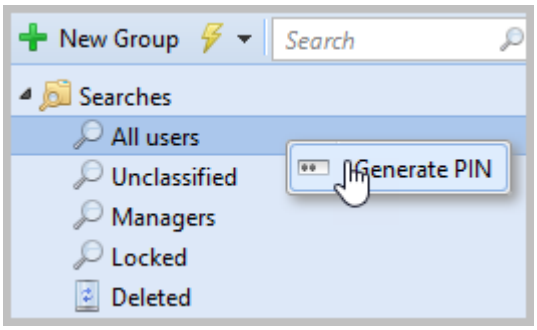
After users are manually created or imported, you can generate PINs for selected users or groups.

The PIN length requirement is based on the number of KNM users. If the PIN length does not match the requirement, an error message displays. See Configuring user PIN options.

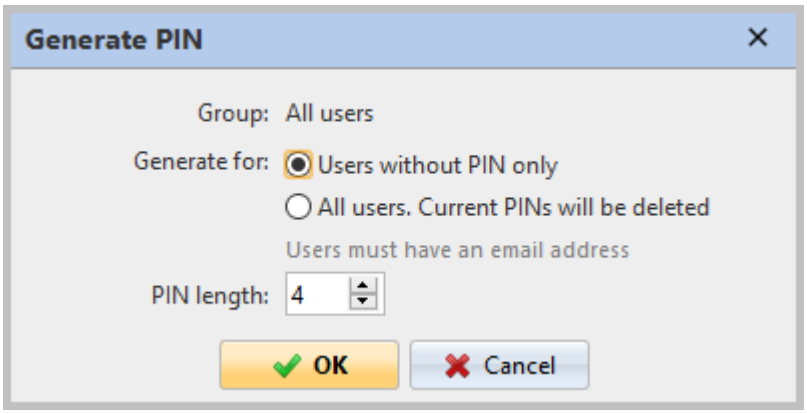
Before you generate new PINs, check **Settings** > **General** > **Users** > **PIN** and make sure that **Send new PIN via email** is selected. Also check that the addresses and SMTP server settings are correct.

Generating a PIN for all users

1 Right-click the **All users** search on the **Users** tab and select **Generate PIN**.



The **Generate PIN** screen displays.



2 Choose which PIN option to use:

- Users without PIN only
- All users - this option replaces the current PIN of any user that already had one set up.

3 Set the PIN length.

4 Click **OK**.

Generating a PIN for selected users

1 Right-click a user on the list and select **Generate PIN**.
The **Generate PIN** screen displays.

2 Choose which PIN option to use:

- Users without PIN only
- All users - this option replaces the current PIN of any user that already had one set up

3 Set the PIN length.

4 Click **OK**.

A new PIN will be generated for the selected user based on the selected criteria.

Generating a PIN for a group

1 Right-click a group name, and select **Generate PIN**.

The **Generate PIN** screen displays.

2 Choose which PIN option to use:

- Users without PIN only
- All users - this option replaces the current PIN of any user that already had one set up

3 Set the PIN length.

4 Click **OK**.

New PINs are generated for all group users based on the selected criteria.

Users – Set password

Users can access the KNM web interface to monitor their accounts and manage print jobs. A user can log into the web interface using either a PIN or password. PINs are assigned during user creation or generated for users or groups. Administrators can assign a password to existing users, except for those who log in through LDAP.

1 Right-click a user.

2 Select **Set password**.

3 Enter a password that meets the requirements as configured in **Settings** > **Users** in the Password complexity section.

4 Click **OK**.

Users can change their own password or PIN after logging into the web interface.

Users - Temporary ID cards

Administrators can create and register temporary ID cards with a set expiration date. These cards can be used by a guest or employee for temporary access, typically for 24 hours.

Temporary cards can be registered in two ways:

- The Administrator creates and registers a temporary card for the user. The expiration timer starts immediately.
- The Administrator creates a temporary card and the user registers the temporary card when logging in to a device. The expiration timer starts when the user registers the temporary card.

Registering a temporary ID card

1 Go to **Users**.

2 Double-click the name of the user.

3 Under **General** > **Cards**, click **Add**.

4 Enter the card number.

5 Select **Temporary** from the drop-down menu.

6 Click **Save**.

Setting card registration as temporary

1 Go to **Settings** > **Printers** > **Cards** from the logo menu.

2 Select **Register cards as temporary**.

3 In **Validity of temporary cards**, enter the number of hours the card will be valid. The default is 24 hours.

4 Click **Save**.

Registering a temporary ID card at a device

1 Log in with a user name and PIN or password.

2 Tap **ID Card Registration** on the device panel.

3 Tap the temporary card on the reader.

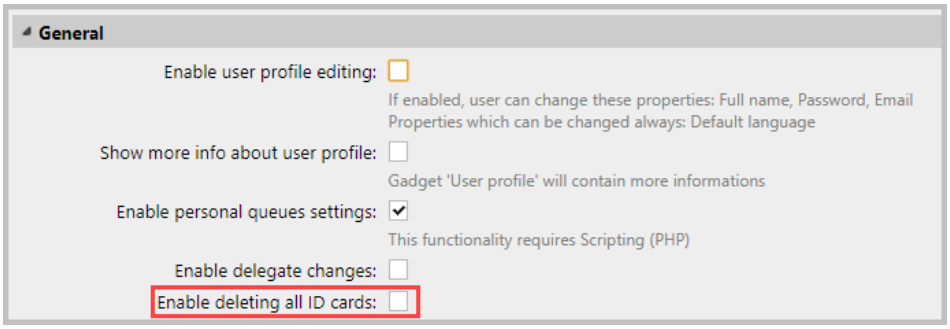
4 The temporary card's validity period begins when it is tapped on the card reader.

Delete user ID cards

KNM provides a setting for users to delete their ID cards. This feature is useful when an ID card is lost.

1 Go to **Settings** > **Users**.

2 Under **General**, select **Enable deleting of all ID cards**.



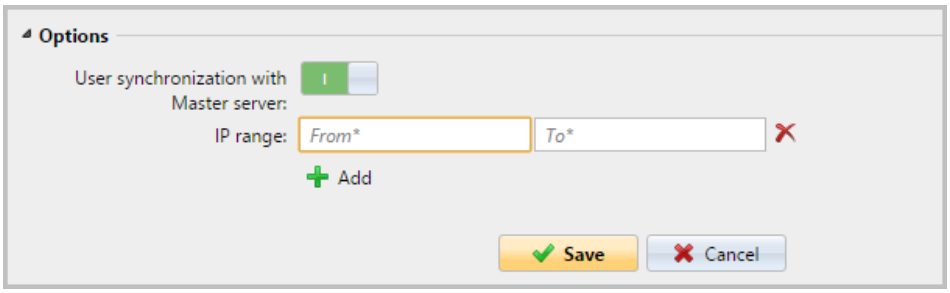
3 Click **Save**.

Site server auto-detection for users

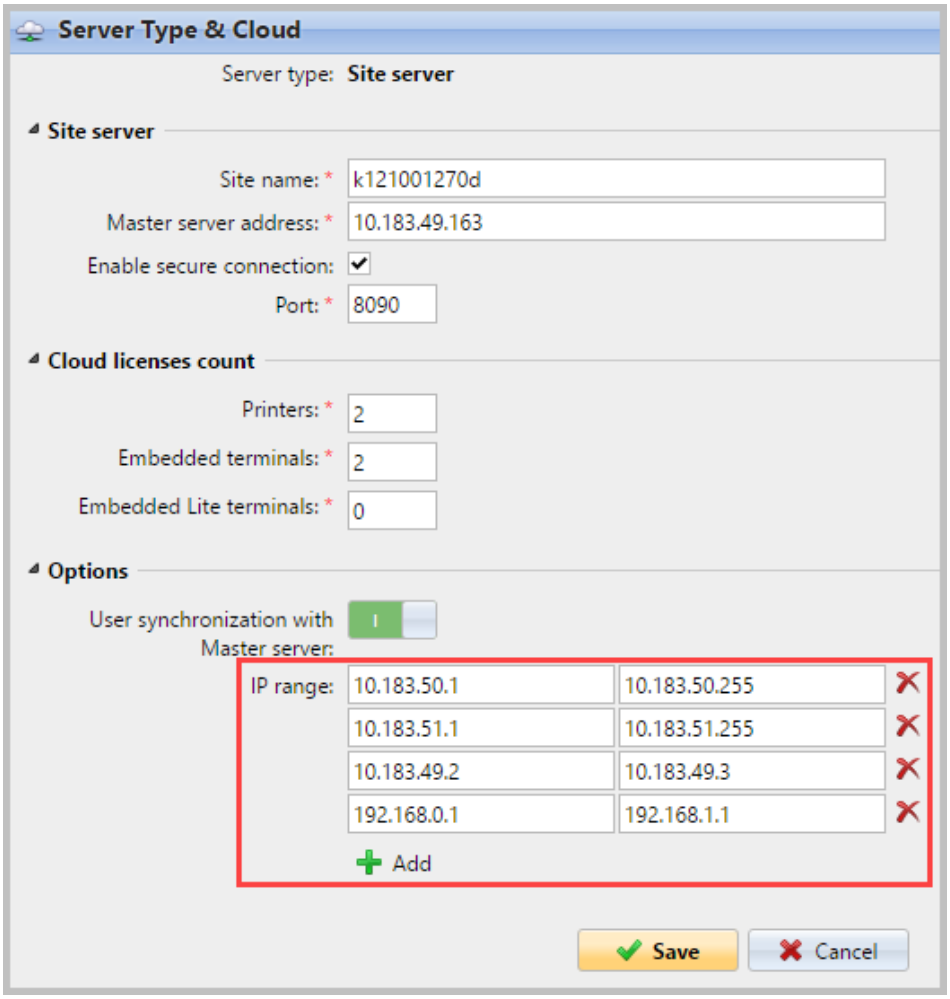
With **Site Server Auto Detection** enabled, when a user goes to a branch and acquires a new IP through DHCP, the Master server will recognize which branch office's IP range the user is in and direct the job to the correct site server. This allows a user to move seamlessly from one branch to another without having to manually change settings.

Enabling site server auto-detection in KNM

1. On the Site server, select **Server Type & Cloud**.
2. Under **Options**, click **+ Add** to open the IP range fields.



3. Enter the IP range available at the branch office.
4. Click **+ Add** to add additional IP ranges available to users that use this site server.



5 Click **Save**.

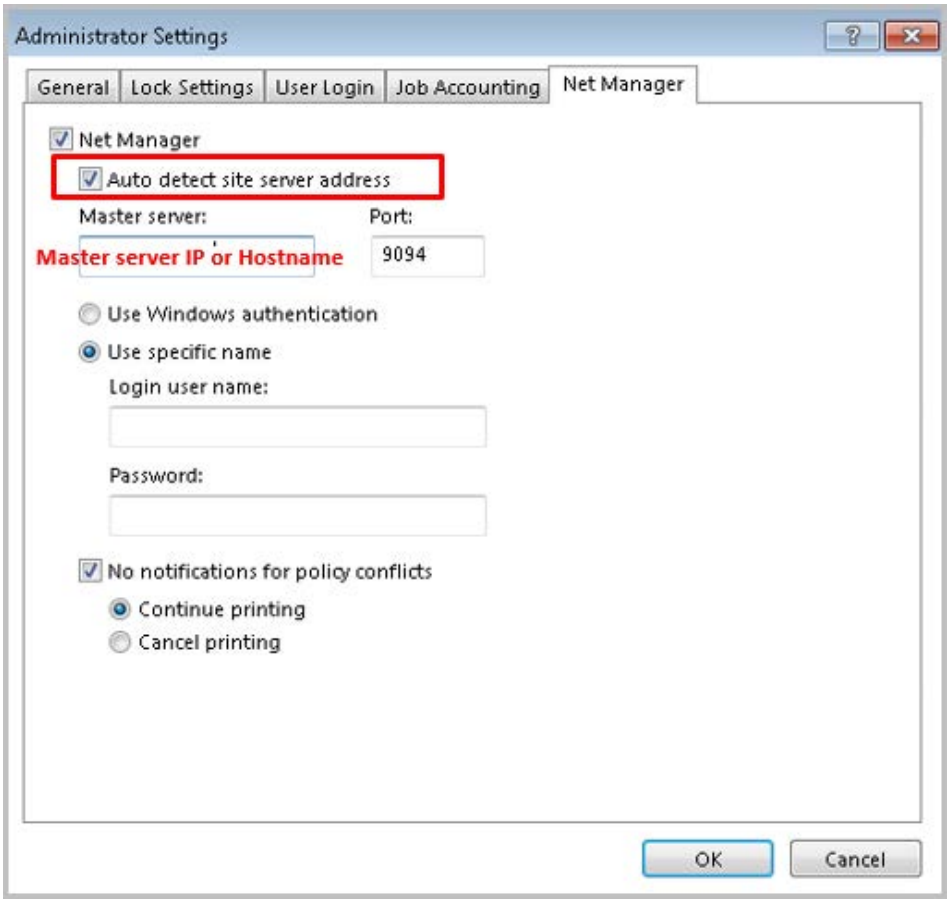
Enabling site server auto-detection on client devices

Use the following settings for the KX Driver and Port Monitor of the client device.

1 Open **Printer Properties** > **Device Settings** > **Administrator**.

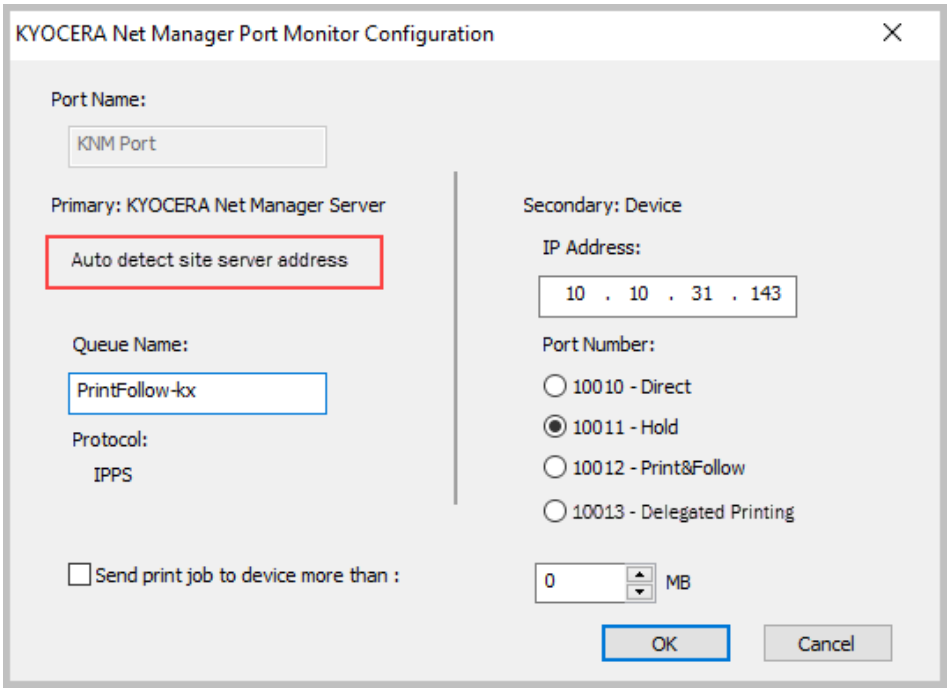
2 On the KX Driver Administrator Settings, on the Net Manager tab, select **Auto detect site server address**.

3 Enter the Master server IP address or Hostname.



4 Open the Port Monitor Configuration.

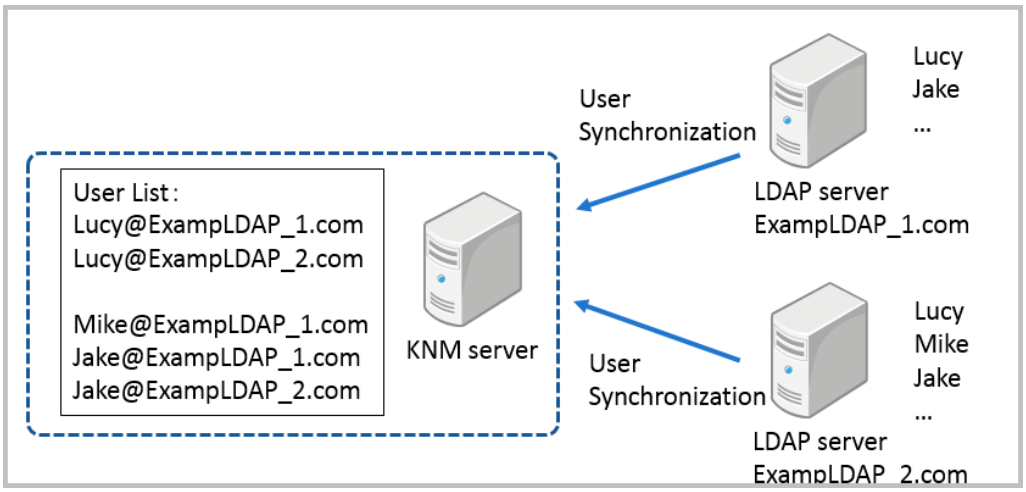
The Port Monitor configuration will be set to **Auto detect site server address**.



5 Click **OK**.

Multi-domain support

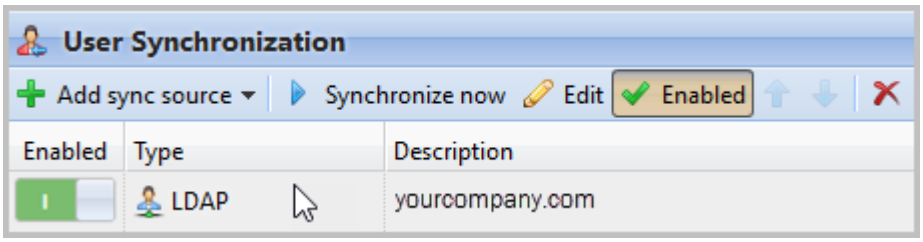
When Multi-domain support is enabled, the user must use their qualified name, not just their username, when logging in to the Embedded Terminal or the KNM web interface. For example, ‘userA@company.local’, not just ‘userA’.



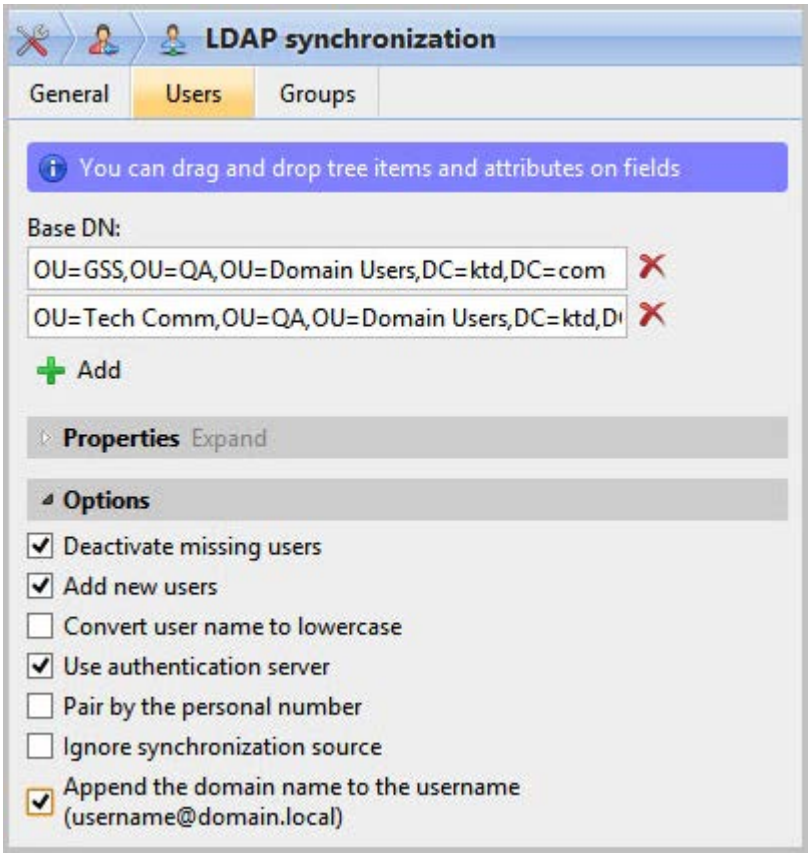
Enabling multi-domain support

1 Go to **Settings** > **User Synchronization** > **LDAP**.

2 Double-click **LDAP**.

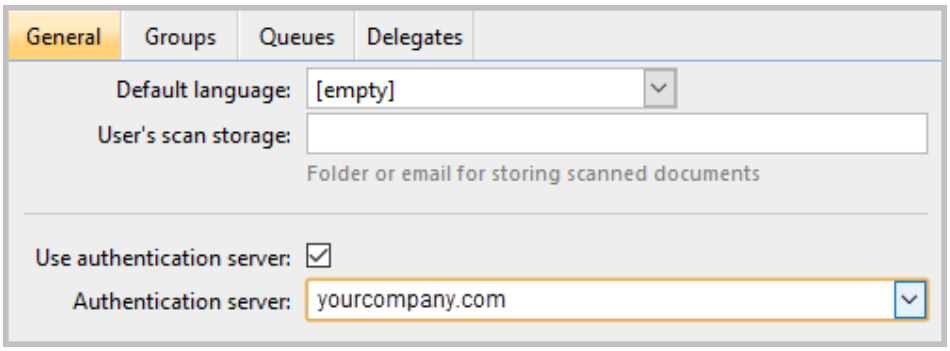


3 Select **Use authentication server** and **Append the domain name to the username.**



4 On the User Synchronization tab, click **Synchronize now.**

5 Go to **Users** and double-click a user name.



6 Confirm that **Use authentication server** is selected.

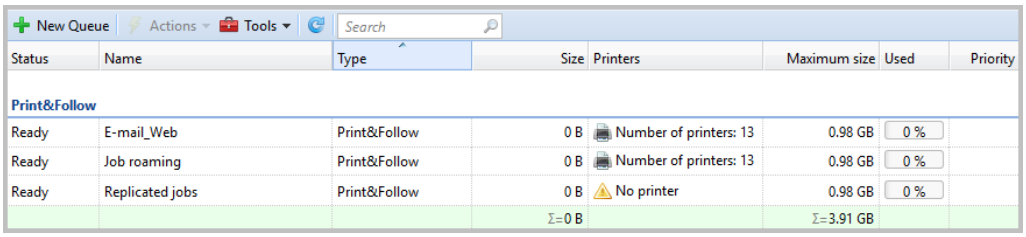
11 Queues

Print queues perform an important function in KNM. Queues can target specific printing devices (Direct), allow users to choose from a group of printing devices and gain access by identifying themselves (Print&Follow), allocate the workload of large print jobs between several printing devices to use the inactive one (Tandem), and allow one user to release and print jobs for another (Delegated).

Print queues can govern access rights of users or groups to printing devices, and provide options for extra modification of print jobs. You can have an unlimited number of print queues.

View and manage print queues by going to **Printers** > **Queues** from the logo menu. The initial screen displays the following information about queues:

Status	Ready or Offline. Right-click the queue to change the status. Not available for the three built-in queues.
Name	Queue name
Type	Direct, Tandem, Print&Follow, or Delegated printing.
Size	The total size of all print jobs currently assigned to the queue.
Printers	The number of printers assigned to the queue.
Maximum size	The maximum size of the queue, set by the queue creator.
Used	Percentage of the max size used by current print jobs.
Priority	Documents are sorted into the finisher mailbox according to the priorities.



Default queues

By default, KNM sets up four queues:

New queue | Actions | Tools | Search

Status	Name	Type	Size	Printers	Maximum size	Used	Priority
Print&Follow							
Ready	Replicated jobs	Print&Follow	0 B	No printer	0.98 GB	0 %	
Ready	Email_Web	Print&Follow	0 B	Number of printers: 29	0.98 GB	0 %	
Ready	Job roaming	Print&Follow	0 B	Number of printers: 29	0.98 GB	0 %	
Ready	Local	Print&Follow	0 B	No printer	0.98 GB	0 %	
			Σ=0 B		Σ=3.91 GB		

Replicated jobs

Used by the Master server to manage jobs from the site servers.

Email_Web

Used for jobs sent directly from email or from the web interface.

Job roaming

Used for sharing jobs among site servers.

Local

This queue is used to store jobs spooled directly to device via Local Print Spooling in online and offline modes after they have been successfully printed. With this feature, job information can be captured on the server in the Jobs tab as well as in reports.

All are the Print&Follow queue type. You can edit some, but not all of the settings for these default queues.

Creating new print queues

1. Go to **KYOCERA** > **Printers** > **Queues**.
2. Click **New Queue**.
3. Enter fields on the **General** tab (table below), and click **Save**.
4. Enter fields on the **Job processing** tab (table below) and click **Save**.
5. If using Prologue/Epilogue rules, click **Add rule** on the **Prologue/Epilogue** tab and click **Save**.
6. Click the **Printers** tab and add one or more printing devices to the queue.

A Direct queue may only have one printing device.

A new queue grants all users the right to use it. Change this on the **Rights** tab.

General tab	
Type	**Direct** Used for single printing device. **Tandem** Used with several printing devices for equal distribution. **Print&Follow** Used with printing devices with KNM terminal and card reader so jobs can be sent to printing devices on which a user is authorized. **Delegated Printing** Used so users or groups can select delegates to print their jobs.
Maximum size (MB)	Size of all print jobs assigned to a queue. If exceeded, the queue will not accept additional jobs.
Private	Jobs in Private queues are deleted from the server immediately after printing, as a security feature.
Priority	Applies to Print&Follow queues using the finisher with the mailbox. The documents are sorted into the mailbox according to their priorities.
Protocol	• Raw • IPP • IPPS (secure connection) • LPR • MPP (KYOCERA Net Manager Printing Protocol) • MPPS (KYOCERA Net Manager Printing Protocol Secure)
Port	Set by default depending on selected protocol, but may be changed.
Use Fiery if available	Select if device is equipped with a Fiery raster image processor.
Default printer language	This function is for print jobs that come from systems that do not add a PJL header to the print job. As a result, KNM cannot identify the print language used. For these jobs, KNM sends a PJL header according to the setting of the default printer language on the queue. Be cautious when choosing a default printer language. The language must match the print language used. If set to a different language, the print job might not print correctly.

General tab	
	If KNM gets the print language from the PJL header, the parser uses it and ignores the setting on the queue.
User name is case sensitive	Select or clear.
User detection method	Select from drop-down list, defaults to KX Driver/KYOCERA Mobile Print
Regular expression	Enter regular expression code, if wanted.
Get job name from PJL	Select or clear.
Job metadata mode	Select **Not required** or **Required - discard the job if no metadata**.
Computer detection method	Select Default protocol or **@PJL SET HOSTNAME...**
Service name for custom data processing	

Job processing tab	
PJL (for supported print drivers only)	PJL settings allow you to apply additional rules to selected print jobs. By default, Force user policy is selected. If Force user policy is cleared, policies will not be applied. Select other policies to force apply as needed.
Custom PJL	See Job processing options - PJL.

Scripting (PHP) tab	
Actions after processing	See Job processing options - PHP scripting
User Interaction	

Prologue/Epilogue tab	
Add rule	Add a file with text and variables that will print with each job submitted to the queue in a selected location on all or selected pages of the document. See PRESCRIBE Commands.

Printers tab	
	Add or remove printers that will use the queue. A Direct queue type can only have one printer assigned.

Rights tab	
	All users have rights to use the queue by default.

Adding printers to queues

1. Go to **KYOCERA** > **Printers** > **Queues**.
2. Double-click an existing queue.
3. Click the **Printers** tab.
4. Click **Add**.
5. Select **All printers** or individual printing devices from the drop-down list. Add multiple printing devices by clicking the down arrow again and clicking additional printing devices, one at a time.
6. Click **OK** when you've made all selections.

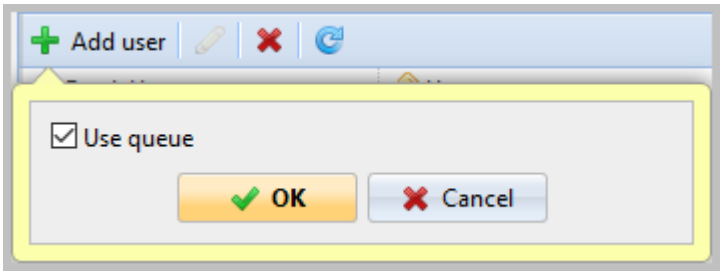
The Direct queue type can only have one printing device assigned.

Setting user access rights to queues

1. Go to **KYOCERA** > **Printers** > **Queues**.
2. Double-click an existing queue.
3. Click the **Rights** tab.

All print queues default to granting rights to all users.

4. If you want to restrict rights to the queue, click **All users** and click the red **X** to remove.
5. Click **Add user**.
6. Select individual users or groups.
7. Click **OK**.
8. Click **OK** again.



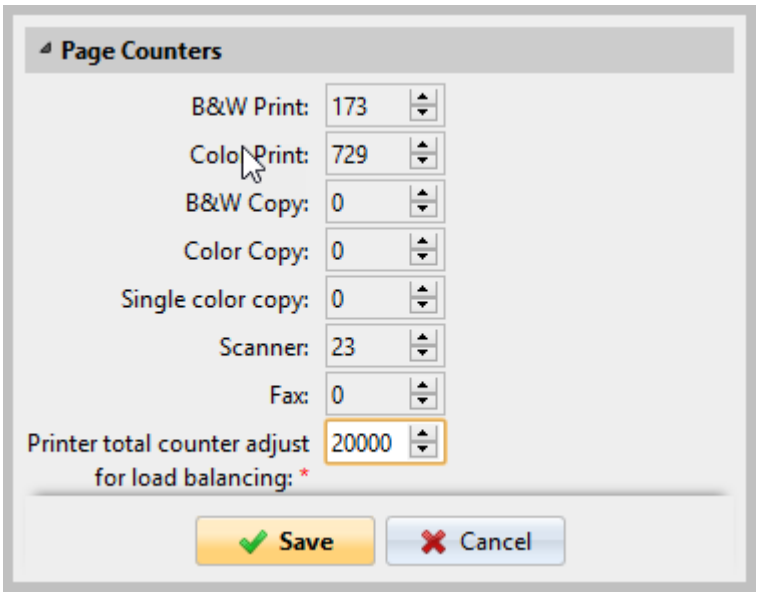
Adjusting page counters for load balancing between printers in Tandem queues

Use **Tandem queues** when you have multiple printing devices and high print volume. Jobs sent to a tandem queue are evenly distributed among the devices in the queue and immediately printed on a free device. With more than one idle printing device, the print job is sent to the device with the lowest printed pages count.

To balance the load between devices in the queue, make sure that the Page Counters on all printing devices in the queue are similar. Otherwise, the printing devices with lower printed page volume might be overused.

You can manually change the page counter on the Printer total counter to adjust for load balancing.

1. Go to **Printers**.
2. Double-click a printing device that is part of a tandem queue.
3. On the **General** tab, scroll down to the **Page Counters** section and click to expand it.
4. In the field **Printer total counter adjust for load balancing**, enter a number to use for all printing devices in the queue.
5. Click **Save**.
6. Repeat for each printing device that is a member of the tandem queue.



The entered value is added to the printed pages counter. When a print job is sent to the queue, this adjustment causes all printing devices to appear to have approximately the same page count, which causes the queue to evenly spread the print load among printing devices, rather than always selecting the printing device with the lowest page count.

Enabling mobile printing in KNM

Mobile printing can be managed by KNM. Mobile printing allows policies, quotas, and credits to be applied to mobile device users. KYOCERA Mobile Print can support Direct and Print&Follow printing based on the print queue that is selected by the user.

1. Open **Queues**.
2. Double-click the queue for mobile printing.
3. Under **Jobs** > **User detection method**, make sure that KX Driver/KYOCERA Mobile Print is selected.
4. Click **Save**.

Windows authentication is not supported in KYOCERA Mobile Print, which means that iOS or Android mobile device users must manually enter their username and password into their mobile devices.

If you are unable to log in to the KNM server when using KYOCERA Mobile Print, make sure that the login method selected is Net Manager, and that User login and Job Accounting are disabled.

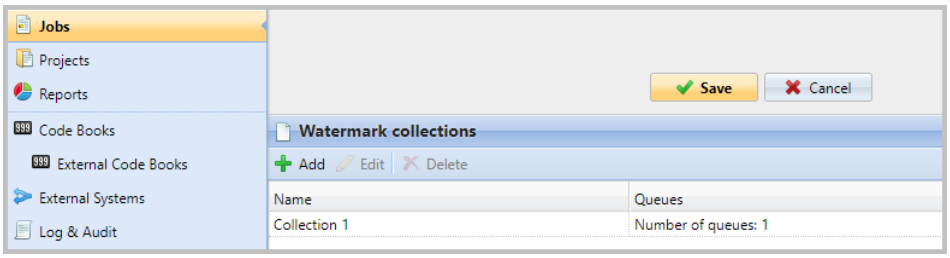
Watermark collections

Watermark collections can be configured for individual queues. Each collection can contain several watermarks which can be enabled and disabled individually. When a watermark is enabled, it is added to each page of the printed document.

Creating and managing watermark collections

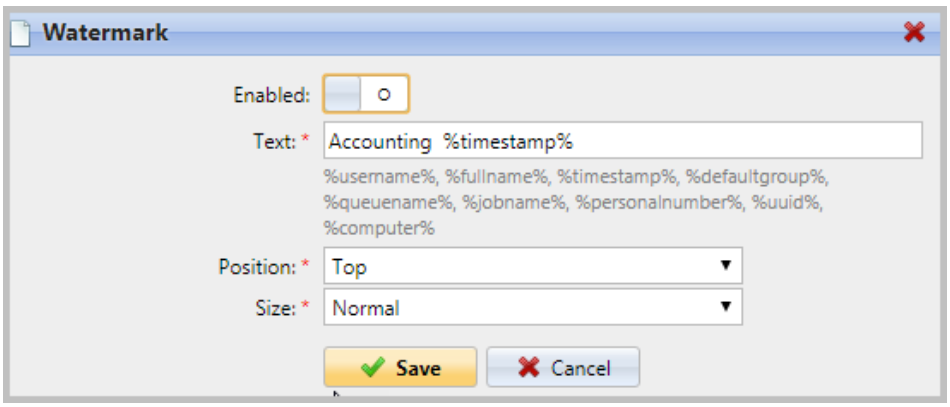
Create or manage watermark collections from the **Jobs** tab or when creating or editing a queue.

1. Go to **Settings** > **Jobs** and scroll down to **Watermark collections**.



2. Click **+Add**.
3. Enter a name for the collection and click **+ Create watermark**.

4 Enter the text and variables to use as the watermark in the **Text** field. Set the **Position** and the **Size**.



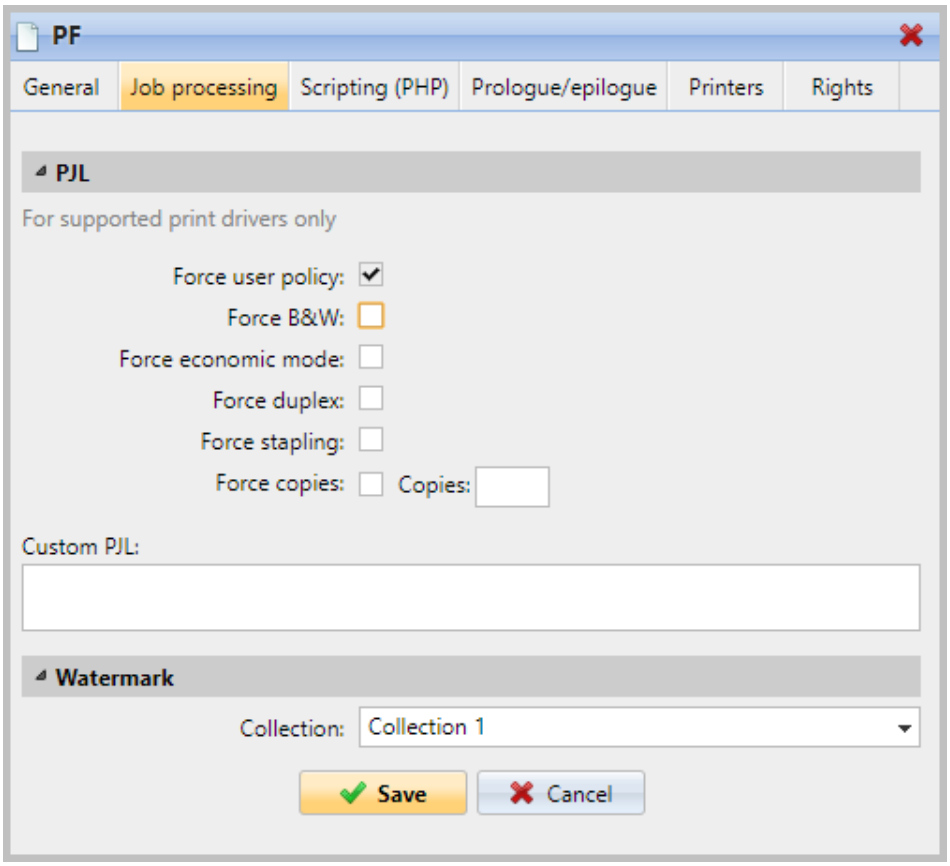
5 Click the **Enabled** switch to enable the new watermark for use and click **Save**.

6 If you have more than one watermark in a collection, you can click **Edit** to enable or disable individual watermarks.

7 Click **Save**.

8 Go to **Queues** and double-click on a queue to which to assign a watermark collection.

9 Click **Job processing** and select a watermark collection. Click **Save**.



You can also create watermark collections and add watermarks from the **Job processing** tab of a queue's properties. When adding a watermark collection to a queue, the drop-down list has an **+Add new** option. Any actions taken there will be reflected in **Settings** > **Jobs** > **Watermark collections**.

Identifying a print job owner

KNM provides several methods of user identification from the print job data. You can set the method of user identification in the print queue in the **Jobs** section of the **Queue/General** tab.

Is the Job Owner's name case-sensitive? With the Username case sensitive field, you can determine whether the system distinguishes lowercase and uppercase letters. If cleared, the system ignores the difference between lowercase and uppercase. For example, a job sent by user "TESTUSER" or "TestUser" will be assigned to Net Manager user "testuser".

Identify job owner by username and computer DNS name

The most frequent method of user identification is by user login to the operating system. For this option, keep the default setting, which is **Job sender**.

If you want the user to be recognized, there are three detection options available.

Sender's computer name

The job owner is identified as the name of the computer from which the job is sent.

Print server's DNS name

The domain server resolves the IP address of the computer on which the print driver is installed.

Sender's computer DNS name

The domain server resolves the IP address of the login computer.

Identify job owner by print job name

You can detect the user from a print job name (**Detect user from the job name**). This option can be useful if a job is generated and sent to print automatically (for example, by an Enterprise Resource Planning (ERP) system). The syntax of the print job might be: j.brown@job1025896.prn. In this case, j.brown will be used as the job owner.

Be sure to set up the Regular expression parameter correctly.

If you select the **Detect user from the job name** option, another parameter, **Only for LPR user**, is displayed in the menu.

This parameter allows you to combine the user identification from the username and print job name in a single print queue. If the text box is filled, Net Manager first identifies the username and, only if it matches the name specified in LPR User, it detects the job owner from the job name.

This advanced user identification may be required, for example, for some print jobs from the SAP system. Print jobs from SAP are not usually sent directly to printer devices, but first to Windows spooler (SAP LPD or SAP Print) which processes and forwards the print jobs to the printer. This service usually runs under the system account (SYSTEM), and therefore the job owner detected from the jobs is SYSTEM for all the jobs.

Regular expressions

The regular expressions necessary for basic operations are listed below. These descriptions are simplified for use in KNM and do not necessarily match the common explanation of each command. For more information about regular expressions, see https://www.regular-expressions.info.

.	Any character.
{5}	Exact number of characters in selection.

^	Defines the beginning of the string.
$	Defines the end of the string.
[@;]	Defines one or more characters (separators "@" and ";" in this case).
*	The preceding character can be repeated as many times as possible.
?	Not more than one occurrence (others are ignored).

Example: Expressions used with j.brown@job1025896.prn

- Get the first 5 characters of the string: ^(.{5}) returns: j.bro
- Get the last 5 characters of the string: (.{5})$ returns: 6.prn
- Get the substring to the left of the "@" separator: ^(.*?)[@] returns: j.brown

Identify job owner by KNM Smart Job Manager

Several users can share a computer and log in under a shared User name or as Guest. When this happens, the system uses KNM Smart Job Manager to authorize the individual users. Smart Job Manager must be installed and correctly configured on the computer.

Once an unidentified user sends a print job to KNM, Smart Job Manager opens automatically. Based on the setting of the User detection method on the print queue, SJM requests identification, either by PIN / ID Card, by User name and Password, or by User Name selected from a list.

Identify job owner by PJL header

If Job Owner information cannot be gathered from the LPR protocol, you can detect it from a command called @PJL set Username. Information displays in the PJL header which is located in the .prn file.

```
!R!SEM6;EXIT;%-12345X@PJL JOB NAME="Bez nÃ˜zvu â€“ Poz 072814 142330"
@PJL SET TIMEOUT=300
@PJL SET RESOLUTION=600
@PJL SET BITSPERPIXEL=4
@PJL COMMENT="INFO:NLP 1; DUPLEX OFF; QTY 1; COLORMODE COLOR;"
@PJL COMMENT="APP:C:\Windows\system32\notepad.exe;"
@PJL SET ECONOMODE=OFF
@PJL SET USERNAME="lalak"
@PJL SET JOBNAME="Bez nÃ˜zvu â€“ Poz 072814 142330"
@PJL SET QTY=1
@PJL SET KCOLORMODE=COLOR
@PJL SET KGLOSS=LOW
@PJL SET KTRAPPING=2
@PJL SET KPAGESPERSHEET=1
@PJL SET KCOLORPRODUCT=PRNSET
@PJL ENTER LANGUAGE=PCLXL
```

This type of advanced user identification (same as option **Detect user from the job name**) may be required, for example, for some print jobs from the SAP system. Moreover, print jobs from SAP are usually not sent directly to printer devices, but first to the Windows spooler (SAP, LPD, or SAP Print) which processes and forwards

the print jobs to the printer. This service usually runs under the system account (SYSTEM), and therefore the job owner detected from the jobs is SYSTEM for all the jobs.

By selecting **Get job name from PJL** on the Queue/General tab, you can specify whether or not the metadata for the job is required and set the Computer detection mode to either Default protocol or "@PJL SET HOSTNAME="..." / SET JOBATTR="JobAcct2=...."".

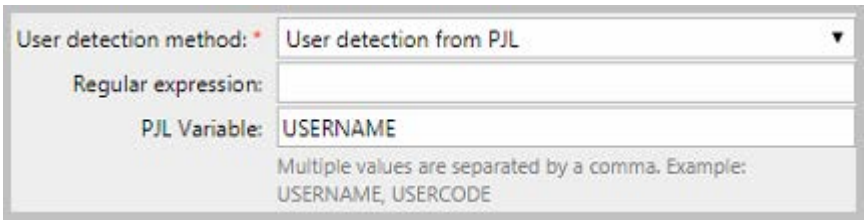
Set user detection mode with PJL variable

User detection mode of "PJL SET Username" has been renamed to "User detection from PJL" and now the PJL variable can be specified.

1. Create a queue and change User detection method to User detection from PJL.
2. To see the @PJL variables go to C:\ProgramData\Kyocera\Kyocera Net Manager\Jobs and open the job .prn file. This file will only exist if there are spooled jobs.

```
...
@PJL SET ECONOMODE=OFF
@PJL SET KLOGINID+"a"
@PJL SET KLOGINPWD="53are12345gre54321"
@PJL SET USERNAME="BarryU"
@PJL SET JOBNAME="claim_form.pdf 1234 4321"
@PJL SET QTY="1"
...
```

3. Enter the PJL variable that contains the user name. In this case, USERNAME.



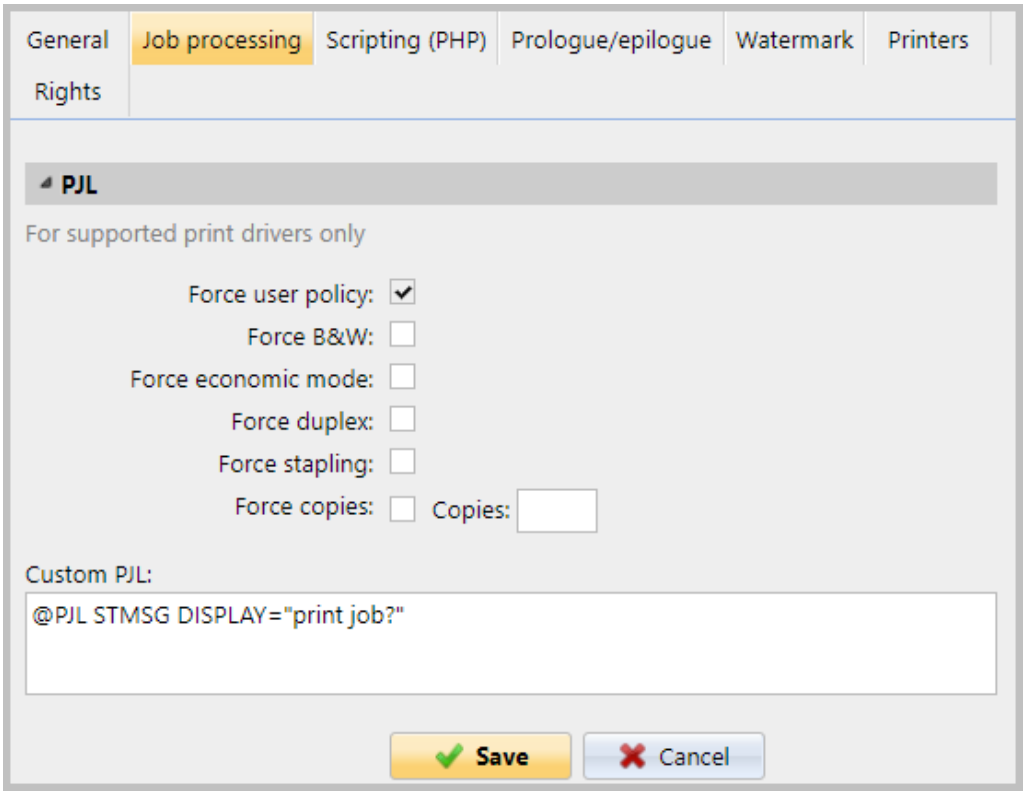
Job processing through queues

KNM lets you modify job processing options using PJL predefined functions, custom PJL code, and PHP scripting.

Job processing options - PJL

On the **Job Processing** tab under Custom PJL, there are options to force predefined functions on jobs using the selected queue or to add your own custom PJL to the jobs. Predefined functions are shown in the screen capture below. Selecting one of the predefined functions replaces the original PJL in the print job.

If you enter your own PJL sequence, it is added to the end of the PJL header of the original print job and overwrites all original settings. Correct syntax is required for PJL sequences, which always start with @PJL.



The **Force copies** function will only work properly on printing devices with job storage options (for example, hard disk, RAM disk).

Job processing options - PHP scripting

Depending on job properties from the LPR protocol, LPMS or job parser, the print job can be further manipulated. (i.e., moved to another queue, deleted, etc.) Edit the **Scripting (PHP) / Actions after processing** function in the **Scripting (PHP)** tab to further manipulate the print job. The following commands are available:

Commands to manage print jobs	
$this->pause();	Pause print job
$this->copyToQueue ("queuename");	Copy print job to another queue
$this->moveToQueue ("queuename");	Move print job to another queue
$this->setPrinted();	Mark print job as "printed"
$this->delete();	Delete print job

Commands based on the number of pages in the print job	
if (strpos($this->name, 'text')	Command is executed if the name of the print job contains "text"
if ($this->monoCount > xx)	Command is executed if the print job has more than xx mono pages
if ($this->colorCount > xx)	Command is executed if the print job has more than xx color pages
if ($this->paper == xx)	Command is executed based on the print job format for paper size **Variables: A4, A3, Other**
if ($this->duplex == x)	Command is executed based on whether the print job is duplex **duplex on = 1 or true, duplex off = 0 or false**
if ($this->color == x)	Command is executed based on whether the print job is color (contains at least one color page) **color job = 1 or true, B&W job = 0 or false**
if ($this->owner == “username”)	Command is executed only if sent by a specific user. The user's email address may be used instead of the username

Job processing based on the number of pages	
if ($this->monoCount>50) $this->moveToQueue (“monochrome”);	If a job of more than 50 pages is sent to this queue,the job is redirected to a queue named "monochrome".
if ($this->monoCount>500) $this->delete();	If a job of more than 500 pages is sent to the chosen queue, the job is deleted.
if ($this->monoCount>50) $this->moveToQueue (“monochrome”); if ($this->monoCount>500) $this->delete();	Combine the two previous commands in a single queue. Combined, these commands allow standard printing of jobs with fewer than 50 pages, redirect jobs of more than 50 pages to the queue named "monochrome" and delete jobs with more than 500 pages.
$n = ($this->monoCount + $this->colorCount) if ($this->duplex) $n = round($n/2); if ($n > 50) $this->moveToQueue("monochrome");	This command adds up the number of pages (both B&W and color) in a job. If it a duplex printing job, it divides the total pages by 2, rounds up, and moves the job to the queue named "monochrome" if it exceeds 50 pages.
$n = ($this->monoCount + $this->colorCount) * $this->copies;	This command multiplies the total pages by the number of copies, does the duplex calculation, and moves the job

Job processing based on the number of pages	
if ($this->duplex) $n = round($n/2); if ($n > 50) $this->moveToQueue("monochrome");	to the queue named "monochrome" if it exceeds 50 pages.
if ($this->color == x)	Command is executed based on whether the print job contains at least one color page. **color job = 1 (true), B&W job = 0 (false)**
if ($this->copies>50) $this->moveToQueue("monochrome");	Moves the job to the queue named "monochrome" if the job is for more than 50 copies.

Job processing based on job size and owners	
if ($this-> dataSize>50000000) $this->moveToQueue("monochrome");	If a job larger than 50MB is sent to the queue, the job is redirected to the “monochrome” queue.
if ($this->owner == "hartmann") $this->moveToQueue("Secure");	If the job is sent by user “hartmann”, the job is sent to the “Secure” queue where the jobs are deleted after printing.
$this->owner = MYQ()-> getUserByUserName("new_user_name");	Changes the job owner.

Job processing based on source application or job name	
if (strpos($this->name,'Outlook')!==false) $this->moveToQueue("monochrome");if (strpos($this->name,'outbind://')!==false) $this->moveToQueue("monochrome");	**Email**: Jobs detected as originating from email are printed on B&W devices only (redirected to the “monochrome” queue).
if (strpos($this->sName,'.pdf')!==false) $this->pause();	**PDFs**: All PDF jobs are paused and must wait for approval. The user can release the job from KNM Job Manager.

Email notification of print job changes	
Code: if (strpos($this->name,'Outlook')!==false) $this->moveToQueue("monochrome");if (strpos($this->name,'outbind://')!==false) $this->moveToQueue("monochrome");	This command tells the system to send an informational email to the job owner if any modification of a print job takes place.
Example: if (strpos($this->sName,'.pdf')!==false) $this->pause();if ($this->color == true) $this->owner->sendEmail("job $this->name deleted","You are not	Email notification about a deleted job will be sent to the job owner prior to job deletion.

Email notification of print job changes	
allowed to print color.");if ($this->color == true) $this->delete();	

Moving print jobs between queues	
if ($this->color) {if ($this->owner->canPrintToQueue("JPS2")) {$this->moveToQueue("JPS2");} else {$this->owner->sendEmail("Job error", "Color printing denied");$this->delete();}	You can move print jobs between queues with this command. In the example, if this is a color printing job and the job owner has rights for the queue “JPS2”, the system moves the print job. If not, the system informs the job owner by email and deletes the print job.

Move print jobs between direct queues	
Code: isAnyPrinterAvailable()	With this command, you can move print jobs between direct queues if the device in the direct queue is not available.

Example:
if ($this->queue->isAnyPrinterAvailable())
{}
else
{$this->moveToQueue("direct2");}
	If no printer for the current queue is available, the job is moved to the queue named “direct2”.

Custom log messages	
MyQ()->logError("message")MyQ()->logWarning("message")MyQ()->logInfo("message")MyQ()->logNotice("message")MyQ()->logDebug("message")	With this command (via MyQ), you can log custom messages to the KNM log.

if ($this->color) {
if ($this->owner->canPrintToQueue("colorqueue")) {
$this->moveToQueue("colorqueue");
} else {
$this->owner->sendEmail("Job error", "Color printing denied");
MyQ()->logNotice("Color printing denied");
$this->delete();
}
	If this job is color and the job owner has rights to the queue “colorqueue”, move the job to that queue, else send the job owner an email that color printing was denied, add a “Color printing denied” notice to the log and delete the job.

Custom log messages	
}	

Test group membership	
Code: hasGroup("groupname")	With this command, test if the job owner is a member of a group.
Example: if($this->owner->hasGroup("pausedprintgroup"));$this->pause();	If the job owner is a member of the “pausedprintgroup”, pause this job.

Test print job language	
Code: Lang == value	With this command, you can test the language of the print job. By adding this command, you will receive a value showing the language used. **Values:** PDL_UNKNOWN = 0, PDL_PCL = 1, PDL_PS = 2, PDL_ESCP = 3, PDL_PRESCRIBE = 4, PDL_PCLXL = 5, PDL_PDF = 6
Example: if($this->lang == 5)$this->pause();	If the language of this print job is PCLXL, pause the job.

Job Processing - Quotas	
$this->owner->getQuotaInfo()->canColor()	Does the user's quota allows printing or copying in color? 1: The user can print or copy in color. 0: The user cannot print or copy in color.
$this->owner->getQuotaInfo()->canPrint()	Does the user's quota allows printing? 1: The user can print. 0: The user cannot print.
$this->owner->getQuotaInfo()->canCopy()	Does the user's quota allows copying? 1: The user can copy. 0: The user cannot copy.
$this->owner->getQuotaInfo()->canScan()	Does the user's quota allows scanning? 1: The user can scan. 0: The user cannot scan.

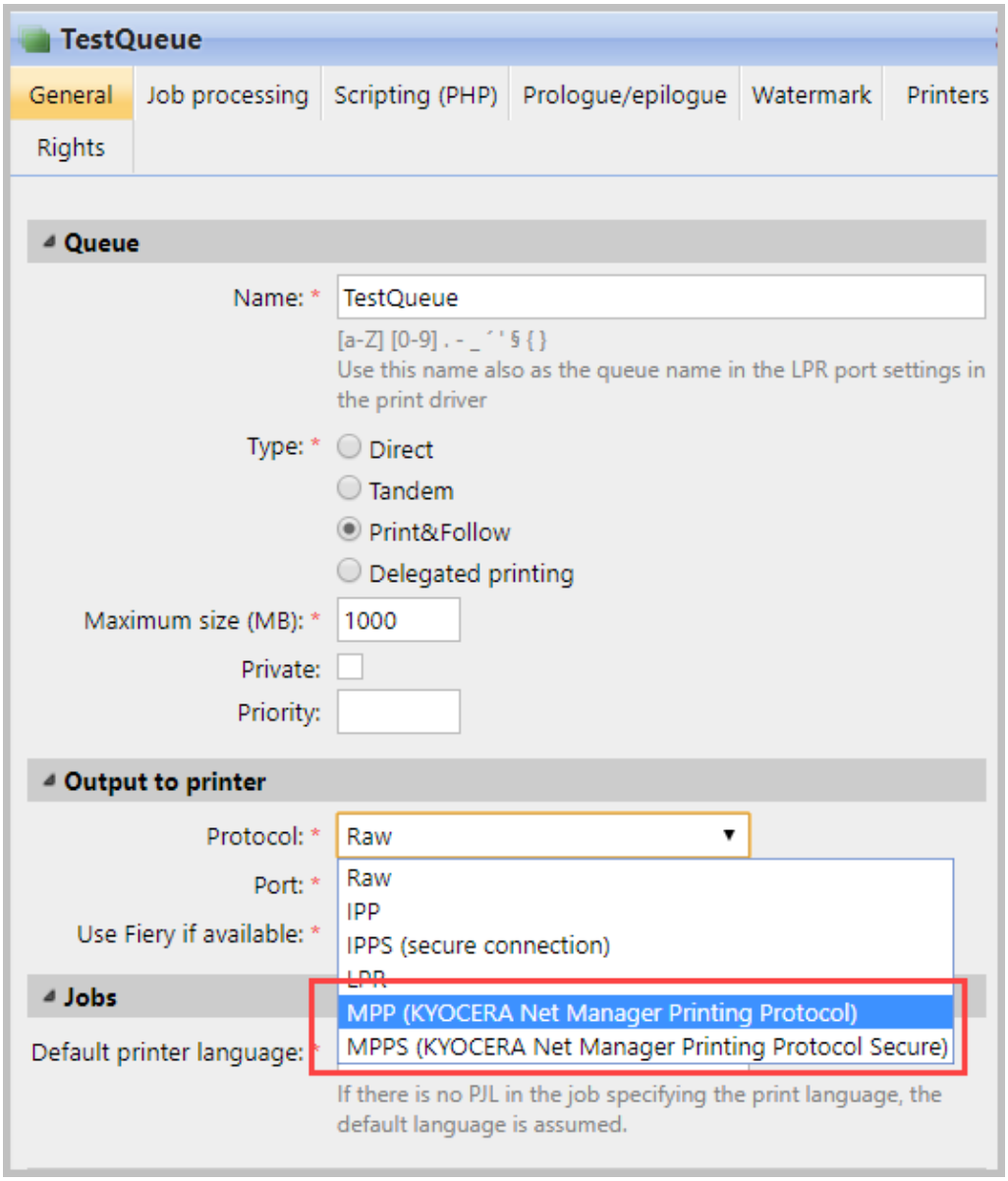
Setting the default page description language for a queue

You can assign a page description language (PDL) to be used when there is not a recognized PDL with the print job. For example, in the case of a job that uses the **Email/Web** queue.

1. Open **Queues**.
2. In the list of queues, double-click the queue in which you wish to set the default page description language.
3. Under **General / Jobs**, select the default page description language you want the queue to use from the drop-down list.
   - **Unknown** - KNM will not process the job data for this job and job properties will not be displayed in the header and footer.
   - **Autodetect**
   - **PCL5**
   - **PostScript**
   - **ESC/P** - This is an Epson printer control language. If it is installed on the KNM server, it can be used by KNM to print.
   - **Prescribe**
   - **PCL6**
   - **PDF**
   - **JPEG**
   - **XPS**
4. Click **Save**.

KYOCERA Net Manager printing protocol

You can select MPP (KYOCERA Net Manager Printing Protocol) or MPPS (KYOCERA Net Manager Printing Protocol Secure) as the Protocol in Output to printer. This protocol compresses data and provides SSL communication (MPPS only). The protocol does not support Embedded Lite.



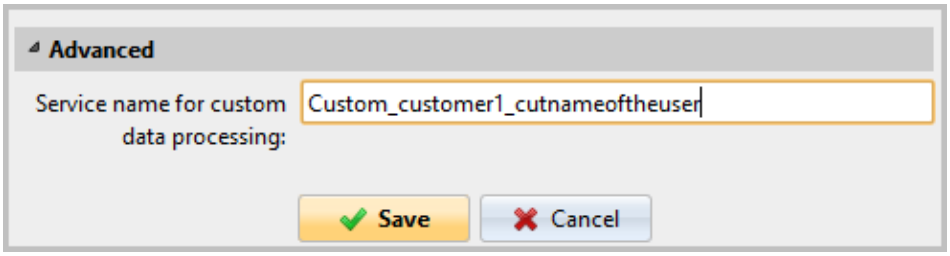
Setting the service name for custom data processing

This advanced feature allows you to run a script on received jobs. For instance, if you wish to filter, parse, or cut user names and regular expressions are not sufficient, you can create a custom PHP script and call it to perform data processing. Contact support for more information. To configure the queue for custom data processing:

1. Open **Printers** > **Queues** from the logo menu.
2. In the list of queues, double-click the queue in which you want to set custom data processing.

3 Under **Advanced** (click to expand) on the **General** tab, enter the service name in the text field.

4 Click **Save**.



The system will look for **KNM\PHPApps\Custom\customer1\cutnameoftheuser.php** when processing jobs for the queue.

PRESCRIBE commands

PRESCRIBE is a powerful programming tool that gives you options to add graphics into simple text documents, print barcodes, or change the print document properties directly on the printing device.

There are many ways to use PRESCRIBE. You can:

- Add a simple command line to a print job
- Use a text file with a sequence of commands
- Create sophisticated macros to be sent together with the print job or stored on the printing device's hard disk and applied on request

You can add any PRESCRIBE command or set of commands and apply them to all the devices assigned to a single queue. You can create a special Net Manager print queue, set the PRESCRIBE sequence and a method of inserting it into the print job (beginning of job, end of job, etc.). This setting is applied to all devices assigned to the queue so you do not have to set PRESCRIBE commands for each device separately, and the commands areis independent from the printer driver you are using.

Creating a PRESCRIBE sequence

1 Define the PRESCRIBE command or set of commands that will be sent to the device and save it as a text file.

For example, you can create a simple set of commands to print a barcode to a fixed position on the page:

```
!R!UNIT C;MZP 1,26;BARC 23,Y,'TEST PAGE Code 128';EXIT;
```

Explanation of the PRESCRIBE parameters:

Parameter	Explanation
!R!	Starts the PRESCRIBE sequence.
Unit C;	Sets the unit of measurement to centimeters (the default is inches).

Parameter	Explanation
MZP 1,26;	MZP (Move to Zero-relative Position) sets the position on the page. The first number is the x coordinate and the second is the y coordinate.
BARC 23	Print the specified data in barcode form using barcode type 23.
Y,	The Flag parameter specifies whether to print human-readable text under the barcode (Y/N).
'TEST PAGE Code 128';	The string parameter, the text (between single quotes) that is converted into the barcode.
EXIT;	Ends the PRESCRIBE sequence.

2 Save the file and send it to the printer, for example, upload to the printer via FTP.

This PRESCRIBE example produces the following barcode:

The following is a general format for barcode drawing:

```
BARC type, flag, 'string'[, short, tall [, bar1, bar2, bar3,
 bar4, space1,space2, space3, space4]];
```

For more information, see PRESCRIBE Commands Technical Reference.

Adding a PRESCRIBE sequence to a queue

Job parser must be turned on for the PRESCRIBE sequence to work.

1 Go to **Printers** > **Queues**.

2 Create a new queue, or edit an existing one.

3 Click the **Prologue/Epilogue** tab and click **Add rule**.

4 Set a method of inserting the PRESCRIBE sequence into the print job. Using the **Place** parameter, you can choose between the following options: **Beginning/End** of the document and **Beginning/End** of the page.

5 If **Beginning** or **End of the page** is selected, you can set **Page type** to **All**, **Even**, **Odd**, or **Custom pages**.

6 If you select **Custom pages**, you can specify which pages or page ranges to print the barcode.

7 Click **Add** next to **File**.

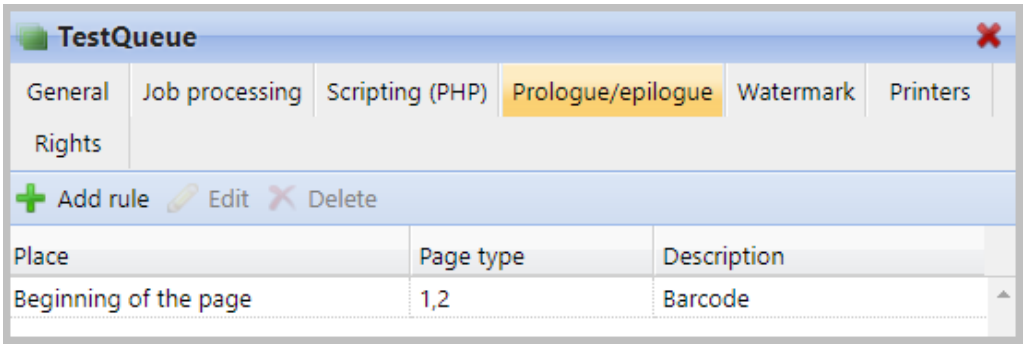
8 Click **Choose file**, browse to the path of the PRESCRIBE file, and click **Open**.

9 Select the **Encoding type** in the drop-down.

10 Enter the name of the PRESCRIBE sequence in **Description**.

11 Click **Save**.

The new rule is added to the list on the **Prologue/Epilogue** page.



You can create more rules on the queue to execute PRESCRIBE commands at different places in the print job.

Successfully using PRESCRIBE in the Prologue/Epilogue depends on several factors - printer driver, device settings, original document type, etc.

Personal queues

Users can have multiple personal queues and can choose to send a job to one of them without needing to have the printer driver settings changed by an Admin.

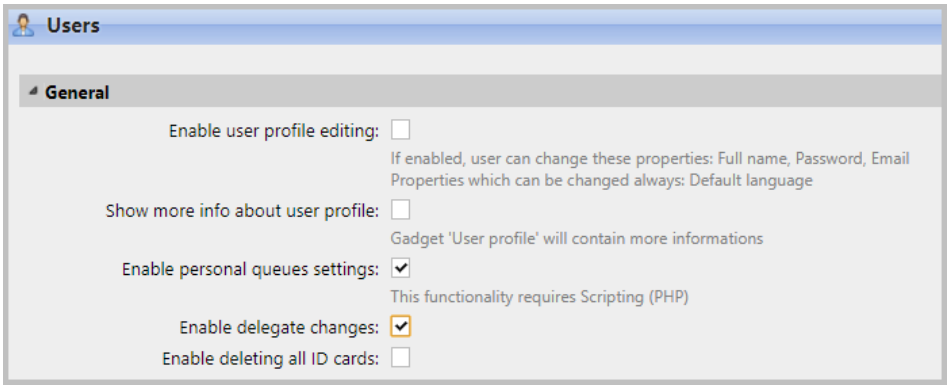
Enable Personal queues on **Settings** > **Users** in the General area.

Enabling personal queues

Enabling **Personal Queues** requires editing the config.ini file. This file is located in the KYOCERA Net Manager folder.

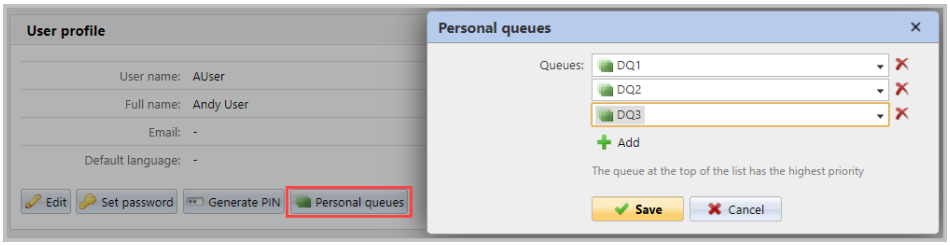
Personal Queues can be configured to specify the types of queues and queue names the user can see or select.

1 In KNM, go to **Settings** > **Users**. Select **Enable personal queues settings** and click **Save**.



2 Log into KNM as user and click **Personal Queues** on the **Home** page.

3 Click **+Add** and select a queue from the drop-down menu. Repeat to create a list of personal queues. Click **Save** and log out.

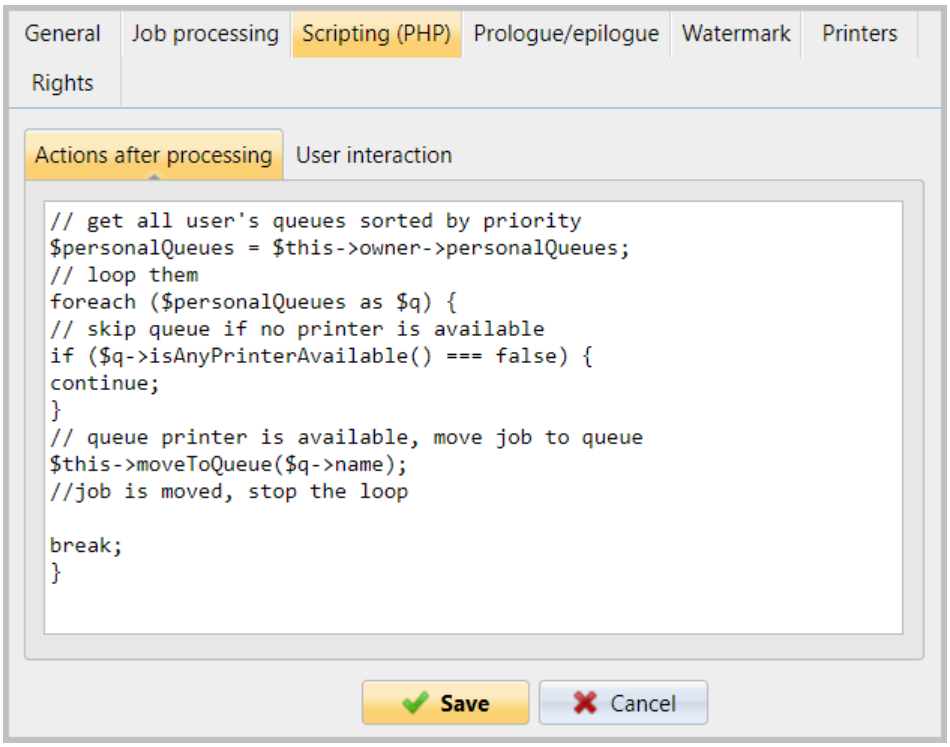


4 Log in to KNM as Administrator.

5 On the **Queues** page, double-click a queue to open the properties, then click the **Scripting (PHP)** tab.

6 Add PHP scripts in **Actions after processing** to set the routing of jobs based on user's personal queues.

The script example below goes through the user's personal queues to find the first queue with an available printer and sends the job there. If there is no available personal queue, the job will stay in the printer driver queue.



Personal number parameter for Prologue/epilogue

In **Prologue/epilogue**, you can add a new parameter to insert a personal number. This parameter can be added manually or by User synchronization.

1. Create a new queue.
2. Open **Prologue/epilogue**.
3. Click **+Add rule** and %personalnumber% displays as a new parameter.

%personalnumber% can be used in the PRESCRIBE commands for **Prologue/epilogue**.

As an example, you can insert the following PRESCRIBE commands to add a personal number and timestamp.

```
!R!STM0;
SFNT "Courier", 12;
UNIT C;
SIMG 2;
GPAT 0;
MZP 2,1;
TEXT "%personalnumber%";
MZP 6,1;
TEXT "%timestamp%";
EXIT;
```

12 Reports

You can generate reports based on system data about users, projects, jobs, and printing devices, individually or in groups on the logo menu>**Reports** tab.

There are predefined reports, graphs, and tables that can be directly displayed in the web interface or saved in any of the following formats: .pdf, .csv, .html, .xml, or plain text. You can schedule reports to run regularly and be emailed to selected recipients or stored in a predefined folder. Reports are categorized and sorted alphabetically with drop-down lists that expand to show all report options in a category.

You can customize a report's appearance. Reports that display as charts have options for chart type. Once generated, any report can be viewed again or exported anytime.

Customization features include:

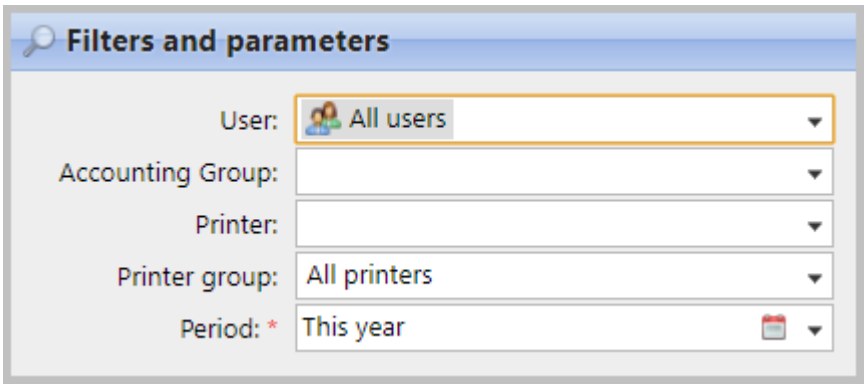
- Page orientation and parameters
- Setting filters and parameters
- Creating a list of different output formats

Report types

Alerts and maintenance	Device alerts and unusual changes in device counters.
Credit and quota	Credit and quota status and balances.
Environmental	Environmental impact of printing for Jobs, Printers, User groups and Users.
General	General system information, such as counters, statistics, price list comparisons.
Groups	Group membership and summary reports by group.
Print jobs	Jobs printed, such as a list of all expired and deleted jobs over a certain period.
Printers	Inforationm about printing devices (both local and network); can contain graphs of device usage, daily, weekly and monthly counters.
Projects	If project accounting is enabled, all the information related to a particular project and its print costs can be displayed as reports. A report displaying jobs printed for a particular project is also available.
Users	A group of reports about users: various counters, job summaries, credit-related reports, group membership, and synchronization reports.

Report filters

Each report has specific set up, filtering and selection criteria. Click **Edit** to make changes to an existing report. Filtering options are available when adding new reports. Some common setup **Design** tab options for reports include (but are not limited to): **Period** (year, month, day, hours, etc.), **User** (or All users), **Printer**, **Printer group** (or All printers), and **Accounting Group**.



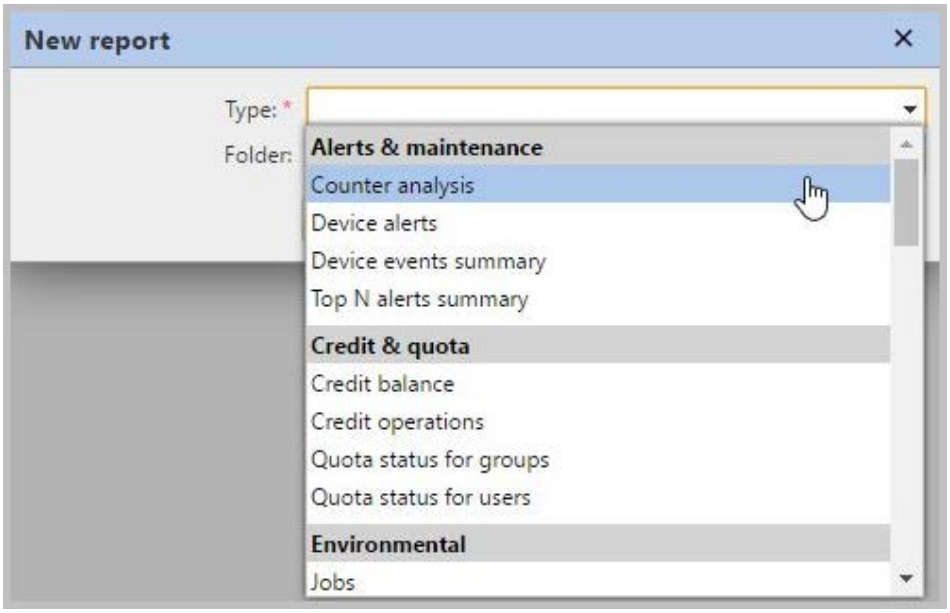
After configuring the filters on the Design tab, you can **Save** or **Run** the report.

- **Save** saves your filter and parameter selections without running the report.
- **Run** saves the selections and runs the report immediately. After the report displays on your screen, you can select from output options, or set the report, as configured to become a scheduled task.

Go back to the General tab to **Schedule** the report for future or repeated run.

Creating reports

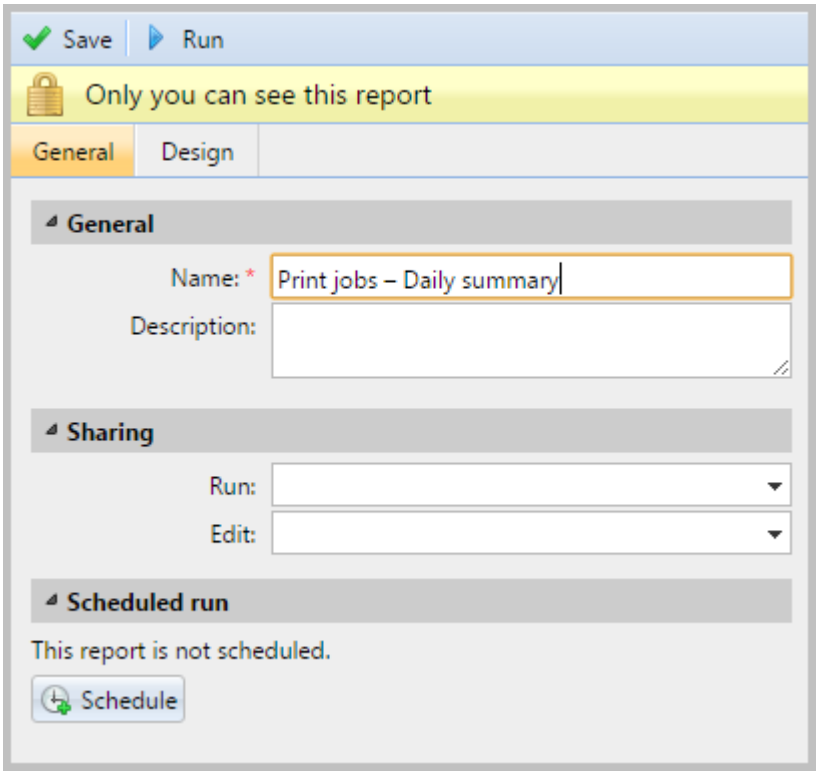
1. Go to **Reports**.
2. Click **+Add** and select **+New Report**.
3. In **Type**, select a template type and in **Folder** select the storage location for the report. Click **OK**.



4 Configure the report information in the **General** tab. **Name** is required.

5 In **Sharing**, select the users who can run or edit the report.

6 Click **Schedule** to set a time to run the report.



7 In the **Design** tab, configure the following options:

Options

Select the orientation of the report and a value to sort the report data.

Filters and parameters

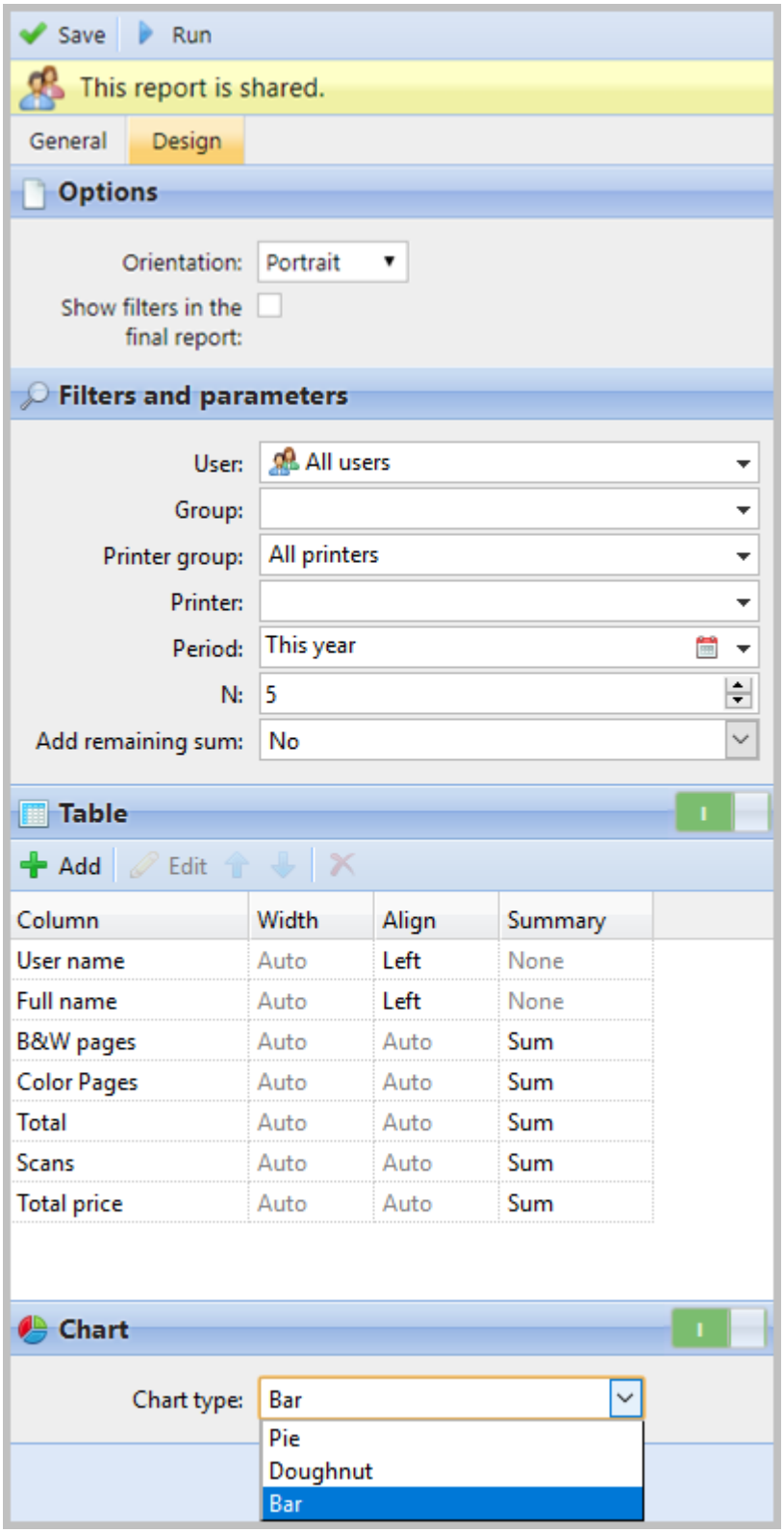
Select filtering options and parameters.

Table

To add display rows to the table, click **+Add**. You can also edit, delete, or reorder rows. In the Summary column, choose whether to display summary data in the table. Choose from **None** or **Sum**.

Charts

If supported, select the type of chart to display. Both the **Table** and **Chart** sections of the **Design** tab provide an On/Off switch for each item.


Save
Run
This report is shared.
General
Design
Options
Orientation:
Portrait
Show filters in the final report:
Filters and parameters
User:
All users
Group:
Printer group:
All printers
Printer:
Period:
This year
N:
5
Add remaining sum:
No
Table
Add
Edit
Column
Width
Align
Summary
User name
Auto
Left
None
Full name
Auto
Left
None
B&W pages
Auto
Auto
Sum
Color Pages
Auto
Auto
Sum
Total
Auto
Auto
Sum
Scans
Auto
Auto
Sum
Total price
Auto
Auto
Sum
Chart
Chart type:
Bar
Pie
Doughnut
Bar

8 Click **Save** to save the report settings.

9 Click **Run** to generate a preview of the report.

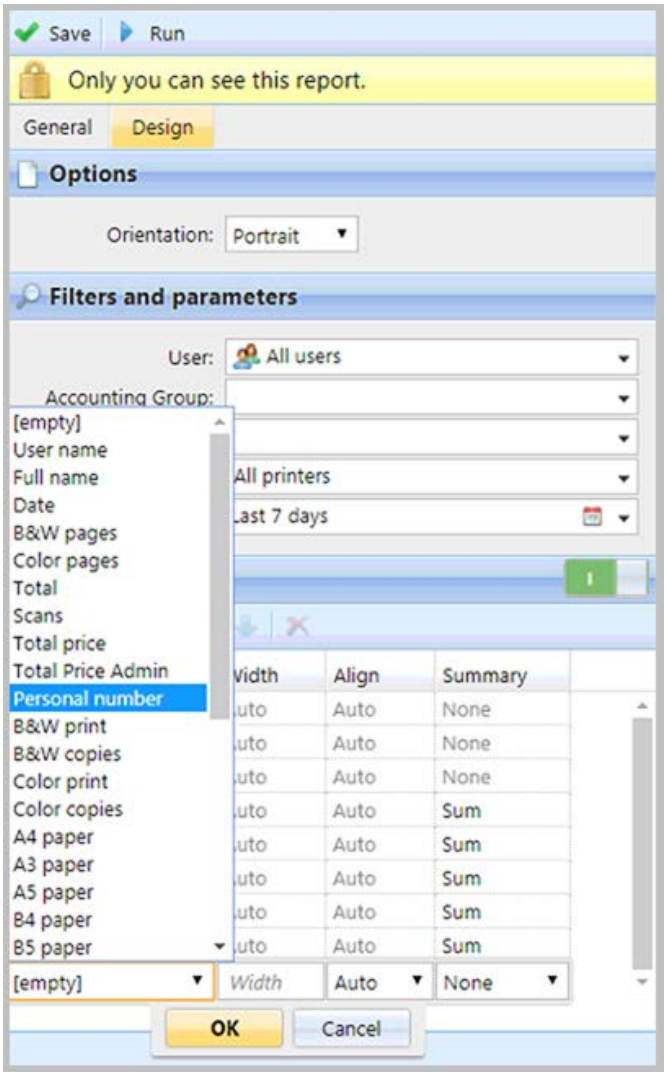
Adding Personal number to user reports

The following procedure uses Users - Monthly Summary as an example, but other user report types can also be configured to show the personal number.

1 Go to **Reports**. Open **Users - Monthly summary** and select **Edit** from the drop down menu.

2 Click the **Design** tab.

3 In the **Table** section, click **+Add**.



4 Select **Personal number** in the drop down menu and click **OK**.

5 Click **Run** to generate a report preview.

Add summary column in a report

Information in multiple columns can be aggregated into a summary column. The summary column can display either the sum or average of the values in the aggregated columns. Columns created by users are linked to a template and are available only for reports based on that template.

The following types of reports are supported:

Printers

Daily Summary, Day of the Week, Total Summary, Meter reading via SNMP

Groups

Monthly Summary, Total Summary

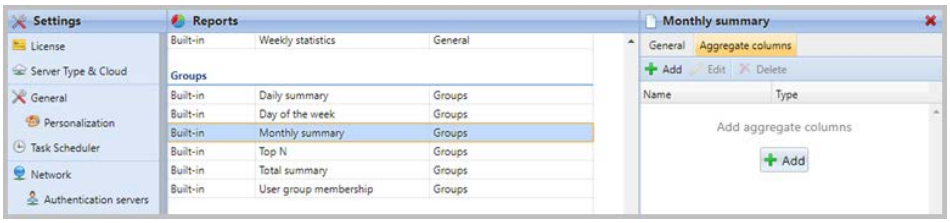
Print jobs

Expired & Deleted Jobs

Projects

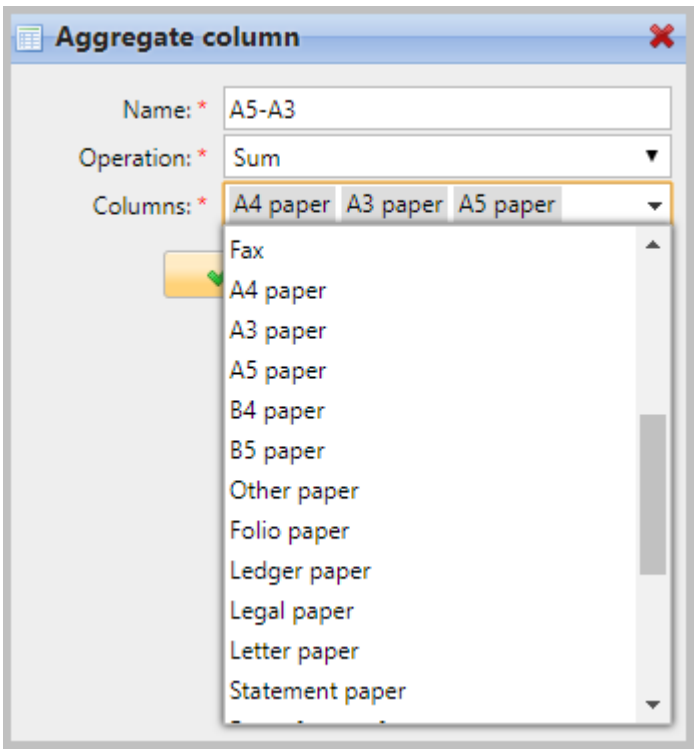
Daily Summary, Day of the Week, Monthly Summary, Projects per User, Users per Project

1 Go to **Settings** > **Reports** and open the report to which you will add the summary column.

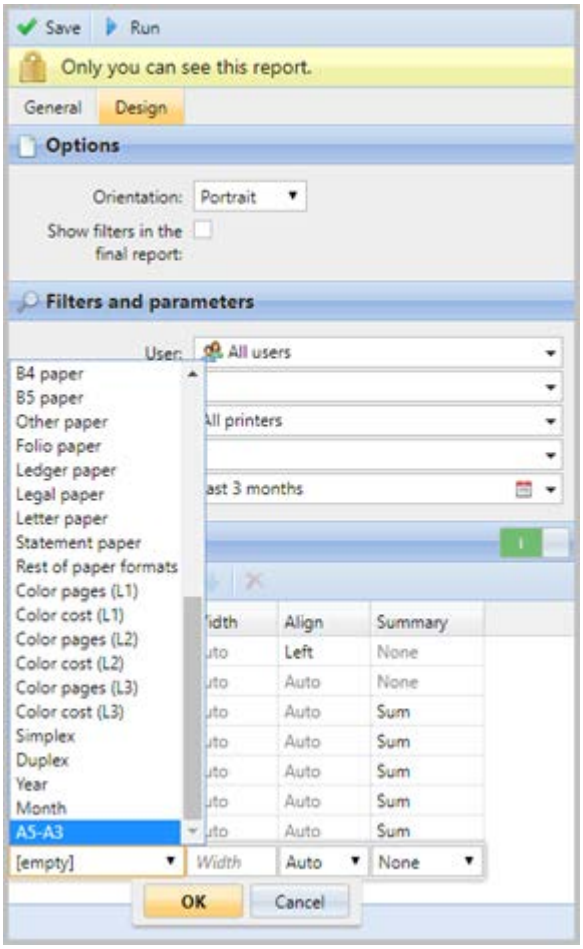


2 Click the Aggregate columns tab. Click **+Add**.

3 Enter the name for the new summary column, select the operation (Average or Sum), and select the columns that will be aggregated. Click **Save**.



When you run the the modified report, the new summary column will be available on the design tab.

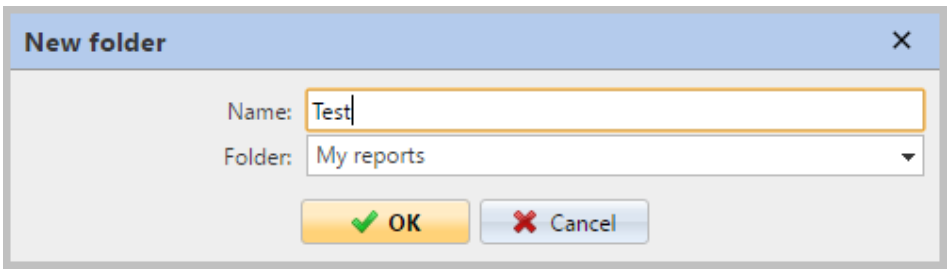


Adding a reports folder

1 Go to **Reports**.

2 Click **+Add** and select **+New Folder**.

3 Enter a folder name and location, and click **OK**.



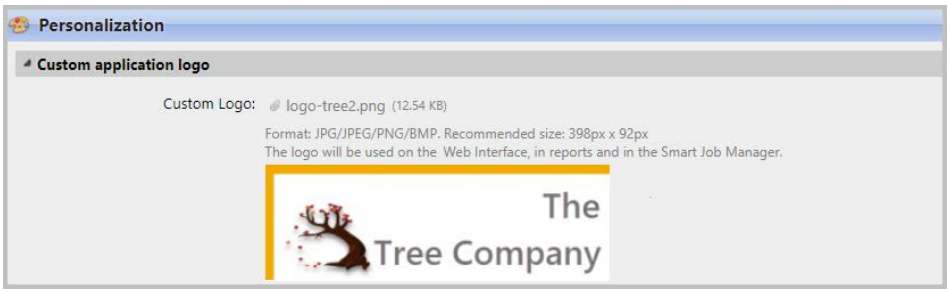
Adding a custom logo to reports and vouchers

A custom logo can be used in reports and vouchers.

The logo must be a .jpg, .png or .bmp file format. To fit the logo in reports and vouchers, it is strongly recommended to use 398px x 92px image.

1. Go to **Settings** > **General** > **Personalization**.
2. Click **Choose File** under **Custom application logo**. Browse to find the logo and select it. A preview of the logo displays.
3. Click **Save**.

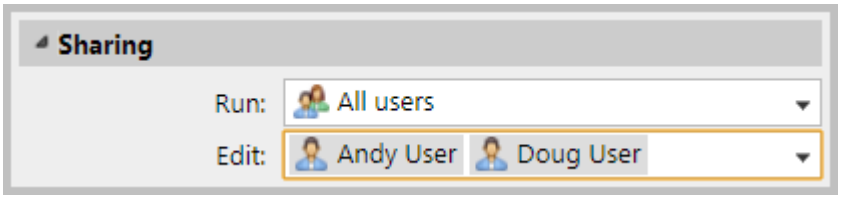
   If you want to revert the image to the original, click **X** to delete.



Setting user rights for reports

By default, all reports are available to the system Administrator (*admin) and to users and groups assigned the **Manage reports** right. To set rights for individual reports:

1. Go to **KYOCERA** > **Reports**.
2. Select a report and click **Edit** or **Add** a new report.
3. On the **General** tab, under **Sharing**, select users (or All users) who will be allowed to **Run** the report.
4. Select users (or All users) who will be allowed to Edit the report.

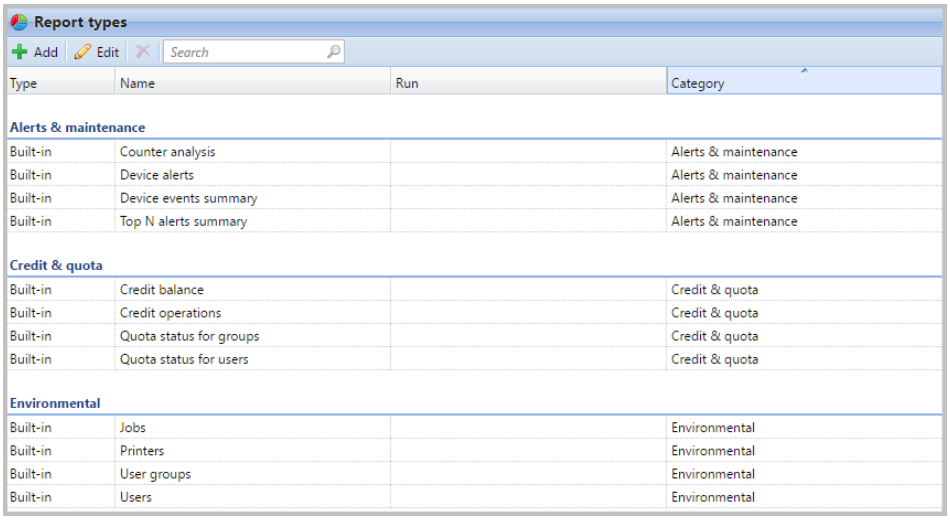


5. Click **Save** to save your changes without running the report or **Run** to save your options and run the report.

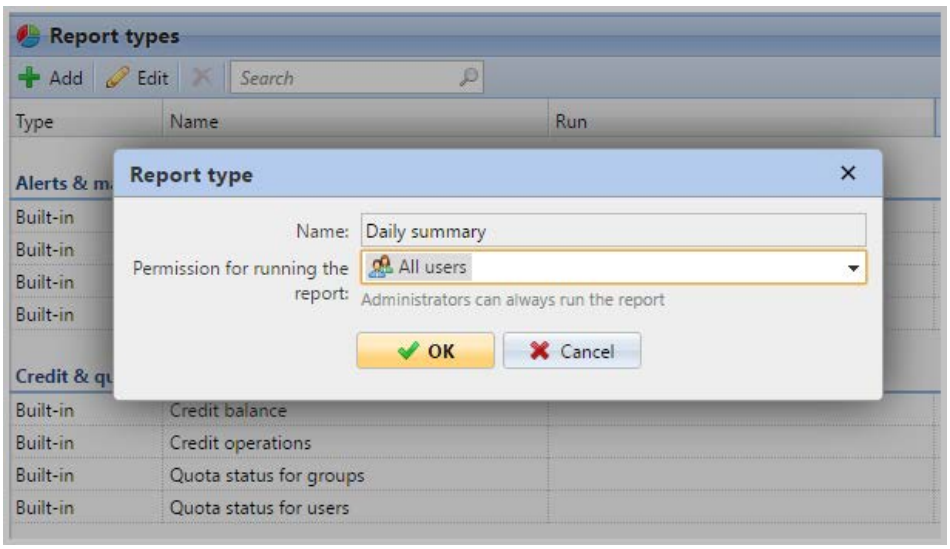
Setting report type

1. Go to **Settings** > **Reports**.

2 Select a report type and click **Edit**.

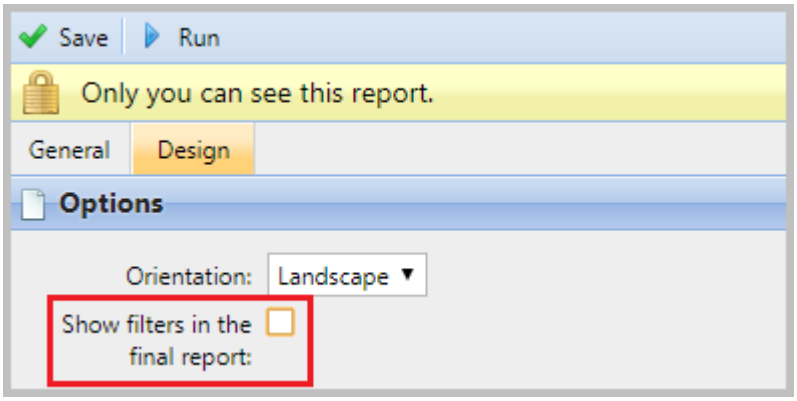


3 In **Permission for running the report**, select who can run the report and click **OK**.



Show report filter values in a report

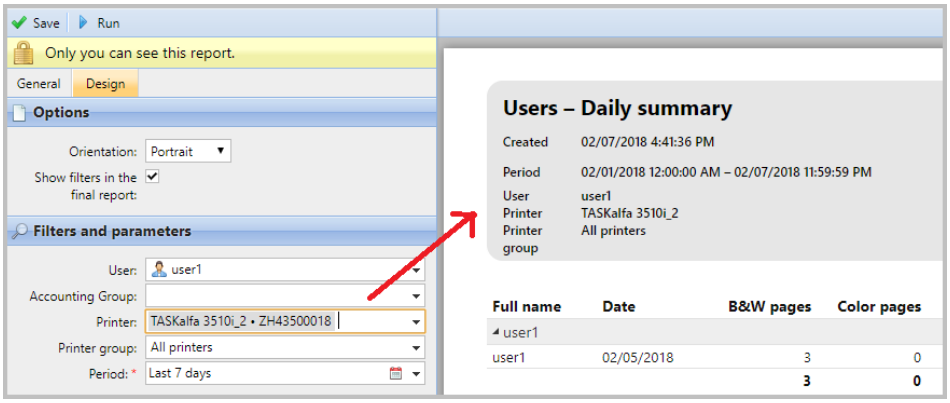
1 Create or open a report. Select the **Design** tab.



2 Select **Show filters in the final report** and configure Filters and parameters.

3 Run the report.

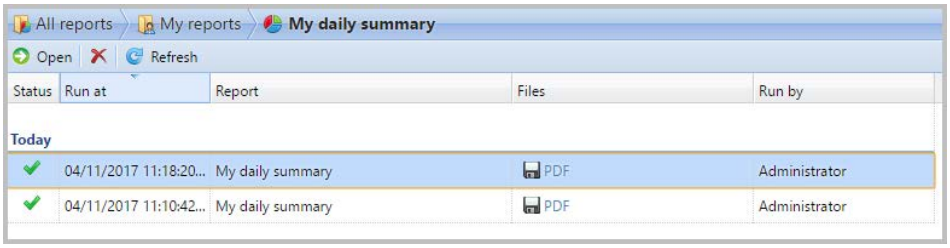
The filters and parameters that were used are displayed in the report file.



Viewing a saved report

1 Go to **Reports** and select a report from the list.

2 From the list of saved reports, select a report that you want to view and click **Open**.

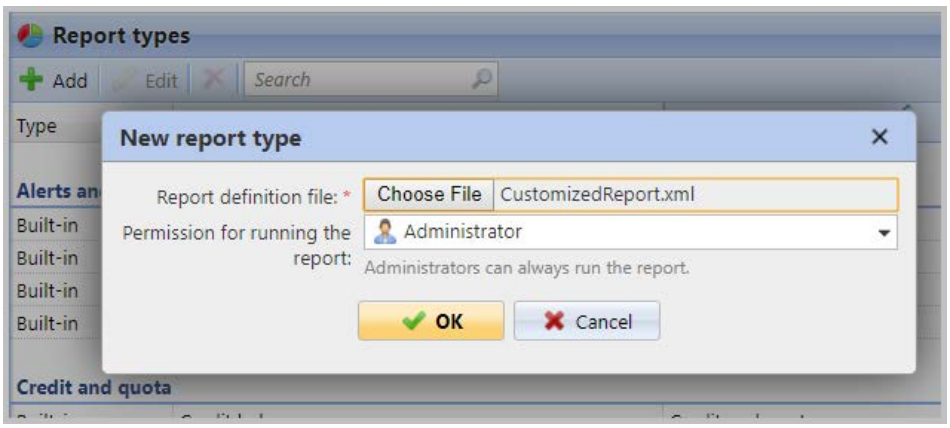


Generating a report

1. Go to **Reports**.
2. From the list of saved reports, select the report you want to generate and save, then click **Run**.

Adding customized report types

1. Go to **Settings** > **Reports**.
2. Click **+Add**.
3. Click **Choose File** and browse to the location of the .xml custom report file.
4. In the **Permission for running the report field**, select who can run the report and click **OK**.



Scheduling reports

You can schedule a report to run either during the creation of a new report, by editing a saved report, or from the **Task Scheduler**. To schedule a report from the main **Reports** screen:

1. On the **General** tab, under **Scheduled run**, click **Schedule**.
   The schedule options screen opens.
2. Set options on the schedule **General** tab and click **Save** before going to the other tabs.

   You must designate one or more recipients for the report or a “save to” file before continuing.

3. In the **Filters and parameters** tab, you can only review the options you set before running the report.

4 The **Rights** tab gives you another opportunity to configure access rights to this report.

5 You can change or remove the schedule for a saved report from either the **Task Scheduler** screen or the **Reports** screen.

Scheduling a report from the task scheduler

You can also start the entire report creation and schedule process directly from the **Task Scheduler**:

1 Click **New schedule**, then **Schedule report**.

The **Reports** tab opens.

2 Configure a new report and schedule it.

Deleting a scheduled report

1 Go to **Settings** > **Task Scheduler**.

2 Click a scheduled report.

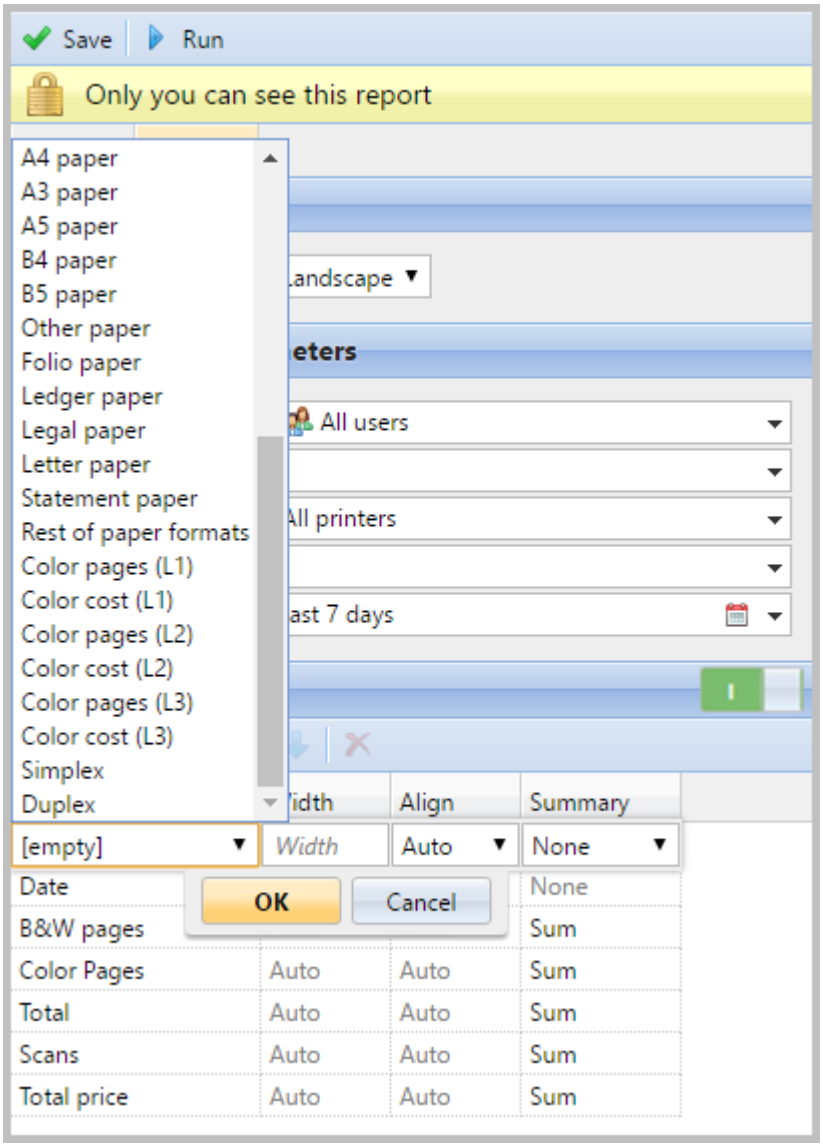
3 Click **Actions**, and then **Delete**.

You can also delete reports from the **Reports** screen.

Duplex and simplex counters support

You can view duplex and simplex counters by adding them to your report from the **Design** tab. Some printing devices will not display counters. These counters can be displayed in the following report types:

- Groups - Daily summary
- Groups - Day of week
- Groups - Monthly summary
- Printers - Daily summary
- Printers - Day of week
- Printers - Monthly summary
- Projects - Daily summary
- Projects - Day of week
- Projects - Monthly summary
- Users - Daily summary
- Users - Day of week
- Users - Monthly summary
- Users - Session details



Reports - Advanced SQL

You can perform advanced searches on some reports with the Advanced SQL option.

This filter is enabled in the config.ini file:

```
[ExtraFeatures]
enableReportSqlFilter=1
```

The following lists show supported reports and their corresponding database table name with the alias included in parentheses. The alias is used in the **Advanced SQL** field.

Printers - Daily summary, Printers - Day of the week, Users - Daily summary, Users - Day of week:

- V_TBLPAGECOUNTS (PC)

- TBLUSERS (U)
- TBLPRINTERS (P)
- TBLENTITIES (G)

Printers - Monthly summary:

- V_TBLPAGECOUNTS (PC)
- TBLPRINTERS (P)
- TBLENTITIES (G)

Users - Monthly summary:

- V_TBLPAGECOUNTS (PC)
- TBLGROUPS (GRPS)
- TBLUSERS (U)
- TBLPRINTERS (P)
- TBLENTITIES (G)

Parameters for each table can be found in the Firebird database table.

Administrators can create commands and queries with WHERE and HAVING clauses, or both combined with SQL-like conditions and "and/or" operators.

If neither WHERE or HAVING is specified, HAVING clause is assumed.

Some examples of SQL conditions and their meaning:

Conditions	SQL expression	Notes
more than 1000 pages printed	sum(pc.total_pages) > 1000	
less than 50 color pages printed	sum(pc.total_color) < 50	
exactly 500 B&W pages printed	sum(pc.total_mono) = 500	
printers with fax module	P.faxpresent = 1	Available only in the printers category report

Conditions can be combined using "and" and "or". For example, the following code shows only printers with fax modules that have printed 1000 pages or more, or at least 500 B&W pages:

WHERE P.faxpresent = 1

HAVING sum(pc.total_pages) > 1000 or sum(pc.total_mono) > 500

Using advanced SQL report filter

Here is an example of how to use the Advanced SQL Report Filter feature to select data shown in a report.

1 Open config.ini in a text editor and add these lines:

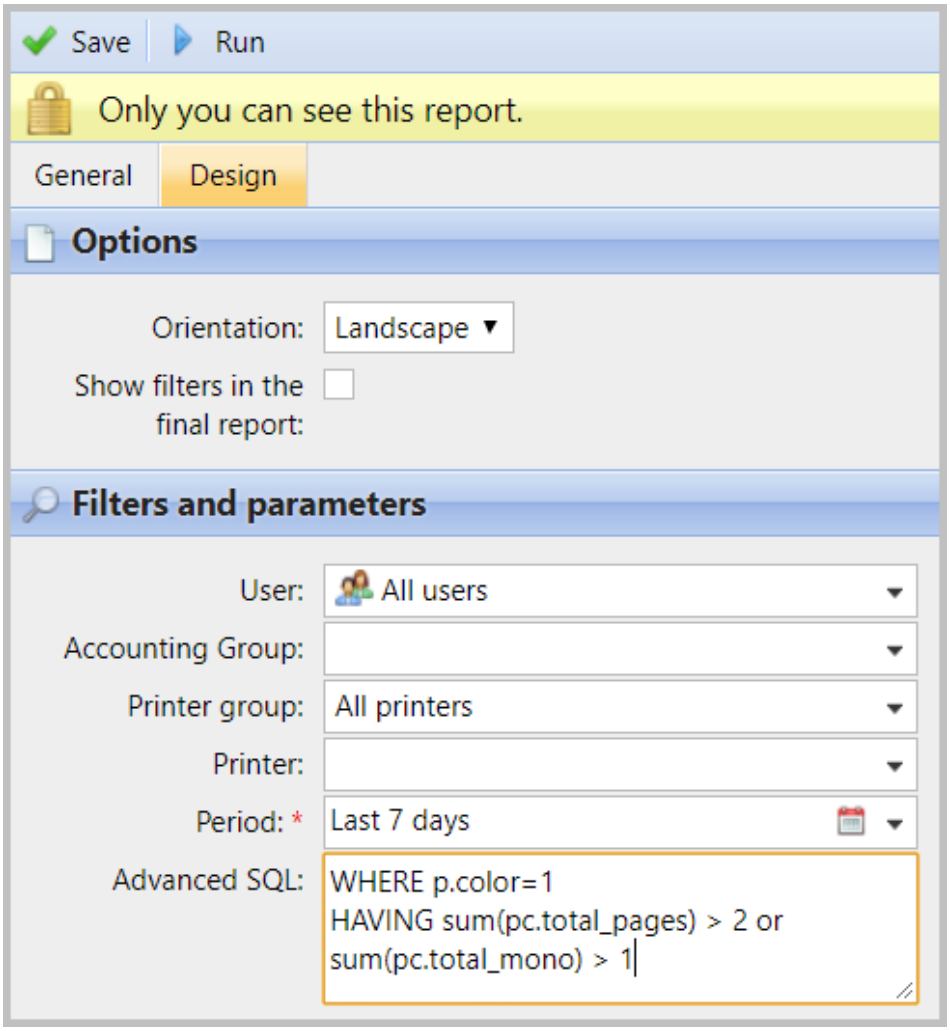
```
 [ExtraFeatures]
enableReportSqlFilter=1
```

2 Save the file, go to EasyConfig, and restart all KNM services.

3 Create a report of type **Printer - Daily Summary** and go to the **Design** tab.

4 Enter these commands into the **Advanced SQL** field:

```
WHERE p.color = 1
HAVING sum(pc.total_pages) > 2 or sum(pc.total_mono > 1
```



5 **Save** and **Run** the report.

The report will only show data for color devices with printed total pages greater than two or total B&W pages greater than one.

Reports - Limit results

The number of results retrieved for a report in a specified period can be limited. The limit applies to reports generated directly by Run or Preview. Scheduled reports are not limited.

To set or change the limit, go to **Settings** > **Reports**.

13 Scan Management

Net Manager automatically sends all scanned documents to the user's box or email. In this case, the Net Manager server works as a mail server. Through the SMTP protocol, Net Manager receives a job scanned from a device, checks which device it was sent from, finds the user currently logged on the sending device, and sends the job to the user's box or email.

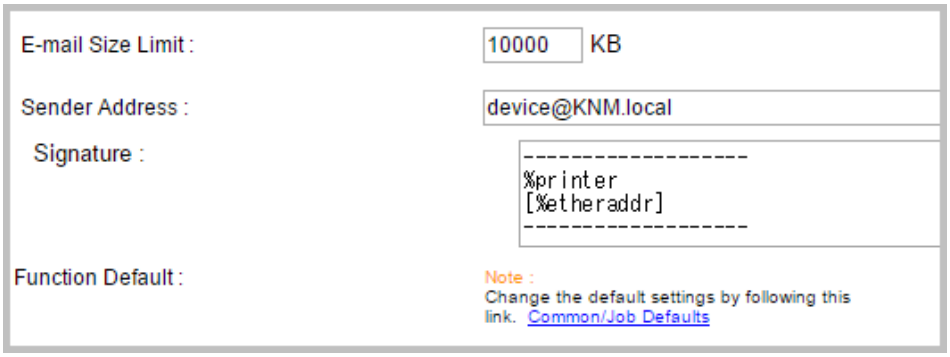
Setting up SMTP in the scanning device

To enable Scan Management, you must provide the address of the SMTP server on the scanning device.

1. In the web interface, open **Printers**. Printer IP addresses are listed on the screen.
2. Click the IP address of the printer. Click through any security certificate warnings.
3. Login to the printer as Admin, password: Admin.
4. Click **Function Settings** > **E-mail**.

   If **SMTP Protocol** is not set to **On**, click the **Protocol** link to enable it, then return to the **Function** > **E-mail** page.
5. For **SMTP Server Name**, type a hostname or the IP address of the SMTP server.

   We recommend that you use the address of the KNM server, but you may use your own SMTP server.
6. In **E-mail Send Settings**, type the sender's email. You may also set a size limit for out going email. If this value is set to 0, the size is unlimited.
7. Click **Save**.



If used, SMTP configuration is handled automatically by Remote Printer Setup.

Setting up the user account in Net Manager

To enable Scan Management, you must select the email or folder for the user account.

1. In the KNM web interface, go to **Users** and double-click the user name to open the user preferences.
2. Enter the user's email. If you would like to scan into a folder or use more than one email, enter the email or folder path in **User's scan storage**.
3. Click **Save**.

Scanning activation and settings

Scan Management is activated on the KNM web interface in **Settings** > **Printers** > **Scanning & OCR**. You can change the default email subject and message which Net Manager sends with the scanned document on the same tab.

Before using the Scan Management function, make sure that no other application is using the SMTP protocol (TCP port 25) on the Net Manager server. If this port is already used by another application, change the SMTP port in Net Manager.

For printer devices with an independent network module for scanning (with a different IP address from the print module), enter the IP address of the scanning module into the Scanner IP address in printer properties.

Scan management options

Scan into a folder

To scan into a folder, you must make the folder accessible via the network with the access rights for the server account. The SMTP settings for the device must be set in KNM. The scanned document is sent by the device via email to Net Manager, and then via the SMB protocol to the folder for the user account.

When your settings are completed, you can scan into the folder. Set the recipients address on the device, for example, **scan@knm.local**. This ensures that Net Manager will send the file to the folder based on the user's settings in KNM.

Scan to email

Before you can scan into an email, you must configure two settings: the SMTP server on the device and the email for the user. Use the address or hostname of the server on which KNM is installed.

To send the scanned document to a user's email account, use **email@knm.local** as the email address. This is a special command that sends the document to the user's email. Adding any other command (any other email) will send the document to the folder. If KNM receives an email from this recipient, it will be automatically sent to the email address saved in the user's settings (the user during whose session the scan was done).

To send scanned documents to one or more emails, separate the email addresses with a comma.

Scan to folder and email

You can scan to a folder and to an email in one operation. For example, you need to send the document to your colleague (test@test.com) but you also need to modify the document. To send to both the user's (test@test.com) folder and your email, type the following recipient addresses into the device during the scanning:

test@test.com

Manually added email address via device menu.

email@knm.local

Special command for sending the scan to the email address of the user logged in to the scanning device (the user email field in Net Manager).

any_user@knm.local

(for example, **scan@knm.local**) – The scan is sent to the destination indicated by the **User's scan storage** in Net Manager.

KNM automatically recognizes the functions and sends the document as you have specified.

Scan to email with an external SMTP server

Although it is not recommended, you may use an SMTP server other than the KNM server. The only requirement is to set the hostname or address of your SMTP server into the scanning device.

It is not possible to use the addresses **email@knm.local** and **any_user@knm.local** if you use an SMTP server other than KNM.

To scan the file to email, insert an email address into the menu of the device or use email addresses from the address book. If you are using your own SMTP server, then Net Manager cannot send the file to the folder. The only advantage of an external SMTP server is that in case of a KNM server failure it will be possible to use scan via a manually set recipient or to use the device address book without changing SMTP server in the device.

To set the Easy Scan to user email function, go to **Settings** > **Printers** > **Terminal Actions** > **Easy Scan email** and set **Enabled** to **On**.

KNM as FTP server

KNM accepts scanned jobs sent by FTP. When receiving a scanned job, KNM checks the source IP address and verifies that it is coming from a KNM device that has a user session at the moment. Once verified, the file is accepted and processed. If the job cannot be verified, the file is dropped.

This feature is not enabled by default.

Configuring KNM as an FTP server

Configuring KNM as an FTP server requires editing the config.ini file. This file is located in the KYOCERA Net Manager folder.

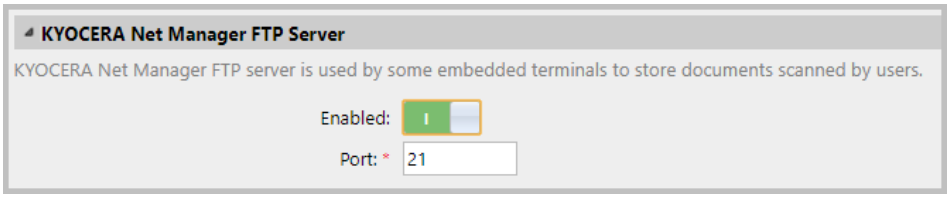
1. Open config.ini in a text editor and add these lines:

```
[ExtraFeatures]
useMyqFtpServer=1
```

2. Save the file and use EasyConfig to restart all services.
3. In KNM go to **Settings** > **Network**.

   The FTP server section displays.
4. Set **Enabled** to **On**.

   Do not change the default FTP port, 21, unless port 21 is being used by another service.



5. Log in on the device using Embedded Terminal and run Easy Scan. The FTP protocol will send the scan to the KNM server. You can confirm this in the KNM log files.

12/07/2017 4:29:30 P...	Info	General		Scan received (FTP)	
12/07/2017 4:29:30 P...	Debug	Plug-in	FTPServerPlugin	Scan jobs FTP session closed.	ftpserverservice.cpp (142)
12/07/2017 4:29:30 P...	Debug	Plug-in	FTPServerPlugin	Closing FTP session for receiving scan jobs.	ftpserverservice.cpp (137)
12/07/2017 4:29:29 P...	Debug	Plug-in	FTPServerPlugin	Scan jobs FTP session started.	ftpserverservice.cpp (133)
12/07/2017 4:29:29 P...	Debug	Plug-in	FTPServerPlugin	Starting FTP session for receiving scan jobs.	ftpserverservice.cpp (129)

Forwarding scanning error and status messages

To automatically send error and status messages with the Scan Management function, you must make sure that Net Manager forwards error and status message emails even if no user is logged in to the device.

Modify the recipient's address in printing device settings by adding a **myqfwd-** prefix to the address to which the messages are sent. The Net Manager server checks the recipient address, and if it contains a myqfwd- prefix, the prefix is deleted and the email is forwarded to the correct recipient address.

Example: Instead of username@knm.test, use myqfwd-username@knm.test.

Optical character recognition (OCR) connector

A standard scanned document is sent in a format that cannot be easily edited, such as .jpeg or .pdf. Optical character recognition enables conversion of the document format into an editable format such as .doc or .txt. The converted document is then sent to a users's folder or email, based on the settings in the user's account.

In order for OCR to function on the server (recognition server), OCR software must be installed.

OCR processing takes longer than a standard scan, depending on the speed of the OCR software and the amount of the text in the scanned file.

Installing KNM OCR software

The new KYOCERA Net Manager OCR (Optical Character Recognition) software turns PDF documents into machine-readable text.

KNM only supports the Tesseract engine. The ABBYY engine is not supported.

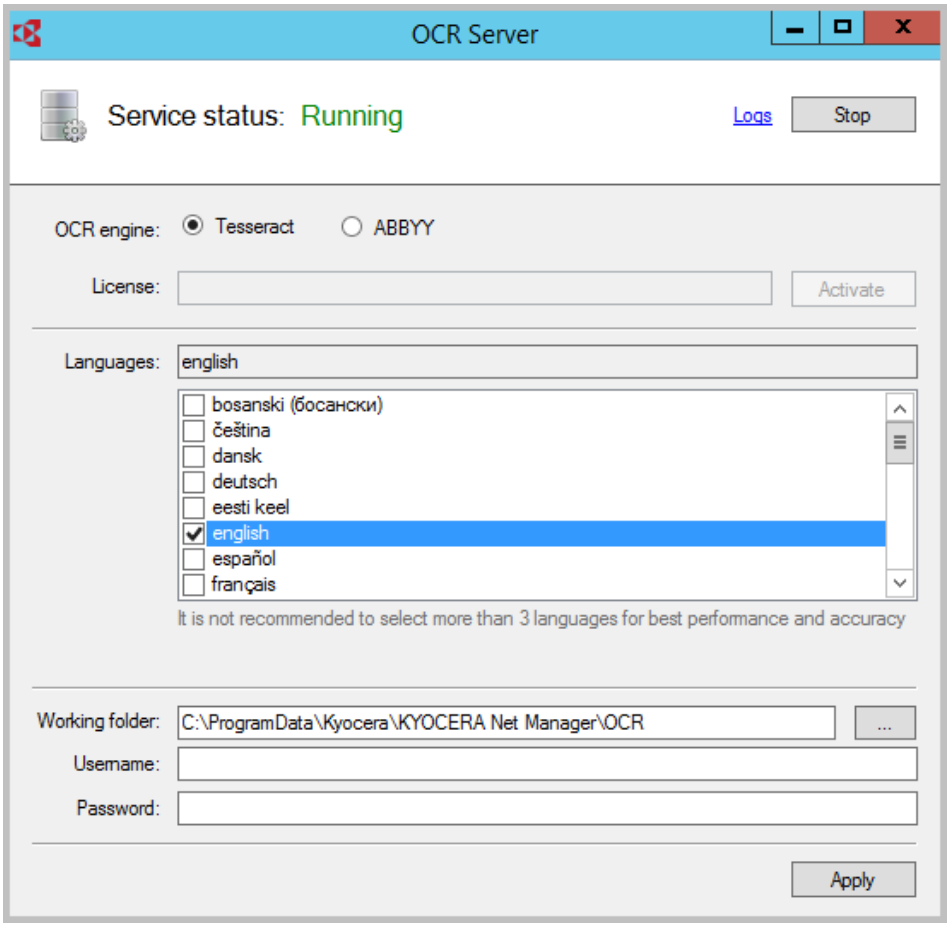
Requirements:

- Operating system: Windows 7 and newer / Windows Server 2008 (SP1-2, R2) and newer
- Required level of privileges: user with Administrator rights
- Memory for processing multi-page documents: minimum 1GB RAM, recommended 1.5 GB
- HDD space: 1.59 GB for installation

If possible, install OCR software on a separate server. Installation on the same server as KNM can impact software performance.

1 Double-click setup.exe to begin installation of KYOCERA OCR Server. Click **Install**.

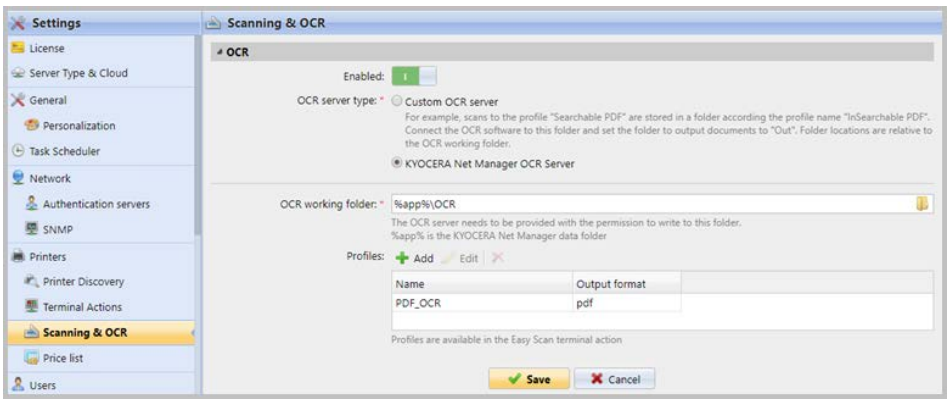
2 Select the languages that OCR Server should use and assign the working folder. The working folder location must match the setting in the OCR working folder in KNM. Click **Apply**.



KYOCERA OCR Server can be modified or uninstalled by running setup.exe again.

3 In KNM, go to **Settings** > **Printers** > **Scanning & OCR**.

4 Set OCR to **Enabled**. Set the OCR server type to **KYOCERA Net Manager OCR**. Set the OCR working folder. The default is %app%\OCR.



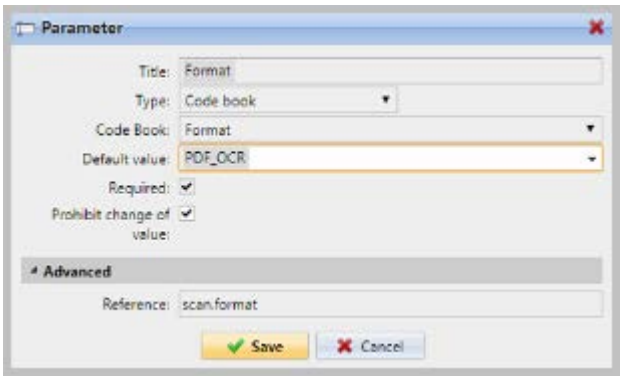
Do not change the OCR engine working folder.

5 Under Profiles click **+Add** and enter a name for the profile and the desired output format. In this case, we are using PDF_OCR as the profile name and pdf as the output format.

6 Go to Terminal Actions and select an Easy Scan terminal action. In this case, we are using **Easy Scan - Email**.

7 Select **Parameters** > **Format**.

8 For the Default value, select the profile you created. In this case, **PDF_OCR**.



9 Click **Save**.

OCR for devices with embedded terminals

Do not change the OCR engine working folder.

When a device is equipped with an Embedded Terminal, you must define OCR profiles in **Settings** > **Printers** > **Scanning & OCR**. Define a profile for each scanned

file format you would like to use. These profiles are then available as new formats for the Easy Scan function.

Next, prepare the folders. The folder names must be same as the names of the profiles you have set, such as \\OCR\OCRPDF\. Then you must set the OCR software to be listening on these folders and save the processed file to the out folder. The file is processed and then sent to the location set in the scanning profiles (email, folder, FTP, etc.).

When setting up the OCR software, make sure that the name of the processed file will not change. If the name is changed the file will not be recognized by Net Manager and will not be sent.

OCR for devices without embedded terminals

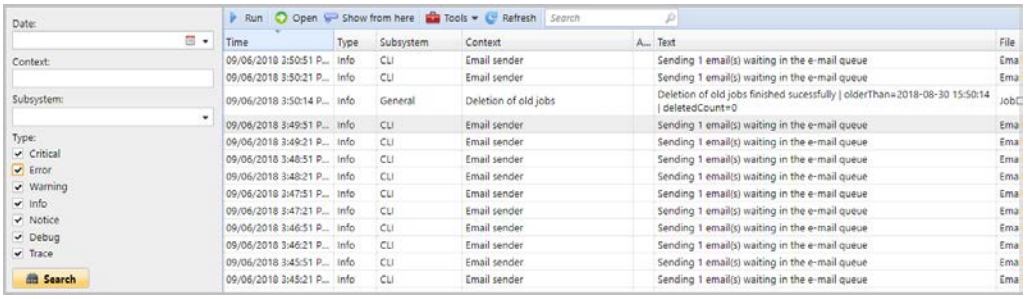
To use OCR for devices without embedded terminals, go to the **in** folder and make a folder named according to the intended outcome format (such as \\OCR\in\txt or \\OCR\in\doc). The outcome format will be chosen according to the folder. Then, set the OCR software to listen to the **in** folder to process all the incoming files. The processed files should be saved to the **out** folder.

The file comes to the predefined folder, is processed by the OCR software and sent to the shared folder or email (depends on the users setting). The ability to use OCR without an Embedded Terminal is available only for Net Manager Pro version of Net Manager.

To use OCR without an Embedded Terminal, the receiver address must be set as myqocr.folder@knm.local where folder is the name of the destination folder. For example, we would like to convert the file in the DOC folder. The folder is named DOC. The receiver address is myqocr.doc@knm.local.

When setting up the OCR software, make sure that the name of the processed file will not change. If the name is changed, the file will not be recognized by Net Manager and will not be sent.

14 System Log



The KYOCERA Net Manager web interface includes a log displaying all system events. The log enables you to quickly identify the cause of a malfunction, and you can monitor the operation and workload of the KNM system. Events in the log are classified into seven categories.

System log event types

Critical error

"Critical" appears in the type column when the disk storage is almost full.

Error messages

Communication errors are shown in the spooler / server / printer / terminal connection. If you get frequent error messages, contact KNM support.

Examples of Error messages:

- Network connection interrupted unexpectedly
- Windows error message (Windows sockets error code)
- Unable to read the source data of the print job
- KNM terminal not responding
- SNMP protocol communication error

Warning messages

Warning messages can be generated by any of the following conditions:

- Non-standard status of print job / user / terminal / print device
- Unknown user or print queue
- Print queue full (print queue capacity overrun)
- Unsupported print device
- Access to print queue not allowed for the user
- KNM terminal not associated with any print device
- ID card / PIN not associated with any user
- Inactive user

- License condition violation

Info messages

Info messages show KNM server activity. These messages are informational and do not require action.

Examples of Info messages:

- KNM service stop / start
- Print job received / processed / sent to printer
- KNM terminal discovered / configured / ready
- User session started / finished

Notice messages

Notices include information about internal processes and details about user sessions. These messages do not require any action.

Examples of Notice messages:

- Communication with print spooler started
- Receiving print jobs
- Status of user session changed to copying / accounting
- KNM terminal read the ID card / PIN
- Unauthorized print / copy / scan detected
- User session accounting information

Debug messages

These are messages that will help when troubleshooting system problems. A larger number of debug messages is generated if **Log debug level messages** is checked in **Settings** > **General** > **Log**.

Trace

Trace displays specific debug information. These logs are mainly used by developers.

Viewing system status

1. Click **Log** (either from Quick Links or the KYOCERA menu.)

   The log page displays only the first 100 items. It is not necessary to refresh the page; new events appear at the top.

2. Click **Run** to pause auto-refresh while the system continues to log events; click **Run** again to restart auto-refresh.

3. Select an event and click **Open** to view details.

4. Click **Show from here** to display only messages newer than the one selected.

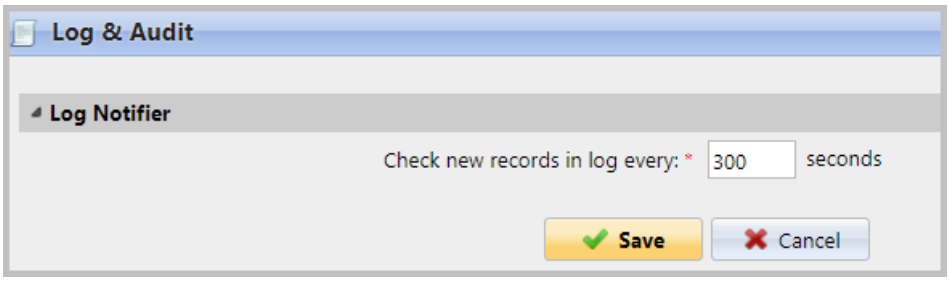
Enable log event notifications

The Log Notifier sends emails about new log messages based on defined rules. The log events can be sent to only the Administrator or to any number of users. The Log Events Notifier is launched 10 seconds after KNM starts and after that adjusts its run period based on the Log Notifier settings.

Creating Log Notifier rules

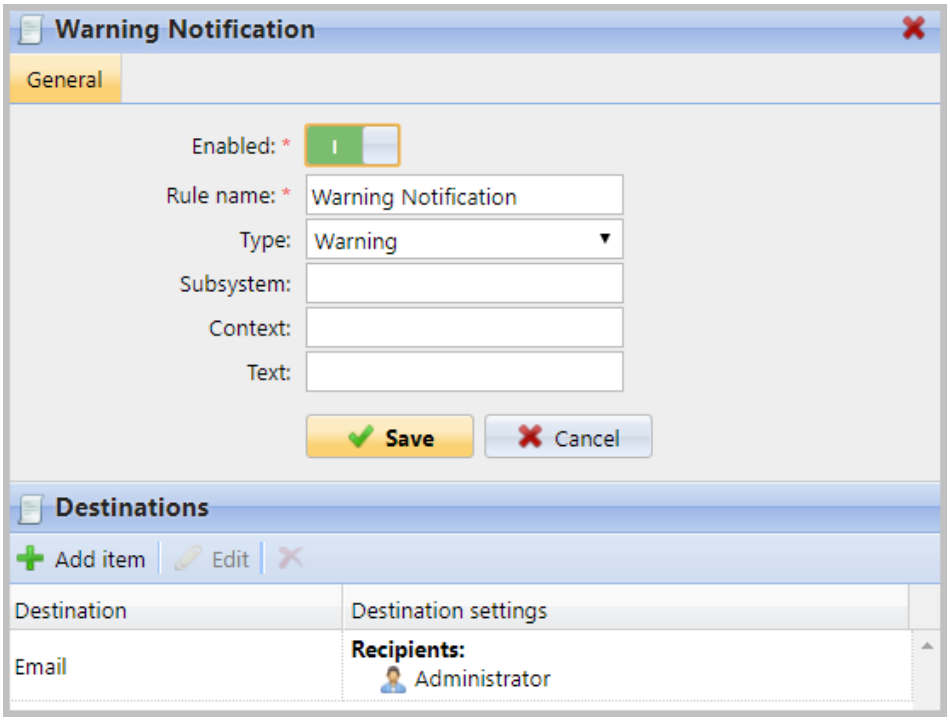
1 Go to **Settings** > **Log & Audit**.

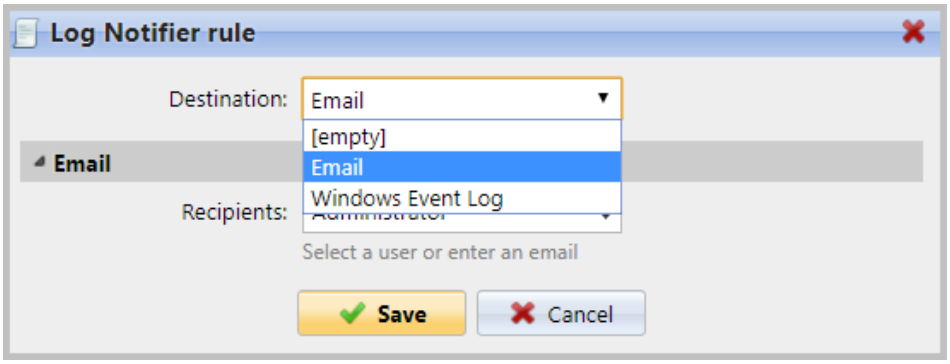
The default setting for checking the log is 300 seconds..



2 Under **Log Notifier rules**, click **+ Add item**.

3 Enter settings for the new rule.

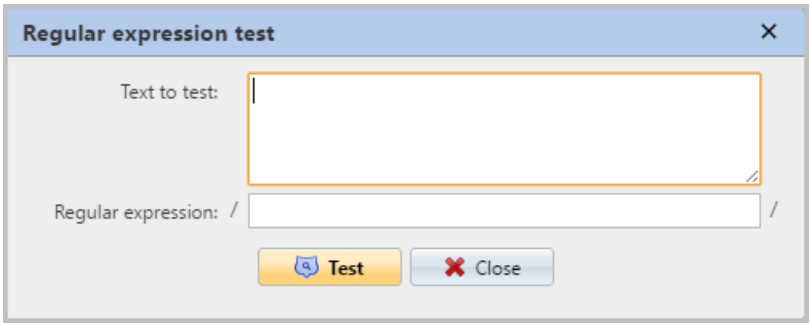




Enabled (required)	Enable or disable the rule.
Rule name (required)	Displayed in the email to identify the rule. Maximum 128 characters.
Type (drop-down selection)	• Empty = all types • Info • Warning • Error • Notice • Debug • Critical

Subsystem	Sets subsystem for closer specification of the rule. Defined using regular expression, maximum 2048 characters.
Context	Sets context for closer specification of the rule. Defined using regular expression, maximum 2048 characters.
Text	Sets text for closer inspection of the rule. Defined using regular expression, maximum 2048 characters
Destinations	• Choose **Email** or **Windows Event Log** • For **Email**, select from drop-down list of email addresses or type custom email addresses

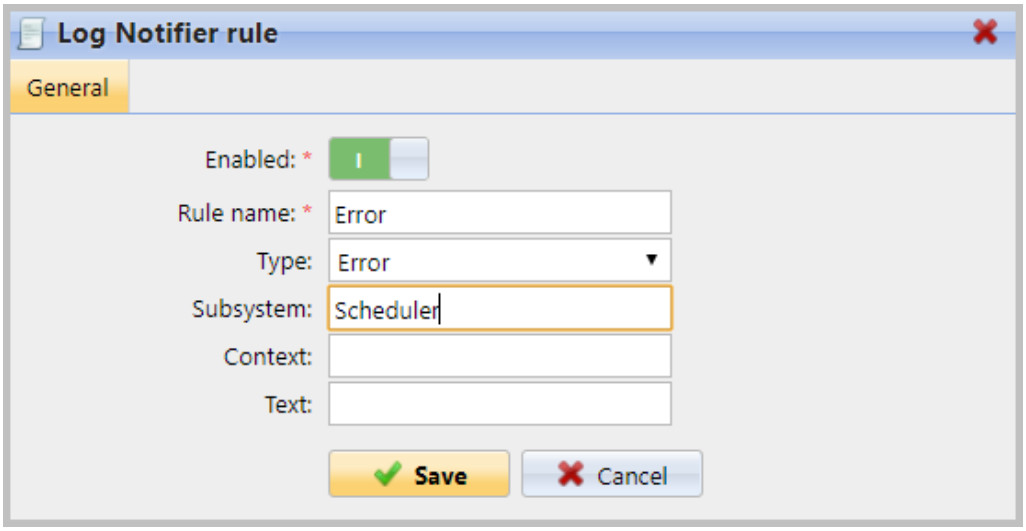
4 If using a regular expression as part of the rule, click **Regular expression test** and define the rule. Maximum of 3072 characters.



5 After defining the rule, click **Test** to see the result of the expression.

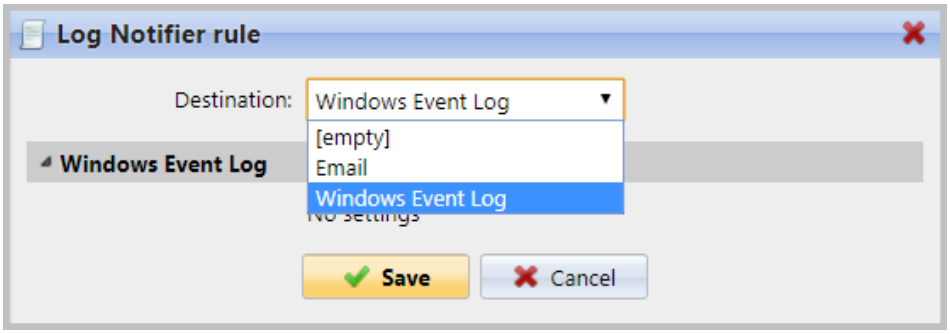
6 Click **Close**.

Log messages in Windows Event Viewer



You can setup Log Notifier rules in Net Manager so you can view filtered log messages in the Windows Application Log. You can access this log in the Windows Event Viewer.

1. In **Settings** > **Log & Audit**, click **+ Add item** under **Log Notifier rules**.
2. In **General**, set **Enabled** to **On** and add the required information including Rule name, Type, Subsystem, Context, and Text.
3. In **Destination**, click **+ Add item**.
4. In the **Destination** drop-down, select **Windows Event Log**.



5. Click **Save**.

Filtered logs are sent to the Windows Event Log under Windows Logs > Application.

Searching the log

1. Click **Log**, either from **Quick Links** or the logo menu.
2. Enter text that would appear in the **Context** column for filtering events.

3 Select from the **Subsystem** drop-down menu to view messages for a specific area of concern

4 Use check boxes to filter by message types.

5 To add a date or date range.
   a) Click **Run** to pause auto-refreshing events.
   b) Select a **Date** or date range to search.

6 Click **Search**.

   The filtered results are displayed.

7 Click **Run** again to clear the date filter and return to auto-refresh and reset other filters manually. Or, close and reopen the log to return to default settings.

Audit logs

The audit log contains all changes made to settings and objects in KNM. The log tracks server settings and objects including user properties, groups, and queues. It also tracks Server Settings under the Settings menu for the following: General, Network, Printers, Jobs, Credit, Quota, Projects, Reports, External Systems, Log & Audit, System Management, and External Code Books.

The audit log is enabled by default and can be opened in **KYOCERA** > **Log** > **Audit Log**. The log can be viewed by Administrators, and users can be granted permission to view audit logs under **Settings** > **Users** > **Rights** > **View log**.

The audit log is included in the database backup file when you use database and settings backup.

Accessing and searching the audit log

The audit log is viewable at **KYOCERA** > **Audit Log**.

Open Refresh Search

Time	Type	Description	Context	User	Subsystem
09/08/2017 4:40:08 PM	+	User user10 was created.		Administrator • *admin	CLI
09/08/2017 4:40:08 PM	+	User user9 was created.		Administrator • *admin	CLI
09/08/2017 4:40:08 PM	+	User user8 was created.		Administrator • *admin	CLI
09/08/2017 4:40:08 PM	+	User user7 was created.		Administrator • *admin	CLI
09/08/2017 4:40:08 PM	+	User user6 was created.		Administrator • *admin	CLI
09/08/2017 4:40:08 PM	+	User user5 was created.		Administrator • *admin	CLI
09/08/2017 4:40:08 PM	+	User user4 was created.		Administrator • *admin	CLI
09/08/2017 4:40:08 PM	+	User user3 was created.		Administrator • *admin	CLI
09/08/2017 4:40:08 PM	+	User user2 was created.		Administrator • *admin	CLI
09/08/2017 4:40:08 PM	+	User user1 was created.		Administrator • *admin	CLI
09/08/2017 4:32:33 PM		Settings were changed.		Administrator • *admin	WebUI
09/08/2017 4:31:14 PM		Settings were changed.		Administrator • *admin	WebUI
09/08/2017 11:28:52 AM		Settings were changed.		Administrator • *admin	CLI
09/08/2017 11:28:51 AM		Group All users was edited.		Administrator • *admin	CLI
09/08/2017 11:28:50 AM		User Unknown user was edited.		Administrator • *admin	CLI
09/08/2017 7:29:05 AM		Settings were changed.		Administrator • *admin	WebUI
09/08/2017 3:16:28 AM		User 1 was edited.		Administrator • *admin	WebUI
09/08/2017 3:16:20 AM		Settings were changed.		Administrator • *admin	WebUI
09/08/2017 3:13:18 AM	+	Addition: Queue DQ		Administrator • *admin	WebUI
09/08/2017 3:13:02 AM	+	Card/PIN **** was added to user 1.	1	Administrator • *admin	WebUI
09/08/2017 3:13:02 AM	+	User 1 was created.		Administrator • *admin	WebUI
09/08/2017 3:12:09 AM		Settings were changed.		Administrator • *admin	WebUI
09/08/2017 3:12:09 AM		User Administrator was edited.		Administrator • *admin	WebUI
09/08/2017 3:11:52 AM		Settings were changed.		Administrator • *admin	WebUI
09/08/2017 3:11:13 AM		Settings were changed.		Administrator • *admin	WebUI

Count: 54 1 / 1 Items per page: 1000

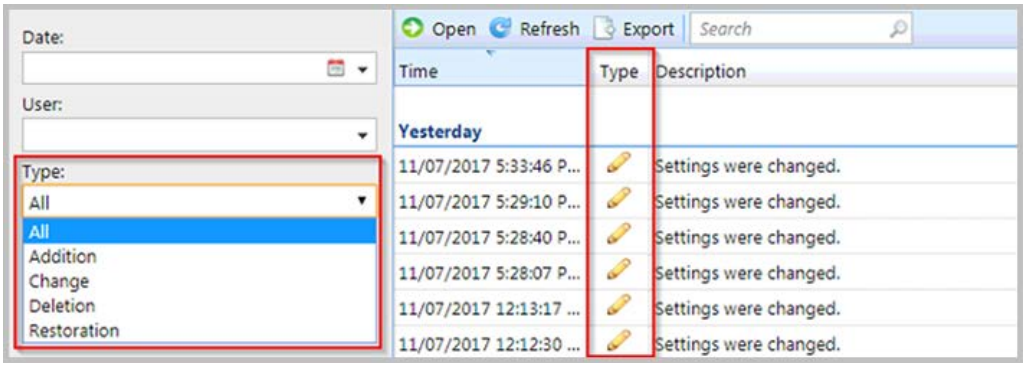
The audit log table can be searched by using the search box.

Log entries can be sorted by columns: Time, Context, User, and Subsystem.

There is a filter for the Type column that allows an audit log to be filtered according to the type of operation.

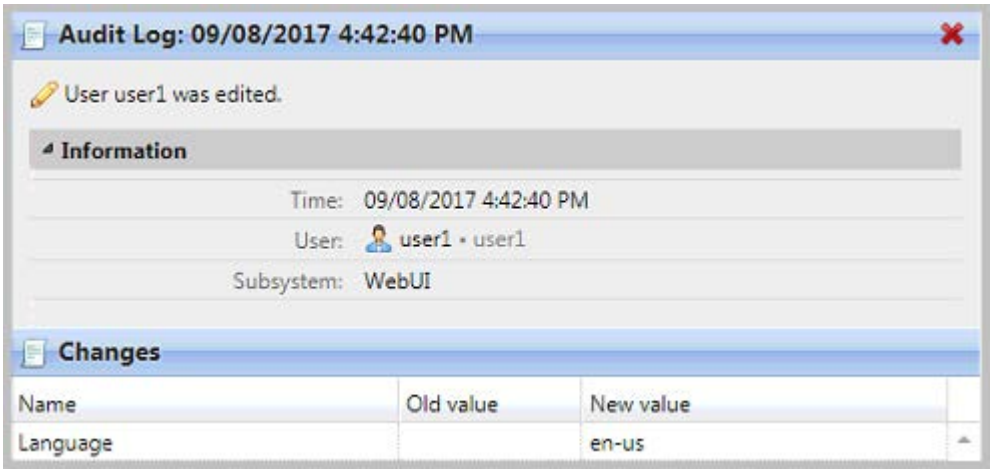
Operation types are:

- All
- Addition
- Change
- Deletion
- Restoration



The Audit log table can be filtered by Date and User, sorted by Time column, searched by Search box and expanded by increasing the number of Items per page.

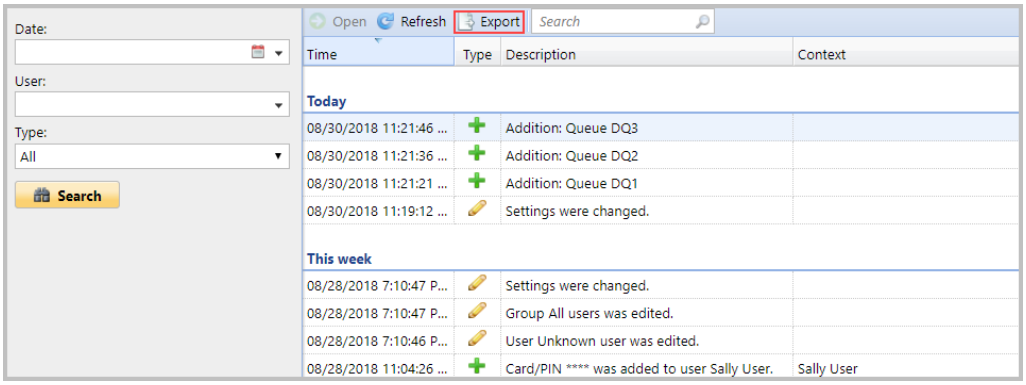
To view details about a log entry, select an item and click **Open** or double-click an item in the log. The Audit log details screen shows a timestamp, an Information section, and a Changes section.



Audit log - export to .csv file

Export to .csv file is supported for Audit Log.

Go to **KYOCERA** > **Audit Log** and click **Export**.



The .csv file is saved in the destination folder of the browser.

15 Accounting

Price Lists

On the **Settings** > **Price list** tab, you can create price lists and assign them to printing devices. Price lists are used to apply a cost for each printing operation and leverage KNM accounting features such as credit accounting and quotas.

Adding price lists

1. Go to **Settings** > **Printers** > **Price list**.
2. On the **Price list** settings tab, click **+New price list**. The new price list properties panel opens.
3. On the panel, enter the price list name, set up the price list, and click **Save**.

To edit an existing price list, double-click the name of a price list to open the properties panel.

Price list settings

On the Price list properties panel, there are tabs for:

General	Create all price settings on the General tab. Under the **General** tab there are two sub-tabs: • User - set prices for all users • Administrator - set prices that apply only to Administrators
Printers	Used to assign the price list to selected printing devices.

Price entries are divided into 5 main areas:

Print	Set the price per printed page for B&W and full-color printing. Some printing devices allow pricing by coverage of paper. You can set prices for three levels of coverage: Low, Medium and High.
Copy	Set the price per copied page for B&W, full-color and single color copying. Some printing devices allow pricing by coverage of paper. You can set prices for three levels of coverage: Low, Medium and High.

Scan	Set the price per scanned page.
Paper format	Set the prices for different paper formats.
Fax	Set the price per printed fax page.

The price entry options on both **User** and **Administrator** tabs are the same.

Some printing devices lack the counters necessary to obtain information about some parameters, for example information about the size of paper. These parameters are not counted in the final price of jobs that are printed on these machines.

Whenever the price list is updated and saved a new price list is created. Pages printed with the previous version of the price list are counted according to the old settings.

Attaching price lists to printing devices

1. Double-click a price list.

   The price list properties panel opens.
2. Click **Printers**.
3. In the **Print** tab, click **+Add**.
4. In the **Select printer** dialog box, select the printer to which you want to attach the price list, and then click **OK**.

   The printer displays on the printing devices list on the **Printers** tab.

   You cannot associate more than one price list to a printing device. If you add a price list to a printing device that already has a price list, the existing price list is replaced by the new one.

Attaching price lists to printing devices from the Printers tab

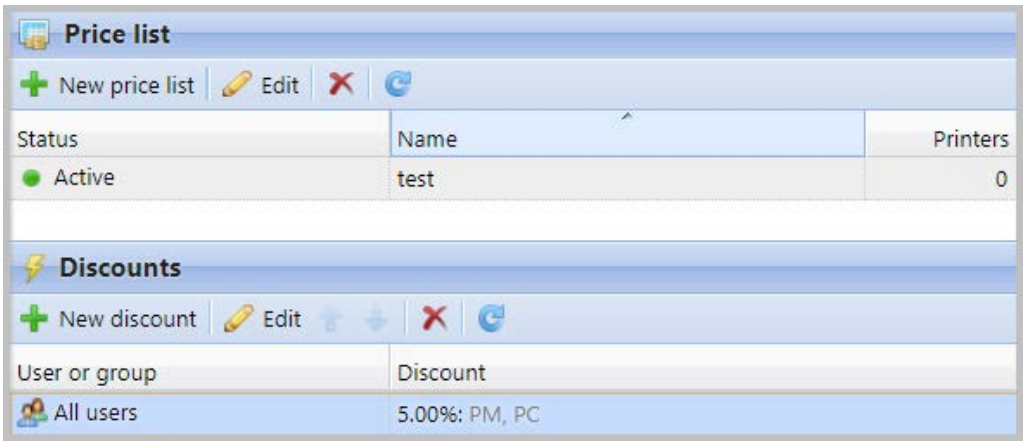
Another way of attaching price lists to printing devices is to select one or more printing devices on the list of printing devices on the **Printers** tab and attach the price list to the selection.

1. On the list of printing devices on the **Printers** tab, select printing devices and click **Actions**.
2. In the drop-down box, click **Set price list in bulk**.

   The **Set price list in bulk** dialog box displays.
3. In the dialog box, select the price list that you want to attach to the printing devices, and click **OK**.

You can see the price list under **General - Price list** on the printing device properties panel of any of the selected printers.

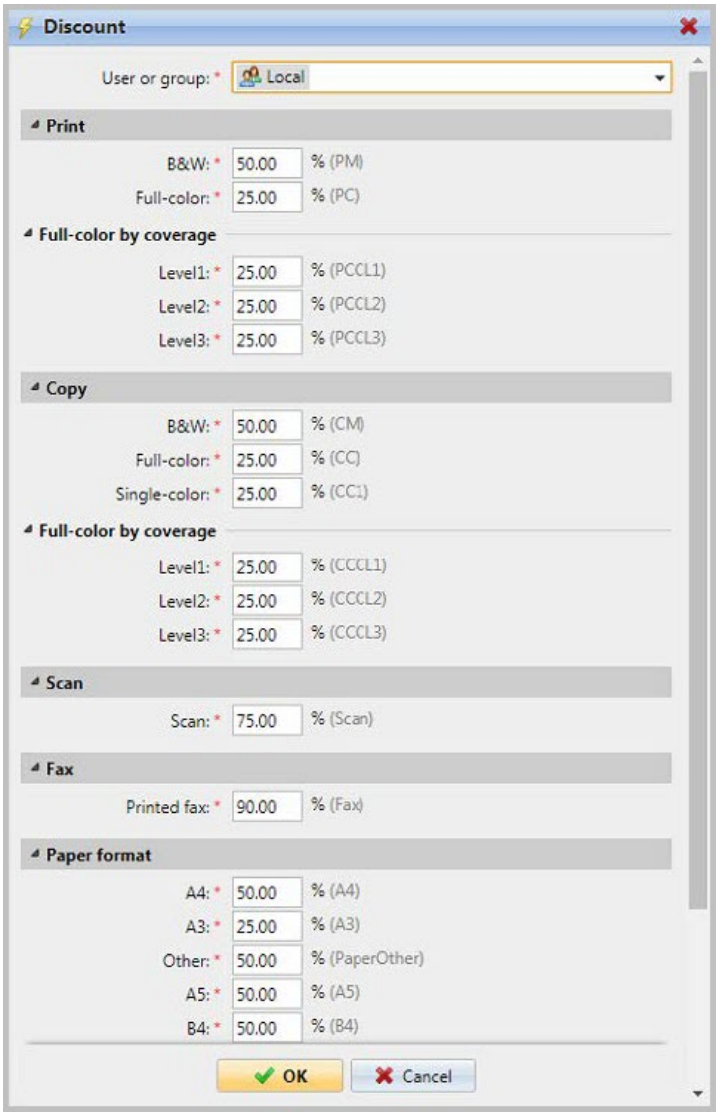
Price list discounts for users or groups



Administrators can apply price list discounts for users and groups. The percentage discount is applied to the original price. The discounts range from 0 to 100 percent and are applied to the prices established in the original price list. Each item in the price list can be assigned a different discount. Discounts can be applied to users and groups in KNM.

Creating price list discounts for users

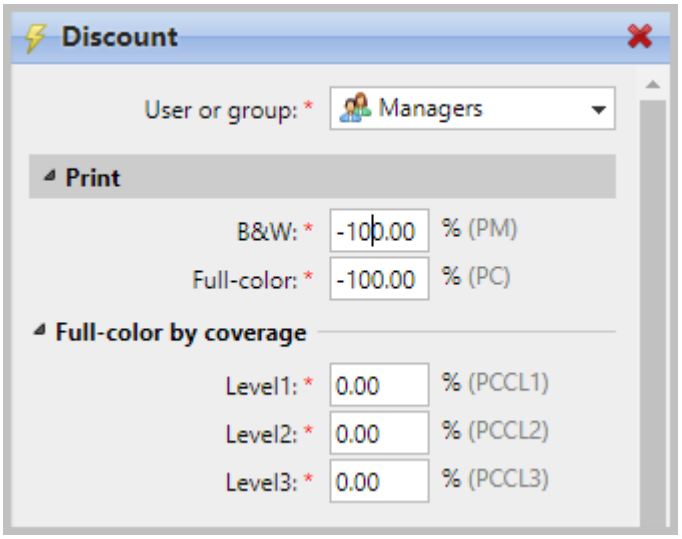
1. In **Settings** > **Printers** > **Price list**, create a price list and assign it to the desired printers.
2. Click **+ New discount**.
3. In **User or group**, select the recipients of the discount.
4. Add percentage discounts for each item in the price list.
5. Click **OK**.



Increasing user costs with a negative discount

User costs are increased by applying a negative discount. Applying a negative discount makes the price higher than the original price. The negative discount goes from -1000% to 0%.

In this example, the price per B&W and color page is doubled by setting a -100% discount for the user group.



Credit

Credit accounting provides a payment mechanism for printing, scanning, and copying by users or groups. With credit activated, a user must have a credit balance associated with their account to print, scan, or copy.

Users can manage their credit on the web user interface and on embedded terminals. If the printing device is equipped with an Embedded Terminal or a reader with an LCD display, logged users can see the status of their credit and can select jobs that do not exceed available credit.

Users can recharge credit on the KNM web interface, on embedded terminals, and on recharging terminals. Recharge options include: vouchers, PayPal, import from a bank statement (GPC format), import from a .csv file, and third-party external accounts integrated with KNM. The credit system can be restricted to selected users and groups.

Activating and configuring credit accounting

1. Go to **Settings** > **Users** > **Credit**.
2. To enable credit accounting click the **Enabled** switch to **On** and click **Save**.
3. To configure credit for a user or group of users, click **+Add item**
   A new item displays on the list of users and groups.
4. Select a user or group from the **Name** selection.
   You can add multiple individual users or groups.
5. Select the account **Type**.
   There are three types of accounts:
   - **Internal account** is part of the KNM database. This is the most commonly and widely used option.

- **External account** is used for connecting to third-party accounting systems.
- **Managed by the printer** is used with external payment services.

For more information about the **External account** or **Managed by the printer** payment types, contact KNM support.

6 Set the **Minimum balance**. Users cannot print, copy or scan if their credit is below this number.

7 If you selected **External account** type, select the payment provider.

8 To enable any of the options under **Credit recharge** in the **Payment providers** section, select **Internal account** in the Users and Groups section and click **OK**, then enable recharge types by right-clicking a type and selecting **Enabled**.

Recharge Credit

The Administrator and users the Recharge credit right assigned can manually recharge credit for users in the KNM system. The credit can be recharged on two tabs of the KNM web interface: the **Credit Statement** tab and the **Users** tab. On each of the two tabs, credit can be recharged either to selected users (one or more users), or to selected groups of users (one or more groups).

Reduce a user's credit by entering a negative number in the **Recharge Credit** dialog box.

By default, the only person who can recharge credit is the Administrator. However, the Administrator can provide KNM users with rights to recharge credit from the web user interface.

- With the **Recharge credit** right, users can recharge credit on the **Credit Statement** tab.
- A user with both the **Manage users** and **Recharge credit** rights can access the **Users** tab and recharge credit there.

Recharging credit on the Credit Statement tab

1 Go **KYOCERA** > **Credit Statement**.

2 Click **Recharge Credit**.

3 For a card: If the computer at the recharging point is equipped with USB card reader, swipe the card. The system detects the appropriate user.

4 If there is no USB card reader available or if you are recharging credit for a group of users, select the user or group from the Select user or group list. Users without credit accounting are not displayed in the list.

5 Enter the recharging amount and click **Recharge Credit**. A message with information about the user (or group) and the amount displays.

Recharging credit on the Users tab

1 Select users or a group on the **Users** tab.

2 Click **Actions**, and click **Recharge credit**.

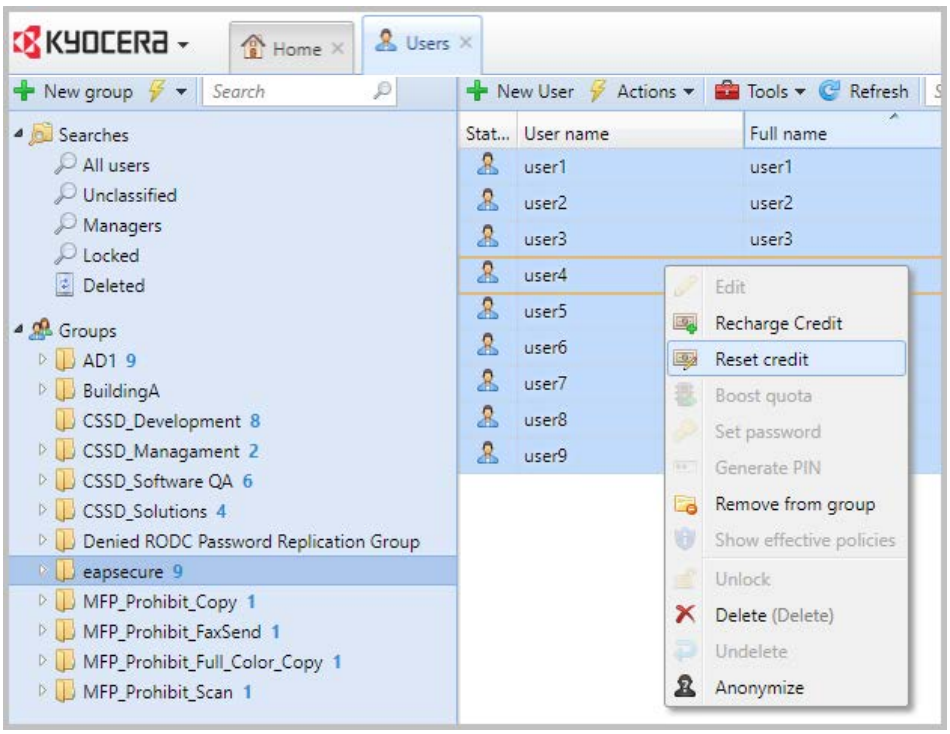
3 Enter an amount, and click **OK**.

Resetting User Accounts Credit Amount

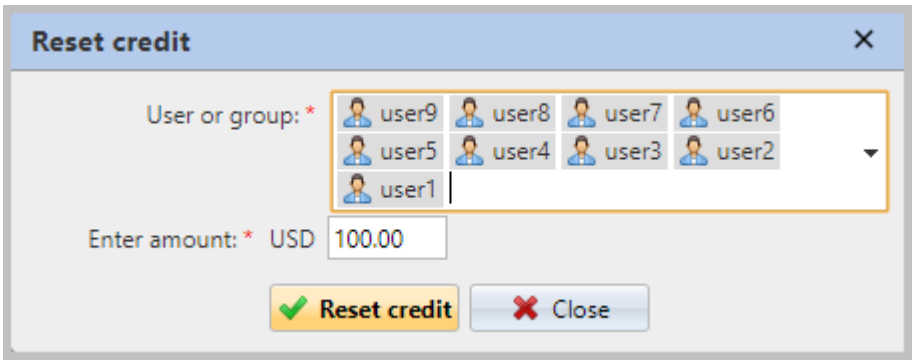
The Administrator can reset user account credit amounts for one or more users or groups. This action replaces whatever credit balance the user has.

1 Go to **Users** and select one or more users or groups.

2 Right-click **Actions** > **Reset credit**.



3 Enter the amount of credit. Click **Reset credit**.



Credit vouchers

The most common way to recharge user credit is with credit vouchers. The Net Manager Administrator or any other authorized user can generate and print vouchers, defining the number of vouchers and the value of each. Vouchers can then be sold to Net Manager users through any standard distribution channel.

After buying a credit voucher, the user can log into the web interface, enter the voucher code and recharge the credit balance.

All generated and used vouchers are logged in the Net Manager database. The Administrator can see which voucher was used for which user, to insure against possible misuse of vouchers.

Defining voucher format

Before generating vouchers, define the format of the voucher code or serial number and the message printed on each voucher.

1 Go to **Settings** > **Users** > **Credit**.

2 Double-click the **Voucher** line under **Payment providers** > **Credit recharge**.

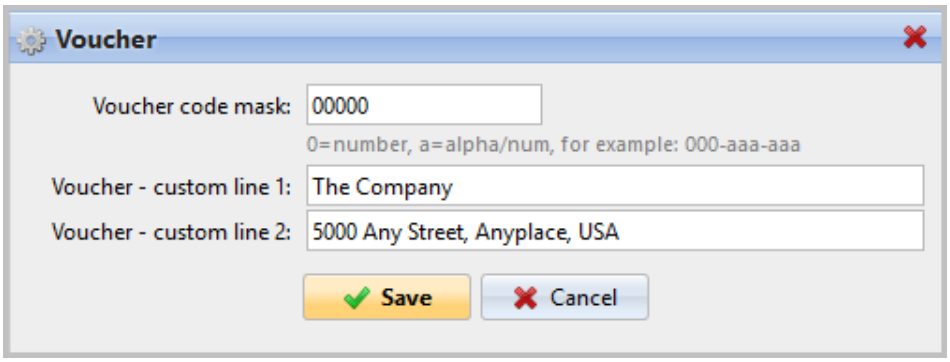
3 Enter the voucher code mask.

Net Manager generates a unique code for each voucher using the format (mask) set here. The mask uses '0' for random numbers and 'a' for random alpha/numeric characters. Some examples:

Mask	Voucher
00000	56439, 94617, 11344
000-aaa	253-JPC, 427-31L, 483-7EK
aaa-00000-aaa	NPF-07961-8P0, K6L-41584-UG3, HP2-65511-0ZI

Configure a code format that will support the number of users and voucher generation frequency without running out of codes.

4 If you want a custom message to be printed on the vouchers, enter text in the Voucher - custom line fields.



For information on adding a custom logo to vouchers, see "Adding a custom logo to reports and vouchers."

5 Click **Save**.

6 Do not forget to set the currency on the **Settings** > **General** page. Currency printed on vouchers is based on that setting.

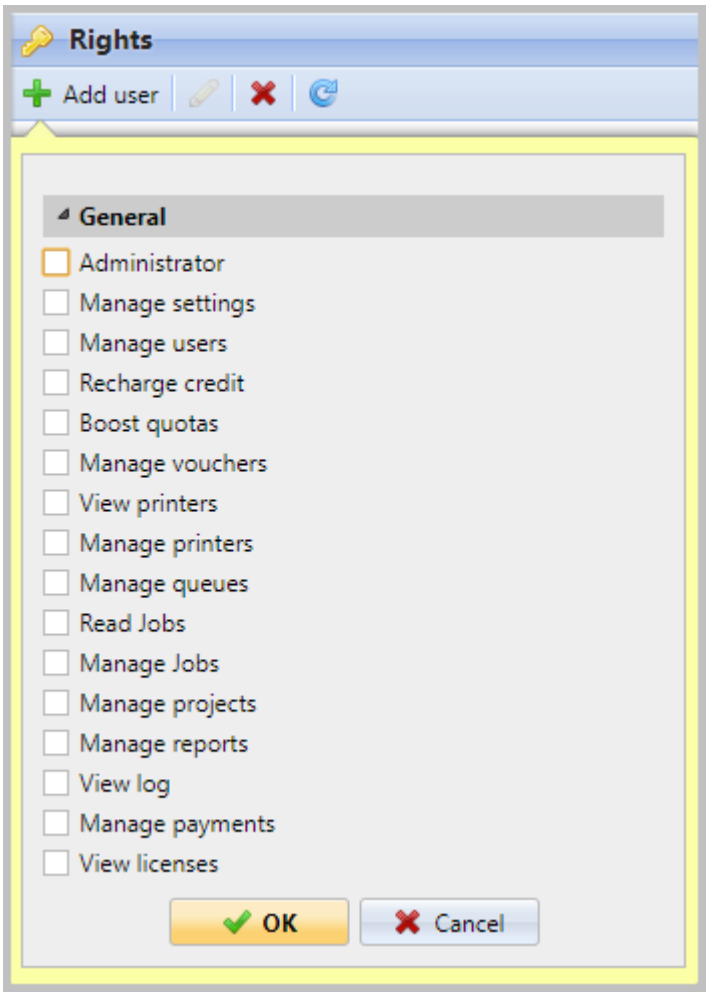
Setting rights for managing vouchers

Administrators can grant the **Manage vouchers** right to users or groups. With this right, a user will see Voucher Batches on their KNM menu and be able to generate voucher batches.

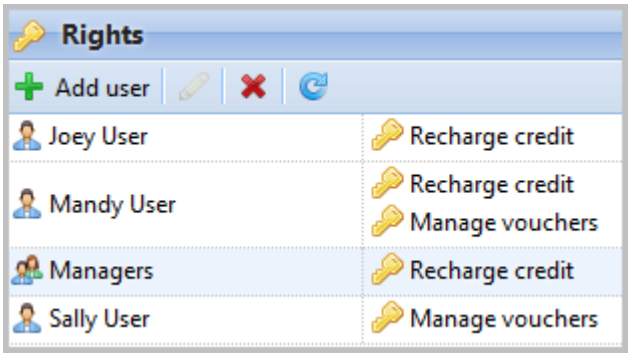
1 Go to **Settings** > **Users** > **Rights**.

2 Click **Add user**, select a user or group, and click **OK**.

3 Use check boxes to set rights for the user or group and click **OK**.



Users and groups are displayed with assigned rights.

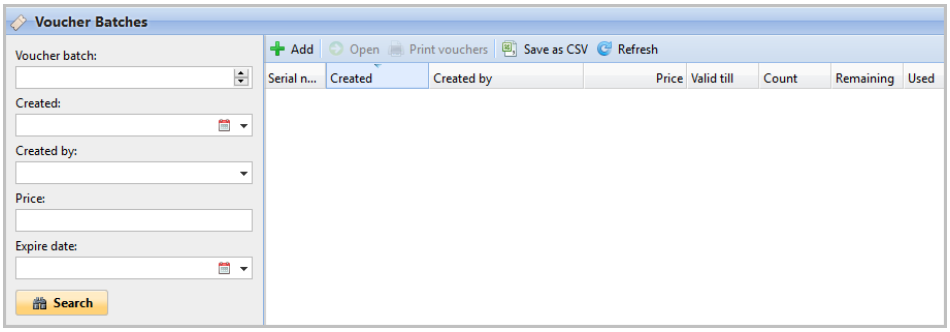


4 To remove user or group rights, select from the list and click **Delete**.

5 To change user or group rights, select from the list and click the edit icon.

Generating new vouchers

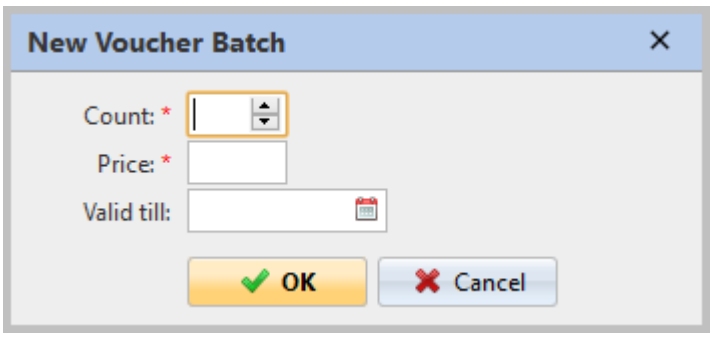
1 Go to **KYOCERA** > **Voucher Batches**.



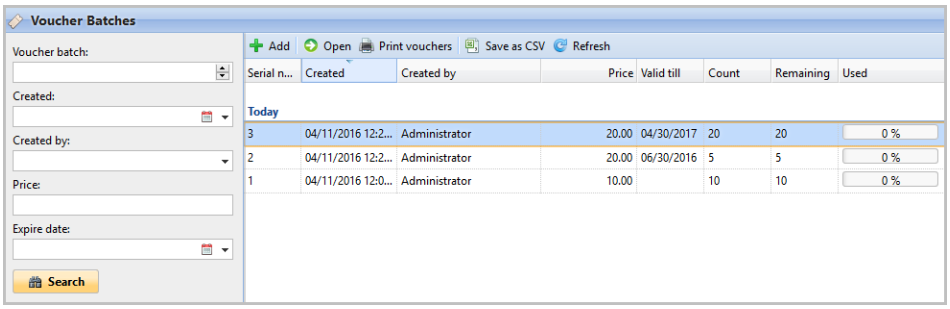
2 Click **+Add**.

3 Type the number of vouchers to generate and the amount of credit per voucher.

You can specify an expiration date for the voucher. An expired voucher cannot be used.



4 After entering all parameters, click **OK**.



The new voucher batch is added to the list.

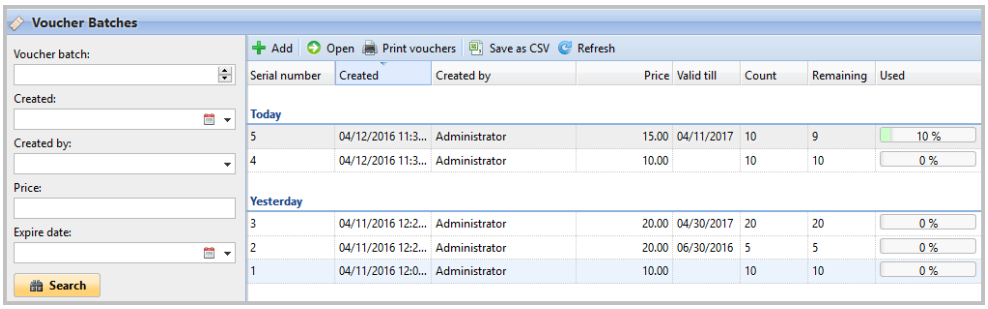
Managing, printing and exporting vouchers

From the **Voucher Batches** tab, you can see all voucher batch records.

You can filter the list of batches by selecting filters for:

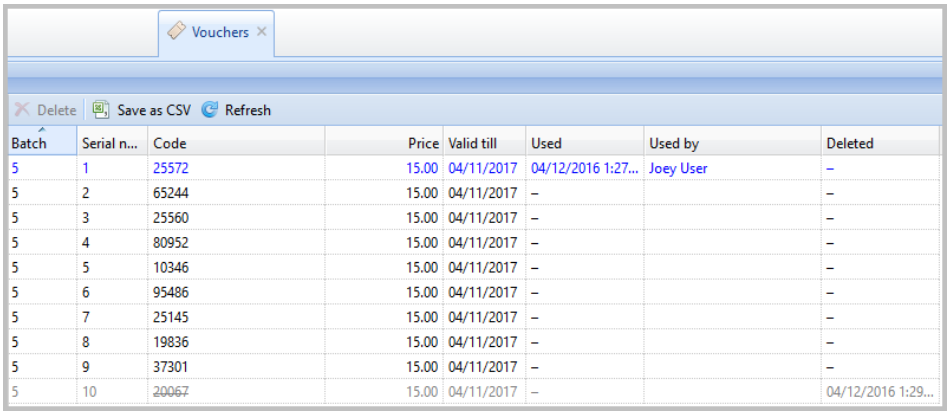
- Voucher batch (serial number)

- Created date
- Created by
- Price
- Expire date



1 Select a batch from the list.

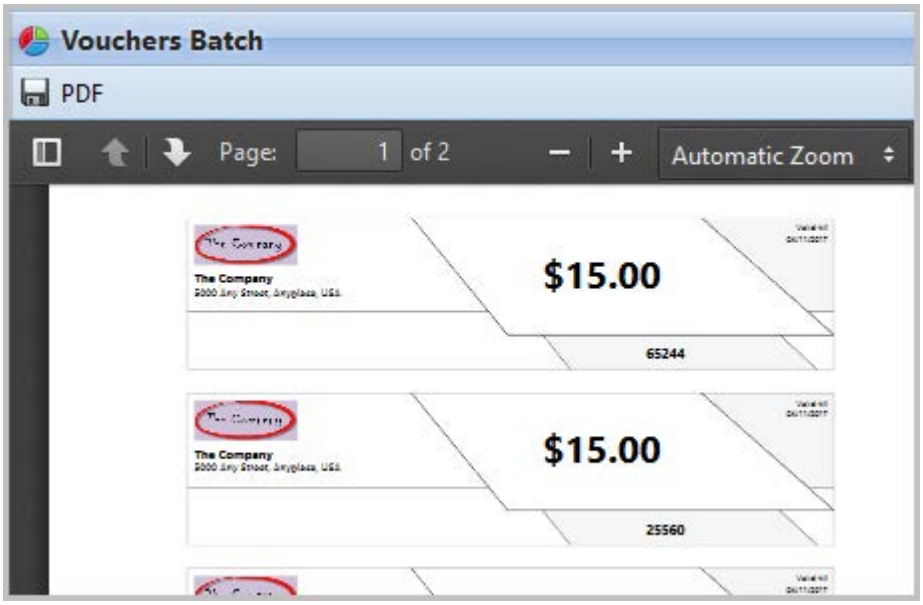
2 Double-click or click **Open** to see a listing of all vouchers in that batch.



3 Click **Save as CSV** to export this batch, if needed.

You can also export the batch (or multiple batches) to a .csv file from the **Voucher Batches** tab.

4 Click **Print Vouchers** to preview the vouchers as a .pdf file and save or print.

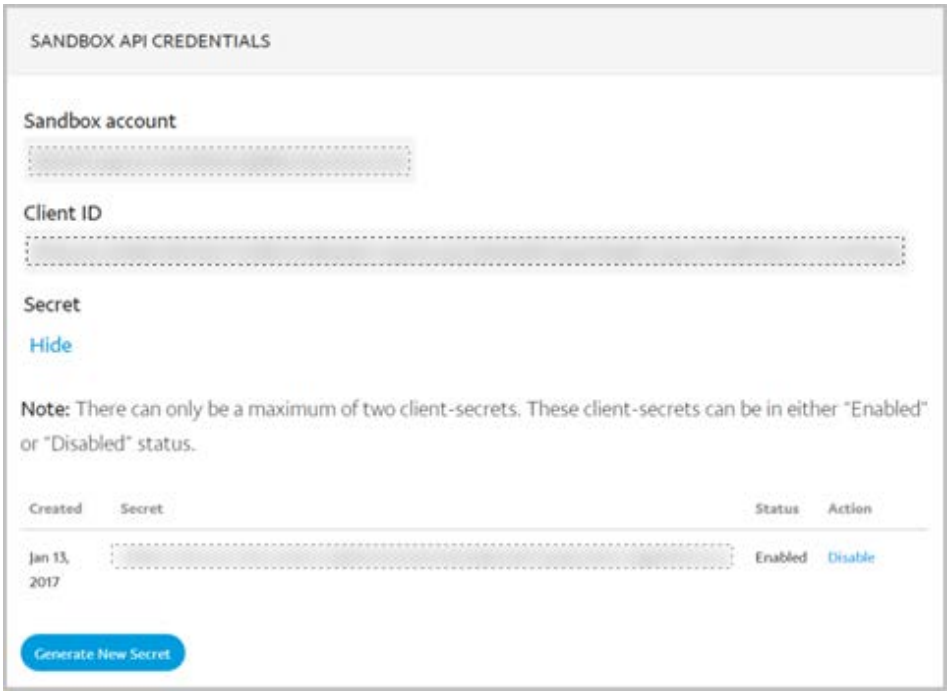


PayPal payment support

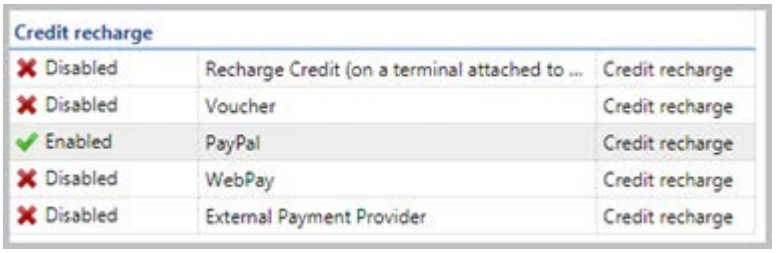
PayPal integration with KNM allows users to recharge their credit using their personal PayPal accounts. A PayPal business account is required to configure this feature.

Enabling PayPal integration

1. Go to **Settings** > **Network** and configure the server hostname.
2. Configure the security certificate. The hostname must match the server hostname. Although this step is not mandatory, not having a certificate is a security risk.
3. Go to **Settings** > **General** and configure the 3-letter currency code. For a list of supported codes, check the PayPal website: https://developer.paypal.com/docs/classic/api/currency_codes/#paypal
4. Configure the price list.
5. Configure a PayPal Business account by logging in to the PayPal developer page and creating a REST API app. You will get a Client ID and Client Secret. These codes are required by KNM.

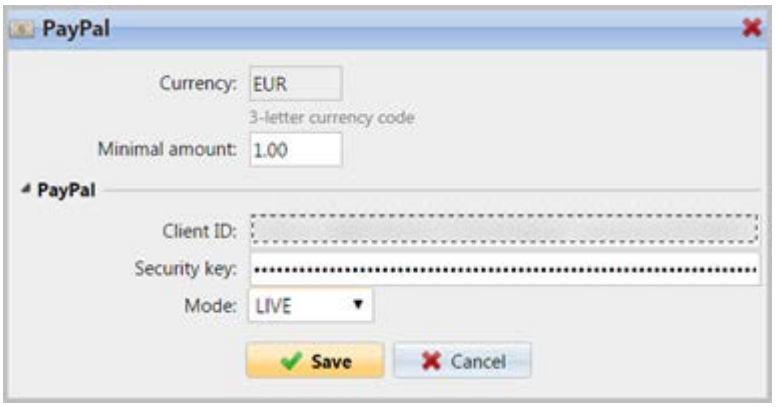


6 Go to **Settings** > **Credit** and enable PayPal in **Payment providers**.



7 With PayPal still selected, click **Edit**.

8 Enter the **Client ID** and **Client Secret**. There are two modes of configuration: **SANDBOX** for testing (actual transactions will not occur) and **LIVE** for actual transactions.

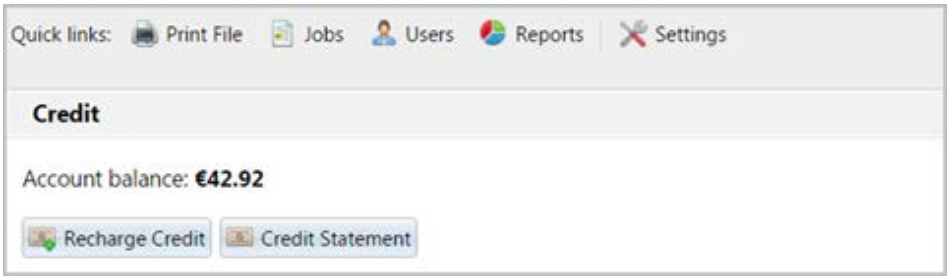


9 Click **Save**.

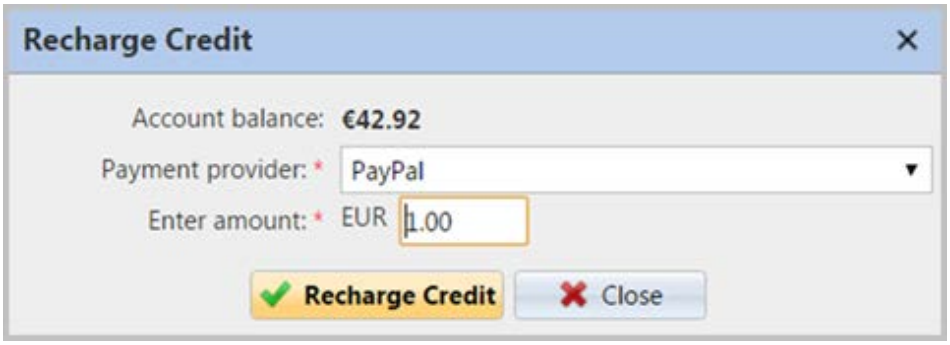
Use PayPal to recharge credit

Once PayPal integration is enabled in KNM, users can recharge their credit with PayPal.

1 Log in to KNM as a user and click **Recharge Credit**.

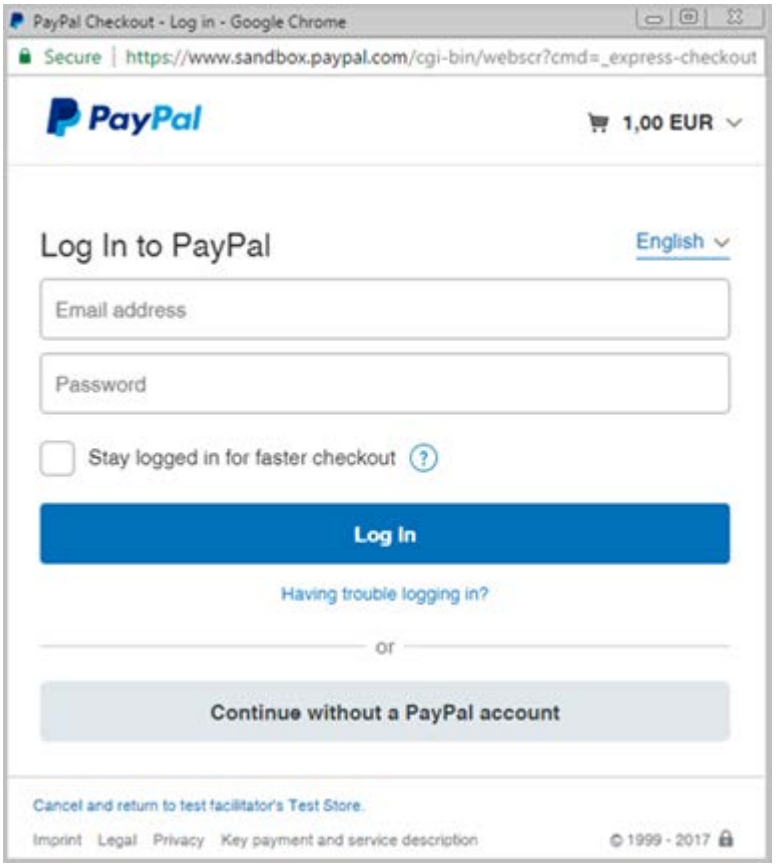


2 Select **PayPal** as the payment provider and enter the amount of credit to recharge. Click **Recharge Credit**.

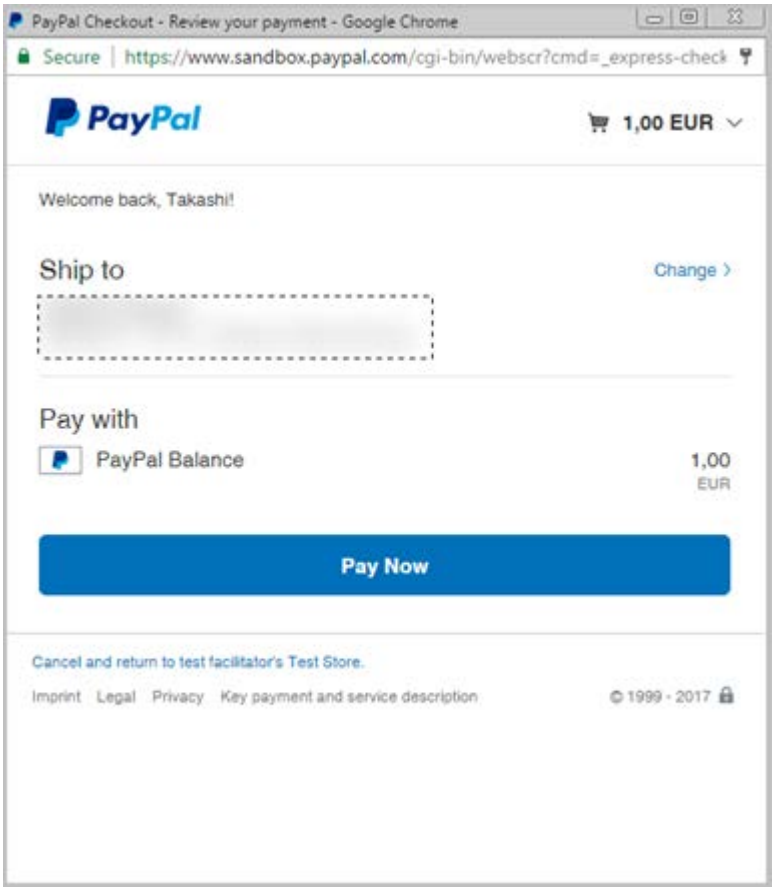


A login window opens for the PayPal account.

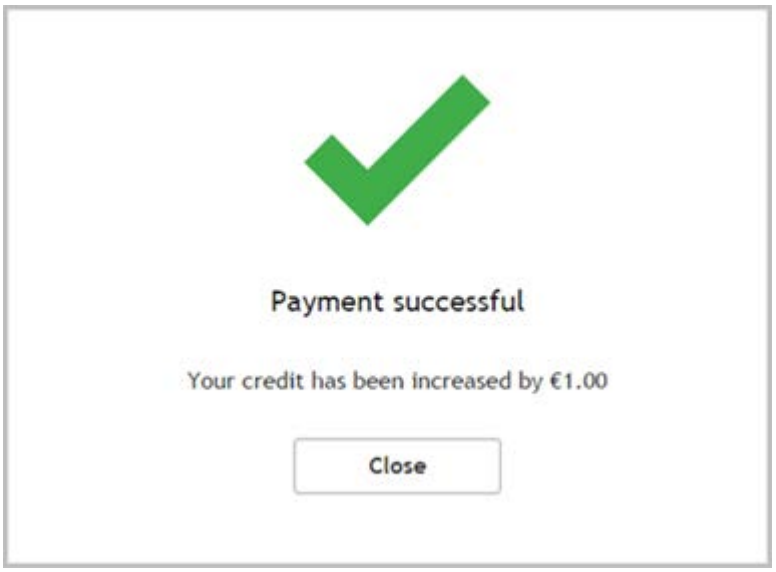
3 Log in with the PayPal credentials.



4 Confirm the amount and click **Pay Now**.



The confirmation screen displays.



5 Refresh your browser to see the new credit value.

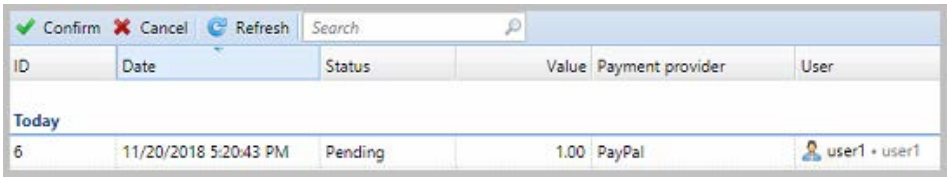
Confirm or cancel pending PayPal payments

Pending payments from PayPal can be confirmed or canceled by an administrator. After 72 hours, a pending payment will be marked as expired and cannot be confirmed or canceled.

If a pending payment is canceled, PayPal is notified.

KNM does not automatically refresh the PayPal payment status. For example, payment in pending state does not change to completed after confirmation in PayPal by admin.

1. Go to **Payments**.



Any pending payments are shown in a list.

2. Select the payment item and either click **Confirm** to change the payment to the Completed state or click **Cancel** to change the payment to the Canceled state.

Importing credit from a bank statement

In KNM, you can also import bulk credit from a bank statement. The system can process data from a .gpc file. The variable symbol from the bank statement is used as the unique data for pairing the payment with the KNM user. The number must correspond to the personal number of the user. The personal number can be imported or manually entered in the **Personal Number** text box on the user properties panel on the **Users** main tab.

1. On the **Users** main tab , click **Tools**, and then click **Bulk credit recharge** in the **Tools** drop-down box.
2. In the **Bulk credit recharge** dialog box, select the **GPC** format option, choose the .gpc file, and click **OK**.

Before importing the file, KNM checks whether the .gpc file has already been imported. This avoids duplication of the credit recharge. If the system finds that the import of data from this file has already taken place, an error message displays and no data is imported.

If KNM identifies the .gpc file as new, it checks all the payments on the bank statement and if it finds a variable number equal to the personal number of a KNM user, the user's credit is increased by the corresponding amount from the bank statement. After KNM checks the .gpc file, it displays a new .html page with a report. The report displays both the users with increased credit and the payments with a variable number not corresponding to any personal number in KNM.

Importing credit from a .csv file

The Bulk credit recharge option lets you add credit for one or more users by importing a .csv file.

1. Open Notepad or another text editor.
2. Type the user name, the selected .csv delimiter, and the amount of credit to add. Enter one user per line.

   Net Manager's default delimiter for .csv is the semi-colon (;). You can change this on the **General** page (**Settings** > **General**.)

   You can set up the credit import file in Excel, using an exported .csv User List report for a user name source. When Excel saves as .csv, it uses the comma character (,) as the delimiter. If you start with an Excel file, you will have to either edit the resulting .csv text file to change the commas to semicolons or change Net Manager's default delimiter as explained above.

3. Save the file with a .csv extension.
4. Go to **Users**.
5. Click **Tools**, and select **Bulk credit recharge** from the drop-down.
6. Select the **CSV** format option, click **Choose file**, browse to select the file you created, and click **OK**.

   Net Manager reads the file, matches up the user names to the users and adds the amount of credit in the file.

   When done, a report opens showing which users were successfully updated.

   If any user names were incorrect, a listing of unknown user names displays.

   You can deduct credit from user accounts by entering negative numbers in the file.

Credit accounting reports

On the **Reports** main tab, you can generate and print reports with information about credit.

Credit balances

Shows credit balances for selected users or groups, in user name order.

Credit operations

Shows all credit balance changes for selected users (or members of the selected group) over a defined period. It also contains information about the

person who either spent or recharged the credit, the type of the recharge method and the voucher code of used credit vouchers. Credit operations are displayed in chronological order.

Quota status for groups

Shows quota information for selected Accounting Groups.

Quota status for users

Shows quota information for selected Users and User Groups.

For more information about reports, see "Reports."

Quota

The quota feature lets you set limits on the use of print related services. You can limit the number of printed or scanned pages, or set an overall cost limit for services using prices from a price list. If the limit is exceeded, the user or the group of users receives an email warning and the users can be prevented from further printing and copying.

Each quota can monitor one of the following parameters:

- Nnumber of printed and copied pages, both color and B&W
- Number of printed and copied color pages
- Number of scanned pages
- Cost of all print services

Quotas can be active permanently, or for a limited period and reset after a specified interval. Users can check their quota status through the KNM web user interface and in the KNM mobile application. If a printing device is equipped with an Embedded Terminal, users can see the current quota status there.

The quota on the overall cost of print services requires setting a price list with prices of particular functions (print/copy/scan – B&W/color) on each printer. Both types of quota (the quota on the number of pages and the quota on the overall cost) require using the KNM parser to get the print job metadata (number of pages, color, etc.).

Quota activation and setup

You can set quotas by setting **Enable** quota **On** (go to **Settings** > **Users** > **Quota**), then create, enable, or disable individual quotas.

You can also specify the subject and body of the email that is sent after reaching the preset warning level and the email that is sent when a user or group reaches or exceeds their limit.

Creating and editing quotas

1. On the **Settings: Quota** tab, click **New quota** to create and configure a new quota.

   Configure the quota by filling in the parameters:

Settings	Description
Enabled	Activate or deactivate the current quota.
Title	Create a title for the quota (for example, Color)
Period	Week, Month, Quarter, Half year, Year, "Last X days"
Period start	Changes depending on the Period chosen.
Who to monitor	Set the user or group for the quota. If **Members of a group** is selected, the quota applies individually to each group member. If **Group as a whole** is selected, all members of that group have one quota. (If the quota is 10 pages and one member of the group prints 7 pages, there are only 3 pages remaining for the group for the period.)
Monitored value	Set the page type or price to monitor and the limit (either number of pages or price.)
Actions when warning level is reached	
Warning level	Set the percentage of the quota that will trigger a warning notification
Send a notification to	Select users or groups from the drop-down list to receive an email notice. You can also enter email addresses.
Actions when quota is reached	
Disable operations	Set the operations to be disabled after the quota is reached. • Print • Copy • Scan • Color printing and copying
When to apply	Set when the restrictions are applied. • When the current session is finished • When the current job is finished • Immediately

Settings	Description
Send a notification to	Select users or groups from the drop-down list to receive an email notice. You can also enter an email addresses.

2 Click **Save**.

The quotas appear in the list.

For proper functioning of color print quotas, the printer driver must use **PCL5** emulation.

Quotas disabling scanning cannot be applied immediately.

Configuring period settings for quota

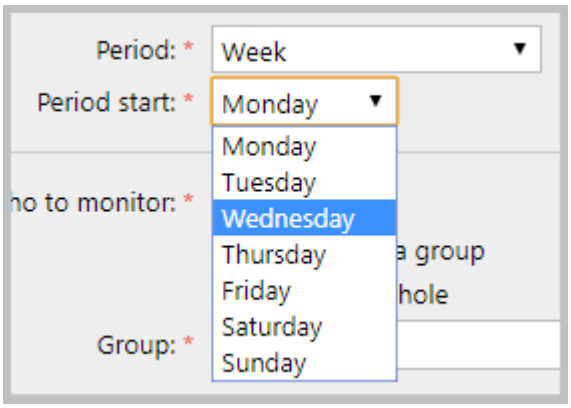
The duration of a quota is determined by the Period setting.

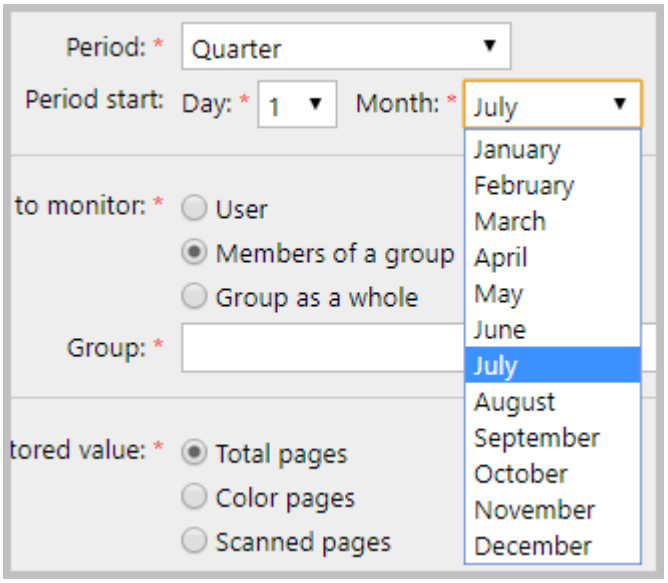
1 Go to **Settings** > **Quota** and click **+New quota**.

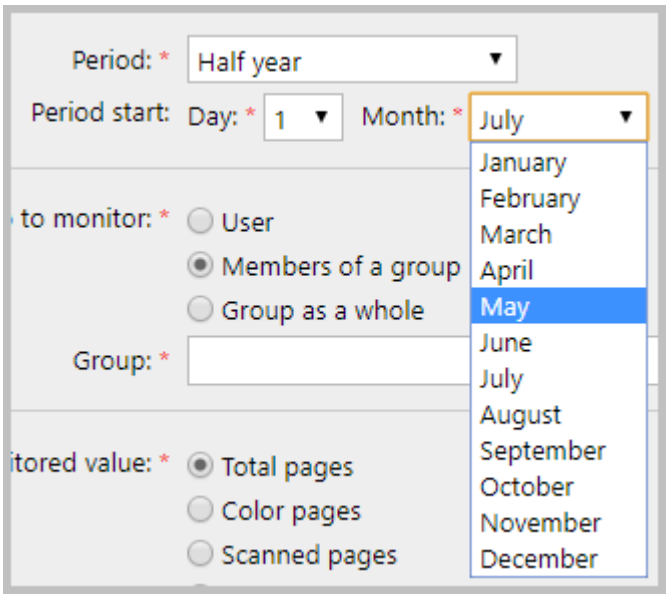
2 Enter **Title** and select **Period**.

The **Period** start settings adjust to the selected Period.

These three screenshots show examples of Week, Quarter, and Half year configurations.







3 Click **Save**.

Combine quotas

Quotas are independent of each other. The strictest quota applies to a particular user or groups of users.

Example: There are two quotas applied to a user. Both of them disable printing after a certain number of printed pages – one after five printed pages and the other after ten printed pages. After the user prints five pages, the lower quota applies and further printing is prevented. The quota can be boosted, allowing the user to print more pages.

Using quota boosts

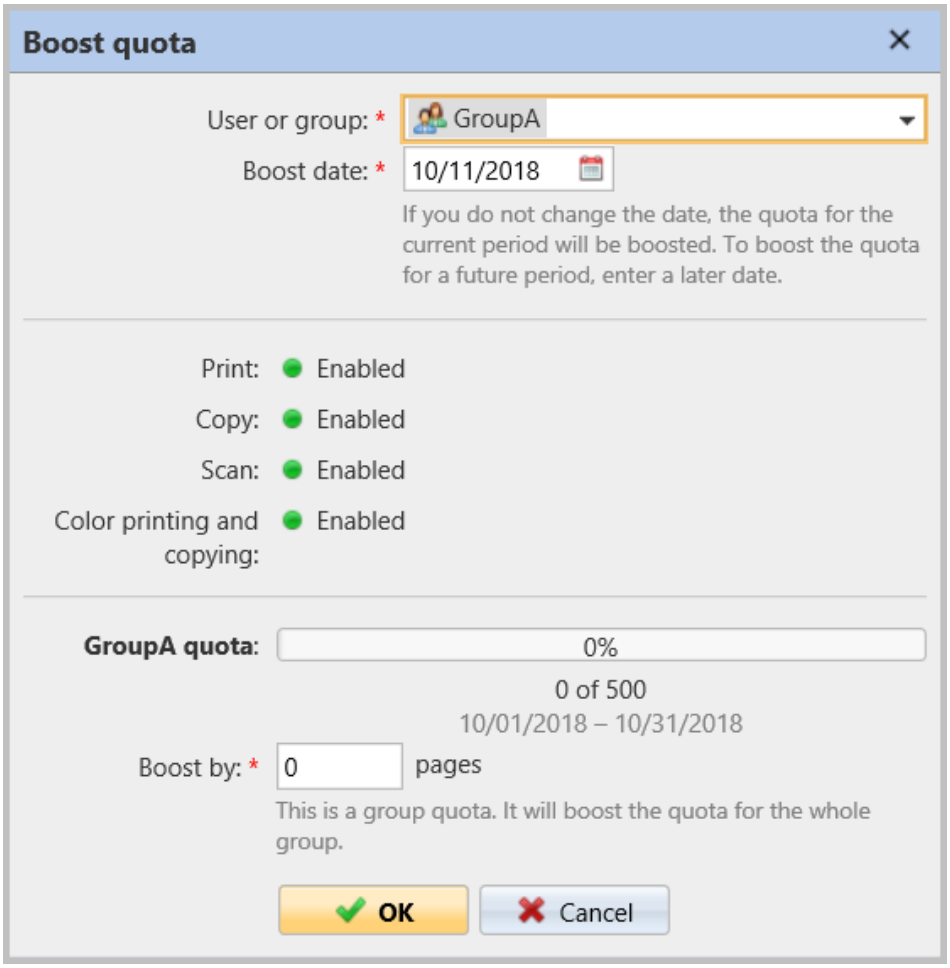
If a user or group exceeds a quota and needs to use print services, the Administrator can add pages or an amount to a quota.

1. Go to **KYOCERA** > **Quota Boosts**.

   You can filter the list by selecting options from the **Search** screen.

2. Click **Add**.
3. Select a user or group from the drop-down list.
4. Select a **Boost date** (the date the additional quota will become effective.)
5. Click **OK**.

   The **Boost quota** dialog box displays. You can change the user/group and boost date in this dialog box, if needed.



6 Enter an amount or number of pages for the boost.

7 Click **OK**.

The new quota is shown on the screen. You may not edit an existing quota boost, only delete it. If a future date was chosen for the boost, it will not apply if the boost record is deleted.

The **User or group** and **Quota** column entries are links that will open the user or group detail or quota detail when clicked.

Project accounting

Administrators use Project Accounting to distribute printing costs across projects and customers. You can assign print, copy, and scan jobs to projects, providing another level of internal accounting along with devices, users, and departments. Projects can be manually created or imported from .CSV files in the Net Manager web interface and users can select projects in Smart Job Manager or on an Embedded Terminal on a printing device.

Enabling project accounting

1 Go to **Settings** > **Projects**.

2 Set the **Enabled** switch to **On**.

3 Select or clear the check boxes for **Enable printing without a project** and **Enable on local printers**.

- **Enable printing without a project** lets users print, copy, and scan without selecting a project for accounting.
- If **Enable on local printers** is checked, users are prompted to assign a project to every local job.

4 Click **Save**.

Creating projects

1 Go to **KYOCERA** > **Projects** and click **New project**.

2 Type a project name, a code, and a description.

3 Click **Save**.

Project codes can only contain numbers, letters, spaces and the slash (/), backslash (\), and hyphen (-) characters.

KNM supports only one code per project. The code must be unique. A duplicate code results in an error message.

Providing users with rights to a project

Add rights on individual projects properties panels. To open a project properties panel, double-click the project. The panel opens.

To provide a user or group with rights to a project:

1. Open the project properties panel, and click **Rights**.
2. On the **Rights** tab, click **+Add User**.
3. In the **Select user or group** dialog box, select the user (or group of users) that you want to provide with rights to the project, and click **OK**.

To remove rights to a project from a user or group:

On the **Rights** tab, select the user (or group of users), and click the remove button (red X). The user (or group of users) disappears from the **Rights** list.

Granting and removing Manage projects rights

To grant the **Manage projects** right:

1. Go to **Settings** > **Users** > **Rights**.
2. Click **Add user**, select a user or group, and click **OK**.
3. Select **Manage projects** and click **OK**.
   Users and groups are displayed with assigned rights.

To remove **Manage projects** rights:

- If **Manage projects** is the ONLY right that user has, click the user name and delete (red X).
- If the user has multiple rights, double-click the user name to edit, clear the **Manage projects** check box and click **OK**

Project management

After the projects are created, you can see the list of them in the **Projects** tab. Use the options in the toolbar to add new projects, edit projects, import projects from a .CSV file, and display or hide inactive projects.

Restoring deleted projects

1. Go to **Projects**.
2. Click **Show deleted** to display deleted projects.

Deleted projects appear with a red **-** in the Status column.

3 Select the project, click **Actions**, and click **Undelete**.

The icon in the **Status** column changes to a green checkmark.

Importing projects from a .csv file

You can import projects with associated parameters (name, code, description, users/groups) using a .csv file and the Import option. In a text file format, use quotes around all alphanumeric entries.

The .csv file should provide the following parameters:

Active

Project status (1=active and 0=deleted).

Code

The unique project code (numbers, letters, spaces, slash, backslash and hyphen are allowed).

Name

Project name. (The name and code are visible in Smart Job Manager and on embedded terminals.)

Description

Project description.

Users

List of users and groups that use the project.

1 On the **Projects** tab, click **Import**.

2 Click **Choose file**, browse to the location of the file to import, click **Open**, and then **OK** to run the import.

The log will indicate that the Project import finished, then the imported projects are added to the list. Click **Refresh** on the Projects page to update. If any projects are missing, check the .csv file for formatting or syntax errors.

The delimiter default in the .csv file and in Net Manager may be different. You can change the delimiter in Net Manager on the **Settings** > **General** page.

Assigning projects to print jobs

Once project accounting is enabled, unassigned print jobs are paused and have to be assigned before they can be printed. To assign them using the KNM web interface:

1 Go to **KYOCERA** > **Jobs**.

2 Select a job from the Paused list and click **Edit** from the **Actions** menu.

The job edit panel opens.

3 Select a project from the drop-down list and click **Save**.

Smart Job Manager for project accounting

This option is available on computers with the Windows or Mac OS operating system. It requires the KNM Smart Job Manager application running on the computer sending the print job.

Smart Job Manager runs in the background. When a user has rights to one or more projects, all jobs are paused and the Smart Job Manager pop-up window opens, displaying available projects for assignment.

The user can assign the job to a project and print within that project. If printing without a project is allowed in KNM, the user can select the **Without project** option.

Offline accounting for network devices

Offline accounting can be used for any network devices connected to KYOCERA Net Manager. Offline accounting can support the following:

- Unsupported devices
- Devices unable to communicate through the standard SNMP protocol
- Devices connected through an external network card

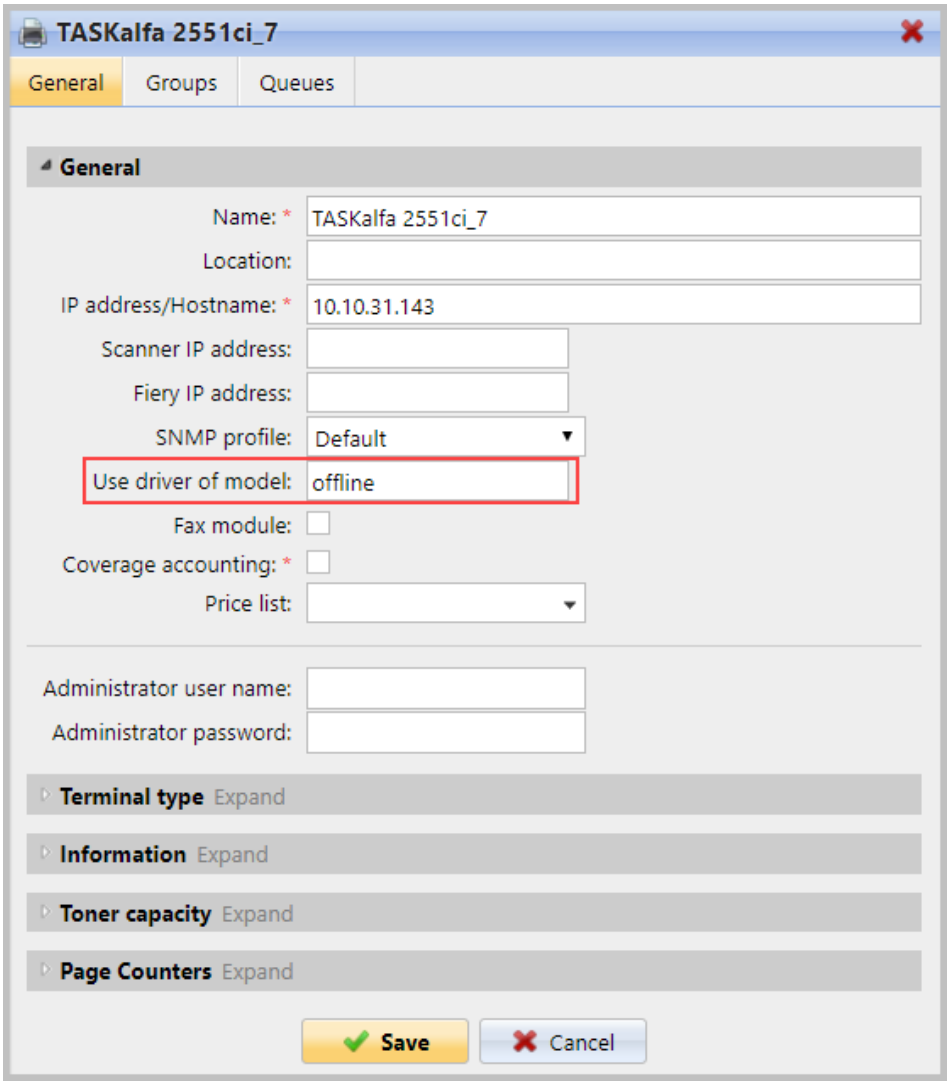
Offline accounting for network devices has no effect on any other device functions.

Setting offline accounting on a printing device

1 Go to **Printers** and select an inactive printing device in the list.

2 Double-click to edit the printer properties.

3 Enter **offline** in the **Use driver of model** box and click **Save**.



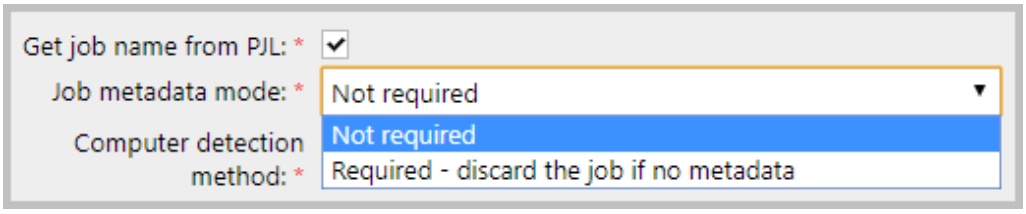
4 Activate the printing device.

With Offline accounting, the page counters remain at zero.

During printing, Net Manager LPM accounts for the number of pages printed, except for jobs that don't finish. Pages are counted even if the entire job does not print.

Offline accounting on a print queue

For every print queue with print devices in offline mode, you can set the method of handling the print job if the Net Manager Smart Print Service is not correctly configured and the print job doesn’t contain any information on the number of pages. This setting is defined in the **Job metadata mode** parameter.



Not required

The job is printed in the standard way but pages are not accounted for.

Required – discard the job if no metadata

The system discards the job.

Offline mode accounting

The KNM server can receive accounting information for user jobs that were printed while the server was offline.

If the server is offline, the device will store the user session accounting information. After the server comes online, the device sends the information to the server.

Direct queue with offline login and local print spooling

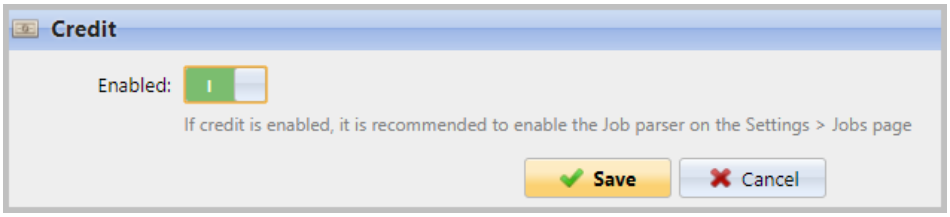
Direct queues can be used when Offline Login/ Local Print Spooling are enabled. This allows the use of all features of the direct queue, such as MPP/MPPS, that are available in the online mode of Offline Login/Local Print Spooling.

Share user credit across site servers

The MS SQL Master server manages the user credit and shares it with the site servers, so that the credit for a user is the same on all site servers. You still have the option to allow the user to have different credit on different site servers. You can view the credit balance of the user in the Master server.

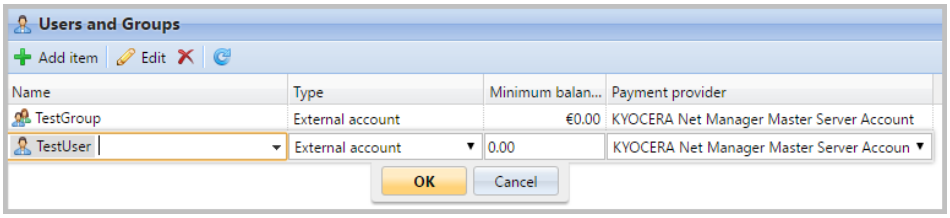
Setting user credit on the Master server

1. On the Master server, go to **Settings** > **Credit**.
2. Under **Credit**, set **Enabled** to **ON** and click **Save**.



3. Under **Users and Groups**, click **+Add item** and add users and groups to be synchronized.

4 Set **Type** to **External Account**.



5 Set a minimum balance.

6 Select **KYOCERA Net Manager Master Server Account** from the **Payment provider** drop-down menu.

7 Click **OK**.

Fax Box accounting support

Fax Box includes a paper size counter. Jobs printed from Fax Box are assigned to the logged in user. Anonymous incoming fax jobs are assigned to a fax user whether or not a user is logged when the fax arrives. Fax user is not associated with any user. The counter setting assumes simplex printing and A4 or letter paper size.

16 Server Type & Cloud

Cloud licensing system setup

Installation process

Install KNM on the Master server. The site servers may be added at any time. The installation file is same for Firebird Master server and Site server. The installation file for MS SQL Master server is different. To install a Master server using MS SQL, locate and run KNMM_[version]_setup.exe.

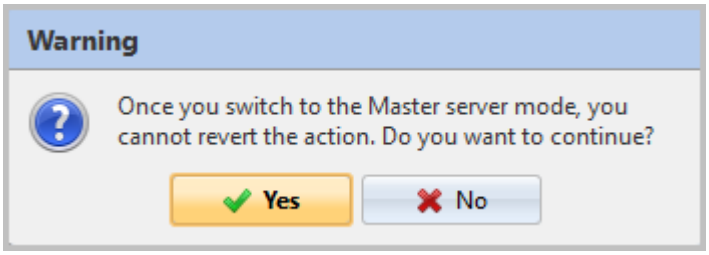
Master server setup

The Master server handles license management, central system management (the Administrator of the Master server may manage all the site servers), and as a central replication server for the statistics.

The Master server cannot be used as a print server.

Changing the server type to Master server

You cannot revert to the Standalone server type once you have changed to Master server or Site server. Always back up the database before changing server type.



1. Open **Settings** > **Server Type & Cloud**.
   The KNM default server type is **Standalone server**.
2. Change the server type to Master server.
3. Set the **Password for network communication**.
   This password is used for authentication on each site server.
4. Click **Save**.

A new icon with the label **Master server** displays next to the logo menu in the web interface as well in the login window. This simplifies navigation for the Administrator managing the system.

Microsoft SQL server support - Master server

The MS SQL server for the Master server can be installed either on the same physical server as KNM or on a separate server. Increase the hardware environment configuration when running both KNM and SQL on the same server.

Microsoft SQL Server (MS SQL) can be used as the Master Server database (DB). The supported versions are: MS SQL 2012, 2014, 2016, SQL Server 2012 Express, SQL Server 2014 Express, and SQL Server 2016 Express.

The installer for the Master server supporting MS SQL is different from the installer for Firebird. To install a Master server using MS SQL, locate and run KNMM_[version]_setup.exe. There are also the following limitations:

- Firebird Master server cannot be upgraded to the Master server supporting MS SQL
- Data cannot be transferred from Firebird to MS SQL

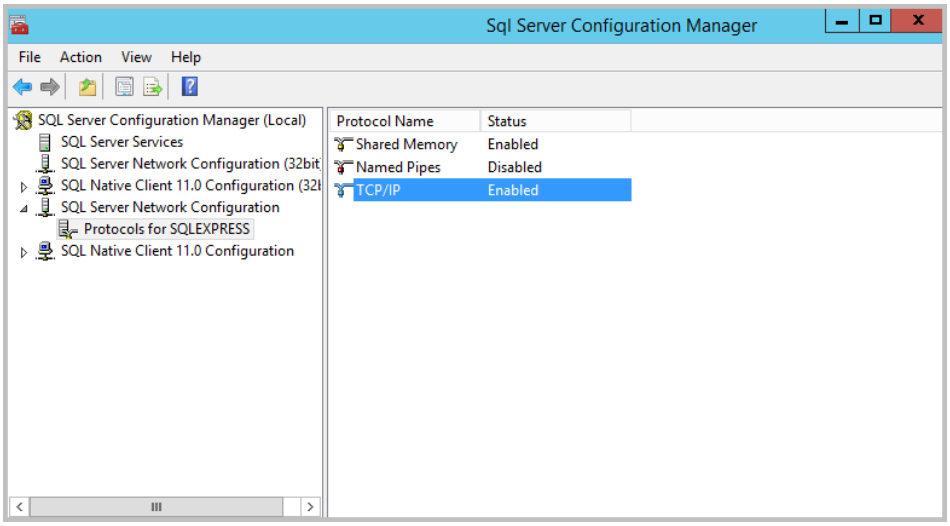
The access ports for the web interface are:

- http: 8083
- https: 8093

If delegates are used on the Master server site, add the delegates to the master server and synchronize the user information.

Connecting to MS SQL

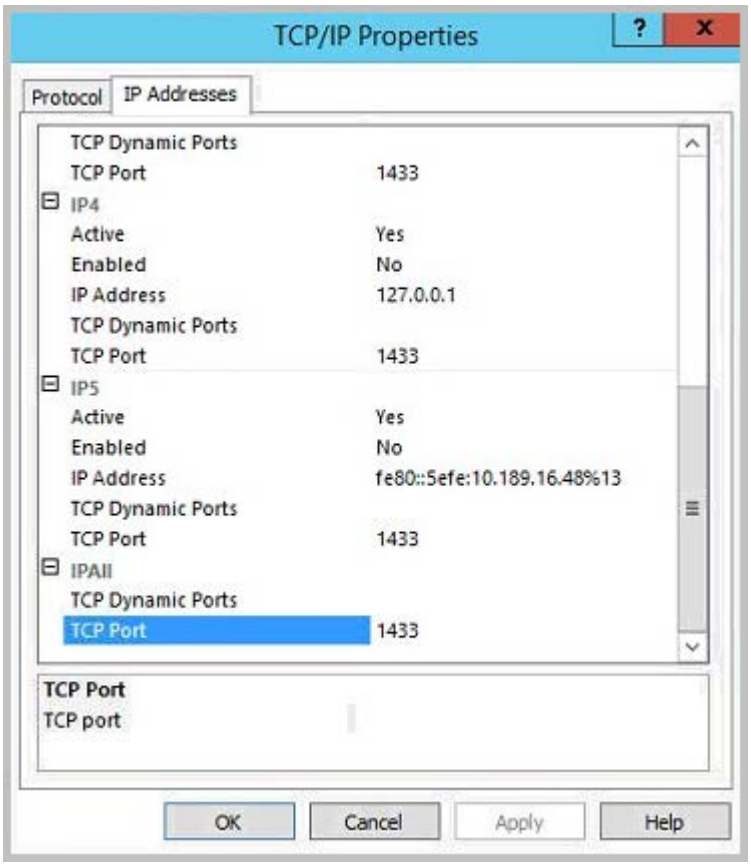
1. Start SQL Server Configuration Manager in the MS SQL software.
2. Go to **SQL Server Network Configuration** > **Protocols for XXXX**. **XXXX** represents the name of the database. The example shows **SQLEXPRESS**.
3. Set the Status of TCP/IP to **Enabled**.



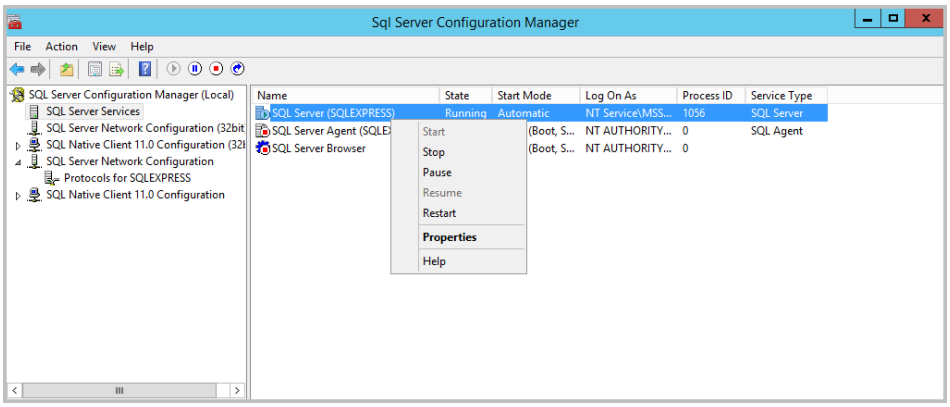
4 Right-click **TCP/IP** and open **Properties**.

5 In the IP Addresses tab, ensure that '1433' is entered in all of the TCP Port IP addresses.

6 Click **OK**.



7 Go to SQL Server Services and restart SQL Server XXXX. (**XXXX** stands for the name of the database.)

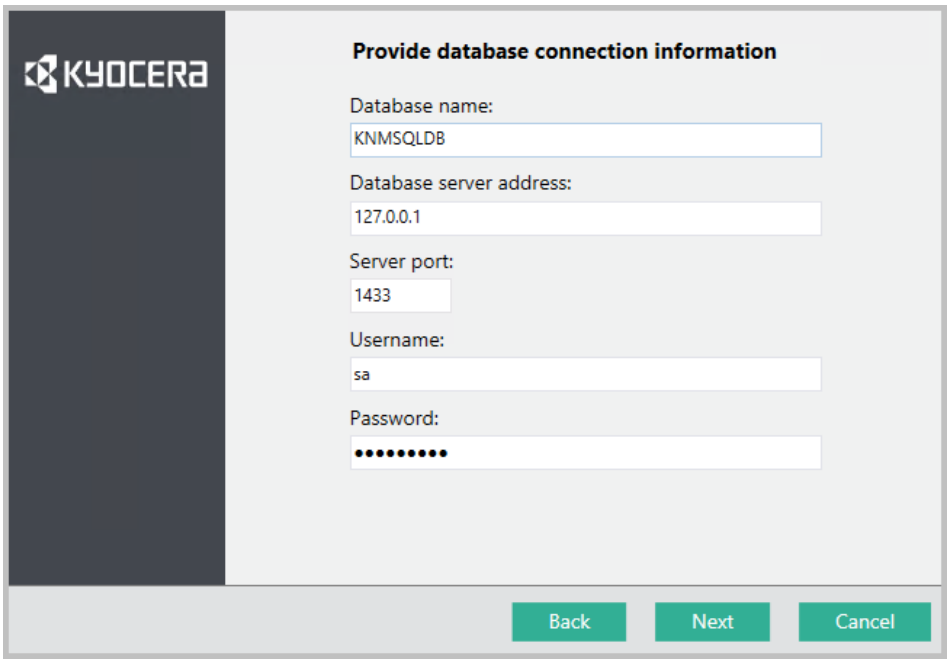


8 Start KYOCERA Net Manager Easy Config.

9 Go to **Database** > **Connection settings**, and click **Change**.

Unless you have installed an SQL Master server, this option does not appear.

10 Enter the database information and click **Next**.



11 If a new database has been entered in the database connection information, you will be asked to confirm the database creation. Click **Yes**.

12 In Enter database creation credentials, re-enter the Username and Password for the database, and click **Next**.

13 If the CLR option is not enabled, it will need to be enabled on the server. Contact Kyocera support for this procedure.

14 After database registration is complete, click **Finish**.

Site server setup

The Site servers represent all the print servers in the cloud. The number of Site servers is limited to the number of available licenses.

Licenses

All the licenses are available on the Net Manager Master server. In the Cloud licenses count section in the Cloud tab, you can define how many licenses of each type to download. If the licenses are available, they download to the Site server. If the number of licenses you requested are not available, a message displays. The downloaded license is valid for 30 days and renews every day.

To move licenses back to the Master server, for example, because you want to close that particular Site server or move the printing devices to another location, set fewer required licenses.

Example: the Site server uses 10 printer licenses and 5 embedded licenses. When you move one device with embedded licenses to another location, you must move the licenses back to the Master server as they might be used on a different Site server.

To accomplish this:

1 Open **Settings** > **Cloud**.
2 Change the license count to 9 for printers and 4 for embedded terminals.
3 Confirm this setting.

   The licenses are returned to the Master server where they can be downloaded by any other Site server. The results are displayed in the license summary on the Master server.
4 Click **Save**.

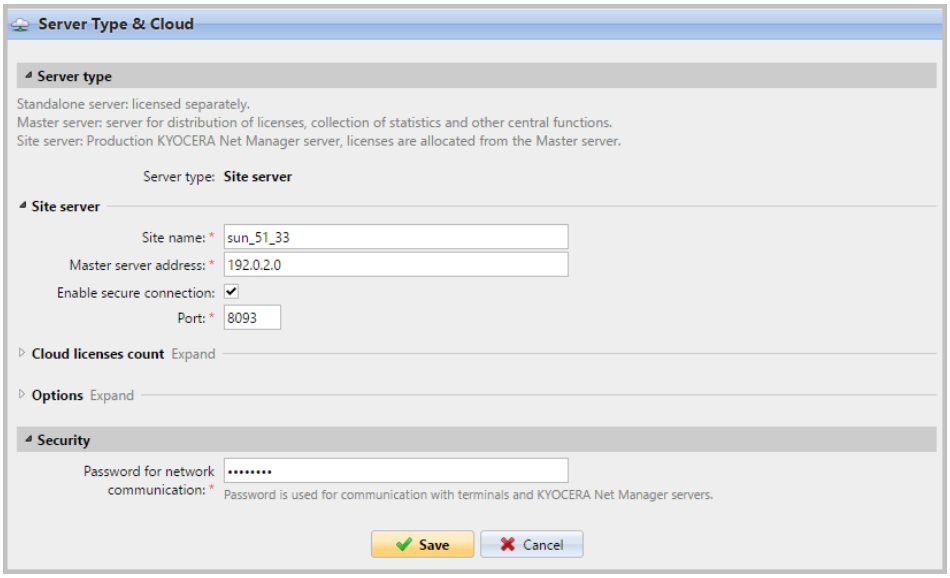
License count

When you download 40 licenses to a Site server, the Site server will be allowed to use an unlimited number of devices. The Site server will download only 40 licenses but the number of devices on that Site server is not limited. This function is available only for printer licenses. The Embedded and Embedded Lite licenses do not have an unlimited version.

Assigning a site server to an SQL Master server

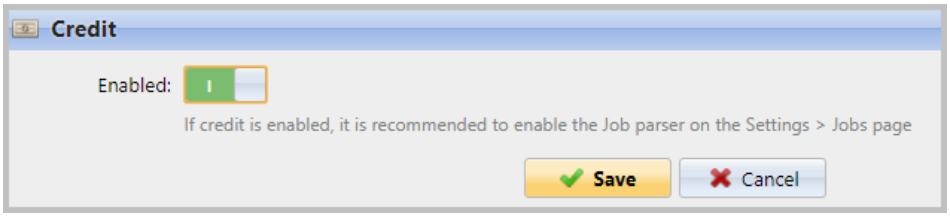
1 Go to **Settings** > **Server Type & Cloud**.

2 Under **Site server**, type a port number in the **Port** field, and click **Save**. Type '8083' if secure connection is off, and '8093' if secure connection is on.



Enabling credit accounting on a site server

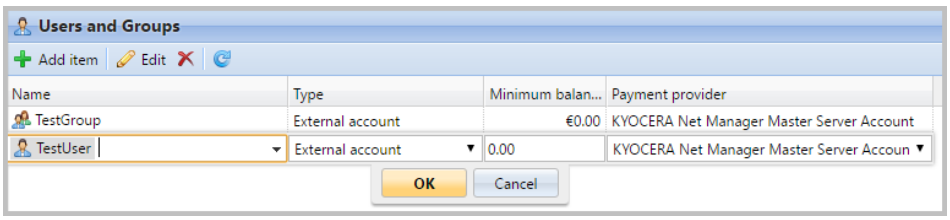
1. On the site server, go to **Settings** > **Credit**.
2. Under **Credit**, set **Enabled** to **ON**, and click **Save**.



3. Under **Users and Groups**, click **+Add item**, and add users/groups to be synchronized.

Steps 1-3, above, work on both SQL and Firebird Master servers. Step 4 (below) only works for an SQL Master server.

4. Set Type to **External Account** and set **Payment Provider** to **Master Server Account**.



Central management in Cloud licensing model

The Administrator of the Net Manager Master server (account *admin) maintains rights as an Administrator over the Master server and all the sites. The Administrator of the site server serves only as a local admin on the site server.

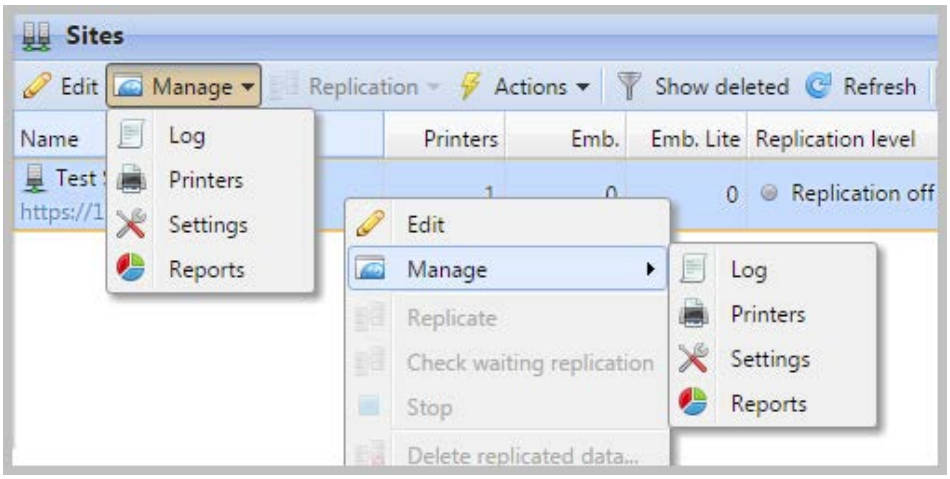
Managing site servers from the Master server

An Administrator can access site server log, printers, settings, or reports from the Master server.

In the **Sites** tab, you can view all the site servers connected to the Master server. You may select any of the sites and click **Manage** in the toolbar to open the site.

To move from the site server to the main server, click the blue arrow icon next to the site name. If you are logged in as a local admin on the site server, you will be required to enter the Master server Administrator credentials.

1. On the Master server, go to **Settings** > **Server Type & Cloud** > **Sites.**
2. Select a site server in the list of site servers and from the **Manage** drop-down menu, select either **Log**, **Printers**, **Settings**, or **Reports.**



A connection opens to the **Manage** menu of the selected site server.

Replication

With replication, you have an overview of the entire system in one place. The Master server operates as the central replication server for all the site servers in the cloud.

Replication setup

To set up replication, you must be on the Master server.

1. Open **Settings** > **Server Type & Cloud** > **Sites**.

2 Select the site from which you like to replicate the statistics.

3 Click **Edit**.

4 In the setup window, you may edit the **Replication level** (what kind of data should be replicated).

Do not change the replication level if replications are used.

5 To start replication manually, click **Replication** in the toolbar and click **Replicate**.
The Replication state will show the volume of data that has not yet replicated.

The system will display a message for a successful replication.

Replication of printer groups from site server to Master server

Printer groups are replicated from site server to Master server. On the subsequent replications, printer groups are updated when there is a change in printer properties such as a printer name change. Changing printer group membership will not trigger an update to the printer groups.

Scheduling replication

Starting replication manually would not be practical, so the replication process must be automatically started by the preset action in Task Scheduler.

1 Open **Settings** > **Task scheduler**.

2 Double-click **Replication** in the **Action** column to edit it.

3 In the new window, you can edit the time and frequency for replication.

The system starts replication for all the servers based on the schedule.

Upgrade external replicator - cloud

It is necessary to upgrade the current system if you are using the old external replicator. The new external replicator will be used in the Net Manager cloud licensing system. Follow these steps to upgrade:

1 Upgrade the Master server and all the site servers.

2 Open the web interface on the Master server.

3 Go to **Settings** > **Server Type & Cloud** > **Sites**.

4 Manage each site server and confirm the connection to the Master server.

5 Click **Save**.

Now you may start replication – the old replicator will be deactivated and the new one will start.

Upgrade external replicator - non-cloud

Follow this procedure for Net Manager without the cloud:

1. Select if you have Cloud licenses. The license key must start with the number 5. If not, contact KNM support.
2. Upgrade all servers.
3. Move all licenses from the site server to the Master server (the server for replication).
4. Set the communication between the sites and Master server.
5. Start replication.
   The old replicator will be deactivated and the new one will start.

The non-cloud licenses will not work in the cloud. They must be changed to cloud licenses. To change your licenses, contact your dealer or sales company.

Job roaming

The Job Roaming feature sends jobs between Site servers. To use this feature, you must enable the Job Roaming queue on each site that will use this feature. The Job Roaming queue is one of the predefined Print&Follow queues in Net Manager. You must add some devices to this queue and add rights for this queue to some users. Only jobs sent for the Print&Follow queues will appear as available when using Job Roaming feature.

Job Roaming requires that you set the same user accounts on both servers, available via synchronization with the Master server.

Cloud system failure

Use the following procedures in case of system failure, for example, because of hardware breakdown or connection failure.

Connection failure

If the site server loses its connection to the Master server, replications, license renewal, and user synchronization processes will not take place. It is also possible for the Job Roaming feature to fail if the site server is disconnected from other site servers.

Licenses

When the system loses the connection with the Master server, licenses for site servers remain valid for 30 days. Within this period, the system does not need a connection to the Master server and may work completely on its own.

Do not change any Site server hardware components while the server is disconnected from the Master server. This would cause the license to remain valid for 7 days instead of 30 days. If a connection failure exceeds 30 days, contact your dealer or sales company.

Whenever the system is again connected to the Master server, the licenses are automatically renewed.

Replication and cloud system failure

The statistical data for replication is still available on the Site servers so it does not matter if replication cannot be processed at one time. After the first connection to the Master server, replication can be run manually or automatically by the **Task Scheduler**. To save the same amount of data, set the history to the same value on the site server as on the master. The history setup can be set at **Settings** > **System Management** > **History**.

Replication after Site server failure

If the Site server hardware fails and you have to restart from a backup, you must first delete all replicated data for that site server. Click **Delete replicated data** in the Sites menu. Next, replicate data from the Site server again.

User synchronization during connection failure

When the site server synchronizes users from the Master server, it will not be available when disconnected. Add new users manually to the database during a connection failure. After the first replication (when the Master server is connected again), manually added users will be replicated to the Master server database.

Job roaming during connection failure

Job roaming is unavailable when the Site server is disconnected from the rest of the network. Job roaming is still available to all network servers when disconnected from only the Master server.

Hardware failure

Database backup

To prevent data loss, you must back up the database.

1. Open **Settings** > **Task Scheduler** > **Database and settings backup**.
2. Save the database to network shared storage that is not hosted on the actual server.

Master server hardware replacement

In the case of server hardware failure, contact KNM support for license deactivation. The licenses are bound to the hardware components of the server. When the Net Manager Master server is installed on new hardware a new hardware code is required.

Steps for server hardware replacement are described below:

1. Contact your dealer or sales company to deactivate licenses.
2. Install the new server. This server must use the same IP address as the old Master server.
3. Install KNM on this new server and stop all services.
4. Unpack the database backup.
5. Start the services.
6. Open the Net Manager web interface.
7. Open **Settings** > **License** and activate the licenses again.
8. Open the Site servers.
9. Open **Settings** > **Server Type & Cloud**.
10. Click **Save**.

Failover system

KNM may use a failover system to prevent the loss of the system functionality. Every server (Master and Site servers) may use the failover system. There are two methods to configure KNM for failover.

1. When you are using a Net Manager Pro license, you can use Net Manager Easy Cluster; to provide a failover system for KNM. You will need two identical servers. Net Manager Easy Cluster uses a "main" server (production print server) and a "slave" server. The slave server checks the availability of the Master server. In the event that the Master server interface is not available, the slave server turns the Master server off and temporarily acts as the Master server. This solution is part of KNM.
2. The other option is to install KNM on a Microsoft Cluster. Contact support for assistance with this option.

17 Terminal Manager

Terminal Manager provides an interface for simple setup of embedded terminals. It is installed as part of the installation of KNM. To run Terminal Manager, if not in your Windows Start menu, go to C:\ProgramFiles(x86)\Kyocera\KYOCERA Net Manager \Server\TerminalManager.exe.

For more information about using Terminal Manager, see the KYOCERA Net Manager Embedded Terminal Guide.

18 Advanced System Settings

Modifying the KNM configuration

To change some Net Manager system settings, it is necessary to modify the **Config.ini** configuration file. This configuration file is located in the C:\ProgramData \Kyocera\KYOCERA Net Manager\ directory. For the changes to take effect, restart the **Net Manager** service.

> ! Mistakes in making changes to the configuration file may cause system malfunction. Be careful to change only the parameters that you intend to change.

Setting up access to run scripts

To manually run KNM system components such as ConfigTerm or scripts for importing users, you must set up access to the COM objects.

```
;MyQ configuration
;You must restart the service for the changes to take effect

[General]
appName=MyQ
allowFree=0
;List of users/groups with access to the MYQ service COM object.
;The access is needed to run the command line tools.
;Comma separated list of a SID (e.g. S-1-5-32-545) or a principal name (e.g. Users)
sessionObjectAcl=S-1-5-32-545
;MYQ 2.3.7 and older used WIN1250 charset in DB connect.
;DBs created in those versions must continue to use WIN1250.
useOldDbConnectCharset=0

[PrinterIO]
;Comma separated list of snmp oid's where the model is read.
;The special value "pjl" instructs to use the PJL query
model = .1.3.6.1.2.1.25.3.2.1.3.1, .1.3.6.1.4.1.11.2.4.3.1.12.1.2.78, .1.3.6.1.2.1.1
snmpComunity = public

[Terminal]
;A time period in milliseconds in which the server tries to discover new terminals.
;The value of 0 will disable terminal discovery.
discoverPeriodInMS=0

[UserSession]
;If the printer is unreachable longer than X seconds, interrupt the session. Jobs tl
;will not be printed. User can print them next time.
printerUnreachableTimeout=60
```

The default access setting is BUILTIN\USERS.

To change who has access, use the parameter sessionObjectAcl in the Configuration file. As the value of the parameter, use the group name in the language of the operating system (Users, Administrators, etc.) or a universal SID code that is independent of the language of the operating system.

Examples of universal SIDs are listed below. A complete list of SIDs can be found on the Microsoft Windows support site.

Group	SID Code
BUILTIN\USERS	S-1-5-32-545
BUILTIN\ADMINISTRATORS*	S-1-5-32-544
BUILTIN\GUESTS	S-1-5-32-546
NT AUTHORITY\SYSTEM	S-1-5-18
\EVERYONE	S-1-1-0

*Restricting access to COM objects only to BUILTIN\ADMINISTRATORS may cause start-up problems due to the User Account Control (UAC) setting.

Changing the default LPR port

The standard LPR port setting is TCP 515.

If there is a conflict with other software using the same port, KNM can use another port, i.e., 516. However, change the LPR port only if necessary after considering all other possible solutions.

Please contact support to make changes to the default LPR port.

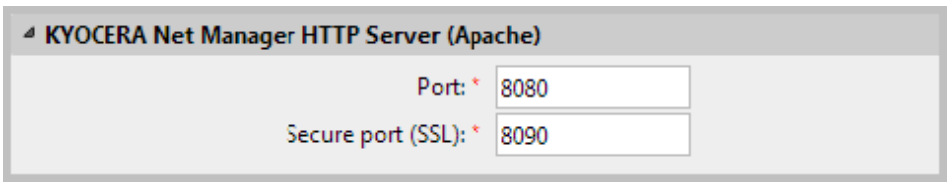
Changing the default HTTP / HTTPS port

The standard HTTP/HTTPS ports that KNM uses with the web interface and Embedded Terminal are 8080 and 8090.

If there is a conflict with other software using the same port, KNM can use another port, i.e., 8008. However, change the HTTP/HTTPS port only if necessary after considering all other possible solutions.

To change the HTTP / HTTPS communication port:

1. Go to **Settings** > **NetworkKYOCERA Net Manager**> **HTTP Server (Apache)**.



2. Enter a new port number and restart Apache to implement the change.
3. Change the port number in web browser URL address string, so that you can connect to KNM on the new port.

Changing the limit for PDF printing from the web interface

The default limit for PDF printing is 50MB per file.

1. Go to **Settings** > **System Management** > **Advanced**.
2. Enter the new file size in the **Maximum upload file size** field.
3. Click **Save**.

UI timeout setting for preview generation

KNM supports adjustments to the timeout value for PDF preview. The increased timeout value gives the system more time to generate the PDF preview.

1. Add the following to the config.ini file:

```
[JobPreview]
uiWaitTimeout=5
```

2. Restart KNM services.
   The timeout value will be changed on the server side.

The timeout value specifies increments of seconds that the server allocates for the preview to be generated. When the timeout is reached, you'll see the following message: The preview is being generated. Try again later.

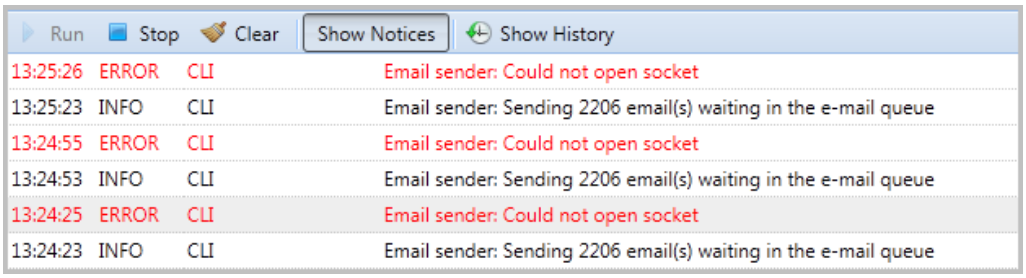
The highest value is limited by the maximum execution time of a PHP script (300 seconds).

Managing email notifications

KNM sends information such as error notifications and PIN generation by email to KNM users. These emails are stored in a queue and sent one by one to avoid overloading the network and SMTP communication with the mail server.

Unsent email:

If there is a communication problem with the mail server, unsent email is held in the queue until communication is reestablished. Email send errors are indicated in the KNM log with information about the number of waiting emails.



Deleting unsent email:

You can manually delete the unsent email from the queue. Unsent email is stored in C:\ProgramData\Kyocera\KYOCERA Net Manager\Emails\failed\.

Limiting pages copied or scanned on MFPs

You can monitor the exact numbers of copied and scanned pages output on MFPs and prohibit individuals without user identification from copying and scanning.

Some MFPs have a Key Counter, Copy Control interface, or a Foreign Interface Harness that enables locking and unlocking the device if it is physically connected to a hardware terminal.

For MFPs that do not have such an interface, especially A4 format devices, KNM uses software locking. This method does not require any extra cable and is done through the network protocol using the internal device accounting system.

Setting the output protocol and port

Data is sent from KNM to printing devices through RAW or IPP/ IPPS protocol. The default output setting is RAW on port 9100.

If you are sending jobs to a different RAW port (9101, 9102, etc.) or an IPP / IPPS port, you can change the protocol and port number in the print queue.

Using multiple ports

You can enable settings for more than one RAW port in KNM. For example, one print queue on port 9100 can manage standard printing while port 9102 handles letterhead printing.

Printing device status

To identify problems with counters and user sessions, monitor printing device counters and changes.

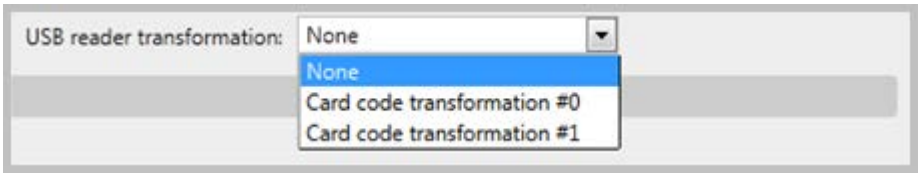
After activation, KNM saves all status and counter changes from the printing devices to a .csv file stored in C:\Program Files\Kyocera\KYOCERA Net Manager\Server\Logs \.

Each printing device registered in KNM has its own .csv file, which contains the date and time of the status reading, printer status, and total counters for black and white printing, color printing, black and white copying, color copying, and scanning.

Card code transformation

Identification systems have multiple ways of reading a card number. Net Manager enables several modes of card number transformation to achieve full compatibility with databases like a time and attendance system. Go to **Settings** > **Printers** > **Cards** > **Advanced**.

Because some installations require connecting two card readers with different technologies to a single terminal, separate transformations are available for card reader #0 and card reader #1.



If a card reader is connected to a computer USB slot for credit recharging or card association, the USB reader transformation parameter will set the correct transformation of the card number received from this reader to be compatible with readers mounted on the printing devices.

You can enter one of the following commands (or a combination of commands) in the Card code transformation field. Individual commands are separated by semicolons; surround parameters with parentheses.

Command	Description	Example
ltrim(number of characters)	trim characters from the left side of the number	ltrim(2): 12345678 becomes 345678
rtrim(number of characters)	trim characters from the right side of the number	rtrim(1): 12345678 becomes 1234567
prepend(character string)	add a string in before the card number	prepend(AB): 12345678 becomes AB12345678
append(character string)	add a the string after the card number	append(90): 12345678 becomes 1234567890
left(number of characters)	select a number of characters from the left	left(5): 12345678 becomes 12345
right(number of characters)	select a number of characters from the right	right(5): 12345678 becomes 45678

Command	Description	Example
mid(left shift, number of characters)	select a number of characters from the middle of the string	mid(2,4): 12345678 becomes 3456
lpad(number of positions, symbol)	add (pad) the number to a number of characters by adding zeros to the left	lpad(12,0): 12345678 becomes 000012345678
hex2dec()	change the card number from hexadecimal to decimal	hex2dec(): 12345AB becomes 19088811
dec2hex()	change the card number from decimal to hexadecimal	dec2hex(): 19088811 becomes 12345AB
hex2bin()	change the card number from hexadecimal to binary	hex2bin(): 123AB becomes 00010010001110101011
bin2hex()	change the card number from binary to hexadecimal	bin2hex(): 00010010001110101011 becomes 123AB
dec2bin()	change the card number from decimal to binary	dec2bin(): 19081 becomes 100101010001001
bin2dec()	change the card number from binary to decimal	bin2dec(): 100101010001001 becomes 19081
reverse()	reverse the byte sequence	reverse(): 12345678 becomes 78563412
reverseString ()	reverse the character sequence	reverseString(): 12345678 becomes 87654321
reverseNibbleBits()	converts each character to binary, performs bit sequence rotation, and converts back to hexadecmial	reverseNibbleBits(): 12A7 becomes 0001 0010 1010 0111 becomes 1000 0100 0101 1110 becomes 845E
“+“	merge two strings	+: 12345678 becomes 1234567812345678

Example of combining several commands:

hex2dec();ltrim(2);append(123):

1. Change to hex: D4955FEA becomes 3566559210
2. Then trim first 2 characters from the left: 66559210
3. Finally, add 123 to the end: 66559210123

Integrate external systems with KNM

Software applications that are external to KNM, such as **EeveryonePrint**, need a key and the correct rights on the default ***api** account to be integrated with KNM.

Setting the *api password

1. Go to **Settings** > **External systems**.
2. Click **Set password** under the *api username.

   The ***api** username cannot be changed.

3. Enter a password and click **Save**.

Obtaining a key for an external system

1. Open **Settings** > **External systems**.
2. Click **Add new External System**.
3. Enter the name of the external system, for example, **EeveryonePrint**. If needed, choose **Scope**.
4. Click **OK**.

Setting the rights for the *api account

See the documentation that comes with the external application for a list of the required rights for integration with KNM.

1. Open **Settings** > **Users** > **Rights**.
2. Click **Add user**.
3. Double-click ***api**.

4 Select rights for the account. (See Users chapter for more information about rights.)

5 Click **OK**.

19 Backup, Restore, and Upgrade KNM

System backup

Backups of the server and databases are often needed to resolve problems. The following table shows some potential Net Manager server and network problems and how they can be resolved.

Problem	Solution
Server hardware failure	New installation of Net Manager on the same or different hardware. Restore database.
Server operating system failure	Reinstall operating system or new installation of Net Manager on a new server. Restore database.
Network failure	Cannot resolve on the Net Manager side.
Net Manager service malfunction	Reinstall or upgrade Net Manager (use the same database file).
Firebird or Apache service malfunction	Reinstall or upgrade Net Manager (use the same database file).
Net Manager configuration problems	Reconfiguration of Net Manager (same DB file used)
Net Manager database unavailability or corruption	Restore the database.

Within Net Manager, solutions for system backup are based on the complexity of the Net Manager architecture and availability of the requirements.

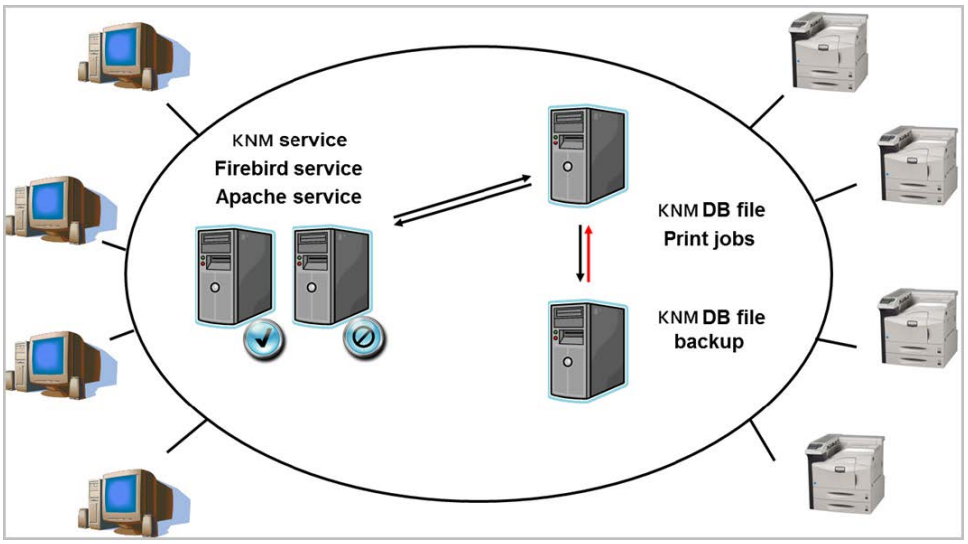
KNM server backup

If the environment is sensitive to print service failures and there are resources to have an extra server, you can have another server with a KNM installation. This server must have the same IP address as the main server, be installed with the same version of KNM and be connected to the same database. (If both the main and backup are virtual servers, you can clone the main KNM server.)

The backup server must be switched off or disconnected from the network to avoid causing an IP address conflict.

If the main KNM server fails, the Administrator can switch it off and switch on the backup server.

Manually switching the server is recommended. This avoids server modification in case of system maintenance, temporary network/server inaccessibility and other situations not related to the KNM system that must be resolved by the Administrator.



Backup by virtual server snapshot

For Net Manager installations on virtual machines, you can create a system backup by taking a snapshot of the virtual machine. This option has limitations. The backup through snapshot should be done only when the databases (myq.fdb and myqlog.fdb) are stored on the local disk and will be part of the snapshot. If the databases are not stored on the local disk, for example, for Microsoft Cluster installation or cases where the databases are moved to another disk you cannot use snapshot as effective backup. The databases will not be included.

To create a snapshot:

1. Create the backup of the database via the web interface or by using the restore.bat batch file.
2. Stop the Firebird database server, create a snapshot, and restart the Firebird database server.

It is not necessary to use the snapshot with every backup of the database.

When creating a snapshot, the Firebird database server must be stopped. If not, returning to this snapshot may corrupt your database.

Database backup and restore

It is important to back up the databases to maintain all data in case of a system collision, a need to transfer data to another server, or when upgrading KNM. During backup, the database is compressed, reducing file size.

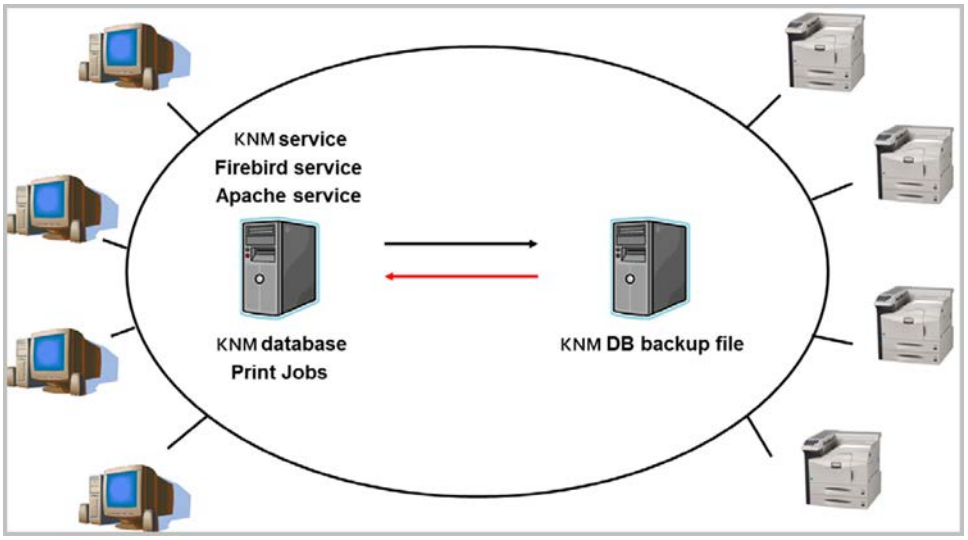
Database backups should be performed by experienced administrators with a basic knowledge of databases.

KNM database backup

The KNM database file **MYQ.FDB** is the most important component of the KNM system. This file includes all the information about users, printers, queues, and user sessions in addition to all the settings and system licenses.

If you have a backup of the MYQ.FDB file, you can perform a new installation of KNM on new hardware or reinstall the operating system of the current server and restore the backup file. Installing this backup gives you a fully functional KNM system within a few minutes with all the settings and licenses.

This is a sufficient solution for most problems. Make database backups regularly with every KNM server installation in case of server failure. Store the backups in a different location from the KNM server.

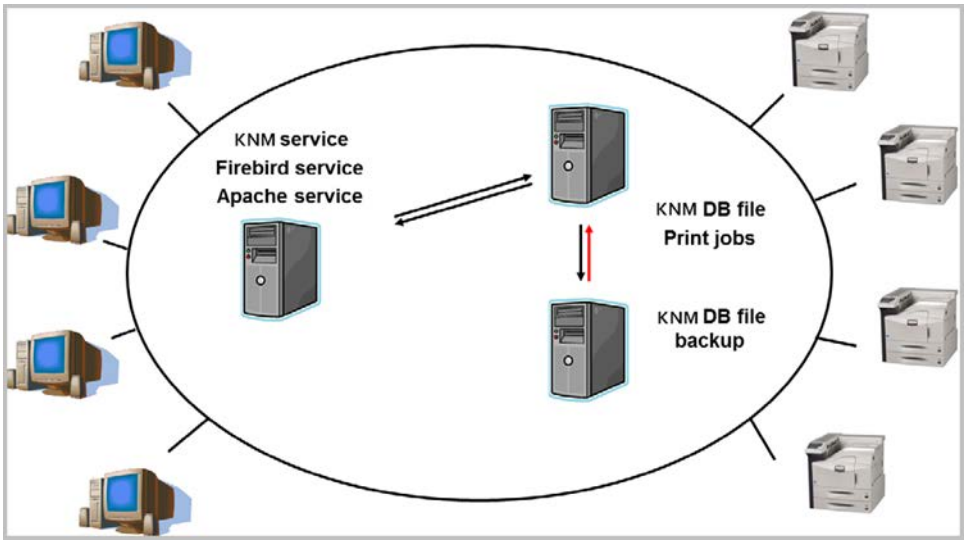


Location of the KNM database and print files

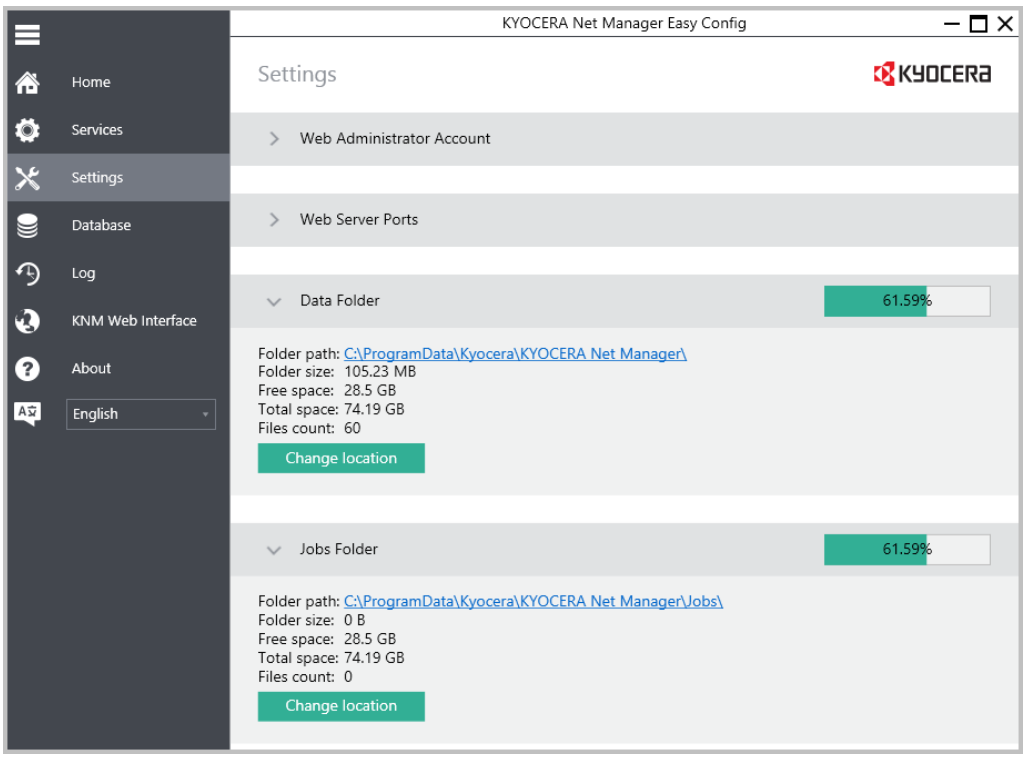
To simplify restoration, the KNM database can be located on a different server from the KNM server. That way, the database is not affected by a potential failure of the server, and as soon as there is a new installation of KNM on new hardware, or reinstallation on the current server, you have only to set the correct path to the KNM database file to make the system fully operational again. Relocate print jobs so they will be available as soon as KNM is reinstalled.

Another reason for backing up the database is to preserve data in case the KNM database becomes corrupt or inaccessible.

If you are locating the database on a different server, the connection between the KNM server and the KNM database file location must allow fast and trouble-free operation.

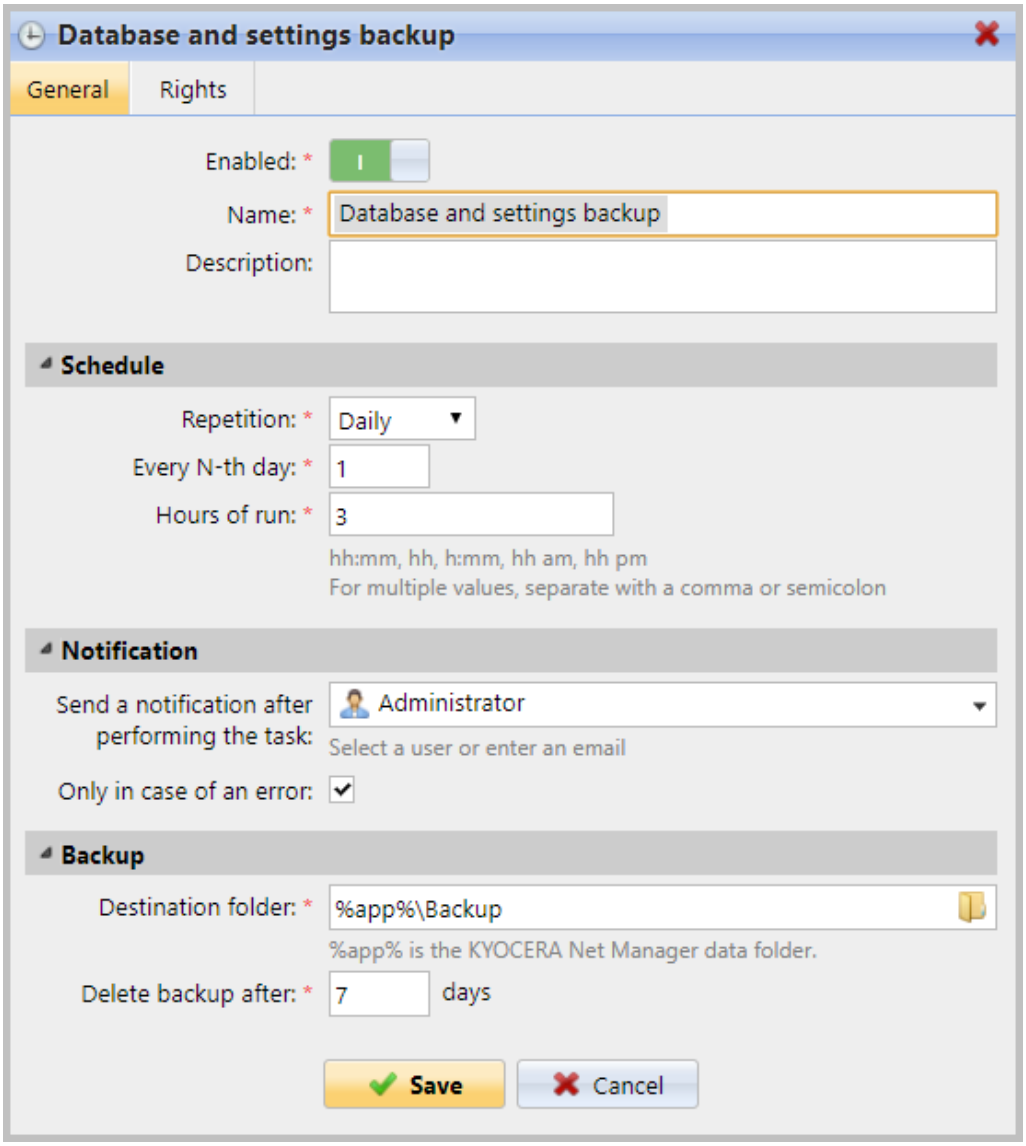


Changing database and print file locations is done using the KNM Easy Config application.



Creating a scheduled backup of the KNM database

To set up a periodic database backup in the Task Scheduler, go to **Settings** > **Task Scheduler** and edit the **Backup/Database and settings backup** entry.



Setting	Description
Name	The name of the task.
Description	More detail, if needed.
Schedule	• Repetition - Minute, Daily, Weekly, Monthly, or Quarterly • Every... - changes depending on Repetition option selected

Setting	Description
	• Hours of run
Notification	An email notification can be sent after performing the task. Select **Only in case of error** to limit notifications to errors.
Destination folder	The folder for the database backup.
Delete backup after	Period after which the old backup should be deleted.

Creating an unscheduled backup of the KNM database

You can also back up the database manually.

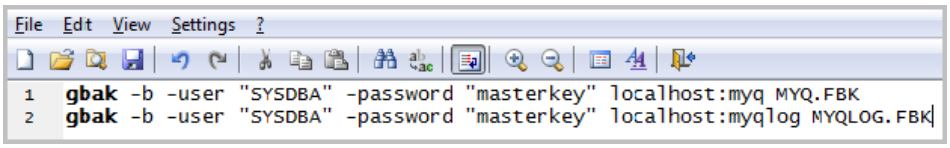
1. Open the location for data storage.
2. Open your backup script, backup_db.bat, in Notepad.

   The parameter -b will perform the database backup independently of the version of the database service.

   The default access parameters -user and -password for the KNM database are SYSDBA and masterkey, respectively.

   If the password for the database was changed by KNM Easy Config, type the changed password.

   The last two parameters specify the .fdb source file and the resulting .fbk file.



3. Run the backup_db.bat file to start the backup of MYQ.FDB and MYQLOG.FDB databases.

After the backup is completed, MYQ.FBK and MYQLOG.FBK are created.

Restoring databases and data via Easy Config

With the Easy Config application, you can backup and restore the databases directly from the backup zip archive.

1. Install a full installation of the system.
2. Open the Easy Config database tab and select the archive with the database.
3. Expand Restore data section, click **Select** to change folder of the database, if needed.
4. Select database or log files to restore.

5 If the database needs to be upgraded, select **Upgrade database after restore**.

6 Click **Restore**.

7 Click **Yes** to confirm.

Restoring the KNM databases via batch file

1 Before restoring the databases from the .FBK files, save the existing MYQ.FDB and MYQLOG.FDB database files.

2 Open the location of the KNM databases MYQ.FBK and MYQLOG.FBK.

3 In Notepad, open your script restore_db.bat for restoring databases.

The parameter will restore the database and overwrite the existing .fdb file.

The default access parameters –user and –password for the KNM database are SYSDBA and masterkey, respectively.

The last two parameters specify the .fbk source file and the resulting .fdb file.

```
net stop myq
gbak -rep -user "SYSDBA" -password "masterkey" MYQ.FBK localhost:myq
gbak -rep -user "SYSDBA" -password "masterkey" MYQLOG.FBK localhost:myqlog
net start myq
pause
```

4 Before database restoration, close the KNM web interface and stop the KNMweb server. Stop the web server in the KNM Easy Config application. You can also stop the KNM web server through the Apache service in the system.

5 Run the restore_db.bat file to start the database restore from the MYQ.FBK and MYQLOG.FBK files.

After completing the database file restore, the existing MYQ.FDB and MyQLOG.FDB files will be recreated, and eventually overwritten. The KNM service start-up is confirmed by the information at the end of the script: “The KNM service was started up successfully.”

6 Press any key to exit the Restore script.

Moving KNM to a new server

Preparing for a move to a new server

1 Deactivate the system licenses before moving KNM to another server.

The reason for this is that the license is bound to the hardware code (generated according to your server hardware components) of your server. For deactivation of the licenses, contact support.

2 Back up your database C:\ProgramData\Kyocera\KYOCERA Net Manager \MyQ.fdb.

For safety purposes, it is better to use the compressed format of the database, MyQ.fbk.

3 Save the print jobs. Copy the jobs from their folder to your backup folder, C:\ProgramData\Kyocera\KYOCERA Net Manager\Jobs.

The last two steps are optional for installations with modified bin files and reports:

4 Save any modified BIN file for your printers.

The BIN files are stored in the folder C:\ProgramData\Kyocera\KYOCERA Net Manager\Bin. Save all BIN files in this folder.

5 Save your custom reports.

The custom reports are stored in the folder C:\ProgramData\Kyocera\KYOCERA Net Manager\Reports\Custom. Copy all the custom reports in this folder.

Installing a new KNM server

1 Install the new server. Use the same version of KNM.

2 When the installation is done, stop all the services with the KNM Easy Config application. Only the database server must be running.

3 Copy the compressed database file, MyQ.fbk, into the database folder. Run the database restoration process.

4 Deactivate all services with the KNM Easy Config application.

5 Copy the files you saved into their folders.

- Copy Jobs into C:\ProgramData\Kyocera\KYOCERA Net Manager\Jobs
- Copy BIN files into C:\ProgramData\Kyocera\KYOCERA Net Manager\Bin
- Copy Custom reports into C:\ProgramData\Kyocera\KYOCERA Net Manager\Custom Reports

6 Activate all services.

7 Activate the licenses in the KNM web interface.

Connecting terminals, drivers and printers

Terminals

Set a new IP address for communication. This includes hardware terminals, Kyocera Embedded terminals and Android terminals. Set the new IP address with the Terminal Manager application.

Drivers

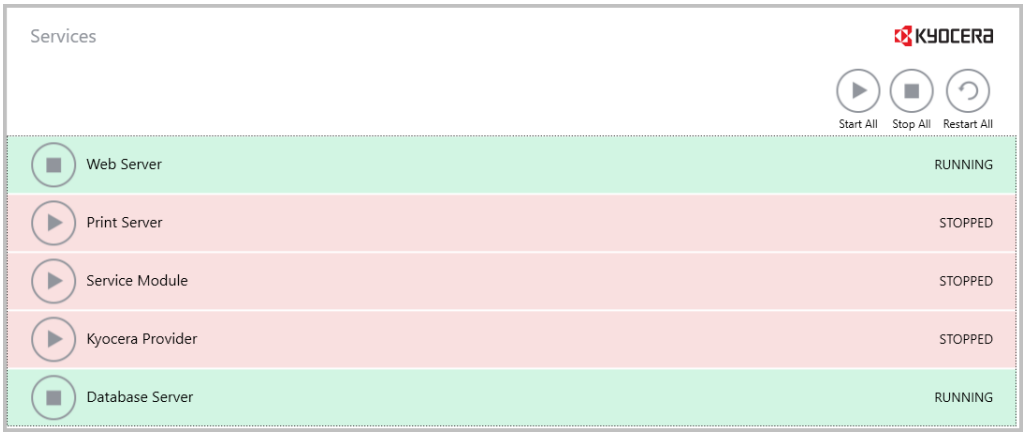
Make the same change on the drivers. Modify the port forwarding all the jobs to KNM and set the IP address of the new KNM server.

Printers

Configure the SMTP setting on the devices to match the new server. The outgoing SMTP must be set to send scanned data to the KNM server.

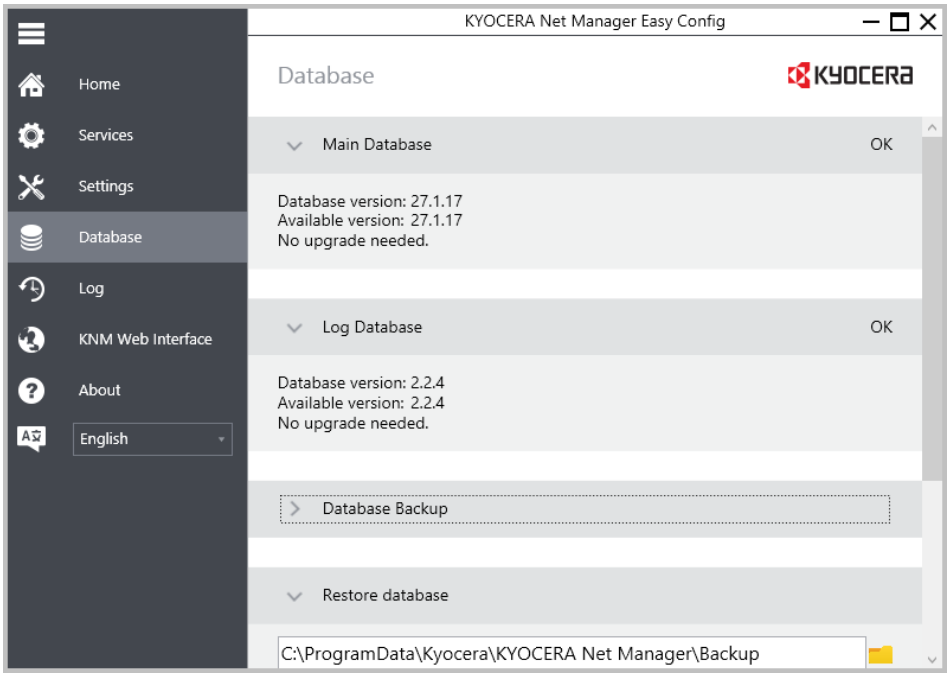
Database upgrade

When upgrading or installing the database from a backup file, the database may require an upgrade to the latest version. If the Print Server and Plug-in services will not start after inserting the database, the database is outdated.



Checking and upgrading the database version

1. Open the Database tab and check the version of database. If Status shows that the Available update version is higher than the Database version, the system reports: **Upgrade needed**.
2. Click **Upgrade**.



Easy Config upgrades the database automatically.

3 When the upgrade is finished, restart all services.

Upgrade and Uninstall

Upgrade

> **!** Before updating on Windows Server 2008 / 2008 R2/ 2012 / 2012 R2 / 2016 (or on Windows 7/ 8/ 8.1/ 10), make sure that the latest Windows updates are downloaded and installed on the server.

> **!** Direct upgrade to 7.0 and higher versions from versions lower than 5.10 is no longer supported. These versions have to be upgraded via an intermediary version, for example update to v6.2 first.

To upgrade your KNM version or to reinstall the current version, back up your database and save the files in the KNM directory. Then follow the instructions for installing KNM.

If the KNM installer detects an older KNM version, it asks you for permission to proceed with the installation. Click **Yes**.

Uninstall

1 To uninstall KNM, run **unins000.exe** in the directory C:\ProgramData\Kyocera \KYOCERA Net Manager\.

2 Click **Yes** to continue.

Uninstallation includes the database and web server.

3 Click **OK**.

The KNM uninstallation does not delete KNM database files. These files can be deleted manually. If you leave them in the system, they will be detected by KNM during the next installation. The installer prompts you to choose to use the older database files or overwrite them.

20 Easy Cluster

Easy Cluster is used to switch between the Active and Backup Net Manager servers in the event of an Active server failure. Install Net Manager on two different physical servers, one to be the Active server and the other the backup server. The Active server periodically backs its data up to a shared folder. The Backup server monitors the Active server and takes over if the Active server fails.

In the event of Active server failure:

Automatic mode

The Backup server turns the Active server off, receives its IP address, recovers the database from the backup and activates Net Manager on the Backup server.

Manual mode

The Backup server sends email notification to the system Administrator, who starts the Backup server manually in Easy Config.

Once the Active server can be repaired or replaced, the Backup server can automatically restart all the functions of the Active server.

Requirements

- You need two different physical servers for Easy Cluster.
- These servers should not be used for anything other than Net Manager and Easy Cluster.
- Net Manager Easy Cluster should not be installed on the domain controller.
- Set up a backup folder for the Active server that is not on the Active server.

  In the event of Active server failure, this folder must be available for the Backup server to access the stored files.

- Provide a special local admin account on both servers with rights to log on as a service.
- To ensure successful failover from Active to Backup servers, both must be on the same IP subnet and use a static IP address. IP configuration over DHCP is not supported.

License

- The Easy Cluster feature is available only with a Net Manager Pro license.
- The license is set only on the Active server. In a failover, the license is downloaded from the active server backup folder to the Backup server.
- In a failover, the license on the Backup server will be active for 7 days. If the Active server is down beyond 7 days, contact your dealer or sales company to reactivate it.

Installing and configuring Easy Cluster

1. Install Net Manager Pro on both servers.
2. Install the Net Manager Pro license on the Active server. The Backup server does not require a license.

   Make sure the master password on the Net Manager database is the same on both servers.

3. Open config.ini in a text editor and add these lines:

   [ExtraFeatures]

   EasyCluster=1

4. Save the file and restart all services from Easy Config.
5. Set up a folder for the database backup. This folder cannot be located on the Active server and must be accessible to both the Active and Backup servers.
6. Create an identical user with Administrator rights on both servers and set **Log on as a service user** in the local policies of both servers.
7. In Net Manager on the Active server, go to **Settings** > **Easy Cluster**.
8. Set Enabled to **On** and fill in the remaining fields (all except Password are required)

Backup server IP address	IP address of the backup KNM server (static IP address).
Backup server network adapter	Select the network adapter from the dropdown showing all available on the server.
Active server IP address (this server)	IP address of the current KNM server.
Network mask.	Filled in automatically.
Gateway IP address	Filled in automatically.
Backup folder	Provide the path to the folder for backup of the Active server. The Backup server uses this data for failover.
Backup period	Define (in minutes) the backup frequency.
Active server failure time out	Define (in minutes) how long the Backup server waits without response from the Active server before initiating failover.
Backup server start mode	**Manual**: the Backup server sends email to the system Administrator and they start the failover process. **Automatic**: The Backup server starts the failover process automatically.

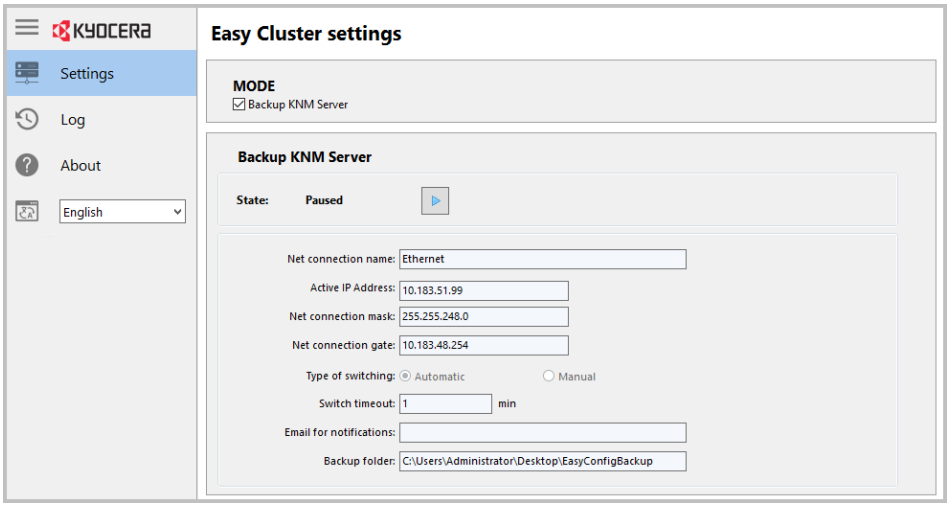
User name	KNM uses this account to access the backup folder and switch off the Active server.
Password	Set password for the account that performs the failover.

Enabling Easy Cluster

1. Double click MyQEasyCluster.exe (C:\ProgramFiles(x86)\Kyocera\KYOCERA Net Manager\\Server\).
2. In Easy Cluster settings, select Backup KNM Server.

   Easy Cluster must be enabled on both the Active and Backup servers before entering the Backup Server settings.

3. Enter the settings for the Backup KNM Server.



Launching and shutting down the server

1. After configuring both Active and Backup servers for Net Manager, click **Start**. The Active server will appear as Running.
2. To stop either server, click **Pause**.

   Check the log on the Active server to view all actions performed (for example, saving the database, checking backup server availability, etc.)

3. To access logs, click the **Log** tab in Easy Config.

   If you want to shut down the Active server without activating the Backup server failover, you must pause the Backup server before shutting down the Active server.

Simulating server failure

To check that the servers are set properly and Easy Cluster is working, run a failure simulation test. Before starting the test, make sure that both servers have activated the Easy Cluster interface and that both are in active (Running) status.

1. Set the Backup server start mode to **Automatic**.
2. Set the Backup period and Active server failure timeout to one minute.

   The Active server will save its database to the shared backup folder every minute.
3. Deactivate the Active server. (Stop all services in Net Manager Easy Config on the Services tab.)
4. Within one minute (Active server failure timeout period) the Backup server will take over the following functions:
   - Acquire the IP address of the Active server
   - Recover the saved database from the backup
   - Turn the Active server off
   - Start the Net Manager service on the Backup server
   - Send an email notification to the system administrator

A Backup period of one minute is suitable only for testing with a small Net Manager database file.

Restoring active server

Follow these steps after a failover or test to bring the main server back to the Active state. Net Manager printing services will be unavailable until these steps are completed, so this should be done outside of business hours.

Follow the steps exactly and in sequence. If the Active server is brought back online before the Backup server IP is changed back to its pre-failover value, an IP conflict will occur on the network.

On the Backup server

1. Run Net Manager Easy Config and stop the Net Manager server service. Leave Web server, Cluster server and Database server running.
2. Change the IP address of the backup server back to its pre-failover value.
3. Make a backup of the Net Manager database by running the batch jobC:\ProgramData\Kyocera\KYOCERA Net Manager\backup_db.bat.

   The backup script must be run from a command prompt with elevated privileges.

   Edit the backup_db.bat file to contain the correct database administrator credentials.

4 Move the new database backup file (myq.fbk) to a location accessible from the Active server.

On the Active server:

5 Restore the Net Manager database from the backup file.

6 Run Net Manager Easy Config and verify that all services are running correctly.

On the Backup server:

7 Go to the Easy Cluster tab in Net Manager Easy Config and click Active server.

Reactivation is now finished.

Before switching the Active server back on after a failure, do not forget to change the IP address of the Backup server to its pre-failover value.

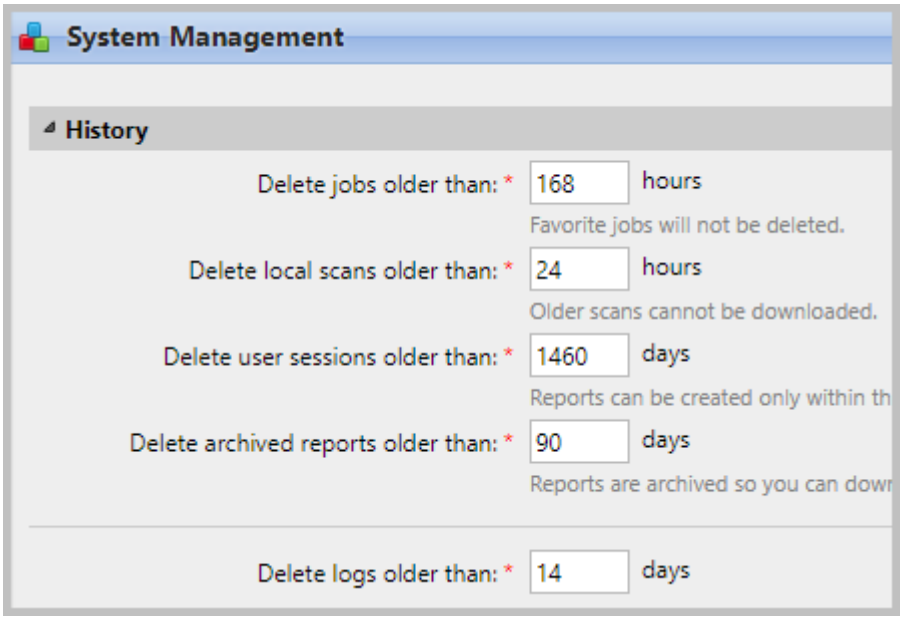
21 System Management

The following areas are found under **Settings** > **System Management**:

- History
- Advanced
- System Maintenance

History

The KNM database and print job storage may contain redundant data. To avoid this state, set an interval to regularly delete database records and print jobs. Open **Settings** > **System Management** > **History**.



Delete jobs older than

Sets a time after which print jobs are deleted from data storage, whether printed or not. The default is 7 days (168 hours).

Print jobs indicated as Favorite are not deleted. They can be printed any time from the web interface until they are deleted from the server.

Delete local scans older than

Once deleted, older scans cannot be downloaded. The default is 24 hours.

Delete user session older than

Sets a limit for maintaining statistical data concerning the use of printer devices by individual users.

For example, setting the parameter to 365 days means that user configurations (statistics) older than 1 year are deleted and cannot be retrieved. Because even a high volume of user session data does not increase the database size considerably, we recommend not decreasing the default value of 4 years (1460 days).

Delete archived reports older than

Reports are saved to download without executing.

Delete logs older than

Deletes all log types: all log types: Critical, Error, Warning, Info, Notice, Debug, andTrace. The default period is 14 days.

Limits set too low may lead to a loss of important statistical data.

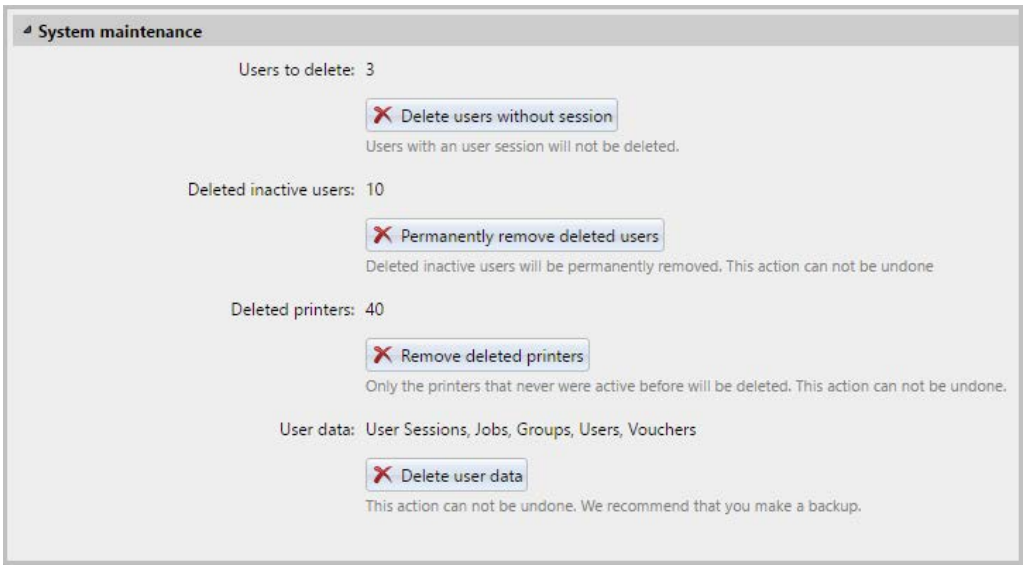
Advanced

In this area, you can set the maximum size of files that can be uploaded on the KNM web interface, such as print jobs uploaded on users' accounts, or custom logos.

System maintenance

Completely remove inactive and deleted users, printers and user data. Go to **Settings** > **System Management** > **System maintenance**.

These actions cannot be undone. Back up your data before performing any of them.



22 GDPR Compliance

The General Data Protection Regulation (GDPR) sets rules for handling the personal identification information of all European Union (EU) citizens.

Anonymize user data

As part of GDPR compliance, the Administrator can anonymize KNM user data for a single user or multiple users.

The anonymize process removes personal data. The process cannot be reversed. However, the anonymize process does not apply to users in the database backup files. This means that the process of anonymization may need to be repeated when the backup database is used.

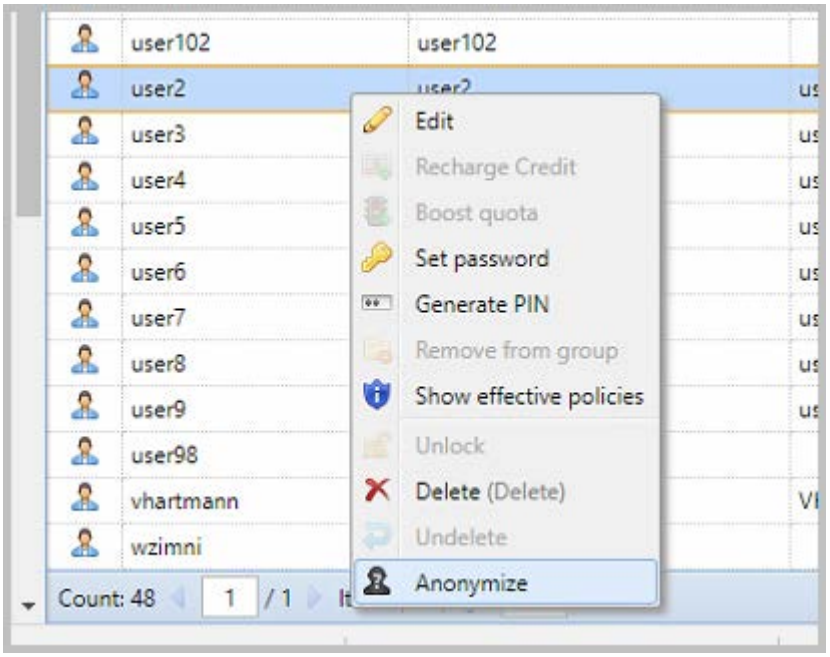
Backup database files are automatically deleted after a set number of days configured in Task Scheduler.

Jobs archived with the Job archiving feature cannot be anonymized. The Job archiving feature is not compatible with GDPR.

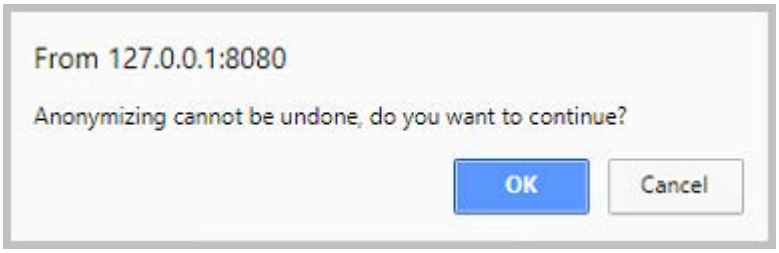
Anonymizing user data

The anonymize process removes personal data for users, including deleted users and jobs.

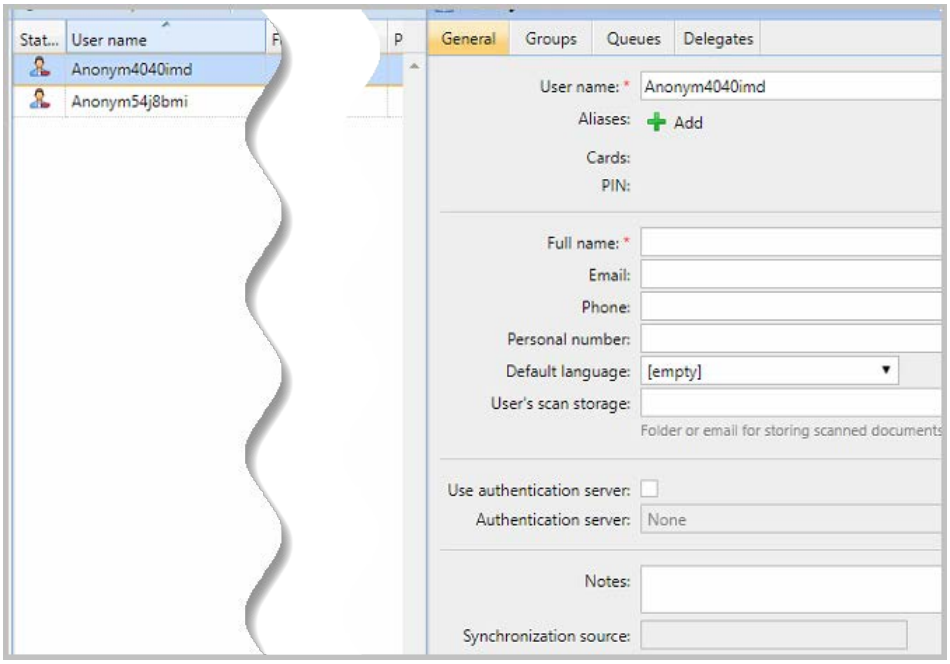
1. Go to **Users** and select one or more users. Right-click and choose **Anonymize**.



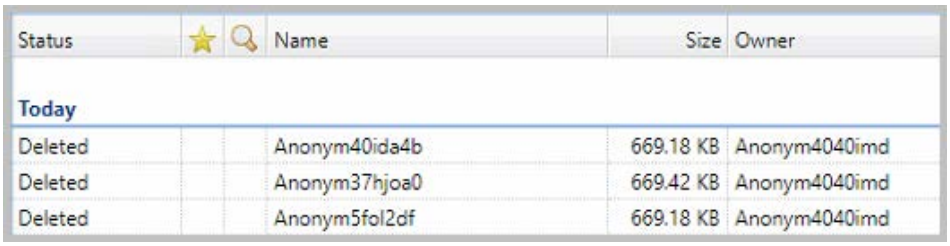
2 Click **OK** to confirm.



The selected users are deleted. The user name is changed to Anonymxxxxxx and all personal data is removed.

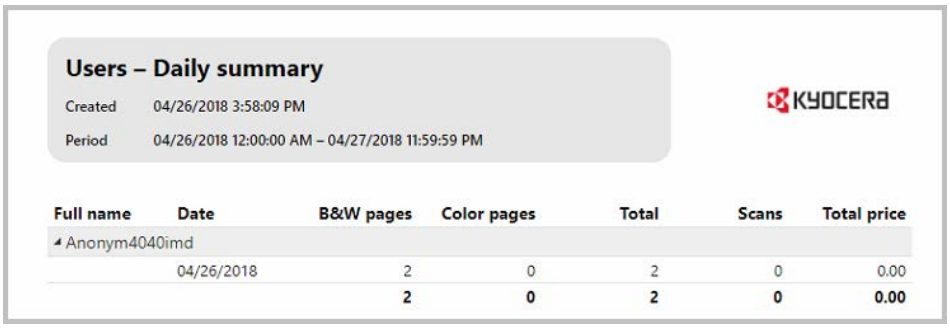


The users jobs are deleted and the job names are changed to Anonymxxxxxx.



Status			Name	Size	Owner
Today					
Deleted			Anonym40ida4b	669.18 KB	Anonym4040imd
Deleted			Anonym37hjoa0	669.42 KB	Anonym4040imd
Deleted			Anonym5fol2df	669.18 KB	Anonym4040imd

User data in reports is also changed to Anonymxxxxxx.



Users – Daily summary

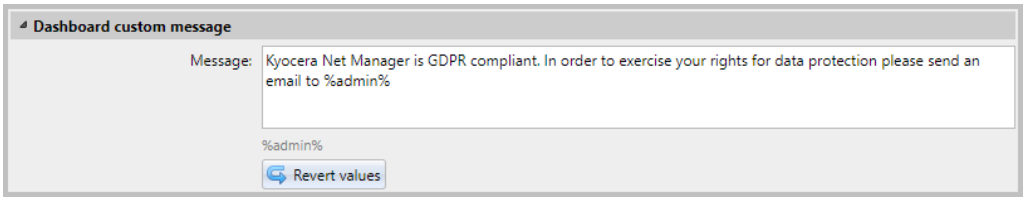
Created 04/26/2018 3:58:09 PM

Period 04/26/2018 12:00:00 AM – 04/27/2018 11:59:59 PM

Full name	Date	B&W pages	Color pages	Total	Scans	Total price
Anonym4040imd						
	04/26/2018	2	0	2	0	0.00
		2	**0**	**2**	**0**	**0.00**

Dashboard user message

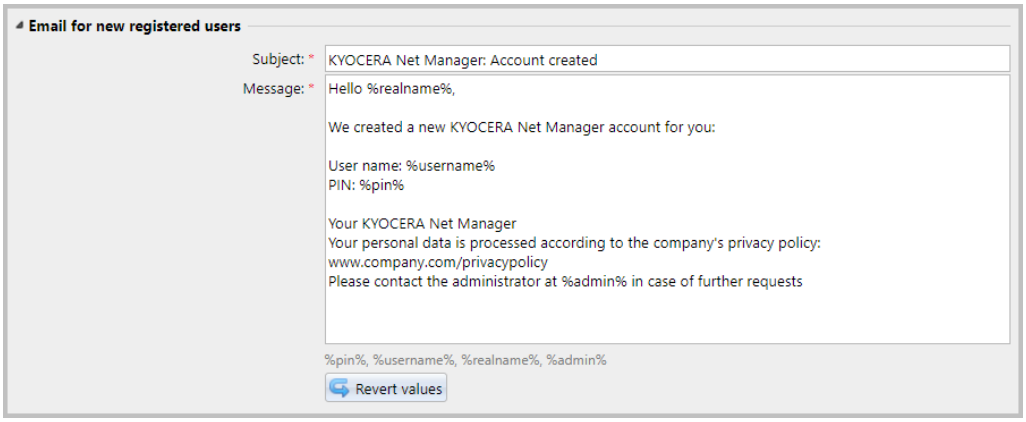
As part of GDPR compliance, administrators can add a message on the user's homepage. The user cannot change, hide, or delete this message. This message could also contain a link to the company privacy statement.



Administrator email in templates

As part of GDPR compliance, you can use the %admin% parameter in templates to show the Administrator's email address. The %admin% parameter is configured in **Settings** > **General**.

The template for email sent to newly registered users can be modified to contain GDPR-related information so that users can be informed about their rights and procedures to exercise their rights. A link can be included to the company privacy statement.



The %admin% parameter can be used in any of these templates:

- **Settings** > **Users**
  - Email for new registered users
  - Email with a new PIN
  - Email with the PIN reset code
- **Settings** > **Scanning & OCR**
  - Default settings of an email with scan
- **Settings** > **Quota**
  - Quota warning email
  - Quota exceeded email
- **Settings** > **Personalization**

- Dashboard custom message

Configuring dashboard user message

1 Go to **Settings** > **General**, enter the Administrator email, and click **Save**.

2 Go to **Settings** > **Personalization** > **Dashboard custom message**. Add a privacy message similar to the one below. Use the %admin% parameter to allow an email to be sent to the Administrator email address.

The sample message also has a link to the company privacy policy.

3 Click **Save**.

4 Log in as the user to confirm the message is appearing correctly.

Configuring the user home page to display personal information

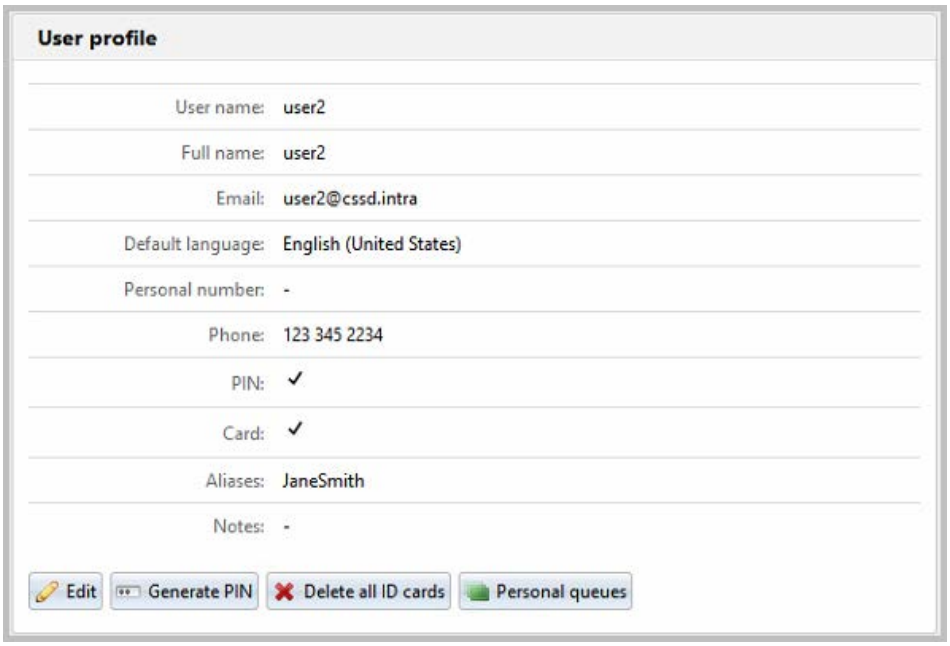
As part of GDPR compliance, the Administrator can configure the user home page to display the user's personal information.

1 Got to **Settings** > **Users** > **General**.

2 Select **Show more info about user profile**.

3 Click **Save**.

4 Log in as a user and confirm that the user's personal information displays.



Appendix : Special Email Commands

This appendix shows all special email commands that can be used with the system.

myqfwd-email@domain	Any email coming from the printer into the system will be discarded if the device status is not in user session. To forward messages from devices, you must use the email address with prefix myqfwd-. For example, if you would like to send it to the email address administrator@test.com, you have to set it as myqfwd-administrator@test.com in the device. The email will be automatically forwarded to the email. You may see this operation in the system log.
myqocr.format@knm.local (for devices without Embedded terminal)	This is a command for when you are using OCR as a part of scan management. This is intended for devices that do not have the HyPAS platform for installing an Embedded terminal. Devices with an Embedded Terminal are using the OCR profiles that can be set via the Terminal Actions menu in the web interface. This command must be entered as the prefix.format@knm.local. The scanned filed in saved in the folder according to the format used and afterward processed by the OCR software.
email@knm.local (for devices without Embedded terminal)	This is a command for scan management on devices without Embedded terminal. This command sends the file to the email stored in the system as user's email account.
folder@knm.local	Sends the document to the folder or emails set in the **User's scan storage** text box on the user's properties panel.
something@knm.local (for devices without Embedded terminal)	This is a command for scan management on devices without Embedded terminal. This command sends the file to the user’s scan storage. Use whatever expression you want in place of "something".

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