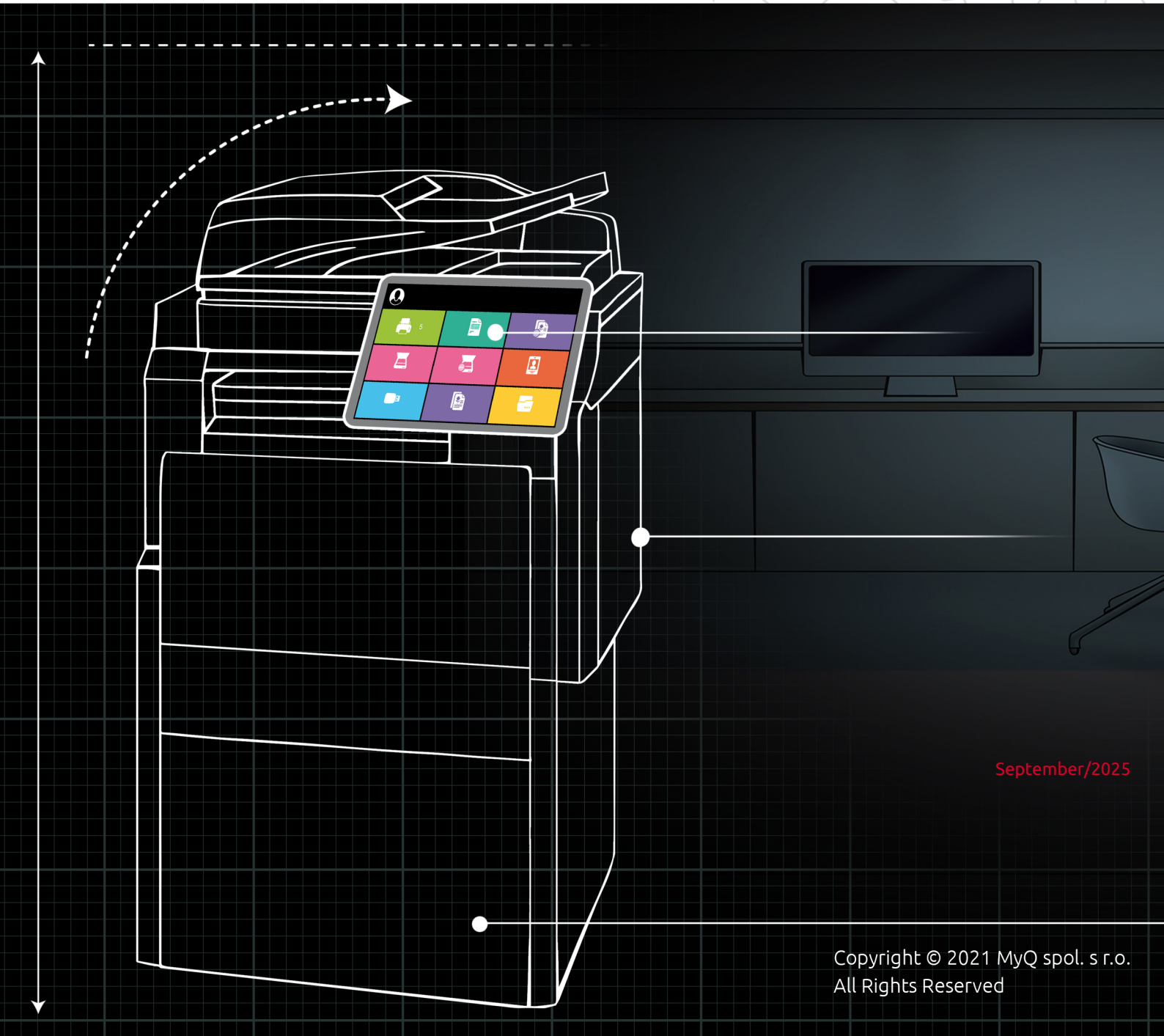
myQ X

Print Server 8.2



September/2025

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MyQ Print Server 8.2

> ⚠ **MyQ Print Server 8.2** has reached End of Life. **MyQ Print Server 10.2** is now available.
> See the MyQ Product & Support End-of-Life Policy.

MyQ is a universal printing solution that provides a wide variety of services related to printing, copying, and scanning. All functions are integrated into a single unified system, which results in an easy and intuitive employment, with minimal requirements for installation and system administration.

The main areas of application of the MyQ solution are monitoring, reporting and administration of printing devices; print, copy, and scan management, extended access to printing services via the MyQ Mobile application and the MyQ Web Interface, and simplified operation of printing devices via MyQ Embedded terminals.

Here you can find all the information needed to install, configure, upgrade, and uninstall the MyQ® print management system, how to set up the system through the MyQ Web Administrator Interface, activate licenses, and set print ports. Furthermore, you can learn how to maintain the MyQ® system, acquire its statistical data, and monitor the print environment.

All changes compared to the previous version are listed in the release notes, available online and in PDF.

1 Basic Information

Here you can find all the information needed to install, configure, upgrade, and uninstall the MyQ® print management system. It describes how to set up the system through the MyQ web administrator interface, activate licenses, and set print ports. Furthermore, it shows how to maintain the MyQ® system, acquire its statistical data, and monitor the print environment.

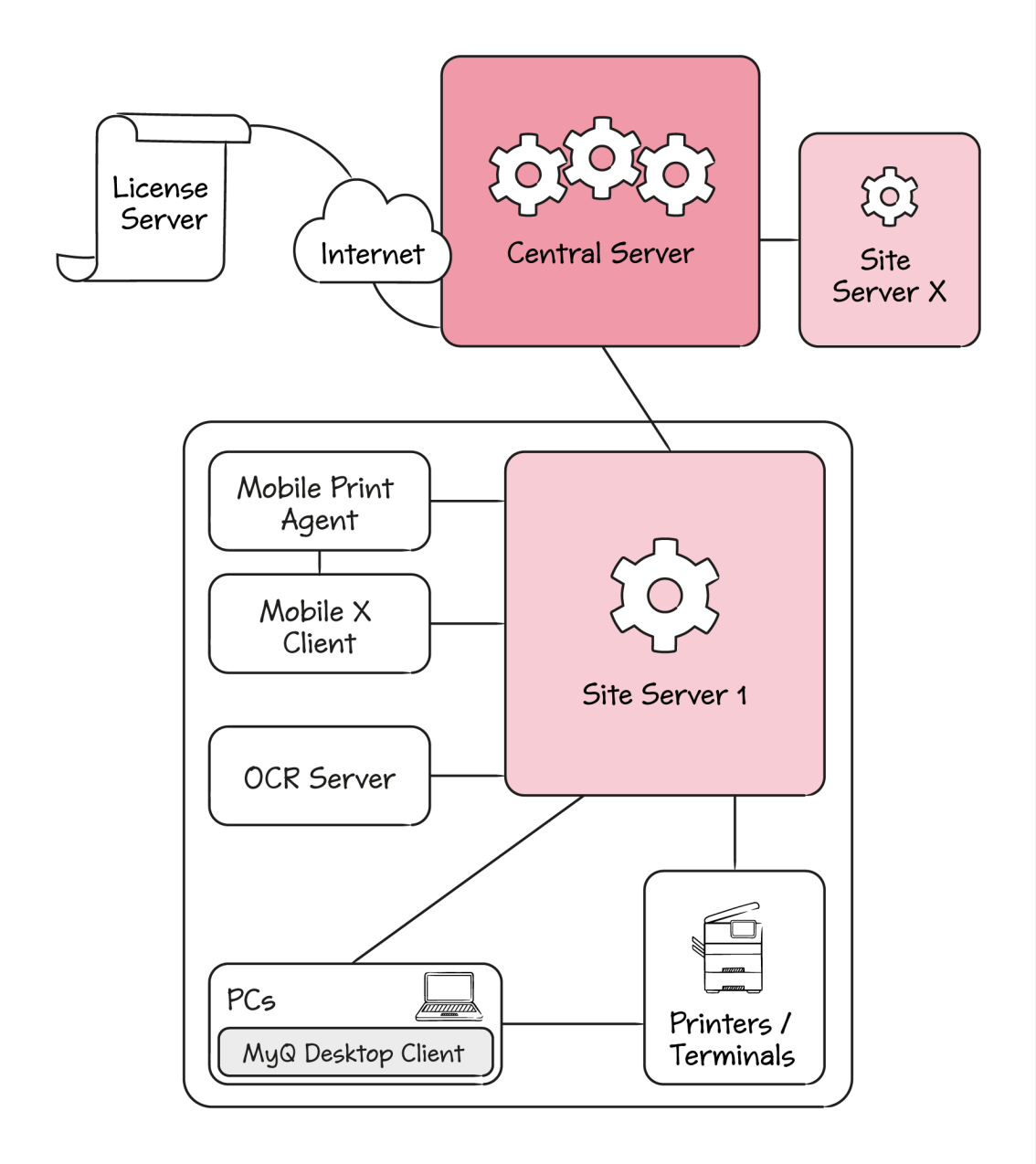
MyQ is a universal printing solution that provides a wide variety of services related to printing, copying, and scanning. All functions are integrated into a single unified system, which results in easy and intuitive employment with minimal requirements for installation and system administration.

The main areas of application of the MyQ solution are monitoring, reporting and administration of printing devices - print, copy, and scan management - extended to printing services via the MyQ Mobile application, and the MyQ web interface, and simplified operation of printing devices via MyQ Embedded terminals.

1.1 MyQ Architecture

1.1.1 MyQ Servers and applications

MyQ is a distributed system made of servers and client applications. The image below depicts a high level overview of all the components and main communication channels. Each component usually runs on its own computer be it a server, a PC, a mobile phone, or a printer.



The **Central Server** is responsible for **Site Servers** configuration, reporting, and licensing. Site Servers still need additional individual configuration.

A **Site Server** is responsible for print job spooling, scan delivering, user interaction with printers, printer monitoring, and many more.

MyQ Desktop Client is an additional application running on users PCs. It offers user authentication and identification, project and cost-center selection, local printers monitoring (mostly USB), client spooling and many other features.

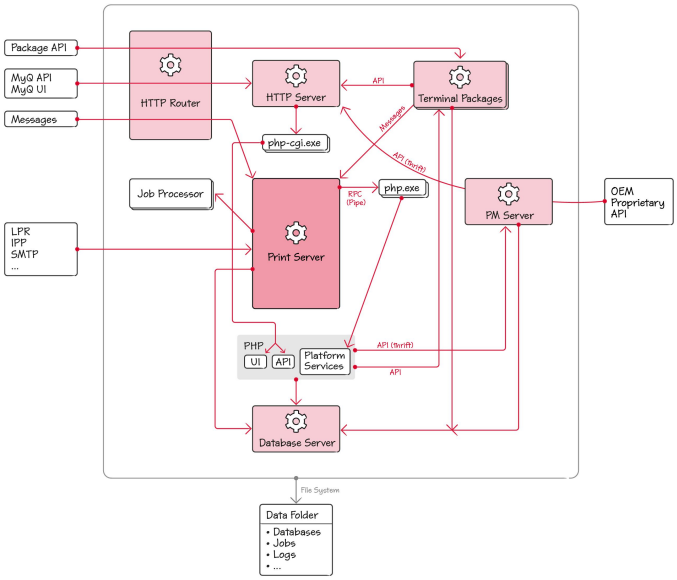
The **OCR Server** is used for Optical Character Recognition on scan jobs. An OCR server uses lots of resources, so it usually runs on its own machine.

The **MyQ X Mobile Client** is used for native printing on iOS, macOS, and Android devices.

Mobile Print Agent gives users access to printers via AirPrint (for iOS), and Mopria Print Service (for Android smart phones or tablets). It usually runs on its own machine with access to a Wi-Fi network where mobile devices can discover it.

1.1.2 Print Server from the OS process perspective

In the image below, you can see what OS processes are running on a Print Server, and what the main communication channels are.



The heart of the system is the **Print Server**. It's based on the WSF Platform – MyQ's platform for network services development. MyQ specific logic is implemented as Platform services, which are packaged in **plugin*.dll** files. These plugins are written in C++ and a few of them also in C#. WSF Platform also supports services implemented in PHP. PHP doesn't support DLLs, so the platform services implemented in PHP are invoked via a set of **php.exe** workers.

The **Print Server** also manages a set of **Job Processor** workers which are used for job parsing. The **Job Processor** is running as a process and not as a part of the **Print Server**, to avoid its failure in case of the **Job Processor's** failure.

As a network server, **Print Server Service** is responsible for receiving print jobs via LPR, IPP, and other protocols. It also handles Messages, which is our push-notifications engine. Messages are used to notify clients about events in the system.

Apache is an HTTP server for our Web UI and MyQ REST API. Both applications are implemented in PHP. Apache is maintaining a set of **php-cgi.exe** workers to handle execution.

HTTP Router is our reverse proxy through which all incoming HTTP based traffic flows. It's main functionality is TLS termination.

Terminal Packages implement the embedded terminal for a specific vendor. They expose their own API used by the printers.

PM Server is a component created by Kyocera. It provides API to configure Kyocera devices and to install the embedded terminal application. PM Server uses the Thrift technology to implement its API. MyQ is also providing part of its API via Thrift, so PM Server can access it.

Many of the components use the **Database Server** to store data. Furthermore, many of the components including Firebird, store their data in the **MyQ Data Folder** which is located by default in *C:\ProgramData\MyQ*. In production, this folder is typically located on a network drive.

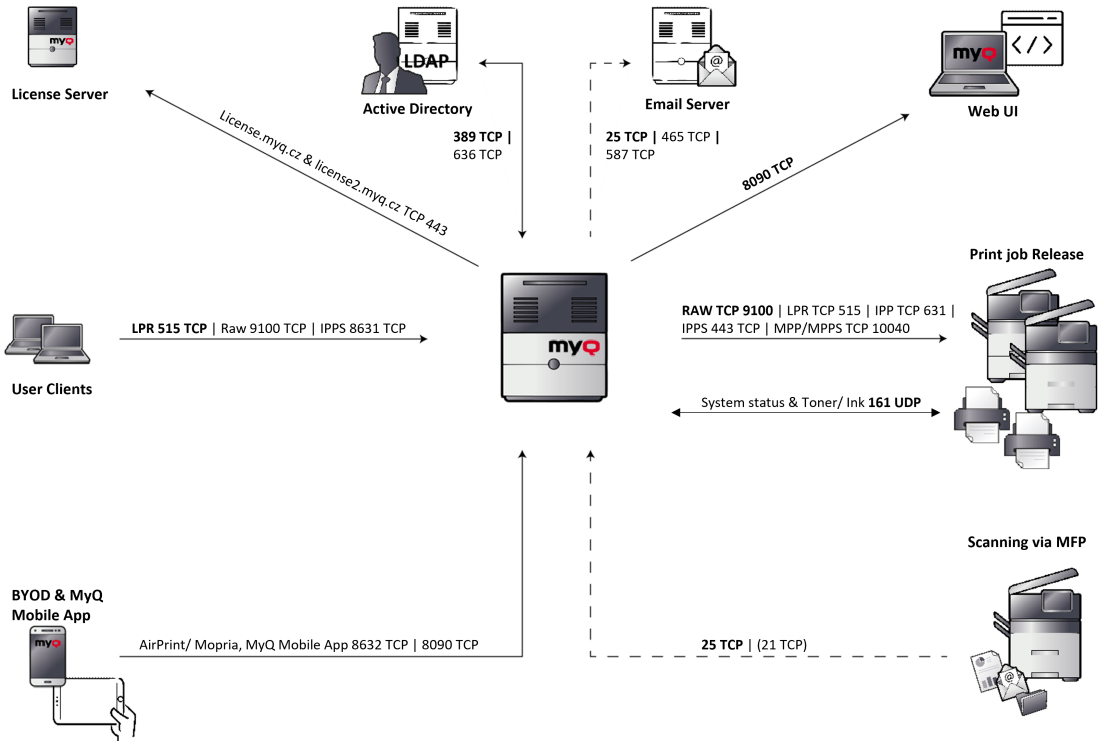
Executable names

Friendly name	Executable name	Alternative names
HTTP Router	traefik.exe	Traefik
HTTP Server	httpd.exe	Apache
Database Server	firebird.exe	Firebird
Print Server	myq.exe	
Kyocera Provider	knum.server.exe	PM Server
*Terminals	MyQ*Terminal.exe	Terminal Package
Job Processor	MyQJobProcessor.exe	

*used for vendor name

1.2 Network Communication Architecture

The image below depicts an overview of the components and main network communication channels.



MyQ --> License server: An external connection to the MyQ license server is required for license activation. (Old license model license.myq.cz, new license model license2.myq.cz).
The connection is protected via 443 TCP. If a connection to the license server is not possible, there is also the possibility of offline activation.

MyQ <--> Active Directory: User synchronization (LDAP/ Open LDAP) takes place via port 389 or 636 by default.

MyQ --> Email Server: Scans/emails are first transmitted from the MFP to MyQ server. This server acts as a relay for emails and forwards the emails to the stored customer email server. The required ports are individual, depending on the corresponding settings of the customer email server.

MyQ --> MyQ Web UI: HTTP protocol for accessing the MyQ web interface as well as communication with embedded terminals and job roaming between MyQ servers.:
https//:serverhostname:8090
If needed, the unsecure connection can be enabled in MyQ Easy Config, using port *8080*.

MyQ --> Print job Release: The output of the print jobs from MyQ server to the MFP is done via RAW 9100 by default (can be changed if required LPR, IPP, IPPS, MPP, MPPS).

The device status of the printing systems, as well as toner and ink stands, are read out via SNMP UDP 161. (SNMP protocol can be changed if required SNMP v1, SNMP v2, SNMP v3).

MyQ <-- Scanning via MFP: All scans (email/folder) are done via port 25 by default, FTP port 21 if required.

MyQ <-- BYOD & MyQ Mobile App: For working with smartphones/tablets, both AirPrint/Mopria and MyQ Mobile App, port 8632 and 8090 are required.

MyQ <-- User Clients: Printing to a MyQ queue is done via a print object configured for this purpose. By default, printing to the MyQ server is done via LPR port 515.

2 System Requirements

⚠ The operating system and other software require their own additional system resources. The system requirements described below are only for MyQ solution.

2.1 MyQ Print Server - Site mode (Central Server & Site Servers architecture)

2.1.1 Site servers Hardware requirements up to 30 000 devices:

	1-10 devices	11-100 devices	101-300 devices	301-600 devices	601 - 30 000 devices
Physical Core	5	6	8	10	10
RAM	6GB	8GB	12GB	14GB	14GB
Minimum number of servers	1x Central server 1x Site server	1x Central server 1x Site server	1x Central server 1x Site server	1x Central server 1x Site server	1x Central server More Site servers with max 600 devices each
Storage space	30GB	33GB - 350GB	380GB - 1TB	1,4TB - 2TB	2TB per 600 devices

(calculated with AMD Ryzen Threadripper 1920X 3,5GHz)

For the **MyQ Central Server** Hardware specification, check the MyQ Central Server guide.

Valid for a typical use case

- Print job spooling via Windows spooler or directly to MyQ print queue
- Integrated Firebird database - installed automatically
- Activated Job Parser
- Activated Credit Accounting
- Activated Quota
- Activated Job Archiving
- High number of Office documents printed via email/web/mobile
- Use of MyQ Desktop Client (MDC) or
  - Use of MyQ Smart Job Manager (SJM)
  - Use of MyQ Smart Print Services (SPS)
- Watermarks used in queues
- Heavy usage of MyQ API

- 170 users per device (up to 100 000 users total)
- Heavy printing
- 30% active user sessions at once
- Embedded terminal installed on all devices
- User synchronization from Central Server
- Data replication to Central Server

2.1.2 Recommendations

- Install Windows updates out of working hours.
- Always monitor the server performance during peak usage hours and adjust the settings accordingly.
- Changing the power plan of Windows Server in *Control Panel – Hardware – Power Options* from Balanced (the default setting) to **High performance** is recommended to utilize the maximum performance. This may help speed up database operations.

2.2 MyQ Print Server - Standalone mode

2.2.1 MyQ Print Server Hardware requirements up to 600 devices:

	1-10 devices	11-100 devices	101-300 devices	301-600 devices
Physical Core*	3	4	6	8
RAM	6GB	8GB	12GB	14GB
Storage space	30GB	33GB - 350 GB	380GB - 1TB	1,4T - 2TB

*It is recommended to use +1 physical core if Credit/Quota is used.
(calculated with AMD Ryzen Threadripper 1920X 3,5GHz)

Valid for a typical use case

- Print job spooling via Windows spooler or directly to MyQ print queue
- Integrated Firebird database - installed automatically
- Activated Job Parser
- Activated Job Archiving
- High number of Office documents printed via email/web/mobile
- Use of MyQ Desktop Client (MDC) or
  - Use of MyQ Smart Job Manager (SJM)
  - Use of MyQ Smart Print Services (SPS)
- Watermarks used in queues

- Heavy usage of MyQ API
- 170 users per device (up to 100 000 users total)
- Heavy printing
- 30% active user sessions at once
- Embedded terminal installed on all devices

2.2.2 Recommendations

- Install Windows updates out of working hours.
- Always monitor the server performance during peak usage hours and adjust the settings accordingly.
- Changing the power plan of Windows Server in *Control Panel – Hardware – Power Options* from Balanced (the default setting) to **High performance** is recommended to utilize the maximum performance. This may help speed up database operations.

2.2.3 Storage

The MyQ Print Server installation files are approximately 700MB.

The annual printing volume for 1 printer is approximately 10,000 jobs; it is possible to multiply this value for the particular number of printers.

MyQ data folder (jobs, main database, and log database increasing):		
10k jobs	**100k jobs**	**1M jobs**
35GB	300GB	3,5TB

Counted for jobs with 2,9MB size.

By default, jobs are deleted every 7 days.

The Job archiving feature needs additional free space in data storage due to used configuration.

A dedicated disk for MyQ Data storage (jobs, main database and log database) is recommended.

During upgrades of the MyQ Print Server system, the actual size of the MyQ installation on the server (including MyQ database) may temporarily grow up to four times.
The size of the MyQ database depends on the size and complexity of your printing environment (number of users, printing devices, sent jobs etc.).

Storage performance

- minimum 100 IOPS required.
- RAID data storage supported.
- for systems with a large number of direct queues, it is strongly recommended using SSD.

2.2.4 MyQ Desktop Client

If there are 100 - 1000 or more client computers using MyQ Desktop Client (MDC) (or MyQ Smart Job Manager (SJM) and/or MyQ Smart Print Services (SPS)), the MyQ Print Server requires 2+ physical cores just for the MyQ Desktop Client operations. The recommended configuration may vary according to the system load.

2.2.5 Recommended no. of users and groups

Users: up to 100,000 (30,000 - 60,000 per one synchronizing line). Depends on the length and number of fields for synchronization.
Groups: up to 40,000/10 tree levels (group in group in group). Each user can be in up to 50 groups.

2.2.6 Operating System

Windows Server 2012/2012 R2/2016/2019/2022, with all the latest updates; only 64bit OS supported.
Windows 8.1/10/11**, with all the latest updates; only 64bit OS supported. Be aware of the connection limit of up to 20 clients (Windows EULA).

**For the trouble-free running of the machine, it is strongly recommended using a Windows Server
operating system.

2.2.7 Additional software required

- Microsoft .NET Framework (any version recommended by Microsoft).
- For Windows Server 2022, it is necessary to install Server Core App Compatibility Feature on Demand (FOD) (https://docs.microsoft.com/en-us/windows-server/get-started/server-core-app-compatibility-feature-on-demand)
  It can be installed from PowerShell as a Windows Update using this command: *"Add-WindowsCapability -Online -Name ServerCore.AppCompatibility~~~~0.0.1.0"* and then restart.

2.2.8 Web browser

- Microsoft Edge 91 or higher (Recommended)
- Google Chrome 91 or higher
- Mozilla Firefox 91 or higher
- Apple Safari 15 or higher
- Opera 82 or higher
- Internet Explorer and MS Edge Legacy are no longer supported

WebSocket notifications only work with valid certificates in some browsers. Some MyQ features may have limited functionality without them, and it's recommended to have them valid and installed on all client devices.

2.2.9 Security

DigiCert Global Root CA certificate (required for Installation Key license activation)
→ https://www.digicert.com/kb/digicert-root-certificates.htm#roots.
It should be included by default in the latest updated Windows versions.
Supported Public Key Infrastructure for asymmetric cryptography.

Limitations

- To make sure that the MyQ system runs smoothly, you need to set an exception for MyQ in your antivirus setup.
- MyQ should not be installed on a Domain Controller.

2.3 MyQ installation in Private cloud

MyQ can also be installed in Private Cloud. For requirements and further details, see Installation in Private Cloud.

2.4 MyQ and Easy Cluster

Since MyQ Print Server 8.1.5+, Easy Cluster has been removed from the installation package. For versions 8.1 - 8.2 it is available only on request from MyQ Support. Be aware that an old version of the 1.0.2t OpenSSL library is included in that package.

Only full embedded (a.k.a. UDP) terminals are supported by Easy Cluster (e.g., only Kyocera and Ricoh brands). The last version of the Embedded terminals which is still supported is version 7.5. The newer 8+ terminals are no longer supported.

For further information, check the *MyQ Easy Cluster* guide.

2.5 Installed parts and possible conflicts

The installation file contains, besides the MyQ system itself, installations of a Firebird database server, an Apache web server, PHP runtime, and PM server. With the Scan Management function activated, the MyQ system uses its own SMTP server.

If there are other systems that run on the same server and use databases, web interfaces, PHP, or email servers, there is a risk of system conflicts. These conflicts can cause malfunctions on one or more of the systems. Therefore, we recommend you install MyQ on a server with a clean OS installation.

MyQ fully supports installation on virtual servers.

2.6 Main Communication Ports

If you need to adjust your firewall, it is recommended to allow MyQ processes in the firewall and not particular ports. If you allow particular ports, MyQ may stop working if:

1. you change port settings in MyQ, or
2. you upgrade to a newer version and the port specification has changed.

Terminal packages may use additional ports. Check the particular terminal package specification for details.

2.6.1 Incoming Ports

The server is listening on the following ports (does not include private ports):

Protocol	Port	Configurable	Description
TCP	21	Yes (WebUI)	FTP protocol for receiving scans. The server runs only in passive mode and each data connection runs over a dynamic port in the 49152 - 65535 range.
TCP	25	Yes (WebUI)	SMTP protocol for Scan Management function, receiving email notifications from printers, and for receiving emails with jobs.
TCP	587	Yes (WebUI)	SMTPS protocol. Used in the same scenarios as SMTP.
TCP	515	Yes (WebUI)	LPR protocol for print job transmission to the MyQ server.
TCP	9100	Yes (WebUI)	RAW protocol for print job transmission to the MyQ server.
TCP	8631	Yes (WebUI)	IPPS protocol for print job transmission to the MyQ server.
TCP	8632	Yes (WebUI)	AirPrint/MOPRIA protocol for print job transmission to the MyQ server.
TCP	8090	Yes (Easy Config)	HTTP protocol for accessing MyQ web interface, communication with Embedded terminals and job roaming among MyQ servers.
UDP	11112	No	Communication with MyQ Desktop Client (MDC) - former MyQ Smart Job Manager (SJM) and MyQ Smart Print Services (SPS). The answer is returned on a dynamic port in the 49152 - 65535 range.

Protocol	Port	Configurable	Description
UDP	11108	No	Communication with old terminals (7.6 and older).
TCP	8080	Yes (Easy Config)	Upgrade only. Obsolete HTTP protocol for accessing MyQ web interface, communication with Embedded terminals and job roaming among MyQ servers. Can be removed in Easy Config and only 8090 can be used.

PM Server:

Protocol	Port	Configurable	Description
TCP	631	No	Port for Mobile print via IPP.
TCP	717	No	Port for Mobile print via IPPS.
TCP	9090, 9091	No	Necessary for remote setup of Kyocera embedded terminals.
TCP	9092	No	Felica reader
TCP	9093	Yes (WebUI)	Authentication / Authorization.
TCP	9094	No	Driver access, mobile access.
TCP	9095	Yes (WebUI)	Spooler service.
TCP	9097	Yes (WebUI)	Log information event.

Protocol	Port	Configurable	Description
TCP	9098	Yes (WebUI)	Job status event.
TCP	9099	Yes (WebUI)	Thrift access.
TCP	9101	No	User session service.

2.6.2 Outgoing Ports

The server is connecting to the following ports (does not include localhost connections):

Protocol	Port	Description
TCP	443	• IPPS protocol for print job transmission from MyQ to printing devices. • License activation server. The MyQ license server address is license2.myq.cz. The old MyQ license server address is license.myq.cz. • Other enabled services from Settings→External Systems (Microsoft Universal Print, One Drive, ...)
TCP	515	LPR protocol for print job transmission from MyQ to printing devices.
TCP	631	IPP protocol for print job transmission from MyQ to printing devices.
TCP	9100	Raw protocol for print job transmission from MyQ to printing devices.
TCP	10040	MPP/MPPS protocol for print job transmission from MyQ to printing devices.
UDP	11108	Communication with old terminals (7.6 and older).

You can also setup additional services that require further configuration and their port will often differ:

Protocol	Port	Default	Description
TCP	Custom	110	Connection to email server via POP3 protocol for receiving jobs via email.
TCP	Custom	143/993	Connection to email server via IMAP/IMAPS protocol for receiving jobs via email.
TCP	Custom	25/465/587	Connection to SMTP server for sending outgoing emails from MyQ.
TCP	Custom	389/636/1812	Connection to Authentication server(s) (LDAP, Radius, ...) for user authentication/synchronization.
TCP	Custom	8093	Connection to MyQ Central Server.
UDP	Custom	161	SNMP protocol for communication with printing devices. Answer from printer is returned on a dynamic port.
TCP	Custom	-	Connection to External credit account.

MyQ can connect to dynamic ports in the following contexts:

Protocol	Port	Description
UDP	Dynamic	Communication with MDC (former SJM and SPS). The port range is 49152 - 65535.

2.6.3 Embedded Packages Ports

Kyocera

If SSL is on, it's used for the following events:	Events are notified internally to the embedded application. No network communication is used.
MyQ Server **(Protocol: Port - Description)**	• HTTP or HTTPS: 8090 (default) - it depends on the configuration in MyQ Easy Config. • SMTP: 25 (default) - it depends on the port configured in MyQ, Settings, Network, SMTP. Used for Panel Scan to email)
Package **(Protocol: Port - Description)**	HTTP: 8081 to 8089 (default) - It depends on the port selected during the installation of the package on the server. This is used only in localhost. **Kyocera 8.0+** A random TCP port is opened on each package service start/ restart, to be used for receiving scans over FTP. The package then tries to configure the Windows firewall to open the port for outside connections.

Printer **(Protocol: Port - Description)**	TCP: 11108 - TCP link to device. Usage: Receive requests from Package. TCP: 10040 - Usage: Use printer as a proxy for TCP communication. UDP: 11108 in - UDP Link to device. Multipurpose. It dispatches all the received UDP packages. Usage: Receive requests to get local jobs. UDP: 11108 out - Send broadcast to printers. GetJobs (Local Spooling) TCP: 10030 - TCP link to device. Usage: Receive requests or responses from other devices. TCP: 10010 - Usage: Receive raw data of print jobs for local direct print job. TCP: 10011 - Usage: Receive raw data of print jobs for local hold job. TCP: 10013 - Usage: Receive raw data of print jobs for local delegate job. TCP: 10020 - Usage: Receive raw data of print jobs for local LPR jobs. TCP: 10012 - Usage: Receive raw data of print jobs for local pull print jobs (Pull Print). **Note**: Other ports used by the printer (common for all printers. Eg 9100 for raw printing, etc.).
HP	
If SSL is on, it's used for the following events:	All types of events go through SSL
MyQ Server **(Protocol: Port - Description)**	• HTTP or HTTPS: 8090 (default) - it depends on the configuration in MyQ Easy Config. • SMTP: 25 (default) - it depends on the port configured in MyQ, Settings, Network, SMTP. Used for Panel Scan to email)

Package **(Protocol: Port - Description)**	HTTP: 8081 to 8089 (default) - It depends on the port selected during the installation of the package on the server. This is used only in localhost.
Printer **(Protocol: Port - Description)**	57627 - non SSL 7627 - SSL
Toshiba	
If SSL is on, it's used for the following events:	All types of events go through SSL
MyQ Server **(Protocol: Port - Description)**	• HTTP or HTTPS: 8090 (default) - it depends on the configuration in MyQ Easy Config. • SMTP: 25 (default) - it depends on the port configured in MyQ, Settings, Network, SMTP. Used for Panel Scan to email)
Package **(Protocol: Port - Description)**	HTTP: 8081 to 8089 (default) - It depends on the port selected during the installation of the package on the server. This is used only in localhost.
Printer **(Protocol: Port - Description)**	50083 - for calling Event Source manager of the machine 49629 (46930 for secure connection) - for calling Output Management Service of the machine
Xerox	
If SSL is on, it's used for the following events:	Always SSL
MyQ Server **(Protocol: Port - Description)**	• HTTP or HTTPS: 8090 (default) - it depends on the configuration in MyQ Easy Config. • SMTP: 25 (default) - it depends on the port configured in MyQ, Settings, Network, SMTP. Used for Panel Scan to email)

Package **(Protocol: Port - Description)**	HTTP: 8081 to 8089 (default) - It depends on the port selected during the installation of the package on the server. This is used only in localhost.
Printer **(Protocol: Port - Description)**	HTTP: 80 - Used to access to Xerox EIP SNMP: 161 - Used to set up the configuration of the printer.
Canon	
If SSL is on, it's used for the following events:	Events are notified internally to the embedded application. No network communication is used.
MyQ Server **(Protocol: Port - Description)**	• HTTP or HTTPS: 8090 (default) - it depends on the configuration in MyQ Easy Config. • SMTP: 25 (default) - it depends on the port configured in MyQ, Settings, Network, SMTP. Used for Panel Scan to email)
Package **(Protocol: Port - Description)**	HTTP: 8081 to 8089 (default) - It depends on the port selected during the installation of the package on the server. This is used only in localhost.
Printer **(Protocol: Port - Description)**	TCP: 11108 - TCP link to device. Usage: Receive requests from Package. TCP: 10040 - Usage: Use printer as a proxy for TCP communication. **Note**: Other ports used by the printer (common for all printers. Eg 9100 for raw printing, etc.).
Ricoh	
If SSL is on, it's used for the following events:	Events are notified internally to the embedded application. No network communication is used.

Printer **(Protocol: Port - Description)**	TCP: 49109 - sends live application logs from the device. TCP: 11108 - TCP link to device. Usage: Receive requests from Package. TCP: 10040 - Usage: Use printer as a proxy for TCP communication. UDP: 11108 in - UDP Link to device. Multipurpose. It dispatches all the received UDP packages. Usage: Receive requests to get local jobs. UDP: 11108 out - Send broadcast to printers. GetJobs (Local Spooling) TCP: 10030 - TCP link to device. Usage: Receive requests or responses from other devices. TCP: 10010 - Usage: Receive raw data of print jobs for local direct print job. TCP: 10011 - Usage: Receive raw data of print jobs for local hold job. TCP: 10013 - Usage: Receive raw data of print jobs for local delegate job. TCP: 10020 - Usage: Receive raw data of print jobs for local LPR jobs. TCP: 10012 - Usage: Receive raw data of print jobs for local pull print jobs (Pull Print). **Note**: Other ports used by the printer (common for all printers. Eg 9100 for raw printing, etc.).
Sharp	
If SSL is on, it's used for the following events:	All types of events go through SSL
MyQ Server **(Protocol: Port - Description)**	• HTTP or HTTPS: 8090 (default) - it depends on the configuration in MyQ Easy Config. • SMTP: 25 (default) - it depends on the port configured in MyQ, Settings, Network, SMTP. Used for Panel Scan to email)

Package **(Protocol: Port - Description)**	HTTP: 8081 to 8089 (default) - It depends on the port selected during the installation of the package on the server. This is used only in localhost.
Printer **(Protocol: Port - Description)**	HTTP or HTTPS (depends on "Allow unsecure communication" in MyQ Easy Config). Default ports for Sharp OSA (Extended Platform): • HTTP: 10080 • HTTPS: 10443 Otherwise any port from the 0-65535 range
Epson	
If SSL is on, it's used for the following events:	All types of events go through SSL
MyQ Server **(Protocol: Port - Description)**	• HTTP or HTTPS: 8090 (default) - it depends on the configuration in MyQ Easy Config. • SMTP: 25 (default) - it depends on the port configured in MyQ, Settings, Network, SMTP. Used for Panel Scan to email)
Package **(Protocol: Port - Description)**	HTTP: 8081 to 8089 (default) - It depends on the port selected during the installation of the package on the server. This is used only in localhost.
Printer **(Protocol: Port - Description)**	HTTP or HTTPS (depends on "Allow unsecure communication" in MyQ Easy Config). Well known ports: • HTTP: 80 • HTTPS: 443

Some of the above mentioned ports can be changed in case of conflicts with other applications.

Conflicts of the communication ports with other software will be revealed by the **Windows socket error 10048** error message.

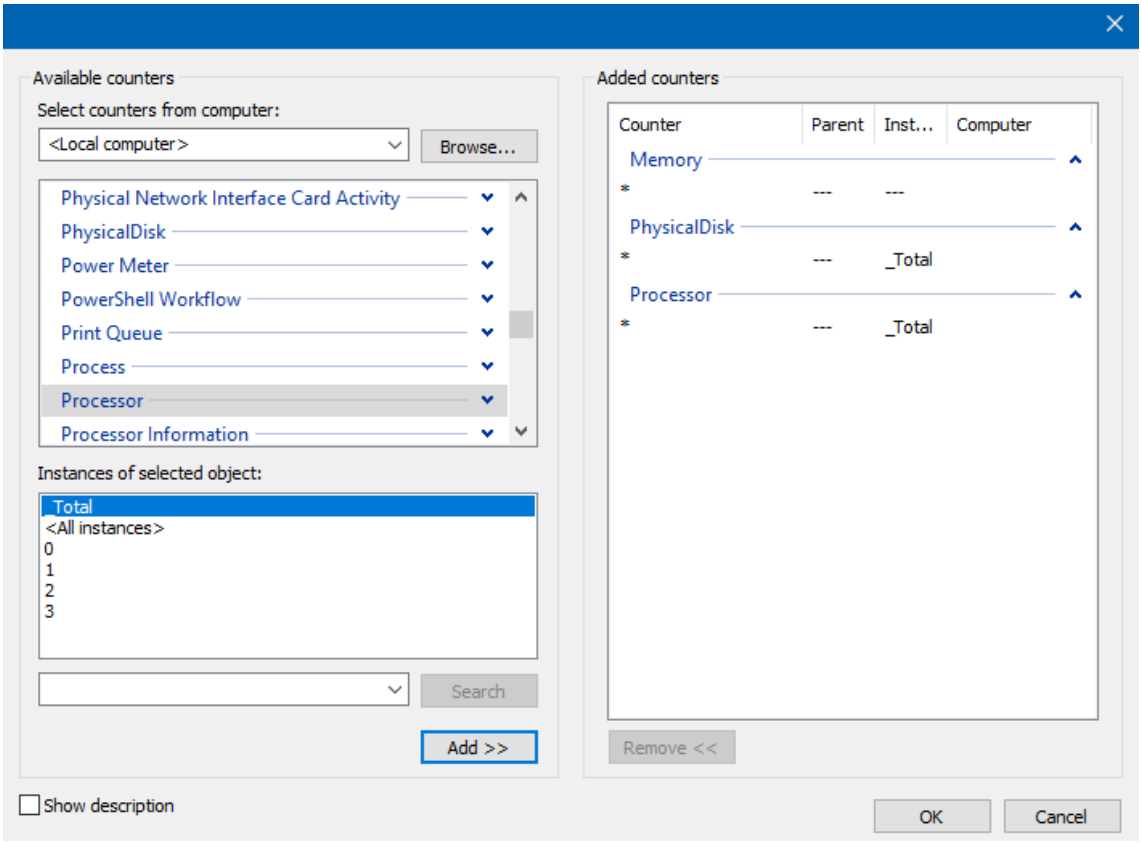
2.7 Windows Server Performance Monitor

You can use Windows Server Performance Monitor to gather system performance information that can help MyQ Support to troubleshoot MyQ server performance issues.

The following procedures describe how to configure Performance Monitor to log processor, disk, and memory performance information, respectively.

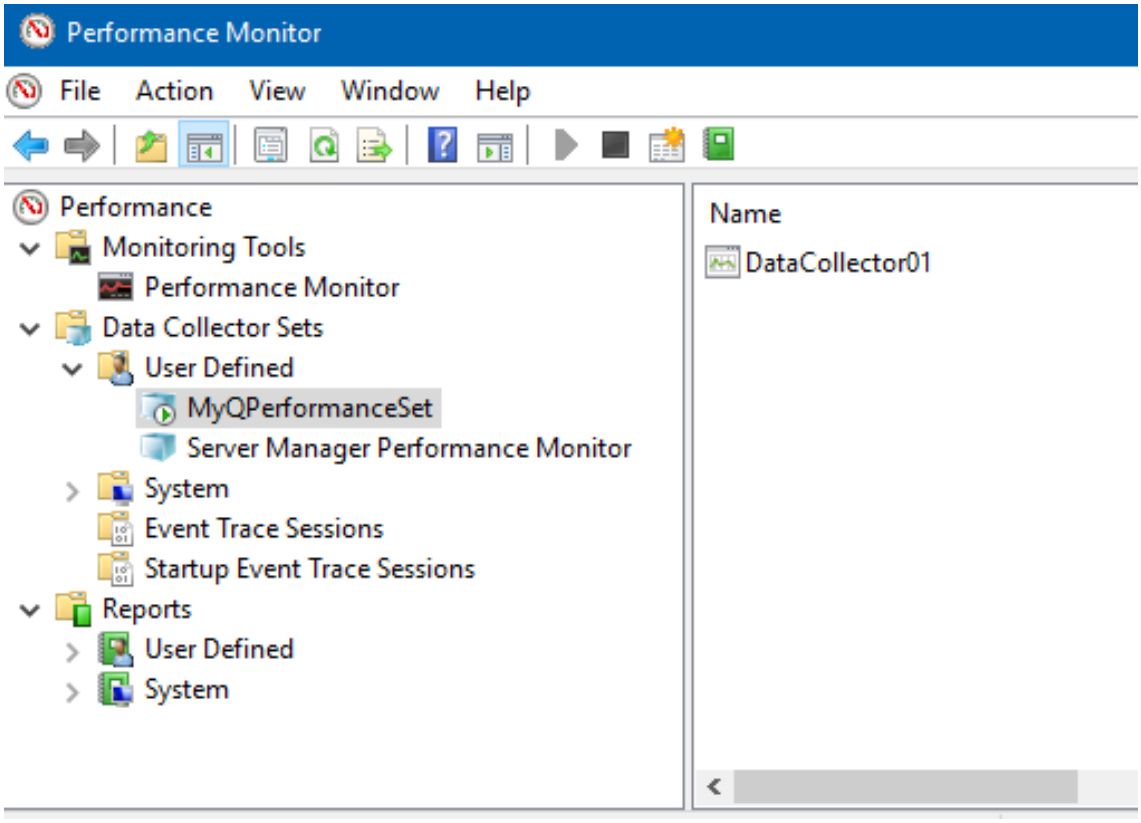
Enabling performance counters for processor, disk, and memory objects:

- Connect to the MyQ server, using an account with administrator rights.
- On the Windows taskbar, select **Start > Run**.
- In the **Run** dialog box, type `perfmon`, and then click **OK**.
- In **Performance Monitor**:
  - In the panel on the left, expand **Data Collector Sets**.
  - Right-click **User Defined**, and then select **New > Data Collector Set** in the contextual menu.
  - In the first **Create new Data Collector Set** wizard dialog box:
    - In the **Name** box, type `MyQPerformanceSet`.
    - Select **Create manually (Advanced)**.
    - Click **Next**.
  - In the second **Create new Data Collector Set** wizard dialog box:
    - Select **Create data logs**.
    - Select the **Performance counter** checkbox.
    - Click **Next**.
  - In the third **Create new Data Collector Set** wizard dialog box:
    - Click **Add**.
    - In the dialog box that appears, in the **Available counters** list, successively select the following performance counters, clicking **Add** for each of them:
      - **Memory**
      - **PhysicalDisk**
      - **Processor**
    - Click **OK**.
    - Click **Finish**.



When you are ready to start gathering performance information, in the main panel on the right, right-click **MyQPerformanceSet**, and then select **Start** in the contextual menu.

When you are ready to stop gathering performance information, in the main panel on the right, right-click **MyQPerformanceSet**, and then select **Stop** in the contextual menu.



To review the logged performance information, in Windows Explorer, locate and double-click the **.blg** file indicated in the **Output** column in **Performance Monitor**.

The **Performance Monitor** opens showing the collected data. Send the **.blg** file to MyQ Support.

3 Installation

This chapter shows you how to install the MyQ print management system.

Before you start the installation, make sure your system is up to date and meets the requirements as described in System Requirements.

1. Download the latest available version of MyQ from the MyQ Community portal.
2. Run the executable file. The **Select Setup Language** dialog box appears.
3. Select your language and click **OK**. The License Agreement dialog box appears.
4. Select **I accept the agreement** and click **Next**. The Accessibility mode dialog box appears.
5. Select between the *Standard* or *Enhanced* accessibility mode, and click **Next**. The Select Destination Location dialog box appears.
6. Select the folder where you wish to install MyQ. The default path is: *C:\Program Files\MyQ*.
7. Click **Install**. MyQ is installed on the server.
8. Click **Finish**. Depending on the OS settings on the server, you might be asked to restart the computer. If you are asked to restart the computer, you need to do so in order to finish the installation. After the restart, the MyQ Easy Config application opens and the MyQ database is upgraded. If not, you can select to directly run the MyQ Easy Config application by keeping the **Finish installation in MyQ Easy Config** option selected.

3.1 Installation in Private Cloud

MyQ Server can be installed and run, besides on-premises servers, also on an Azure Virtual Machine, with a VPN tunnel connecting the physical network and Azure's virtual network.

Environment Requirements:

- The minimum recommended virtual machine is B4ms, with a dedicated (non system disk) standard HDD.
  - The recommended CPU, RAM and HDD resources are the same as a standard installation and can be found in system requirements.
- VPN tunnel (100mbps line is recommended) connecting the physical network and Azure's virtual network where the MyQ Server is installed.
- Outgoing communication on ports used by MyQ must be allowed on Azure's Network security group. See main communication ports for a full list.
- The geolocation of the cloud server should be as physically close as possible.
- The Ping answer from printers to the cloud server should be within 750 ms (max 1 second, can be adjusted in config.ini)

For more information about *Azure - Extend an on-premises network using VPN*, see: https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/hybrid-networking/vpn#architecture

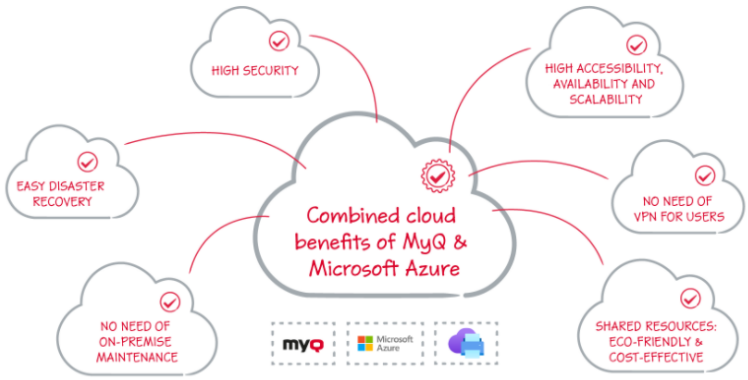
Once you set up the Azure virtual environment, follow the Installation instructions to install MyQ.

About MyQ in Private Cloud

Customers using Microsoft 365 as a private cloud hosting their internal systems can add MyQ to the list of IT services they no longer need to have installed on an on-premises server.

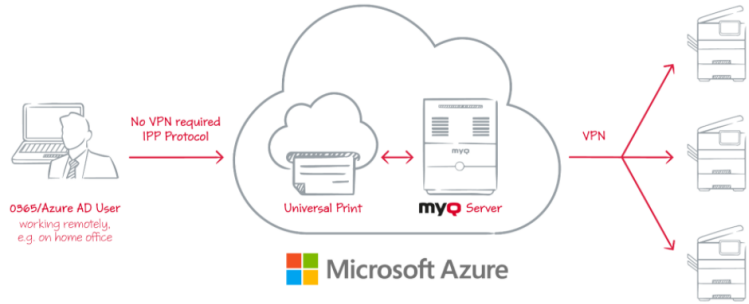
Part of the leased private cloud space can be dedicated to MyQ server(s), and MyQ running in Azure can make use of Azure Active Directories.

The single sign-on feature already used by users to access applications in the Microsoft cloud can also cover cloud printing with MyQ, without the need to use a VPN connection.



MS Universal Print is also fully integrated in MyQ, offering mobility, quick printer discovery, and no need for a VPN connection.

What is more, MyQ's Universal Print connector can work with older devices, so there's no need to invest into upgrading your fleet with more recent models which would natively support Universal Print.



A VPN tunnel connecting the physical network and Azure's virtual network is also required when using Microsoft Universal Print. Thanks to this VPN tunnel, there is no need for a VPN connection from the client’s side to the MyQ Server.

4 MyQ and MS Cluster

4.1 About

The MyQ MS Cluster high-availability solution consists of multiple nodes in the active/passive configuration with the MyQ Print server installed on each node. MS Cluster administrates the MyQ services and if the currently active node becomes unavailable, it switches to one of the available passive nodes.

4.2 System Requirements

The fully detailed MyQ Print Server system requirements can be found here.

- Compatibility with Windows Servers

The MyQ MS Cluster solution is supported by the following Windows Server versions and editions:

Windows Server	Editions
Windows Server 2012	Standard, Datacenter
Windows Server 2012 R2	Standard, Datacenter, Hyper-V® Server, Storage Server
Windows Server 2016	Standard, Datacenter
Windows Server 2019	Standard, Datacenter
Windows Server 2022	

- A prepared failover cluster with at least two nodes and storage for MyQ data is needed. Each node must meet the system requirements of the MyQ Print server and its components.
- The same time zone has to be set on each of the nodes.

If your setup includes embedded terminals, make sure to have the required .NET framework version installed in each cluster node. If not, the embedded terminal installation will fail. Further information can be found in the related MyQ Embedded terminal manuals.

If the MyQ Desktop Client, MyQ Smart Job Manager or the MyQ Smart Print Services applications are to be used on the MyQ users workstations, the IP address or hostname of the cluster has to be set in the applications (not the IP address or hostname of the nodes).

4.3 Licenses

With the new MyQ X licensing model with **Installation Keys** used in MS Cluster, there is only one installation key needed. The HW code is taken from the whole cluster, not individual nodes, so the license is activated against the cluster's HW, and not a single node.

With the old licensing model, when MS Cluster is used with the MyQ Print server, the amount of licenses needed depends on the number of nodes used, as the licenses need to be added and activated separately on each node.

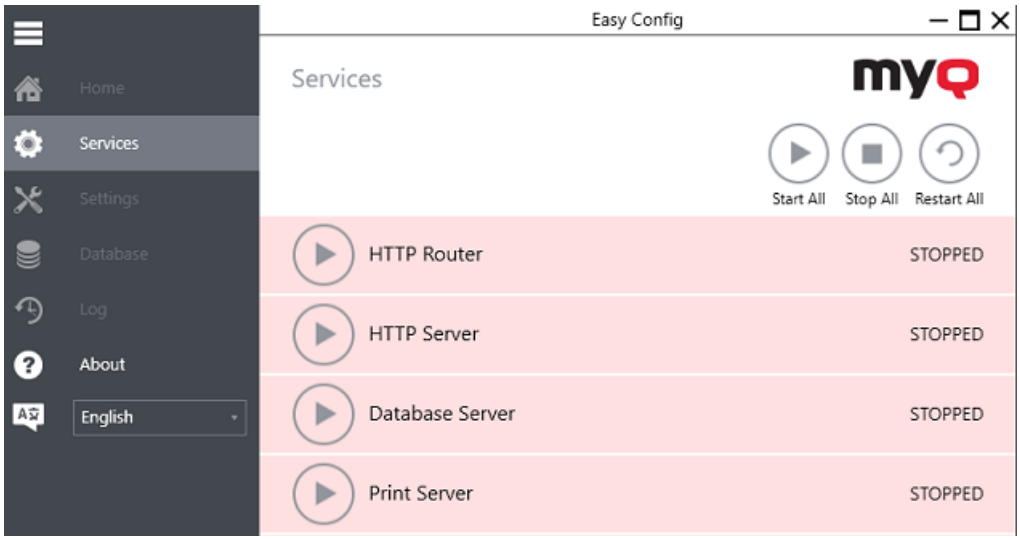
- MyQ server in Site mode - licenses are received from the Central server automatically every day or during MyQ service or Cluster Node restart.
- MyQ server in Standalone mode - needs an extra licenses set for each node; each licenses set must be activated only on one node.

4.4 Setup

4.4.1 Installing MyQ Print Server in the cluster (all nodes)

On each cluster node, do the following:

1. Run the MyQ installation file and install MyQ (details can be found here).
2. Make sure that the time zone set on the MyQ server is the same as the time zone set on each node).
3. **Stop All** MyQ services in the MyQ Easy Config application.



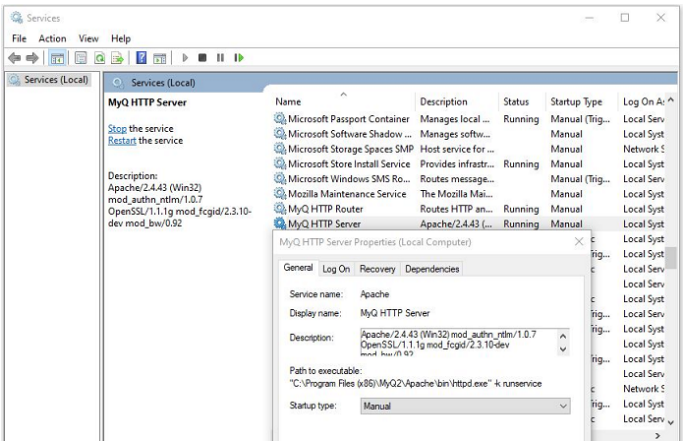
4.4.2 Setting services to manual startup (all nodes)

All services used by the MyQ server need to be set to manual startup, on every node.

The following services need to be changed this way:

- MyQ HTTP Server

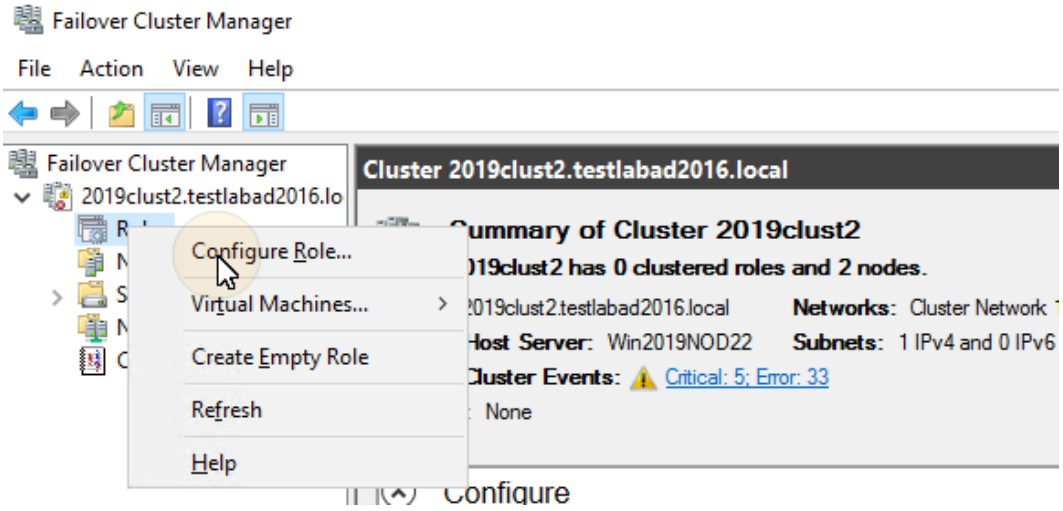
- MyQ HTTP Router
- Firebird Server - DefaultInstance
- MyQ Print Server
- MyQ Svc (not available in version 8.1+)
- PM Server
- *Brand* Terminals (only if embedded terminals are used)



4.4.3 Creating the MyQ server MS Cluster role (Failover Cluster Manager)

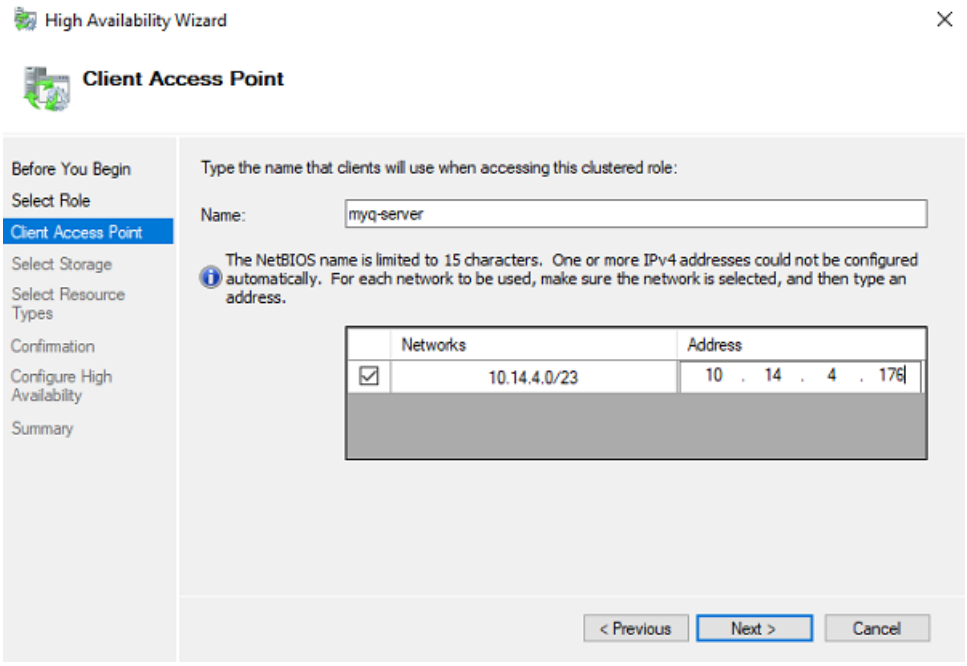
Open Failover Cluster Manager and do the following:

1. Right-click **Roles** and select **Configure Role** on the shortcut menu. The High Availability Wizard opens.

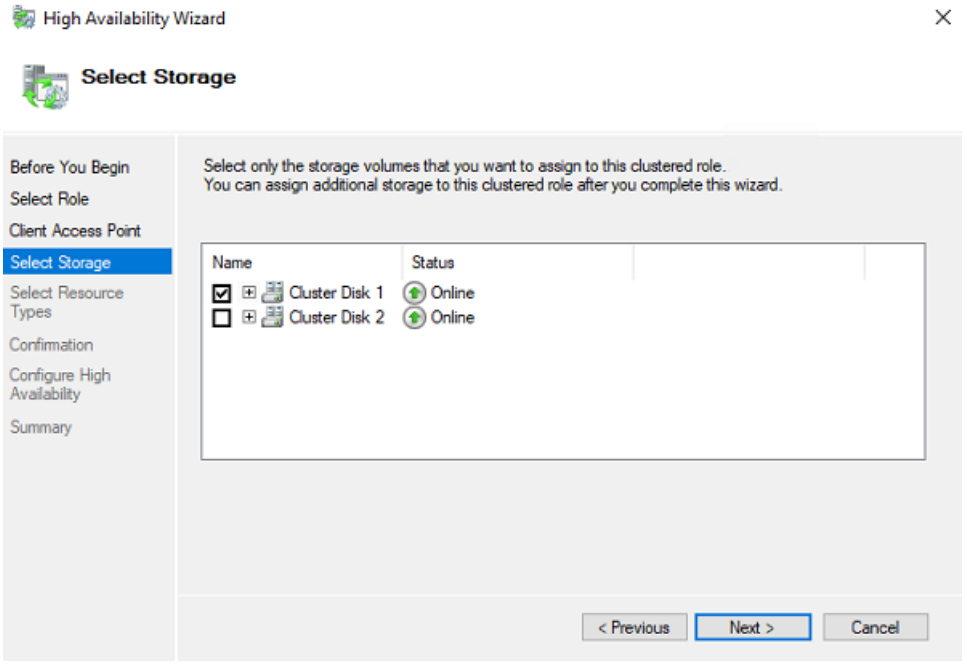


2. Click **Next**. The Select role tab opens.
3. On the tab, select **Other Server**, and click **Next**. The Client Access Point tab opens.
4. On the tab, type a new **Name** for the MyQ server cluster, for example *myq-server*, then enter an unoccupied IP address from the network to be used by the MyQ server role, and lastly click **Next**. The Select Storage tab opens. MyQ

will use the hostname for communication with terminals, as the SMTP server in MFPs etc.



5. On the tab, select the storage volumes that you want to use for the MyQ server.



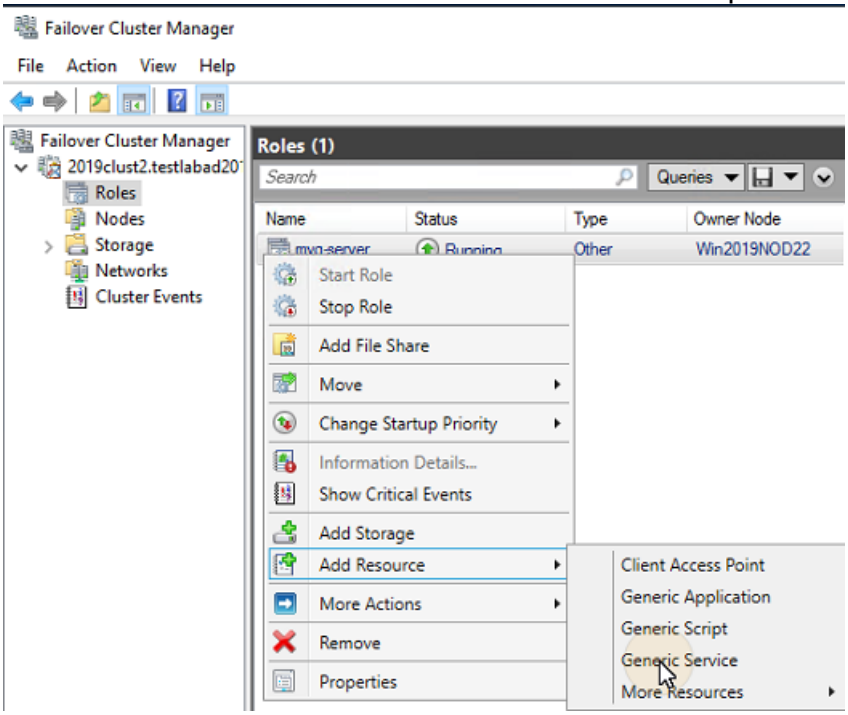
6. Click **Next** to finish the installation process.

4.4.4 Adding MyQ resources (Failover Cluster Manager)

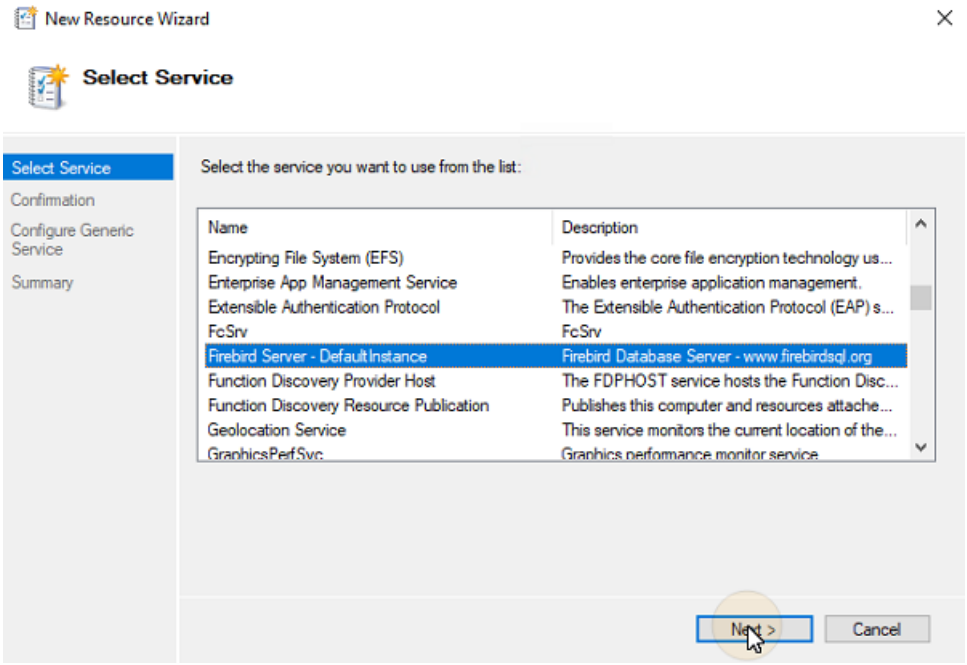
Once the MyQ server role is created and configured, MyQ resources need to be configured as well, in the **Roles** tab in Failover Cluster Manager.

Add the Firebird server - DefaultInstance service to the MyQ server role:

1. Right-click the MyQ server role, then click **Add resource** on the shortcut menu, and click **Generic Service**. The New Resource Wizard opens.



2. In the list of services, select **Firebird Server - DefaultInstance**, and click **Next**.



3. On the **Confirmation** tab, click **Next** to create the service. The service is created and configured.
4. Click **Finish** to leave the setup.

Add the Apache Monitor script to the MyQ server role:

1. Right-click the MyQ server role, click **Add resource** on the shortcut menu, and click **Generic Script**. The New Resource Wizard opens.
2. Enter the path to the **ApacheMonitor.jse** script, located in the MyQ installation folder, and click **Next**. The Confirmation tab opens. The default path to the script is:
   C:\Program Files\MyQ\Server\ApacheMonitor.jse
3. On the tab, click **Next** to create the service. The service is created and configured.
4. Click **Finish** to leave the setup.

Add the MyQ Monitor script to the MyQ server role:

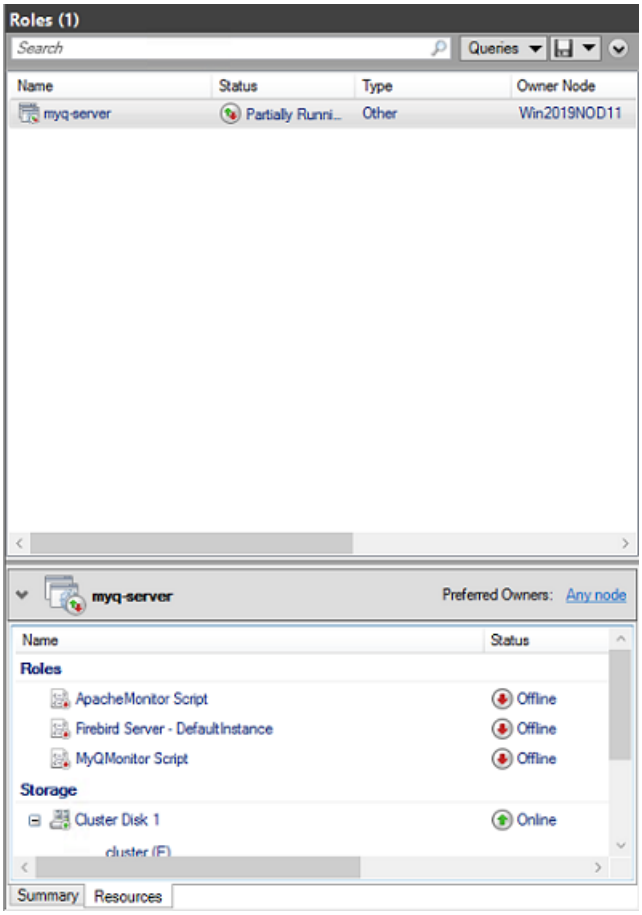
1. Right-click the MyQ server role, click **Add resource** on the shortcut menu, and click **Generic Script**. The New Resource Wizard opens.
2. Enter the path to the **MyQMonitor.jse** script, located in the MyQ installation folder, and click **Next**. The Confirmation tab opens. The default path to the script is:
   C:\Program Files\MyQ\Server\MyQMonitor.jse
3. On the tab, click **Next** to create the service. The service is created and configured.
4. Click **Finish** to leave the setup.

Add the TerminalsMonitor.jse script to the cluster (only if embedded terminals are used)

1. Right-click the MyQ server role, click **Add resource** on the shortcut menu, and click **Generic Script**. The New Resource Wizard opens.
2. Enter the path to the **TerminalsMonitor.jse** script, located in the MyQ installation folder, and click **Next**. The Confirmation tab opens. The default path to the script is:
   C:\Program Files\MyQ\Server\TerminalsMonitor.jse
3. On the tab, click **Next** to create the service. The service is created and configured.
4. Click **Finish** to leave the setup.

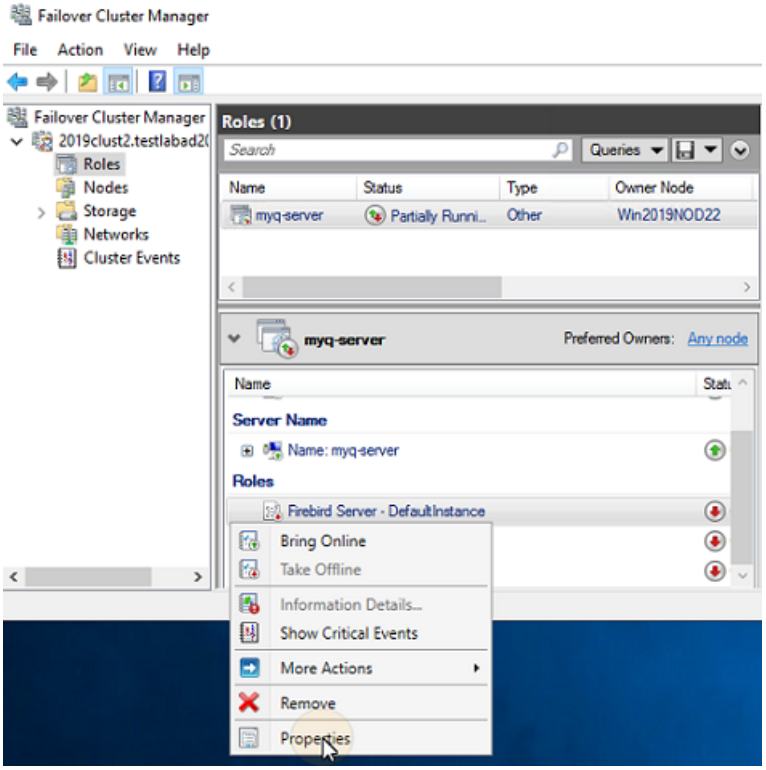
4.4.5 Setting resources dependencies (Failover Cluster Manager)

After adding the services and scripts to the MyQ server role, open the **Resources** tab of the MyQ server role at the bottom of the **Roles** tab and set the dependencies of the MyQ services and scripts.

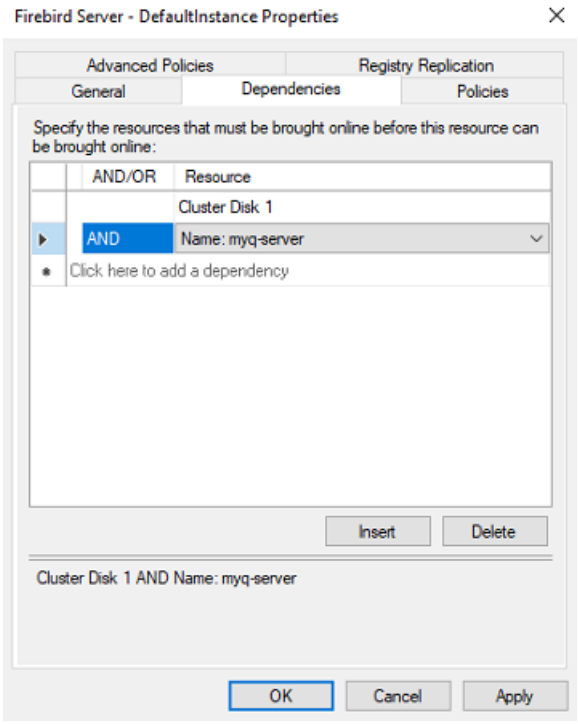


Set the Firebird Server - DefaultInstance service dependency

1. In the list at the bottom of the tab, right-click **Firebird Server - DefaultInstance**, and click **Properties**. The Firebird Server - DefaultInstance Properties dialog box opens.

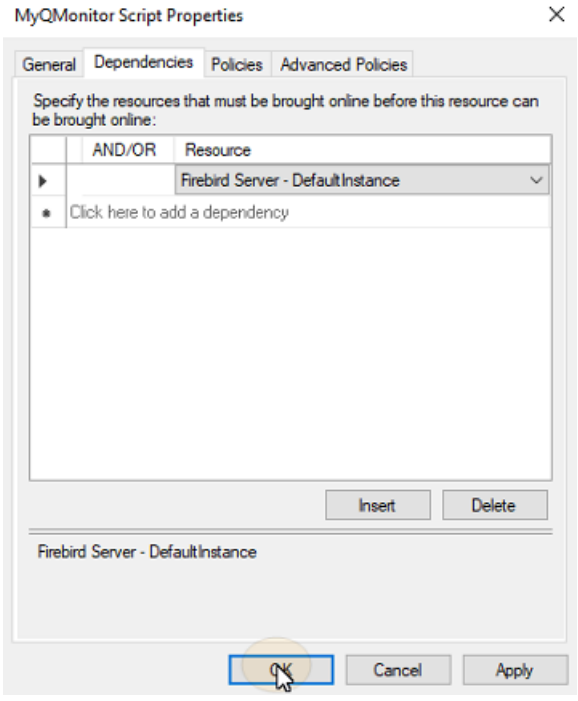


2. In the dialog box, open the **Dependencies** tab, add the shared disk drive (or NAS) where the system is supposed to work on, add the name of the MyQ server role, and click **OK**. The dependency is set.



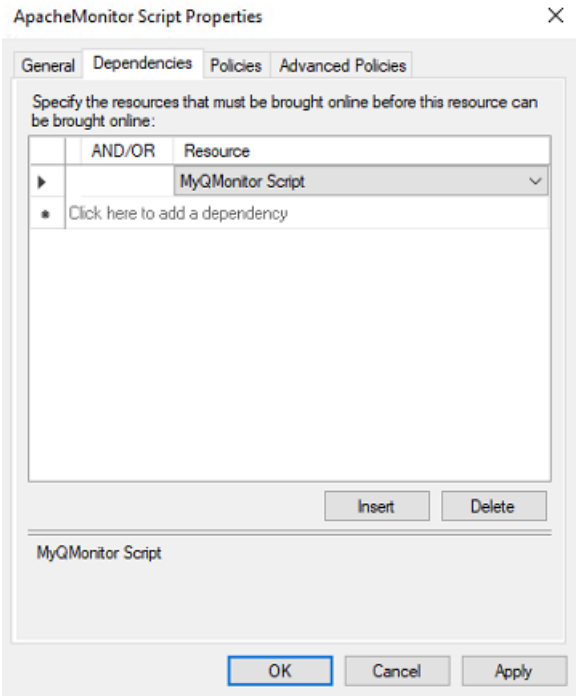
Set the MyQMonitor script dependency

1. In the list at the bottom of the tab, right-click **MyQMonitor Script**, and click **Properties**. The MyQMonitor Script Properties dialog box opens.
2. In the dialog box, open the **Dependencies** tab, add the **Firebird Server - DefaultInstance**, and click **OK**. The dependency is set.



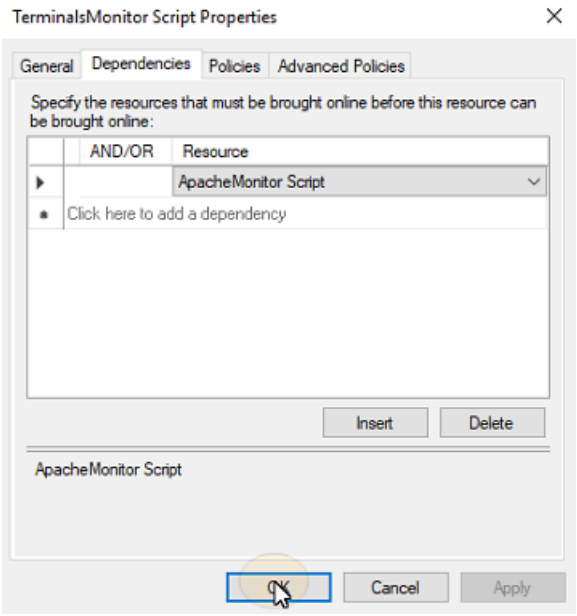
Set the ApacheMonitor script dependency

1. In the list at the bottom of the tab, right-click **ApacheMonitor Script**, and click **Properties**. The ApacheMonitor Script Properties dialog box opens.
2. In the dialog box, open the **Dependencies** tab, add the **MyQMonitor Script**, and click **OK**. The dependency is set.



Set the TerminalsMonitor script dependency (only if embedded terminals are used)

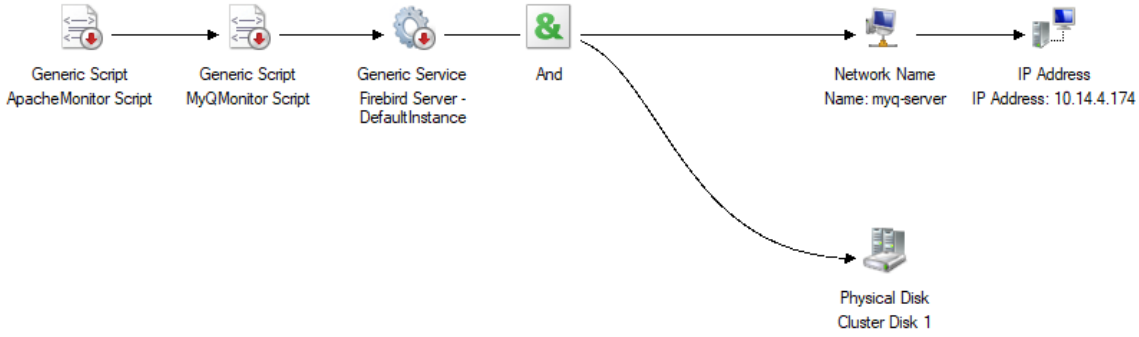
1. In the list at the bottom of the tab, right-click **TerminalsMonitor Script**, and click **Properties**. The TerminalsMonitor Script Properties dialog box opens.
2. In the dialog box, open the **Dependencies** tab, then add the **ApacheMonitor Script**, and click **OK**. The dependency is set.



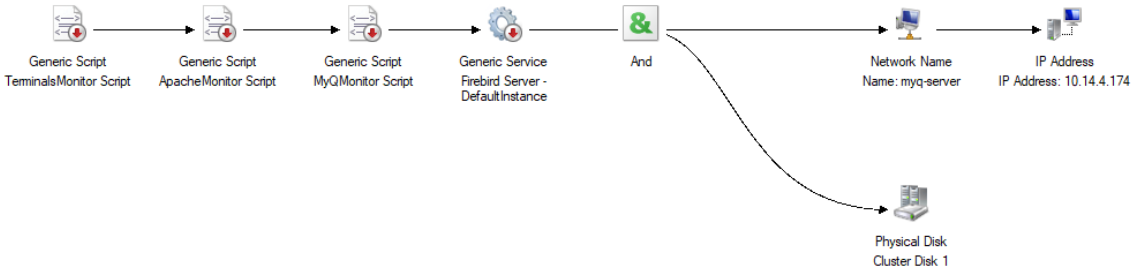
Once you upload an Embedded terminal installation package on the MyQ web administrator interface of the MyQ cluster server, the cluster uses the script to distribute the package among all the other nodes.

4.4.6 Dependency Reports

To make sure that the dependencies are set correctly, you can check if the dependency report of the MyQ server role corresponds to the below graphs:



1 Dependency graph of the cluster on the MyQ server



2 Dependency graph of the cluster with embedded terminal on the MyQ server

To open the dependency report, right-click the MyQ server role on the **Roles** tab of the cluster in Failover Cluster Manager, click **More Actions**, and click **Show Dependency Report**.

4.5 Additional Setup

Even though the installation is finished, there are some additional steps needed to setup the environment before bringing the resources online.

4.5.1 Setting up the MyQ admin credentials (active node)

On the active node, open the MyQ Easy Config application:

1. On the **Services** tab, **Start All** services.
2. On the **Home** tab, set the **Server Administrator Account** password and the **Database Administrator Password** (if the passwords have been changed before, they can be changed again on the **Settings** tab).
3. On the **Services** tab, **Stop All** services, and close the MyQ Easy Config application.

4.5.2 Setting the location of the data folder (all nodes)

On each node of the cluster, you need to set the location of the **Data** folder and the **Jobs** folder, which require access to the shared cluster disk, so the node has to be active. Therefore, you need to switch the active mode between all of the nodes (move the MyQ server role between the nodes).

To set the folders location, open MyQ Easy Config on the currently active node and:

1. On the **Services** tab, **Start All** services.
2. On the **Settings** tab, under both the **Data** folder and the **Jobs** folder, click **Change location**, and then define the path to the shared cluster disk. (For more information about how to do this, check here).
3. On the **Services** tab, **Stop All** services, and then close the MyQ Easy Config application.
4. In Failover Cluster Manager, move the MyQ server role to the next node and repeat the process.

4.5.3 Running MyQ in the MS Cluster environment

The following instructions have to be followed while MyQ runs in the MS Cluster:

- You should not start, stop or restart MyQ services while MyQ is controlled by the MS Cluster (cluster resources are online). The services should only be managed by Failover Cluster Manager.
- When switching to a different node, MyQ Easy Config should not be used on any node.
- When performing system maintenance (cluster resources are offline), but MyQ services are online on any node (activated manually), do not switch to a different node. By doing so, you risk corrupting the MyQ database.

- When switching to a different node, all services on the initial node are stopped by the MS Cluster.
- While MyQ runs in the cluster, the IP address of the MyQ server is the one that you have selected within the setup of the MyQ server role, and the hostname of the MyQ server is the one that you will set in the MyQ web administrator interface after you bring the resources of the MS Cluster online.
- It is strongly recommended to always keep the **Storage** and **Server Name** resources online. In case you need to take them offline, make sure that all MyQ services on the active node (the current owner of the MyQ server role) are stopped in the MyQ Easy Config application.
- After completing the setup (setup and additional setup) of the MyQ server role (and eventually all of the Embedded terminals, if used), and also after each crucial change on the cluster, it is recommended to test the cluster by moving the ownership of the MyQ server role between all nodes of the cluster.

4.5.4 Starting the system (Failover Cluster Manager)

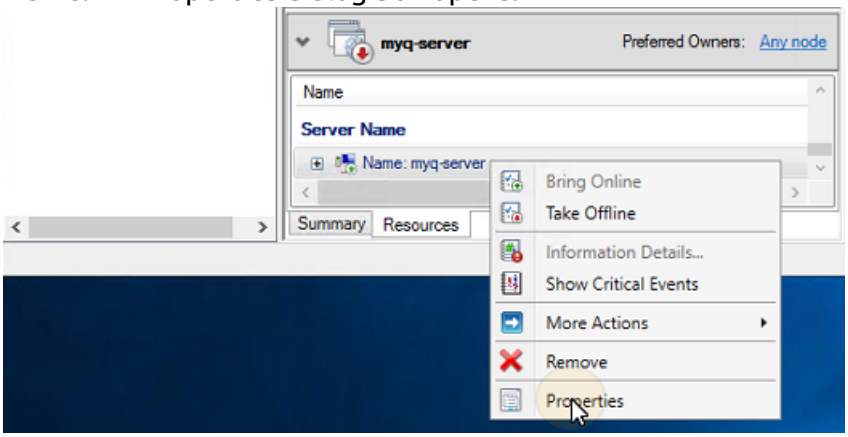
To start the system, you have to bring the resources of the MS Cluster online. For information on how to do this, check here.

4.5.5 Setting hostname of the MyQ server role

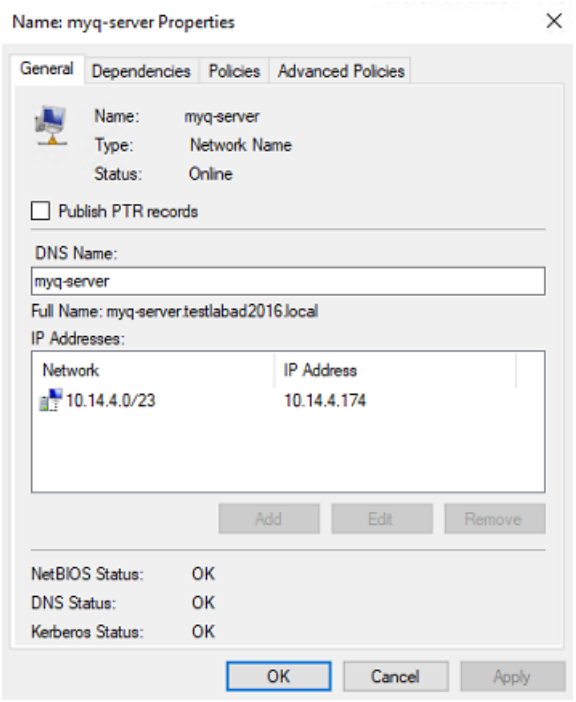
On the **Resources** tab of the MyQ server role in Failover Cluster Manager, you can see (and change) the DNS Name of the MyQ server role. The **Full name** of the role (DNS + domain) needs to be used as the server hostname and as the MyQ X Mobile Client server in MyQ.

To see or change the DNS name of the MyQ server role on the MS Cluster, do the following:

1. In the list at the bottom of the **Resources** tab of the MyQ server role, under **Server Name**, right-click the server's name, and then click **Properties**. The Name:*** Properties dialog box opens.

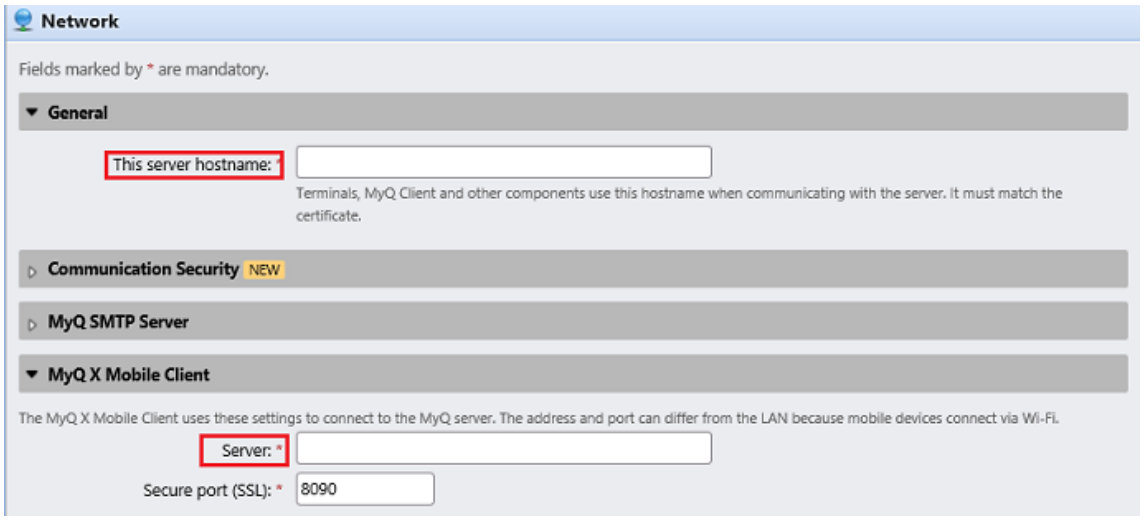


2. On the **General** tab , you can see (and change) the DNS Name of the MyQ server role.



To set the hostname of the MyQ server role on the MyQ cluster server, do the following:

1. On the **Network** settings tab of the MyQ web administrator interface of the MyQ cluster server, use the **Full name** (DNS + domain) of the MyQ server in both of the following settings:
   a. **This server hostname** under **General**.
   b. **Server** under **MyQ X Mobile Client**.
2. Then click **Save** at the bottom of the tab.



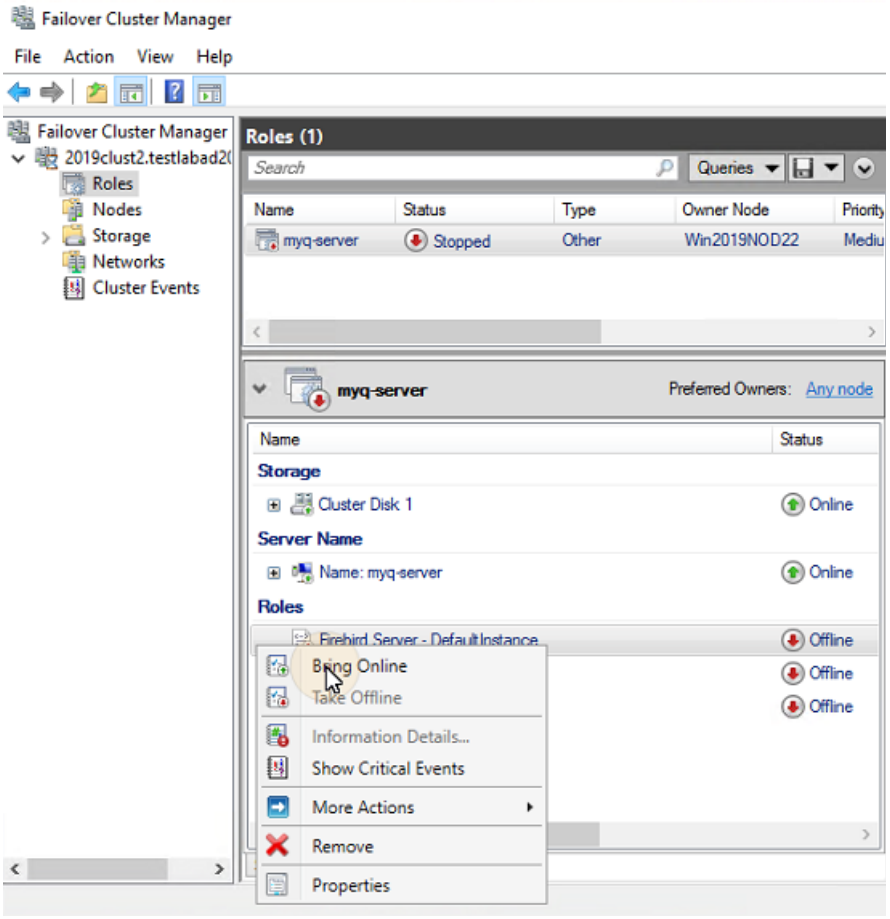
4.6 Configuration and Maintenance

The below chapters show additional configuration and maintenance steps.

4.6.1 Bringing the resources of the MS Cluster online (Failover Cluster Manager)

To start the system, you need to bring all the MS Cluster resources online - the **Firebird Server - DefaultInstance** service, the **ApacheMonitor.jse** script, the **MyQMonitor.jse** script and the **Terminal Monitor** script (only if embedded terminals are used).

To bring a service or script online, open the Failover Cluster Manager application, go to **Roles**, right-click the service or script, and click **Bring Online** on the shortcut menu.

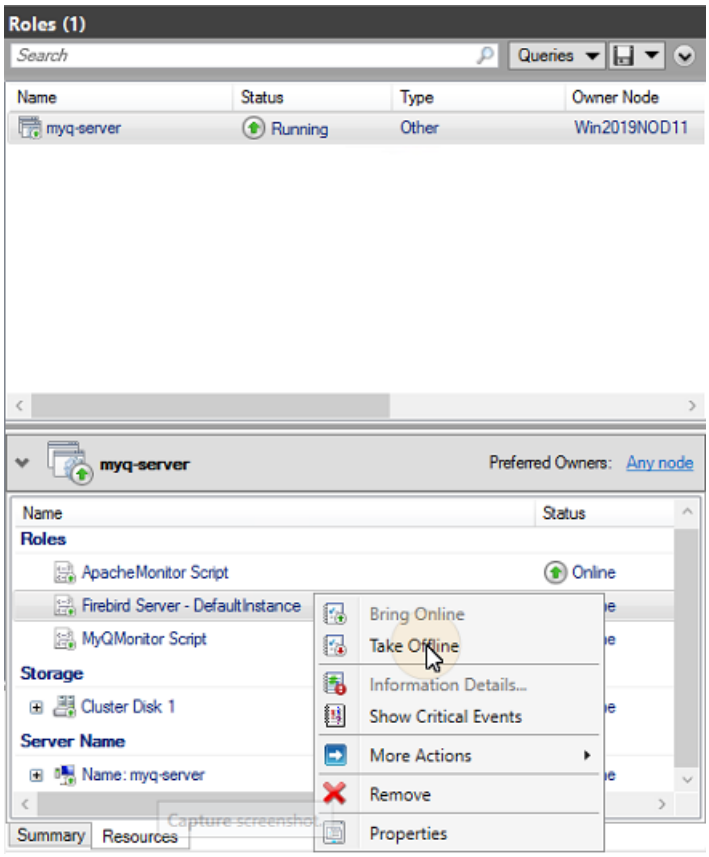


4.6.2 Taking the MS Cluster resources offline (Failover Cluster Manager)

To make sure that all the MS Cluster resources -except for **Storage** and **Server Name**- are offline, it is sufficient to take the **Firebird Server - DefaultInstance** service offline; all of the scripts will be taken offline due to their dependency on this service.

⚠ The **Storage** and **Server Name** resources must stay online.

To take the **Firebird Server - DefaultInstance** service offline, open Failover Cluster Manager, go to **Roles**, right-click the **Firebird Server - DefaultInstance** service, and click **Take Offline** on the shortcut menu.



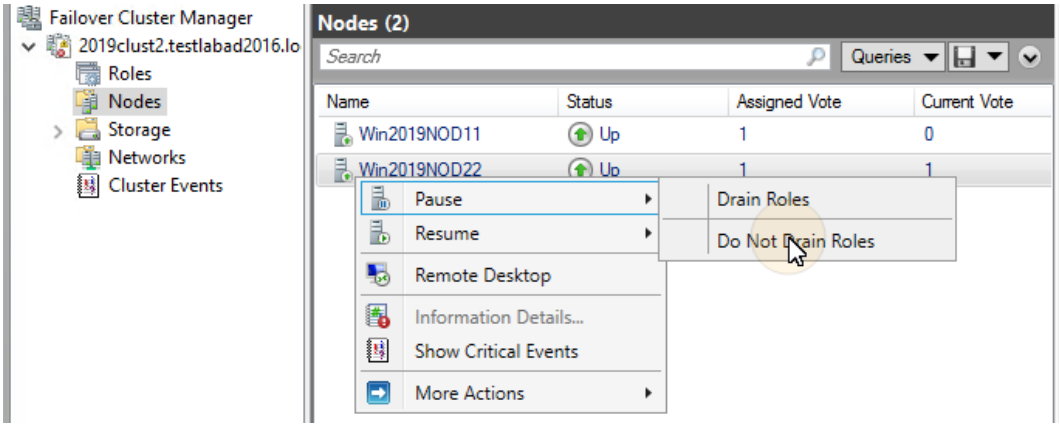
4.6.3 Restarting MyQ services via the MS Cluster (Failover Cluster Manager)

To restart MyQ services via the MS Cluster, take all the MS Cluster resources, except for **Storage** and **Server Name**, offline and then bring them online.

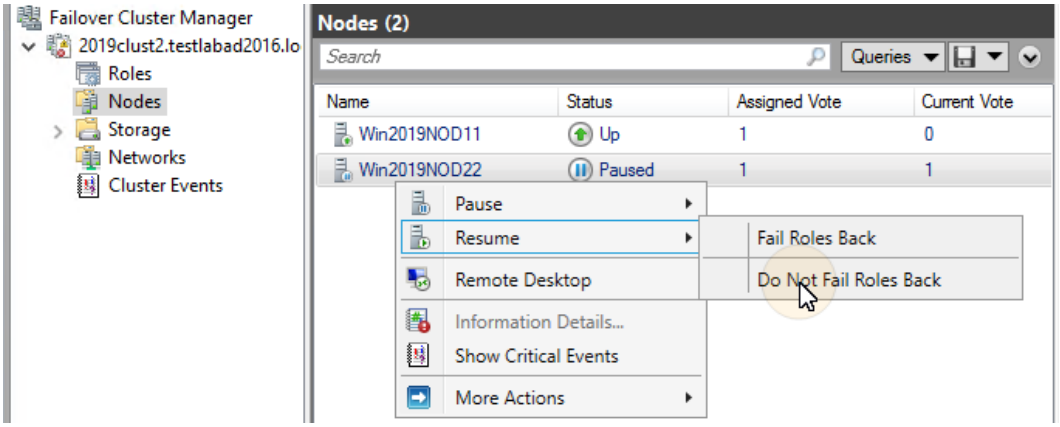
4.6.4 Changing the MyQ admin credentials (active node)

To change the **Web Administrator Account** and **Database Administrator** passwords, you need to do the following on the currently active node (the current owner of the MyQ server role):

1. Open the Failover Cluster Manager application.
2. Open the **Nodes** tab of the cluster, right-click the currently active node, right-click **Pause** on the shortcut menu, and click **Do Not Drain Roles**.



3. Take all the MS Cluster resources, except for **Storage** and **Server Name**, offline.
4. Open the MyQ Easy Config application, start all services, change the passwords, stop all services, and lastly close the application.
5. Bring the resources of the cluster online.
6. Open the **Nodes** tab of the cluster in Failover Cluster Manager, right-click the node, right-click **Resume** on the shortcut menu, and lastly click **Do Not Fail Roles Back**.



4.7 Backup and Restore

4.7.1 Backing up the MyQ database on the MS Cluster

The automatic and manual backup processes do not differ from the standard backup processes described in "Backing up MyQ Data". The only setting that requires special attention is the backup destination folder. It is recommended to save the backup files on the shared cluster disk.

4.7.2 Restoring the MyQ database on the MS Cluster (all nodes)

Before restoring the MyQ database, MyQ has to be installed and set up on all the MS Cluster nodes.

Now you need to restore the MyQ database and settings on the active node of the Cluster (the current owner of the MyQ server role) via the following steps:

1. **Start All** services via MyQ Easy Config.
2. Open the **Database** tab in MyQ Easy Config.
3. In the **Main Database** section, click **Restore...**. Select the *database_*.zip* file, and click **Open**. If the backup is password protected, there is a prompt to provide the password. The database is restored and, if needed, upgraded as well.
4. Repeat the process for all the other nodes.

4.7.3 Using Database Encryption

If you are using the **Database Encryption** feature in MyQ Easy Config, it is necessary to perform the following steps after encrypting or restoring your database:

1. Stop all Cluster resources except for **Storage** and **Server Name**.
2. Open MyQ Easy Config on the active node and start all services.
3. Enable DB encryption.
4. **Stop All** services in MyQ Easy Config.
5. Copy the DB encryption key to all the other nodes. The key is located by default in "*C:\Program Files\MyQ\Firebird\plugins\keyholder.conf*".
6. **Start All** MyQ services in MyQ Easy Config, and bring all the resources online via Failover Cluster Manager.

4.8 Upgrading MyQ

4.8.1 Necessary steps before the upgrade

Before starting the upgrade, make sure that you have an up-to-date and properly finished backup of the MyQ database. The database can be backed up either manually in MyQ Easy Config or automatically as a scheduled task in the MyQ web administrator interface. To make sure that the backup file is preserved, it is recommended to copy the database backup file to a different location.

4.8.2 Upgrading MyQ (all nodes)

The upgrade needs to be performed on each node of the cluster. To be able to upgrade MyQ on a node, you need to have access to the shared cluster disk, so the node has to be active. Therefore, you need to switch the active mode between all of the nodes (move the MyQ server role between the nodes).

Before upgrading MyQ on the nodes, take all the MS Cluster resources, except for Storage and **Server Name**, offline.

To upgrade MyQ on all nodes, start with the currently active node (the owner of the MyQ server role) and do the following:

1. **Start All** services via MyQ Easy Config.

2. Run the MyQ installation file.
3. Finish the installation process.
4. **Stop All** services via MyQ Easy Config, and then close the MyQ Easy Config application.
5. Move the MyQ server role to the next node and repeat all the steps.

After MyQ is upgraded on all the nodes, bring all the MS Cluster resources online.

During the installation, you might encounter a warning message about a problem related to updating the MyQ database. In such cases, continue with the setup, as the problem does not impact the installation.

4.9 Recommended Troubleshooting

The MS Cluster solves issues on the currently active node which might affect the availability of the MyQ server, by switching to one of the available passive nodes.

Problems related to the MyQ server need to be treated manually. In case you encounter such problems, it is recommended to restart MyQ services in the Failover Cluster Manager application. If the problem persists, contact MyQ support.

In case the MS Cluster does not start, try taking all the MS Cluster resources, except for **Storage** and **Server Name**, offline, and then try to manually start MyQ services. If successful, it is likely that the problem is on the cluster side; otherwise the problem is probably related to the MyQ server, in which case contact MyQ support.

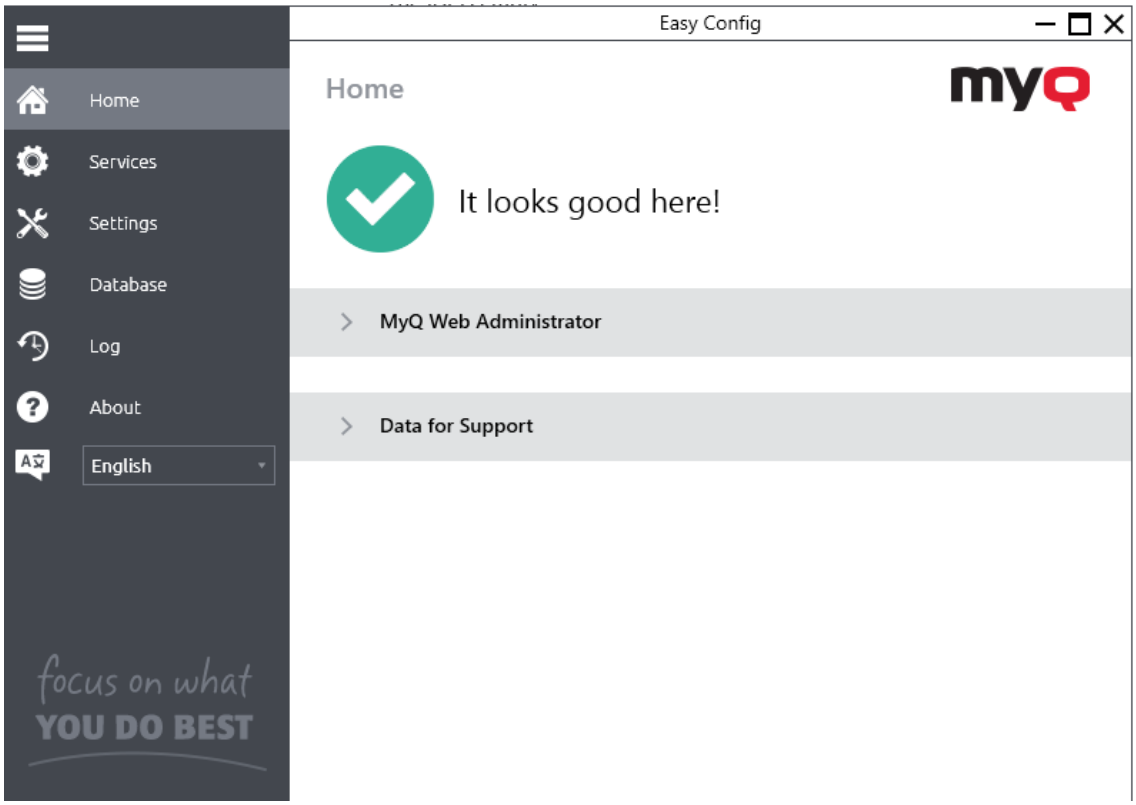
5 MyQ Easy Config

The MyQ Easy Config application is the basic environment for the setup of essential parts of the MyQ server, such as the MyQ database.

It automatically opens if you keep the **Finish installation in MyQ® Easy Config** option selected during the installation of the server. Otherwise, you can find it on the Apps screen in Windows 8.1+, Windows Server 2012 and newer. After you open the application, you see its menu on the left side. From this menu, you can access the following settings:

- On the **Home** tab, you can quickly change the default password of the Server Administrator account, and generate data for support. You can also be redirected to the MyQ Web Administrator Interface to finish the server setup.
- On the **Services** tab, you can view and control the MyQ services.
- On the **Settings** tab, you can modify the Windows Services, Server administrator, and Database Administrator accounts, change file paths of the MyQ system data and jobs files, change the port configuration of the MyQ server, and clean up your Cache and Temp folders.
- On the **Database** tab, you can view information about the Main and Log Databases, as well as encrypt/decrypt, backup, and restore your database.
- On the **Log** tab, you can overview all the operations executed by the MyQ system.
- On the **About** tab, you can view information regarding the current version of MyQ.
- Lastly, you can select the MyQ Easy Config display language from the drop-down list.

If there are no issues, the "*It looks good here!*" message is displayed on the Home tab:



5.1 Home

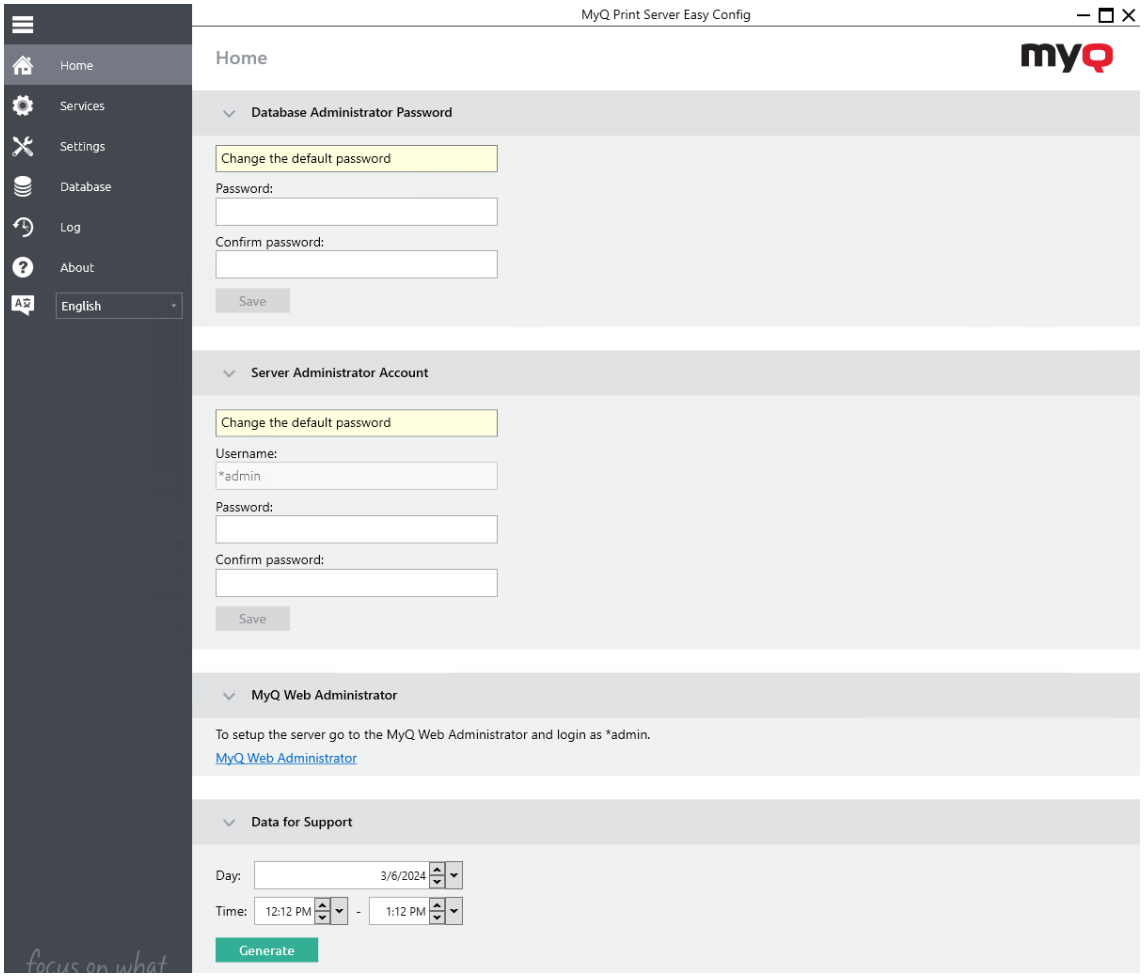
Once you open the MyQ Easy Config application on the Home tab for the first time, you will be prompted to create passwords for the Server Administrator Account and Database Administrator. These accounts will be important for server management and database security.

Database Administrator Account

This is the **SYSDBA** account used for accessing the Firebird database. It is recommended to create a strong and secure password for this account.

Server Administrator Account

This is the ***admin** account used for the initial MyQ configuration. Once you create a password for this account, you can continue to the MyQ Web Interface, use ***admin** to log in as the administrator and start the configuration.

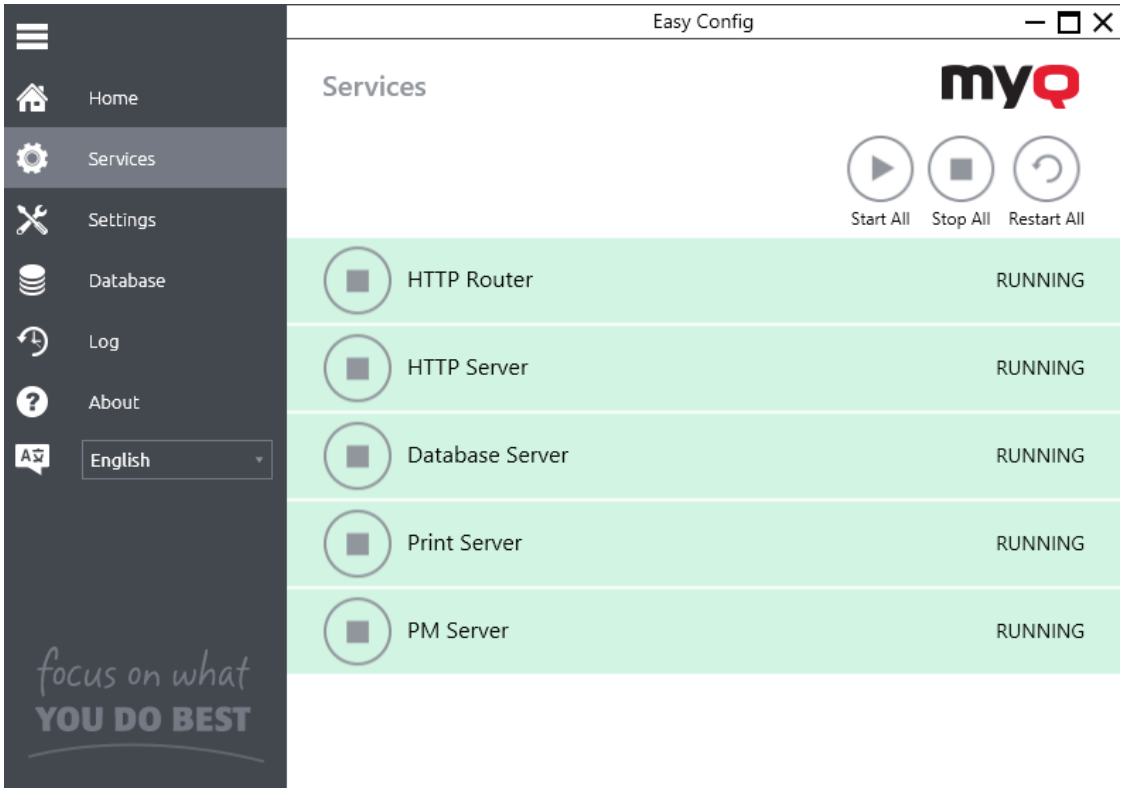


After you change the Server Administrator Account and Database Administrator passwords for the first time, its initial setup section disappears from the **Home** tab. These passwords can be later changed from the **Settings** tab.

Additional options are available on the **Home** tab to access the **MyQ Web Administrator** interface and generate **Data for Support**.

5.2 Services

On the **Services** tab you can stop, start and restart the services of the MyQ server.



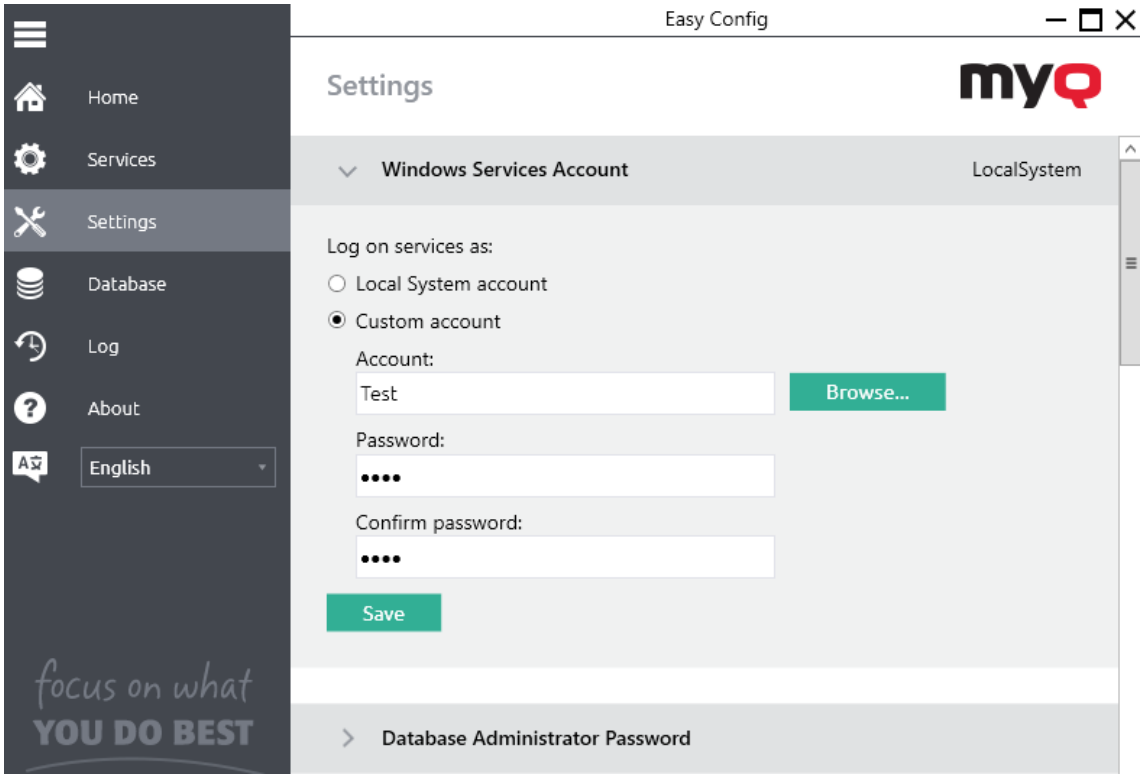
5.3 Settings

5.3.1 Windows Services Account

MyQ Windows Services run, by default, under the *Local System* account, meaning the account that was used during the installation.

This can be changed in the **Settings** tab, in the **Windows Services Account** section:

- Under *Log on services as*, select **Custom account**.
- Click on **Browse,** select the user account to be used for Windows services and click **OK**. The selected user account should have "Local administrator" rights or be a member of the Local Administrators Group. It should also already have rights to "Log on as service".
- Type the account's password and then confirm it in the next field.
- Click **Save**. MyQ Services are automatically stopped and restarted.



- To change back to the default account, select **Local System account**, and click **Save**. MyQ Services are automatically stopped and restarted.

5.3.2 Changing passwords on the Settings tab

As soon as you replace the default password, the section disappears from the **Home** tab and the password can no longer be changed there.

Database Administrator Account

This is the **SYSDBA** account used for accessing the Firebird database. It is recommended to create a strong and secure password for this account.

Server Administrator Account

This is the *admin account that is used for the initial MyQ configuration. Once you create a password for this account, you can continue to the MyQ Web Interface, use it for logging in as the administrator, and start configuration. It is generally recommended disable this account once you have created dedicated administrator accounts.

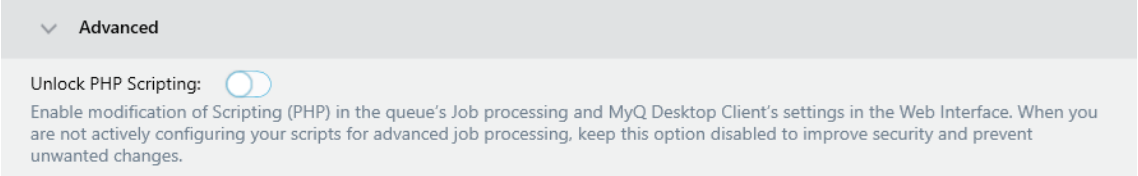
The MyQ database access user name is *SYSDBA* and its default password is *masterkey*.

5.3.3 Unlocking the MyQ Administrator account

After 5 consecutive failed login attempts to the MyQ administrator account, the account is locked.

The admin can see a warning that the *admin account is locked, and unlock it, in the **Server Administrator Account** section on the **Settings** tab. Once they click **Unlock**, the account is unlocked.

5.3.4 Unlocking PHP Scripting



In the **Advanced** section you can enable or disable the modification of PHP job scripting in the Web Interface, by default this option is disabled.

The most secure option is to keep modification of job scripting disabled; however, you may wish to enable it from time to time in order to adjust PHP scripts to further process a job after it is received by the MyQ server.

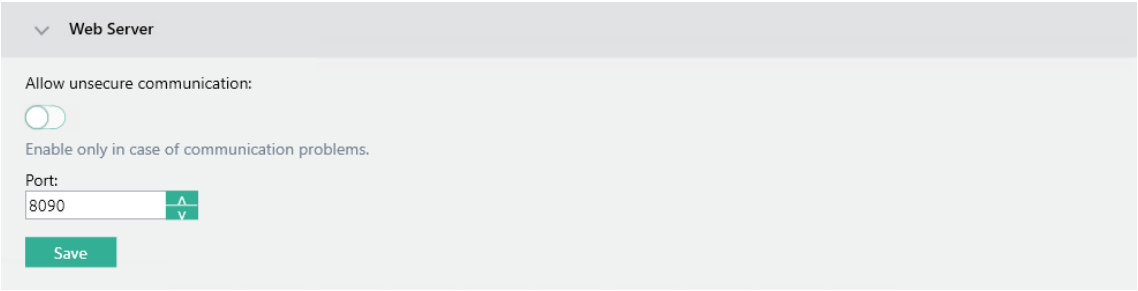
This setting only enables or disables **editing** job scripting. When this setting is locked any scripts that have been previously applied are still functional.

5.3.5 Web Server

In the **Web Server** section, you can change the port for the connection to the MyQ Web server:

- **Port**: communication port for the MyQ HTTP server; the default value is *8090*.

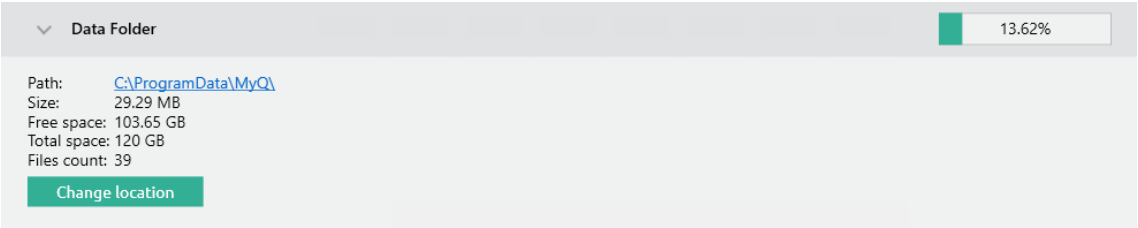
In addition, you can enable **Allow unsecure communication**, which should only be done in case of communication problems.

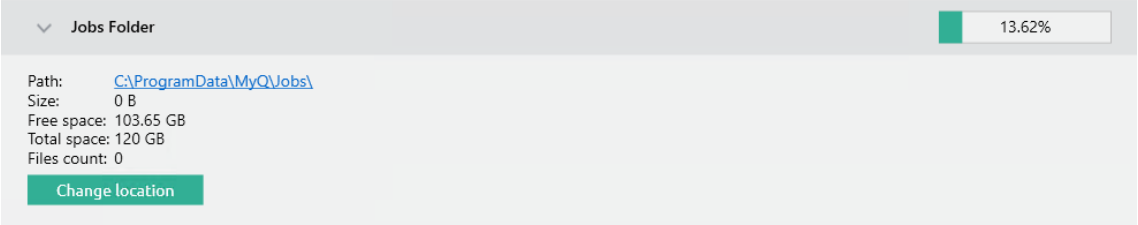


5.3.6 Data and Jobs Folders

On the **Settings** tab, you can see the folder locations of MyQ database and MyQ print jobs.

The default folders are:
C:\ProgramData\MyQ for the database, and *C:\ProgramData\MyQ\Jobs* for the print jobs.

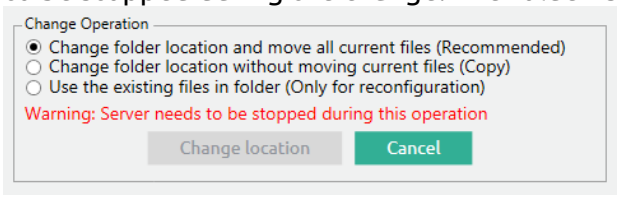




Under normal circumstances, there is no need to change these locations. In case you have to do it, for example when there is not enough space on the system disk, follow the instructions below:

1. On the **Settings** tab, in the respective section, click **Change Location**. The **Change folder location** dialog box appears.
2. In the dialog box, under **New folder**, enter the path to the new folder or click the browser icon and find the folder location.

3. Under **Change Operation**, select the required method of existing data relocation, and then click **Change location**. Keep in mind that the server needs to be stopped during the change. The folder is moved to the new location.

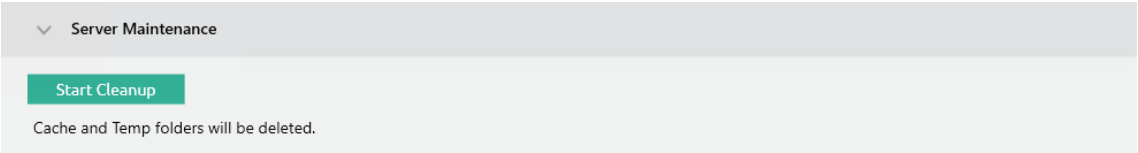


If you relocate your Data and Jobs folder to a network drive, be aware that Apache or Firebird service cannot access network drives created by the Administrator or other users. The network drive needs to be created by the "**nt authority\system**" user. You can do this using this guide: https://stackoverflow.com/questions/182750/map-a-network-drive-to-be-used-by-a-service/4763324#4763324 or it should work when you mount the drive on Windows startup.

5.3.7 Server Maintenance

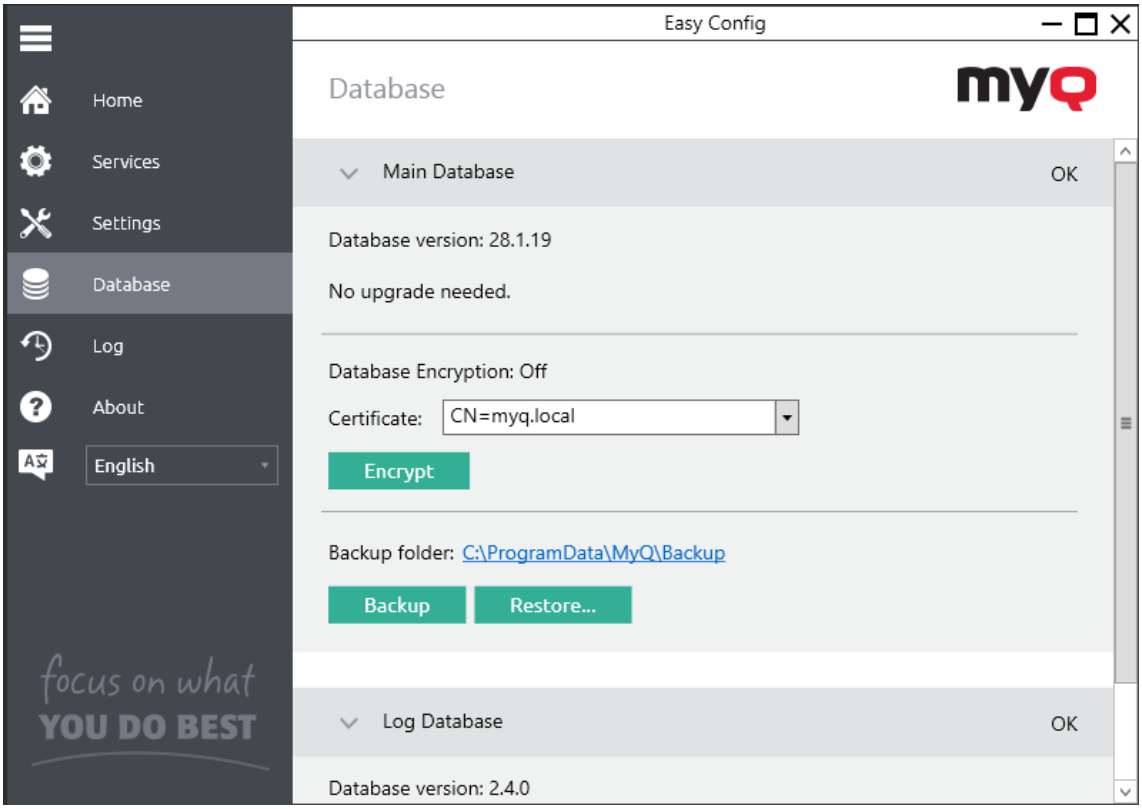
In the **Server Maintenance** section of the **Settings** tab, you can clean up your Cache and Temp folders. This might be necessary in cases when problems with the temporary files affect the MyQ system.

To delete the two folders, click **Start cleanup**.



5.4 Database

On the **Database** tab, you can check the main and log database's status and perform backup and recovery, and encryption. You can also see information about the current version of the database, available updates, and also a warning in case there is a need for an upgrade.

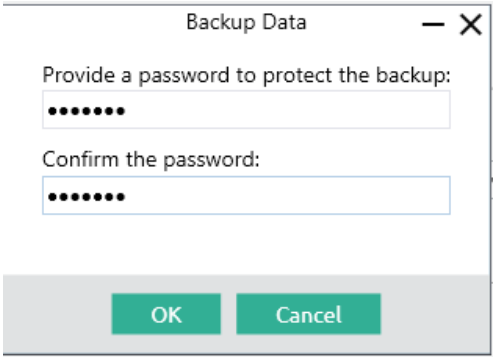


5.4.1 Backing up MyQ data

To back up your MyQ data:

1. Open the **Database** tab.
2. In the **Main Database** section, click **Backup**.

3. Provide and confirm a password to protect the backup. If skipped, the backup will be created unprotected.

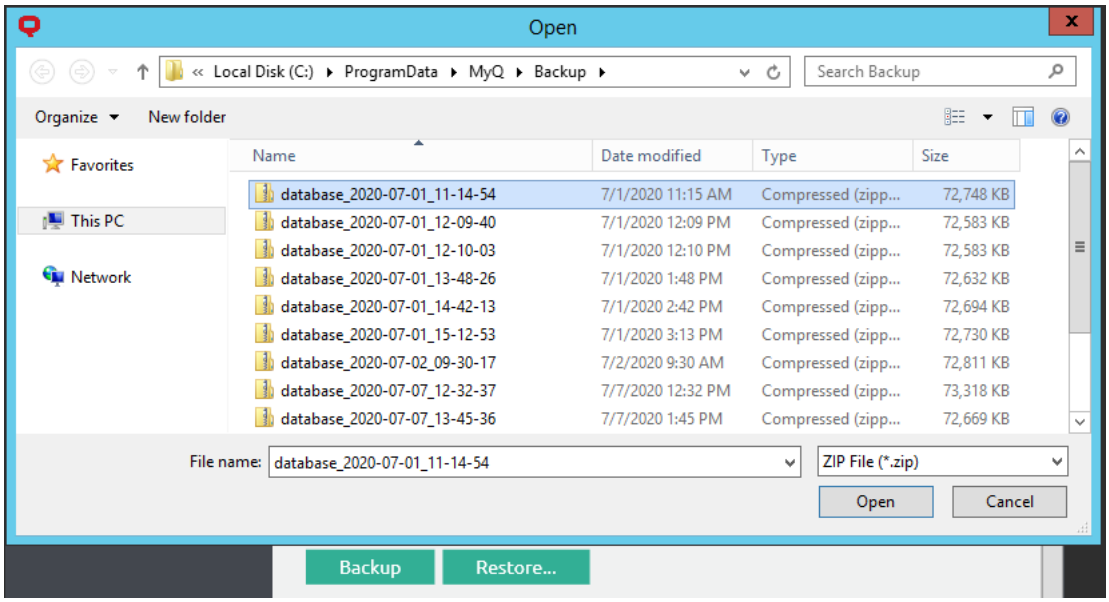


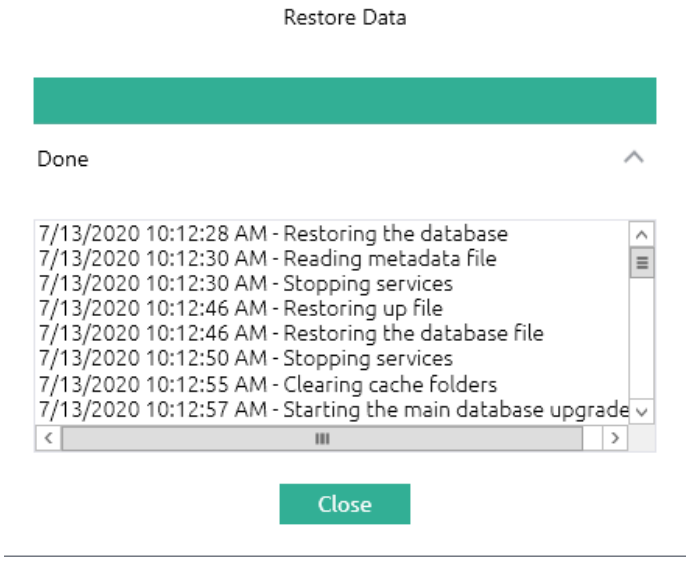
4. A new backup file is created, called *database_*.zip*. The file contains the MyQ database and additional files with data used by the MyQ system, such as reports, certificates, or the *config.ini* file.

5.4.2 Restoring MyQ Data

To restore your MyQ data:

1. Open the **Database** tab.
2. In the **Main Database** section , click **Restore...**. Select the *database_*.zip* file and click **Open**. If the backup is password protected, there is a prompt to provide the password. The database is restored and, if needed, upgraded as well.



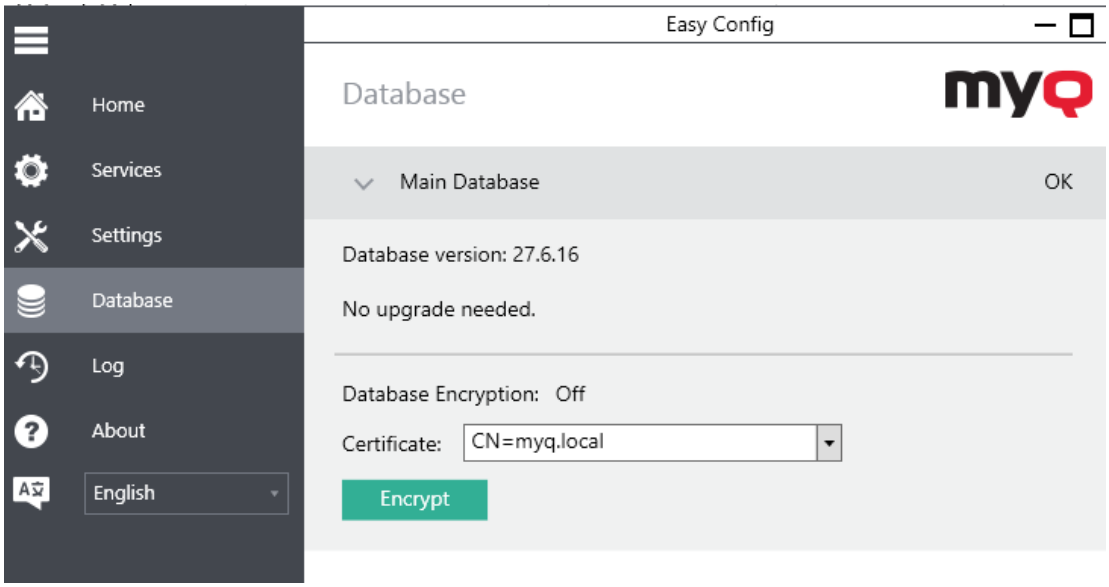


5.4.3 Encrypting the main database

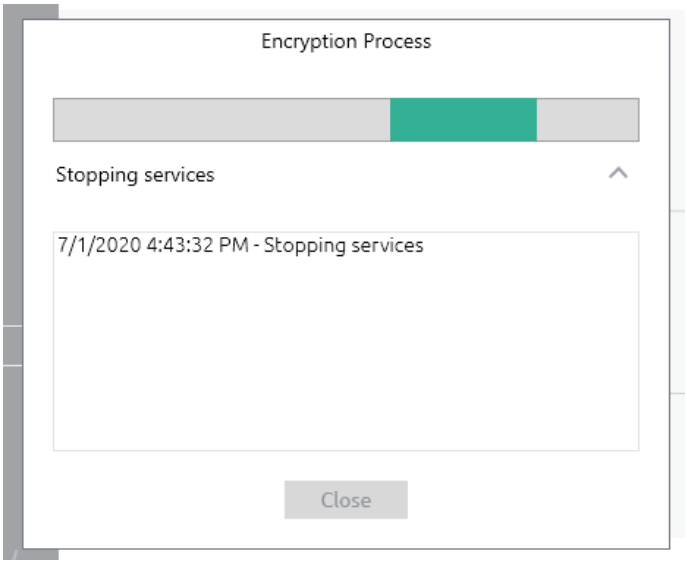
For better security, you can encrypt the main database using a certificate. MyQ does not provide these certificates. You should install and use your own. The certificate used for the encryption needs to have the “Encrypting File System” Enhanced Key Usage (EKU) and it must be located in one of the following computer certificate stores:

- Personal
- Trusted Publishers
- Third-Party Root Certification Authorities
- Other people

Once installed, it will be visible in the **Certificate** drop-down.



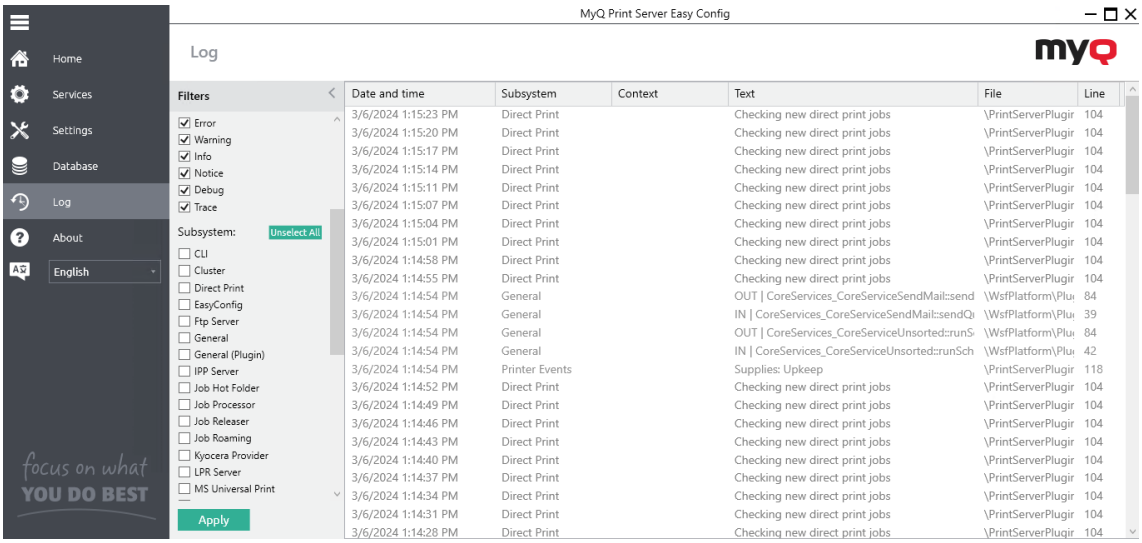
During the encryption, other services will not be available. A busy indicator will let you follow the encryption/decryption process:



After the encryption, the **Encrypt** button will change to **Decrypt** so you can reverse the action.

5.5 Log

The **Log** tab of Easy Config allows you to view all operations being executed by the MyQ system. These can be filtered by **Field**, **Date**, **Type**, and **Subsystem**.



6 MyQ Web Interface

This topic describes the MyQ Web Interface where you manage most of MyQ functions. It shows you how to access the web interface and the two menus where you can access all settings and functions on the web interface: the Main menu, and the Settings menu. Furthermore, it describes the web interface's Home dashboard and shows you how to perform the initial MyQ setup. The last two sections introduce two MyQ logs: the MyQ Log and the MyQ Audit Log.

6.1 Accessing the MyQ Web Interface

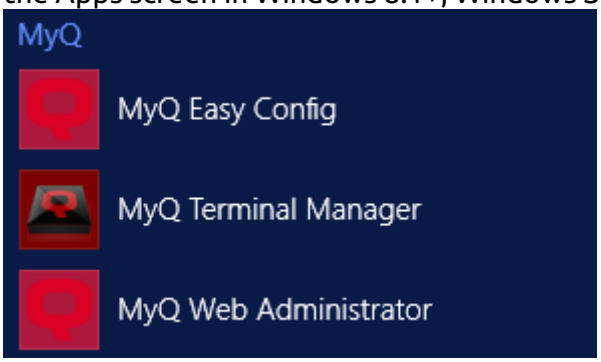
To access the MyQ Web Interface, you need to open it in your web browser and log in as an administrator:

There are three ways to open the MyQ Web Interface:

1. Open your web browser, and then enter the web address in the form: *https://*MyQserver*:8090*, where *MyQserver* represents the IP address or the host name of your MyQ server and *8090* is the default port for access to the server.

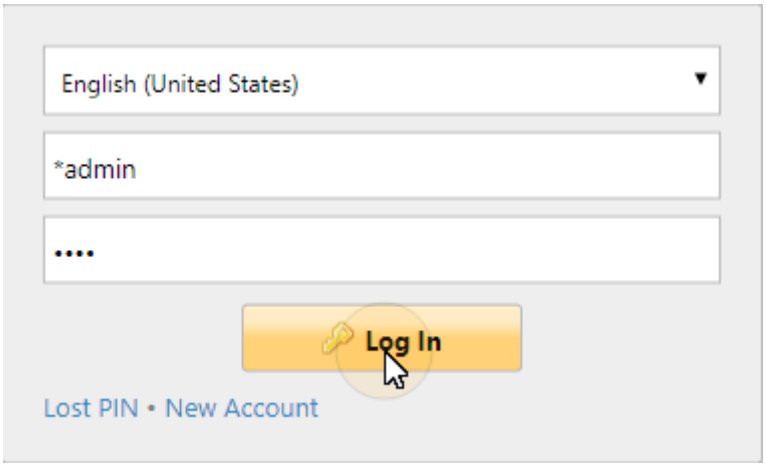
   https://10.14.5.816:8090

2. Log on to the interface from the MyQ Easy Config **Home** tab, by clicking on the **MyQ Web Administrator** link in the **MyQ Web Administrator** section.
3. Open the MyQ Web Administrator application. You can find this application on the Apps screen in Windows 8.1+, Windows Server 2012 and newer.



6.2 Logging in as an administrator

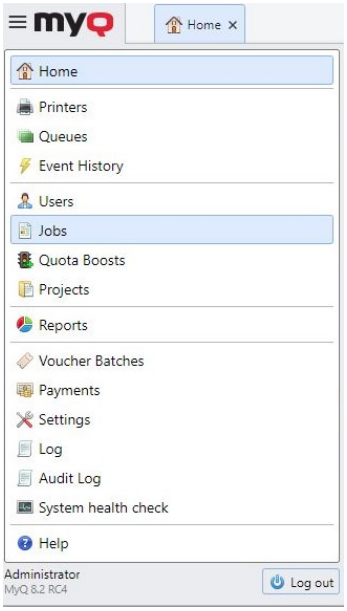
Enter the Server administrator name (**admin*) and the password that you have set in the MyQ Easy Config application, and then click **Log In**. If you have not changed the default password yet (not recommended), enter the default one: *1234*.



In the drop-down at the top of the login window, you can select your preferred language.

6.3 Main menu and Settings menu

There are two menus where you can access all the features and settings of the MyQ server: the **Main** (MyQ) Menu and the **Settings** menu.



6.3.1 Main Menu

To open the **Main** menu, click the MyQ logo at the upper-left corner of the screen. From there, you can access the **Home dashboard**, the **Settings** menu and a number of tabs where you can manage and use MyQ functions.
In this guide, all the tabs accessed from the Main menu, except for the Home screen and Settings menu, are called main tabs as opposed to settings tabs that are accessed from the Settings menu.

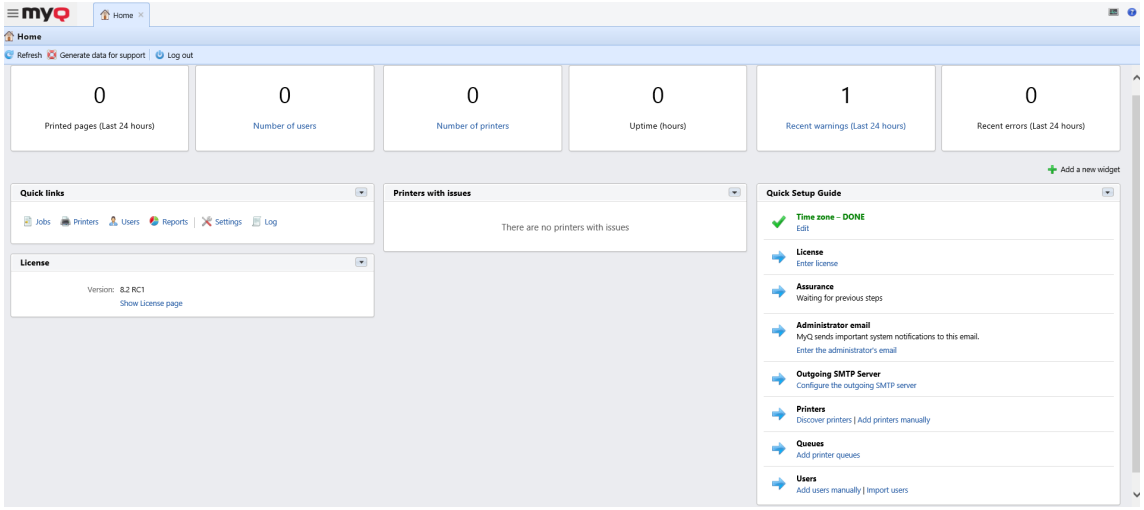
6.3.2 Settings menu

To open the **Settings** menu, click **Settings** on the **Main** menu.

The tabs that are accessed from the Settings menu serve for the global setup of the MyQ server.

6.4 Home Dashboard

On the **Home** dashboard, you can perform the initial MyQ setup. After the setup, you can use the dashboard to directly access MyQ key features, to display statistics and to generate data for support.

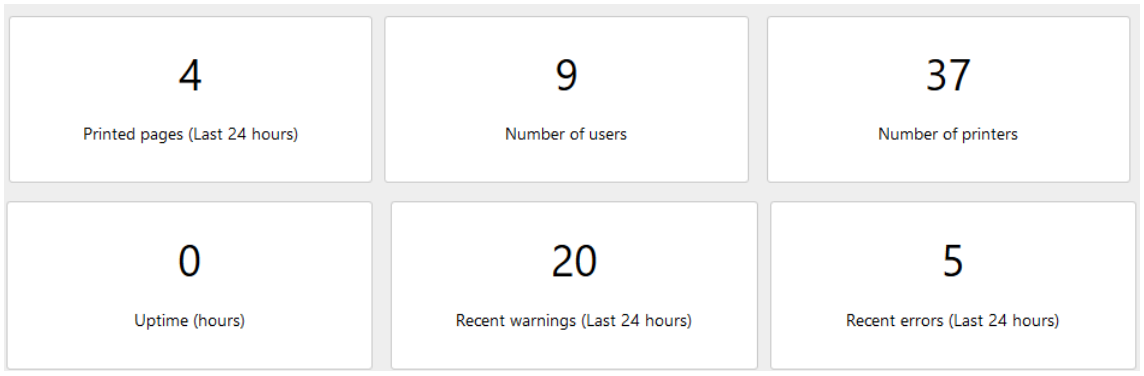


The dashboard is fully adjustable; it consists of multiple building blocks (widgets) that can be added and removed from the screen. You can use the blocks to customize both the layout and functionality of the dashboard.

By default, there are four widgets on the dashboard: **Quick links**, **License**, **Printers with issues** and **Quick Setup Guide**. Apart from these, you can use the following additional widgets:

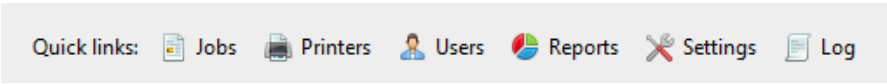
- **Top Active: Devices**: Shows the most active printing devices.
- **Top Active: Groups**: Shows the most active printing groups.
- **Top Active: Users**: Shows the most active users.

There are also six standard information blocks that give you system information.



Name	Description
Printed pages (Last 24 hours)	Number of printed pages over the last 24 hours. Cached every 60 seconds.
Number of users	Number of active users. Clicking opens the **Users** page overview.
Number of printers	Number of printers where the status is not: Local, replicated or deleted. Cached every 15 seconds. Clicking opens the **Printers** page.
Uptime (hours)	MyQ system uptime, in hours.
Recent warnings (Last 24 hours)	Number of warning log messages over the last 24 hours. Cached every 30 seconds.
Recent errors (Last 24 hours)	Number of error and critical log messages over the last 24 hours. Cached every 30 seconds.

From the **Quick links** widget, you can directly access the most important tabs of the MyQ Web Interface.



Printers with issues shows unreachable active printers and active printers with unresolved alerts. You can also see these issues in the **Issues** column, in the **Printers** overview (**MyQ, Printers**).

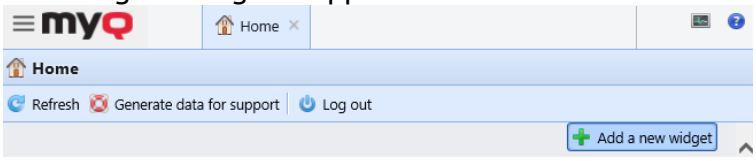
The **License** widget shows license information and can redirect you to the **License** settings tab.

The **Quick Setup Guide** walks you through the initial MyQ setup.

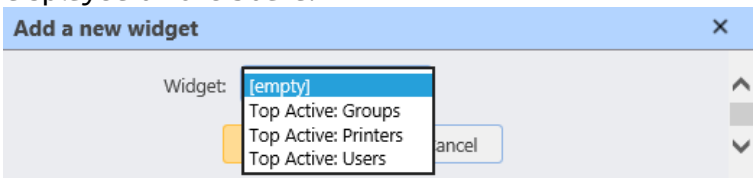
Adding new widgets and moving widgets on the dashboard

To add a new widget:

1. Click **Add a new widget** at the top-right corner of the dashboard. The Add a new widget dialog box appears.



2. In the dialog box, select the widget, and then click **OK**. The new widget is displayed on the board.



To move widgets, drag and drop them on the board.

Deleting widgets from the dashboard

To delete a widget from the dashboard, point at the upper-right corner of the widget, click the down-arrow button and click **Delete**.

6.4.1 Quick Setup Guide

On the **Quick Setup Guide** widget, you can set the basic and most important features of the MyQ system:

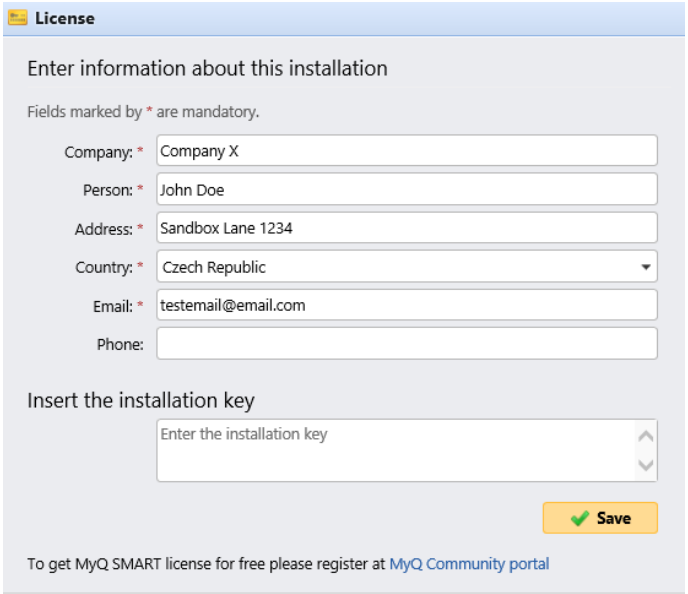
Time zone

- Here you can see if the time zone set in MyQ matches the Windows system time set on the server.
- By clicking **Edit**, you open the **General** settings tab, where you can adjust the time zone.

License

Adding and activating licenses

Click **Enter License**. The **License** settings tab opens. You are asked to enter the following information about your installation:



Then, **Insert the installation key** in the field and activate your licenses.

You can also register in the MyQ Community portal and request for the free **MyQ SMART** license.

Assurance

With active software assurance licenses, you have access to MyQ technical support and free MyQ products upgrades.

Administrator email

By clicking **Enter the administrator's email**, you open the **General** settings tab, where you can set the administrator email. Important system messages (disk space checker warnings, license expiration etc.) are automatically sent to this email.

Outgoing SMTP server

By clicking **Configure the outgoing SMTP server**, you open the **Network** settings tab, where you can set the outgoing SMTP server.

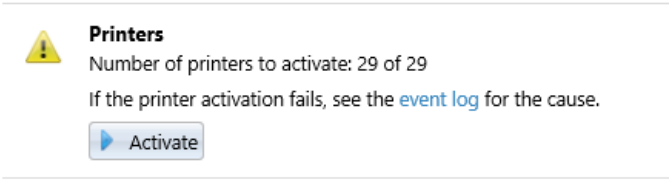
Printers

Adding printers:

- By clicking **Discover Printers**, you open the **Printer discovery** settings tab, where you can discover and add printing devices.
- By clicking **Add printers manually**, you open the **Printers** main tab, where you can manually add printing devices.

Activating added printers:

Click **Activate** to activate all the added printing devices.



Queues

By clicking **Add printer queues**, you open the **Queues** main tab, where you can add queues.

Users

- By clicking **Add users manually**, you open the **Users** main tab, where you can manually add users.
- By clicking **Import users**, you open the **Users synchronization** settings tab, where you can import users from the MyQ Central server, from LDAP servers, or from a CSV file.

6.4.2 Generate data for support

In case you encounter a problem that requires help from the MyQ support team, you may be asked to provide more information about your MyQ system configuration, licenses, printer devices, terminals, etc. In such case, you need to generate a *MyQhelpdesk.zip* file, which contains multiple files with all the necessary information, and send it to the MyQ support team.

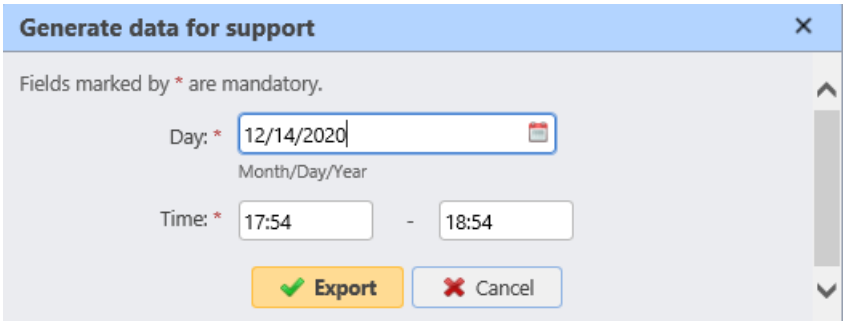
The *.zip* file includes the **Logs** folder which contains:

- error logs from Apache and PHP,
- the MyQ log file log_*dateandtime*.xlsx,
- the Windows Event log,
- the *statsData.xml* file,
- and the *MyQ-helpdesk.xml* file with MyQ system information.

The MyQ log file corresponds to the MyQ log that can be displayed on the MyQ Web Interface or in the MyQ Easy Config application, but they differ from each other.

To generate the *MyQ-helpdesk.zip* file:

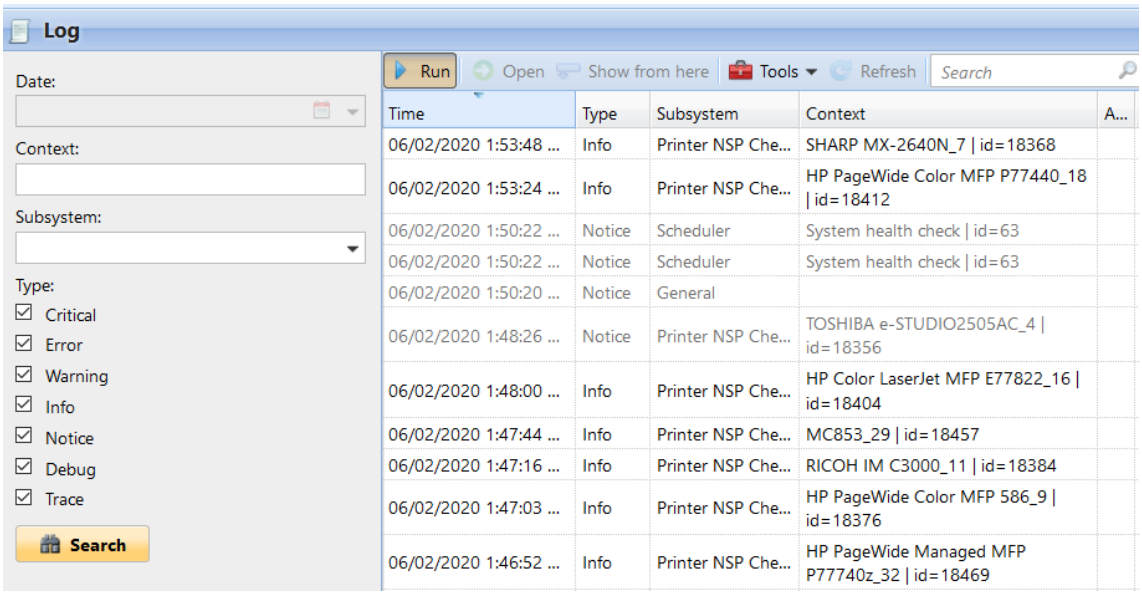
1. Click **Generate data for support** on the bar at the top of the **Home** dashboard. The Generate data for support dialog box appears.
2. In the dialog box, specify the **Day** and the exact **Time** span of the MyQ events to include in the *MyQ-helpdesk* file, and then click **Export**. The file is generated and saved to your *Downloads* folder.



6.5 MyQ Log

In the MyQ server log, you can find information about all parts of the MyQ server: the MyQ server, MyQ Web UI, etc. Log messages are sorted into these types *Critical, Error, Warning, Info, Notice, Debug, Trace* and you can select the types that you want to be displayed.

You can also set the log to display only messages informing about specific MyQ subsystems, such as the Web UI, remote printer setup, user sessions on MyQ terminals, and also about a specific context, for example, direct printing or a specific printing device.



The log is updated in real time, but you can pause it and select to show messages from a specific time period, such as yesterday, this week, last week, last X hours, last X weeks, etc.

Opening the MyQ Log

On the MyQ Web User Interface, go to **MyQ**, **Log**, or on the **Home** dashboard, click **Log** on the **Quick links** gadget.

Pausing/Refreshing the log

To pause or resume the real time run of the log, click **Run** on the bar at the top of the **Log** tab. To refresh the log up to the current moment, click **Refresh** on the same bar.

Filtering the log: selecting time period, types of information, subsystem or context

You can filter the log on the panel:

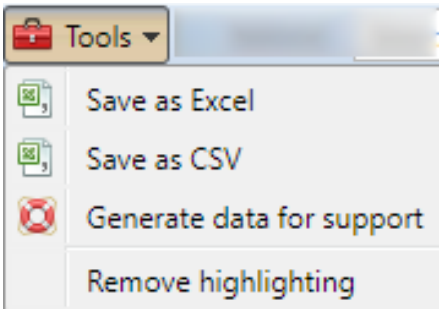
- After you pause the log, you can select the period in the **Date** combo box.
- The types can be selected and deselected on the panel at the right side of the **Log** tab.
- On the **Subsystem** combo box, you can select/type one or more subsystems to be displayed in the log.
- In the **Context** text box, you can type the context to be displayed.

After the filters are set, click **Search** to submit them.

Exporting the log/Generating data for support

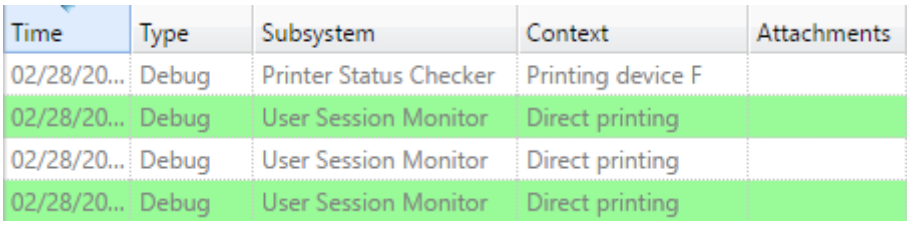
Click **Tools** on the bar at the top of the **Log** tab, and then select one of the following export options:

- **Save as Excel** — export the log as an Excel file
- **Save as CSV** — export the log as a CSV file
- **Generate data for support** — generates a *.zip* file with multiple files for MyQ support.



Highlighting log messages

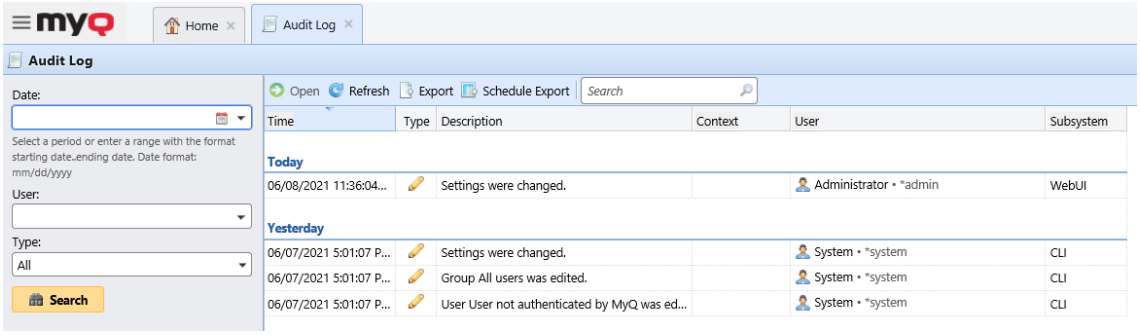
You can highlight particular log messages. To do so, select the message that you want to highlight and then press the **SHIFT + SPACE** keyboard shortcut.



To remove all highlights, click **Tools** on the bar at the top of the **Log** tab, and then click **Remove highlighting**.

6.6 MyQ Audit Log

In the **MyQ Audit Log**, you can view all the changes of MyQ settings, along with information about who made the changes, the time when they were made and which subsystem of MyQ was affected by them.



Opening the MyQ Audit Log

On the MyQ Web User Interface, click **MyQ**, and then click **Audit Log**.

Filtering the Audit Log: selecting time period, user and type of event

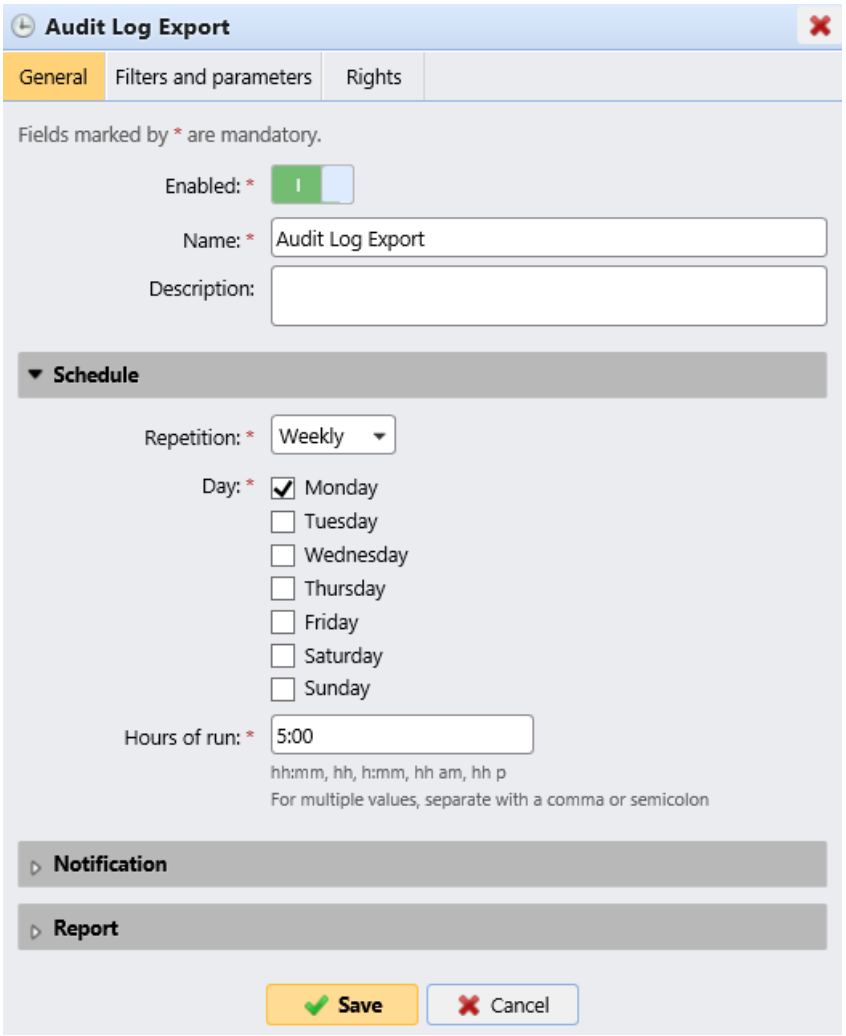
The displayed data can be filtered by a time period, the user who made the changes and the type of the event.

To display additional information about a particular change, double-click the change. A panel with the detailed information opens on the right side of the **Audit Log** tab.

Exporting the Audit Log

You can export the **Audit Log** by clicking **Export** on the main ribbon. The log is instantly generated and downloaded.

You can also click **Schedule Export** to have the log regularly exported. The schedule's properties panel open to the right, where you can set its parameters.


Audit Log Export
General
Filters and parameters
Rights
Fields marked by * are mandatory.
Enabled: *
Name: *
Audit Log Export
Description:
Schedule
Repetition: *
Weekly
Day: *
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
Hours of run: *
5:00
hh:mm, hh, h:mm, hh am, hh p
For multiple values, separate with a comma or semicolon
Notification
Report
Save
Cancel

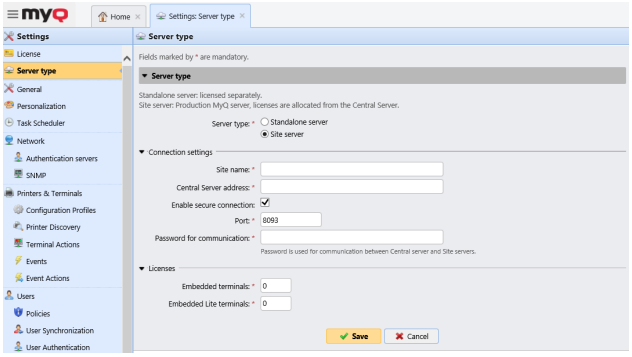
7 MyQ System Settings

This topic discusses basic system settings of the MyQ system. The settings are located on separate tabs, accessed from the Settings menu:

- On the General settings tab, you can set the administrator email, change regional settings, and other general settings.
- On the Personalization settings tab, you can add custom help links and custom logos to be used in various parts of the MyQ system.
- On the Network settings tab, you can modify network settings such as certificates, server ports, etc.
- On the Authentication servers settings tab, you can add LDAP and Radius servers for user authentication.
- On the Task scheduler settings tab, you can add new task schedules, change their settings and run scheduled tasks.
- On the Log & Audit settings tab, you can set the Log notifier feature, which enables sending notifications about selected log events to the administrator and/or any number of MyQ users.
- On the System management settings tab, you can change settings of the MyQ history, set the maximum size of files that can be uploaded on the MyQ Web Interface, delete data from the MyQ database, and also reset MyQ components to apply settings previously made on other tabs.

7.1 Server Type Settings

In the **Server type** settings tab, the MyQ administrator can set the type of server to use:



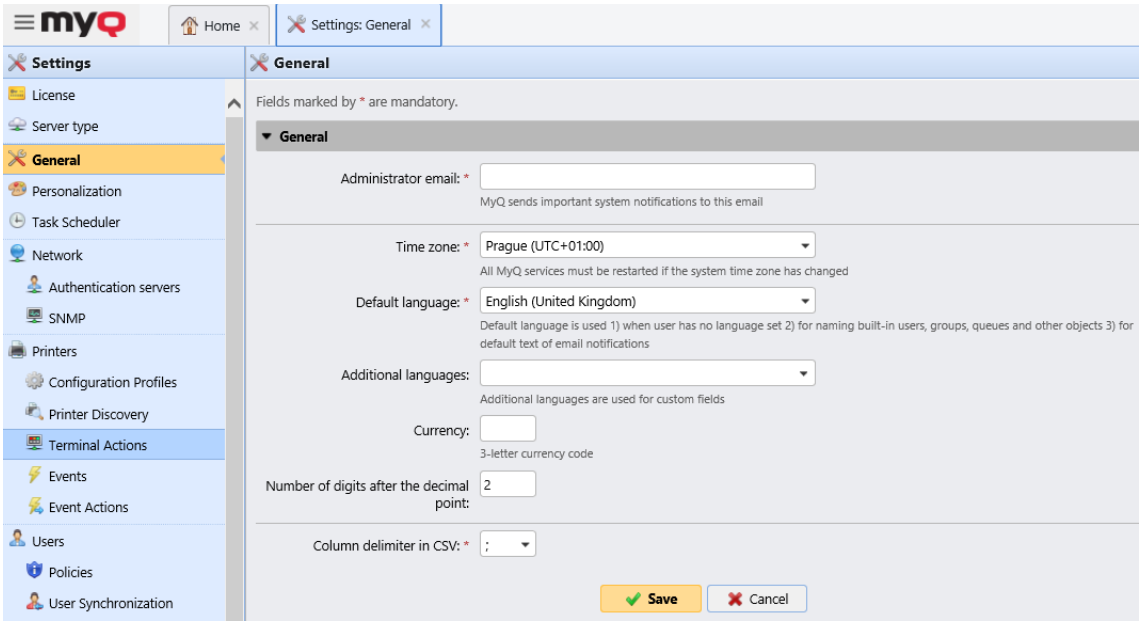
- **Standalone server** - this is enabled by default. It corresponds to the MyQ Print server.
- **Site server** - this option can only be used within a MyQ Central server installation.
  - **Site name** - add a name for your site server.
  - **Central Server address** - add the Central server's host name or IP address.
  - **Enable secure connection** - enabled by default. The connection between the Central server and the site servers is secure.
  - **Port** - *8093* by default.
  - **Password for communication** - password used for the communication between the MyQ Central server and Site servers.

- **Embedded terminals** - add the number of embedded terminal licenses to be used on this site (distributed by the Central server).
- **Embedded Lite terminals** - add the number of embedded lite terminal licenses to be used on this site (distributed by the Central server).

In older versions, in the **Server type** settings tab, it was possible to switch between the Standalone server, a Site server, or a Central server. This is no longer available, as the MyQ Print server and MyQ Central server are different products and use separate installers. If you have such a setup and plan to upgrade to MyQ Central server 8.2, be advised that the upgrade will not be successful. It is required to upgrade your system to version 8.1, download the latest MyQ Central server installer, and **migrate** your setup (described in detail in MyQ Central Server).

7.2 General Settings

The **General** settings tab contains the **General** section.



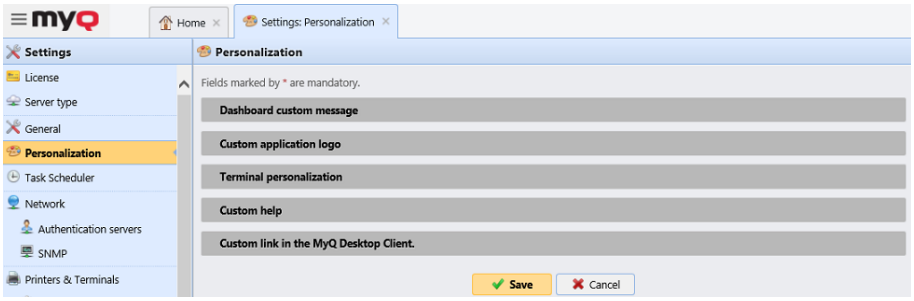
In this section, you can set the administrator email, time zone, default and additional languages, currency and the column delimiter in CSV files.

- **Administrator email**: The administrator email receives important system messages (disk space checker warnings, license expiration, etc.) automatically sent from MyQ.
- **Time zone**: For the proper functioning of the MyQ system, make sure that the time zone set here is the same as the time zone set in the Windows operating system. After changing the time zone, you will be asked to restart the web server.
- **Default Language**: The default language setting determines the language of all emails that are automatically sent from MyQ and the language used on all connected terminals and interactive readers.

- **Additional languages**: You can set additional languages that will be used for custom fields. This way you can enter different names of the fields to be used in different languages.
- **Currency**: In the currency setting, you can enter the 3-letter currency code of the currency that you want to use in your pricelist.
  - The **Number of digits after the decimal point** option can be set from *0* to *5* (default is *2*).
- **Column delimiter in CSV**: The column delimiter in CSV files setting determines the delimiter in source and destination files used for all the import and export operations to and from the CSV file format. The default value is based on the regional settings of your operating system.

7.3 Personalization Settings

On this tab, you can set a custom message to be shown on the Web accounts of MyQ users, add links to your own custom help, and custom application logos to be used in MyQ, on MyQ terminals, and in MyQ Desktop Client.

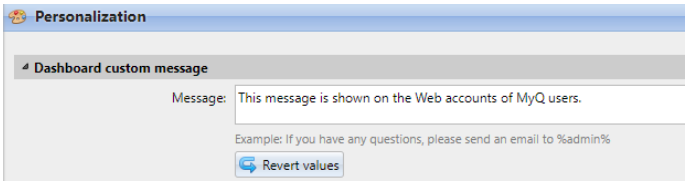


If you want to change the MyQ web UI colors and fonts, you can do so by providing a theme file in the *config.ini*.

7.3.1 Dashboard custom message

Here you can enter a message to be displayed on the MyQ users web accounts. After you change the message, click **Save** at the bottom of the **Personalization** settings tab.

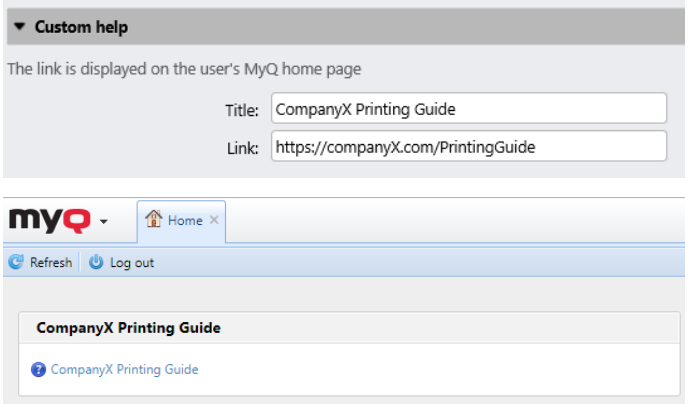
The *%admin%* parameter can be used to display the email address of the MyQ administrator within the message (the Administrator email set on the General settings tab).



7.3.2 Custom help

Here you can add a link to your own web based help that will be displayed as a gadget on the user's MyQ home page.

To add a custom help link, enter the title and the link of your custom help, and then click **Save** at the bottom of the tab.

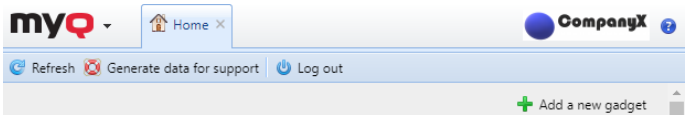


7.3.3 Custom application logo

Here you can add your company's logo to be used in the MyQ system. The logo will appear on the upper right corner of the MyQ Web Interface, on MyQ credit vouchers, in MyQ Desktop Client, and on reports.

Supported picture formats are *JPG/JPEG/PNG/BMP* and the recommended size is *398px* x *92px*.

To import the logo, click **+Add**, **Browse** for the file and **Open** it, and then click **Save** at the bottom of the tab. A preview of the new logo is displayed on the tab.



7.3.4 Terminal personalization

Here you can add your company's logo to be used on all your MyQ embedded terminals.

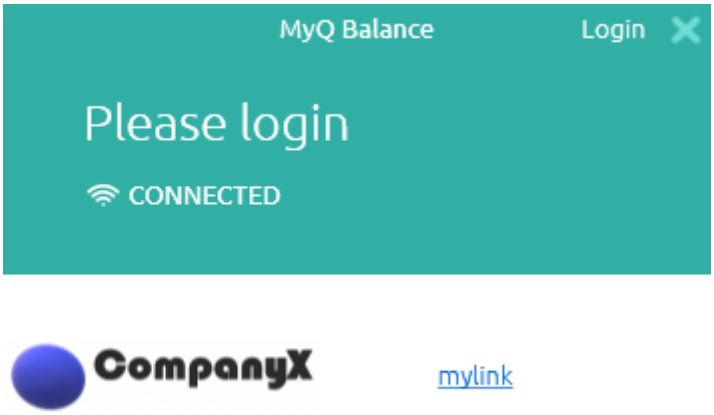
Supported formats are *JPG/JPEG/PNG/BMP* and the recommended size is *340px* x *92px*.

> You can also add a **Theme** to the logo. You need the *MyQ Theme Editor* app to create such a theme.

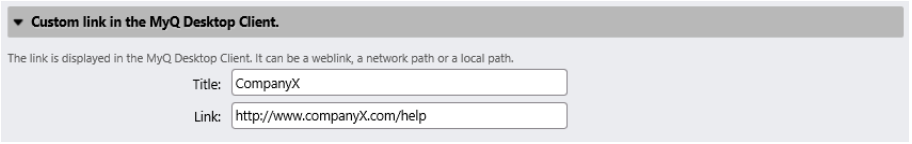
To import the logo, click **+Add**, **Browse** for the file and **Open** it, and then click **Save** at the bottom of the tab. A preview of the new logo is displayed on the tab.

7.3.5 Custom link in the MyQ Desktop Client

Here you can add a link to your own web based help (weblink, network path or local path) that will be displayed in MyQ Desktop Client.



To add the custom help link, enter the title and the link of your custom help, and then click **Save** at the bottom of the tab.



7.3.6 Web UI Themes

In order to change colors and fonts in the MyQ web UI, you need to provide a theme file in the config.ini.

Save the theme file to *C:\ProgramData\MyQ\Themes\webUI* (default path), and set the name of the file to the **themeFile** option in the *config.ini* file.

For example, if the theme file's name is *customTheme.css*, the config.ini should look like:

```
[General]
themeFile=customTheme.css
```

Only one theme can be set at a time and it is used for all users and administrators. If no theme file is provided, MyQ uses the built-in default theme.

Theme file properties

Theme files are created by overriding the values of variables in a CSS file. The variables follow the standard CSS custom property syntax and receive standard CSS values. The variables must be in the **:root** scope. Variables not specified in the theme file, keep the value from the default theme.

Example:

```
:root {
    --primary: MediumOrchid;
    --primary-light: thistle;
    --secondary: peachpuff;
    --secondary-light: #fee3ca;
    --secondary-dark: orange;
    --list-item-highlight: plum;
}
```

Variables

- It is possible to use an existing variable using the notation **--variableB: var(–variableA);** .
- It is recommended to keep values expressed in **rem** units

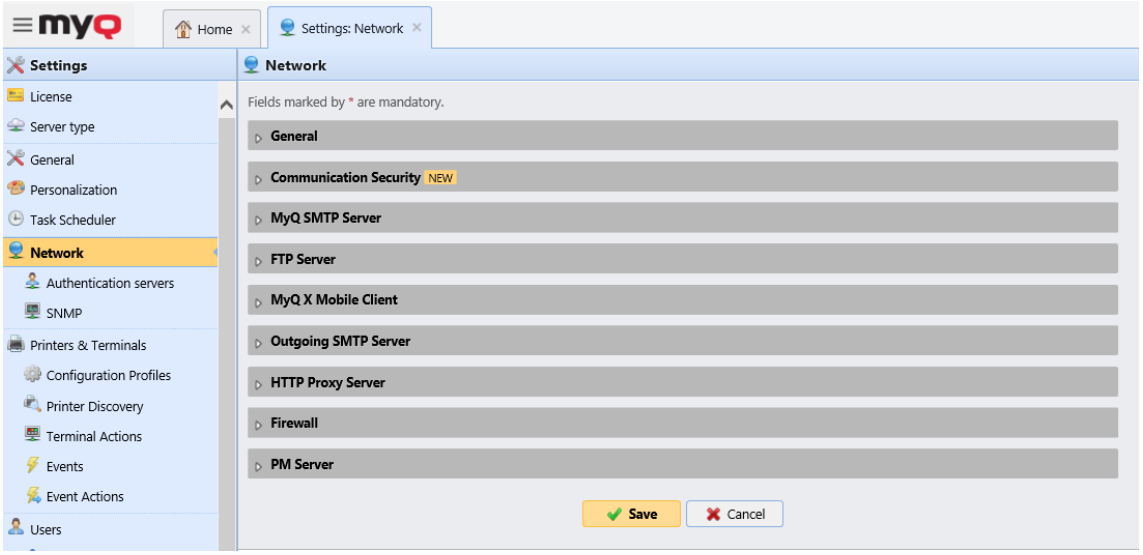
Variable name	Default value
font-family-base	"Segoe UI",Tahoma,Helvetica,sans-serif
font-size-base	1.2rem
primary	#abc7ec
primary-light	#deecfd
primary-dark	#255ca5
secondary	#eee
secondary-light	#f5f5f5

Variable name	Default value
secondary-dark	#b8b8b8
accent	#ffd278
btn-hover-color	var(--primary)
btn-highlight-color	var(--accent)
btn-highlight-hover-color	#ffe3ab
header-color	var(--primary)
header-text-color	#2e2e2e
app-tab-color	var(--secondary-light)
app-tab-text-color	#2e2e2e
app-tab-active-color	var(--primary)
app-tab-active-text-color	#2e2e2e
sidebar-color	var(--primary-light)
toolbar-color	var(--primary-light)
sidebar-item-height	2.6rem
toolbar-default-height	2.7rem
tree-item-height	1.6rem

7.4 Network Settings

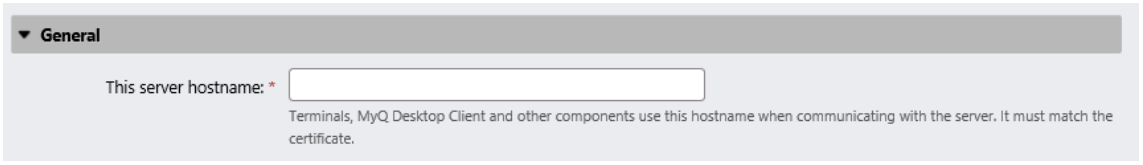
On the **Network** settings tab, you can manage the network communication between the MyQ server and other parts of the MyQ solution. It is divided into the following sections: **General, Communication Security, MyQ SMTP Server, FTP Server, MyQ X**

Mobile Client, Outgoing SMTP Server, HTTP Proxy Server, Firewall, and **PM Server**.



7.4.1 General

In this section, you can enter the hostname of the MyQ Print server. This hostname is used by external components of the MyQ system, such as embedded terminals or MyQ Desktop Client, for communication with the MyQ server.



During remote setup, the server hostname should be a valid hostname or IP-address. A licenses update might change the hostname to myq.local. Then the remote setup will fail and result in an error message.

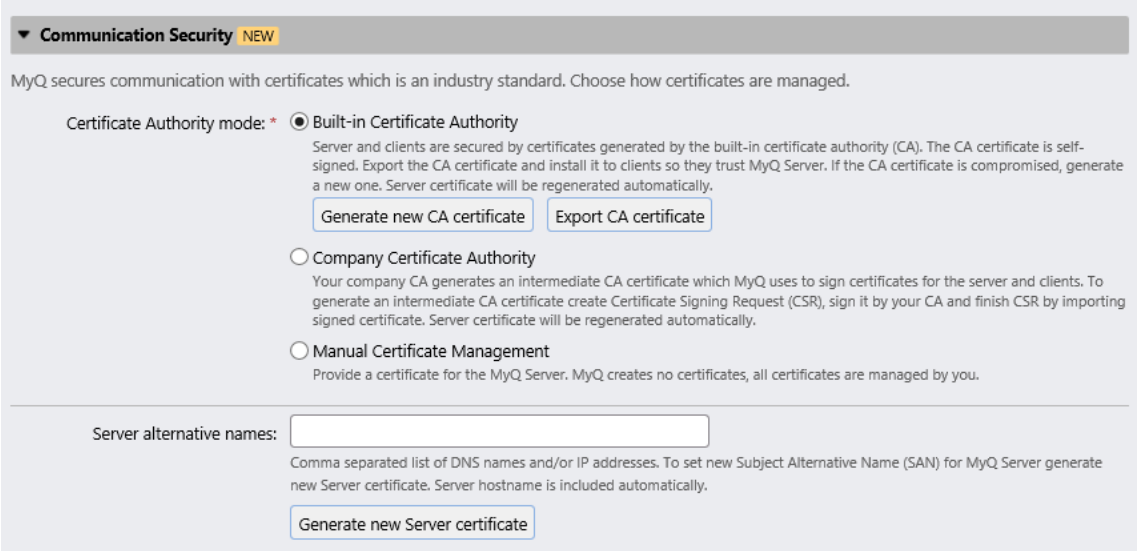
7.4.2 Communication Security

In this section, you can choose how your security certificates are managed.

MyQ offers three different certificate management modes:

1. **Built-in Certificate Authority** - This is the default mode for new installations. MyQ creates a self-signed CA certificate and uses it to sign server and client certificates. The public key of the CA certificate can be exported (click the **Export** button) to install it to clients, so they trust MyQ server. It is possible to specify the **Subject Alternative Name** (SAN), which is set as a comma separated list of domain names and/or IP addresses. In case the certificate is compromised, click the **Generate new** button, to generate a new one.

2. **Company Certificate Authority** - Your company CA generates an intermediate CA certificate which MyQ uses to sign certificates for the server and clients. To generate an intermediate CA certificate click **Create CSR** to create a Certificate Signing Request (CSR), sign it by your CA and click **Finish CSR** to finish CSR by importing signed certificate. If the intermediate CA certificate does not contain a CA root certificate in its chain, the administrator is prompted to upload the public key of the CA root certificate as well (the **Import CA root certificate** button appears).
3. **Manual Certificate Management** - Provide a certificate for the MyQ Server. MyQ creates no certificates; all certificates are managed by you. Click **Import Server certificate** to upload it. The certificate can be uploaded in *PEM* (public + private key separately) or in *PFX* format. The *PFX* format may be password encrypted. This mode is recommended only for expert users.



When upgrading an existing MyQ installation, the **Certificate Authority mode** is selected according to the existing server certificate:

- if the certificate is not CA, then the mode is set to **Manual Certificate Management**.
- if it was generated by MyQ before, then the mode is set to **Built-in Certificate Authority**.
- in other cases, the mode is set to **Company Certificate Authority**.

7.4.3 MyQ SMTP Server

In this section you can view and modify the SMTP server settings.

- **SMTP (STARTTLS)** - Enable when using unsecure communication or secure communication over STARTTLS. Port *25* by default.
- **SMTPS(SSL/TLS)** - Enable when using secure communication over SSL/TLS. Port *587* by default.

If scanning to MyQ is enabled, set the port shown here in the device's SMTP settings.

7.4.4 FTP Server

In this section, you can set the **FTP server port** that terminals use when sending scan jobs to MyQ over the FTP protocol. The FTP port is *21* by default, and the range is *0 to 65535*. If you click the **Generate new password** button, there is a confirmation pop-up informing that if a new password is generated, all the terminals need to be reconfigured.

7.4.5 MyQ X Mobile Client

In this section, you can set the server hostname or IP address and the communication port for using the MyQ mobile application. They may differ from the general settings because mobile devices connect via Wi-Fi.

7.4.6 Outgoing SMTP server

To send email reports, send error messages to users, send automatically generated PIN to users, and forward scanned documents, you have to configure the email server where all the emails are forwarded to.
To configure the server, do the following:

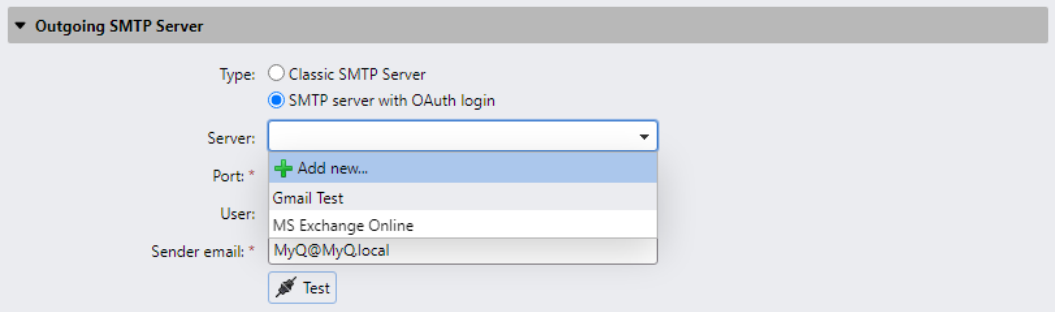
Select a **Type** from *Classic SMTP Server* or *SMTP Server with OAuth login*.

For *Classic SMTP Server*:

1. Enter the server hostname or IP address in the **Server** text box. If the email server listens to other than the 25 TCP port, change the **Port** setting to the correct value.
2. Choose between the *None*, *SSL* and *STARTTLS* **Security** options.
3. Optionally choose to **Validate certificate** or not.
4. If credentials are required, enter the **User** and **Password**.
5. Enter the address that you want to be displayed as the **Sender email** on PIN, alert and report messages.
6. After you enter the data, you can click **Test** to test the connection to the email server, and click **Save** to save your changes.

For *SMTP Server with OAuth login*:

1. If you have already set up a Microsoft Exchange Online server or a Gmail with OAuth2 server in the **External Systems** settings, those servers are available in the **Server** field drop-down. If not, you can click on the **Server** field and then click **Add** to add your Microsoft Exchange Online or Gmail server. For more information, check Microsoft Exchange Online Setup and Gmail with OAuth2 setup.



2. If the email server listens to other than the 25 TCP port, change the **Port** setting to the correct value.
3. **Security** is *STARTTLS* by default and cannot be changed.
4. If credentials are required, enter the **User**.
5. Enter the address that you want to be displayed as the **Sender email** on PIN, alert and report messages.
6. After you enter the data, you can click **Test** to test the connection to the email server, and click **Save** to save your changes.

7.4.7 HTTP Proxy Server

In this section, you can set up a MyQ Proxy server which can be used for activating a license. Mandatory fields are **Server** (name) and **Port**. After changing ports, restart all MyQ services.

7.4.8 Firewall

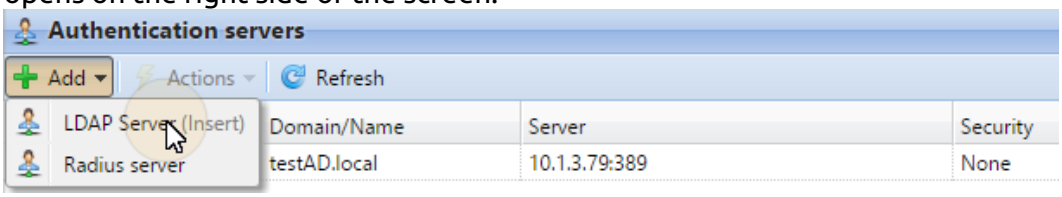
In this section, you can automatically open all the ports on the Microsoft Windows Firewall that are necessary to run the MyQ application.

7.5 Authentication Servers Settings

If you want to authenticate users against an LDAP server, synchronize users from an LDAP server or authenticate users against a Radius server, you have to add all the servers on this tab.

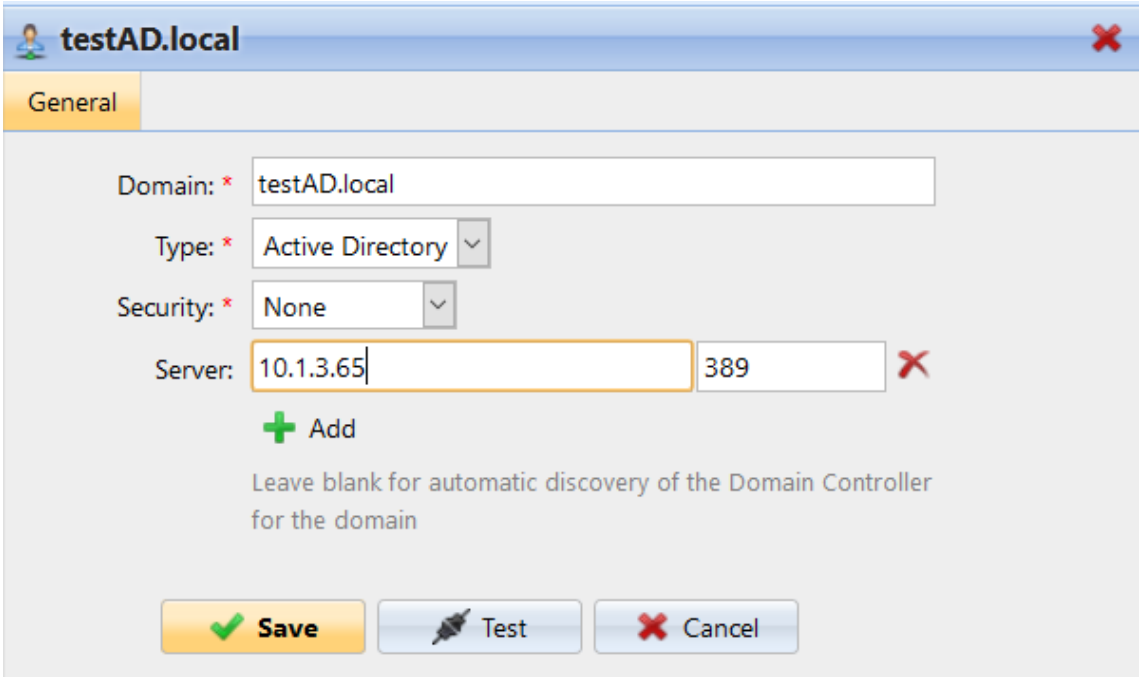
7.5.1 Adding a new LDAP server:

1. Click **+Add** and select **LDAP server**. The new LDAP server properties panel opens on the right side of the screen.



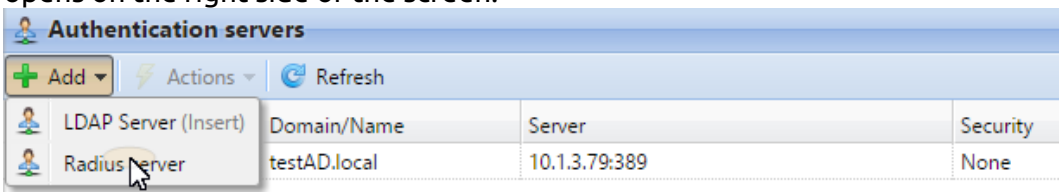
2. Enter the LDAP domain.

3. Select the LDAP **Type**. You can select from *Active Directory, Novell, OpenLDAP,* and *Lotus Domino*. (For *Active Directory* you must select *SSL* in the **Security** field and the **Server** port must be *636*)
4. If you want the communication with the LDAP to be secured, select the **Security protocol** that you want to use.
5. Enter the **Server** IP address or hostname and the communication port. (For *Active Directory* you can leave the IP address or hostname empty if you do not know them. The server will then be saved as Auto-discover)
6. If you have more addresses related to one LDAP server, you can add them by clicking **Add**.
7. Click **Save**. The LDAP server now appears on the list of servers.

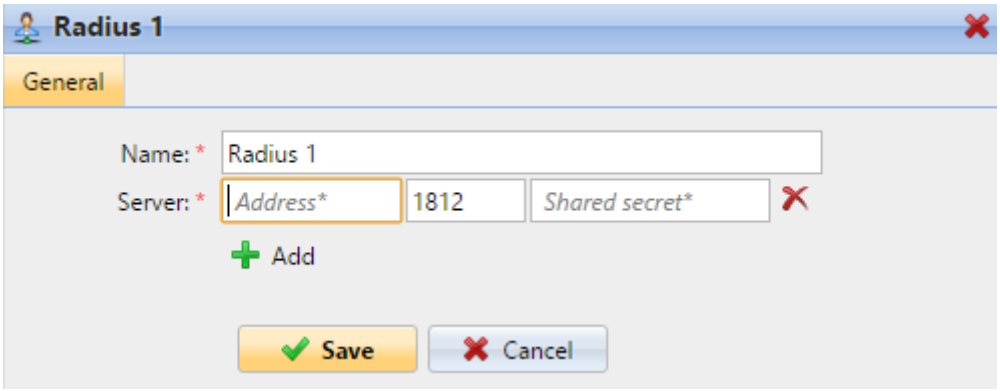


7.5.2 Adding a new Radius server:

1. Click **+Add** and select **Radius server**. The new Radius server properties panel opens on the right side of the screen.



2. Enter the Radius server **Name**.
3. Enter the **Server** IP address or hostname, the communication port and the Shared secret.
4. If you have more addresses related to one Radius server, you can add them by clicking **Add**.
5. Click **Save**. The Radius server now appears on the list of servers.



When an authentication server is renamed, a server with the old name will still appear in the Authentication server settings of a user profile, alongside the server with the new name. The old server is removed after the following user synchronization propagates changes.

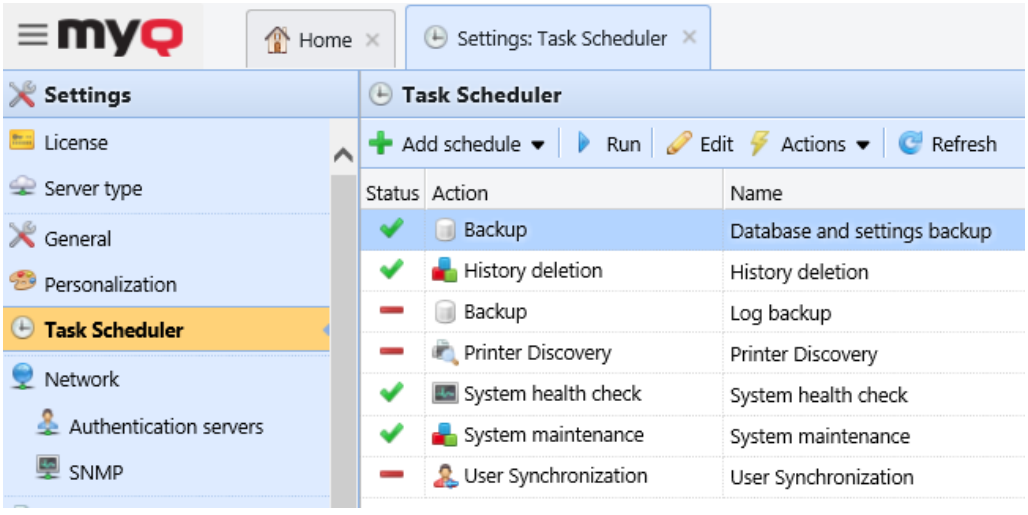
7.6 Task Scheduler Settings

The **Task Scheduler** settings tab serves as an interface for planning regular tasks in MyQ®. There are seven predefined tasks:

Database and settings backup , Log backup , System health check , History deletion, Printer Discovery, System maintenance, and **User Synchronization**.

Apart from these, you can import projects from CSV files, add scheduled reports and execute external commands.

External commands are disabled by default. To enable them, switch the **scheduleExternalCommand** parameter in the *config.ini* file from *0* (disabled) to *1* (enabled).



7.6.1 Running and setting task schedules

To manually run a task schedule:

- Select the task schedule that you want to run.
- Click **Run** on the **Task Scheduler** toolbar.

Or

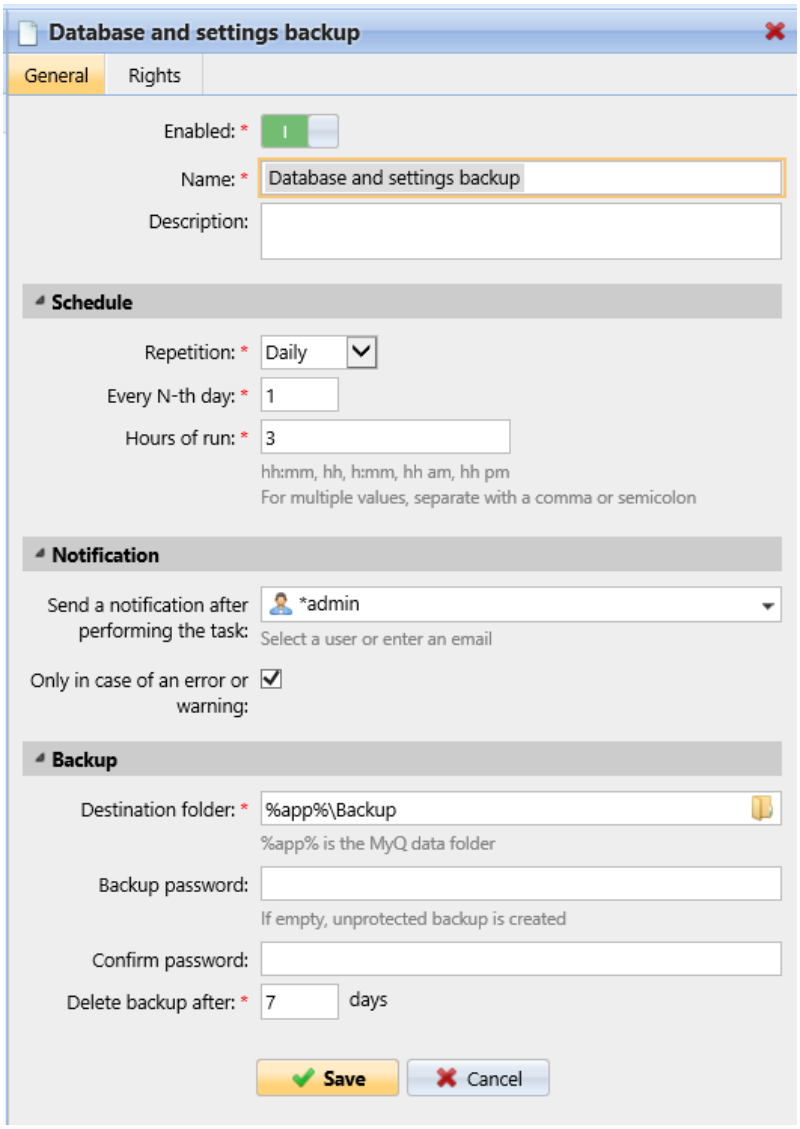
- Right-click the task schedule.
- Click **Run** on the shortcut menu.

To set a task schedule:

Double-click the task schedule that you want to set (Or right-click it, and then click **Edit** in the actions shortcut menu.). The respective task schedule properties panel opens on the right side of screen.
The task schedule properties panel is divided into four sections:

- In the uppermost section, you can enable or disable the schedule, enter its **Name** and write its **Description**.
- In the **Schedule** section, you must set a period of **Repetition** for the task run and change the exact time of the task run start.
- In the **Notification** section, you can select to send an email notification. You must also choose if you want to send the notification every time or just in case of an error.
- The bottom section, if present, is particular to the type of task.

After you set the schedule, click **Save**.



7.6.2 Providing rights for task schedules

You can provide users with rights to change some task schedules settings themselves.

To provide users with rights to change settings of a task schedule:

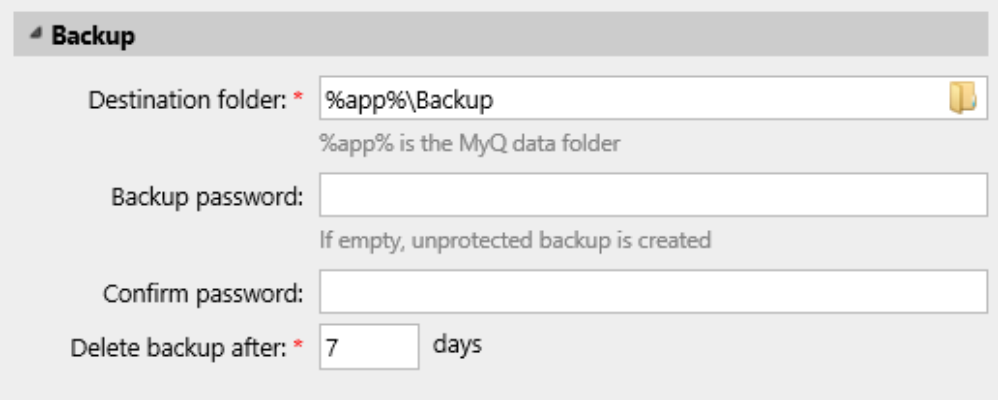
1. Double-click the schedule that you want to set. The respective schedule properties panel opens on the right side of screen.
2. On the bar on the upper-left corner of the panel, click **Rights**. The **Rights** tab opens.
3. Click **+Add user**. The Select user or group dialog box appears.
4. Select the user or the group of users that you want to provide with the rights, and then click **OK**.

7.6.3 Automatic database and log backup

There are two automatic backup tasks on the **Task Scheduler** tab. The database and settings backup and the log backup. The backup process is automatic. The files are compressed and saved to the **Backup** folder.

Backup settings

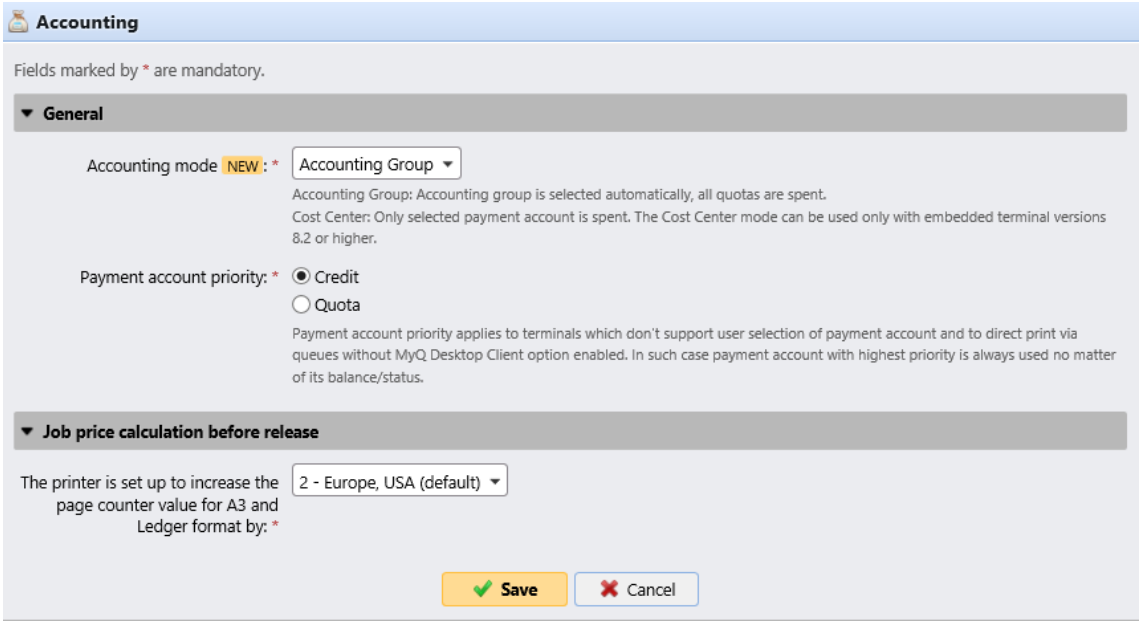
- **Destination folder**: The folder that stores the backup data.
- **Backup Password**: Password protect the backup. If this field is left empty, the created backup is unprotected.
- **Confirm Password**: Confirm the above password.
- **Delete backup after ___ days**: The days after which the data are deleted from MyQ.



7.7 Accounting Settings

In the **Accounting** settings tab, in the **General** section, the MyQ administrator can set:

- the **Accounting mode** MyQ will be using:
  - **Accounting Group** - This is selected by default. In this mode, all quotas are available and can be spent.
  - **Cost Center** - In this mode, only the selected (cost center) payment account is spent.
- the **Payment account priority**, which applies to terminals that don't support user selection of payment accounts, and to direct queues without the MyQ Desktop Client option. The payment account with the highest priority is always used in such cases:
  - Credit
  - Quota



Limitations:

- The **Cost Center** mode does not work on printers without a terminal.
- **The Cost Center mode can be used only with embedded terminal versions 8.2 or higher.**
- In the **Cost Center** mode, if a user has more than one account, the job is paused and the account must be selected via MyQ Desktop Client (v.8.2 or higher). If there is only one account, the account is assigned automatically.

If you use the **Cost Center** mode on embedded terminals with a version older than 8.2, the terminals activation fails. The following error message can be found in the log: "*Terminal is incompatible | reason=Terminal version must be at least 8.2 in cost center mode*".
If you switch to the **Cost Center** mode on embedded terminals with a version older than 8.2, the following warning can be found in the log: "*This terminal is not supported in cost center accounting mode. Upgrade terminal at least to version 8.2*".
Switch to the **Accounting Group** mode or upgrade your embedded terminals to version 8.2 for the terminals to be successfully activated and work properly. If you choose to switch, your terminals need to be re-activated. This can be done automatically by clicking **OK** in the Apply Settings pop-up, or manually on each device.

Comparison between Accounting Group and Cost Center

Accounting group	Cost center
Max 1 accounting group per user	Multiple cost centers can be assigned to a user

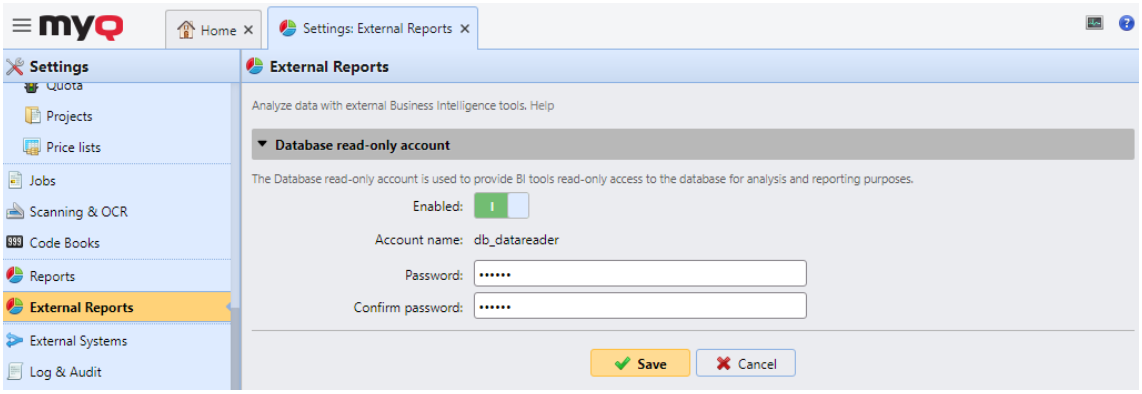
Accounting group	Cost center
If multiple quotas are assigned to a user, all of them are spent.	Only one quota is spent. If credit, or a cost center without quota is selected, no quota is used.
If credit or personal quota is selected, the job is still accounted to the accounting group	If credit or personal quota is used, no cost center is accounted.
Every job performed by user is accounted to their Accounting group	A job is accounted to the cost center only if selected, or if it is the only account the user has.

In the **Job price calculation before release** section, the MyQ administrator can select between *1 - Japan*, or *2 - Europe, USA (default)* for **The printer is set up to increase the page counter value for A3 and Ledger format by** setting.

7.8 External Reports

By default, the only access to the MyQ Firebird database is via the *SYSDBA* account. Since this account has full read/write rights, it is not secure to use it for accessing the database from 3rd party software (for example BI tools for reporting). A read-only access account is needed to avoid unintentional database corruption.

In the **External Reports** settings tab, the administrator can enable a **database read-only account** to be used with external reports.



Activating the **Enabled** switch automatically creates a read-only access account to the MyQ Firebird database with the following settings:

- **Account name**: *db_datareader*. This is the newly created read-only database user. The account name cannot be changed.
- **Password**: password for the *db_datareader* account, set by the administrator. A new password must be set every time when switching from the **Disabled** to **Enabled** state.

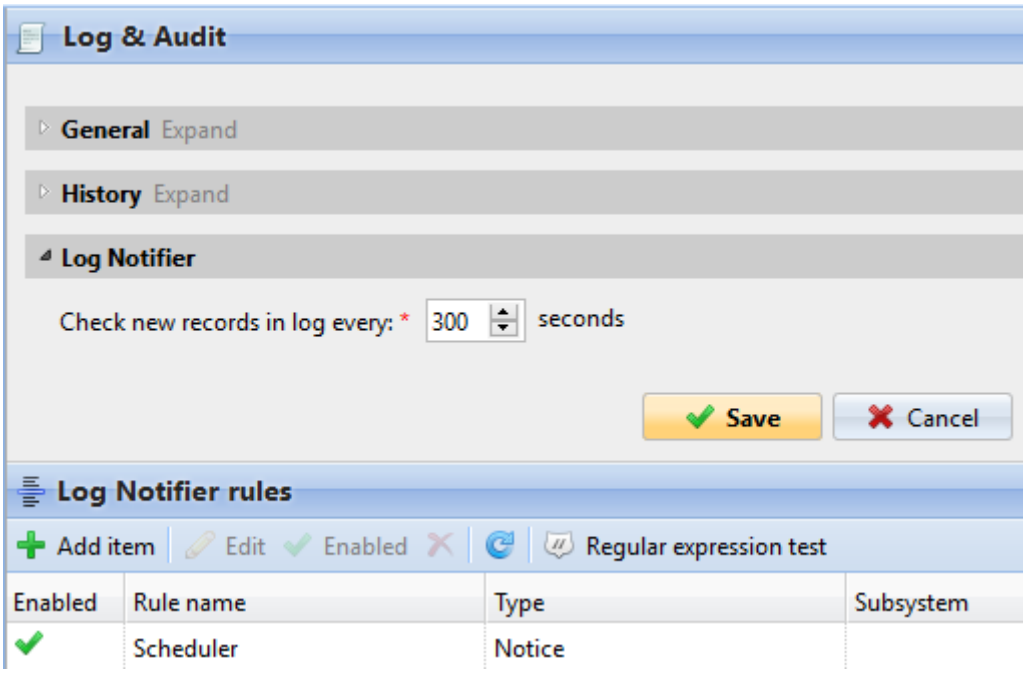
- **Confirm password**: confirmation of the above password.

Enabling the database read-only account automatically enables a Windows Firewall rule to allow incoming connections to the MyQ Firebird database. If disabled, the rule is deleted.

After restoring a backup using **MyQ Easy config**, the Windows Firewall rule and the *db_datareader's* account password will be restored if the account state was **Enabled** when the backup was created. If the account state was **Disabled**, then the existing Windows Firewall rule will be deleted and the user account will be dropped in the restored Firebird database.

7.9 Log and Audit Settings

On this tab, you can set the **Log Notifier** feature, which enables sending notifications about selected log events to the administrator and/or any number of MyQ users. The notifications can be sent via email or they can be sent to Windows Event Viewer.



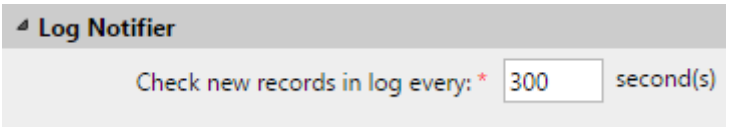
General – If you select the **Log debug level messages** option, the system will generate more information for troubleshooting. The information will be shown in the MyQ Log.

However, this feature will impact your system's performance. Therefore, we recommend you to enable it only in case of a system malfunction or if it is requested by MyQ support.

History – Here you can set when the logs should be deleted.

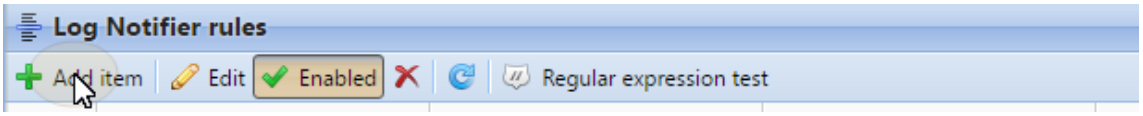
Log Notifier – The notifications and their destinations are both specified by log notifier rules.

Under **Log Notifier**, you can set the period after which the log is checked for new events in the **Check new records in log every: ... seconds** text box (*300* by default).



7.9.1 Management of the Log Notifier Rules

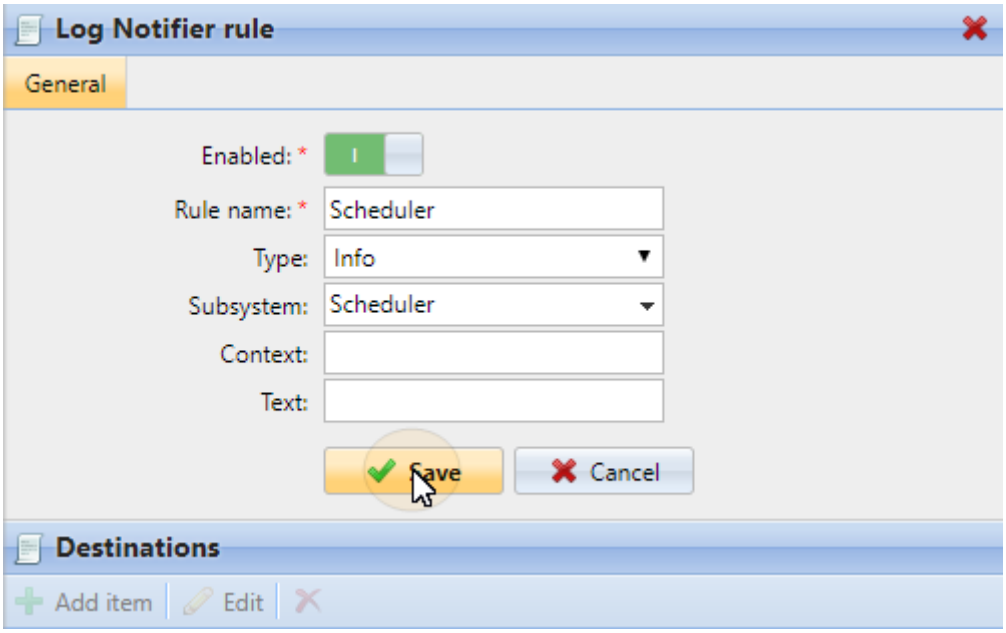
To add a new rule, click **+Add item** at the upper-left corner of the **Log Notifier rules** widget. The properties panel of the new rule opens on the right side of the tab. On the tab, edit and save the rule.



To open the editing options of a rule, double-click the rule (or right-click the rule, and then click **Edit** on the shortcut menu). The following settings can be changed:

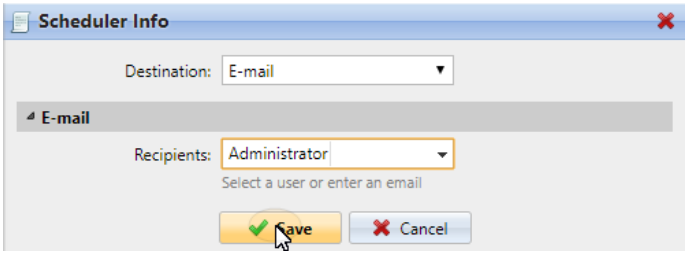
- **Enabled**: activate, deactivate the rule
- **Rule name**: name of the rule
- **Type**: the available event types - *Info, Warning, Error, Notice, Debug, Critical*
- **Subsystem**: subsystems of the MyQ application (*Terminal, SMTP Server, CLI,* etc.)
- **Context**: specific part of the subsystem
- **Text**: text of the log event message; you can use Regular expressions to search for specific patterns

After you set the notification rule, click **Save**. The rule is saved and you can select its destinations.



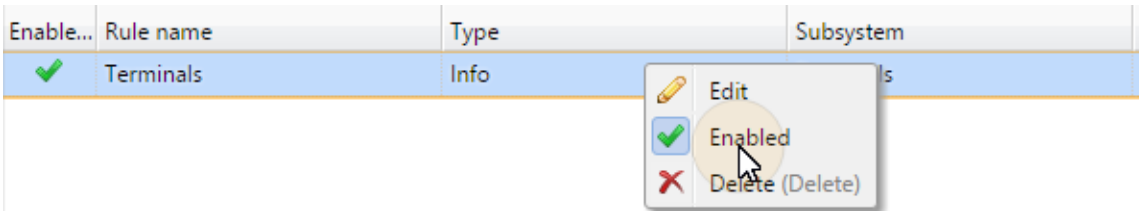
To add the destination, click **+Add item** under **Destinations**.

You can select between two destination options: **E-mail** and **Windows Event Log**. If you select the **E-mail** destination, you need to add one or more recipients; you can either select them from the list of MyQ users in the **Recipients** drop-down or directly type the addresses there. After you set the destination, click **Save**.
The new rule is displayed on the tab.



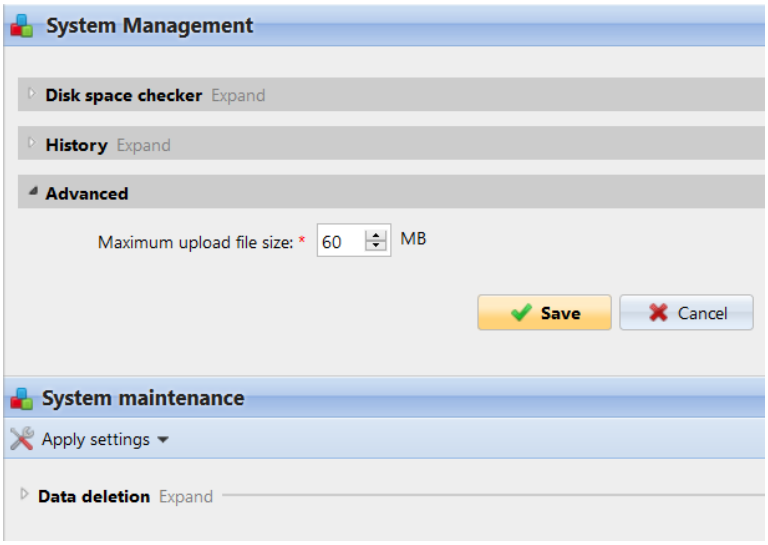
To enable/disable Log Notifier rules:

1. Right-click on the rule.
2. Select **Enabled** (or **Disabled**) on the shortcut menu.



7.10 System Management Settings

On the **System Management** settings tab, you can change the settings of the MyQ history, set the maximum size of files that can be uploaded on the MyQ Web Interface, reset MyQ components to apply settings previously made on other tabs, and also delete data from the MyQ database.



Disk space checker

The disk space checker protects the system against failure caused by insufficient disk space. You can set two levels of alert:

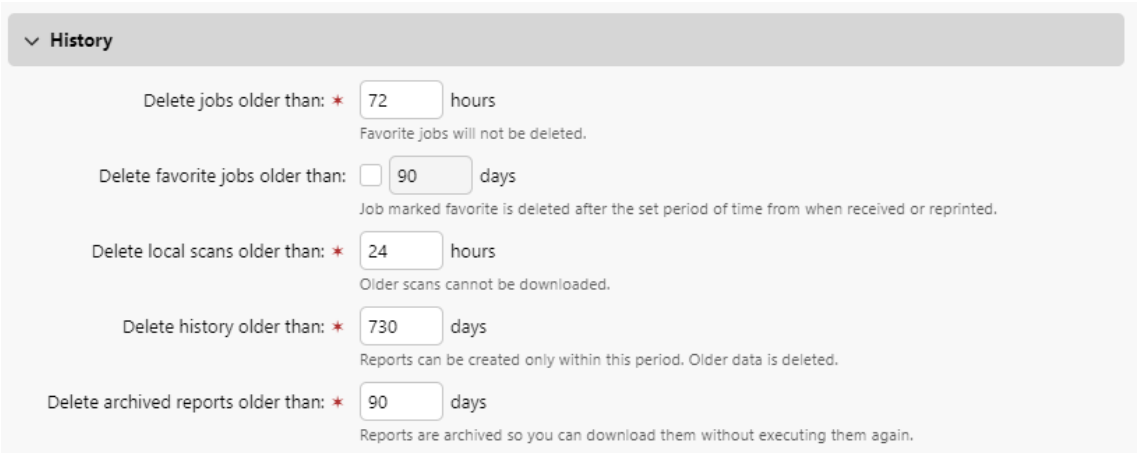
- **Warning level**: If the disk space reaches this level, the administrator gets an alert email message.
- **Critical level**: If the disk space reaches this level, the administrator gets an alert email message and the MyQ services are automatically stopped to prevent corruption of the MyQ databases.

History

In the **History** section, you can change the periods after which data stored on the MyQ server is deleted. You can set time periods for the following data:

- **Delete jobs older than**: Jobs remain on the MyQ server for the period set here. Older jobs (except for Favorite jobs) are deleted and cannot be printed. Favorite jobs stay on the server until they are manually deleted by the user or by the MyQ administrator.
- **Delete favorite jobs older than**: If the checkbox is enabled, jobs marked as favorite are deleted after the set period of time from when received or reprinted. The default is 90 days.
- **Delete local scans older than**: Local scans (the scans stored on the MyQ server) remain on the MyQ server for the period set here. Older local scans are deleted and cannot be downloaded.
- **Delete history older than**: This setting determines the time period for storing data of user sessions, alerts on printing devices, the device counter history, and closed alerts. Older data are deleted from the MyQ database and cannot be used in MyQ reports.
- **Delete archived reports older than**: Reports are archived for the period set here. Older reports are deleted.

To change the values, enter new values to the particular text box, and then click **Save**.



Advanced

In the **Advanced** section, you can set the maximum size of files that can be uploaded on the MyQ Web Interface, such as print jobs uploaded on users' accounts or custom logos.

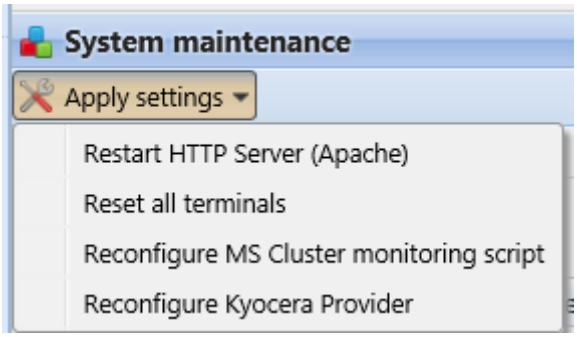
7.10.1 System Maintenance

In the **System maintenance** section, you can reset MyQ components to apply settings previously made on other tabs, delete all users without a session and permanently remove inactive users, printers, groups and user data from the MyQ database.

Applying changes

Some changes of the MyQ server require a reset of some of the server's components. When you save these changes, the system proposes to automatically perform the reset. If you decide to skip this action, you need to reset the components later.

Via the **Apply Settings** button, you can reset the components at any time. After you click the button, click a component that you want to reset and the settings will be applied without further notice.

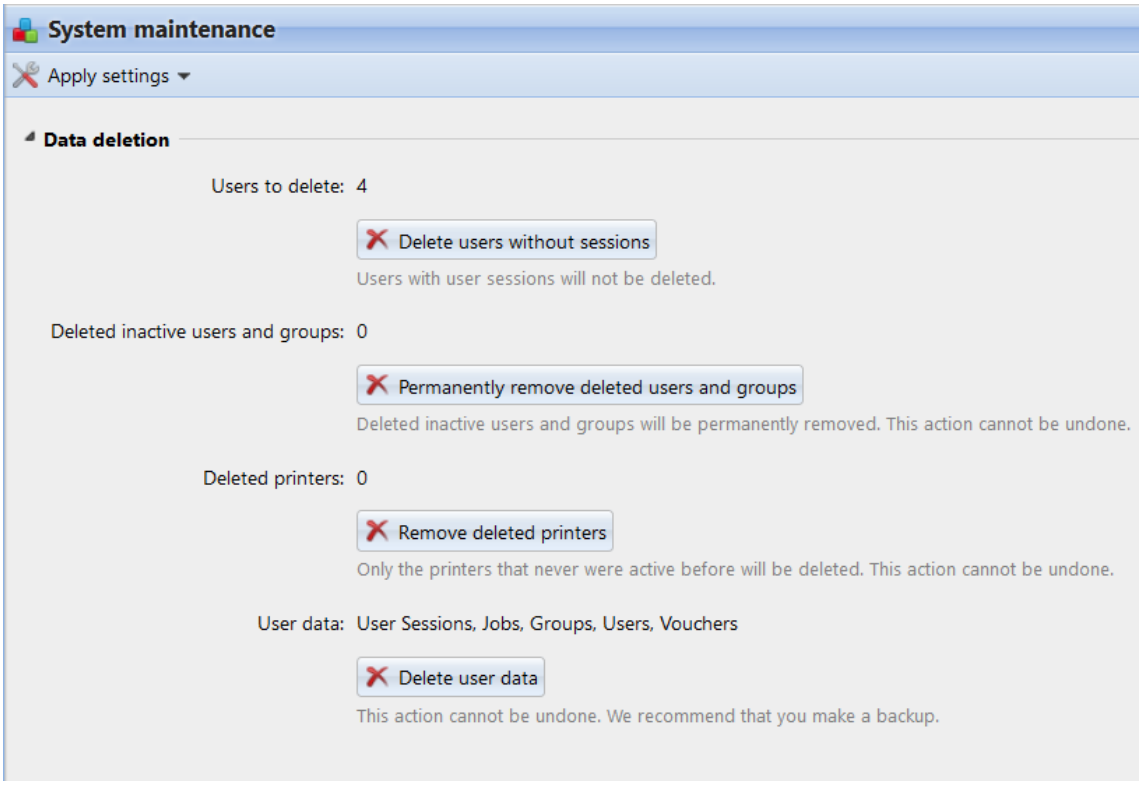


Deleting data from the MyQ database

The delete/remove buttons perform the following actions. These actions cannot be undone. It is recommended you backup your data before performing any of them.

- **Delete users**: Deletes all users without user sessions.

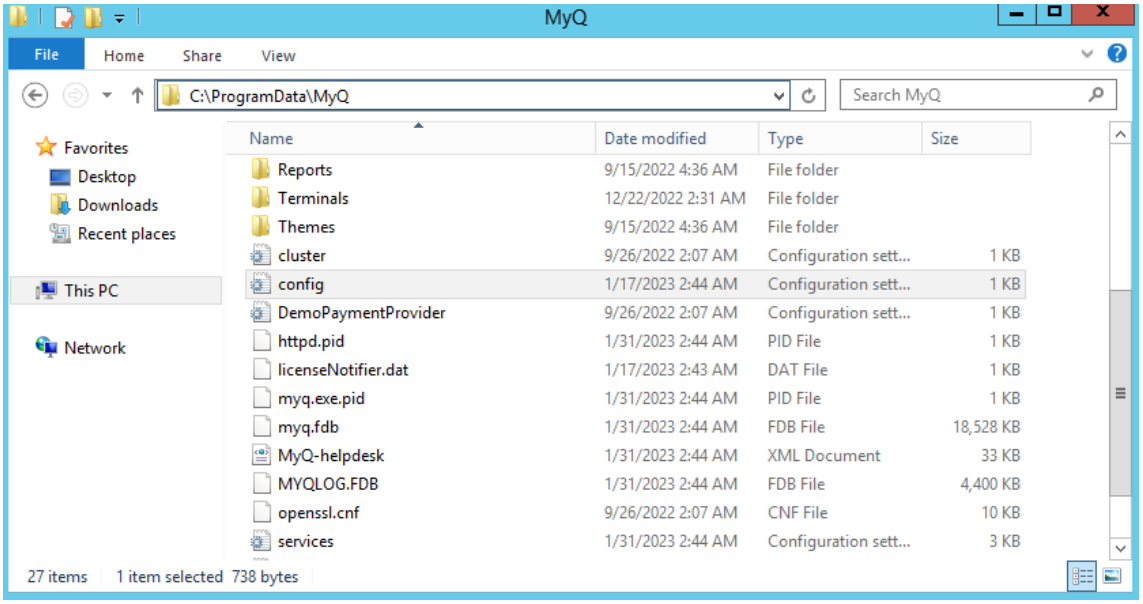
- **Deleted inactive users and groups**: Removes all inactive users and all groups with no active users from the MyQ database.
- **Deleted printers** : Removes all printers which are deleted and have never been activated from the MyQ database.
- **User data**: **User Sessions, Jobs, Groups, Users, Vouchers**: Removes all user related data from the MyQ database.



7.11 Security settings in config.ini

The config.ini file can be used for further configuration of the MyQ Print Server. It contains sections with parameters and values for multiple settings, however it is highly recommended to always consult with MyQ Support before editing the file.

Config.ini is a text file, located by default in *C:\ProgramData\MyQ*, and you can edit it in Notepad or any other text editor.



After you edit and save the file, all services need to be restarted for the changes to take effect.

7.11.1 Security section

The following settings are available since MyQ Print Server 8.2 patch 39.

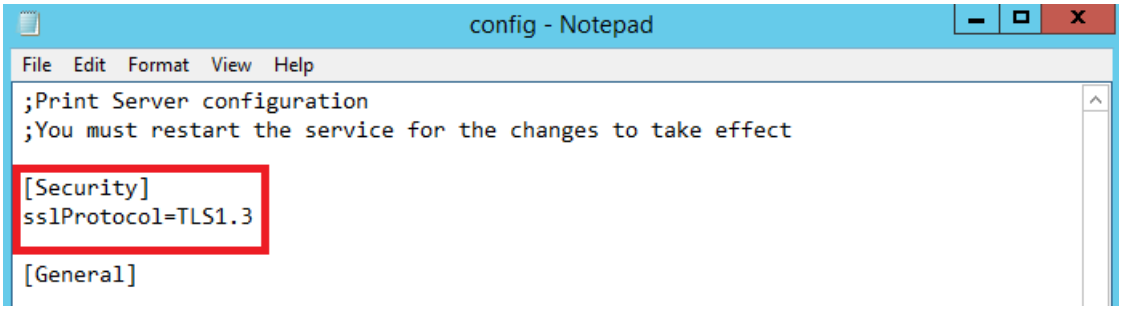
The configuration files *traefik.custom.rules.yaml* or *httpd.conf* manage secure communication with the web server, however there are other components using secure communication and they have a separate setting in the config.ini file. Those components are: SMTP, IPP, LPR, Messages (WebSockets), and HTTP Router.

When a Traefik custom rules file exists in the installation with the TLS version specified, it takes precedence over the config.ini option. The config.ini settings apply to other MyQ components, but Traefik TLS is set by the custom rules file.

To specify the minimum security protocol to be used for communication, go to *C:\ProgramData\MyQ* and open the config.ini file in a text editor.

Add a section called **[Security]** and in a new line under that, add the parameter **sslProtocol** with the value you want. The possible values are: *TLS1, TLS1.1, TLS1.2*, and *TLS1.3*.

For example, you can add *sslProtocol=TLS1.3*

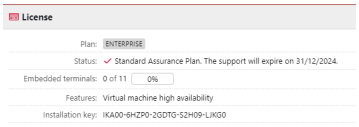


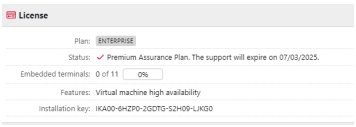
Save the file and restart all services for the change to take effect.

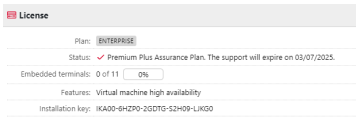
8 Licenses

There are two ways of licensing in MyQ. The one that has been used so far (old licensing model), with separate keys for each license, and the new MyQ X licensing model -in use since MyQ Server 8.0 (patch 4)-, that introduced the use of an Installation Key per MyQ setup.

You can view your current license in the License Settings of you MyQ User Interface, or in the Licences widget shown on your dashboard. Three types of assurance plan are available, Standard, Premium, and Premium Plus. More information on assurance plans is available here.

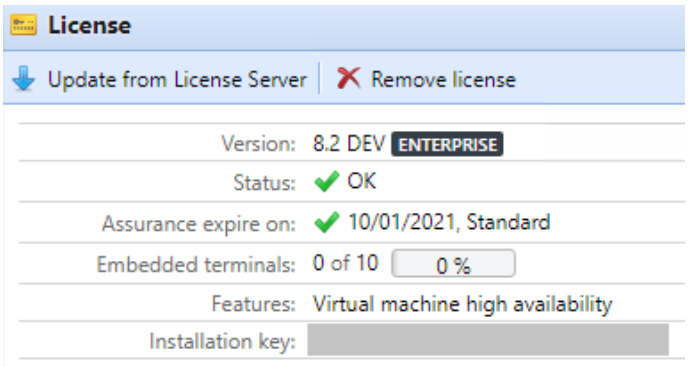






This topic discusses the following subjects:

- how to add and activate licenses
- how to delete licenses
- how to extend software assurance licenses
- how to migrate old licenses to MyQ X
- VMHA License



8.1 Adding licenses

You can add new licenses either on the **Home** screen during the initial setup of MyQ, or anytime on the **License** settings tab.

After activation, the license is linked with the hardware configuration of the server where MyQ is installed. If the configuration changes (for example after you reinstall MyQ on a different server or after you change any of the hardware components of the server), the license becomes invalid and you have to reactivate it within seven days.

The total number of devices allowed to be activated at the same time is equal to the number allowed by your purchased licenses (For example: a license allowing ten

printing devices + a license allowing one printing device + a license allowing five printing devices = sixteen printing devices allowed to be activated).

Non-MFPs printers are automatically assigned with an Embedded lite license (2x non-MFPs printers = 0,5 EMB lite + 0,5 EMB lite = 1xEMB license).

Having licenses for 40 printing devices automatically allows an unlimited number of printing devices to be activated at the same time on the server. This does not apply to embedded terminal licenses.

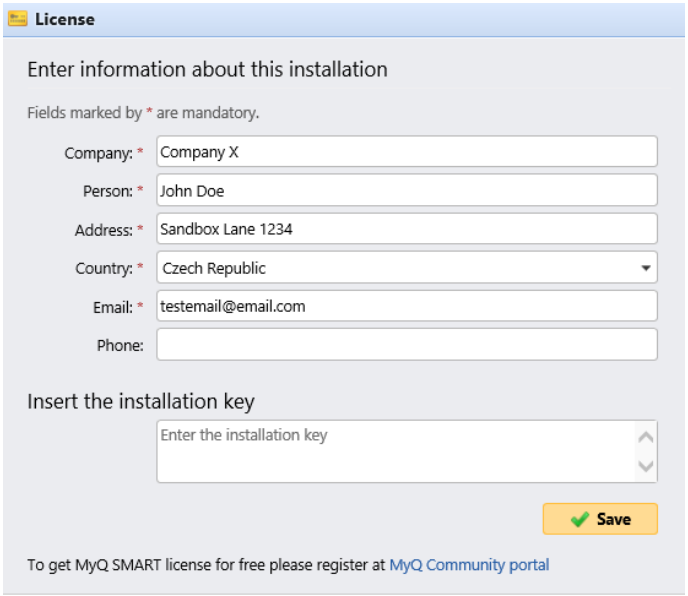
8.1.1 Adding licenses on the Home screen

The first time you set up the MyQ system, you can add new licenses on the **Home** screen, in the **Enter license** section, under the Quick Setup Guide.

8.1.2 Adding licenses on the License settings tab

On the **License** settings tab, you are asked to enter the following information about your installation:

- **Company** - Your company's name
- **Person** - Your full name (e.g. the MyQ administrator's name)
- **Address** - The company's address
- **Country** - Select the country from the drop-down
- **Email** - Your email address
- **Phone** - Your phone number (optional)



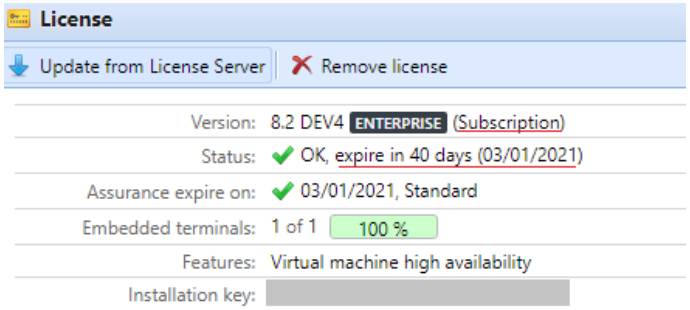
Then, enter your Installation key in the **Insert the installation key** field and click **Save,** and then **Activate**.

- If you are connected to the internet and you have used an Installation key, your licenses are now added and activated.
- If you have used license keys, your licenses are added but need to be activated. Follow the activation steps below.

- If you want to manually activate your licenses, see the steps below.
- If you haven't purchased any license or installation keys yet, you can register in the MyQ Community portal and request for the free **MyQ SMART** license.

You can see the newly added licenses on the **License** settings tab, under **License.**

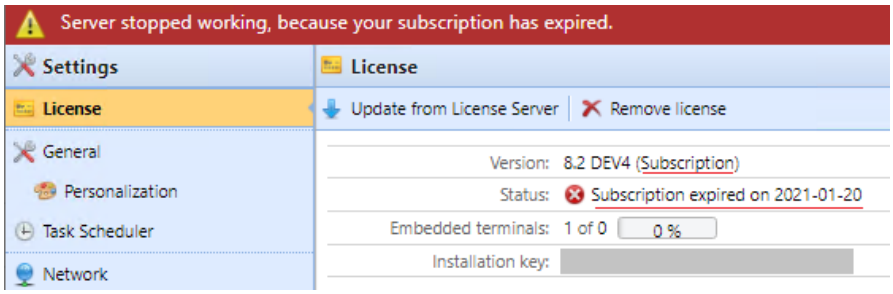
If you are using a subscription license, you can see when the subscription is expiring:



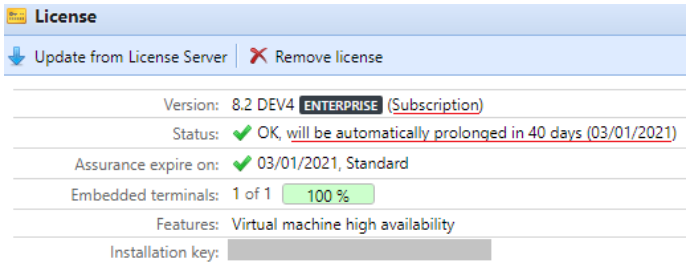
10 days before the expiration, a banner message appears on the interface, reminding you to prolong your subscription:

"*Your subscription is about to expire soon, all services will stop in 10 day(s). Please prolong your subscription"*

If you don't prolong it on time, your licenses will expire and MyQ will stop working. The following banner message is displayed: "*Server stopped working, because your subscription has expired.*"



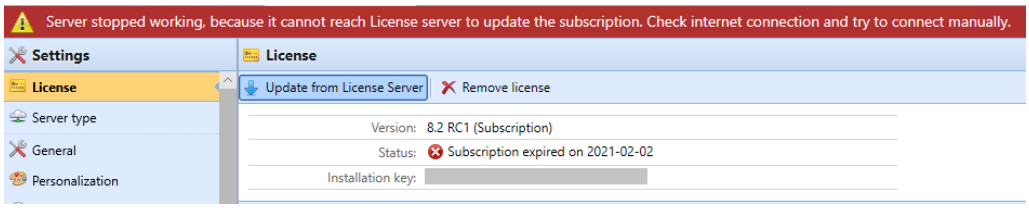
If you have auto-prolongation for your subscription on, you can see when it will be renewed:



If the MyQ server cannot connect to the License server :

- After the first unsuccessful connection, the MyQ server starts displaying the alert banner "*MyQ server cannot connect to License server, subscription cannot be prolonged and all services will stop in X days. Check internet connection and try to connect manually*". X = number of days until the expiration + 10.

- If the MyQ server can't connect to the License server for 10 subsequent days after the subscription has expired, the MyQ server will stop working and display the alert banner "*Server stopped working, because it cannot reach License server to update the subscription. Check internet connection and try to connect manually.*"



If you have more than one Embedded licenses and you are using them, for example, as 3 Embedded lite licenses, the status bar in your Licenses overview will show that you are using one Embedded license, since the number is rounded down.

8.2 Activating Licenses

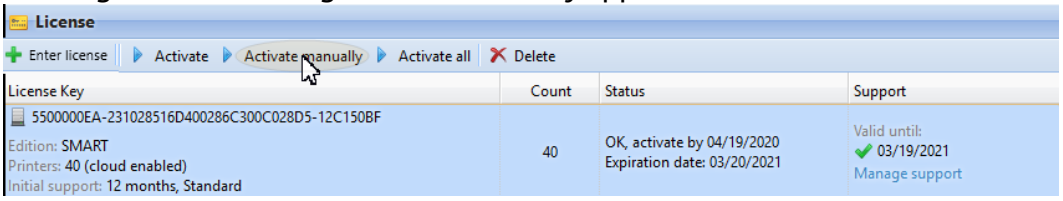
The HTTP Proxy Server setting for license activation is not supported for License Keys generated on the MyQ X Partner portal. Manual (offline) activation must be used instead.

Installation Keys are automatically activated as soon as they are added (if connected to the Internet).

8.2.1 To manually activate a license:

If you are using the old licensing model (with license keys):

1. Generate the *MyQ-helpdesk .zip* file. For information about how to do this, see *Generate data for support*.
2. Send a request for an activation key to license@myq-solution.com with the *MyQ-helpdesk.zip* file attached. You will get an email response with the generated activation key.
3. Go to the **License** settings tab. Under **License**, click **Activate manually** (or right-click the license, and then click **Activate manually** on the shortcut menu). A dialog box for entering the activation key appears.

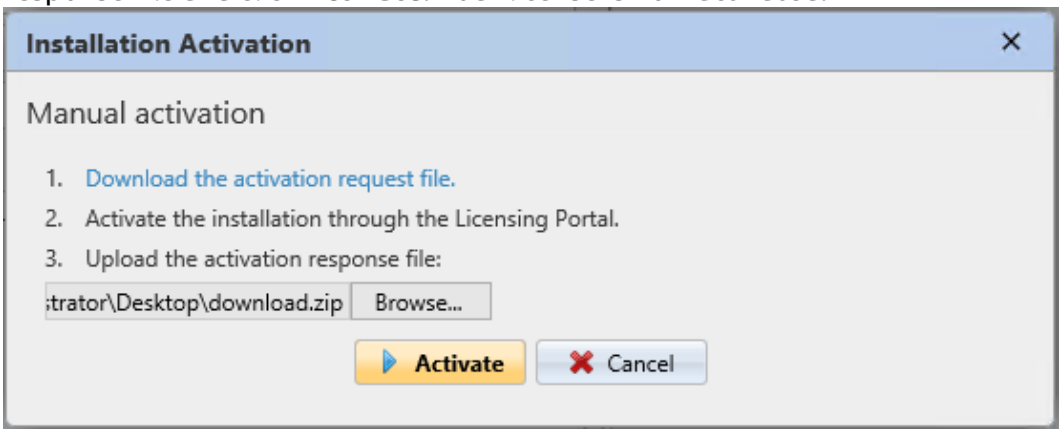


4. In the dialog box, enter the received activation key, and then click **OK**. Your license is now activated.

If you are using the new licensing model (with Installation Keys):

1. Go to the MyQ Web Administrator interface, in **MyQ, Settings, Licenses**. Add your Installation Key and click **Next**. Click **Activate**. The online activation fails and you get the following message. Click on **Manual activation**.

2. In the newly opened window, click on **Download the activation request file.**
3. Upload the file in the MyQ X Partner portal and download the activation response file.
4. Go back to the MyQ Web Administrator interface, upload the activation response file and click **Activate**. Your license is now activated.



8.2.2 Reactivating Licenses in case of Hardware change

When moving a MyQ installation from an old server to a new server, a Support task needs to be created with the MyQ License department (Support task - Type license issue) for license installation key reactivation

Steps:

1. Prepare the **new server** with a clean MyQ installation.
2. Create a backup of MyQ (MyQ Easy Config\Database\Backup) on the **old MyQ server**.
3. Restore the backup file from step 2 on the **new MyQ server** (MyQ Easy Config\Database\Restore).
4. With the Installation key now in MyQ Web UI\Settings\License on the **new MyQ server**, you should request for license installation keys activation in 10 days.
5. Generate the Helpdesk support file from the new MyQ server installation (MyQ Web UI\Log\Tools\Generate data for support).

6. Create a Support request (type License issue) for reactivating the installation key with attached Helpdesk support file on the **MyQ Helpdesk partner portal**.
7. When reactivation is confirmed in the task, activate the installation key in MyQ Web UI\Settings\License on the **new MyQ server**.

Notes:

- A valid Software Assurance is required for the period when these changes are made.
- In case of offline activation, provide the Helpdesk support file from the old MyQ server as well.
- Be sure that you are not using 2 MyQ servers with the same database at the same time.
- Licenses on the old MyQ server will no longer be activated (there is a 10 days period from deactivation).

When significant hardware changes are done on the MyQ server and MyQ installation key required activation in 10 days (MyQ Web UI\Settings\License), a Support task needs to be created with the License department (Support task - Type license issue) for license installation key

Steps:

1. Check MyQ Web UI\Settings\License in case any HW changes are done on MyQ server.
2. If the installation key in MyQ Web UI\Settings\License requires activation in 10 days or less, continue with the next steps.
3. Generate the Helpdesk support file (MyQ Web UI\Log\Tools\Generate data for support).
4. Create a Support request (type License issue) for reactivating the installation key with the Helpdesk support file attached on the **MyQ Helpdesk partner portal**.
5. When reactivation is confirmed in the task, activate the installation key in MyQ Web UI\Settings\License.

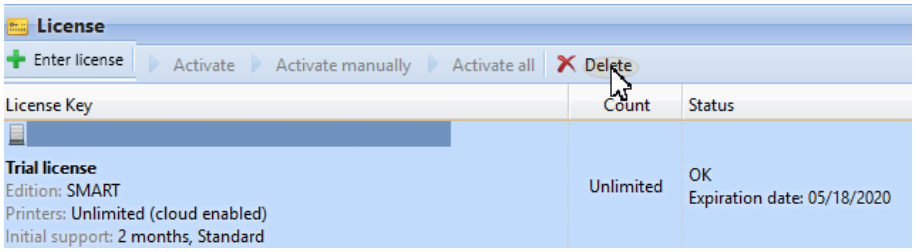
Notes:

- A valid Software Assurance is required for the period when these changes are made.

8.3 Deleting licenses

To delete a license:

1. Select the license that you want to delete.
2. On the **License** settings tab, under **License**, click **Delete**. (Or right-click the license, and then click **Delete** on the shortcut menu.)

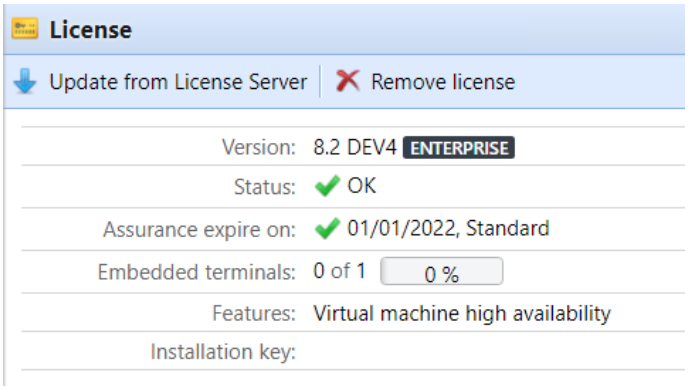


8.4 Extending software assurance licenses

You can extend the software assurance period by assigning a software assurance license to the particular main license. This can be done at any time, even before your current assurance period expires. In this case, the service is extended from the last day of validity of the current software assurance license.

8.4.1 New licensing model (with Installation keys)

You can order to prolong your software assurance on the MyQ X Partner portal. Once your order is approved, go to the MyQ Web Administrator interface, in **MyQ, Settings, License** and click the **Update from License Server** button to update your prolonged Software Assurance license. If the new date is not displayed, refresh the web page.



Manual activation

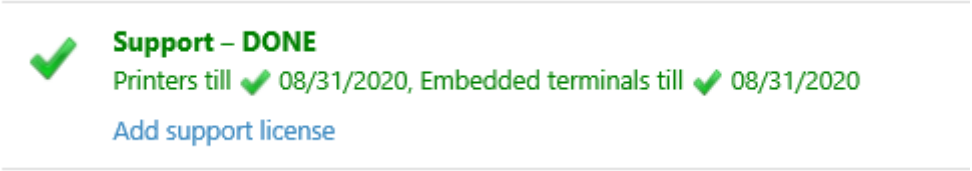
1. Once your additional licenses order is approved, go to the MyQ Web Administrator interface, in **MyQ, Settings, License** and click the **Update from License Server** button. Since there is no network, you will be prompted to **Download** the activation request file.
2. After you download the file, go to the MyQ X Partner portal, under your Project, in the Installations tab. Click **Offline activation**.
3. In the pop-up window, upload the *offlineActivation.zip* file you downloaded from the MyQ Web Administrator interface, and click **OK**. The activation response file is then automatically downloaded.
4. Go back to the MyQ Web Administrator interface, upload the activation response file and click **Activate**. Your additional licenses are added and activated.

8.4.2 Old licensing model (with license keys)

The licenses can be extended either on the **Home** screen or on the **License** settings tab.

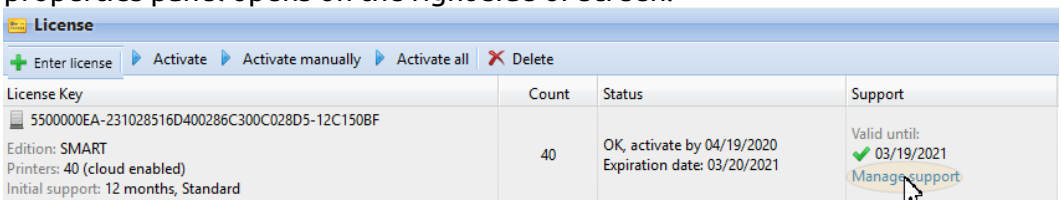
To extend a support license on the Home screen:

On the **Home** screen, under **Support**, click **+Add Support license**. The Add support license dialog box appears. You have to manually activate the license, as described below.

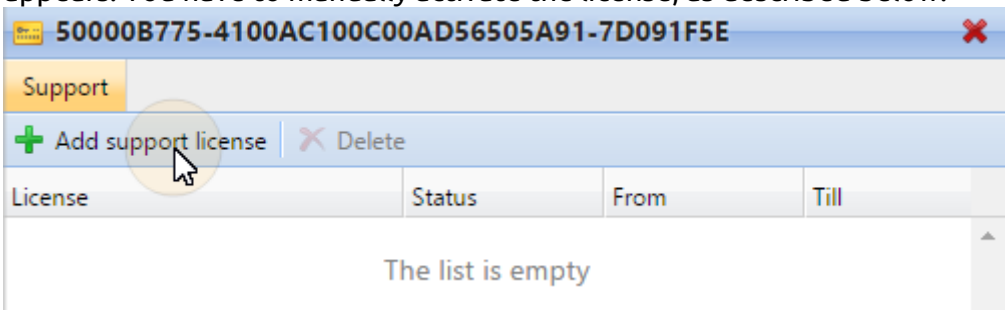


To extend a support license on the License settings tab:

1. On the **License** settings tab, under **License**, click **Manage Support**. The license properties panel opens on the right side of screen.

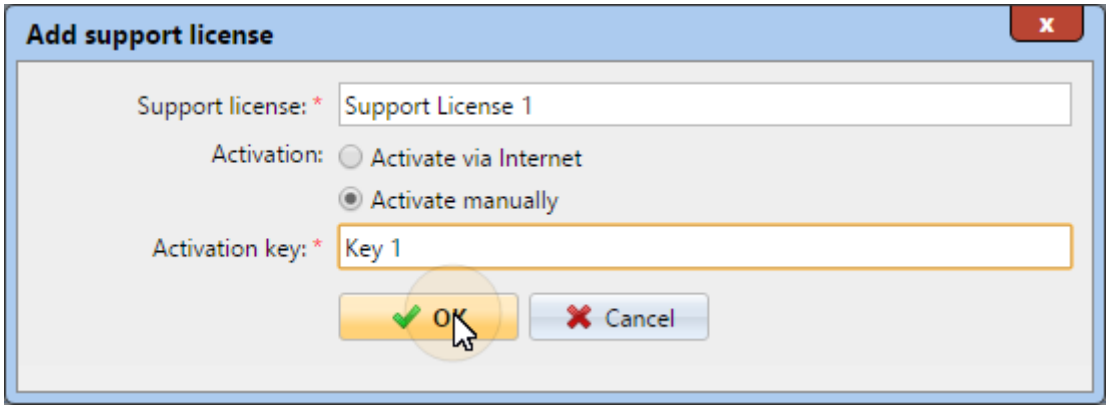


2. On the panel, click **+Add Support license**. The Add support license dialog box appears. You have to manually activate the license, as described below.



Manual activation

1. Generate the *MyQ-helpdesk.zip file*.
2. Send a request for an activation key to license@myq-solution.com with the *MyQhelpdesk.zip* file attached. You will get an email response with the generated activation key.
3. Add the support license key in the Activate support license dialog box, select the **Activate manually** option, enter an activation key, and then click **OK**.



8.5 Migrating old licenses to MyQ X

If you are using older MyQ editions, it is recommended to migrate your licenses to MyQ X.

Compared to older editions, MyQ X offers a new price list with updated and new functionalities, one Installation key containing all the license information instead of multiple license keys, a fast and automated license ordering process, and a complete overview in the MyQ X Partner portal of all the products and their software assurance.

Moreover, if you use embedded lite licenses, during the license migration to MyQ X, their price is halved (two embedded lite = one embedded license). If you have an odd number of embedded lite licenses, the total is rounded up, and then halved (eleven lite = twelve lite = six embedded licenses).

The software assurance expiration date is recalculated during the migration:

1. Expiration dates are converted to a real number and the average is computed. *(for example, you have 100 x Embedded (E) and 200 x Embedded Lite (EL) | so 100 x 'expiration date' of (E) + 200/2 x 'expiration date' of (EL)) / count of ((E) + (EL/2))*
2. The computed average is a real number and, converted back to the date format may produce, for example, *23h:56min* - for this reason 1 day is added.
3. From the average corrected date, only the month + year are used, without day + time, and one month is added to the final date.

License Type	Pcs	Software Assurance Expiration	SA Days till Expiration (from today, 5.10.2020)	SA Days of all Pcs
Embedded	40	04.11.2020	30,00	1 200,00
Embedded	10	28.07.2021	296,00	2 960,00
Embedded	8	19.12.2021	440,00	3 520,00
Embedded	1	20.02.2022	503,00	503,00
TOTAL of Embeddeds	**59**			**8 183,00**
Lite	10	04.11.2020	30,00	300,00
Lite	1	19.12.2021	440,00	440,00
TOTAL of Lites	11			740,00
Round up to an even number of Pcs	12			807,27
Coversion of Lites to Embeddeds (2-in-1)	**6**			**403,64**
TOTAL Enterprise & Support	65	14.02.2021	132,10	8 586,64
FINAL Enterprise & Support	**65**	**01.03.2021**		

The prerequisites for license migration are:

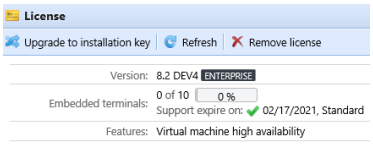
- MyQ Print Server or MyQ Central Server 8.2 or higher installed (valid support required).
- Valid support required; support date for version 8.2 is 15 January 2021, but it is recommended having valid support all the time, especially when there are planned system changes and MyQ Helpdesk would be contacted.
- Access to the MyQ X Partner portal (Partner ID and password. If you do not have access, contact your Sales representative).

With the above prerequisites fulfilled, you can start the Migration Process.

8.5.1 Migration Process

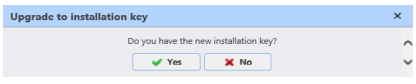
You can start the license migration process in the MyQ web administrator interface.

Go to **MyQ, Settings, License**. At the top bar, click **Upgrade to installation key**.

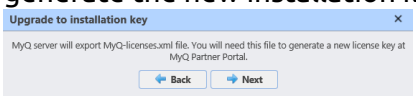


The Upgrade to installation key wizard starts, guiding you through the upgrade:

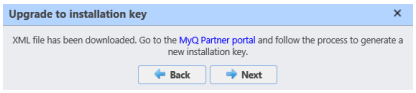
1. If you already have an Installation Key, click **Yes** and continue to step 4. If not, click **No**.



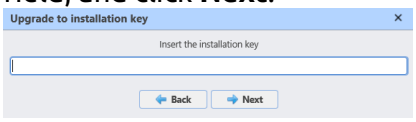
2. The MyQ server will now export the *MyQ-licenses.xml* file. You need this file to generate the new installation key at the MyQ X Partner Portal. Click **Next**.



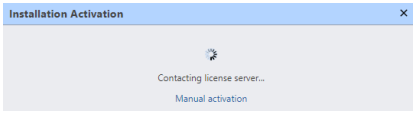
3. The *MyQ-licenses.xml* file has been downloaded. Go to the MyQ X Partner portal and follow the process to generate a new installation key. Once you generate it, your old license keys cannot be used again.



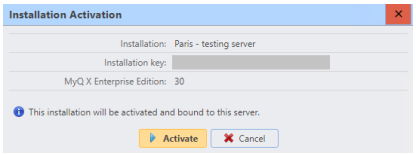
4. Back in the MyQ web administrator interface, insert the installation key in the field, and click **Next**.



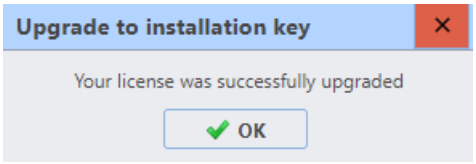
5. MyQ is contacting the License server to get the license information. In case you have no internet connection, click **Manual activation** to manually activate the license.



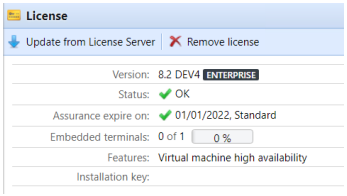
6. Check the overview and if everything is correct, click **Activate**; otherwise, click **Cancel**.



7. Your license keys were successfully upgraded to an installation key and are now activated.



You can see your new licenses overview in the **License** settings tab.



> ⚠ If the activation fails due to connection issues, or for any other issues with the migration, contact MyQ Support.

8.6 VMHA License

Normally, the hardware signature of the server hosting MyQ is occasionally verified to make sure that the license is still installed on the same server and isn't misused. In certain scenarios, the underlying hardware may change and so a license reset is required to re-activate the license. If the hardware changes often (which is common

when the server is hosted in a virtual environment), the Virtual Machine High Availability (VMHA) feature may be required.

The VMHA license is included free of charge in MyQ Enterprise and MyQ Ultimate 8.0+ licenses. Discover our licensing options to find out more.

For the VHMA feature to function, a domain environment is mandatory - the server running MyQ must be a member of a domain. For MyQ installed in an MS Azure environment, a domain is not required. Changing the domain or migrating to a completely different server will still require a license reset.

To verify that the VHMA feature is available, go to **MyQ, Settings, License**.

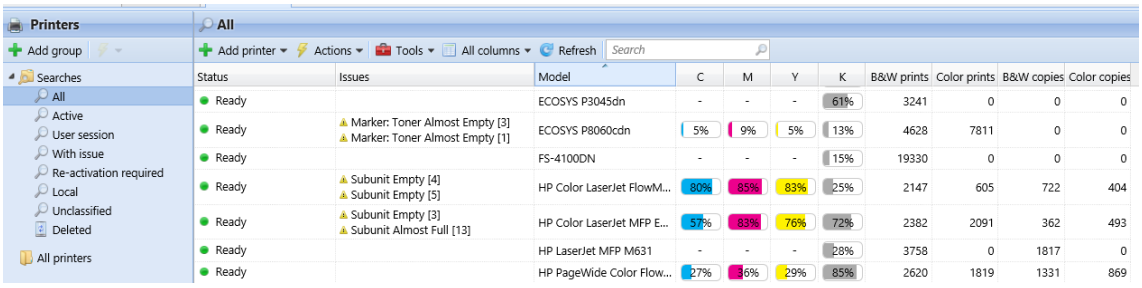
With old license keys, once the VMHA license is registered and activated, you can enable the VMHA feature in **MyQ, Settings, Network**. Once enabled, the license verification mechanism will no longer check for changes in the hardware when checking the HW license signature key.

With the new licensing model, with installation keys, VHMA is enabled by default in a Print Server or Central Server setting. If you are using Site servers, you have to enable the feature in each Site server.

9 Printers

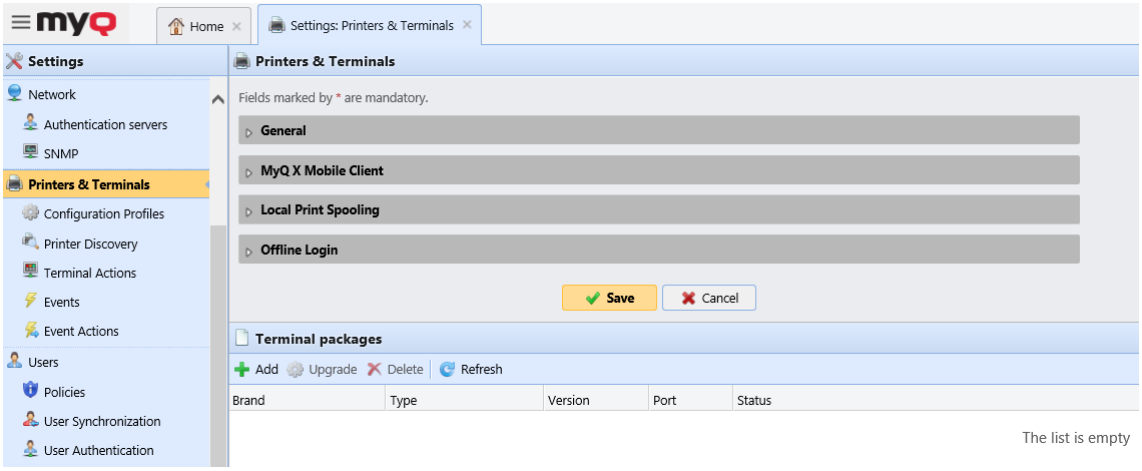
This topic discusses one of the key functions of MyQ — setup and management of printing devices. It covers the following subjects:

- Printers and Terminals settings.
- Overview, adding, activating and deleting printing devices: List of printing devices, Manually adding printing devices, Discovering printing devices, Activating and deactivating printing devices, Deleting and undeleting printers.
- Individual device settings, creating groups of printing devices and exporting the list of printing devices: Editing printers, Printer Groups, Exporting printers.
- Monitoring of offline and local printing devices: Monitoring network printers in offline mode, Monitoring local printers.
- Sending email notifications of printing device alerts: Printer Events.
- Creating and assigning SNMP profiles: SNMP profiles.



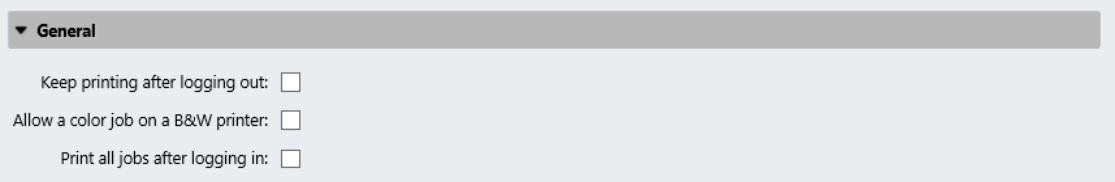
9.1 Printers and Terminals settings

On the **Printers & Terminals** settings tab, you can manage your terminal packages, and configure multiple settings. The settings are divided in the **General, MyQ X Mobile Client, Local Print Spooling, Offline Login**, and **Terminal packages** sections.



9.1.1 General

In this section, the following settings are available:



- **Keep printing after logging out** - if enabled, all jobs requested for release will be released even if the user logs out. If this option is disabled, then once the user logs out from the terminal:
  - the releasing of the requested jobs to the printer will be stopped.
  - not yet released jobs will be returned to the Ready status.
  - the terminal will also try to stop all already active print jobs (if this operation is supported by the terminal).
- **Allow a color job on a B&W printer** - if enabled, color jobs can be printed on B&W printers.
- **Print all jobs after logging in** - if enabled, a **Print all jobs after logging in** checkbox is displayed on the terminal's Log in screen, and it is selected by default. If the user keeps it selected, all their jobs from the **Ready** tab are automatically printed as soon as they successfully log in. If the user disables the option, no jobs are printed automatically upon login.

To enable any of the settings, select the checkbox next to them, and click **Save** at the bottom of the tab.

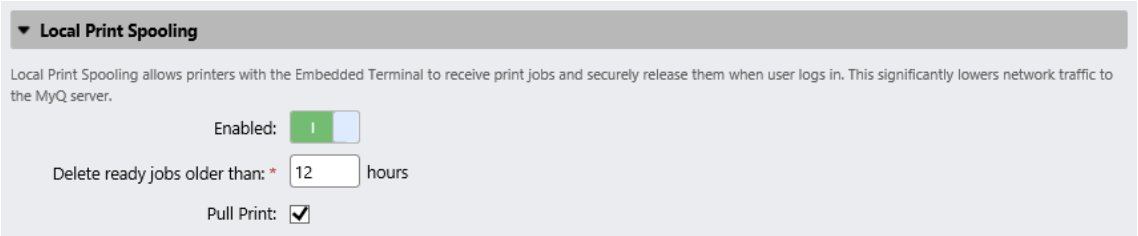
9.1.2 MyQ X Mobile Client

In this section, you have the following options:

- **Enable login by QR code on terminal login screen** - if enabled, a QR code is displayed on the terminal login screen and can be used to log in (enabled by default).
- **Set QR code as default login method** - if enabled, a QR code is displayed on the terminal login screen and is the default method for logging in.

9.1.3 Local Print Spooling

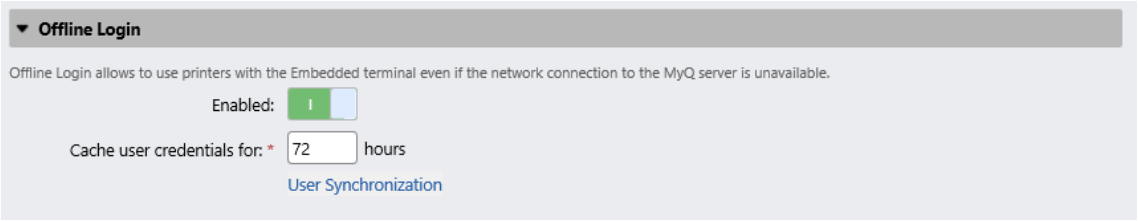
In this section, you can enable the Local Print Spooling feature for your embedded terminals, and set it up.



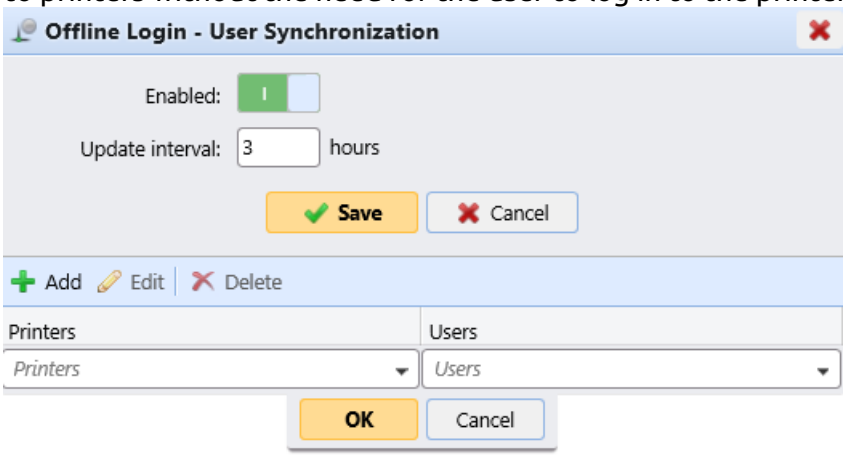
- **Enabled** - enable/disable the **Local Print Spooling** feature (disabled by default).
- **Delete ready jobs older than __ hours** - period of time after which the locally spooled jobs are deleted. The default is *12* hours, and the allowed range is *1* to *72*.
- **Pull Print** - if enabled, you can use Pull Print printing.

9.1.4 Offline Login

Offline Login allows to use printers with Embedded terminals even if the network connection to the MyQ server is unavailable. In this section, you have the following settings:



- **Enabled** - enable/disable the **Offline Login** feature (disabled by default).
- **Cache user credentials for __ hours** - the terminal caches user credentials for the given time, allowing them to log in while offline. The default is *72* hours, and the allowed range is *1* to *168*.
- **User Synchronization** - if enabled, the users information can be synchronized to printers without the need for the user to log in to the printer first.

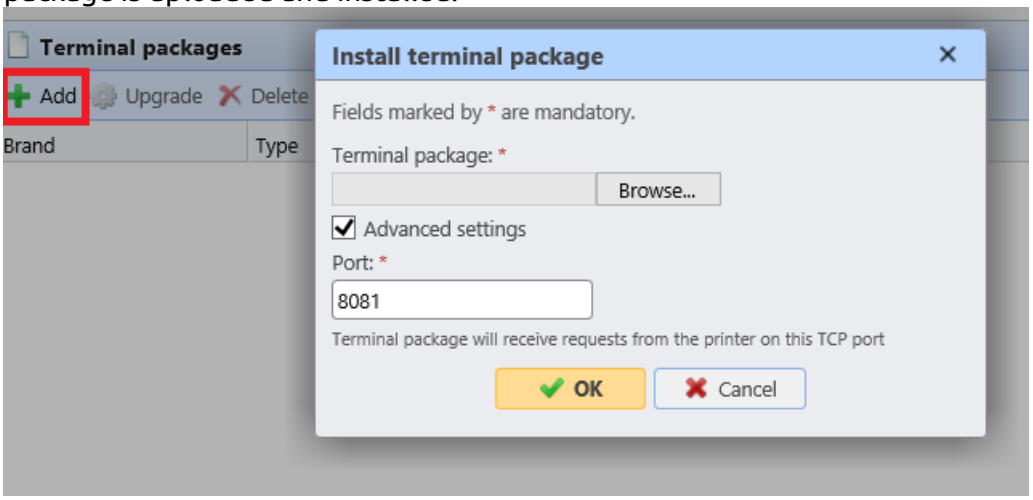


  - **Enabled** - enable/disable offline login user synchronization.
  - **Update interval** - set the interval of user synchronization between *1* and *168* hours.
  - **Add, edit, delete** printers and users - configure the printers and users for the offline login user synchronization.

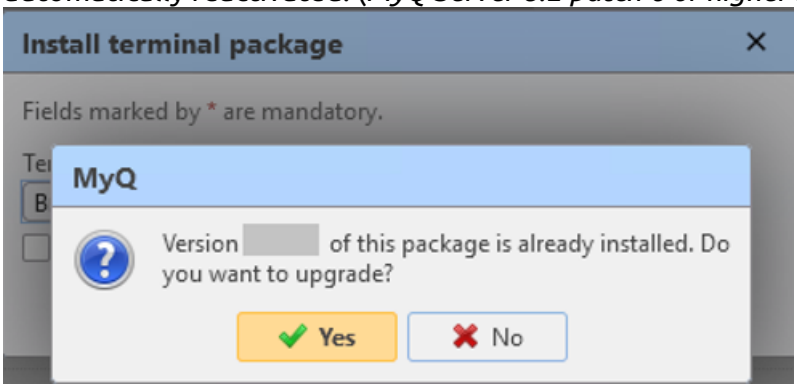
9.1.5 Terminal packages

In this section, you can manage your terminal packages.

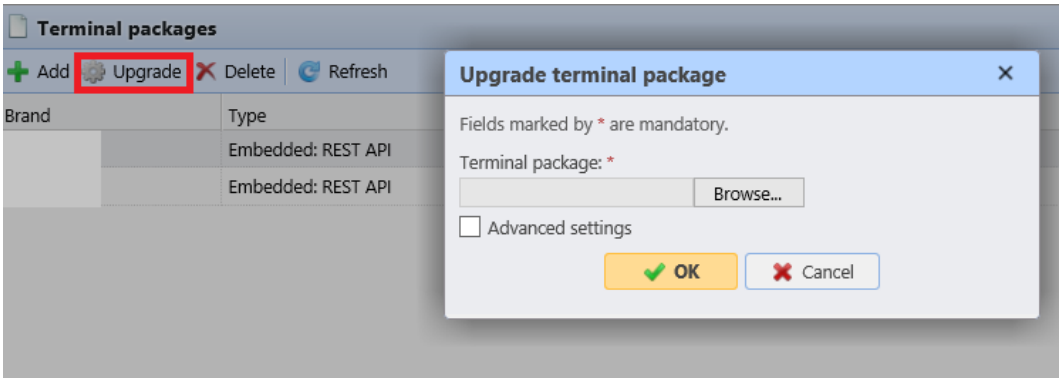
- Click **+Add** to upload a terminal package to the server. In the pop-up window, browse and open the terminal package, and click **OK**. You can optionally select **Advanced settings** to set a specific **Port** for the terminal. The terminal package is uploaded and installed.



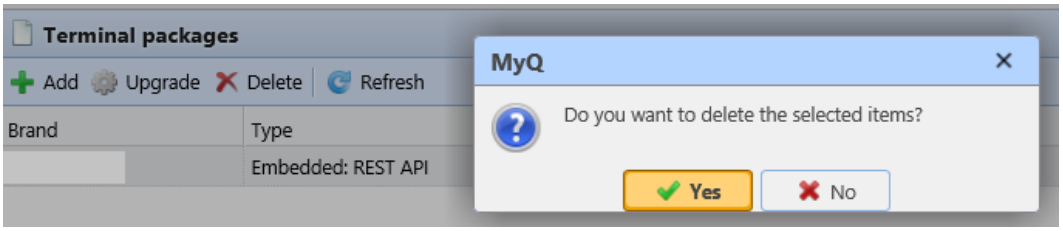
  - If you are trying to add a later version of the same terminal package, a pop-up informs you that you can upgrade your installation. Click **Yes** to continue. The terminal package is uploaded and installed, and the device is automatically reactivated. (*MyQ Server 8.2 patch 6 or higher is required*)



- Select an installed terminal package and click **Upgrade** to upgrade it to the latest version. In the pop-up window, browse and open the terminal package, and click **OK**. You can optionally select **Advanced settings** to set a specific **Port** for the terminal. The terminal package is uploaded and installed, and the device is automatically reactivated. (*MyQ Server 8.2 patch 6 or higher is required*)



- Select an installed terminal package and click **Delete** to uninstall it from the server.



If the terminal package's file size is too large and the upload fails, you can increase the **Maximum upload file size** in the System Management settings tab, in the Advanced section.

For specific terminal packages information and limitations, check the embedded terminal manuals:

- MyQ Canon Embedded
- MyQ Epson Embedded
- MyQ HP Embedded
- MyQ Kyocera Embedded
- MyQ Lexmark Embedded
- MyQ Ricoh SmartSDK Embedded
- MyQ Sharp Embedded
- MyQ Toshiba Embedded
- MyQ Xerox Embedded

9.1.6 Easy Scan settings

This section describes the settings needed to enable the **Easy Scan** action and define its
destinations and parameters. They can be changed on three tabs on the **Easy Scan** properties panel: **General**, **Destinations**, and **Parameters**.

The properties panel is automatically opened after the **Easy Scan** action node is created. You can also access it by double-clicking the terminal action node on the list of nodes or on the terminal screen preview.

- The **Destinations** tab settings are described in Easy Scan destinations.
- The **Parameters** tab settings are described in Easy Scan parameters.

Easy Scan destinations

On the **Destinations** tab of the Easy Scan action node properties, you can define where the scanned file is sent.

To add a new destination, click **+Add**. The Destination panel opens where you can set the target destination.

Depending on the selected destination type, the panel contains the **General**, **Parameters** and **Advanced** sections.

General section

- **Type** - Select the destination type from the drop-down. Available options: *Cloud storage, Custom destination, Email, FTP, Fax Server, Folder, Secured link, User's email, User's scan storage*.
- **Filename Template** - Here you can create the template of the scanned file name. The text of the template can be combined with MyQ parameters to provide additional information about the scanned file. The following parameters are available: *%username%, %fullname%, %timestamp%, %date%, %time%, %originalSubject%, %ipaddress%, %scanId%, %usernotes%, %printerName%, %location%, %serialNumber%, %assetNo%, %printerContact%, %counter%*.
- **Title** - Add a title for the destination.
- **Attach metadata file** - If this option is selected, MyQ sends the scanned file with an XML file attachment, containing the scanned file's metadata.

Parameters section

This section depends on the selected destination type. The available fields differ for each type. Some types share parameters, and some times use unique parameters. Custom parameters can also be created, in the **Parameters** tab.

Shared Parameters

Parameter	Description
%username%	The value is taken from the **User name** field of the user's properties panel.

Parameter	Description
%fullname%	The value is taken from the **Full name** field of the user's properties panel.
%timestamp%	Date and time of the scan.
%date%	Date of the scan.
%time%	Time of the scan.
%originalSubject%	This value is taken from the subject set on the printing device.
%ipaddress%	This value is taken from the **IP address/Hostname** field of the printing device's properties panel.
%scanId%	This value is an unique scan identification number generated on the MyQ server.
%usernotes%	This value is taken from the **Notes** field of the user's properties panel.
%printerName%	This value is taken from the **Name** field of the printing device's properties panel.
%location%	This value is taken from the **Location** field of the printing device's properties panel.
%serialNumber%	This value is taken from the **Serial number** field of the printing device's properties panel.
%assetNo%	This value is taken from the **Asset number** field of the printing device's properties panel.

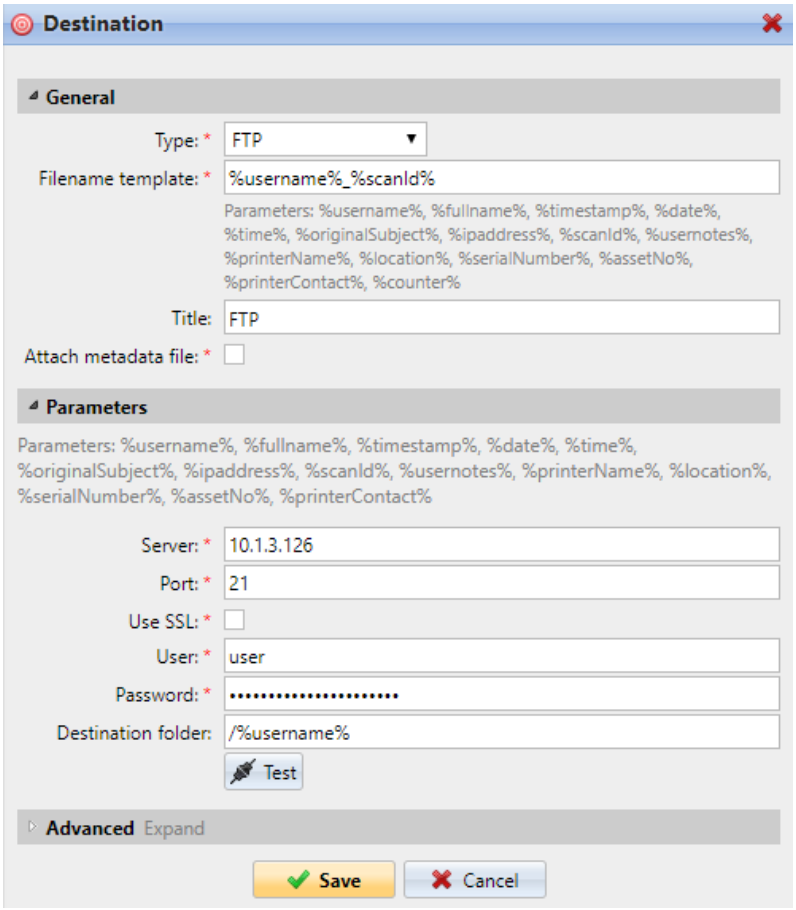
Parameter	Description
%printerContact%	This value is taken from the **Contact** field of the printing device's properties panel.

Unique Parameters

Parameter	Description
%counter%	If the **Scan Separation** parameter is set to **Separate each page**, this value shows the number of scanned pages. This parameter can be used only to create the filename template.
%originalBody%	This value is taken from the signature set on the printing device. It is used in the **User's email** destination type only.
%recipient%	The fax recipient. It is used in the **Fax Server** destination type only.
%number%	Fax number. It is used in the **Fax Server** destination type only.
%empty%	This parameter is used in the **Fax Server** destination type only. It ensures that the subject/message is empty; it is used in very specific cases.

Scan to FTP

Scanned documents can be sent to a folder defined on an FTP server.



Setting the connection in the **Parameters** section:

- **Server**: Enter the IP address or hostname of the FTP server
- **Port**: Enter the port used for the FTP protocol, the default port is *21*
- **Use SSL**: Select if you want to use secure communication
- **User**: Name of the user with an account on the server
- **Password**: The user's password
- **Destination folder**: You can specify the subfolder where the outgoing scan files will be stored (optional).

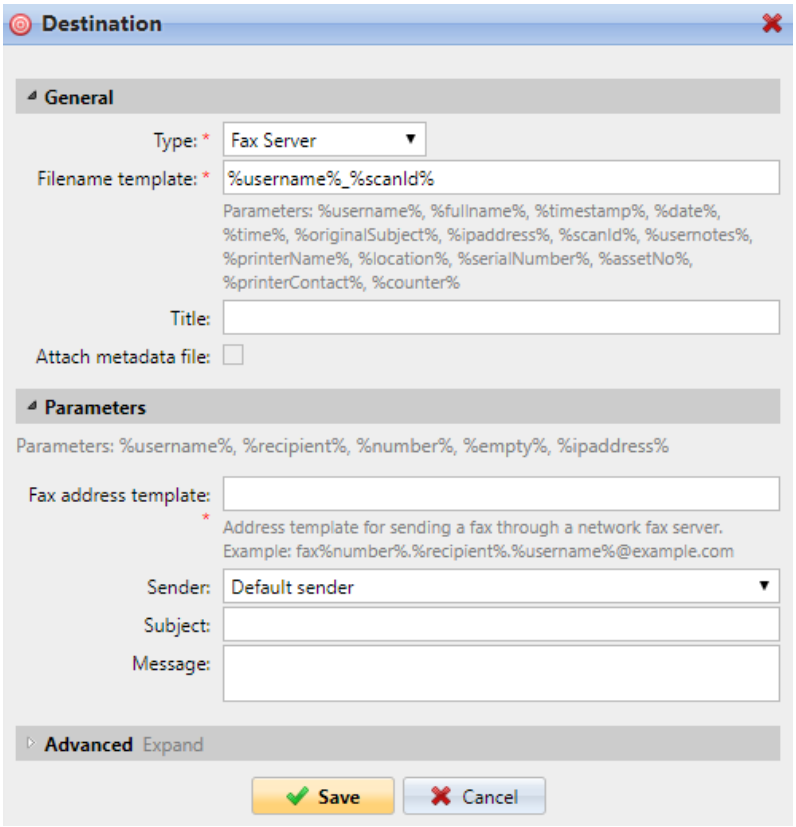
You can use the following parameters when defining the destination folder:

- *%username%*: User name of the user session owner
- *%fullname%*: Full name of the user session owner
- *%date%*: Date and time when the scan was taken
- *%originalSubject%*: The default subject set on the printing device
- *%ipaddress%*: IP address of the printing device
- *%scanId%*: Unique scan identification number generated on the MyQ server

After you fill the required parameters, you can click **Test** to test the FTP connection. MyQ tries to upload a dummy file named *rightsCheck.dat* to the defined destination folder under the defined user name and password, and informs you about the result.

Scan to a Fax Server

Scanned documents can be sent as emails to a fax server, which processes them and sends faxes to appropriate Fax numbers.



To send the document to a fax server, enter the appropriate email address template in the **Fax address template** field. You can use the following parameters:

- *%username%*: Name of the user session owner
- *%recipient%*: Fax recipient
- *%number%*: Fax number
- *%empty%*: This parameter ensures that the subject/message is empty; it is used in very specific cases
- *%ipaddress%*: IP address of the printing device
- *%scanId%*: Unique scan identification number generated on the MyQ server

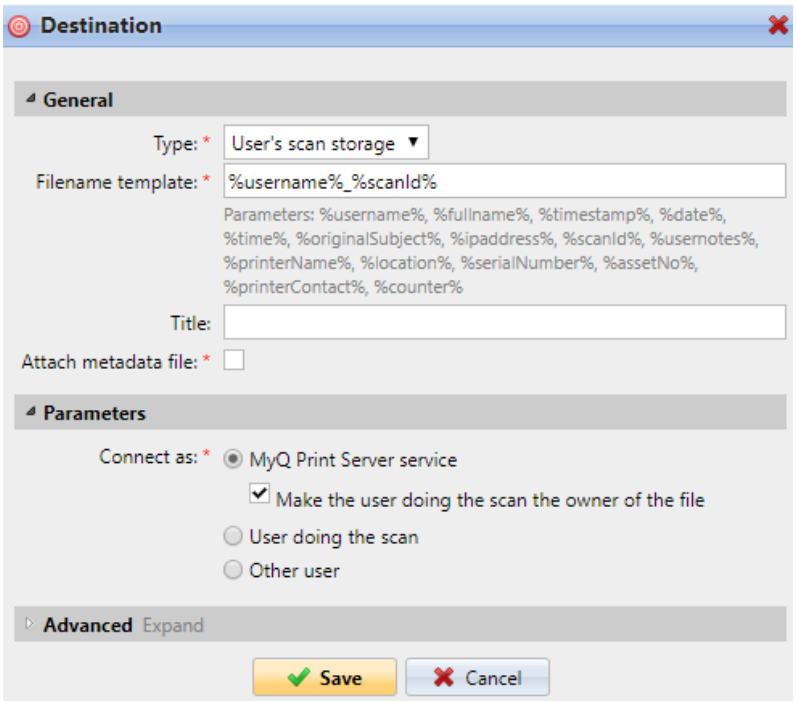
In the **Sender** drop-down, you can select one of the following addresses to be used as the fax sender:

- *Default sender*: The email set on the Network settings tab, under Outgoing SMTP server
- *MyQ@MyQ.local*: The sender is defined as *MyQ@MyQ.local*
- *Logged user*: Name of the user session owner
- *Printer contact*: The printing device contact email address set on its Web User Interface

You can also define the email's subject in the **Subject** text box, and the email's body in the **Message** text box.

Scan to User's scan storage

Outgoing scan files are stored in the folder set in the **Folder or email for storing scanned documents** text box on the user properties panel.



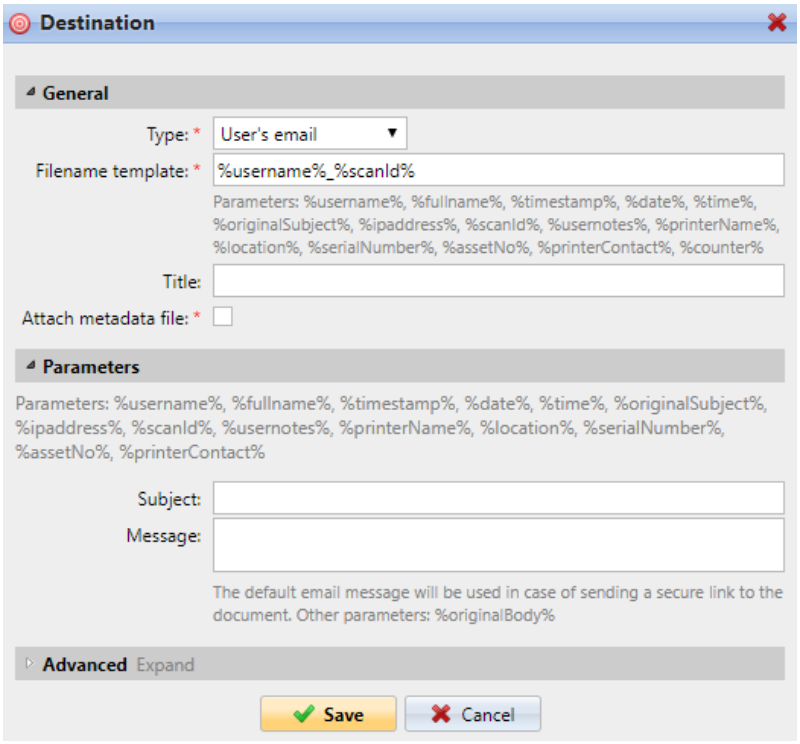
The **Connect as** parameter determines in which way the scan will be stored in the folder:

- If you select the **MyQ Print Server service** option, the rights for access to the destination folder have to be provided to the account under which the MyQ service runs. This account will also be set as the owner of the scanned file.
  - If you select the **Make the user doing the scan the owner of the file** option, the user doing the scan will be set as the owner of the scanned file.
- If you select the **User doing the scan** option, MyQ will expect the folder to be a shared folder on the domain account of the user doing the scan, and will use the entered password to access this folder. The user doing the scan will also be set as the owner of the scanned file.
- If you select the **Other user** option, MyQ will expect the folder to be a shared folder on the domain account of the specified user and will use the entered username and password to access the folder. The user specified here will also be set as the owner of the scanned file.
  - If you select the **Make the user doing the scan the owner of the file** option, the user doing the scan will be set as the owner of the scanned file.

MyQ cannot change the owner of scanned files that are stored under the **Users** folder or any of its its subfolders. If you want to use the **Make the user doing the scan the owner of the file** option, use a different folder than **Users** (or its subfolders) as the scan destination.

Scan to User's email

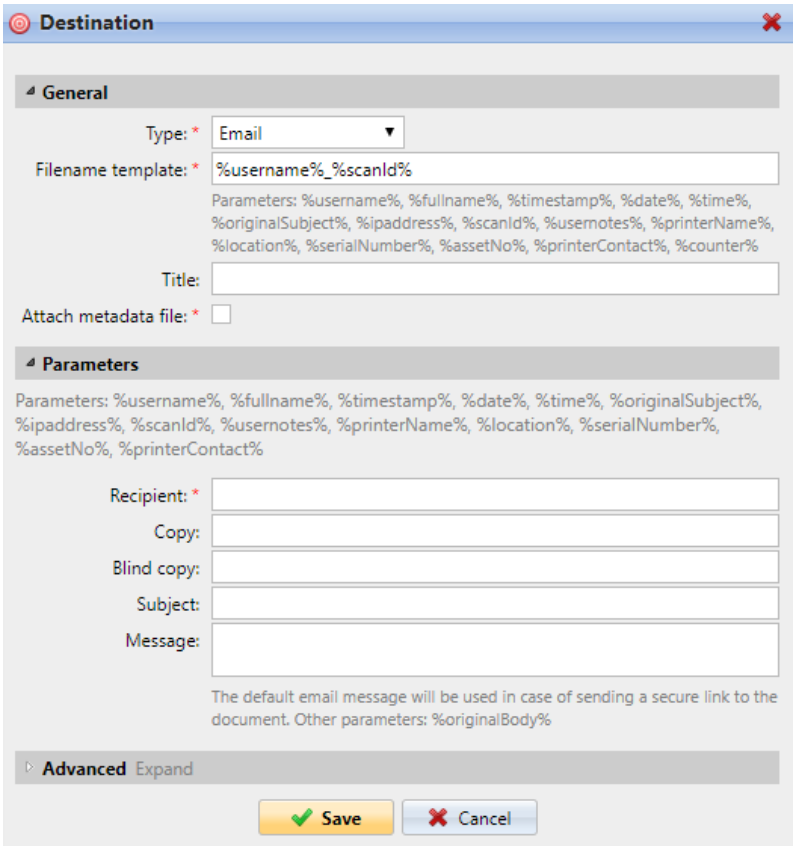
Scans are sent to the user's primary email address set in the **Email** text box on the user's properties panel (on the **Users** main tab of the MyQ Web Interface).



In the **Parameters** section, you can define the subject of the emails sent to this destination in the **Subject** text box, and the body of these emails in the **Message** text box. The subject or body can contain the following parameters: *%username%, %fullname%, %date%, %originalSubject%, %ipaddress%, %usernotes%, %printerName%, %location%, %serialNumber%, %assetNo%, %printerContact%.*

Scan to Email

Scans are sent to the email address specified here.



In the **Parameters** section, in the **Recipient** text box, you need to define the email recipient (or recipients).

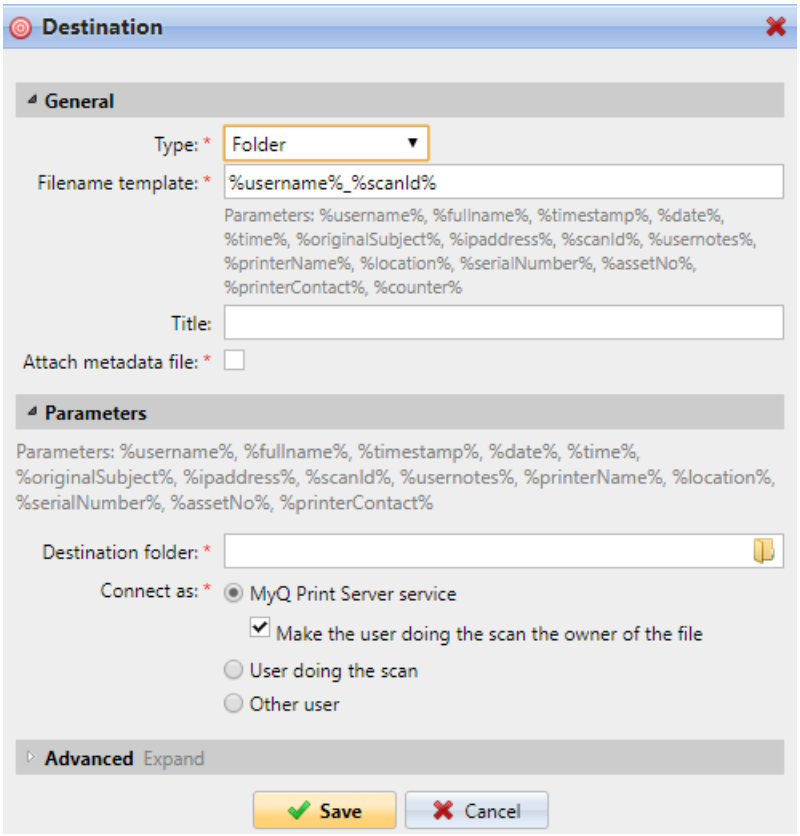
In addition, you can add recipients of a copy in the **Copy** text box, recipients of a blind copy in the **Blind copy** text box, the subject of the email in the **Subject** text box, and the body of the email in the **Message** text box.

> From MyQ server 10.0+ the *%empty%* parameter can be used in the **Subject** and **Message** text boxes. If used, the subject and/or the body of the email are left empty.

The text boxes under can contain the following parameters: *%username%, %fullname%, %date%, %originalSubject%, %ipaddress%, %usernotes%, %printerName%, %location%, %serialNumber%, %assetNo%, %printerContact%, %empty%.*

Scan to Folder

Scans are sent to the folder specified here.



In the **Destination folder** field, type or browse and select the destination folder.

You can use the following parameters: *%username%, %fullname%, %date%, %originalSubject%, %ipaddress%, %scanId%, %counter%, %usernotes%, %printerName%, %location%, %serialNumber%, %assetNo%, %printerContact%.*

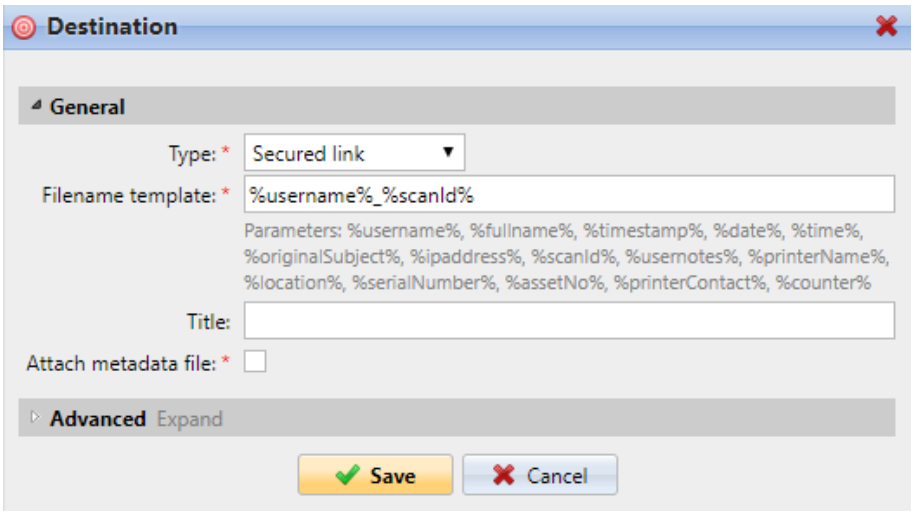
The **Connect as** parameter determines in which way the scan will be stored in the folder:

- If you select the **MyQ Print Server service** option, the rights for access to the destination folder have to be provided to the account under which the MyQ service runs. This account will also be set as the owner of the scanned file.
  - If you select the **Make the user doing the scan the owner of the file** option, the user doing the scan will be set as the owner of the scanned file.
- If you select the **User doing the scan** option, MyQ will expect the folder to be a shared folder on the domain account of the user doing the scan, and will use the entered password to access this folder. The user doing the scan will also be set as the owner of the scanned file.
- If you select the **Other user** option, MyQ will expect the folder to be a shared folder on the domain account of the specified user and will use the entered username and password to access the folder. The user specified here will also be set as the owner of the scanned file.
  - If you select the **Make the user doing the scan the owner of the file** option, the user doing the scan will be set as the owner of the scanned file.

MyQ cannot change the owner of scanned files that are stored under the **Users** folder or any of its its subfolders. If you want to use the **Make the user doing the scan the owner of the file** option, use a different folder than **Users** (or its subfolders) as the scan destination.

Scan to Secured link

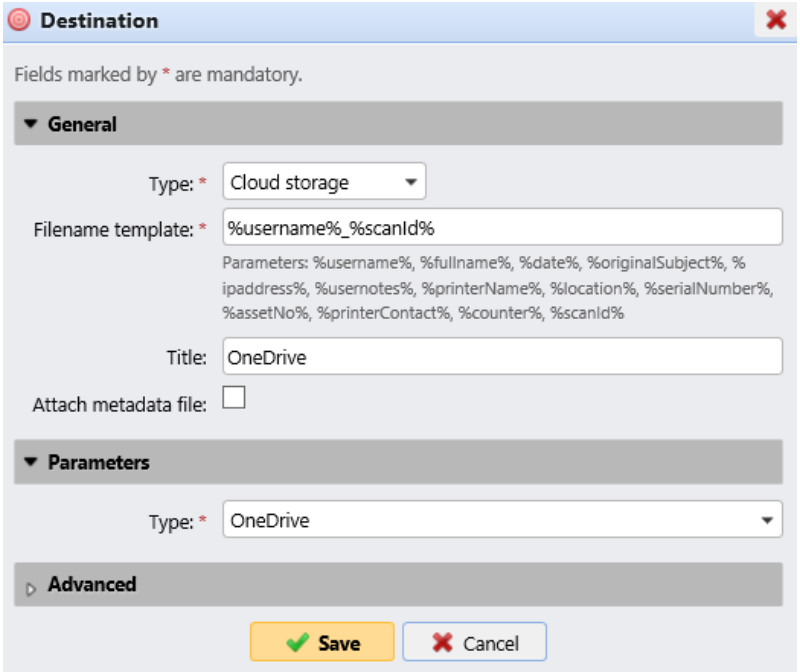
An email with a link to the scanned file is sent to the user's primary email address set in the **Email** text box on the user's properties panel (on the **Users** main tab of the MyQ Web Interface). Sending scans to this destination works in a similar way as sending them to the **User's Email** destination, with one important exception: instead of the scanned file, the email contains a secured link to the file, which is stored on the MyQ server, and can be downloaded via this link.



Scan to OneDrive

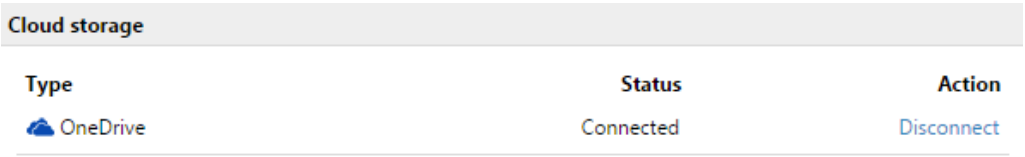
To enable scanning to OneDrive:

1. Select the **Cloud storage** option in the **Type** drop-down.
2. Select the **OneDrive** option in the **Type** drop-down under **Parameters** and click **Save**.



If the following two conditions are met, the cloud storage widget is displayed on the **Home** screen of the user logged on the MyQ Web Interface:

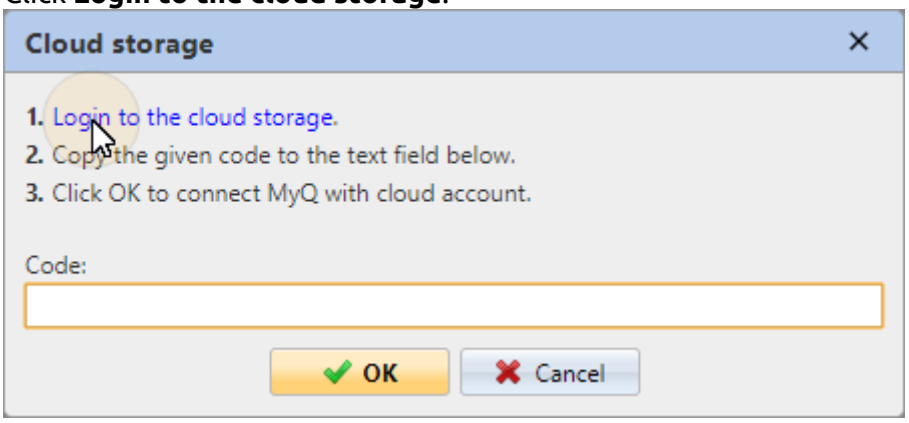
- There is at least one **Easy Scan** terminal action with this destination.
- The user has rights to see the **Easy Scan** button or is connected to cloud drive.



To be able to store the outgoing scan file on OneDrive, the user has to be connected.

To connect to OneDrive, the user has to perform the following actions:

1. Log in to the MyQ Web User Interface with your user account.
2. On the **Cloud storage** widget, click **Connect**. The Cloud storage dialog box appears.
3. Click **Login to the cloud storage**.



4. Sign-in to OneDrive and confirm permissions (when asked about the permissions, click **Yes**).
5. Copy the given code.
6. Paste the code to the MyQ Cloud storage login dialog.
7. Click **OK** to connect the cloud storage to MyQ. The OneDrive connection status changes to **Connected**.

Scan to OneDrive for Business

The feature has to be enabled in three steps:

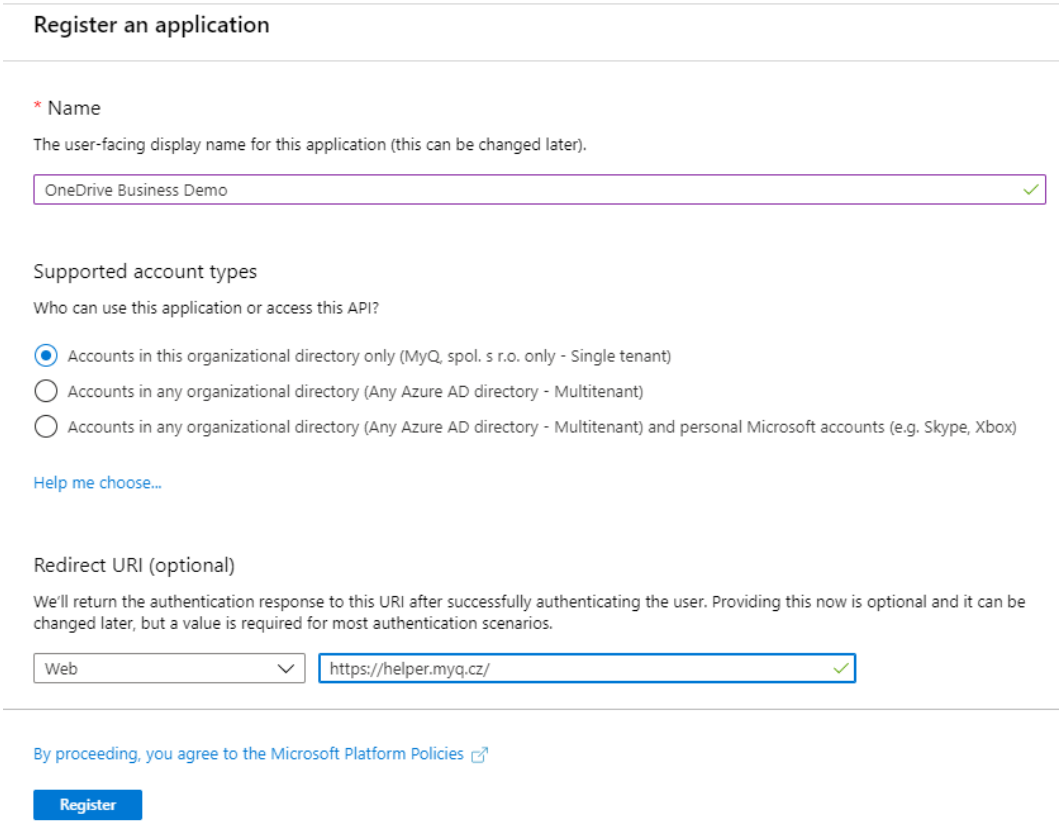
1. First you have to provide MyQ with access to your Azure AD.
2. Then, you have to create and set the OneDrive for Business destination.
3. Lastly, users have to connect their MyQ accounts to OneDrive for Business.

Setting up MyQ access to Azure AD

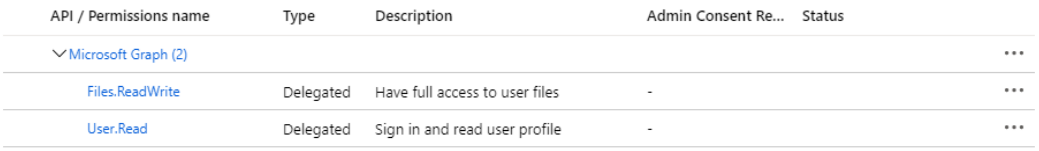
To set up the access, you have to create a new Azure AD app registration to be used by MyQ, and enter the Azure AD **Application ID** and **Secret** on the **External Systems** settings tab in the MyQ Web administrator interface.

In Azure AD, you need to create and set a new Azure Active Directory App registration to be used by MyQ. After the registration is created, you set permissions and create a secret key. You need the Application ID and the secret key to create an External System for OneDrive for Business on the MyQ Web Interface. The secret key populates the Security key field.

1. Go to https://portal.azure.com/ and log in with your global admin user account.
2. In the Azure dashboard, in the left navigation pane, click **Azure Active Directory** and on the left menu, click **App registrations**.
3. To create a new application, click **New registration**. The Register an application page appears.
4. In the **Name** box, type a name for the application.
5. Choose **Supported account types**.
6. In the Redirect URI box, choose **Web** and *https://helper.myq.cz/*.

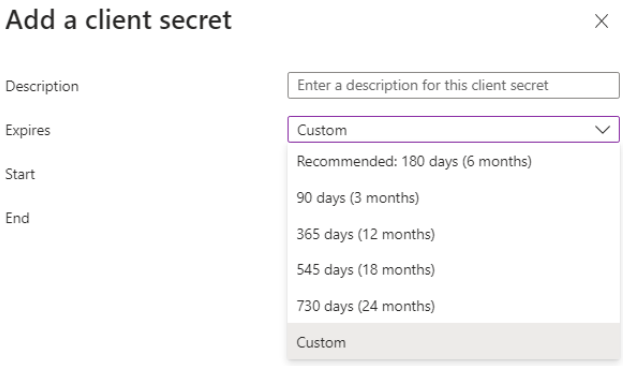


7. Click **Register**.
8. Set the permissions:



   a. On the preview screen, click **View API permissions**.
   b. Click **Add a permission**. The Request API permissions pane appears.
   c. **User.Read** permissions are added by default. Add **Delegated** permissions to **Files.ReadWrite** for the Microsoft Graph.
9. Back on the preview screen, click **Overview**, and then copy and save the **Application ID**, because you need it in the next steps.

10. On the preview screen, click **Certificates and secrets**, and complete the following steps:

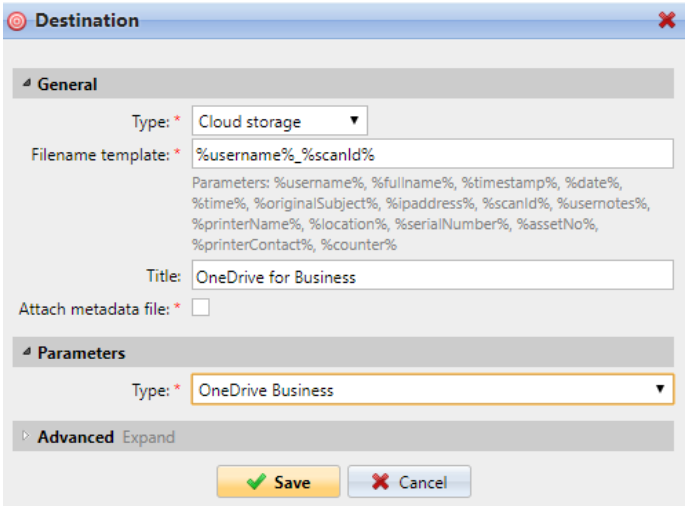


a. Click **New client secret**.
b. Add a **Description**.
c. Set the expiration for the key.
d. Click **Add**.
e. Save the client secret key value, because you need it in the following steps and you cannot retrieve it later.

11. Open the **External Systems** settings tab of the MyQ Web Interface (**MyQ, Settings, External Systems**).
12. Click **+Add** and select **OneDrive Business** from the menu.
13. Add a **Title**. This will be used to identify the Cloud Storage Destination.
14. Add the **Tenant ID** (or write *common* for multi-tenant setups), the **Application ID**, and the secret key as **Security key** that you previously copied and saved, and click **OK**.

Create and set the OneDrive for Business destination

- Create a new destination (edit or create an Easy Scan terminal action; on its properties panel, in the **Destinations** tab, click **+Add**).
- On the new destination's properties panel, under **General**, select the *Cloud Storage* option in the **Type** drop-down.
- In the **Parameters** section, in the **Type** drop-down, select *OneDrive for Business* or any other **Title** you defined in the **External Systems** settings in the previous steps and click **Save**.



Connect a user's MyQ account to OneDrive for Business

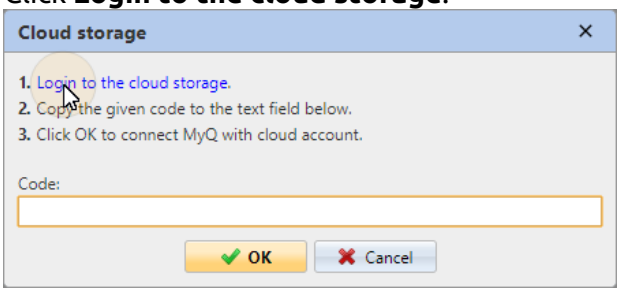
If the following two conditions are met, the cloud storage widget is displayed on the **Home** screen of the user logged on the MyQ Web Interface:

- There is at least one **Easy Scan** terminal action with this destination.
- The user has rights to see the **Easy Scan** button or is connected to cloud drive.

To be able to store the outgoing scan file on OneDrive for Business, the user has to be connected.

To connect to OneDrive for Business, the user has to perform the following actions:

1. Log in to the MyQ Web User Interface with your user account.
2. On the **Cloud storage** widget, click **Connect**. The Cloud storage dialog box appears.
3. Click **Login to the cloud storage**.

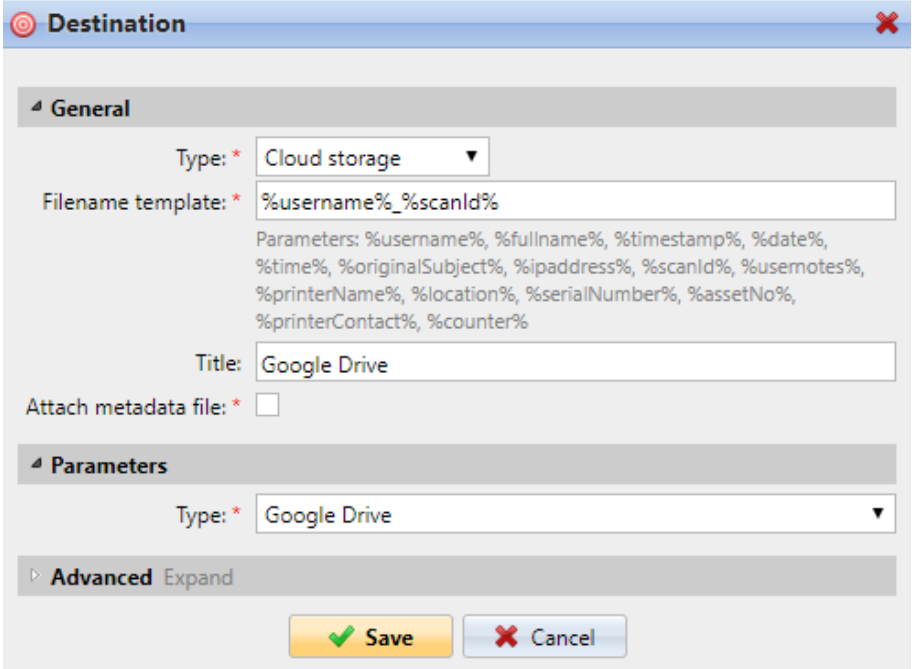


4. Sign-in to OneDrive for Business and confirm permissions (when asked about the permissions, click **Yes**).
5. Copy the given code.
6. Paste the code to the MyQ Cloud storage login dialog.
7. Click **OK** to connect the cloud storage to MyQ. The OneDrive for Business connection status changes to **Connected**.

Scan to Google Drive

To enable scanning to Google Drive:

1. Select the *Cloud Storage* option in the **Type** drop-down.
2. Select the *Google Drive* option in the **Type** drop-down in the **Parameters** section, and then click **Save**.



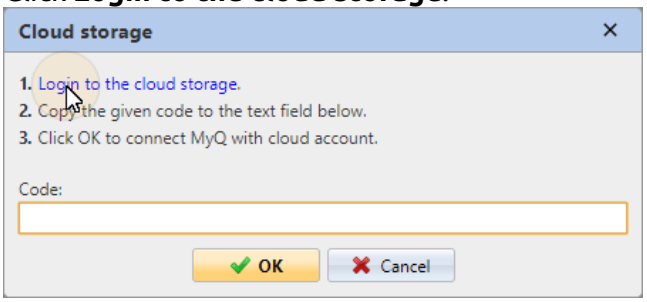
If the following two conditions are met, the cloud storage widget is displayed on the **Home** screen of the user logged on the MyQ web interface:

1. There is at least one **Easy Scan** terminal action with this destination.
2. The user has rights to see the **Easy Scan** button or is connected to Google drive.

To be able to store the outgoing scan file on Google Drive, the user has to be connected.

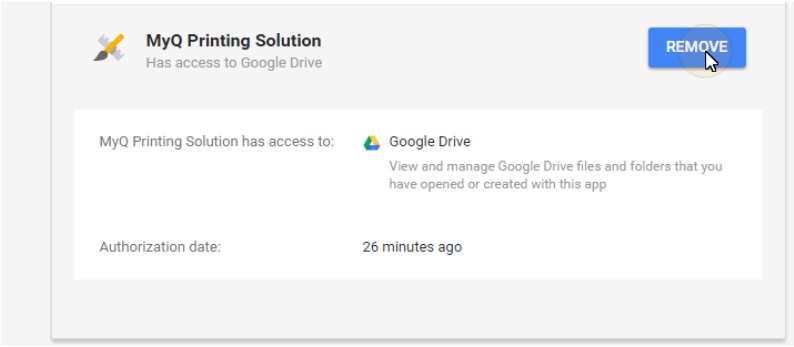
To connect to Google Drive, the user has to perform the following actions:

1. Log in to the MyQ Web user interface with your user account.
2. On the Cloud storage widget, click **Connect**. The Cloud storage dialog box appears.
3. Click **Login to the cloud storage**.



4. Sign-in to Google Drive and confirm permissions. (When asked about the permissions, click **Allow**).
5. Copy the given code.
6. Paste the code to the Cloud storage login dialog.
7. Click **OK** to connect the cloud storage to MyQ. The Google Drive connection status changes to **Connected**.

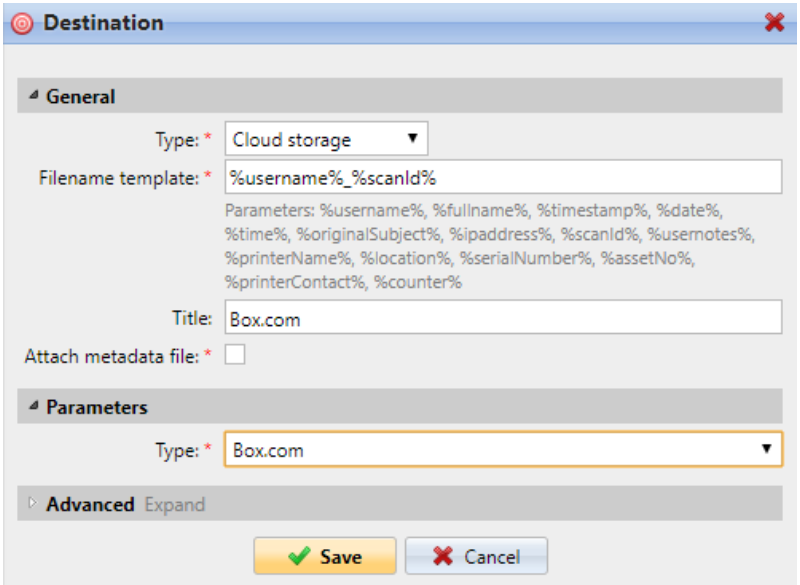
A single Google user account can be connected to only one server at a time. If the user wants to connect the account to another server, they need to remove **MyQ Printing Solution** from the connected applications. This can be done on the **Apps with access to your account tab** under **My Account/Sign in & security/Apps with account access/MANAGE APPS**.



Scan to Box.com

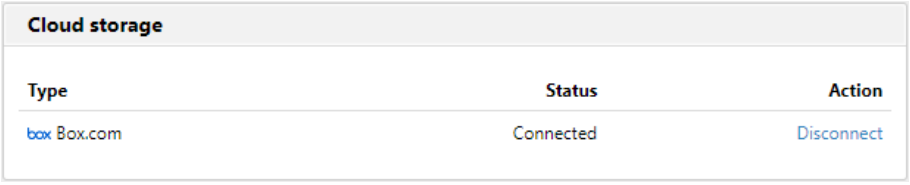
To enable scanning to Box.com:

1. Select the *Cloud Storage* option in the **Type** drop-down.
2. Select the Box.com option in the **Type** drop-down in the **Parameters** section, and then click **Save**.



If the following two conditions are met, the cloud storage widget is displayed on the **Home** screen of the user logged on the MyQ Web Interface:

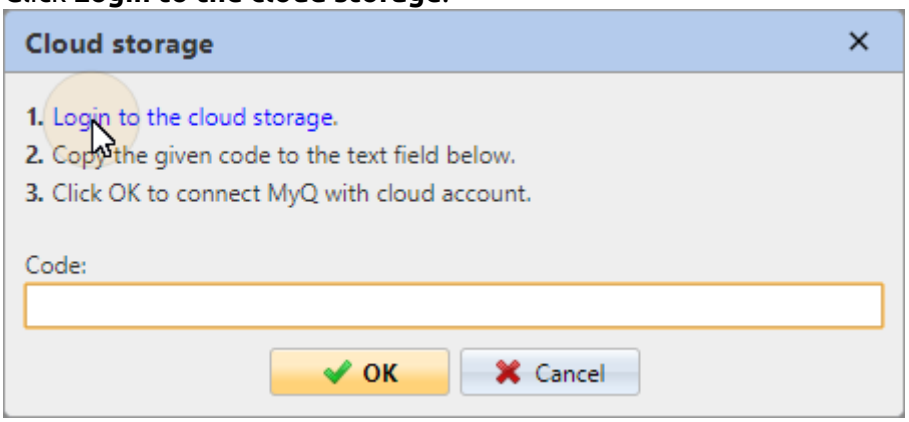
1. There is at least one **Easy Scan** terminal action with this destination.
2. The user has rights to see the **Easy Scan** button or is connected to cloud drive.



To be able to store the outgoing scan file on Box.com, the user has to be connected.

To connect to Box.com, the user has to perform the following actions:

1. Log in to the MyQ Web user interface with your user account.
2. On the Cloud storage widget, click **Connect**. The Cloud storage dialog box appears.
3. Click **Login to the cloud storage**.

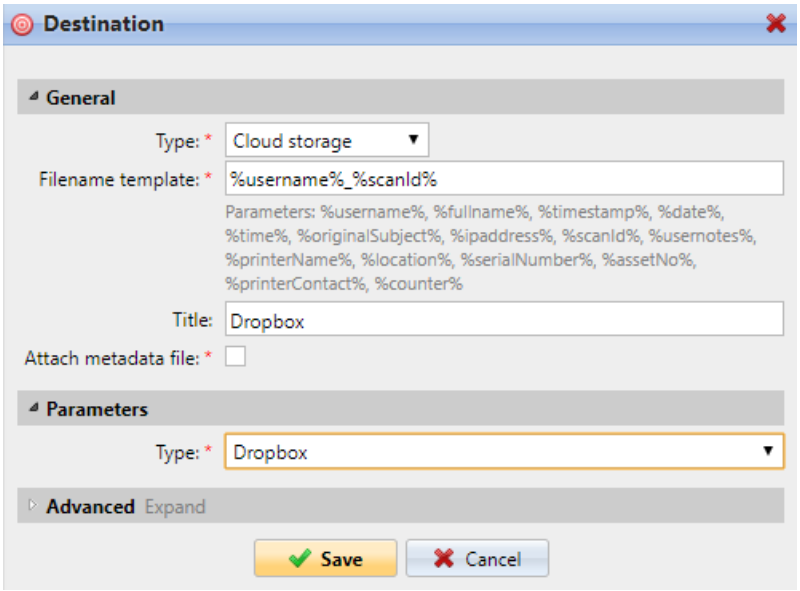


4. Sign-in to Box.com and confirm permissions (when asked about the permissions, click **Yes**).
5. Copy the given code.
6. Paste the code to the MyQ Cloud storage login dialog.
7. Click **OK** to connect the cloud storage to MyQ. The Box.com connection status changes to **Connected**.

Scan to Dropbox

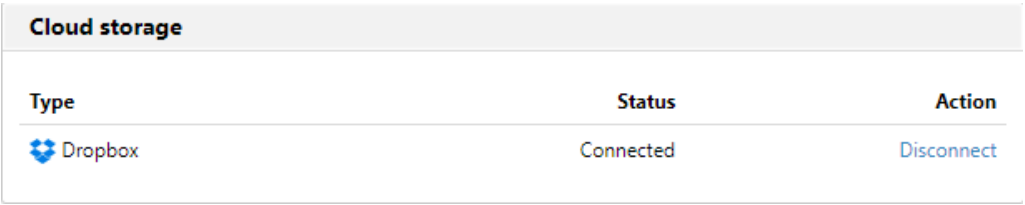
To enable scanning to Dropbox:

1. Select the *Cloud Storage* option in the **Type** drop-down.
2. Select the *Dropbox* option in the **Type** drop-down in the **Parameters** section, and then click **Save**.



If the following two conditions are met, the cloud storage widget is displayed on the **Home** screen of the user logged on the MyQ web interface:

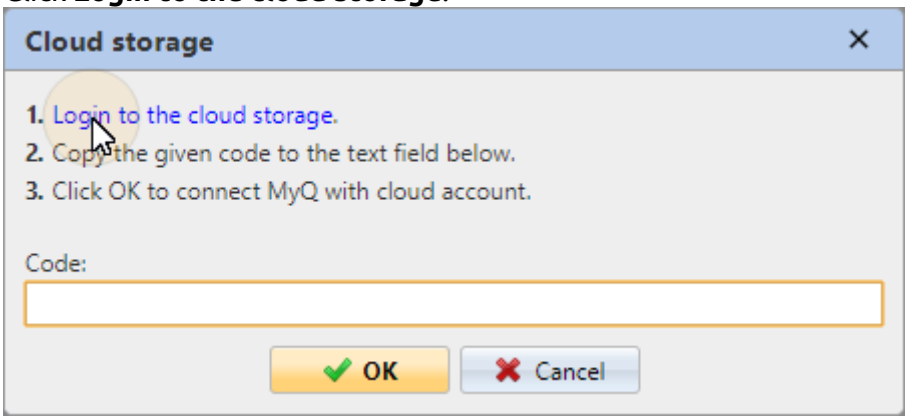
1. There is at least one **Easy Scan** terminal action with this destination.
2. The user has rights to see the **Easy Scan** button or is connected to cloud drive.



To be able to store the outgoing scan file on Dropbox, the user has to be connected.

To connect to Dropbox, the user has to perform the following actions:

1. Log in to the MyQ Web User Interface with your user account.
2. On the **Cloud storage** widget, click **Connect**. The Cloud storage dialog box appears.
3. Click **Login to the cloud storage**.



4. Sign-in to Dropbox and confirm permissions (when asked about the permissions, click **Yes**).
5. Copy the given code.
6. Paste the code to the MyQ Cloud storage login dialog.
7. Click **OK** to connect the cloud storage to MyQ. The Dropbox connection status changes to **Connected**.

Scan to SharePoint Online

The feature has to be enabled in three steps:

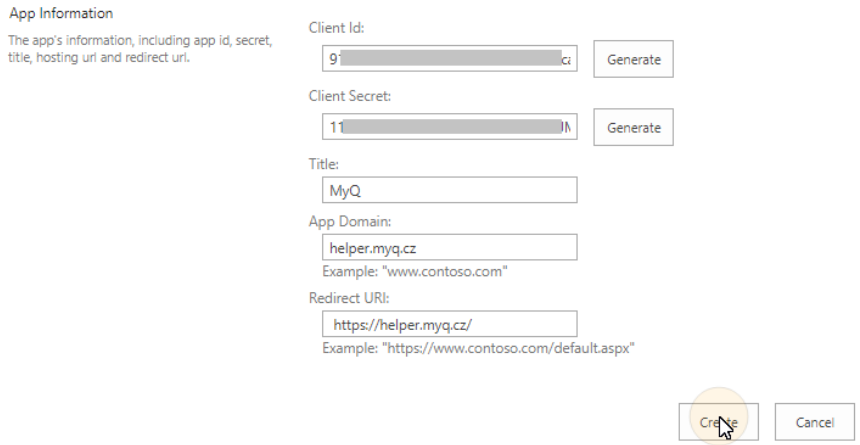
1. First you have to register the MyQ app in SharePoint.
2. Then you have to create and set the SharePoint Online destination.
3. Lastly, users have to connect their MyQ accounts to SharePoint.

Enabling access to SharePoint

To set up the access, you have to register the MyQ app in SharePoint and enter the SharePoint **Application ID** and **Secret** on the **External Systems** settings tab in the MyQ web administrator interface.

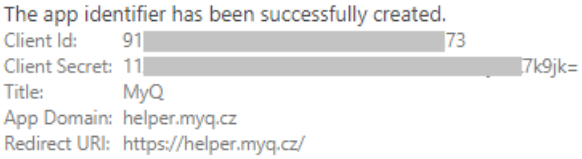
Register the MyQ app in SharePoint

1. In a browser, enter one of the the following URLs (you need to have admin rights on the specific level -for the SharePoint root site or for the specific site- to be able to access the settings):
   a. For the root SharePoint site:
   <https://<site_name>.sharepoint.com/_layouts/15/appregnew.aspx>
   *(*e.g. *https://mycompany.sharepoint.com/_layouts/15/appregnew.aspx)*
   b. For a specific SharePoint site (site collection):
   <https://<site_name>.sharepoint.com/sites/<specific_site_name>/_layouts/15/appregnew.aspx>
   (e.g. https://mycompany.sharepoint.com/sites/SCANNING/_layouts/15/appregnew.aspx)
2. Fill in or generate the fields, and then click **Create**. You are informed that the app identifier has been successfully created.

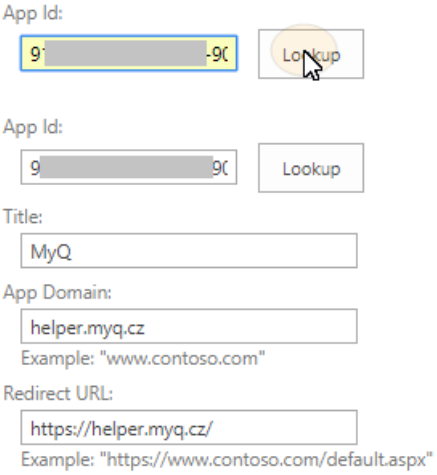


   a. **Client Id**: You can generate it or use your own. Copy its value; it will be used later in the registration process.

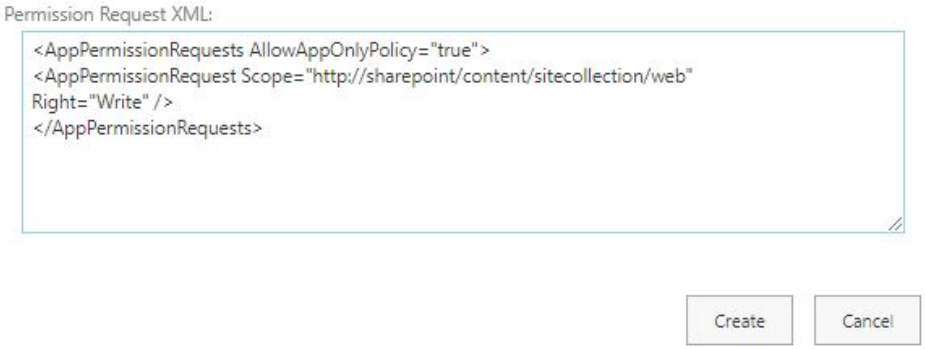
b. **Client Secret**: You can generate it or use your own. Copy its value; it will be used later in the registration process.
c. **Title**: "*MyQ*"
d. **App Domain**: "*helper.myq.cz*"
e. **Redirect URI**: "https://helper.myq.cz/"



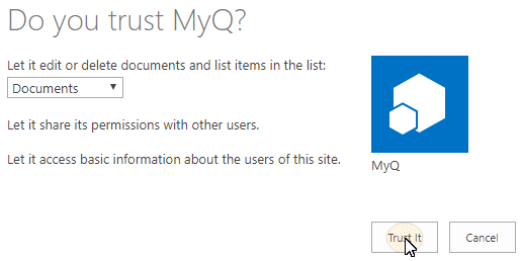
3. In the browser, enter one of the the following URLs:
   a. For the root SharePoint site:
   <https://<site_name>.sharepoint.com/_layouts/15/appinv.aspx>
   *(*e.g. *https://mycompany.sharepoint.com/_layouts/15/appinv.aspx)*
   b. *For a specific SharePoint site (site collection):*
   *<https://<site_name>.sharepoint.com/sites/<specific_site_name>/*_layouts/15/appinv.aspx
   (e.g. https://mycompany.sharepoint.com/sites/SCANNING/_layouts/15/appinv.aspx)
4. Fill in the **App ID** (the Client Id from step 2), and then click **Lookup**. This should fill all fields except for **Permission Request XML**.



5. Copy the below string, paste it to the **Permission Request XML** field, and then click **Create**. You are asked if you trust the MyQ application.
<AppPermissionRequests AllowAppOnlyPolicy="true">
<AppPermissionRequest Scope="http://sharepoint/content/sitecollection/web" Right="Write" />
</AppPermissionRequests>



6. Make sure that the **Documents** option is selected under **Let it edit or delete documents and list items in the list** (it should be selected by default), and then click **Trust It**. Now you can leave the SharePoint settings and open the MyQ Web Interface to finish the setup.



7. Open the **External Systems** settings tab of the MyQ web administrator interface (**MyQ, Settings, External Systems**).
8. On the tab, under **SharePoint Online**, enter the **Client ID** and the **Security key**, and then click **Save**.

If MyQ is upgraded to version 10.1+, the SharePoint connector will have to be set up again.

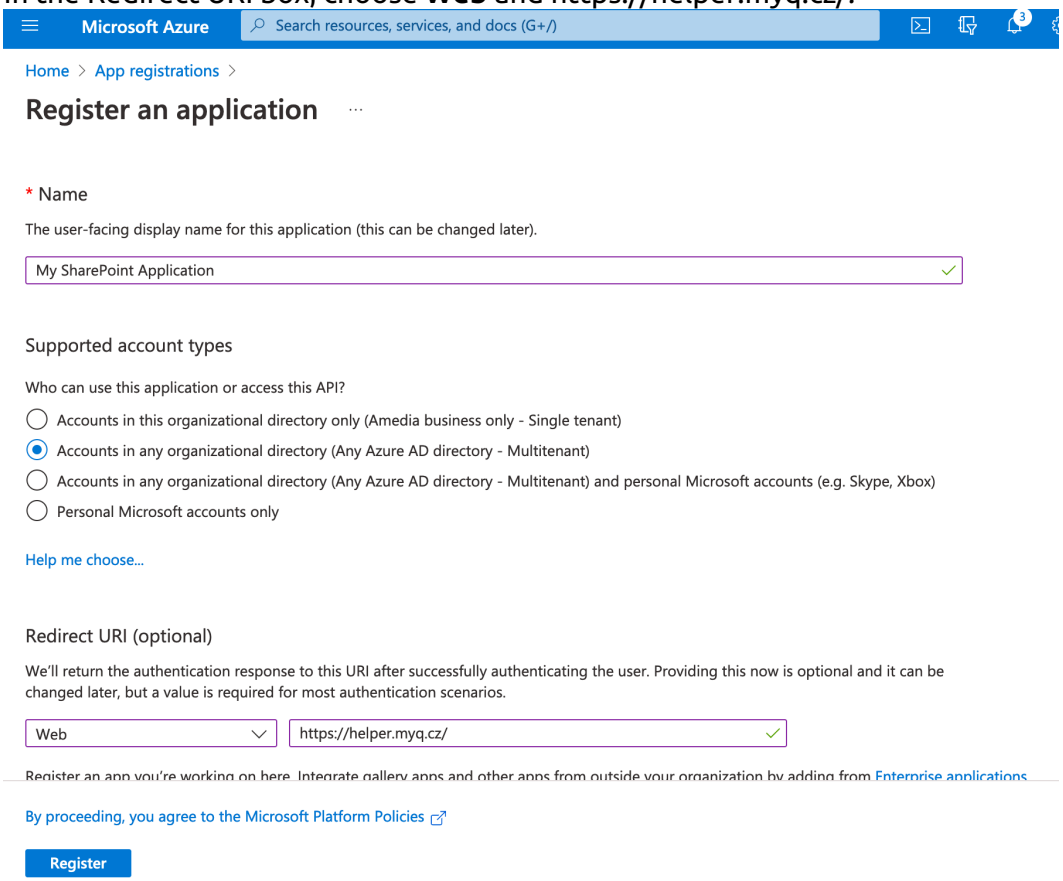
Enabling access to SharePoint for MyQ Server 10.1+

To set up the access, you have to create a new Azure AD app registration to be used by MyQ, and enter the Azure AD **Application ID** and **Secret** on the **Connections** settings tab in the MyQ Web administrator interface.

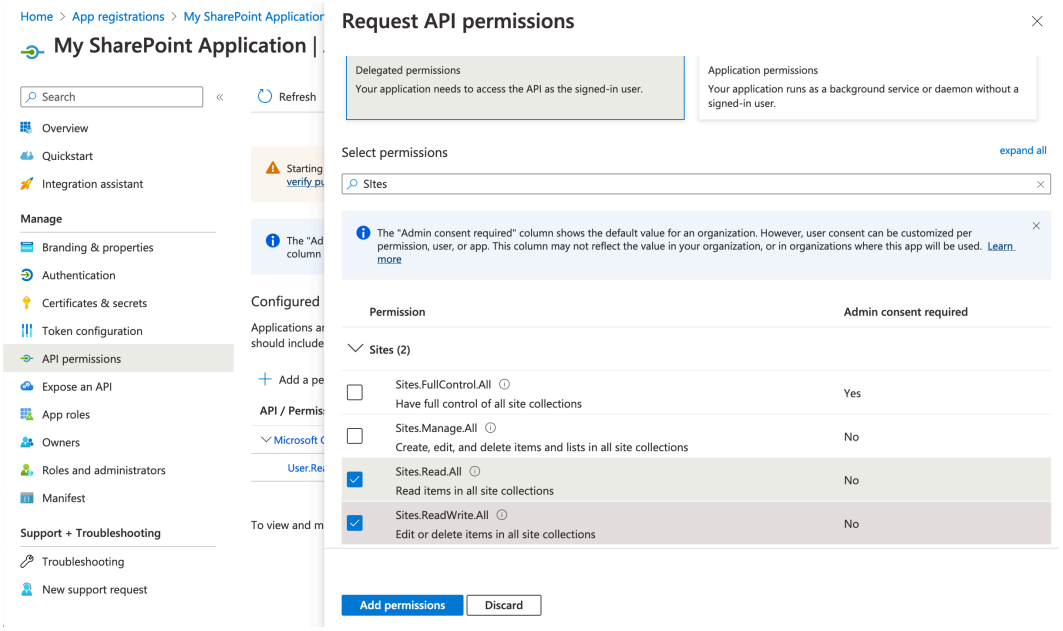
In Azure AD, you need to create and set a new Azure Active Directory App registration to be used by MyQ. After the registration is created, you set permissions and create a secret key. You need the Tenant ID, the Application ID and the secret key value to create a Connection for SharePoint on the MyQ Web Interface. The secret key value populates the Security key field.

1. Go to https://portal.azure.com/ and log in with your global admin user account.
2. In the Azure dashboard, in the left navigation pane, click **Azure Active Directory** and on the left menu, click **App registrations**.

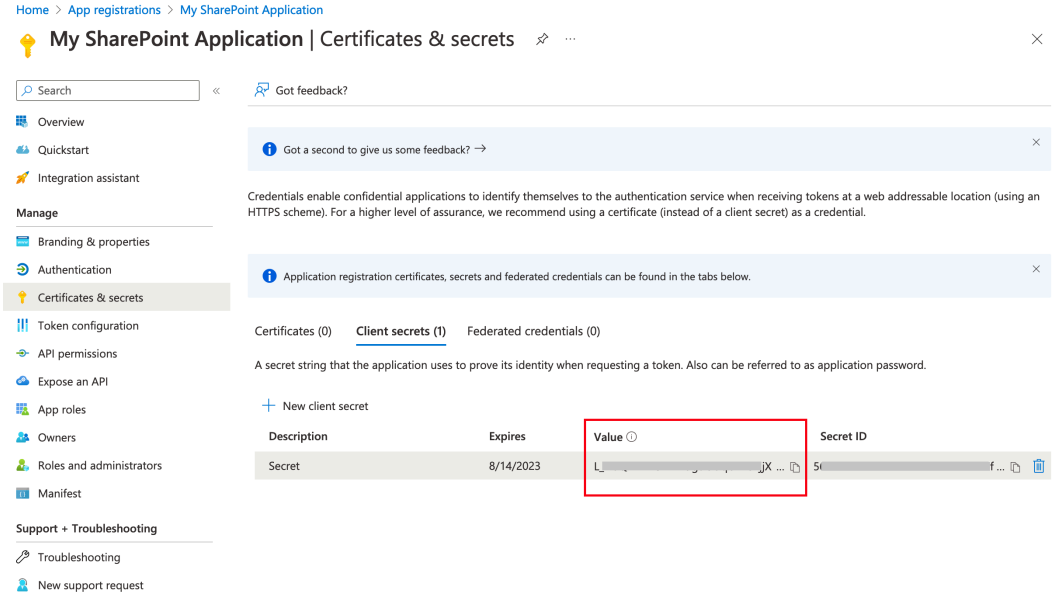
3. To create a new application, click **New registration**. The Register an application page appears.
4. In the **Name** box, type a name for the application.
5. Choose **Supported account types**.
6. In the Redirect URI box, choose **Web** and https://helper.myq.cz/.



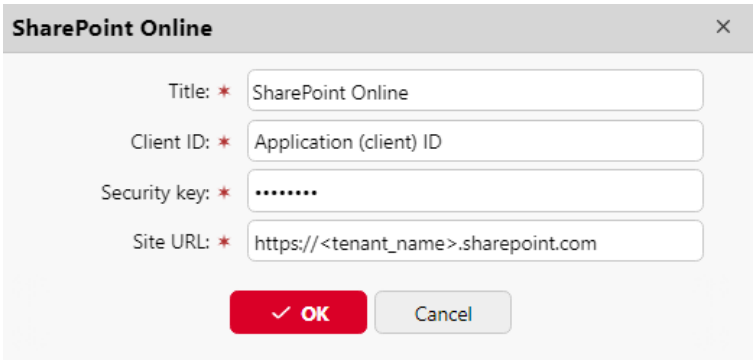
7. Click **Register**.
8. On the preview screen, click **View API permissions**. Click **Add a permission**. The Request API permissions pane appears. **User.Read** permissions are added by default. Add **Delegated** permissions to **Files.ReadWrite** for the Microsoft Graph.



9. Back on the preview screen, click **Overview**, and then copy and save the **Application ID**, because you need it in the next steps.
10. On the preview screen, click **Certificates and secrets**, and then click **New client secret**. Add a **Description**, set the expiry for the key to *Never*, and click **Add**.
11. Save the client secret key **Value**, because you need it in the following steps and you cannot retrieve it later.



12. Open the **Connections** settings tab on the MyQ Web Interface (**MyQ, Settings, Connections**).
13. Click **+Add** and select **SharePoint Online** from the menu.



14. Add a **Title**. This will be used to identify the Cloud Storage Destination.
15. Add the **Application ID** and the client secret key **value** as **Security key** that you previously copied and saved.
16. Add the **Site URL**: *https://<tenant_name>.sharepoint.com* (to access the root SharePoint site) or *https://<tenant_name>.sharepoint.com/sites/<site_name>* (to access a specific site from the tenant's collection) and click **OK**.

Create and set the SharePoint Online destination

- Create a new destination (edit or create an Easy Scan terminal action; on its properties panel, in the **Destinations** tab, click **+Add**).
- On the new destination's properties panel, under **General**, select the *Cloud Storage* option in the **Type** drop-down.
- In the **Parameters** section, in the **Type** drop-down, select *SharePoint Online*, and click **Save**.

Connect a user's MyQ account to SharePoint Online

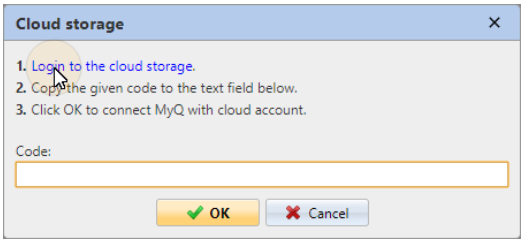
If the following two conditions are met, the cloud storage widget is displayed on the **Home** screen of the user logged on the MyQ Web Interface:

- There is at least one **Easy Scan** terminal action with this destination.
- The user has rights to see the **Easy Scan** button or is connected to cloud drive.

To be able to store the outgoing scan file on SharePoint Online, the user has to be connected.

To connect to SharePoint Online, the user has to perform the following actions:

1. Log in to the MyQ Web User Interface with your user account.
2. On the **Cloud storage** widget, click **Connect**. The Cloud storage dialog box appears.
3. Click **Login to the cloud storage**.



4. Sign-in to SharePoint Online and confirm permissions (when asked about the permissions, click **Yes**).
5. Copy the given code.
6. Paste the code to the MyQ Cloud storage login dialog.
7. Click **OK** to connect the cloud storage to MyQ. The SharePoint Online connection status changes to **Connected**.

Scan to Amazon S3

In order to scan to Amazon S3, you need to:

- Set up a bucket on the Amazon console. Your scans will be stored in this bucket.
- Create a user who will be used in the MyQ Web UI.
- Give the created user rights to the bucket.
- Fill in the **Client ID** and **Security Key** in the MyQ web administrator interface.
- Set up an Easy Scan terminal action to scan to Amazon S3.

Setting up a bucket on the Amazon S3 console

You need an Amazon account to create a bucket to store the scans in. MyQ does not require any specific settings for scanning to an S3 bucket.

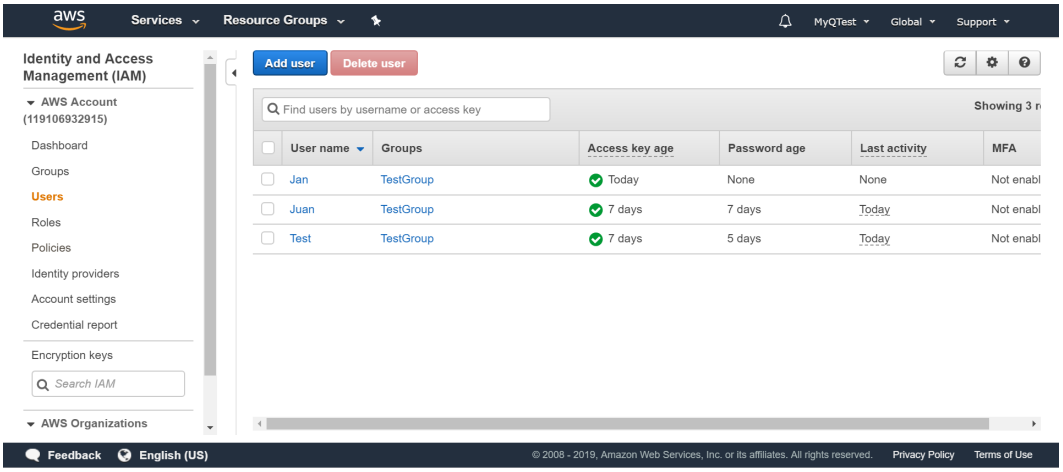
1. Login to https://console.aws.amazon.com/s3 and sign in with your Amazon account or create a new account. You need a credit card as proof of name. The credit card will also be used to charge the use of Amazon S3.
2. Use the https://docs.aws.amazon.com/AmazonS3/latest/gsg/s3-gsg.pdf to guide you through creating a S3 bucket.

> It is recommended to use a bucket lifecycle configuration, details of how to do so can be found here.

Create a user in Amazon S3

You need to create a user to make a connection between Amazon S3 and the MyQ Web UI.

1. Log in to the Amazon console.
2. Click the arrow next to your login name and select **My Security Credentials** from the drop-down menu.
3. Click **Users** in the **Identity and Access Management (IAM)** pane and click **Add user**.

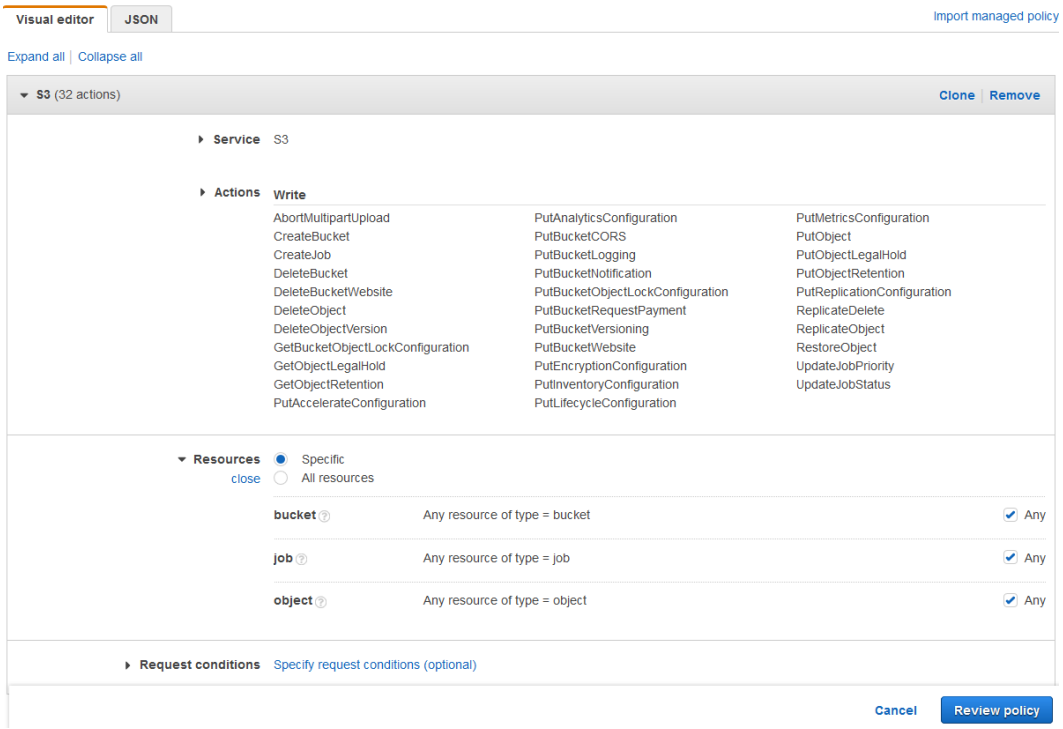


4. Follow the instructions to create the user.
5. Copy and save the **Client ID** and the **Access Key ID** of the created user, as you need them in the following steps.

Give user access rights to the bucket

To give bucket permission to the user, you can follow the official instructions, or follow the short procedure below:

1. Click **Policies** in the **Identity and Access Management (IAM)** pane. Click **Create a new Policy**. The policy settings should be set as in the image below. If you do not want to provide the user with access to all buckets: deselect **Any** and click **Add ARN** to enter a specific bucket.



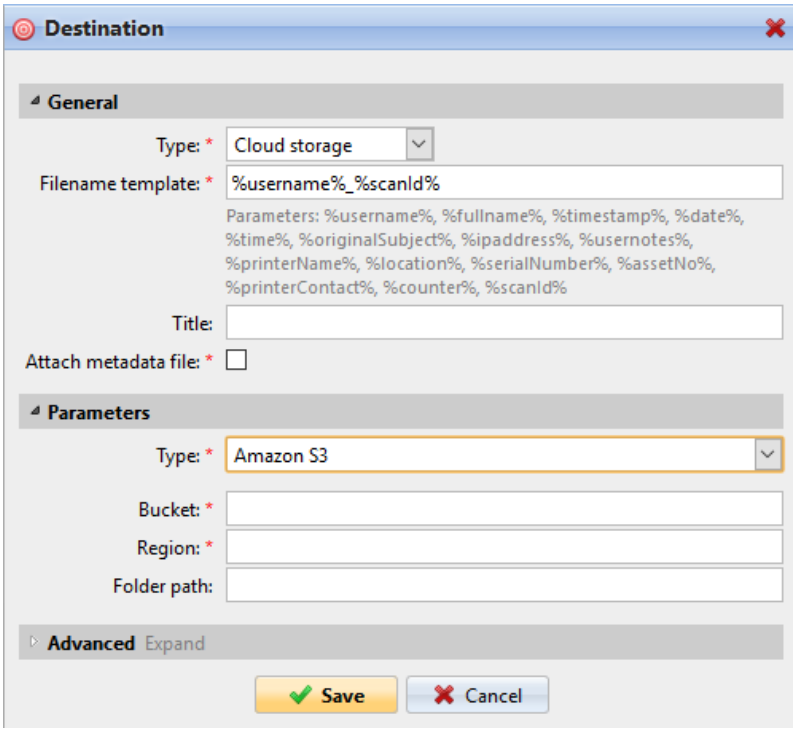
2. Click **Groups** in the **Identity and Access Management (IAM)** pane. Click **Create New Group**. Give the group a name and **Save** it.
3. Click **Add Users to Group** and add the created user to the group.
4. Click the **Permissions** tab and click **Attach Policy**. Select the policy you just created and **Save** it all. The user now has ***Write*** access to the created bucket.

Setup a connection between MyQ and Amazon S3

1. Open the **External Systems** settings tab of the MyQ Web Interface (**MyQ, Settings, External Systems**).
2. Click **+Add** and select **AWS** from the menu.
3. Add a **Title**. This will be used to identify the Cloud Storage Destination.
4. Add the **Application ID**, and the Access Key ID as **Security key** that you previously copied and saved, and click **OK**.

Create and set the Amazon S3 destination

- Create a new destination (edit or create an Easy Scan terminal action; on its properties panel, in the **Destinations** tab, click **+Add**).
- On the new destination's properties panel, under **General**, select the *Cloud Storage* option in the **Type** drop-down.
- In the **Parameters** section, in the **Type** drop-down, select *Amazon S3* or any other **Title** you defined in the **External Systems** settings in the previous steps and click **Save**.
- Fill in the fields:
  - **Bucket**: the name of the Amazon S3 bucket to store the scans in.
  - **Region**: the region you have set when creating the bucket.
  - **Folder path**: enter the path of a sub folder.

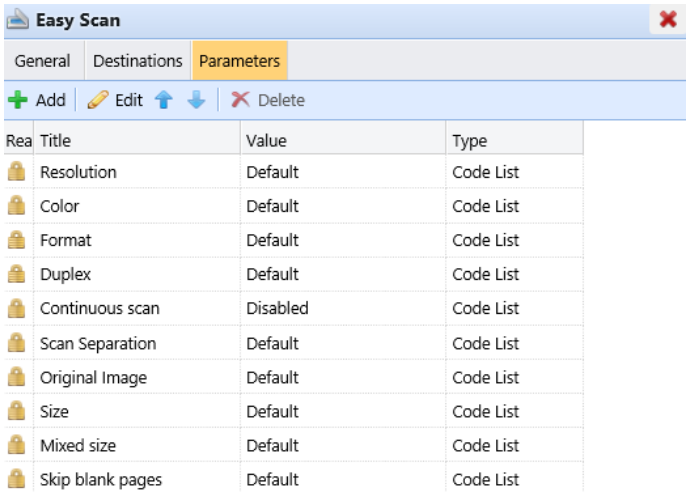


Easy Scan Parameters

On the **Parameters** tab, you can set the scanned file's parameters, such as resolution and format. You can select from a number of options for each parameter.

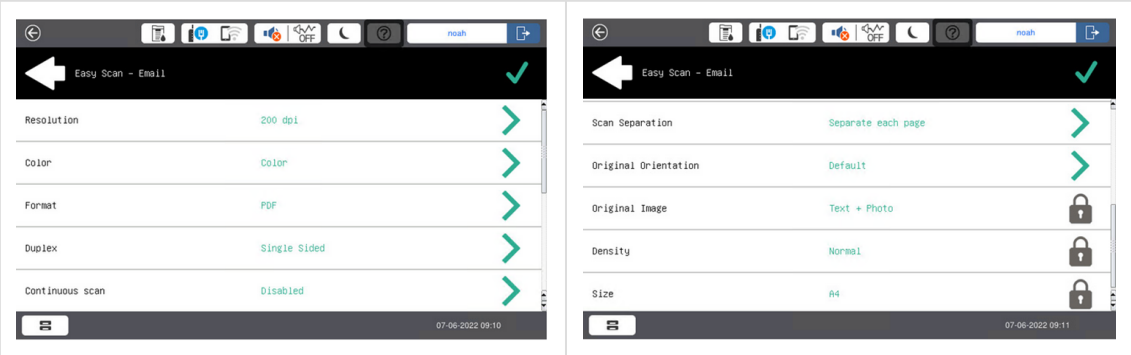
There are predefined parameters, but you can also create your own parameters.

> ⚠ All parameters are dependent on the particular printing device type. Therefore, some options might not be available.

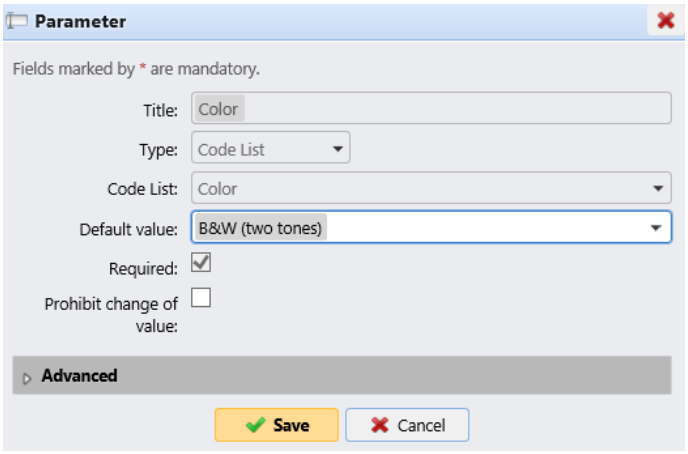


Some parameters (e.g. resolution, color) significantly influence the scanned file's size. For example, a combination of higher resolution and full color will dramatically increase the file size.

You can allow users to change their scan settings from the terminal screen.

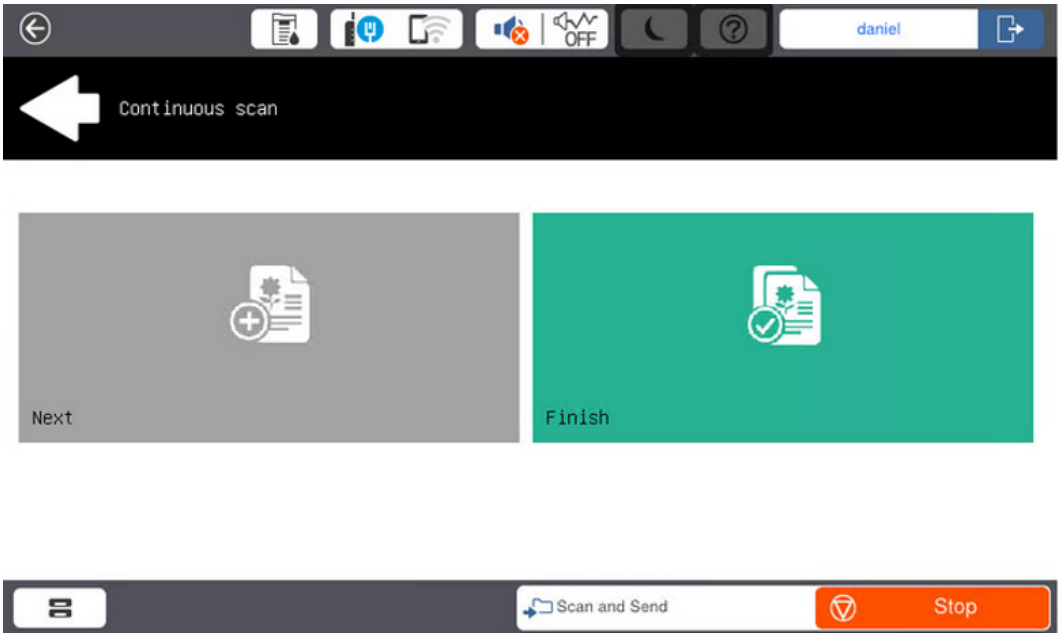


To do this, you have to modify the settings of the particular parameter on the **Parameters** tab on the **Easy Scan** action node properties panel. Open the parameter properties panel, uncheck the **Prohibit change of value** option (checked by default) and **Save**.



Predefined Parameters

- **Resolution** - The outgoing file's resolution. You can select from the following options:
  - 200 dpi
  - 300 dpi
  - 600 dpi
  - Default
- **Color** - The outgoing file's color scale. You can select from the following options:
  - Color
  - B&W (two tones)
  - Default
- **Format** - The outgoing file's format. You can select from the following options:
  - PDF
  - JPEG
  - TIFF
  - HCPDF
  - Default
- **Duplex** - Simplex and Duplex scanning options. You can select from the following:
  - Single Sided
  - Duplex - binding on top
  - Duplex - binding on side
  - Default
- **Continuous scan** - With the continuous scan option *Enabled*, scan jobs are not sent until **Finish** is tapped. After clicking **Next**, the printing device scans another page. This parameter only works when scanning from the glass panel. It doesn't work when using the Automatic Document Feeder.



You can select from the following:
  - Disabled
  - Enabled
  - Default
- **Scan separation** - If a document with multiple pages is scanned, scanned pages can be stored either separately (each page in a separate file) or all together in one file. You can select from the following options:
  - All pages together
  - Separate each page
  - Default
- **Original Image** - Determines the way in which the printing device is going to process the scanned page. You can select from the following options:
  - Text + Photo
  - Photo
  - Text
  - Default
- **Original Orientation** - Determines the scanned page's orientation in the outgoing file. The paper's position is relative to the person standing at the printing device. You can select from the following options:
  - Top Edge on Top: The page is displayed in a horizontal position (top edge of the page opposite to the person).
  - Top Edge on Left: The page is displayed in a vertical position (top edge of the page on the left-hand side of the person).
  - Default
- **Size** - The scanned output's size. This determines the size of the scanning area; therefore it should correspond to the actual size of the scanned paper. You can select from the following options:
  - Automatic
  - A3
  - A4

    - A5
    - B4
    - B5
    - Ledger
    - Letter
    - Legal
    - Statement
    - Default
- **Density** - The picture's density in the outgoing file. The higher it is, the darker the resulting picture is. You can select from the following options:
    - Lowest
    - Lower
    - Low
    - Normal
    - High
    - Higher
    - Highest
    - Default

Limitations:

- **Continuous scan** - If a scan is canceled by tapping the back arrow, canceled by pressing the cancel button or if a user logs out, the MFP sends scanned documents up to that point. The MFP does not discard the scanned documents. A notification about the scanned job contains no information regarding the number of scanned pages. Continuous scan is possible only from the glass. It is not supported if the scan is from the ADF.
- **Scan cancellation** - If a single-page file format, such as jpeg, tiff, single PDF, etc., is selected, then scanned pages will be sent and will be recorded in the job_log. If multi-page file format is selected, all including scanned pages are canceled (*Information obtained from Epson support*).
- **ADF scan** - If a scan is canceled by tapping the cancel button or if a user logs out, the MFP sends scanned documents up to that point. The MFP does not discard the scanned documents. A notification about the scanned job contains no information regarding the number of scanned pages.
- The default A4 paper orientation (= not rotated paper = iso_a4_210x297mm) is landscape (= insert short edge to ADF) on all models regardless of the printed infographics on the ADF.

Create custom parameters

You can create new parameters to be used in the scan metadata, or as parts of file names, addresses, subjects and email bodies, and as paths to folders, passwords to folders etc.

The following parameter types can be created: *Text, Password, Yes/No, MyQ Users, Code Book, User Properties, Device Properties*.

To create a custom parameter:

1. On the action node properties panel, go to the **Parameters** tab.

2. On the tab, click **+Add**. The new Parameter properties panel opens on the right side of the screen.
3. Set the parameter, and then click **Save**. The new parameter is now displayed on the list on the **Parameters** tab.

Parameter Settings:

- **Title** - The parameter's name.
- **Type** - Select the parameter's type from the drop-down:
  - *Text* - Text (string) typed by the user on the embedded terminal. You can use these parameters in a variety of strings in MyQ: names of files, addresses, subjects or email bodies, paths to folders and many other. In the **Validator** field, regular expressions can be used to define or limit the user's input.
  - *Password* - Password to a user's account. This parameter is used together with the **Logged user** option for the **User's scan storage** destination type. Users type the password to their domain account to access their shared folder there.
  - *Yes/No* - Boolean parameter with the options: *Yes, No.* You can use these parameters in the scan metadata file to provide answers on Yes-No questions concerning the scan, such as if the scan is private or if it should be archived.
  - *MyQ Users* - This parameter enables selecting scan recipients from the list of all MyQ users. The scan is sent to the recipient primary email set in the Email text box on their properties panel on the Users main tab of the MyQ Web Interface, or to the folder set in the Folder or email for storing scanned documents text box in the same location.
  - *Code Book* - The parameter uses a list of values from internal code lists. Users can select options from lists of values used in metadata and destinations.
    - **Internal code list**: You can predefine code lists with values and use the values as options available for users.
    - **LDAP sourced list**: This parameter enables selecting scan recipients directly from an LDAP server by importing the codes from the server.
    - **MS Exchange Address Book**: You can use this code book to get personal contacts from an MS Exchange server. The contacts are retrieved using an account defined by the administrator in the MyQ Web UI. This account requires special rights on the MS Exchange server that allow it to access other users' mailboxes. The user sees the first 50 contacts on the terminal. To look for more contacts they would have to use the search function.
  - *User Properties* - The parameter can represent MyQ user properties within the metadata file of the scanned document. You can select one of the following values to be represented by the parameter:
    - User name
    - Full name
    - Email
    - User's scan storage
    - Personal number

        - Phone
        - Notes
        - Accounting Group
    - *Device Properties* - The parameter can represent MyQ printing device's properties within the metadata file of the scanned document. You can select one of the following values to be represented by the parameter:
        - Name
        - Location
        - IP address
        - Brand
        - Model
        - Serial number
        - Asset number
        - Notes
- **Default value** - A predefined value/option that will be used if nothing else is selected.
- **Required** - The parameter value has to be defined. If the parameter does not have a default value, users are not allowed to print before this value is entered in the particular text box on the terminal screen.
- **Prohibit change of value** - If this option is selected, the parameter cannot be changed by the users on the terminal screen.
- **Reference** - String that is used as a reference to the parameter. A parameter with the *parameterX* reference is referred to as *%parameterX%* in MyQ. For example, the reference of the often-used user name parameter is *username*; the parameter is referred to as *%username%*.

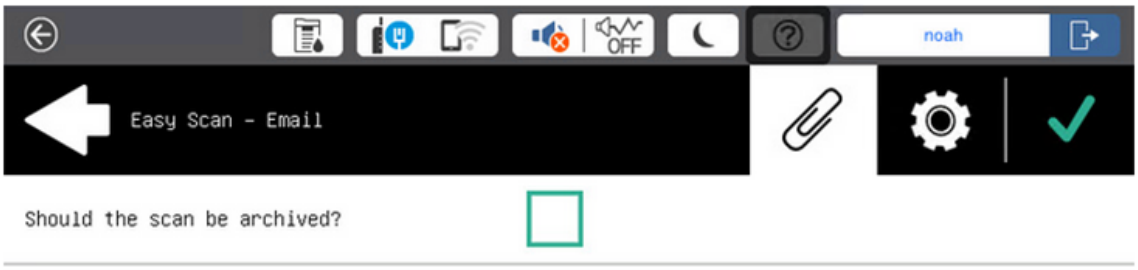
Custom parameters examples

These are some examples of using custom parameters.

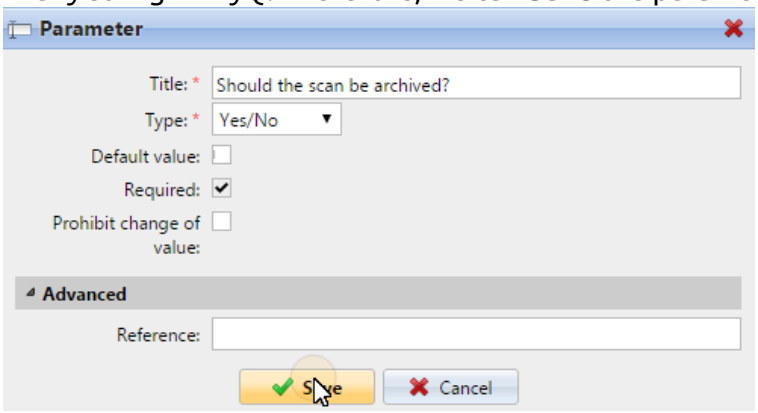
Providing additional information in a metadata file

In this example, you can see how to use parameters for obtaining additional information about the scan file or any other data provided by users. The parameter's **Type** can be *Text* or *Yes/No*.

As an example, we will create a *Yes/No* **Type** parameter, called **Should the scan be archived?**.



1. The **Title** will be shown on the screen, therefore we name it **Should the scan be archived?**
2. The **Type** is *Yes/No*.
3. The **Required** option is selected by default and cannot be deselected as it always has a value.
4. The **Default value** is left unchecked.
5. We do not have to use the reference, as the parameter is not going to be used in any string in MyQ. Therefore, we can **Save** the parameter settings.



The following two figures show two possible values of the **Should the scan be archived?** parameter. A DMS software can automatically archive the scans with value *1* into a predefined folder.

```
- <field>
    <name>Should the scan be archived?</name>
    <reference/>
    <value/>
  </field>
```

```
- <field>
    <name>Should the scan be archived?</name>
    <reference/>
    <value>1</value>
  </field>
```

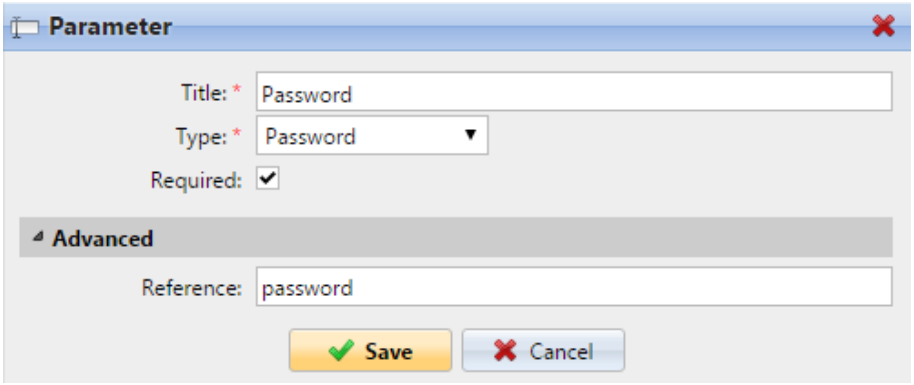
Enabling users to scan to their home folder protected by password

If you do not want to give to the MyQ server universal access to users' shared folders, but instead want to provide each user with separate rights to access their shared folder from MyQ, you can enable the scanning users to enter the password to their LDAP domain account to access the shared folder there.

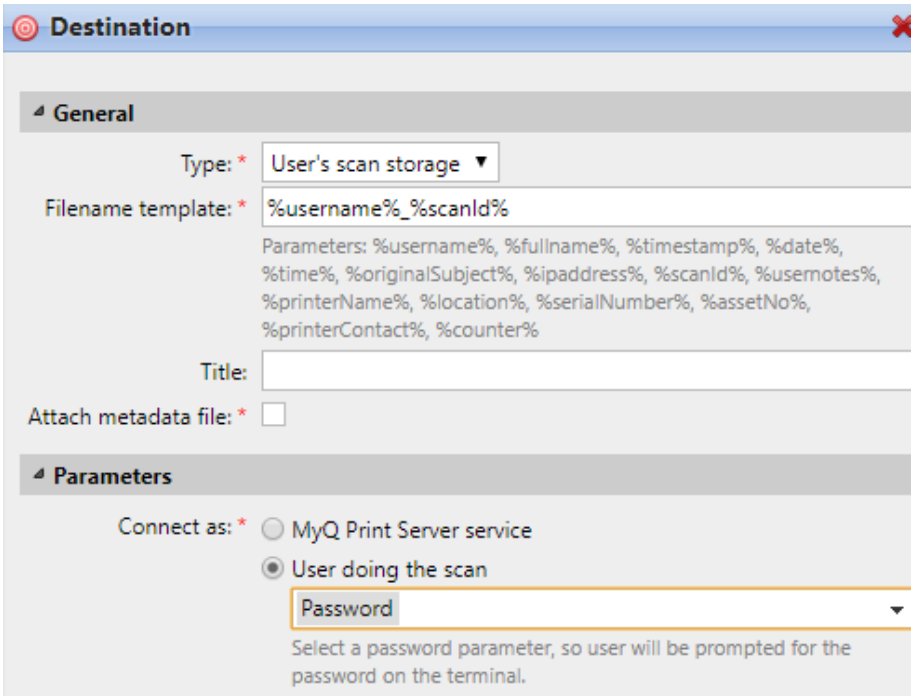
To be able to access their shared folders, users should have the LDAP domain defined in MyQ. The information about the domain is taken either from the **Authentication server** setting on the user's properties panel in MyQ, or from the user's MyQ user name (if the name is in the form *LDAPusername@domain.local*).

During the scanning, after the password is entered and submitted, MyQ takes the name of the user's domain (either from the **Authentication server** setting, or from the back part of the user name) and attempts to log on the user's account on this domain (either the whole user name, or its front part). If the password is correct, MyQ saves the scan in the shared folder; otherwise, it displays the error message "*Error while delivering a scan X/Y. Unable to write to the folder.*".

On the **Parameters** tab, create a parameter with the following properties: **Title**: Password, **Type**: Password, **Required**: selected, **Reference**: password.

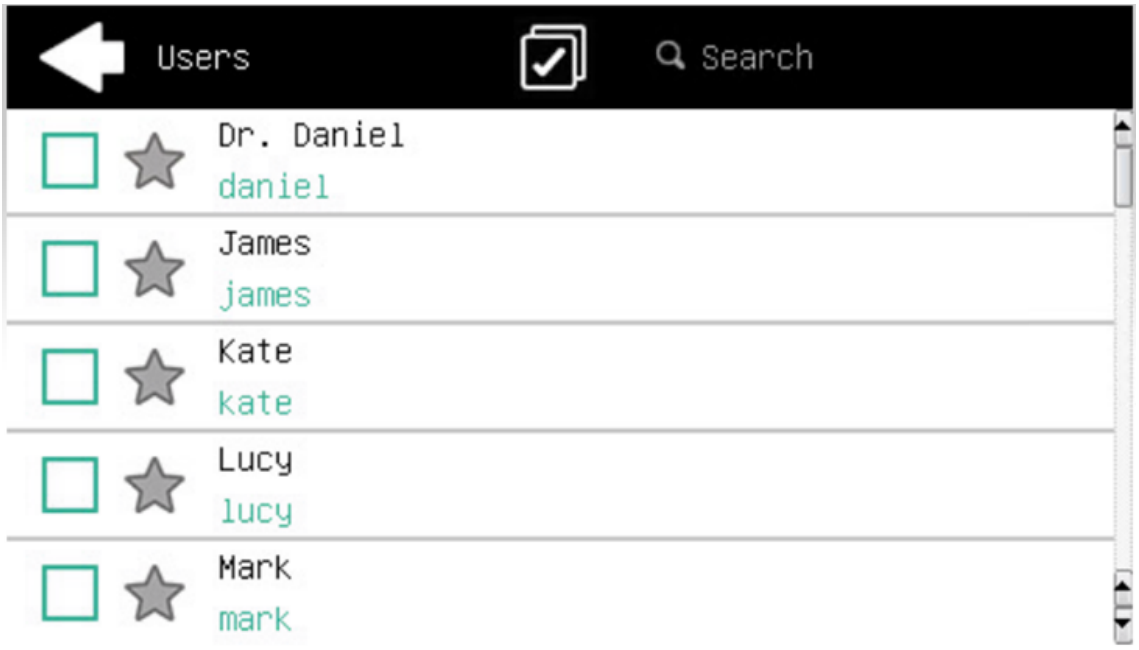


On the **Destinations** tab, set the **User's scan storage** destination type. In the **Parameters** section, select the **Connect as: User doing the scan** option and select the newly created *password* parameter in the drop-down.

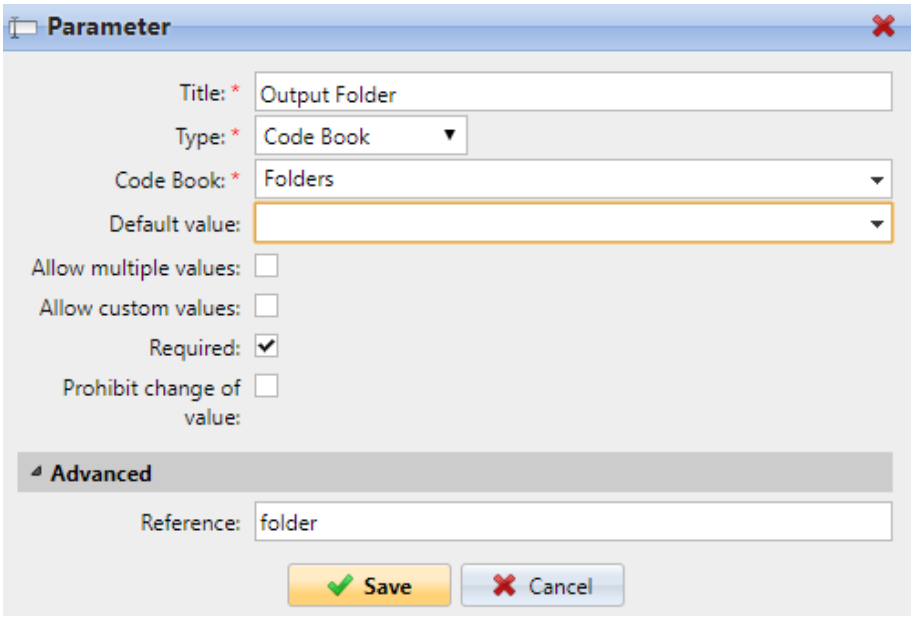


Enabling users to select the output folder from a code book

In this example, you can see how to enable users to select the scan destination folder from a predefined code book. For this example, we have already created and saved the Easy Scan action node, and we have created a code book named *Folders*, which has names of folders as its values. The next step is to add and set up a new **Code Book** type parameter and a new **Folder** destination type for the Easy Scan action. The parameter is then used as a part of the path to the folder.



On the **Parameters** tab create a parameter with the following settings: **Title**: Output folder, **Type**: Code Book, **Code Book**: Folders, **Default value** (optional), **Prohibit change of value**: deselect, **Reference**: folder. If you want to allow users to select multiple recipients, select **Allow multiple values**.
If you want to allow users to enter their own value, select **Allow custom values**. If you don't want to allow empty values, select the **Required** option so that users have to enter its value before sending the file. Optionally, you can select a default value to define the folder where the output files will be saved, if users don't change it.



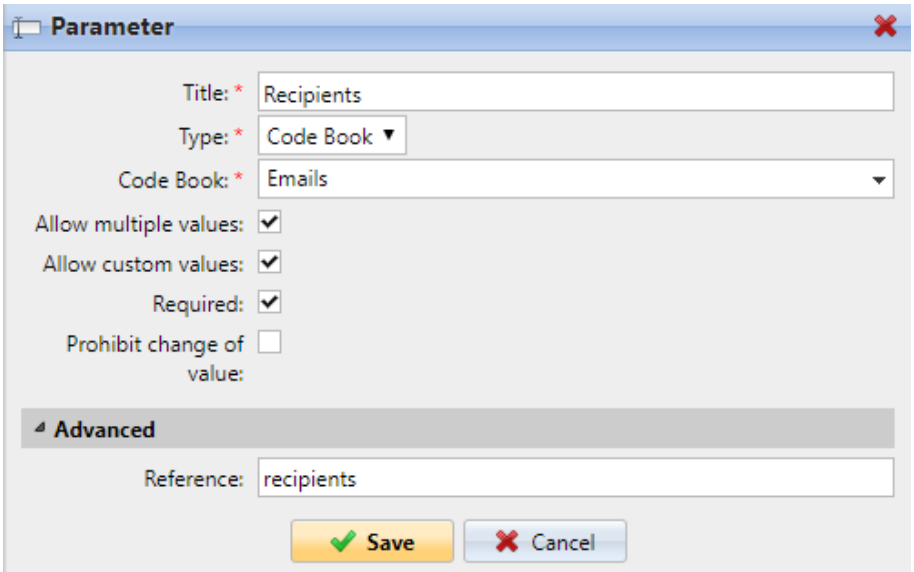
On the **Destinations** tab, create and set up a new destination. For this destination, you can use the parameter as any part of the destination path set in the **Destination folder** text box. To use the parameter, enter its reference name bounded in

percentage signs as part of the path. In our example, we used a parameter with the reference name *folder* as the folder where the files are stored (*Users%folder%*).

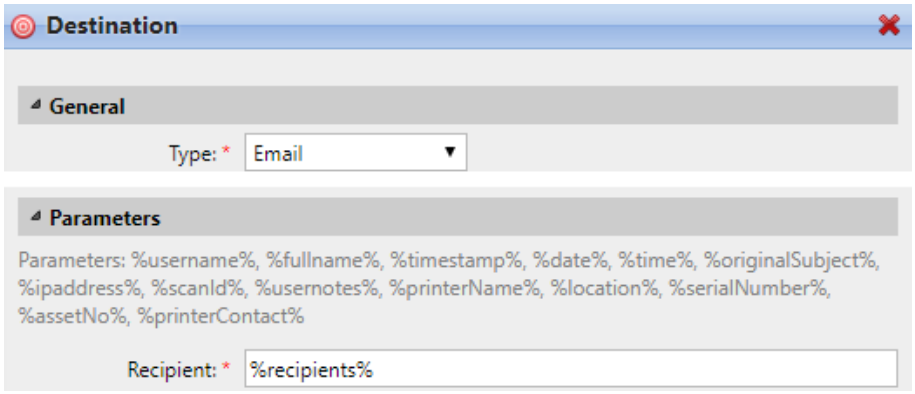
Enabling users to search recipients via LDAP Source code books

In this example, you see how to enable users to search for recipients on LDAP servers via LDAP Source code books. LDAP Source code books contain two parameters: **Title** and **Value**. The value of the **Title** parameter is used as an input for searching in the LDAP database and the **Value** parameter defines the value returned by the database. We use an LDAP Source code book with the **cn** attribute assigned to the **Title** parameter and the **mail** attribute assigned to the **Value** parameter. We also create a new parameter and a new folder destination for the feature. The scanning user types a string to be used in a search query. MyQ sends the query to the LDAP database to search for user accounts, whose **cn** begins with the entered string. The scanning user can select from the returned accounts. After they select the account, the value of the **mail** attribute of the account is used as the scan destination.

On the **Parameters** tab, create a parameter with the following settings: **Title**: Recipients, **Type**: Code Book, **Code Book**: Emails (or the LDAP source code book that you want to use), **Prohibit change of value**: deselect, **Reference**: recipients. If you want to allow users to select multiple recipients, select **Allow multiple values**. If you want to allow users to enter their own value, select **Allow custom values**. If you don't want to allow empty values, select the **Required** option so that users have to enter its value before sending the file.

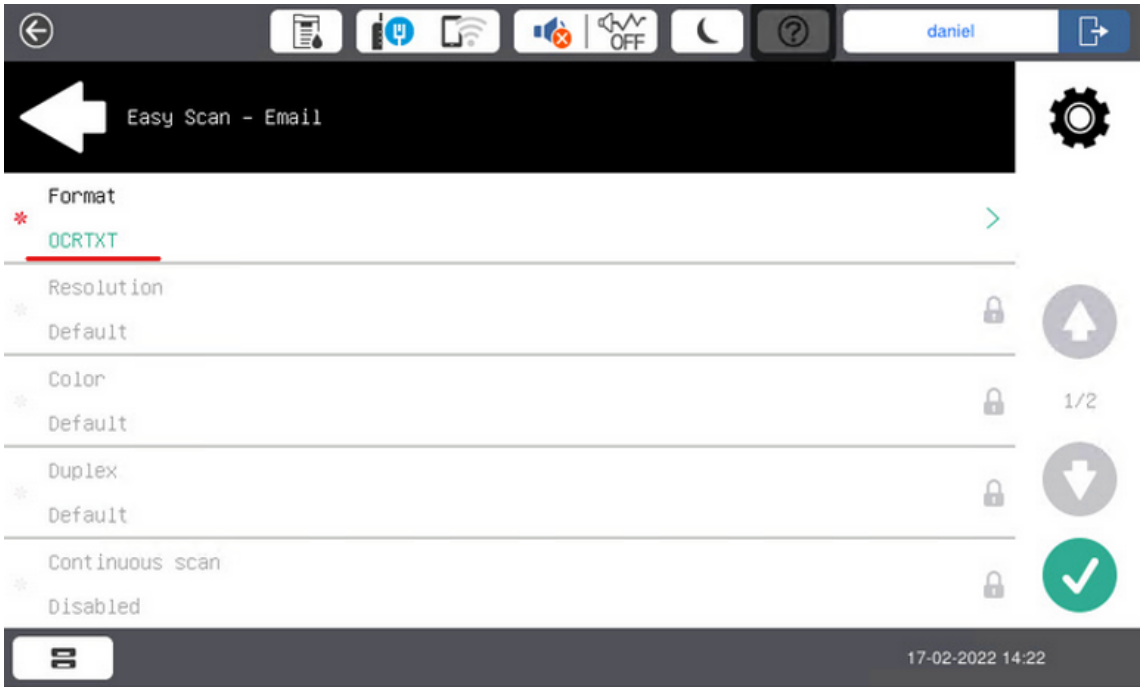


On the **Destinations** tab, create an **Email** destination type and enter the parameter in the **Recipient** text box, enclosed in percent signs (*%recipients%*).



Easy Scan to OCR

Optical Character Recognition is a service that converts scanned documents to a searchable and editable format, such as an MS Word document or a PDF. If you want to employ this functionality, you can either use the MyQ Optical Character Recognition (OCR) server, which can be purchased as a part of the MyQ solution, or a third-party application.



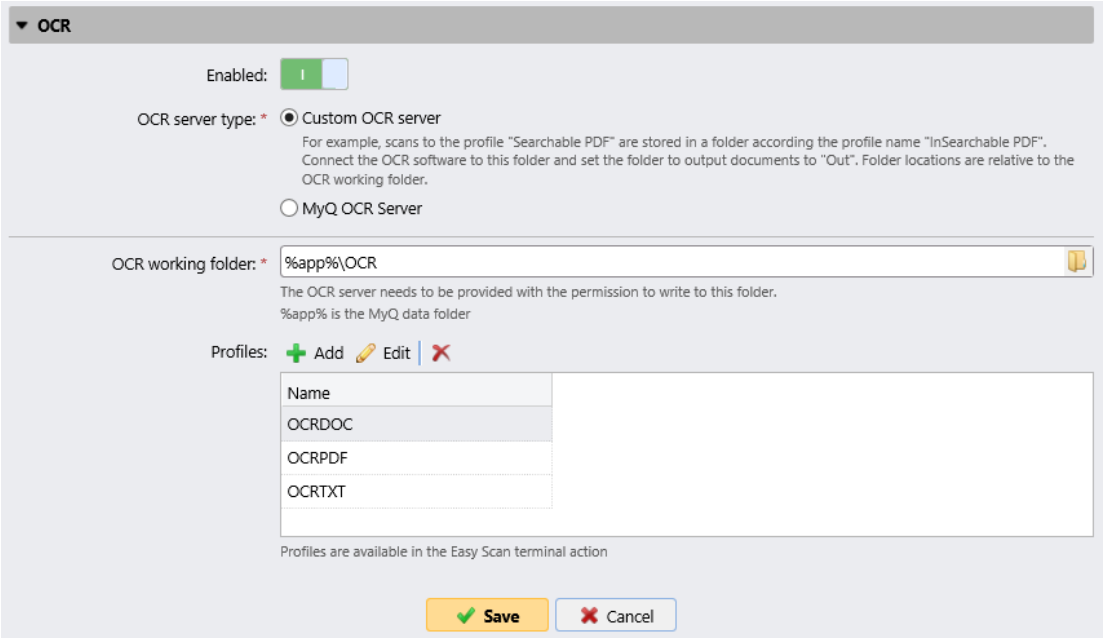
Users can send the scanned file to OCR without using the Easy Scan feature — just by sending the file to predefined email addresses. However, using Easy Scan simplifies the process of selecting the right OCR option and sending the file.

To enable using OCR together with Easy Scan, you have to create OCR profiles and enable users to select them on the embedded terminal. By setting the profiles, you define the input folders for the OCR software. The profile's name should be related to the OCR action defined for this input folder. For example, if you want to convert documents in the folder to DOC format, you can name the profile *OCRDOC* and

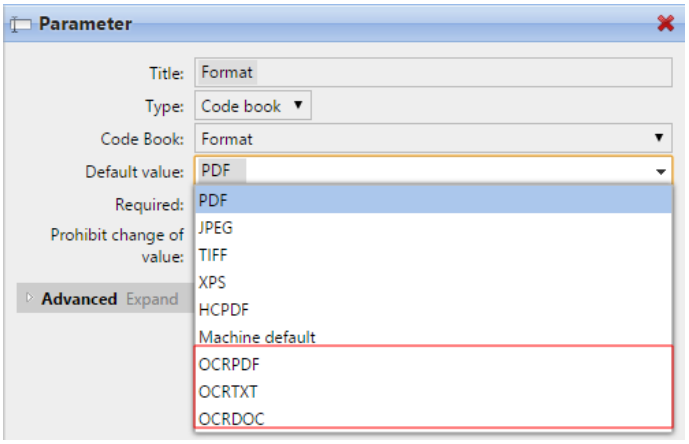
instruct the software to convert every document scanned to this profile (stored to the *OCRDOC* folder) to Microsoft Word format.

To set up the OCR feature:

- Create an OCR profile: Go to **MyQ, Settings, Scanning & OCR**. In the **OCR** section, click **Add** next to **Profiles** and enter the profile name.

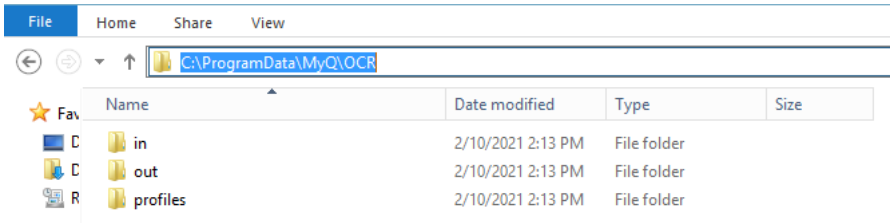


The OCR profiles are added to values of the Format parameter of the Easy Scan action.



In the **OCR working folder** field, you can change the folder where the scanned data are sent. However, it is not recommended to change the default folder (*C:\ProgramData\MyQ\OCR*).

The OCR folder contains three sub-folders: *in, out, profiles*. In the *in* folder, the scanned documents are stored before being processed. In the *out* folder, the processed documents are saved by the OCR software and are ready to be sent. In the *profiles* folder, your OCR profiles are stored.



To enable users to select the appropriate OCR folder on the embedded terminal:

- On the Easy Scan action node properties panel, on the **Parameters** tab, double-click the **Format** parameter. Deselect the **Prohibit change of value**, and then click **Save**.

OCR Processing

The OCR software should listen to the document sub-folders of the *in* folder (*in**OCRDOC, in**OCRTXT,...), process the file sent there, save the converted document to the *out* folder and delete the source file from the *in**** folder.

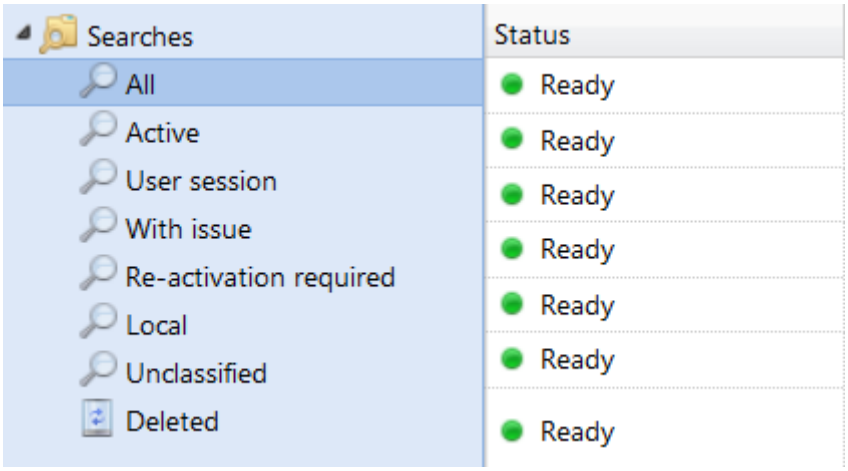
MyQ listens to the *out* folder, sends the converted file to the destinations defined on the **Destinations** tab and deletes it from the folder.

The file sent to the *out* folder by the OCR software must have the same name as the source file in the *in**** folder. If the name of the converted file differs from the source file, it is deleted without being sent to the user.

9.2 List of printing devices

On the **Printers** main tab, you can see printing devices and information about them. With the **All** search option selected, you see all printing devices that are currently in the system. Apart from this option, you can select from the following:

- **Active** - select to display only active printing devices
- **User Session** - select to display only printing devices that are currently in use
- **With issue** - select to display only printing devices with a reported issue (these printers are also listed on the **Home** page)
- **Re-activation required** - select to display the printing devices that must be activated again
- **Local** - select to display only locally connected printing devices (USB, LPT)
- **Unclassified** - select to display only printing devices that do not belong to any group
- **Deleted** - select to display only deleted printing devices



9.3 Manually adding printing devices

To manually add a device:

1. On the **Printers** main tab, click **+Add printer**. A drop-down box appears.
2. In this drop-down box, click **+Add printer**. The new printing device properties panel opens on the right side of screen.
3. On the panel, enter the device name and IP address, and then click **Save**.

9.4 Configuration profiles

A configuration profile is used for multiple printers configuration. It is where you can add an installation package and attach it to printers to equip them with embedded terminals.

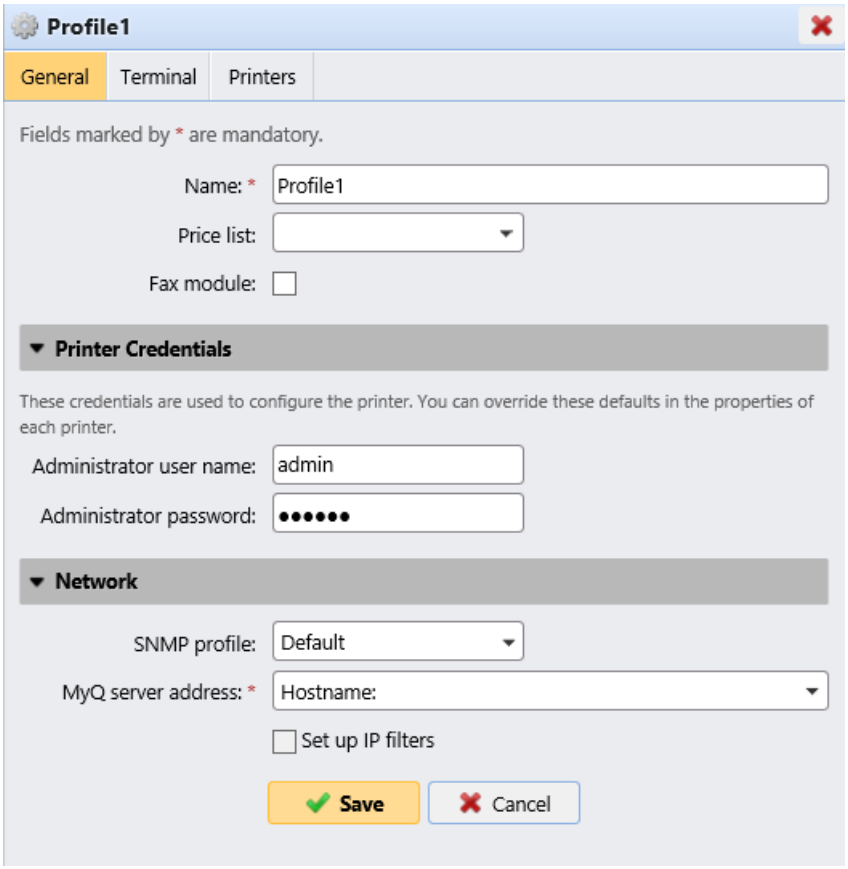
It is recommended to create a configuration profile per printer type if you have different printer types.

For a quicker setup you can clone your configuration profiles. With minimal editing you can then create a new profile. Printers will not be cloned to this new configuration profile. Go to **MyQ, Settings, Configuration Profiles**, select a configuration profile and click **Clone** on the menu bar (or right click and clone).

Configuration profiles are needed for printer discovery.

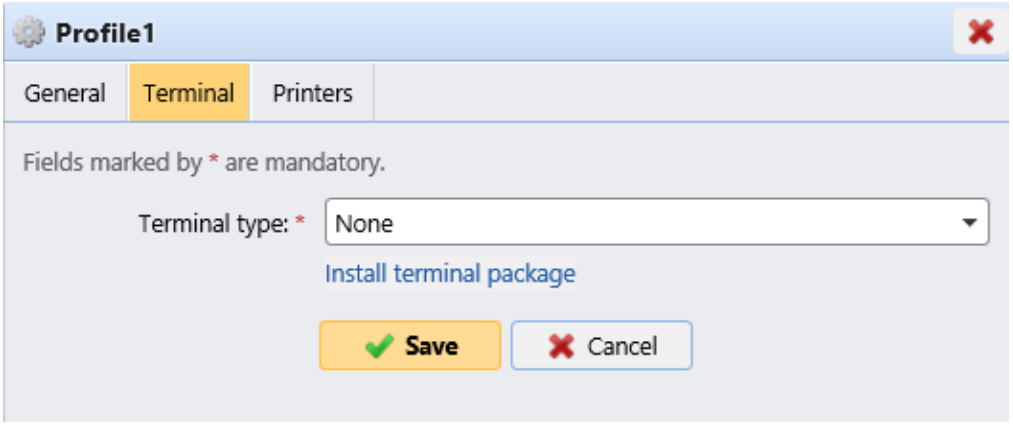
The following settings can be configured:

9.4.1 General tab



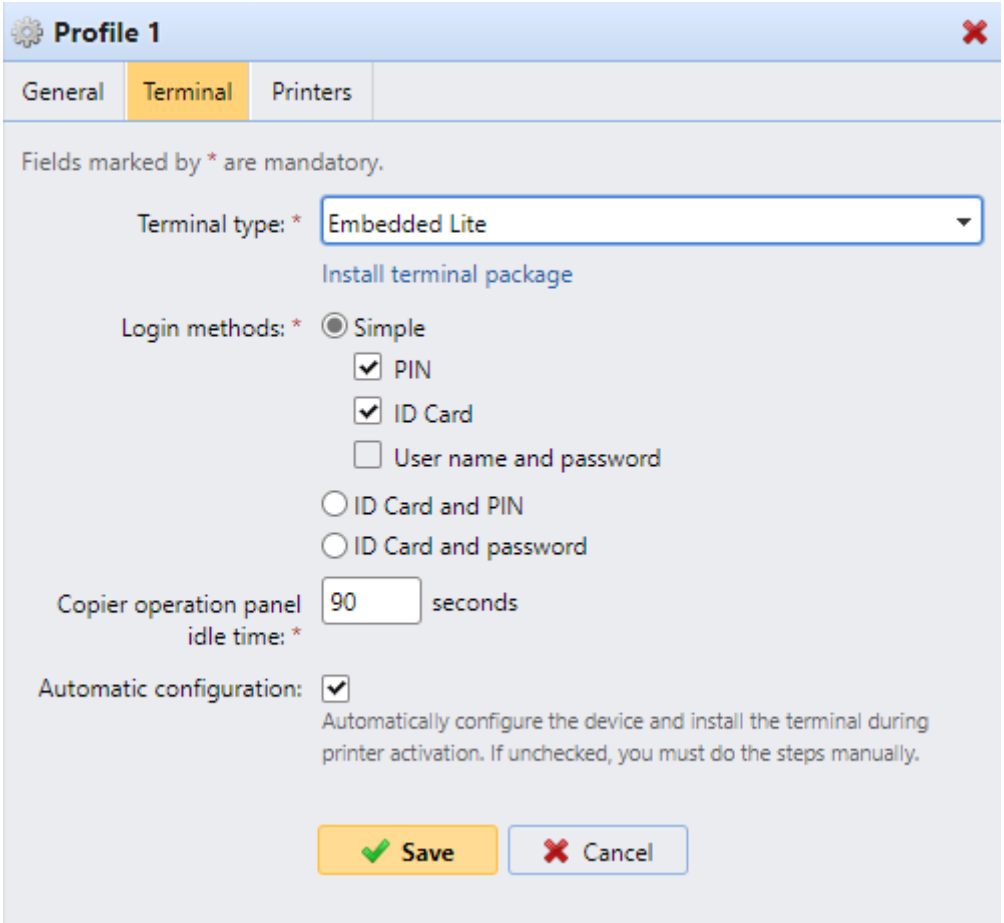
- **Name -** It is mandatory to give the profile a name.
- **Price List** - Select a price list from the drop-down. For more information on price lists, see Price List.
- **Fax module** - If selected, all printed faxes are charged on the FAX user account. It is available only for devices with the FAX option. Select only if the device has a fax module.
- **Printer Credentials** - The credentials are used to configure the printer(s) attached to the profile. You can override the defaults with the **Printer Credentials** in the properties of each printer.
- **Network -** Here you can add an SNMP profile: see SNMP profiles, and in **MyQ server address** select if the network should use the IP address or the Hostname (Hostname is used by default).

9.4.2 Terminal tab



- **Terminal type** - Select a terminal type from the drop-down. If the type you want is missing, click **Install terminal package**. Once the package is installed, select it from the drop-down.

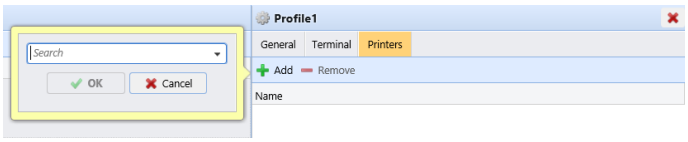
Based on the **Terminal type** selected, further configuration options will become available, these may vary based on the type selected.



- **Login methods**: select the login methods you want to be available on terminals with this configuration profile selected, the options are **PIN**, **ID Card**, and **User**

name and password, **ID Card** can also be combined with **PIN** or **Password** if double-authentication is required.
- **Copier operation panel idle time**: time (in seconds) for idle logout (mandatory field), the default is **90 seconds**.
- **Automatic configuration**: leave this option unchecked if you want to configure the device manually.

9.4.3 Printers tab



Click **Add** to add printers to the configuration profile from your printers list.

Select the added printers and click **Remove** to remove them from the configuration profile.

9.4.4 Additional options

The following options become available according to the installed terminal package. It depends on brand and model if they will function on your printer:

- Login methods
- Guest Account
- Guest screen
- Local administration PIN
- Language selection
- Display numeric keypad
- ID Card reader type

9.4.5 Vendor-Specific Options

Some options become available in the Terminal tab when a terminal package is installed. For information about vendor-specific options, see the following pages:

- (8.2) Vendor-Specific Options: Canon
- (8.2) Vendor-Specific Options: HP
- (8.2) Vendor-Specific Options: Kyocera
- (8.1) Vendor-Specific Options: Lexmark
- (8.1) Vendor-Specific Options: Sharp Luna

9.5 Discovering printing devices

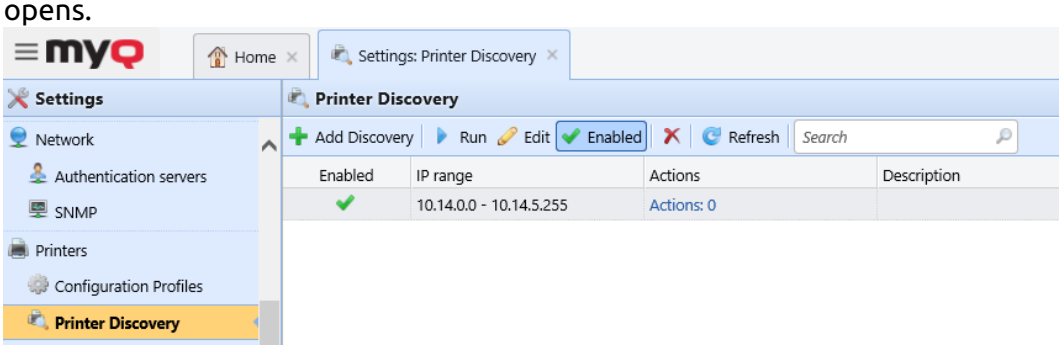
On the **Printer discovery** settings tab, you can create and run print discoveries to search for all network printing devices within a defined IP range of your company's network. You can create multiple discoveries for different subnets.

9.5.1 Automated printer discovery

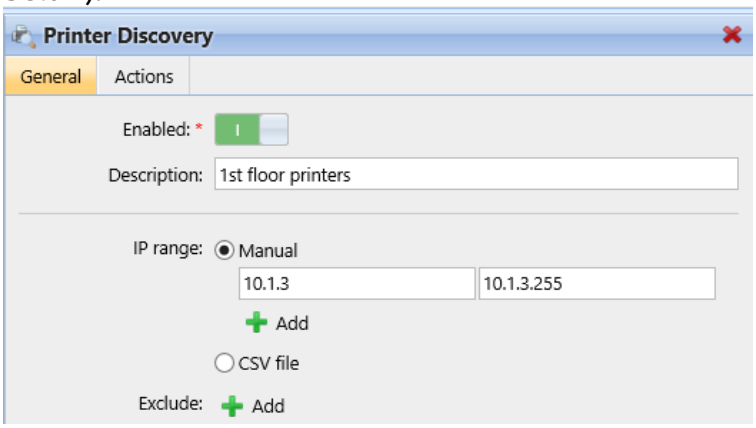
It is possible to add an **Action** to your printer discovery. In that way you can add a **Configuration profile** to your printer discovery, or select to activate the discovered printers when you **Run** the printer discovery.

To add a print discovery, do the following:

1. On the **Home** tab, click **Discover printers** in the **Quick Setup Guide** section.
2. On this tab, click **Add discovery**. The new printer discovery properties panel opens.



3. On the panel, you can change the **General** discovery configuration (described below).



4. You can also set special **Actions** to be performed during the discovery, see Printer discovery actions.
5. Click **Save**. The new printer discovery appears on the list on the **Printer Discovery** settings tab.

9.5.2 To run a discovery and add printing devices:

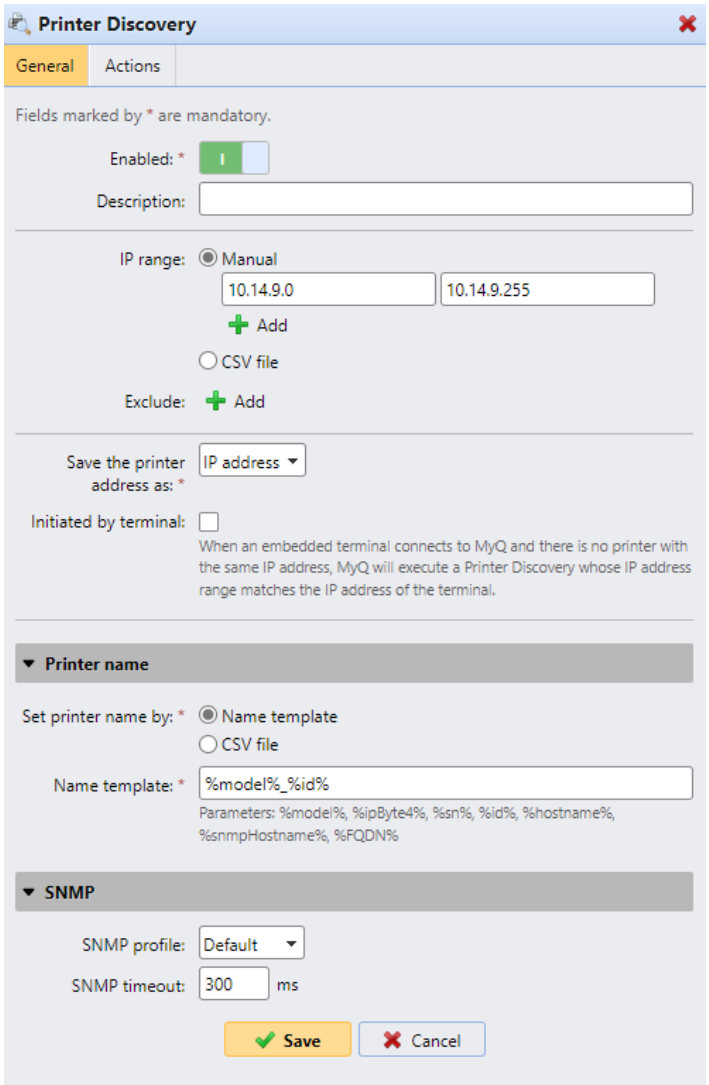
On the **Printer Discovery** settings tab, select the printer discovery that you want to use, and then click **Run**. The Discovering tab with a list of discovered printing devices opens. You can choose to add either all of the discovered devices or just a selection of them:

- If you want to add all discovered devices, click **+Add to MyQ**, and then click **+Add all** in the drop-down. You can see the added printing devices on the **Printers** main tab.

- If you want to add selected devices, select the devices that you want to add, click **+Add to MyQ**, and then click **+Add selected**. You can see the added printing devices on the **Printers** main tab.

9.5.3 Printer discovery general configuration

The configuration options mentioned below are basic and commonly used options of printer discovery. Options that are not mentioned here are connected with advanced MyQ features. You can find information about those options in the MyQ Embedded terminal manuals.



- **Enabled**: If you enable the discovery, it is included in the scheduled run of print discoveries.
- **Description**: Here you can add your own description of the discovery.
- **IP range**:
  - MyQ automatically detects the IP range from the IP address of the server.

    - If you want to use a different IP range, you can either manually change it or import it from a CSV file. Create a CSV file with a valid path of IP addresses, listed in one column in ascending order.
    - You can add additional IP ranges by clicking **+Add** under IP range.
    - You can delete IP ranges by clicking the delete button.
    - You can exclude particular IP addresses by clicking **+Add** next to **Exclude**.
- **Save the printer address as**: Here you can select if you want to save the printing device address
  as an IP address a Hostname or a FQDN.
- **Initiated by terminal**: Check this box when you have Java based terminals that need to be setup. Java based terminals can be installed and configured on the printer manually without a need to create a printer in MyQ and execute Remote Setup. When an embedded terminal connects to MyQ and there is no printer with the same IP address, MyQ will execute a Printer Discovery whose IP address range matches the IP address of the terminal. This feature is supported only by older Java terminals 7.5 and lower. Newer versions (8.0+) do not have the option to manually configure the server's IP/hostname on the device itself to initiate remote setup via printer discovery with this action enabled.
- **Printer name**: You can create a name template for each of the discovered printing devices; multiple parameters can be used to compose the name of the new device:
    - **%model%**: Model of the printing device.
    - **%ipByte4%**: The last byte of the device's IP address.
    - **%sn%**: Serial number of the printing device.
    - **%id%**: ID of the printing device in the MyQ database. If the printer name template contains the **%id%** parameter and you run discovery and add the same printer again, the name will not be updated.
    - **%hostname%**: This parameter corresponds to the hostname resolved by DNS server.
    - **%snmpHostname%**: This parameter corresponds to the hostname of the printing device set in the MIB table. The value of this parameter is obtained via SNMP protocol within the discovery of each printing device.
    - **%FQDN%**: Fully Qualified Domain Name of the printer
- **SNMP**: Here you can set the SNMP timeout period in milliseconds. This setting determines how long the MyQ system waits for a response from a printing device.

If you select the CSV file option, you must enter the name of the CSV file as IP address/Hostname or serial number;printer name.
You must also set the content of the **First** column in table, being either **IP address**, **Hostname** or **Serial number**.

9.5.4 Printer discovery actions

The actions mentioned below are basic actions that are commonly performed during printer discoveries.

First run actions

- **Activate**: Automatically activates the device if the current license allows it.
- **Create direct queue**: If you select this option, MyQ will automatically create a direct queue for the device. The name of the queue is the same as the system name of the device. For more information about print queues, see Queues.
- **Copy settings from the queue**: Here you can enter or select a direct queue from which the settings of the newly created queue are copied.
- **Print test page**: The MyQ server will automatically send a test page to the newly created direct queue.
- **Print as**: If you select the **Print test page** option, you have to select a user account under which the test page will be printed.
- **Windows printer**: In this section you can automatically install print port and printer driver on MyQ server.

Every run actions

- **Add to queue**: Here you can select one or more queues where the device will be automatically added to.
- **Set configuration profile**: Here you can select a configuration profile from the dropdown or create a new one by selecting **+Add new**. It gives you the option to install a terminal package and set the login method for the printers in the discovery.
- **Add printer to group**: Here you can select a group where the device will be automatically added.
- **Remove current groups**: If you select this option, the device is removed from all of its current groups.
- **Location**: Here you can set the location of the printing device. There are three options:
  - You can manually define the location by entering any text. Each printing device discovered or updated within this print discovery will contain this location.
  - You can automatically obtain the location via SNMP protocol by entering the **%location%** parameter. In such cases, the location is taken from the location parameter defined on the Web User Interface of each particular device discovered or updated within this print discovery.
  - You can leave this setting empty. In such case, the location of the printing device is not set/updated
    during the discovery. Updated printers maintain their current location and new printing devices have the location parameter undefined.

The location of a printing device is displayed and can be changed on its properties panel.

You can add multiple filters for performing discovery actions: every filter specifies the type of printers the actions will be performed on and which actions will be included.

To add a new filter, click **+Add Action**. The Actions panel opens.

- **Filter**: Here you can specify the printing device models or the types of devices on which this action is performed during the discovery.

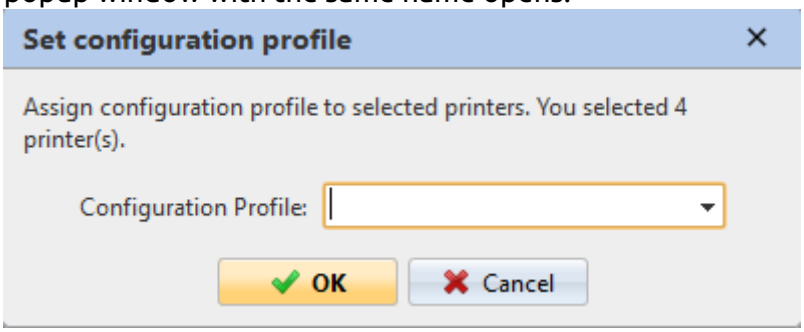
- Enter the model on which you want to perform the action. If you want to add more models, you have to separate them by commas (,).
- You can also select types of devices: color or B&W devices and distinguish between copiers or all.

9.6 Activating and deactivating printing devices

Unless it was automatically activated during printer discovery, a newly added device is not active in MyQ and some of its data is not displayed (its serial number, type, counters etc.). The next step is to activate the device. Although there is no limit to the number of printing devices you can add to the MyQ system, you cannot activate more printing devices than your license allows.

To activate selected printers:

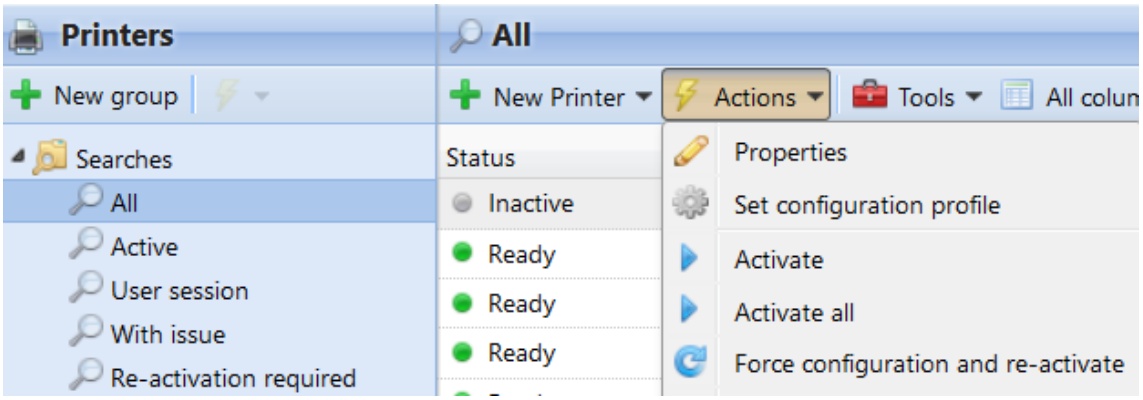
1. After selecting the printers, right-click and click **Set configuration profile**. A popup window with the same name opens.



2. Select a profile from the drop-down and click **OK**.
3. With your selection still intact, right-click once more and select **Activate**.

To activate all printers:

1. On the bar at the top of the **Printers** main tab, click **Actions**. The Actions dropdown appears.
2. Click **Select all**.
3. Right-click the selection and click **Set configuration profile**.
4. Select a profile from the **Configuration Profile** drop-down and click **OK**.
5. Right-click the selection and click **Activate all**.



To deactivate printing devices

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

9.7 Deleting and undeleting printers

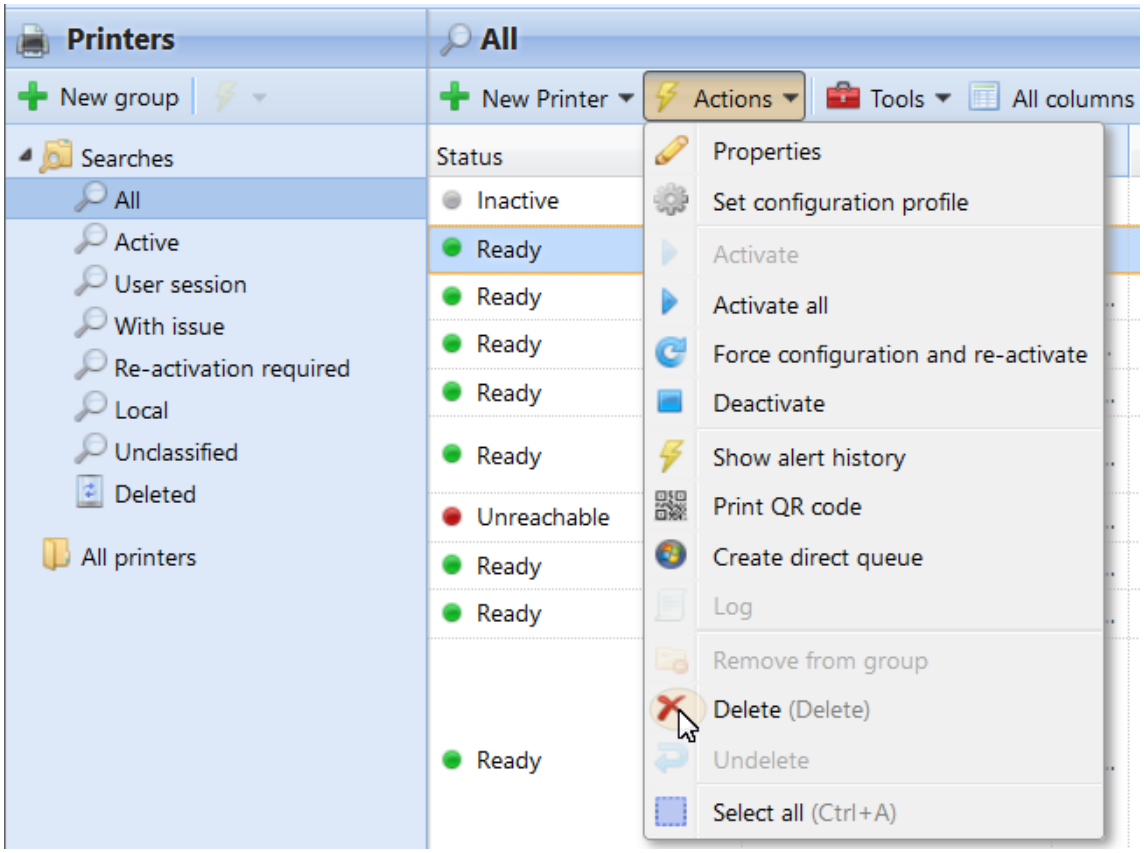
If you delete a printing device, you will not be able to use it but its data will be permanently stored in the MyQ database.

It is not possible to add the same device twice as its MAC address is unique and there cannot be two devices with an identical MAC address in the system. If you want to use the deleted device again, you have to undelete and reactivate it.

9.7.1 Deleting printers

To delete selected printing devices:

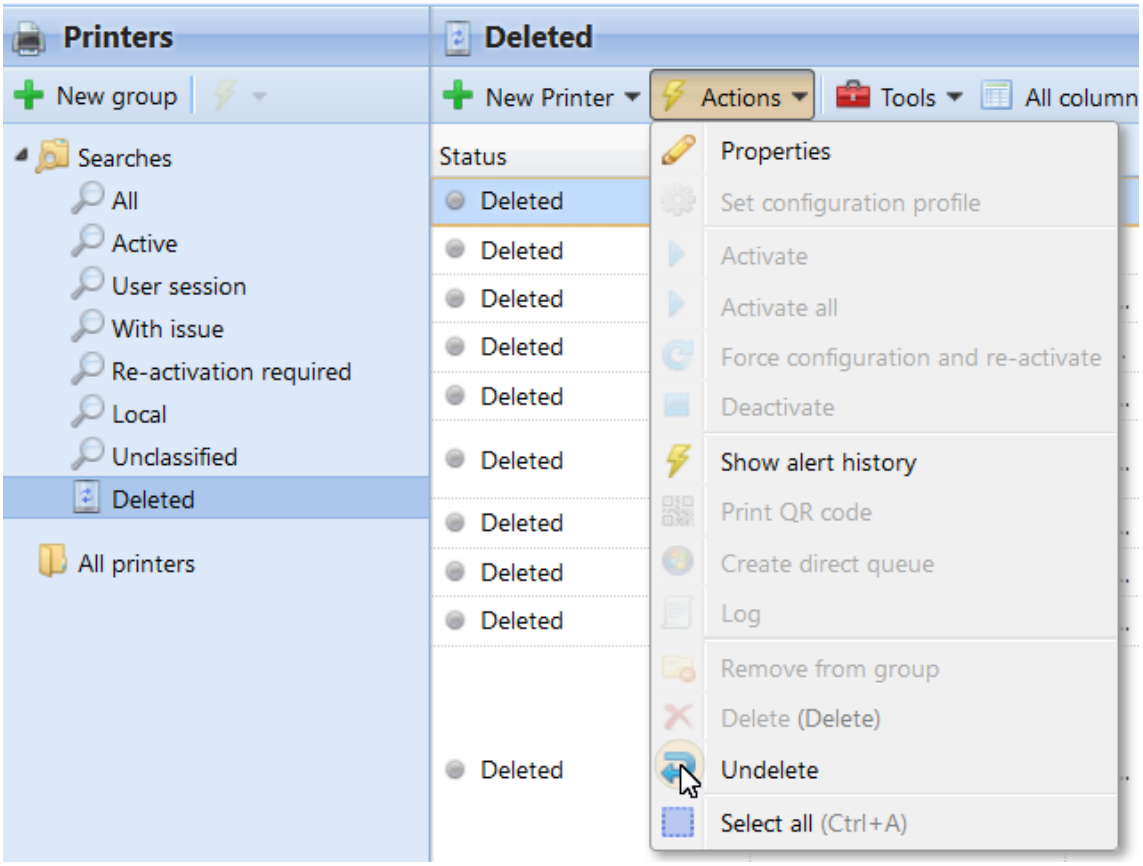
1. Select the printing devices you want to delete from the list on the **Printers** main tab.
2. Click **Actions**. The Actions drop-down box appears.
3. Click **Delete**. You can find the deleted printing devices under the **Deleted** search option.



9.7.2 Undeleting printers

To undelete selected printing devices:

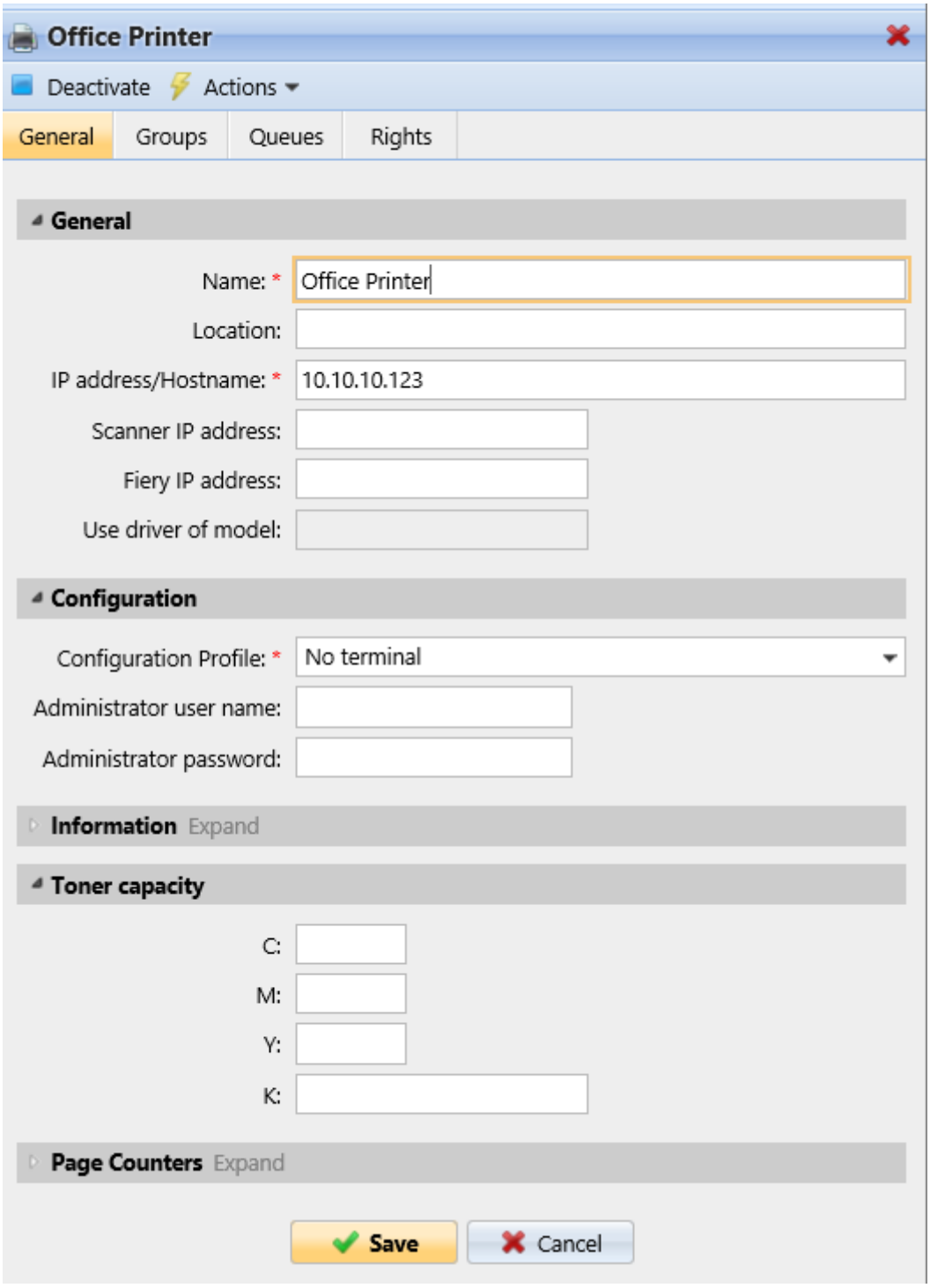
1. On the group tab on the left side of the **Printers** main tab, under **Searches**, select the **Deleted** search option. The list of deleted printing devices appears.
2. On the list, select the printing devices that you want to undelete, and then click **Actions**. The Actions drop-down box appears.
3. In the drop-down box, click **Undelete**. The undeleted printing devices are not active; you have to activate them again.



9.8 Editing printers

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. The properties panel opens on the right side of screen. There you can **Deactivate** it or perform some specific **Actions** on this printer.

The panel is divided into four tabs: **General, Groups, Queues** and **Rights**. On the **General** tab, you can change the printing device settings, on the **Groups** tab, you can add the device to groups, on the **Queues** tab, you can add the printing device to queues and on the **Rights** tab you can give user rights to the device.



9.8.1 Printer information and settings

The settings mentioned below are basic printer settings displayed on each printer's properties panel.

General section

- **Name*** - Name of the printing device, any string can be used.
- **Location** - If it is required, you can specify the location of the printing device here.
- **IP address/Hostname*** - The IP address or hostname of the printing device.
- **Scanner IP address** - The IP address of the scanner (if the device scanner has a different IP than the printing device).
- **Fiery IP address** - The IP address of the Fiery module (if the device is equipped with it).
- **Use driver of model** - Alternative model name. If your printing device is not listed in the current database of supported models, you can enter the type of supported printing device which stands close to your model. For more information, please contact support@myq-solution.com.

Configuration section

- **Configuration Profile** - Select a profile from the drop-down or create a new one to embed the printer by clicking **+Add new**. Then add a **Name**, install the **terminal package**, set the **Login methods** and the **Printer credentials,** as applicable to the printer.
- **Administrator user name** - Enter the admin user name. If you embed the printer separately this user name should match the one in the configuration profile.
- **Administrator password** - Enter the admin password. If you embed the printer separately this password should match the one in the configuration profile.

For Xerox devices, the administrator user name and password are a **mandatory requirement** for the device's remote setup and activation (both for devices with embedded terminals and without).

Information section

- **Brand** - Information about the printing device manufacturer. It is automatically detected from the device.
- **Model** - Information about the printing device model name. It is automatically detected from the device.
- **Serial number** - The printing device serial number. It is automatically detected from the device.
- **MAC address** - The printing device MAC address. It is automatically detected from the device and it is used as a unique identification of the device in the MyQ® system. Therefore, only one device with a particular MAC address can be activated.
- **Asset number** - Additional option for identification of the printing device.
- **Contact** - Email of the person(s) responsible for the printing device maintenance. Multiple emails should be separated only with commas, and without using spaces.
- **Purchase date** - Purchase date of the printing device.
- **Notes** - Additional information about the printing device.

Toner Capacity section

- **C -** Capacity of the printing device CYAN toner.

- **M** - Capacity of the printing device MAGENTA toner.
- **Y** - Capacity of the printing device YELLOW toner.
- **K** - Capacity of the printing device KEY (black) toner.

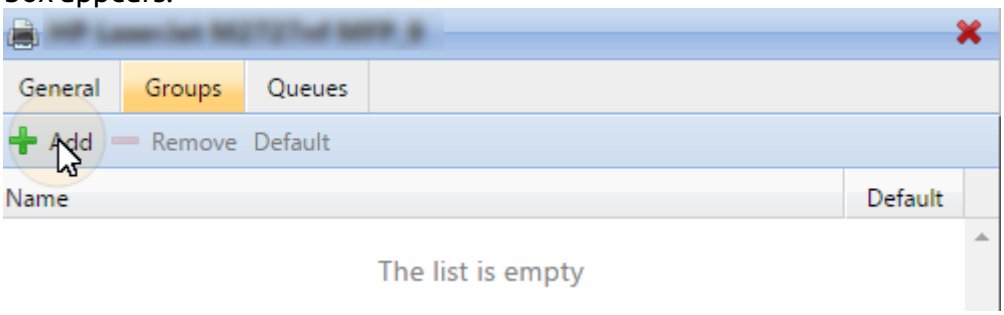
Page Counters section

- **B&W Print** - Total amount of B&W pages printed on the device.
- **Color Print** - Total amount of color pages printed on the device.
- **B&W Copy** - Total amount of B&W pages copied on the device.
- **Color Copy** - Total amount of color pages copied on the device.
- **Single color copy** - Total amount of single color pages copied on the device.
- **Scanner** - Total amount of pages scanned on the device.
- **Fax** - Total amount of incoming faxes printed on the device
- **Print total counter adjust for load balancing** - The entered value is added to the printed pages counter to evenly spread print load between devices in tandem queues.

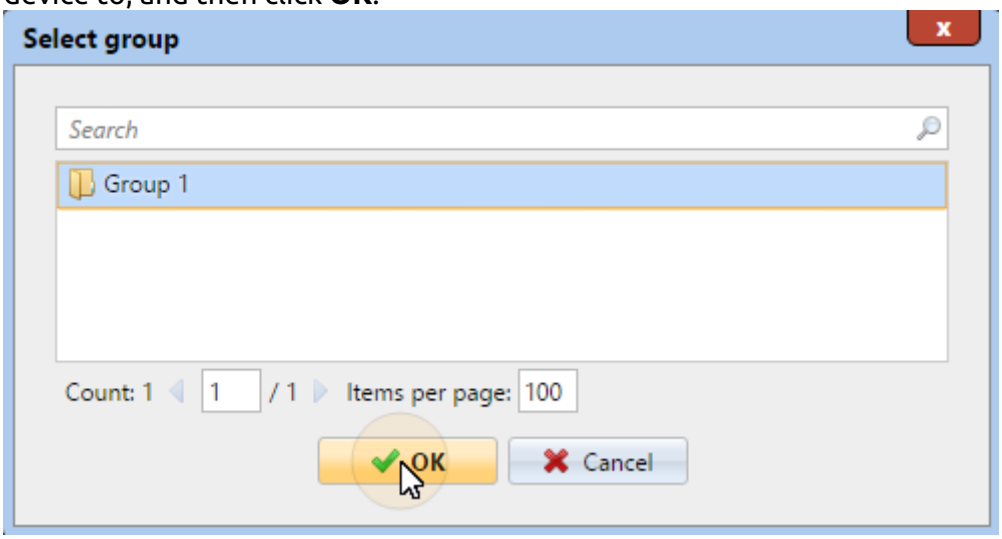
9.8.2 Adding/removing printers to groups

To add a printer to a group:

1. On the bar at the top of the **Groups** tab, click **+Add**. The Select group dialog box appears.



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



Printers can also be added to a group on the **Printers** main tab using drag and drop. Drag the printer and drop it on the group icon on the groups tab on the left side of screen.

To remove a printer from a group:

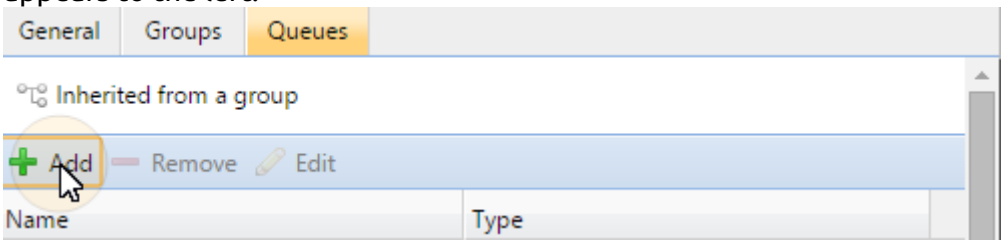
On the bar at the top of the **Groups** tab, click **–Remove**. The group disappears from the **Groups** tab.

To remove selected printing devices from a group on the **Printers** main tab, select the group there, select the printing devices that you want to remove, click **Actions**, and then click **Remove from group** in the **Actions** dropdown.

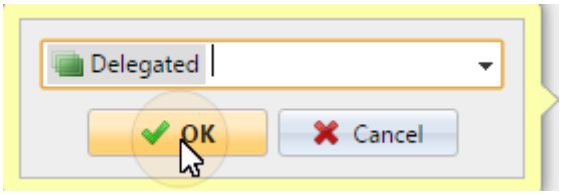
9.8.3 Adding/removing printers to queues

To add a printer to a queue:

1. On the bar at the top of the **Queues** tab, click **+Add**. A search dialog box appears to the left.

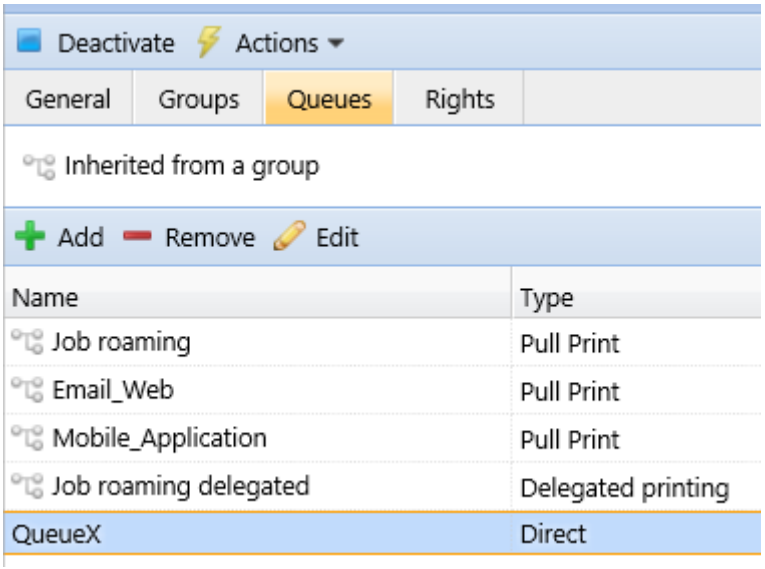


2. In the dialog box, find the queue where you want to add the device to, and then click **OK**.



To remove a printer from a queue:

On the bar at the top of the **Queues** tab, click **–Remove**. The queue disappears from the **Queues** tab.



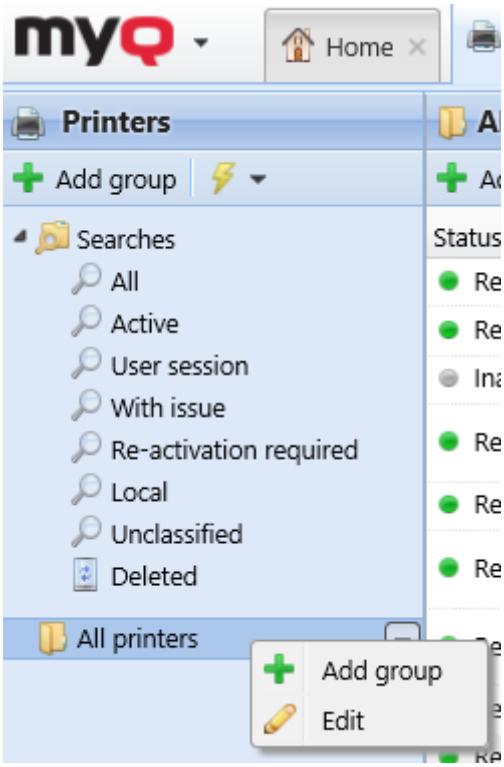
9.9 Printer groups

All printing devices in MyQ can be divided into groups based on their location, model, vendor, category, etc.

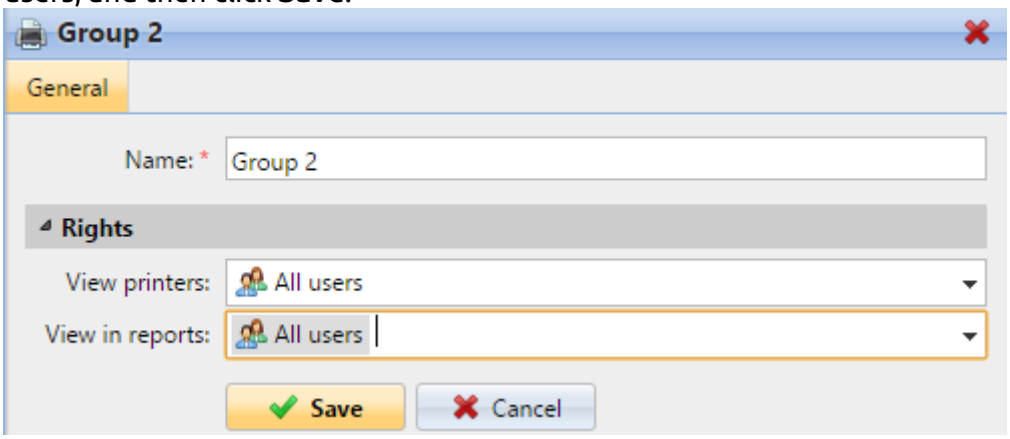
On the **Printers** main tab, you can create new groups of printing devices. There are a number of MyQ functions where groups are used, for example, they can be assigned to particular print queues (see Queues), users can be given rights and restrictions concerning particular groups (see Rights) and reports can be set about particular groups only (see Reports).

9.9.1 Creating printer groups

1. On the group tab on the left side of the **Printers** main tab, right-click **All printers**, and then click **+Add Group** on the shortcut menu. The new group properties panel opens on the right side of screen.



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



Printer group rights:

- **View printers**: The right to see and manage printers from this group on the web user interface.
- **View in reports**: The right to see this group of printers in reports.

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

9.9.2 Deleting printer groups

To delete a group of printing devices:
On the group tab on the left side of the **Printers** main tab, right-click the group you want to delete, and then click **Delete** on the shortcut menu.

9.10 Exporting and importing printers

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

To export the list of printing devices:

1. On the toolbar at the top of the **Printers** main tab, click **Tools**; the tools drop-down box appears.
2. On the drop-down box, click **Export**.

The supported columns in the export are:

printer, location, IPAddress, scannerIP, terminalID, slaveTerminalID, enforcedModel, assetNumber, contact, purchaseDate, Model, Serial number, MAC, B&W print, Color print, B&W copies, Color copies, Scans, Fax
C, M, Y, K , A4 paper, A3 paper, A5 paper, B4 paper, B5 paper, Other paper, Folio paper, Ledger paper, Legal paper, Letter paper, Statement paper, Rest of paper, Print color pages (L1), Print color pages (L2), Print color pages (L3), Copy color pages (L1), Copy color pages (L2), Copy color pages (L3)

You can also import a list of printers from a CSV file containing at least the printer's name and IP address.

The supported columns for the import are:

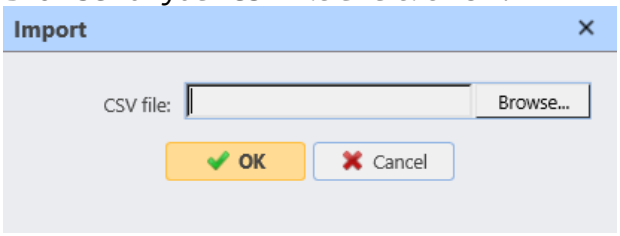
printer, location, IPAddress, scannerIP, terminalID, enforcedModel, assetNumber, contact, Serial number, MAC.

The CSV's header should be **printer;IPAddress**, as seen in the below example:

	A	B	C	D	E	F	G
1	printer	location	IPAddress	scannerIP	terminalID	assetNumber	contact
2	Test		1.1.1.1				
3							

To import the list of printing devices:

1. On the toolbar at the top of the **Printers** main tab, click **Tools**; the tools drop-down box appears.
2. On the drop-down box, click **Import**.
3. **Browse** for your CSV file and click **OK**.



Your printers are now imported and visible in the **Printers** tab.

9.11 Monitoring network printers in offline mode

The usual way of communication between the MyQ system and a printing device is via SNMP protocol. In case this method cannot be used, for example if the printing device does not support the SNMP protocol, you can use the MyQ parser to monitor the number of pages and other basic properties of jobs sent to be printed on a printing device. This accounting method is referred to as **Offline accounting**.

A disadvantage of the offline accounting feature is its inaccuracy. Due to the fact that the communication of MyQ and the printing device is one-sided and restricted to sending print data to the device, it is not possible to check if the data is actually printed. Therefore, MyQ charges the print job based on the information from the job parser received after the job is sent to the printing device. Even if the print job is canceled halfway through the print, it is charged as a whole.

To enable the offline accounting mode of a printing device:

1. On the **Printers** main tab, double-click the printing device to open its properties panel.
2. On the panel, in the **Use driver of model:** text box, enter the value *offline*, and then click **Save**.

Before enabling the offline accounting mode, deactivate the printing device. The **Use driver of model:** setting cannot be changed on activated printing devices. Once you enable the offline accounting mode, reactivate the printing device. See Activating and deactivating printing devices for more information.

9.12 Monitoring local printers

Besides monitoring network printers, MyQ is able to monitor the number of printed pages on devices connected locally, via a parallel port or a USB port. In such cases, the number of printed pages is extracted from the print spooler as it is being processed by the print driver.

To extract the data provided by the spooler, you need to install the MyQ Desktop Client application to all the computers that you print from to MyQ, and set up **Local Print Monitoring** (LPM) there. All jobs sent to selected types of ports will be detected from the print spooler.

Local Print Monitoring is available in MyQ Desktop Client for Windows 8.2+ and MyQ Desktop Client for macOS 10.0+.

A disadvantage of the local print monitoring feature is its inaccuracy. As the communication of MyQ and the local printing device is one-sided and restricted to sending print data to the device, it is not possible to check if the data is actually

printed. Therefore, MyQ charges the number of pages extracted from the spooler when they are sent to the printing device. Even if the print job is canceled halfway through the print, it is charged as a whole.

9.12.1 Accounting on local printers

After a print job is sent to one of the local printing devices, the number of pages and other information about the print job are saved to the MyQ Desktop Client folder of the particular registry file. Once the connection with the MyQ server is established, all the information is automatically transferred to the MyQ server and deleted from the registry. Therefore, it is not necessary to be permanently connected to the MyQ Server online.

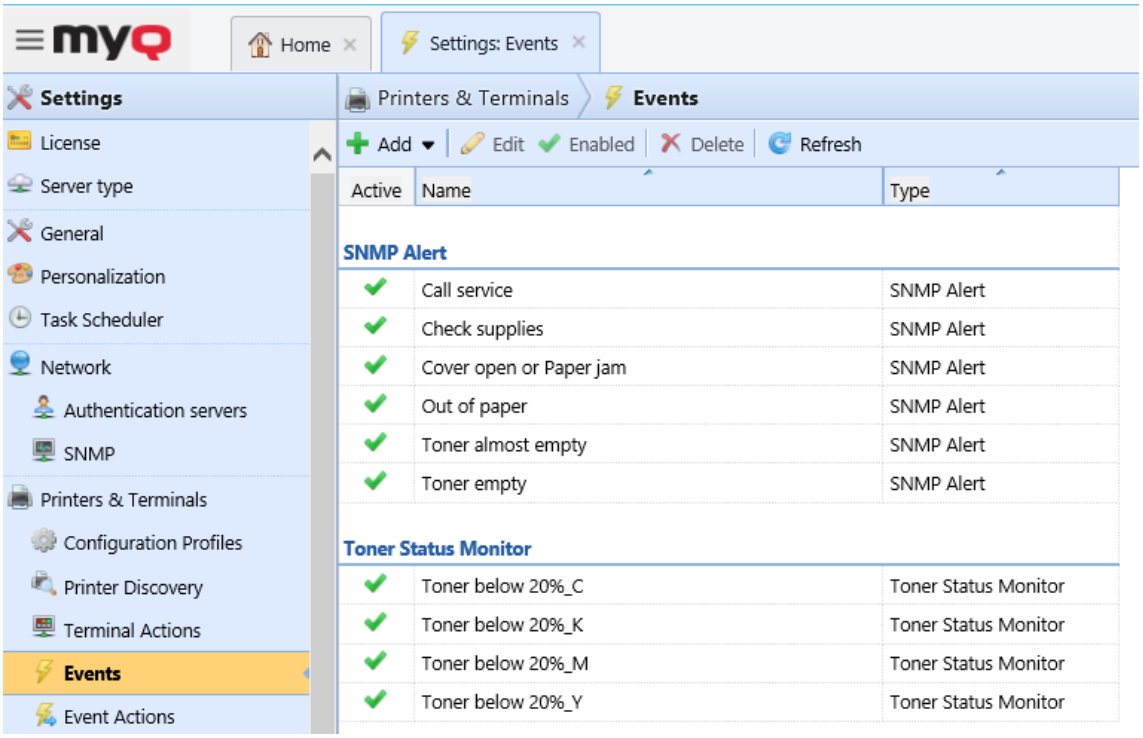
Once the server is connected and data is sent to the server, information about the job appear in an **Info** entry in the MyQ log. Each entry contains information about the user who printed, the printing device that the user printed on and the number of printed pages. The MyQ server automatically creates a new local type printing device. Its name has the following form: *printer@computer*.

An appropriate price list can be set for local printing devices. Therefore, they can be included in the monetary reports. If the user that prints on the local printing device already exists, their prints are simply assigned to them. Otherwise, the job is accounted to the ***unauthenticated user**.

9.13 Printer Events

Printer Events are customizable actions initiated by specific events, which are based on printing devices alerts. The alerts are set up by first defining the events, and then selecting and setting the actions triggered by these events. The actions are of two kinds: as a response to an event on a printing device, MyQ can send an email notification to one or more persons, or it can terminate the user session on the embedded terminal of the device.

The events can be set on the **Events** settings tab and the event actions on the **Event actions** settings sub-tab.



A report with the Event History type can be created, which informs about all events on selected printers or groups of printers during a certain period of time.

9.13.1 Events

There are ten predefined alerts on the **Events** settings tab. These correspond to common situations, such as empty toner or a printer out of paper, or to states of printing devices that require particular actions, such as technical support or supply check. They are triggered by the following states of a printing device:

- **Call service** — The printing device requires authorized technical service.
- **Check supplies** — Consumables of the printing device need to be checked.
- **Cover open or Paper jam** — Either a device cover is open or a paper is jammed.
- **Out of paper** — The printing device is out of paper.
- **Toner almost empty** — One or more toners on the device are almost empty.
- **Toner empty** — One or more toners on the device are empty.
- **Toner below 20%_C** — The Cyan toner on the device is below 20%.
- **Toner below 20%_K** — The Black toner on the device is below 20%.
- **Toner below 20%_M** — The Magenta toner on the device is below 20%.
- **Toner below 20%_Y** — The Yellow toner on the device is below 20%.

Changing the toner level to be monitored

The toner level to be monitored is set to *20%* by default but can be easily changed following the instructions below:

1. On the alerts list on the **Events** tab, double-click the alert. The properties panel opens on the right side of the screen.

2. Change the value in the **Level below** field (in %).
3. Change the name of the alert according to the new monitored level.

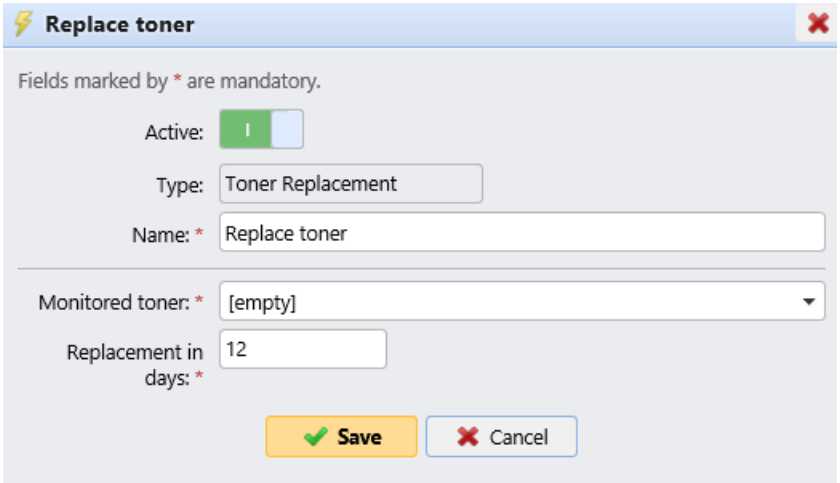
Creating new events

To create a new event, click **+Add** and a select the type of event to be created.

Available event types:

- **SNMP alert** - The SNMP alert event occurs when at least one of the predefined filter passes. If the event has no filters defined, it's never open. You can define the following filters: *Code from, Code to, Severity, Training, Group, Group Index, Brand, Model*.
- **Toner Status Monitor** - The event occurs when the toner level decreases below a predefined threshold. When the toner level rises again to or above the threshold, the event is closed. The monitored toner (*Black toner, Color toner, Any toner*) can be configured.
- **Total Counter Increase** - The event monitors when the print and copy counters on a device repeatedly reach a certain value. For each such event, two values need to be specified:
  - which type of counters should be monitored by this event; possible values are *Print & Copy total, Print & Copy mono, Print & Copy color*.
  - which repeatedly reached values should be monitored - this means that a value X needs to be specified and whenever the counters on a device reach a value that is evenly divisible by X, the actions are triggered
- **Toner Replacement** - The event is used to predict toner depletion. For each such event, two values need to be specified:
  - monitored toner (*Cyan toner, Magenta toner, Yellow toner, Black toner*)
  - number of days that serve as threshold for triggering actions - this means that user specifies value X and whenever the predicted number of days left is less than or equal to this value, the associated actions get triggered

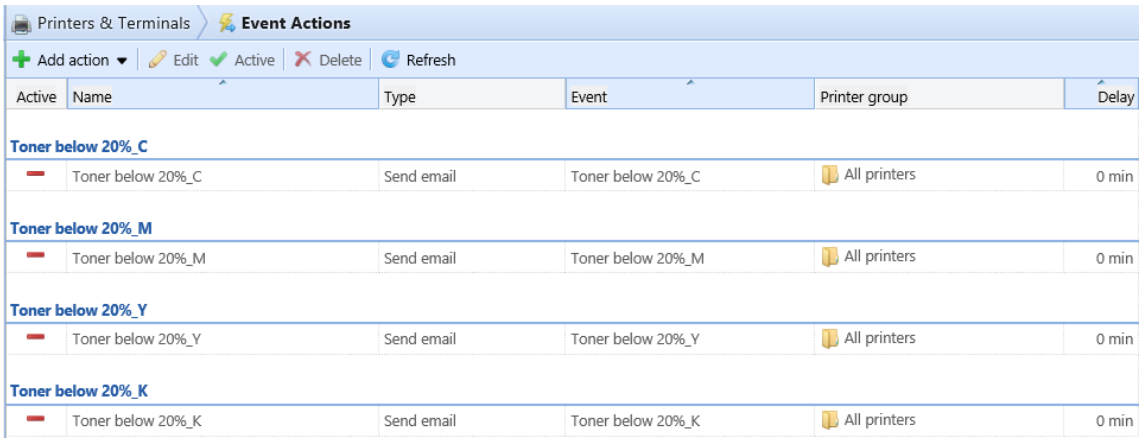
A properties panel opens to the right side of the screen. Fill in the mandatory information and click **Save**.



9.13.2 Event actions

The two available actions are sending an email and terminating the user session on an embedded terminal. Each action can be either applied to all printers, or it can be restricted to specific groups of printers.

There are four predefined event actions: **Toner below 20%_C**, **Toner below 20%_K**, **Toner below 20%_M**, **Toner below 20%_Y**. These actions apply to all printers and respond to the **Toner below 20%_C, Toner below 20%_K, Toner below 20%_M, Toner below 20%_Y** events.



To create a new event action:

1. Go to **MyQ, Settings, Event Actions** and click on **+Add action**. Select the type of action from the drop-down: **+Send email** or **Log out user**.
2. On the panel, set all the options of the action and click **Save**.

Setting event actions

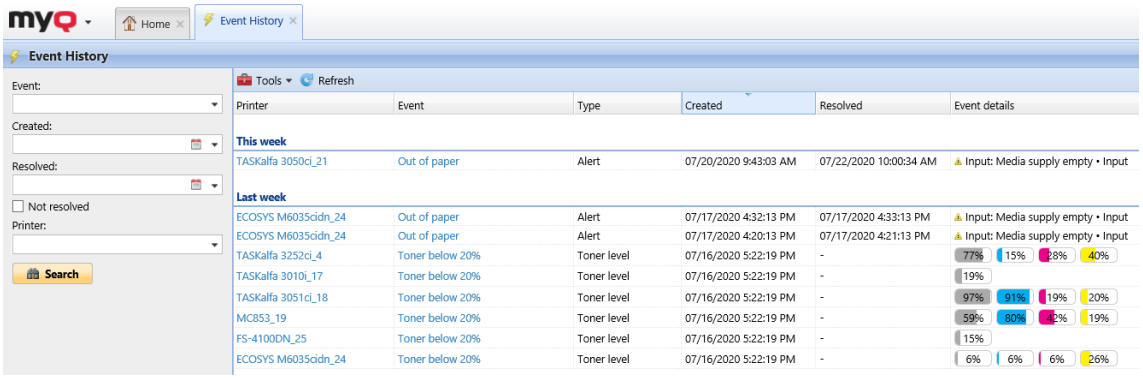
The parameters described below belong to the **Send email** and **Log out user** event actions.

- **Enabled** - Enable or disable the event action.
- **Name** - Add a name for the action
- **Event** - Select the event that will initiate this action.
- **Printer Group** - Select the printer group(s) that the action applies to from the list
- **Delay** - Set a time period after which the email is sent (in minutes).
- **Recipient** - Enter the email recipient(s). You can use the *%PRN.CONTACT%* parameter to send the email to the device's contacts.
- **Subject + Message** - Enter the email subject and message. You can use the following parameters
  - %PRN.NAME% — name of the printer
  - %PRN.IP_ADDRESS% — IP address of the printer
  - %PRN.SERIAL_NUMBER% — serial number of the printer
  - %PRN.MODEL% — model name of the printer
  - %PRN.PRINTER_MONO% — counter of B&W pages printed on the device
  - %PRN.PRINTER_COLOR% — counter of color pages printed on the device
  - %PRN.COPIER_MONO% — counter of B&W pages copied on the device

- %PRN.COPIER_ COLOR% — counter of color pages copied on the device
- %PRN.SCANNER% — counter of scanned pages sent to email or folder
- %SUPPLY.INFO% — all of the toner supply identifiers separated by semicolon
- %TONER_C.LEVEL% — C toner level in percentage
- %TONER_M.LEVEL% — M toner level in percentage
- %TONER_Y.LEVEL% — Y toner level in percentage
- %TONER_K.LEVEL% — K toner level in percentage
- %PRN.ASSET_NO% — the asset number of the printer
- %EVENT.TONER.LEVEL% — toner level information
- %EVENT.TONER.INFO% — toner information

Event History

The MyQ administrator can view the **Event History** on the MyQ Web Administrator interface, in **MyQ, Event History**:

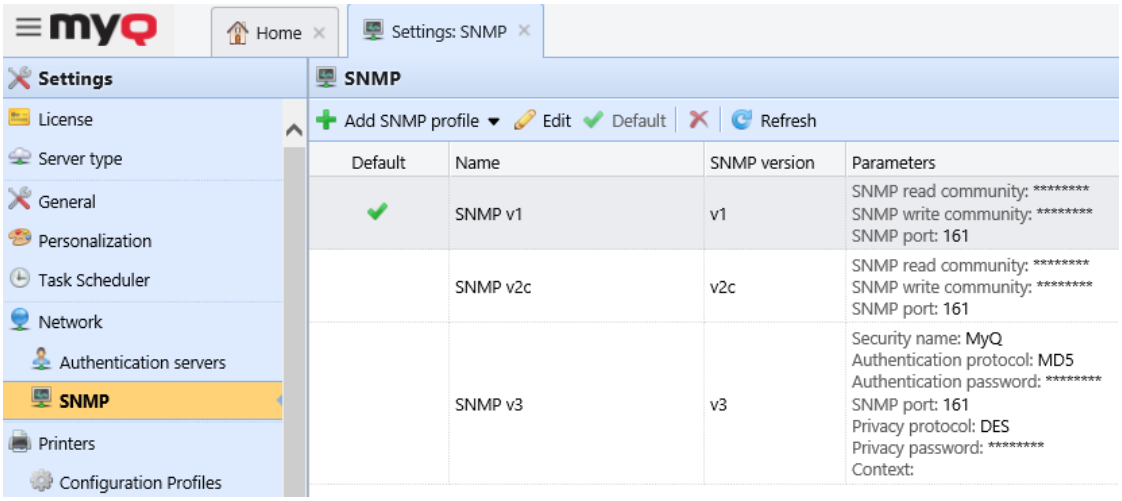


9.14 SNMP profiles

By default, the SNMP v1 protocol is used for communication with printing devices in the MyQ system. Instead of it, you can use the more recent SNMP v2c protocol or the SNMP v3 protocol, which significantly increases the communication security with a printing device.

Multiple SNMP profiles can be created in MyQ, and each printing device can be assigned one of the profiles. This way, you can have one profile for all printing devices with a particular SNMP configuration.

The default SNMP profile can be changed. To make any SNMP profile the default one, select it on the **SNMP** settings tab, and then click **Default** on the bar at the top of the tab (or right-click the profile, and then click **Default** on the shortcut menu).

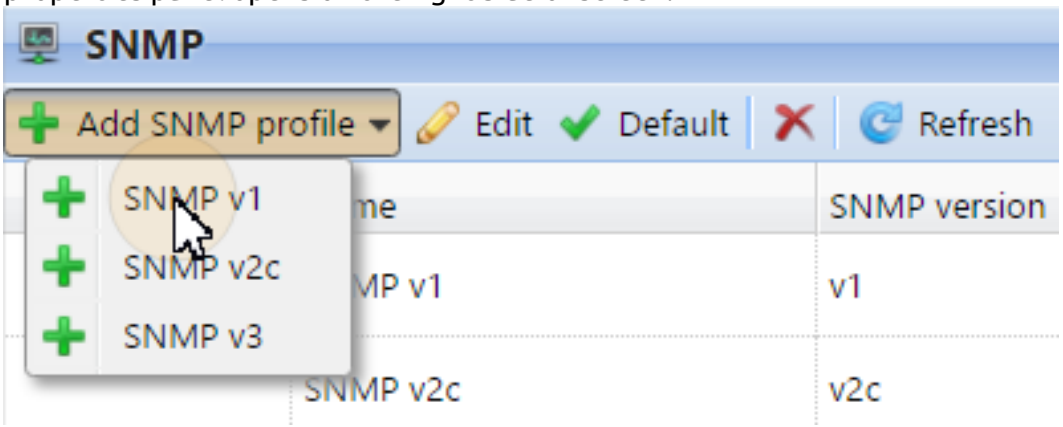


9.14.1 Adding and editing SNMP v1 and v2c profiles

With the SNMP v1 and v2c protocols, a single string called "*SNMP Community string*" is used to allow access to the device. Only two parameters need to be set in MyQ: the **SNMP read community** parameter and the **SNMP write community** parameter. Their values have to match the values of their counterparts on the printer's Web User Interface (Read Community, Write Community).

To add a new SNMP v1 or v2c profile:

1. On the MyQ Web Admin Interface, open the **SNMP** settings tab. (**MyQ, Settings, SNMP**)
2. On the bar at the top of the **SNMP** tab, click **+Add SNMP profile**, and then click **+SNMP v1** or **+SNMP v2c** on the shortcut menu. The new SNMP profile properties panel opens on the right side of screen.

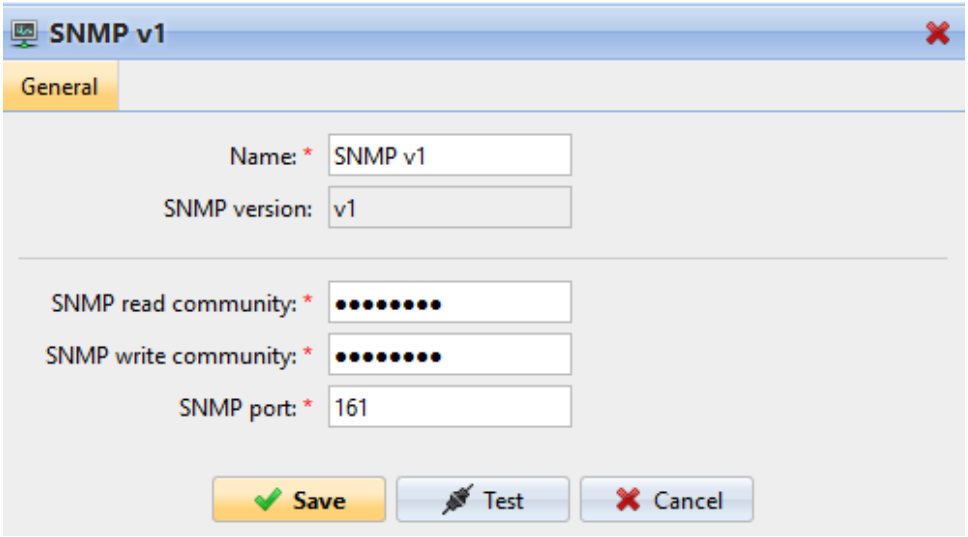


3. On the panel, enter the name of the profile, set the parameters, and then click **Save**. The new profile is displayed on the list on the SNMP tab.

To open and edit a SNMP v1 or v2c profile:

1. To open the SNMP profile properties panel, select the profile on the **SNMP** settings tab, and then click **Edit** (or right-click the profile, and then click **Edit** on

the shortcut menu, or double-click on the profile). The profile's properties panel opens on the right side of screen.
2. On the SNMP profile properties panel, you can change the profile's name and enter the values of the **SNMP read community** parameter and the **SNMP write community** parameter, according to the values that are set on the printer's Web User Interface.
3. Click **Save** to submit and store the changes.



9.14.2 Adding and editing SNMP v3 profiles

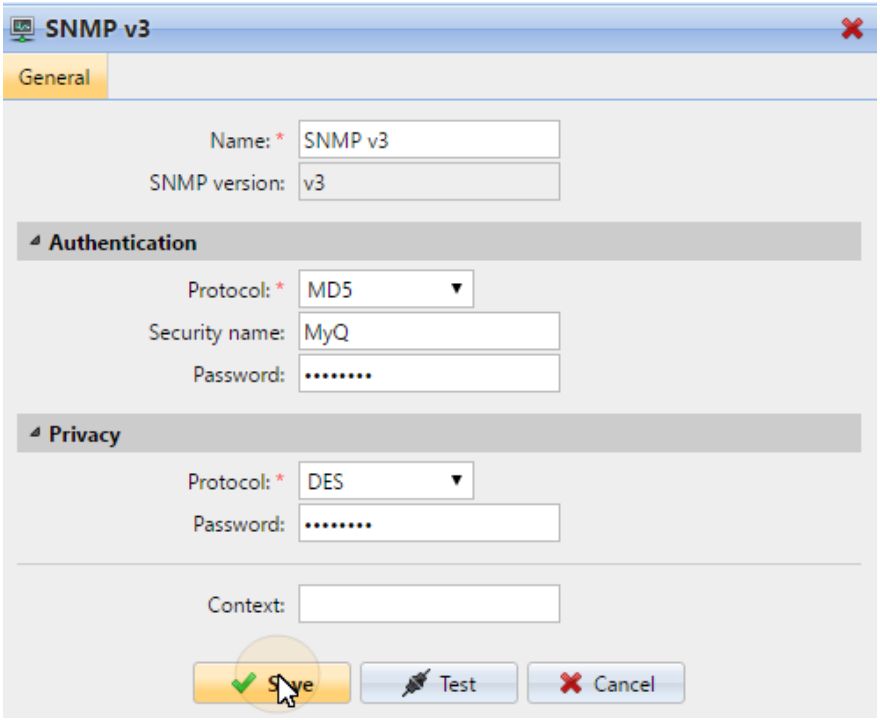
The SNMP v3 protocol contains additional elements of security, such as authentication and encryption. Each of these elements is set on the printing device and needs to be accordingly set in MyQ.

To add a new SNMP v3 profile:

1. On the MyQ Web Interface, open the **SNMP** settings tab. (**MyQ, Settings, SNMP**).
2. On the bar at the top of the **SNMP** tab, click **+Add SNMP profile**, and then click **+SNMP v3** on the shortcut menu. The new SNMP profile's properties panel opens on the right side of screen.
3. On the panel, enter the name of the profile, set the parameters, and then click **Save**. The new profile is displayed on the list on the **SNMP** tab.

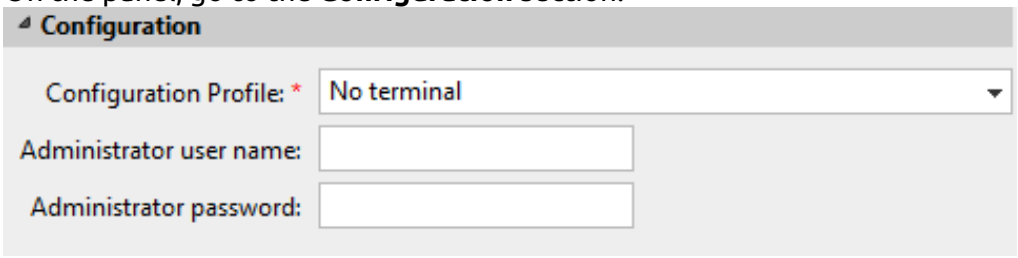
To open and edit a SNMP v3 profile:

1. To open the SNMP profile properties panel, select the profile on the **SNMP** settings tab, and then click **Edit** (or right-click on the profile, and then click **Edit** on the shortcut menu). The properties panel opens on the right side of the screen.
2. On the SNMP profile properties panel, you can change the profile's name, set its authentication parameters, its privacy parameters and eventually enter a context name. The values of all of the parameters have to match the values that are set on the printer's Web User Interface.
3. Click **Save** to submit and store the changes.

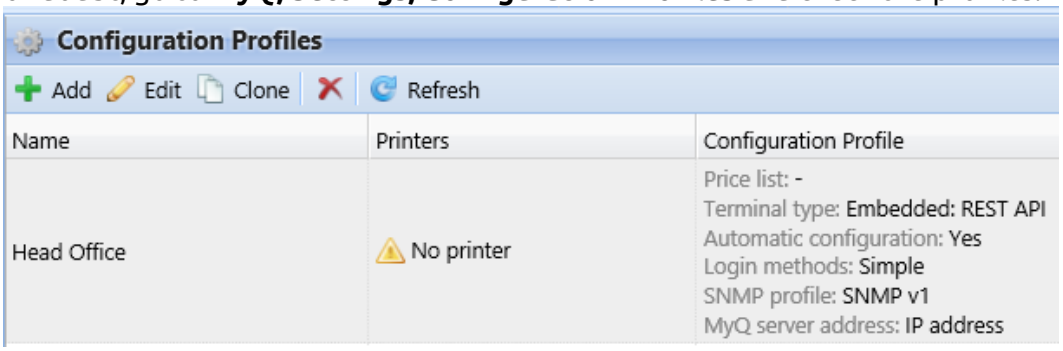


9.14.3 Attaching SNMP profiles to printers

1. On the MyQ Web Administrator Interface, open the **Printers** main tab (**MyQ, Printers**).
2. On the tab, select the printing device, click **Actions**, and then click **Properties.** The printing device's properties panel opens on the right side of the screen.
3. On the panel, go to the **Configuration** section.



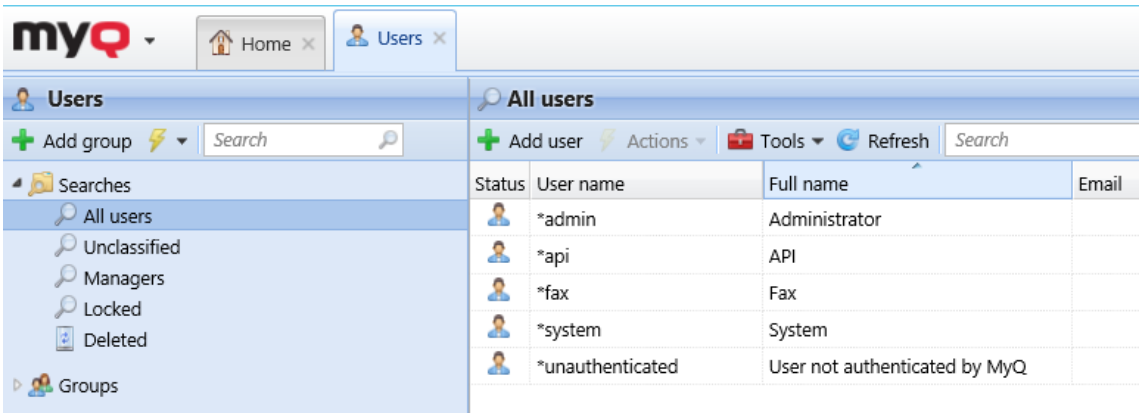
4. Select a **Configuration Profile** that has the SNMP profile attached to it. In case of doubt, go to **MyQ, Settings, Configuration Profiles** and check the profiles.



10 Users

This topic discusses one of the key MyQ functions: setting and management of users (user accounts). It covers the following subjects:

- Overview, registration, adding, importing, synchronizing and deleting users: List of users, Automatic user registration, Adding and Deleting users manually.
- PIN generation: Generating PIN.
- Individual user settings: Editing user accounts, Enable user profile editing, User Groups, Exporting users.
- Job policies concerning users and printers: Policies and Effective Policies for specific users.
- Special administrative rights: Rights.
- Securing the personal data of MyQ users, anonymization: Securing MyQ users personal data.
- User synchronization from LDAP, CSV files, or Azure Active Directory, together with manual and scheduled runs of synchronizations: User import and synchronization.
- User authentication using an LDAP or Radius server: Using External Authentication Servers.
- Identifying the owner of a sent job: Detecting job owners.



10.1 List of users

On the **Users** main tab, you can see users and information about them. With the **All users** search option selected, you see a list of all the users that are currently in the system.

Apart from this search option, you can also choose from:

- **Unclassified** - select to display only the users that do not belong to any group
- **Managers** - select to display only group managers
- **Locked** - select to display users whose accounts have been locked
- **Deleted** - select to display only deleted users

10.1.1 Default system users

The database of every installation of MyQ contains five default system users. These users are used for administration of the MyQ system and cannot be deleted.

1. ***admin** - This is the MyQ administrator account. It is used for administration of the MyQ system on the Web Administrator User Interface.
2. ***api** - MyQ uses this account to connect to external applications.
3. ***fax** - All printed faxes are charged to this account.
4. ***unauthenticated** - If there are any printed, copied or scanned pages that for some reason cannot be assigned to concrete users, they are charged to this account. This can happen, for example, if the print server is not available and users print in an emergency, offline mode on a printing device. It can also happen if someone prints directly on a printing device, bypassing the MyQ system. In such
cases, you might need to check the printing device security settings.
5. ***system** - All the actions performed by the MyQ system are charged to the ***system** user.

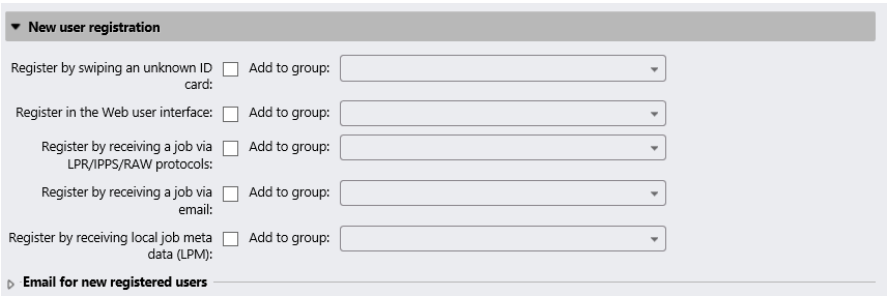
10.2 Automatic user registration

Usually, only registered users can access the MyQ system and use the services there.

However, in some exceptional cases, it might be useful to enable automatic registration and thus provide all users with access to MyQ. Users can be automatically registered to the MyQ system in two ways:

- either they can register themselves on the MyQ Web User Interface or on an embedded terminal,
- or they can be automatically registered after sending a job to MyQ from their computer or via email as an attachment.

On the **Users** settings tab, under **New user registration**, you can enable and disable these options, and for each option, you can select one or more groups where the registered users will be added to.



Register by swiping an unknown ID card

> This feature is only compatible on Kyocera Terminals 7.5 and lower, Ricoh 6, and Samsung when using Print Server 8.2. For compatibility on other terminals please use Print Server 10.1+.

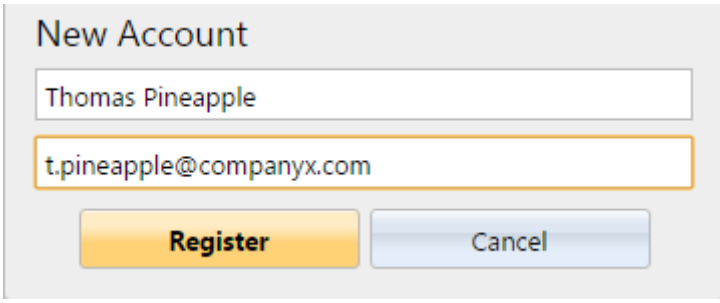
With this option selected, users can register themselves at a printing device with an embedded terminal by swiping an unknown ID card at the card reader.

After they swipe the card, a new account called **anonymX** (anonym1, anonym2, etc.) is created and they are automatically logged in to the terminal. There, they can edit the account using the **Edit Account** embedded action. If the **Enable user profile editing** option is enabled on the **Users** settings tab, under general, they can change their full name, email and language; otherwise they can only change the language.

Register on the MyQ Web User Interface

With this option selected, users can create accounts on the MyQ Web User Interface.

1. Click **New Account** at the bottom-left corner of the MyQ login window. The New Account registration widget opens.
2. Enter a name and email address.
3. Click **Register**. The newly created account is given the same name as the email address entered.



After creating the account, the **New account created** message box appears. After clicking **Show PIN** there, the user can see their user name and password.

The user receives an email with information about the new account. The default message contains their user name and PIN. You can change the message in the **Email for new registered users** section.

Register by receiving a job via LPR/IPPS/RAW protocol

With this option selected, users can register themselves by sending a print job from their computer via the LPR, IPPS or RAW protocol.

After a user sends the job, MyQ detects their name according to the currently set method of user detection, checks whether the user is already registered, and in case of an unknown sender user name, it creates a new account. The newly created account is given the same name as the job sender name detected this way.

Register by receiving a job via email

With this option selected, users can register themselves by sending an email with an attached printable document. For more information about sending print jobs via email, see Printing from email and from the MyQ Web UI.

The name of the newly created account is the email address that the email was sent from.

The user receives an email reply with information about the new account. The default message contains the user name and PIN. You can change the message in the **Email for new registered users** section.

Email for new registered users

Here you can change the email body that informs the new users about their account.

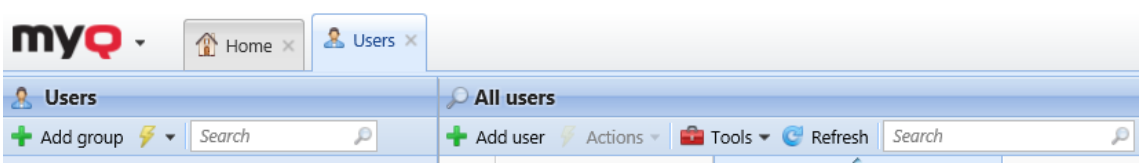
The values of the **%pin%**, **%username%** and the **%realname%** parameters are the user's PIN, user name and real name.
By clicking **Revert values**, you can reset the email body to the default.

10.3 Adding and Deleting users Manually

10.3.1 Adding Users

To manually add a new user, follow these steps:

1. On the **Users** main tab, click **+Add User**. The properties panel of the new user opens on the right side of screen.
2. On the panel, enter the username and full name of the user, and eventually set other data of the user account (see User information and settings), and then click **Save**.



10.3.2 Deleting Users

When you delete a user, they are removed from all groups (including **All users**) and are marked **Deleted**. They are not completely removed from the MyQ database and can be undeleted.

10.3.3 Deleting users

To delete a user:

1. On the **Users** main tab, select the users that you want to delete, and then click **Actions**. The **Actions** drop-down box appears.
2. In the **Actions** drop-down box, click **Delete**. You can find the deleted users under the **Deleted** search option.

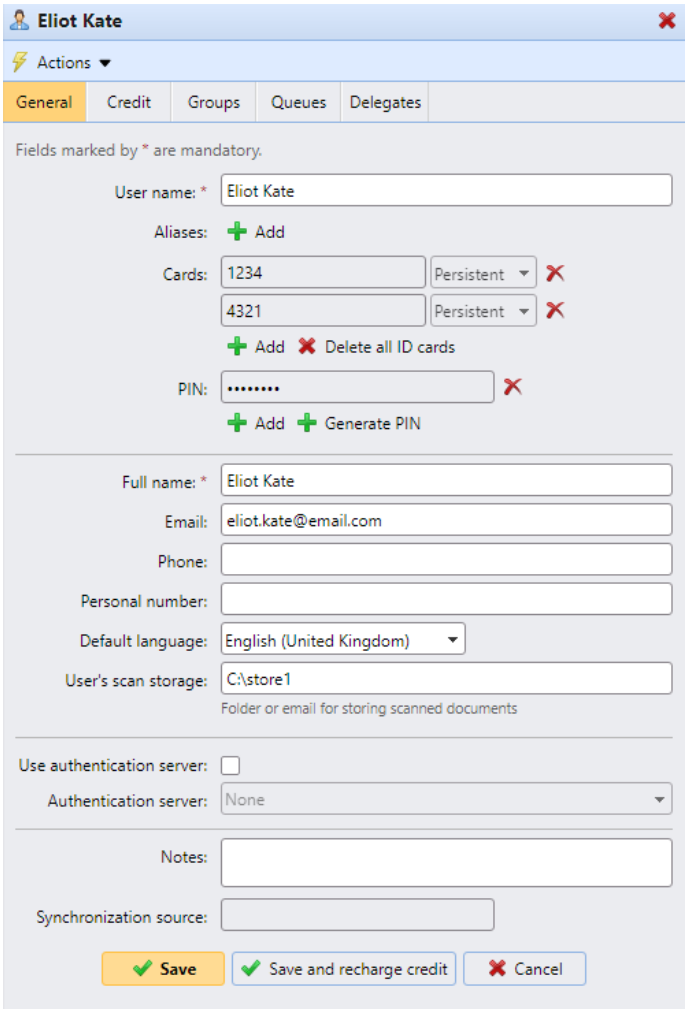
10.3.4 Undeleting users

To undelete a user:

1. On the **Users** main tab, under searches, select the **Deleted** search option. The list of deleted users appears.
2. On the list, select the users that you want to undelete, and then click **Actions**. The **Actions** drop-down box appears.
3. Click **Undelete**.

10.4 Editing user accounts

Each individual user has their own properties panel. To open the panel, double-click the user on the list on the **Users** main tab (or right-click the user, and then click **Edit**). The properties panel opens on the right side of the screen. The panel is divided into four tabs: **General**, **Groups**, **Queues** and **Delegates**. If Credit accounting is enabled for the user, the **Credit** tab is also available.

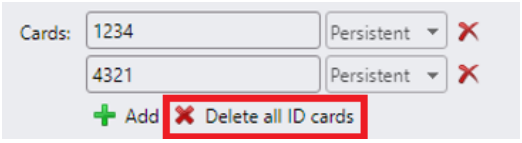


10.4.1 User information and settings

- **User name** - Here you can enter or change the user name. This entry is mandatory. It is unique and is used to identify the user. It is compared to the

parameter obtained from the **User detection method**. For more information, see User detection methods.

- **Alias** - In addition to their user name, each user can have a number of aliases. MyQ treats the aliases as alternative user names.
- **Card** - Here you can set the number of the user's identification card. If the **Enable deleting all ID cards** option is enabled in **MyQ**, **Settings**, **Users**, the **Delete all ID cards** button is available here.

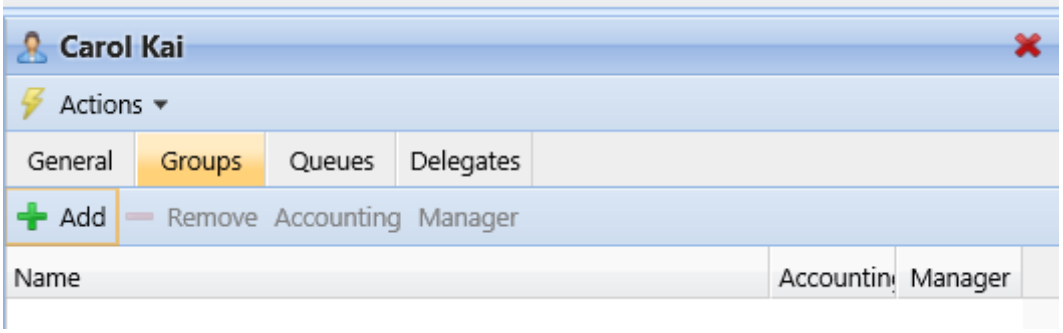


- **PIN** - Here you can manually create or automatically generate new PIN code for the user and remove existing ones. An unlimited number of PINs can be added.
- **Full name** - Here you can enter or change the user's full name. This entry is mandatory.
- **Email** - Here you can enter or change the user's email.
- **Phone** - Here you can set the user's phone number
- **Personal number** - The personal number can be used as the user ID in MyQ. The primary ID is the **user name** property.
- **Default language** - Here you can select the language of the user's sessions on MyQ embedded terminals.
- **User's scan storage** - Here you can set the folder or email, where scanned documents are saved. For more information, see Scan to Me.
- **Use authentication server** - If you select this option, an LDAP server is used for the user authentication. The user uses their LDAP credentials to authenticate to MyQ instead of having a password set in MyQ. Select the domain for the authentication on the setting below.
- **Authentication server** - Here you can select the LDAP domain for user authentication.

10.4.2 Adding users to and removing them from groups

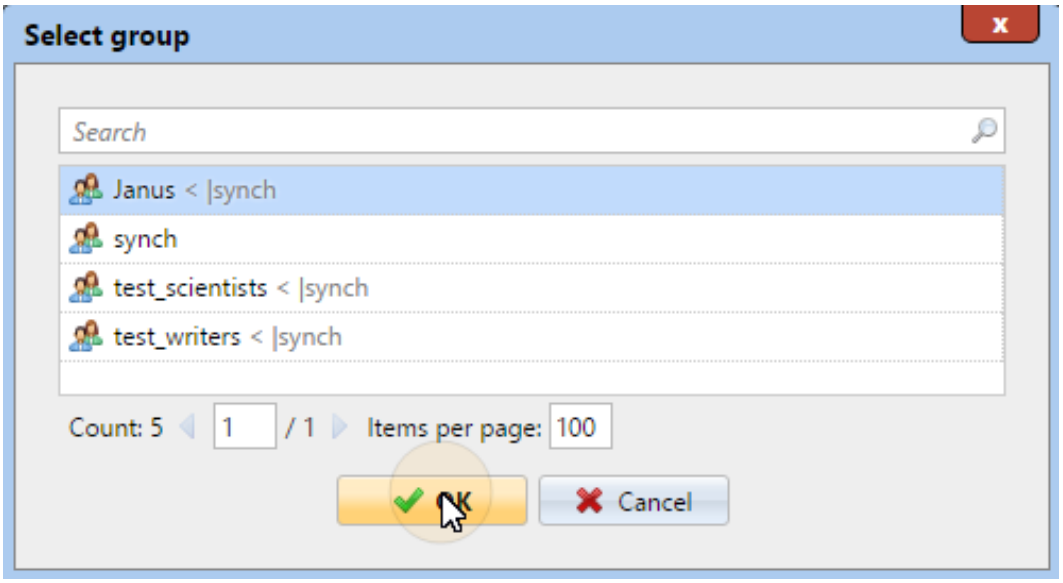
To add a user to a group on the user properties panel, in the **Groups** tab:

1. On the bar at the top of the **Groups** tab, click **+Add**. The Select group dialog box appears.



2. In the Select group dialog box, select the groups where you want to add the user to.

3. Click **OK**.



A user can also be added to a group on the **Users** main tab using drag and drop. Drag the user and drop it on the group icon on the groups tab on the left side of the screen.

Default group and Group manager options

On the bar at the top of the **Groups** tab, you can see two options: **Accounting** and **Manager**.

The **Accounting** group is the group where the user is counted in reports (see Reports) and it is set to every user by default.

If you make a user the **Manager** of a certain group, the user can see jobs and reports of all the users from the group. If this group contains subgroups, the user inherits the Manager role also for all these subgroups. To make the user a manager of a group, select the group and click **Manager**.

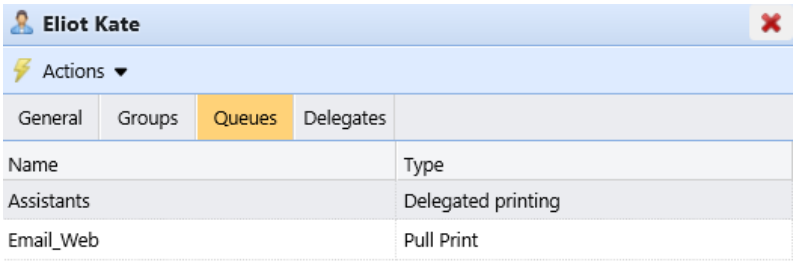
To remove a user from a group:

On the bar at the top of the **Groups** tab, click **–Remove**. The group disappears from the **Groups** tab.

To remove selected users from a group on the **Users** main tab, select the group there, select the users that you want to remove, click **Actions**, and then click **Remove from group** in the **Actions** drop-down box.

10.4.3 Queues Tab

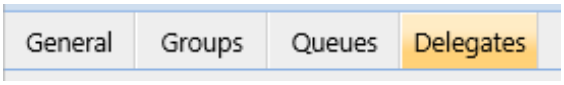
On the **Queues** tab, you can see all the queues where the user can send jobs.



10.4.4 Selecting User Delegates

On the **Delegates** tab, you can select delegates (users or groups) who are able to print all of the delegating user jobs sent to a **Delegate** printing type of queue. The delegate will see the jobs on the embedded terminal. The print jobs are displayed in the form: (*Sending user**Name of the print job*). For more information about the delegate printing feature, see Delegated printing.

Users need to have rights to a delegate printing type queue to be able to select delegates.



To select delegates:

On the bar at the top of the **Delegates** tab, in the **Delegates** combo box, enter the user (or the group of users), and then click **Save**. This way, you can add multiple users (or groups of users).

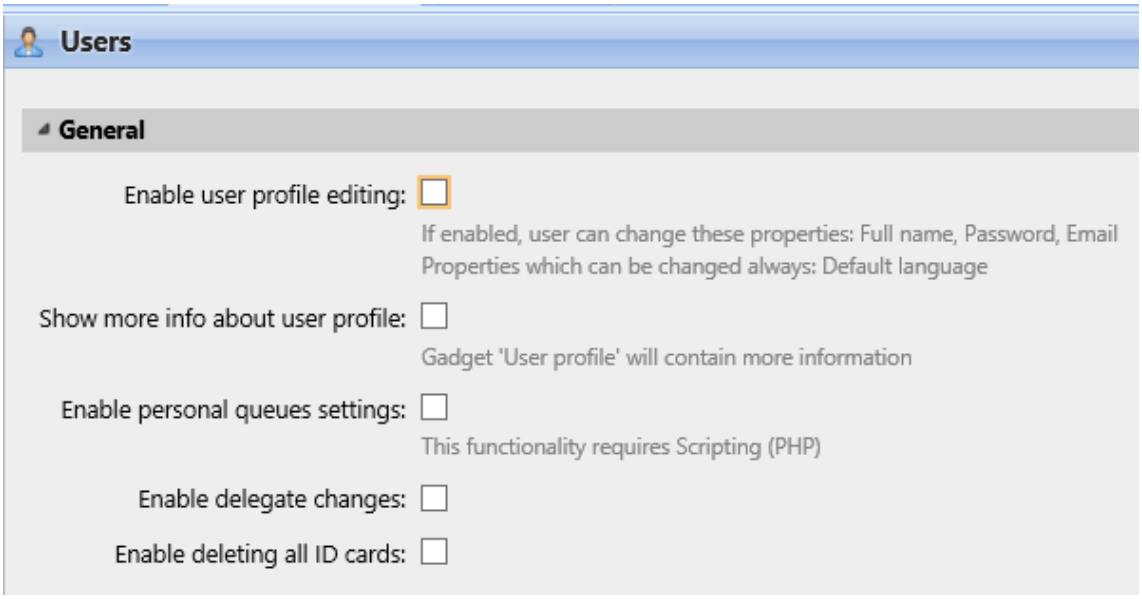
To deselect delegates:

On the bar at the top of the **Delegates** tab, in the **Delegates** combo box, point to the user (or group of users) that you want to deselect, and then click the remove button (**X**) on the right side of the user (or group of users).

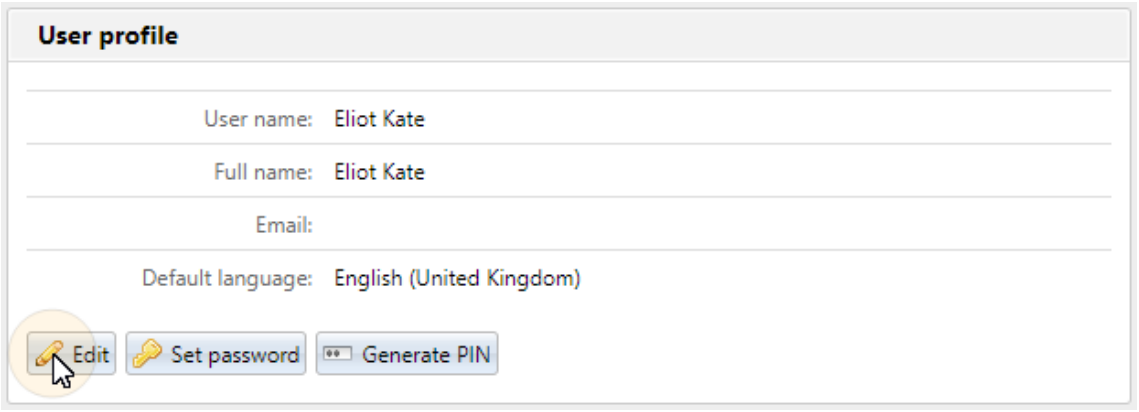
10.5 Enable user profile editing

By default, all users can change their default language on their MyQ Web accounts and on some embedded terminals, while the rest of their properties can be changed only by the administrator. On the **Users** settings tab, you can provide users with additional editing options: change their full name and email.

To enable users to change their full name and email, select the **Enable user profile editing** option.



Once user profile editing is enabled, users can open their profile management options by clicking **Edit** at the bottom-left corner of the **User profile** widget on their MyQ Web accounts.



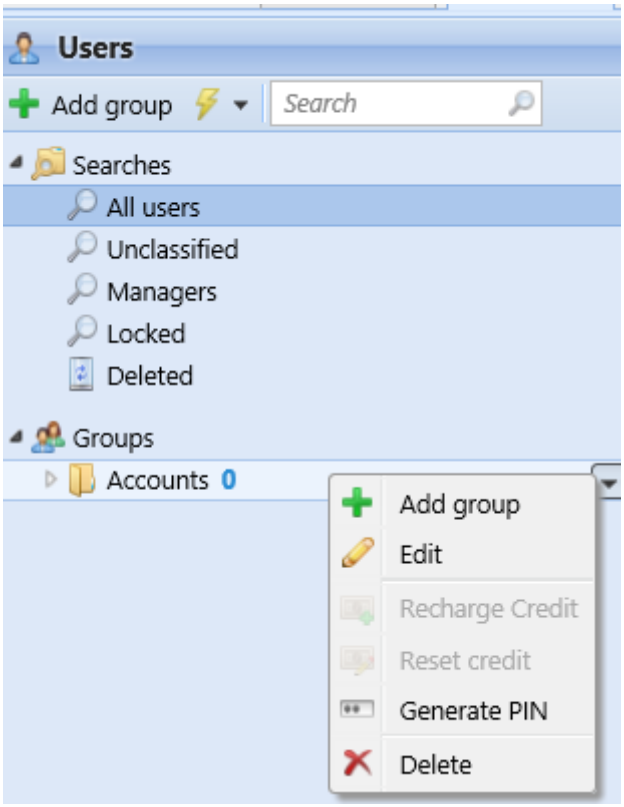
10.6 User groups

On the **Users** main tab, you can create new user groups. In MyQ, different groups of users can be given different access rights to print queues (see Queues), print functions, such as color printing or scanning (see Policies), and reports (see Reports).

10.6.1 Creating user groups

To create a group, do the following:

1. On the group tab on the left side of the **Users** main tab, point on the group under which you want to create the new group. A drop-down box appears to the right.
2. On the drop-down box, click **+Add Group**. The new group properties panel opens on the right side of the screen.



3. Enter a name for the new group.
4. Click **Save**.

To select delegates for the group:

1. Open the group properties panel by double-clicking on the group.
2. On the bar at the top of the **Delegates** tab of the group properties panel, in the **Delegates** combo box, enter or select the user (or the user group).
3. Click **Save**. This way you can add multiple users (or the user group).

To deselect delegates for the group:

On the bar at the top of the **Delegates** tab, in the **Delegates** combo box, point to the user (or user group) that you want to deselect, and then click the remove button (**X**) on the right side of the user (or user group).

10.6.2 Deleting user groups

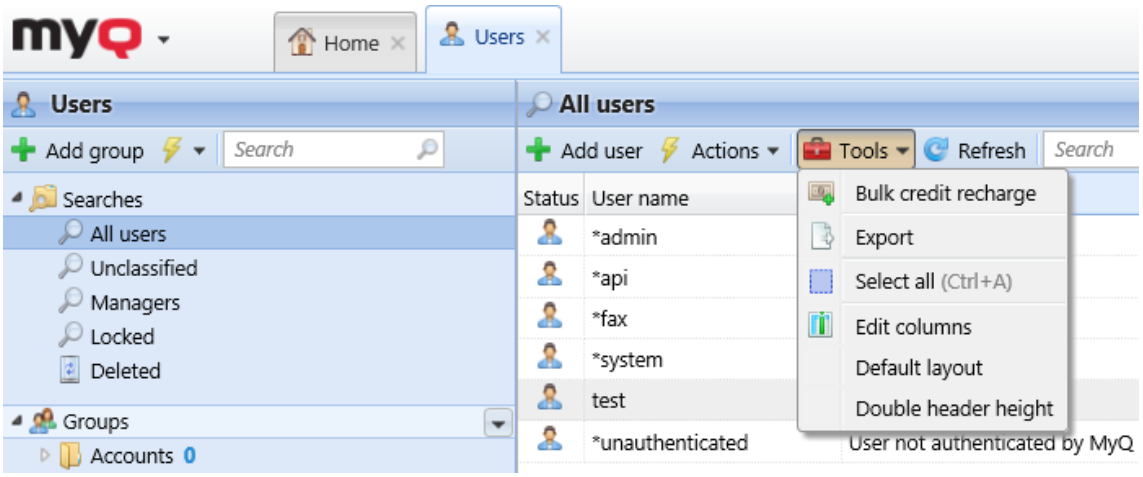
1. On the group tab on the left side of the **Users** main tab, right-click the group that you want to delete.
2. Click **Delete**.

10.7 Exporting users

In case you need to export the list of MyQ users to a CSV file — for example if you want to use the CSV file for user synchronization — you can do so on the **Users** main tab of the MyQ Web Interface.

To export the list of users:

1. Click **Tools** on the toolbar at the top of the **Users** main tab.
2. Click **Export** in the **Tools** drop-down box. The Users Export dialog box appears.
3. In the dialog box, select the group you want to export and click **OK**. The file is downloaded to your default *Downloads* folder.



10.8 Security and Anonymization

Except for the data shown in MyQ reports, everything stored in MyQ is necessary for the functioning of the system. The data can be accessed only by people with administrator rights in MyQ and are not processed by the system or disclosed to third parties. As to the information shown in MyQ reports, it is fully under the control of the MyQ administrator, who can provide certain users with rights to view information related to other users or groups.

MyQ users can access their personal data within the MyQ system and upon their request, the MyQ administrator can erase the data by anonymizing the user. The following sections show how the users can access the data and how to anonymize the users.

These options are closely related to the General Data Protection Regulation (GDPR), which aims to protect the personal data of EU citizens. For more information about how the GDPR is implemented in MyQ, contact MyQ Support.

10.8.1 Providing users with their personal data

On their MyQ Web accounts, MyQ users can see the **User profile** gadget with the personal information stored in MyQ.

On their Web account, MyQ users can generate reports related to their activity within MyQ, such as printing, copying and scanning to see what information is available in these reports (see Reports).

Users may also contact the MyQ administrator with a request to provide them with the data.

The MyQ administrator can create a custom dashboard message informing all users about the data protection options and include the admin email contact via the **%admin%** parameter (see Personalization).

MyQ is GDPR compliant. In order to exercise your rights for data protection please send an email to admin@mycompany.com

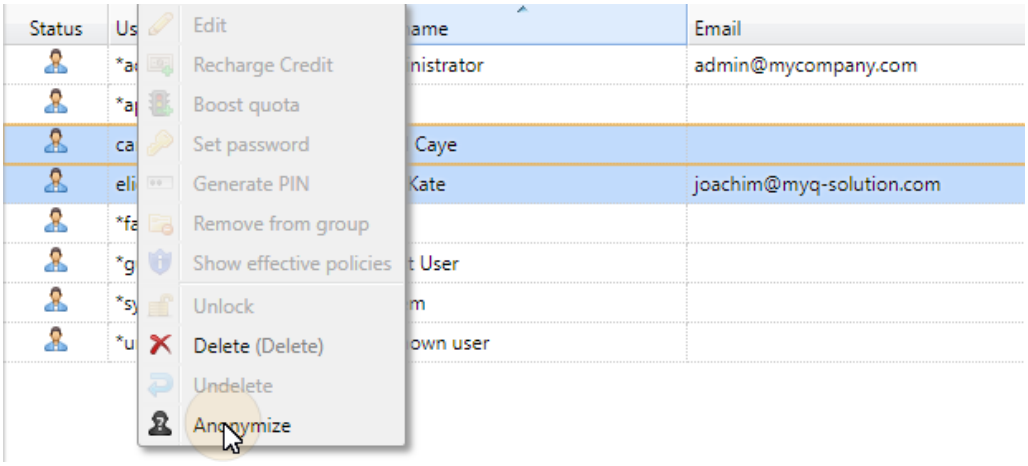
10.8.2 Anonymizing users

After the anonymization, the user is completely removed from the system and replaced by a randomly generated name in all of the relevant MyQ reports.

After a user is anonymized, all of their personal data (including username and email) are permanently erased from the system and cannot be retrieved.

To anonymize a user:

On the **Users** main tab of the MyQ Web Interface, select the users that you want to anonymize, then click **Actions** (or select the users, and then right-click any of them), and finally click **Anonymize**.



10.9 User import and synchronization

User synchronization is a method of synchronizing user related data in the MyQ database with data in external sources, such as LDAP servers or CSV files. Importing new users is an optional part of the synchronization process. Within the synchronization setup, you can activate or deactivate the new users import; if you deactivate it, MyQ only updates accounts of users that already are in its database. You can read more about how user synchronization works here.

This topic provides detailed information about the synchronization. It fully describes the methods of import and synchronization available in MyQ and presents two options of running the synchronizations:

- User synchronization from LDAP servers
- User synchronization from CSV files
- Manual and scheduled synchronization run
- User synchronization from Azure Active Directory

- Using external authentication servers

User passwords are not synchronized/stored in the MyQ Database in case of LDAP/Azure synchronizations.

10.9.1 User Properties in MyQ

- **User name**: Name of the user account in MyQ. In Active directory and Open LDAP, this property corresponds to the **samaccountname** user attribute on the LDAP server.
- **Full name**: This is the full name of the user. In Active directory and Open LDAP, this property corresponds to the **cn** user attribute on the LDAP server. Usually, it is the given name and the surname of the user.
- **Alias**: In addition to their user name, each user can have a number of aliases. MyQ treats aliases as alternative user names. You can use aliases, for example, if you need to enable one user to send jobs to MyQ from different OS accounts.
- **Card**: The number of the user's identification card. It can be either imported from LDAP or added to MyQ on the user's properties panel. Also, it can be registered by an administrator on a card reader connected to a USB slot or registered by the user on an embedded terminal.
- **PIN**: The MyQ personal identification number is used for access to MyQ Web Interface and MyQ terminals.
- **Personal number**: The personal number can be used as the user ID in MyQ. The primary ID is the user name property. If you select the **Pair by the personal number** property during the user synchronization, the personal number is used instead.
- **Email**: The user's primary email address.
- **Notes**: You can use this text box to enter additional notes concerning the user.
- **Language**: The language used on the user's MyQ Web Interface and their home screen on the embedded terminal.
- **User's storage**: You can select a folder or one or more email addresses where MyQ sends the user's scans. Depending on the scanning setup, scans can be sent here, to the user primary email set in the **Email** property text box, or to other sources defined in MyQ or entered by the scanning users.

10.9.2 User synchronization from LDAP servers

An LDAP server contains a database that stores all user accounts, passwords and other user related data of an organization. On the **LDAP Synchronization** settings tab on the MyQ Web Interface, you can synchronize users directly from the server database.

MyQ can communicate with as much as five LDAP servers at the same time. It supports Active Directory, OpenLDAP, Novell and Lotus Domino. To synchronize the users, you need to add the synchronization source first, and then setup the synchronization. After the synchronization is set up, you can either run it manually on

the **User Synchronization** settings tab or set it as a regular task on the **Task Scheduler** settings tab.

The settings described here apply only to Active Directory, although the settings for OpenLDAP, Novell and Lotus Domino are similar.

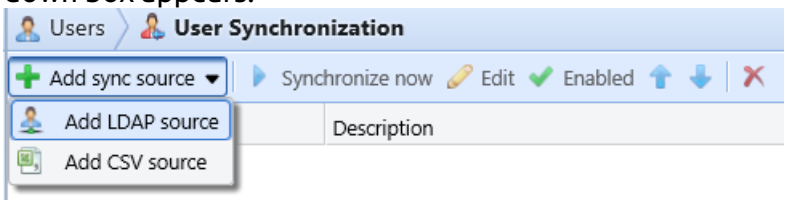
OpenLDAP, with its default settings, limits the number of returned entries and the maximum total time for a query. The default size limit is 500 entries and the default time limit is one hour. In case of a larger customer installation with OpenLDAP, you must adjust these limits appropriately in the OpenLDAP settings, otherwise the user sync will give incomplete results.
For more details see: https://www.openldap.org/doc/admin24/limits.html

Creating an LDAP synchronization

Before creating the synchronization, you have to add the LDAP server to MyQ. You do this on the **Network** settings tab, under **Authentication servers**. Set **Security** to *SSL* and the server port to *636*.

To create a new LDAP synchronization:

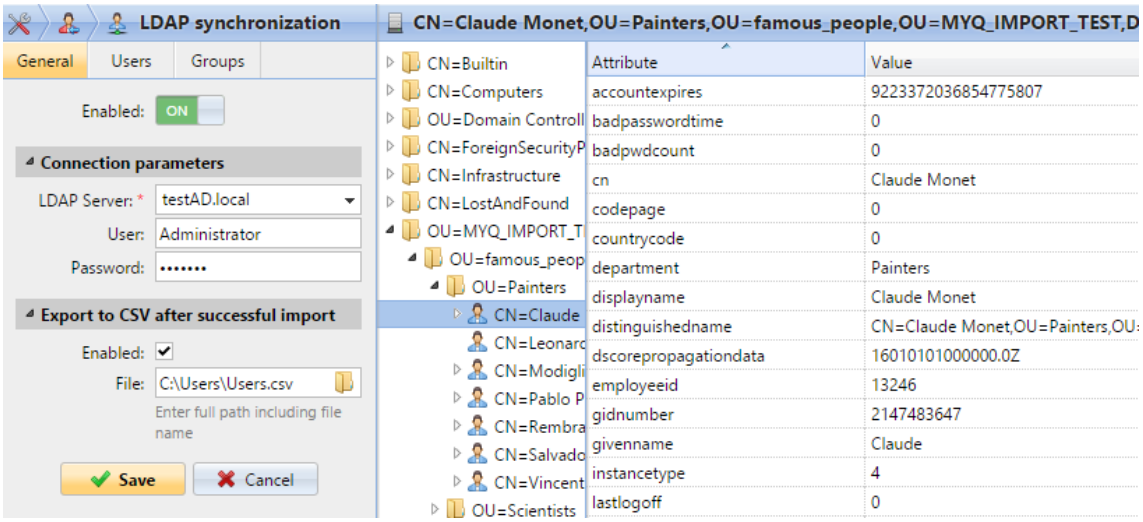
1. Add the new synchronization:
   On the **User synchronization** settings tab, click **+Add Sync source**. A drop-down box appears.



   In the drop-down, click **+Add LDAP source**. The LDAP synchronization properties panel opens. On the panel, you can set up the synchronization.
2. Set up the synchronization on the LDAP synchronization properties panel:
   Set up the synchronization on all three tabs on the LDAP synchronization properties panel. On each of the tabs, click **Save** after changing the settings. For more information, see Setting up the LDAP synchronization.
3. Return to the **User synchronization settings tab:**
   The new LDAP synchronization is displayed on the list of synchronizations on the **User synchronization** settings tab.

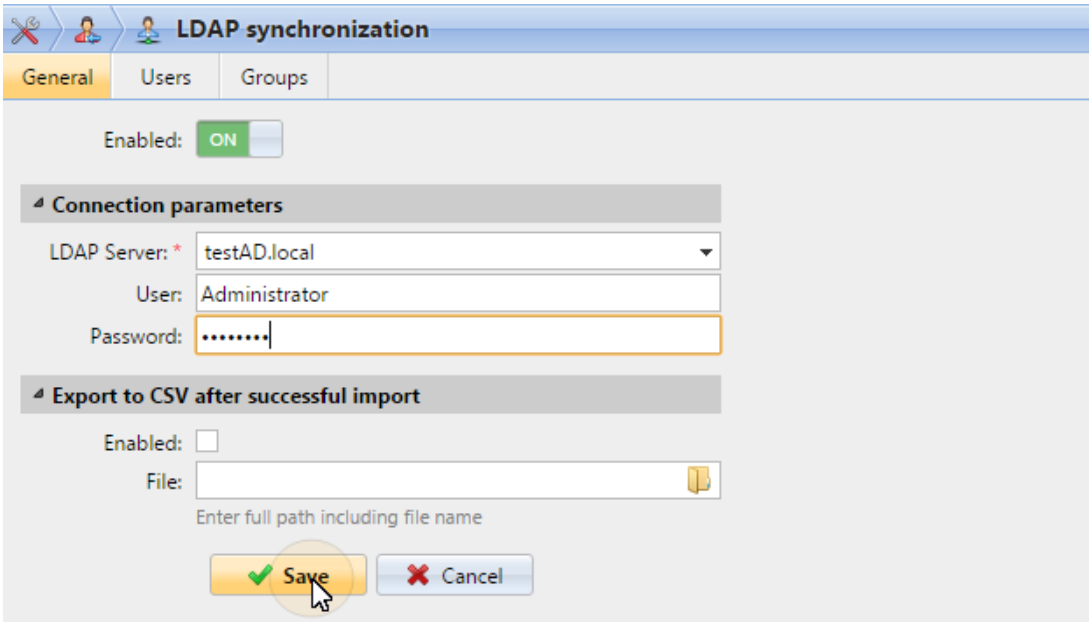
Setting up an LDAP synchronization

The setup consists of three parts: creating the synchronization on the **General** tab, setting import of users on the **Users** tab and setting import of groups on the **Groups** tab. You can swap between these tabs on the bar at the upper-left corner of the LDAP synchronization properties panel.



General Tab

On the **General** tab, set the general properties of the synchronization: enable or disable the synchronization, select the LDAP server domain, enter user name and password for access to the server, eventually select to export the imported users to a CSV file. See the list below for a description of individual settings.



- **Enabled**: Here you can enable or disable the synchronization.
- **LDAP Server**: Here you can select the domain that you want to synchronize from.
- **User**: Enter the user name for access to the LDAP domain server.
- **Password**: Enter the password for access to the LDAP domain server.
- **Enabled**: If you enable the **Export to CSV after successful import** option, MyQ creates a CSV file with the imported users after the synchronization.
- **File**: Select the folder where you want to save the created file.

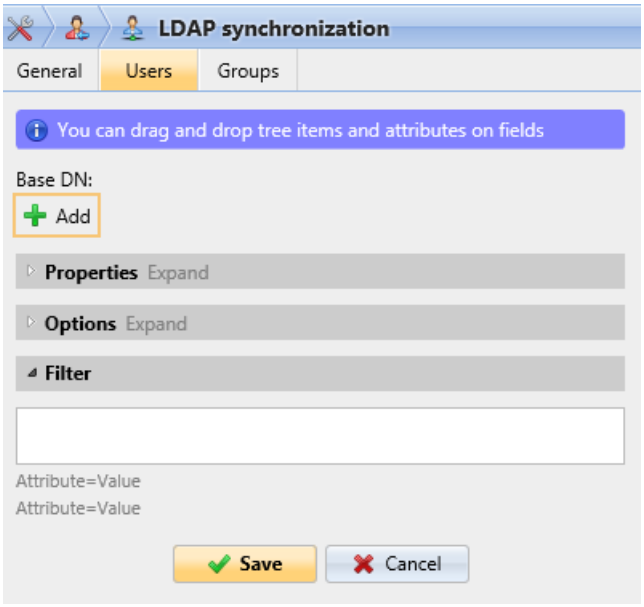
After you correctly set the connection parameters (LDAP server, user and password) and save the settings, the LDAP browser opens on the right side of the screen.

In the **User** setting, a sub-domain user account with enough rights can also be used for authentication, but the sub-domain has to be specified in the username.

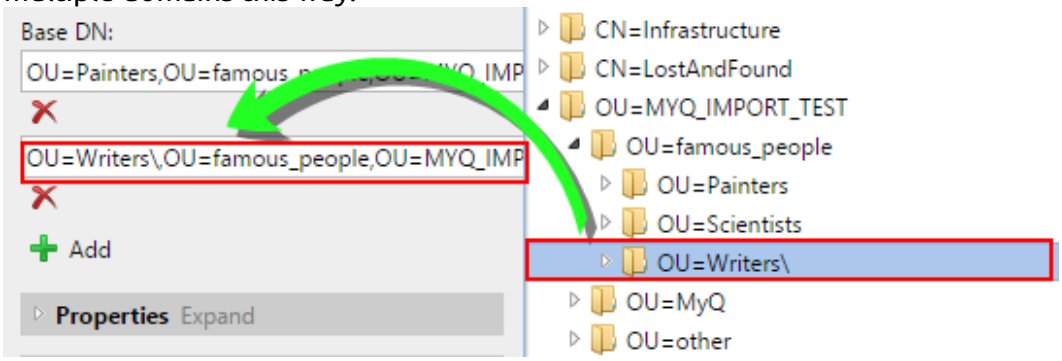
For example, the user *Administrator* connects to the *testAD.local* LDAP server, but their account is in the *cz.testAD.local* sub-domain. For successful authentication, the filled in username should be: *Administrator@cz.testAD.local*

Users Tab

On the **Users** tab, pick one or more base DNs (distinguished names) from which you import the users. In addition, you can assign user attributes from the LDAP server to user properties in MyQ and select additional options concerning the synchronization.



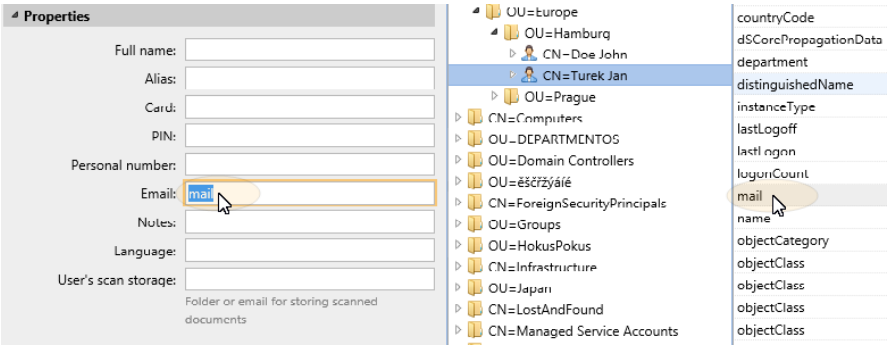
- **Base DN**: Here you can pick the base domain or domains from which you import users. Click **+Add** to add a text box for the new base DN, and then drag a group from the database browser and drop it in the text box. You can add multiple domains this way.



- **Properties**: These are the properties of every individual user. MyQ will automatically find and assign the user's **SAM account name** to **user name**, **cn** to **full name** and **mail** to **Email** (this applies to Active directory and OpenLDAP only). The user name property is the only one that cannot be changed. To assign an attribute to a property, write the name of the attribute in the property text box or drag it from the attributes of any individual user and drop it in the text box. The following properties support adding multiple values to them, separated by a semicolon (;):
  - **Alias**
  - **PIN**
  - **Card**

For example, in the **Alias** property, you could add *alias1;alias2;alias3*.

The AD attribute name should not contain the semicolon (;) character. If a semicolon is part of the attribute's name, that attribute will not be synchronized in MyQ.



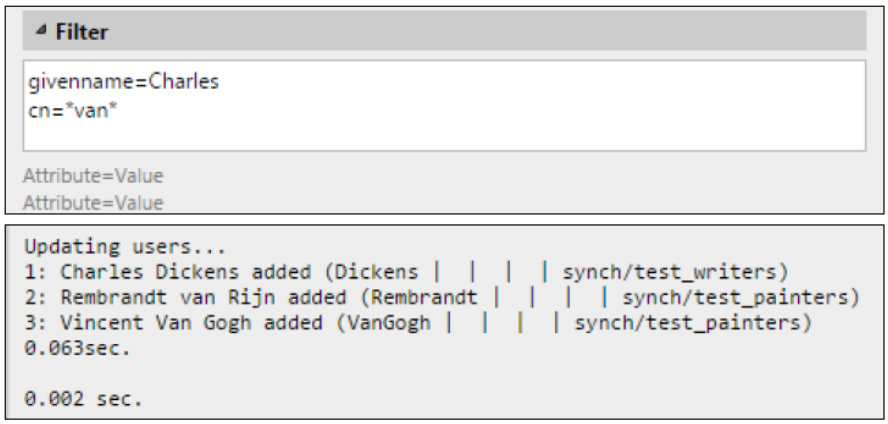
For assigning default languages to users, you have to use an attribute from the LDAP server that has the language abbreviations as its values. For example, you can create and use an attribute called **lang** with the values *en* for English, *hr* for Croatian, etc. The list of the abbreviations used in MyQ can be found here.

- **Options**: For a description of the common synchronization options, see User information and settings. The basic options that are common for both the synchronization from LDAP servers and for synchronization from CSV files are:
  - **Deactivate missing users**: If you select this option, MyQ deletes users that are imported from the current synchronization source and that are not in the source anymore. To delete users that were added from different sources, select the **Ignore synchronization source** option together with this option.
  - **Add new users**: If you select this option, MyQ adds new users from the current synchronization source. If you do not select it, MyQ updates the user accounts of the users who are already in MyQ, but does not add any new users.
  - **Convert user name to lowercase**: Unlike some other systems that do not differ between two words with the same letters but different cases (such as "Pear", "pear"), MyQ is case sensitive. You can use the **Convert user name to lowercase** option to prevent creating multiple accounts for one user.
  - **Use authentication server**: If you select this option and a user logs in by entering their username and password, the credentials are not

authenticated against the MyQ database, but instead against an LDAP or Radius server. If you synchronize users via LDAP, the source LDAP server is automatically assigned as
the authentication server. If you synchronize users via CSV, you can select the authentication server from the list of predefined authentication servers.

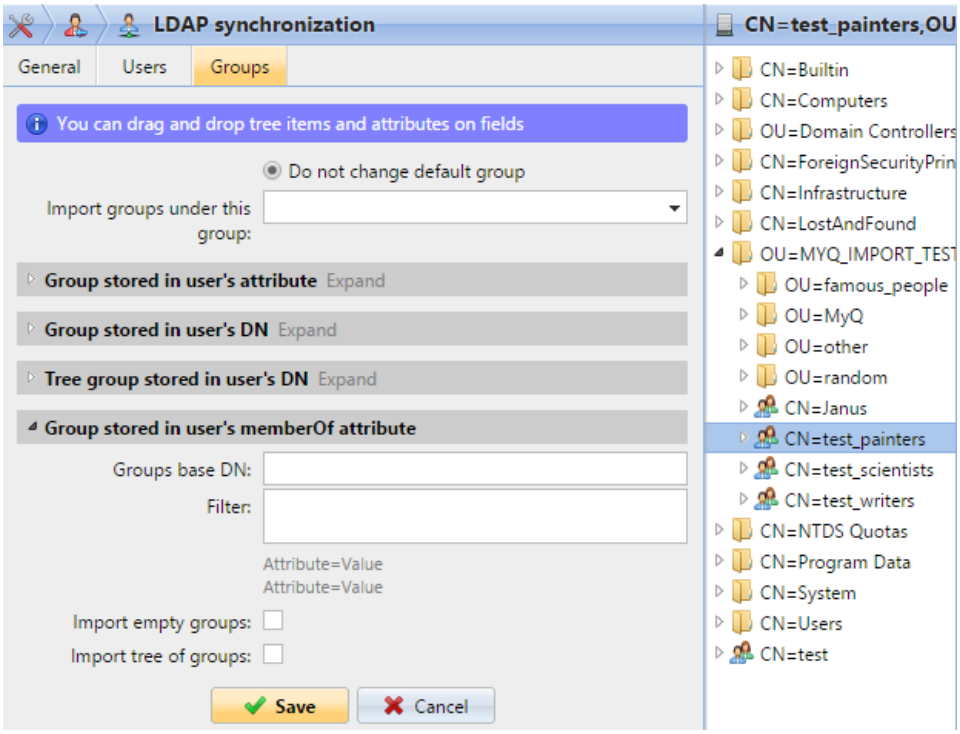
- **Pair by the personal number**: If you select this option, MyQ identifies users by their personal number instead of their user names. This way you can keep track of a single user with different names in different sources or a user whose name has changed for some reason. For example, if this option is activated and a username in LDAP changes from *cat.stevens* to *yusuf.islam*, MyQ does not create a new user account, but recognizes the old user by their personal number.
- **Ignore synchronization source**: If this option is not selected, MyQ recognizes two users from different synchronization sources as two different entities. This can cause conflicts during synchronizations from multiple sources. If it is selected, MyQ ignores the synchronization sources and treats all users the same, regardless of their synchronization source. For example, if you run a synchronization and MyQ would import/update a user that has been already added from a different synchronization source, it does not update the user. Instead, it shows the message *The name/alias "X" is already used by the user "X"* among the synchronization results. After you select the **Ignore synchronization source** option, the user is updated by the latest synchronization.
  If you select this option together with the **Deactivate missing users** option, all users that were added from different sources and are not in the current synchronization source are deleted during the synchronization.
- **Append the domain name to the username** (*username@domain.local*): With this option selected, the name of the domain can be retrieved from the MyQ username. The information about the domain may be needed for example, when scanning to users' home folders is used on an embedded terminal.

- **Filter**: You can filter the users import by specifying the values of attributes. Add the conditions in the form: **Attribute=Value**. Users with a different value on this attribute are not accepted and are filtered out of the import.
  For attributes where the values are strings, such as the **cn** attribute, you can use the ***** symbol to search for substrings. The symbol can be appended from 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 raw. Users are accepted if they satisfy at least one condition.



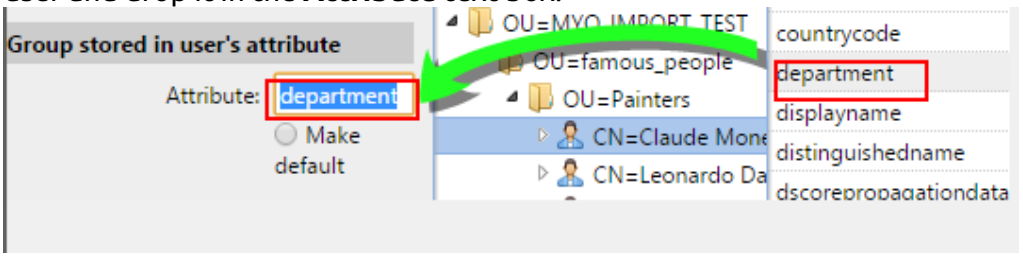
Groups Tab

On this tab, you can import groups and the group structure from the LDAP source. There are four different ways of specifying which groups are imported. You can use multiple different methods together and by each method, you can create different groups of users. You can also select to import the groups under an existing group in MyQ.

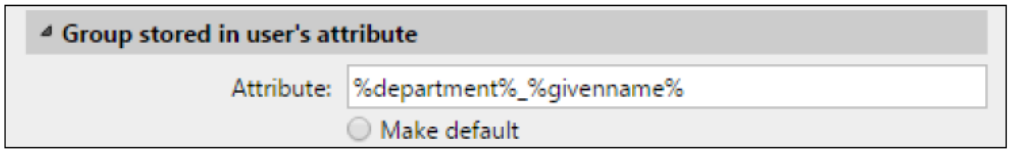


- **Do not change default group**: A user can be a member of multiple groups but all their prints, copies and scans are accounted to only one group: the default (accounting) group of the user. If you select this option, the default group of the selected user does not change during the synchronization.
- **Import groups under this group**: You can select an existing group in MyQ under which you import the groups from the LDAP database.
- **Groups stored in user's attribute**:

- **Attribute**: You can select this option if you want to use an attribute that defines groups in the LDAP database. To add it, type the name of the attribute in the property text box or drag the attribute from any individual user and drop it in the **Attribute** text box.



You can also create groups by combining multiple attributes. To create such groups, put each of the attributes between two percentage signs (*%*). For example, the combination of attributes *%attribute1%_%attribute 2%* , imports a new group named *value1_value2*.




```
SYNC GROUPS
***********
Number of groups to import: 7
Pairing property: path
Painters_Claude: created
Painters_Leonardo: created
```

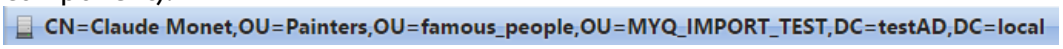
Furthermore, you can create tree structures of groups by separating the attributes with vertical bars. For example, the combination of attributes *%attribute1%|%attribute2%*, imports a group *value1*, and its sub-group *value 2*.

- **Make default**: If you select this option, the group becomes the default group of the imported user.

- **Group stored in user's DN**:
  - **OU component index**: Here you can select a group by its OU (organizational unit) index among the DN components. The index is counted from right to left: the first OU group from the right has index *1*, the second from the right has index *2* and so on.

  On the image above, there are three OU groups: *MYQ_IMPORT_TEST* has index *1* (as it is the first OU group from the right), *famous_people* has index *2* and *Painters* has index *3*. The other components are not OU and therefore have no index.
  - **Make default**: If you select this option, the group becomes the default group of the imported user.
- **Tree group stored in user's DN**: Here you can import the whole tree structure of groups. You can restrict the import to any part of the structure by striping the DN components from the left and from the right. In the respective text boxes, enter the amount of components to be striped from the left and

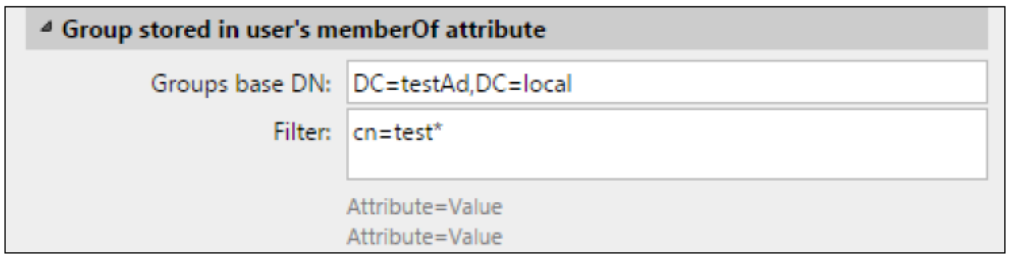
from the right side. You have to strip at least one component from the left (the user CN component) and one component from the right (the right-most DC component).



On the image above, there are six components. If you strip one component from the left
and one from the right, you import the following structure of groups: *testAD > MYQ_IMPORT_TEST > famous_people > Painters*. By stripping components from the left, you remove the groups from the bottom to the top of the structure. By stripping components from the right, you remove the groups from the top to the bottom of the structure.

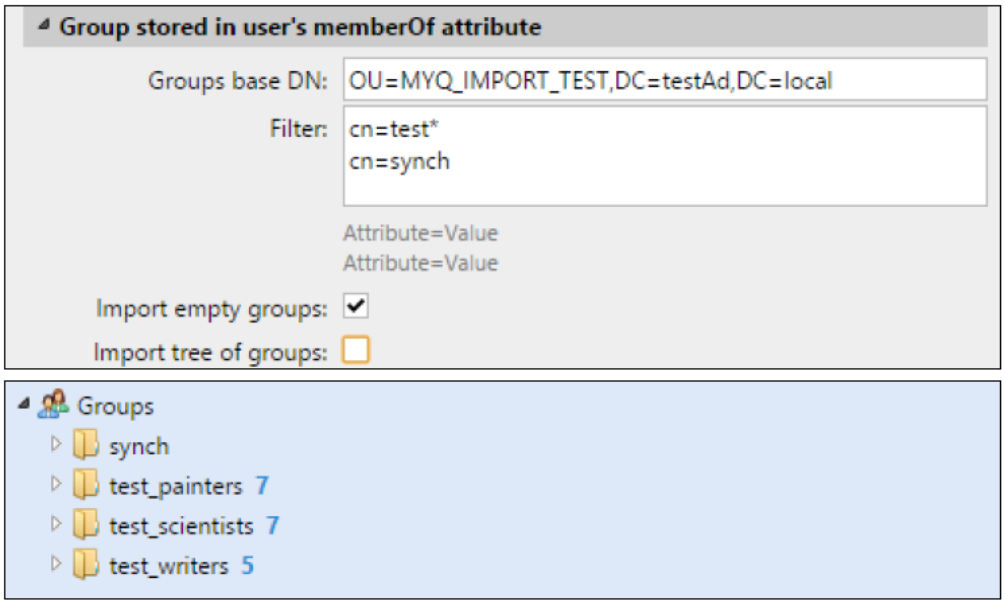
  - **Make default**: If you select this option, the bottom group of the imported structure becomes the default group of the imported user.

- **Group stored in user's memberOf attribute**:
  - **Group base DN**: MyQ can import security and distribution groups stored in the user's **memberOf** attribute. The security groups are used to define access permissions granted to their members. Distribution groups can be used for sending emails to a group of users. To specify which groups should be taken into consideration during the import, you have to insert the groups base DN. MyQ imports only groups that are included in the base DN; other groups stored in the **memberOf** attribute are ignored. The group base DN does not have to be in the same organizational unit as the users base domain. If a user is member of more than one group on the LDAP server, all the groups are stored in the **memberOf** attribute. Therefore, the **Make default** option, which requires a single value, is not available for this method of import.
    To add the groups base DN, drag it from the database browser and drop it in the **Group base DN** text box.
  - **Filter**: You can filter this import by specifying the values of attributes. Add the conditions in the form: *Attribute=Value*. Groups with a different value on this attribute are not accepted and are filtered out of the import. You can use the ***** symbol to search for substrings. The symbol can be appended from both sides. For example, if you add a *cn=*in** condition, only users whose common name attribute contains "*in*" are accepted. You can add one condition per raw. Groups are accepted if they satisfy at least one condition.




```
SYNC GROUPS
***********
Number of groups to import: 3
Pairing property: path
test_writers: updated via PATH match
test_painters: updated via PATH match
test_scientists: updated via PATH match
0.014sec.
```

- **Import empty groups**: If you select this option, groups from the **Group base DN** are imported even if there is no user having them in their **memberOf** attribute.
- **Import tree of groups**: If you select this option, the whole tree structure is imported. Otherwise all groups are added separately; not as a part of a tree structure.



10.9.3 User synchronization from CSV files

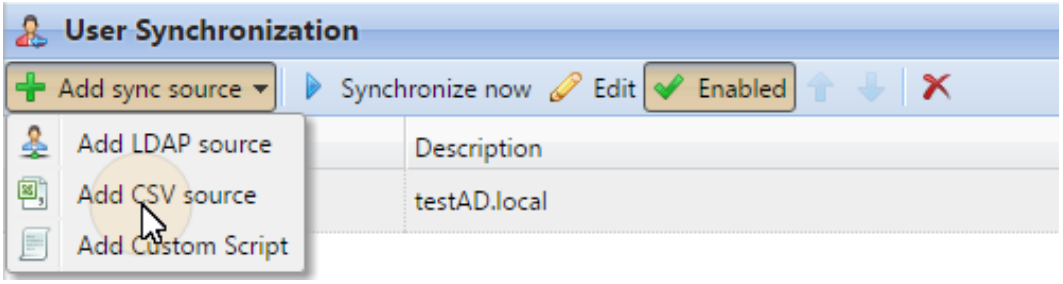
To synchronize users from a CSV file, you have to create a new CSV synchronization on the **User Synchronization** settings tab and on the synchronization properties panel, add the source file and set properties of the synchronization.

After the synchronization is set up, you can either manually run it on the **User Synchronization** settings tab or set it as a regular task on the **Task Scheduler** settings tab.

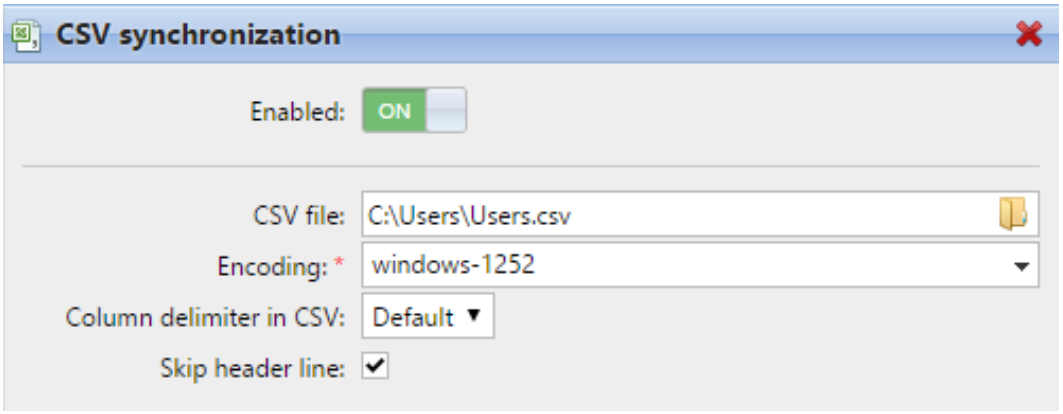
Creating a new CSV synchronization

To create a new synchronization:

1. **Open the new synchronization**: On the bar at the top of the **User synchronization** settings tab, click **+Add Sync source**, and then click **+Add CSV source**. The CSV synchronization properties panel appears on the right side of the screen.



2. **Set up the synchronization**: On the CSV synchronization properties panel, set the **path** to the CSV file and configure the synchronization. For information about the synchronization options, see "CSV synchronization setup options" below.



3. **Save** the setup.

CSV synchronization setup options

These are the CSV synchronization setup options:

- **Enabled**: Here you can enable or disable the synchronization.
- **CSV file**: Here you can set the path to the CSV file on the MyQ server.
- **Encoding**: Select the encoding that is used in the CSV file. The default value depends on the OS settings of the computer where you access the MyQ Web Interface on.
- **Column delimiter in CSV**: Select the delimiter that is used in the CSV file. If you select the **Default** option, MyQ scans for the delimiter set on the **Column delimiter in CSV** drop-down list box on the **General** settings tab.
- **Skip header line**: In case the CSV file contain a header line, you need to select this option and skip the first line of the file during the synchronization. All lists of users exported from MyQ contain the header line.

- **Import groups under this group**: Here you can select an existing group in MyQ under which you import the groups from the CSV file.
- **Synchronization source**: Here you can specify a different source than the CSV to be marked as the synchronization source by the MyQ system. For example, you can insert an LDAP server domain.
- **Ignore synchronization source**: If you select this option together with the **Deactivate missing users option**, all users that are not in the current synchronization source are deleted.
- **Use authentication server**: If you select this option, an LDAP or Radius server is used for the authentication of the imported users.
- **Authentication server**: Here you can select the LDAP or Radius domain for the user authentication.
- **Deactivate missing users**: If you select this option, MyQ deletes users that are imported from the current synchronization source and that are not in the source anymore. To delete users that were added from different sources, select the **Ignore synchronization source** option together with this option.
- **Add new users**: If you select this option, MyQ adds new users from the current synchronization source.
- **Pair users by personal number**: If you select this option, multiple accounts with a single personal number are paired.
- **Convert user name to lowercase**: If you select this option, all letters in user names are converted to lowercase.
- **Cards/PIN/Groups/Delegates**: In each of the mandatory drop-down boxes, you can select from these synchronization options for the respective parameter (Cards, PIN, Groups):
  - **Do not synchronize**: The value of the respective parameter in MyQ is not changed.
  - **Full synchronization**: The value of the respective parameter in MyQ is always replaced by the value in the CSV file. If the value in the source file is empty, the value in MyQ is erased.
  - **Synchronize if not empty**: If the respective field in the CSV file is not empty, the parameter value in MyQ is replaced by the 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 MyQ, it is not replaced. Only new values are added.

CSV file syntax

In the list below, you can find information about individual fields of the CSV file.

A single word or a plain number can be put in the CSV fields as they are, while more complex strings, such as full name or email address, have to be bounded by quotes.

- **FULLNAME**: Name of the user in double quotation marks, for example "*Thomas Pineapple*".
- **USERNAME_ALIASES**: Login of the user and eventually their aliases. The login should be the same as the user's domain login name, for example *Tom*. When you import multiple aliases, separate them with commas, for example "*Tom,Tomy,Apple*".

- **EMAIL**: Email of the user, for example "*t.pinapple@domain.com*".
- **CARDS**: Number of the user's authentication card/chip. It has to be inserted in the form in which it is read by the card/chip reader, for example *7E9700C9*.
- **GROUPS**: Here you can add user groups. You can import a whole branch of the groups 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*", MyQ
  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.
- **CODE**: The personal number of the user. The ID number must be unique for each user. This parameter is very useful when using multiple sync sources.
- **SCANSTORAGE**: The folder or email where the user wants their scans to be sent to, for example "*\Users\Tomy*".
- **PIN**: You can define one or more PINs to be assigned to users within the synchronization process. It is not absolutely necessary, as PINs may also be generated later within the setup of the user account. The PINs should be in the hashed MD5 format, 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, e.g. *Activities*. Commas and vertical bars cannot be used in group names as they are used as group delimiters.
- **AUTHSERVER**: In this field you may define the domain for user authentication, for example "*testAD.local*".
- **PHONE**: The user's phone number, for example *080008020*.
- **LANG**: Default language of the user, for example *en*.
- **PWD**: If you want to use the MyQ password, insert the password in the hashed MD5 format, for example *18BFA6BB14875E8*. If you are using a different authentication server (i.e. LDAP server), you can leave it empty.
- **EXTID**: EXTID is an internal MyQ parameter. This field has to be left empty.
- **DELEGATES**: For each user, you can import any number of delegates. If you import multiple delegates, separate them with commas, for example "*Carol,Kohei,Eliot*".

```
“FULLNAME”; ”USERNAME_ALIASES”; “EMAIL”; “CARDS”; “GROUPS”; “CODE”;
“SCANSTORAGE”; “PIN”; “MANAGED_GROUPS”; “AUTHSERVER”; “PHONE”;
“LANG”; “PWD”; “EXTID”; “DELEGATES”

“Thomas Pineapple”; “Tom, Tommy, Apple”; “t.pinapple@domain.com”;
7E9700C9;”Imported Users, Activities|Outdoor|Swimming,
Activities|Outdoor|Birdwatching”;22212;”\\Users\Tomy”;
14BFA6BB14875E4;Birdwatching;testAD.local;080008020;en; 18BFA6BB14875E8; ;“Carol,Kohei,Eliot”;
```

10.9.4 User synchronization from Azure Active Directory

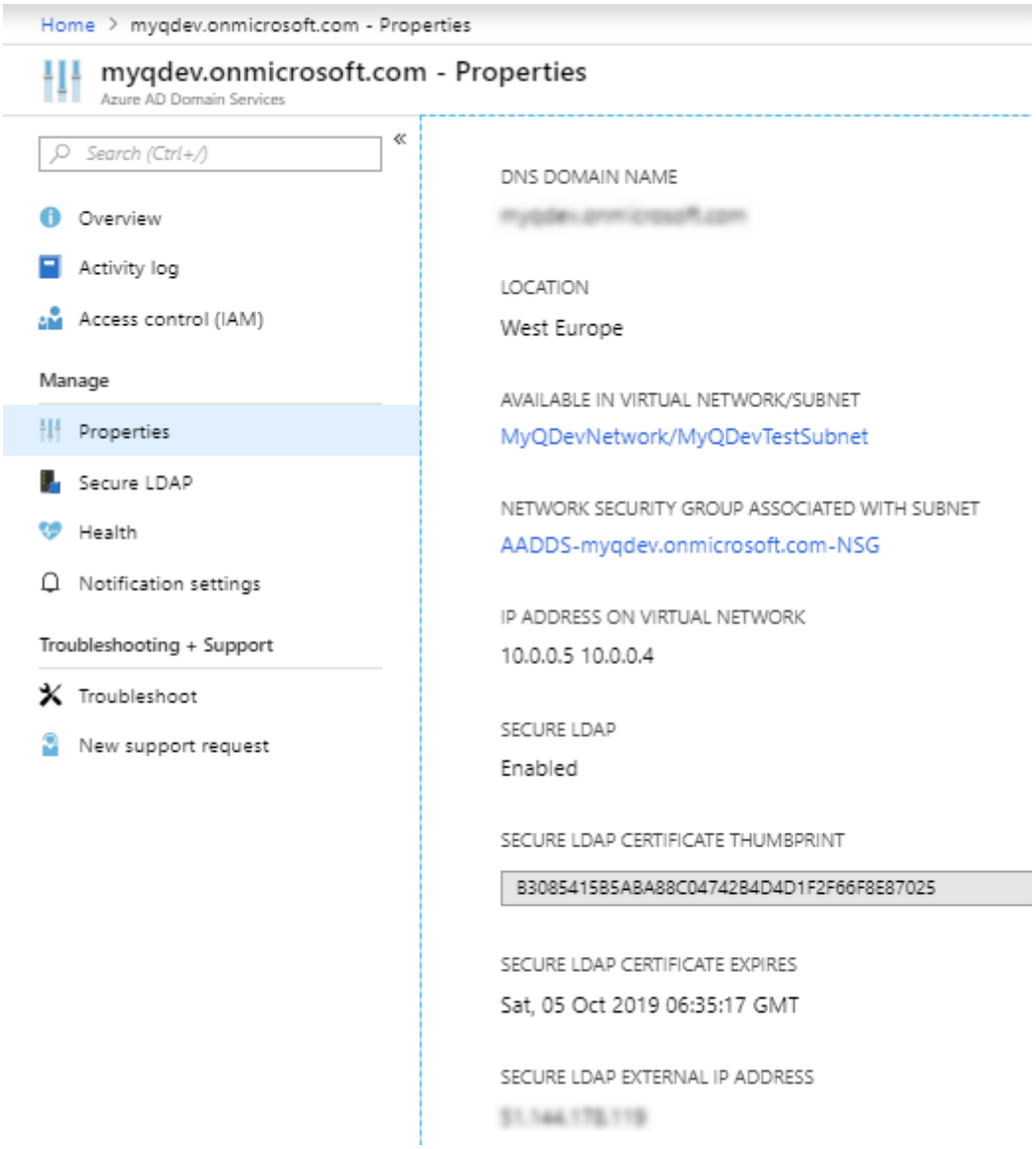
Azure Active Directory is a service accessed from the Microsoft Azure Portal. It has to be enabled and configured in Azure Active Directory Domain Services.

The activation and setup of the service are described in the following Microsoft guides:

- To enable and configure Azure Active Directory Domain Services: https://docs.microsoft.com/en-us/azure/active-directory-domain-services/tutorial-create-instance
- Configure Azure AD Domain Servers to use SLDAP: https://docs.microsoft.com/en-us/azure/active-directory-domain-services/tutorial-configure-ldaps

After you activate the Azure Active Directory, you need to add it to MyQ and set up the synchronization in the standard way (see User Import and synchronization). When setting up the **Authentication server** in MyQ, you need to make sure that the LDAP server parameters are set to the following values:

- **Domain** = *DNS DOMAIN NAME* of the Azure AD Domain
- **Security**: *SSL*
- **Server** = *SECURE LDAP EXTERNAL IP ADDRESS* of the Azure AD Domain

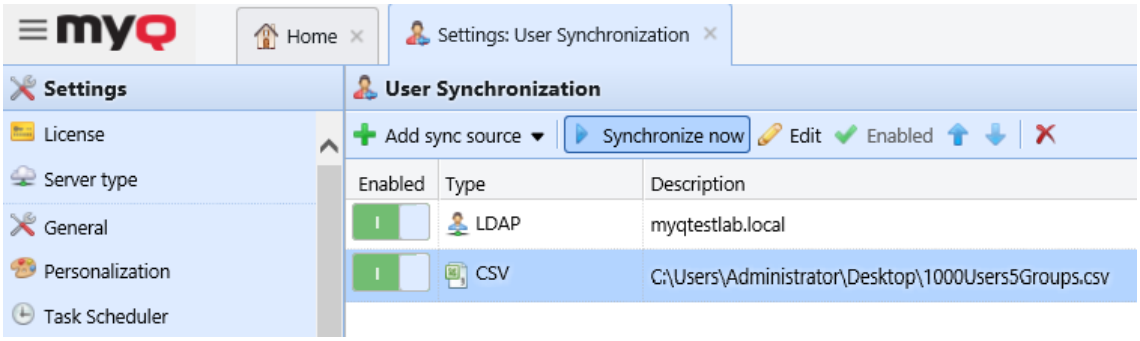


10.9.5 Manual and scheduled synchronization run

The synchronization can be manually run on the **User Synchronization** tab of the MyQ Web Interface, or it can be set as a scheduled task on the **Task Scheduler** tab.

Manual synchronization run

On the **User synchronization** settings tab, enable the synchronizations that you want to run, and then click **Synchronize now** on the bar at the top of the tab.



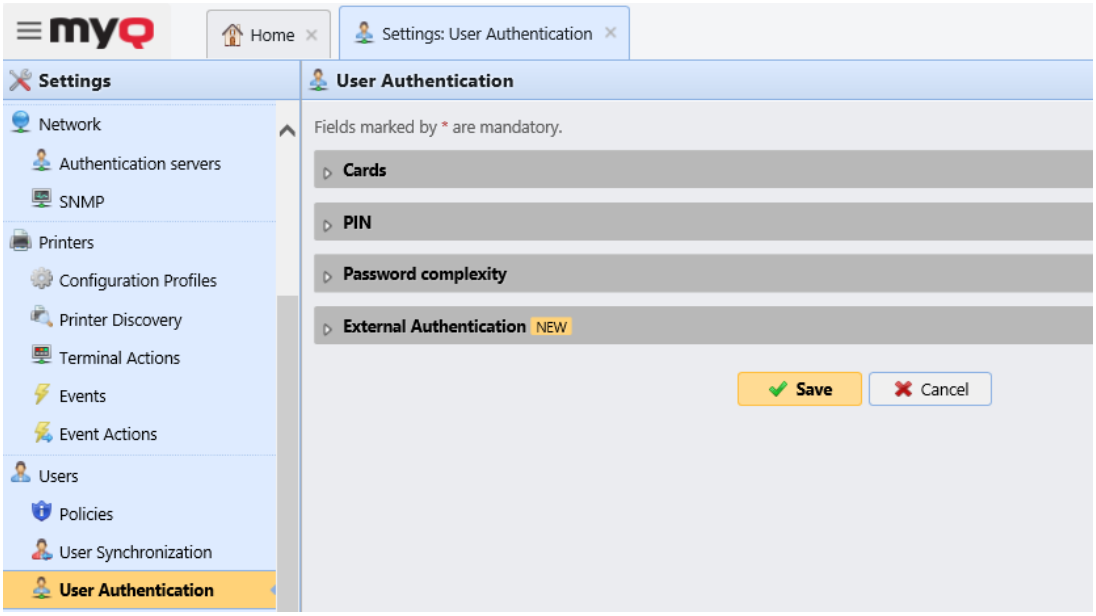
Scheduled synchronization run

On the **Task scheduler** settings tab, you can setup a scheduled run of the synchronization. For more information about this option, see Task scheduler.

10.10 User Authentication

In the **User Authentication** settings tab, the administrator can manage everything related to how users authenticate themselves in MyQ:

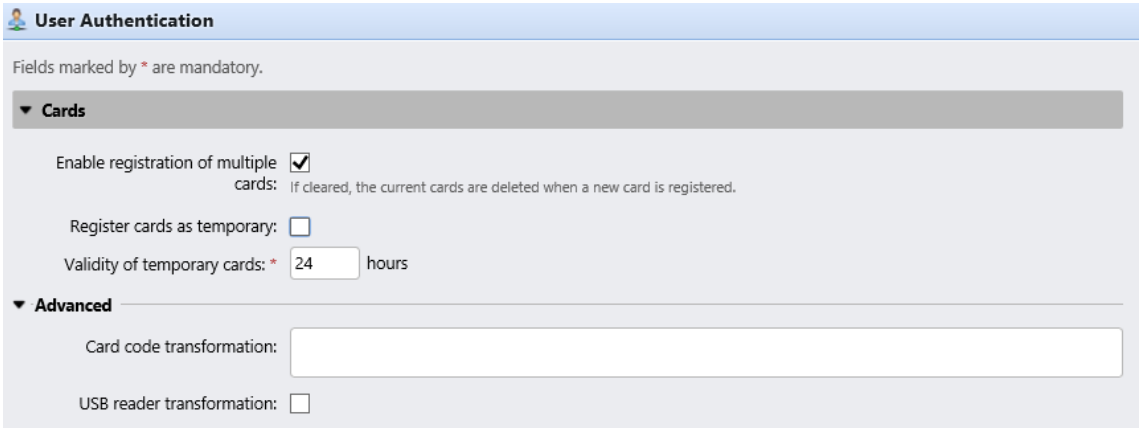
- ID Card management
- PIN management
- Password Complexity
- External Authentication



10.10.1 ID Card Management

In the **User Authentication** settings tab, in the **Cards** section, there are the following ID Card management options:

- **Enable registration of multiple cards** - This is enabled by default. If disabled, when a new card is registered, the current cards are deleted.
- **Register cards as temporary** - If this is enabled, ID cards can be registered as temporary.
  - **Validity of temporary cards** - Set the duration of the temporary cards validity in hours.
- **Card code transformation** - This transformation is used by Embedded terminals (with USB readers connected directly to the device) and by the reader for a HW terminal that is connected, usually, as a primary reader.
- **USB reader transformation** - Check the box to apply the transformation to card readers connected to a PC USB slot. These card readers are usually used to recharge credit or to associate cards with user accounts.



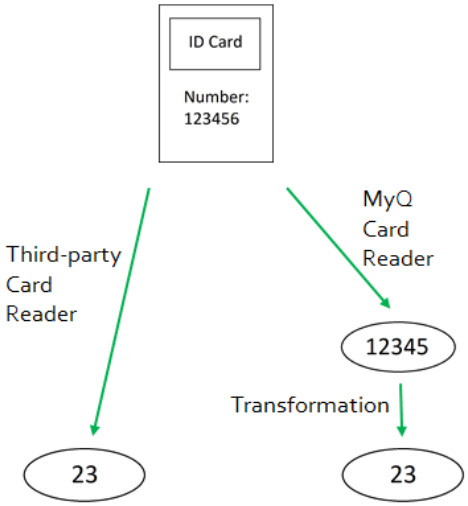
Adding cards manually is not possible when cards are synchronized from an LDAP source. The manually added cards will be deleted during the next LDAP synchronization, and overwritten by the cards from the LDAP source.
Adding multiple cards via the LDAP synchronization is supported.

ID Card Transformation

This topic discusses the ID Card transformation feature in MyQ. The transformation might be necessary if the customer needs to import card numbers from a third-party SW database and the card number format in this database doesn't match the format read by the MyQ card reader.

The third-party system card readers can give output in a different format than the card readers used in MyQ. In consequence, users card numbers imported from the third-party system can differ from the card numbers read by the MyQ card readers. To unify the format of the two outputs, you can define a specific sequence of commands that transforms the output of the MyQ card readers to the format used in the database of
the third-party system.

With most of the MyQ card readers, you can use the card reader configuration software to set the format directly on the reader. However, it is simpler and faster to set one or two universal MyQ transformations than to separately change settings of each card reader.



How to setup the card transformation:

On the **User Authentication** settings tab, in the **Cards** section and under **Advanced**, you can define and use a transformation for card readers and select to use it on a USB reader connected to the administrator PC. The USB reader can be used to recharge credit or associate cards.

Available options:

- **Card code transformation**: This transformation is used by Embedded terminals (with USB readers connected directly to the device) and by the reader for a HW terminal that is connected, usually, as a primary reader.
- **USB reader transformation**: Check the box to apply the transformation to card readers connected to a PC USB slot. These card readers are usually used to recharge credit or to associate cards with user accounts.

Defining the transformation

You can define the transformation by adding commands that can be found on this list. The commands have to be separated by a semicolon (;) and are read and executed from left to right. For example in the transformation *CommandX;CommandY*, *Command X* is executed first and *Command Y,* second.

All the commands, except for the **+** command, are applied in the following way:

The first command of the transformation and each command immediately behind the **+** command are applied to the initial card number. All other commands are applied to the result of their predecessors.

ID Card Transformation Commands

- **ltrim(number of characters)** – Remove the first X characters from the left.
  ltrim(2): 123456 —> 3456
- **rtrim(number of characters)** – Remove the first X characters from the right (the last X characters).
  rtrim(2): 123456 —> 1234

- **prepend(character string)** – Add the string in front of the card number.
  prepend(AB): 123456 —> AB123456
- **append(character string)** – Add the string behind the card number.
  append(AB): 123456 —> 123456AB
- **left(number of characters)** – Select the first X characters from the left (and remove the rest).
  left(2): 123456 —>12
- **right(number of characters)** – Select the first X characters from the right.
  right(2):123456 —> 56
- **mid(number of characters, number of characters)** – Remove X characters from the left, remove Y characters from the right and leave the characters in the middle.
  mid(2,2): 123456 —> 34
- **lpad(number of positions, symbol)** – Complete the string to the length specified by the **number of positions** parameter by adding the value of the **symbol** parameter to the left (in front of the card number).
  lpad(12,0): 123456 —> 000000123456
- **hex2dec()** – Transform the card number from hexadecimal mode to decimal mode.
  hex2dec(): 1000AB —> 1048747
- **dec2hex()** – Transform the card number from decimal mode to hexadecimal mode.
  dec2hex(): 1048747 —>1000AB
- **hex2bin** – Transform the card number from hexadecimal mode to binary mode.
  hex2bin(): 1000AB —> 10000000000010101011
- **bin2hex** – Transform the card number from binary mode to hexadecimal mode.
  bin2hex(): 10000000000010101011 —> 1000AB
- **dec2bin** – Transform the card number from decimal mode to binary mode.
  dec2bin(): 100023 —> 11000011010110111
- **bin2dec** – Transform the card number from binary mode to decimal mode.
  bin2dec(): 11000011010110111 —> 100023
- **reverse()** – Reverse the byte sequence, i.e. take all the characters by two and reverse the order of the pairs. (The last pair goes first, the second last goes second, etc.)
  reverse(): 1234AB —> AB3412
- **reverseString()** – Reverse the character sequence. (The last character goes first, the second last goes second, etc.)
  reverseString(): 1234AB —> BA4321
- **reverseNibbleBits()** – Convert each character from hexadecimal mode to binary mode, reverse the character sequence of each quadruple and convert the result back to hexadecimal mode.
  reverseNibbleBits(): 10AB —> 0001 0000 1010 1011 —> 1000 0000 0101 1101 —> 805D
- **upper()** – Converts the string to upper case.
  upper(): Abcd —> ABCD
- **plugin(reference)** – Calls a card transformation plugin with the given reference. This option enables using custom PHP scripts for the transformation. For more information about this option, contact MyQ support.

- **asciiCode2ascii** – Converts ASCII characters encoded as hex-digits to ASCII characters.
  asciiCode2ascii(): 414F —> AO
- **"string 1" + "string 2"** – Merges the strings in front of and behind the **+** command.
  "string 1":
  - Either the initial card number (if there are no commands preceding the **+** symbol),
  - or the result of the last command before the **+** symbol (if there are no **+** commands preceding the **+** symbol),
  - or the result of the previous **+** command.
    "string 2":
  - Either the initial card number (if there are no commands behind the **+** symbol or if the next command is another **+** command),
  - or the result of the last command of the transformation (if there are no **+** commands behind the **+** symbol),
  - or the result of the last command before another **+** command.

ID card transformation example:

Card number: 10AB

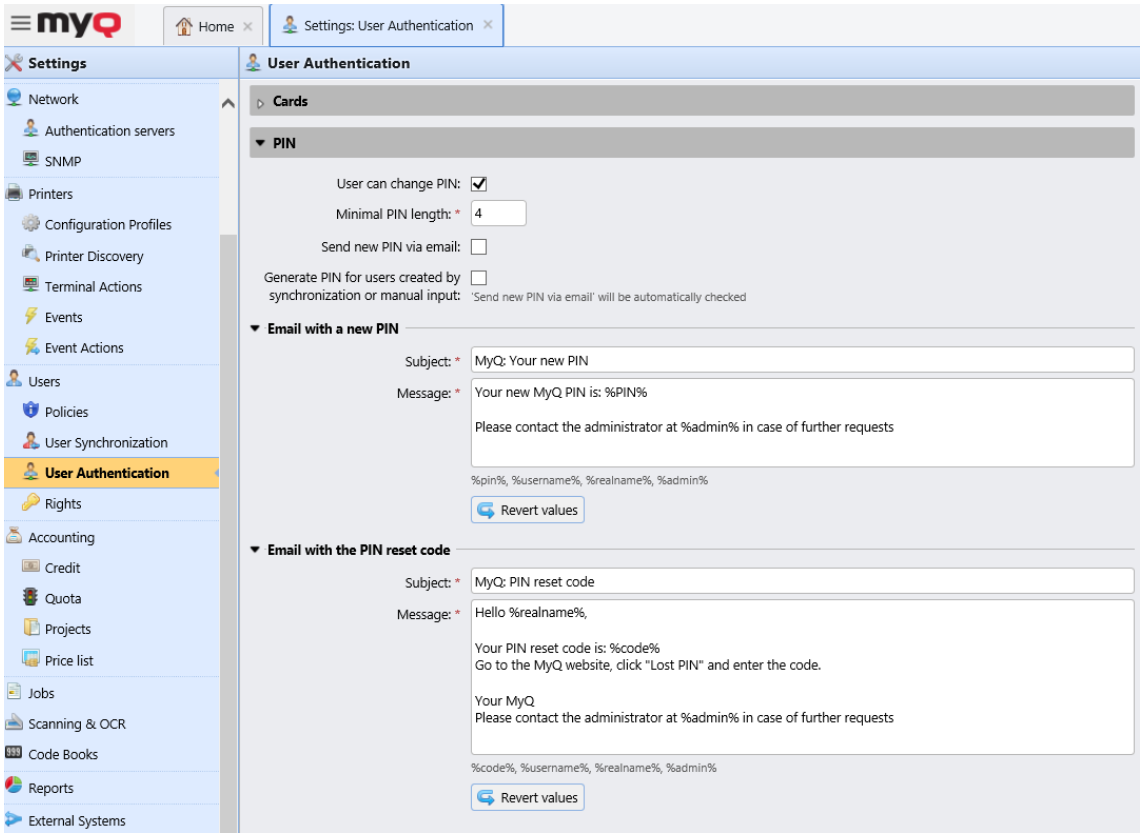
Card code transformation:
hex2bin();lpad(16,0);reverseString();ltrim(8);reverseString();bin2hex() + ltrim(4);lpad(4,10AB)

Result: *1010AB*

Transformation process:
("10AB" —>"1 0000 1010 1011" —> "0001 0000 1010 1011" —> "1101 0101 0000 1000" —> "0000 1000" —> "0001 0000" —> "10") + ("10AB"" —> "" —> "10AB") ==> "1010AB"

10.10.2 Generating PIN

On the **User authentication** settings tab, under **PIN**, you can select multiple options concerning PIN generation.



Users can change PIN

With this option selected, the users can generate a new PIN on their account on the MyQ Web User interface, by clicking **Generate PIN** on the **Home** screen of their user account.

Minimal PIN length

This option determines the mandatory minimum PIN length. The number can be set between *4* and *16*.
If the administrator creates the PIN manually, it cannot be shorter than the value set in this field. If the PIN is generated by the system, it cannot be shorter than the value in this field, and also cannot be shorter than the minimal value enforced by the number of users, described below.

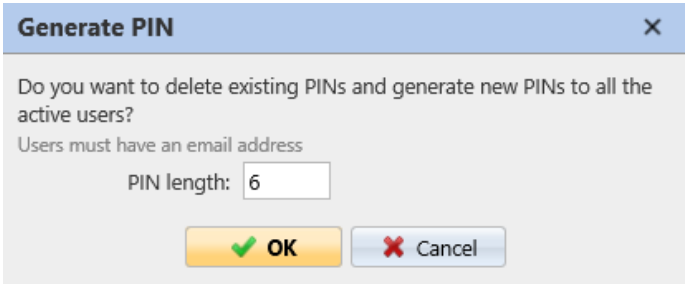
The required minimal PIN length that depends on the number of MyQ users is:

- < 1000 — 4-digit pin is required
- 1000 - 10 000 — 5-digit pin is required
- 10 000 - 100 000 — 6-digit pin is required

The required minimal length lowers the chance of randomly guessing the PIN. Also, trivial PINs, such as *1111* or *22222*, are excluded from the automatic PIN generation process.

If the administrator increases the **Minimal pin length** value, a pop-up will prompt them to generate new PINs for all the active users. If the administrator chooses to generate new PINs, the old PINs will be deleted and new PINs will be automatically

sent via email to all the active users. Otherwise, the old, potentially shorter PINs will be kept.



Generate PIN for users created in synchronization or manual input

With this option selected:

- A new PIN is generated for new, manually created users.
  - A manually created user without an email address will not receive the new PIN via email.
- During **User synchronization**, a new PIN is generated for every user that does not already have a PIN.
  - PINs are generated only for users with an email address. Users without an email address are skipped.

Send new PIN via email

With this option selected, users are sent an email informing them about the new PIN every time a new PIN is generated.

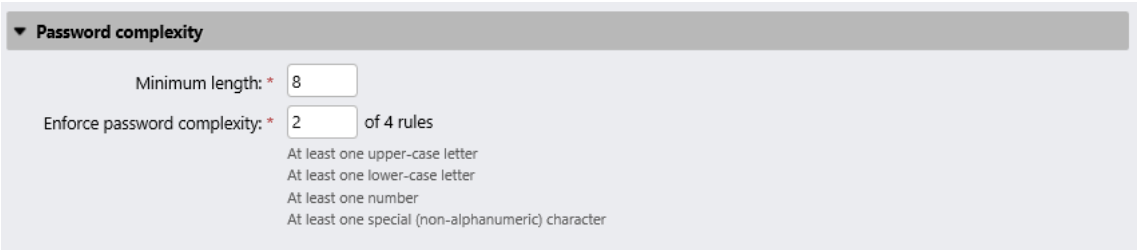
This is automatically checked if the above option (**Generate PIN for users created in synchronization or manual input**) is selected.

There are also email templates you can use for informing the users about their new PIN (**Email with a new PIN**) or for providing them with a reset code in case of a lost/forgotten PIN (**Email with the PIN reset code**). The templates are editable and the values can be reset to their defaults if needed, by clicking **Revert values**.

10.10.3 Password complexity

In this section, the administrator manages the password complexity of MyQ users accounts.

- **Minimum length** - set the minimum character length for the password, in range *1-100* (*8* by default).
- **Enforce password complexity** - set how many of the four password complexity rules are to be enforced (*2* by default):
  - At least one upper-case letter
  - At least one lower-case letter
  - At least one number
  - At least one special (non-alphanumeric) character



10.10.4 Using external authentication servers

In addition to the internal MyQ authentication methods (password, PIN or ID card), you can use two types of external authentication servers: LDAP and Radius.

With the two external methods, MyQ does not use the internal MyQ PIN or password for user authentication, but instead authenticates users against an LDAP or Radius server. After the user enters their credentials during the authentication, the credentials are sent to be verified directly by the external server. If there is no online connection with the LDAP or Radius server, users cannot log in.

To enable this method of authentication, you have to take two steps:

1. register the external authentication servers in MyQ
2. select to use them for user authentication

To register external authentication servers in MyQ, see Authentication Servers Settings.

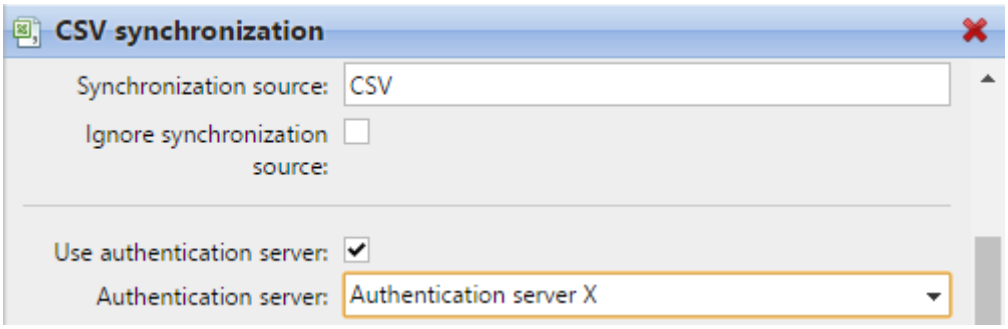
Selecting to use the registered external authentication servers for user authentication, can be done either automatically during the user import from an LDAP server or a CSV file, or manually on the properties panels of individual users.

Automatically selecting the external authentication option

Importing users from a CSV file

When you import users from a CSV file, you have two options of selecting the authentication server for the users:

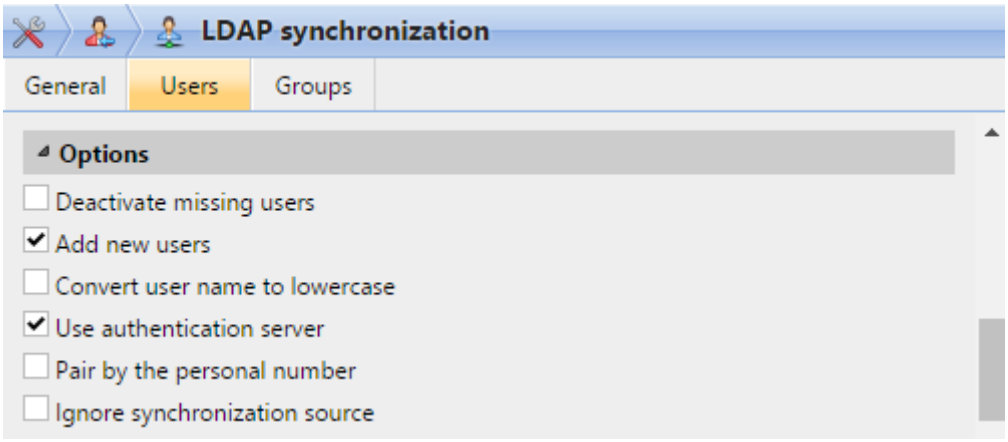
1. You can select the **Use authentication server** option and select the server during the synchronization setup on the synchronization properties panel.
2. You can specify the **Authentication server** for a particular user in the **AUTHSERVER** field of the CSV file. If the field is not empty, its value has priority over the value selected on the properties panel.



For more information about importing users from CSV files, see User synchronization from CSV files.

Importing users from an LDAP server

During the users import from an LDAP server, you can select the **Use authentication server option**, to use the current synchronization source server for users authentication. For information about importing users from LDAP servers, see User synchronization from LDAP servers.



Unlike the **Use authentication server** setting for the import from a CSV file, which allows you to select the authentication server, the **Use authentication server** setting here gives you a single option — users will be authenticated against the LDAP server where they are imported from.

Manually selecting the external authentication option

To manually select the external authentication option

1. Open the **Users** main tab and double-click the user. The user's properties panel opens on the right side of screen.
2. On the panel, select the **Use authentication server** option. The Authentication server setting becomes available.
3. On the Authentication server drop-down box, select the server you want to use, and then click **Save** at the bottom of the panel.

10.10.5 External Authentication

Administrators can benefit from **using external authentication servers** for authenticating users into MyQ. This is helpful mainly in environments where an authentication service not natively supported by MyQ is used.

External Authentication is used for login on the MyQ Embedded Terminal and MyQ Desktop Client. The MyQ Web User Interface and MyQ X Mobile Client require credentials set in MyQ.

How it works

An API connector between MyQ and the authentication service is set up. MyQ requests authentication through this connector, and on the other side is the authentication service itself where users and their credentials are stored.

1. User attempts to sign in on the MyQ Embedded Terminal
   - By swiping an ID card
   - By entering a PIN
2. The request is sent to the API connector, containing the login method type and the value
3. The connector handles communication with the authentication service and returns the user who matches back to MyQ

There are two modes of operation for External Authentication. Either it **can be the primary way of authenticating** users, or it can be configured **as a backup authentication** in case the authentication towards MyQ fails. For this, the option "Use only if authentication against MyQ DB fails" can be selected.

Authentication request

Supported login methods

This setting **defines the login method** for which External Authentication is used. The other, unselected, login method authenticates the user against the credentials in MyQ.

- ID Card
- PIN

MyQ sends the type of login method together with the actual PIN/ID card value so that the API connector can recognize which user property should be used to find the correct user.

For example, if an ID Card is selected, and the user authenticates on the Embedded Terminal with an ID card, MyQ sends out `loginType=1&loginValue=1234`. This can be interpreted as the ID card number `1234`.

If a card reader that emulates keystrokes is connected to the device and a user swipes their card, MyQ cannot recognize if the value received is a PIN or ID card number. MyQ indicates this to the API connector (`loginType=7`). The connector should be configured to handle these requests, e.g. by attempting to authenticate towards both user properties.

Authentication response

Supported user identifiers

The API connector has to respond in a JSON format with one of the values back to MyQ to pair the correct user and log them into the client.

- Personal number of an existing user in MyQ
- Username of an existing user in MyQ

Example responses:

- `{"result":0,"personalNumber":"123456"}` means that the user was successfully identified by the authentication service and its personal number is `123456` . The user with this personal number in MyQ is authenticated.
- `{"result":0,"username":"JohnDoe"}` means that the user was identified and its username is `JohnDoe` . The user with this username in MyQ is authenticated.

Error states

- Invalid user (`{"result":1}`)-- the user was found, but their account is invalid (e.g. deactivated)
- No user found (`{"result":2}`)-- there is no user associated with the credentials

API Documentation

For **implementation details**, containing information about the API endpoints and valid responses, read the MyQ API documentation – External Authentication.

Common use cases

The External API connector can be used in its most simple way to “translate” requests. But it also allows more advanced authentication workflows as the connector itself can perform a set of operations before it returns the matching user back to MyQ.

Example 1: Authentication service not supported by MyQ is required

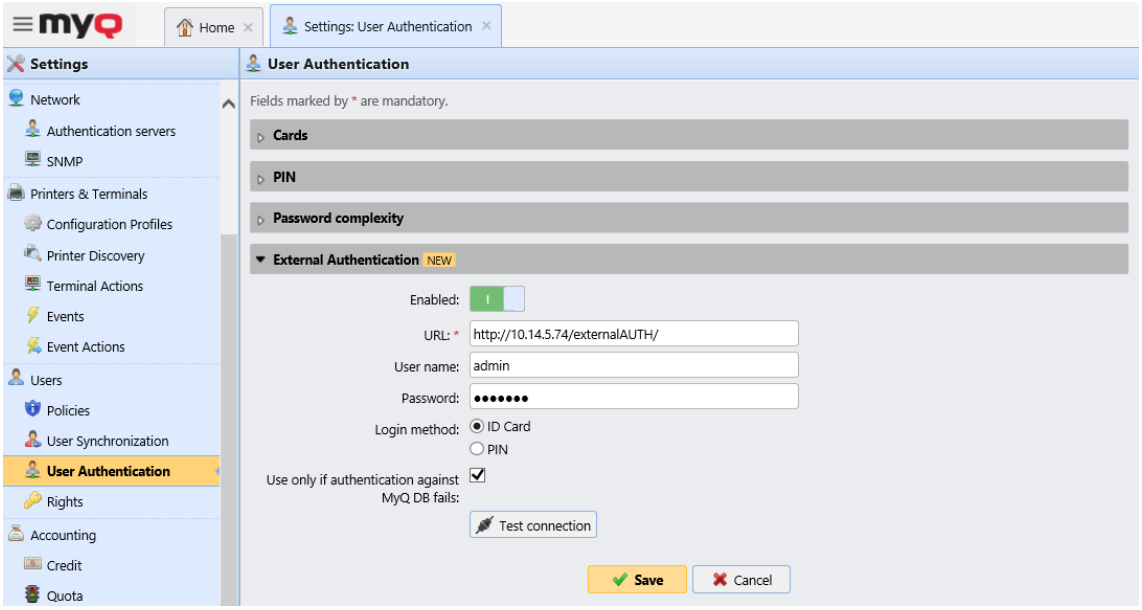
A connector that translates the API calls between MyQ and the remote authentication service.

Example 2: Advanced authentication workflow – multiple identities
External Authentication can be used in cases where some operation is required to happen between MyQ and the authentication server. This can be transformation, advanced user recognition in multi-domain environments, and more.

:MyQLogo:

Setup External Authentication

External Authentication destination can be enabled and configured in **MyQ, Settings, User Authentication**.



- **URL**: type the URL where the API connector is running
- **User name**: type the user name required for the connection to the external server via API
- **Password**: type the password required for the connection to the external server via API
- **Login method**: choose the users login method - *ID Card* or *PIN*
- **Use only if authentication against MyQ DB fails**: this option defines whether the External Authentication will be the primary or secondary method for authentication
  - If enabled, the user is first authenticated towards the MyQ Print Server, and only after it fails, the next attempt goes through the remote authentication service
  - If disabled, no authentication towards the MyQ Print Server is performed, External Authentication service is always used

10.11 Policies

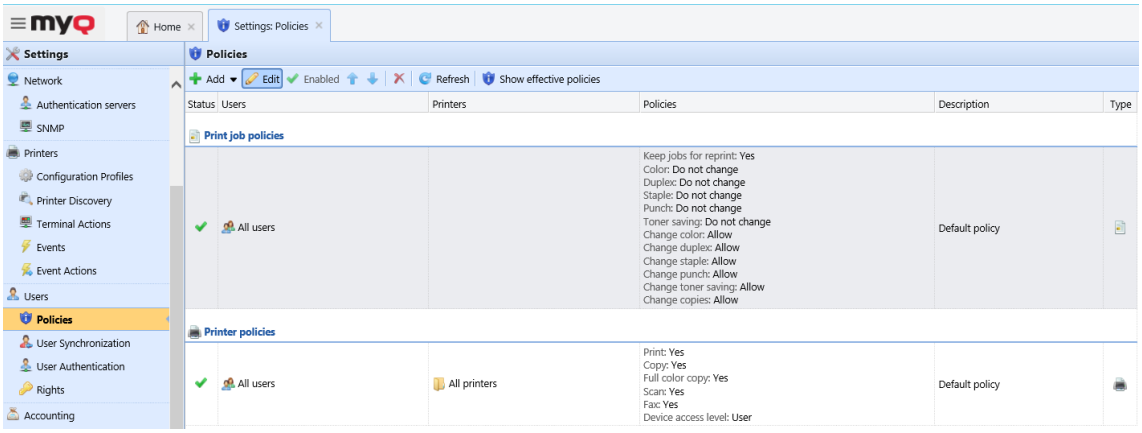
The **Policies** settings tab is divided into two sections. The **Print job policies** section contains settings that apply to all print jobs, all printers and selected users or groups.

The **Printer policies** section contains settings that apply to all queues, all print jobs, selected users (or groups) and selected printers.

Print job policies have the highest priority. Settings in the **Printer policies** section apply to all queues and all of the selected users, regardless of the settings of queues and print job policies.

An in-depth look at MyQ user policies and how to implement them to attain your organizations goals can be found here.

Policies in both sections are listed in order of precedence: every policy has a higher priority than all the policies below it. If two policies are in conflict, the policy that is higher on the list applies. The default policy has the lowest priority and is always at the bottom of the list, other policies can be moved up and down the list by clicking the left or right arrow buttons on the **Policies** settings tab toolbar.



10.11.1 Print Job Policies

To open a print job policy properties panel, double- click the print job policy on the **Policies** settings tab list, under **Print job policies**.

Each print job policy panel is divided into four sections:

- In the upper section, you can enable or disable the policy, select the **Users and Groups** of users that it will apply to, and add the policy **Description**.
- In the **General** section, mark the checkbox to be able to modify the setting and choose *Yes/No* if you want to **Keep jobs for reprint**.
- In the **Job Settings Defaults** section mark the checkboxes to be able to modify the below settings:
  - **Color**: *Do not change, Color, B&W*
  - **Duplex**: *Do not change, Simplex, Duplex long edge, Duplex short edge*
  - **Staple**: *Do not change, No Staple, Upper left corner, Booklet, Lower left corner*

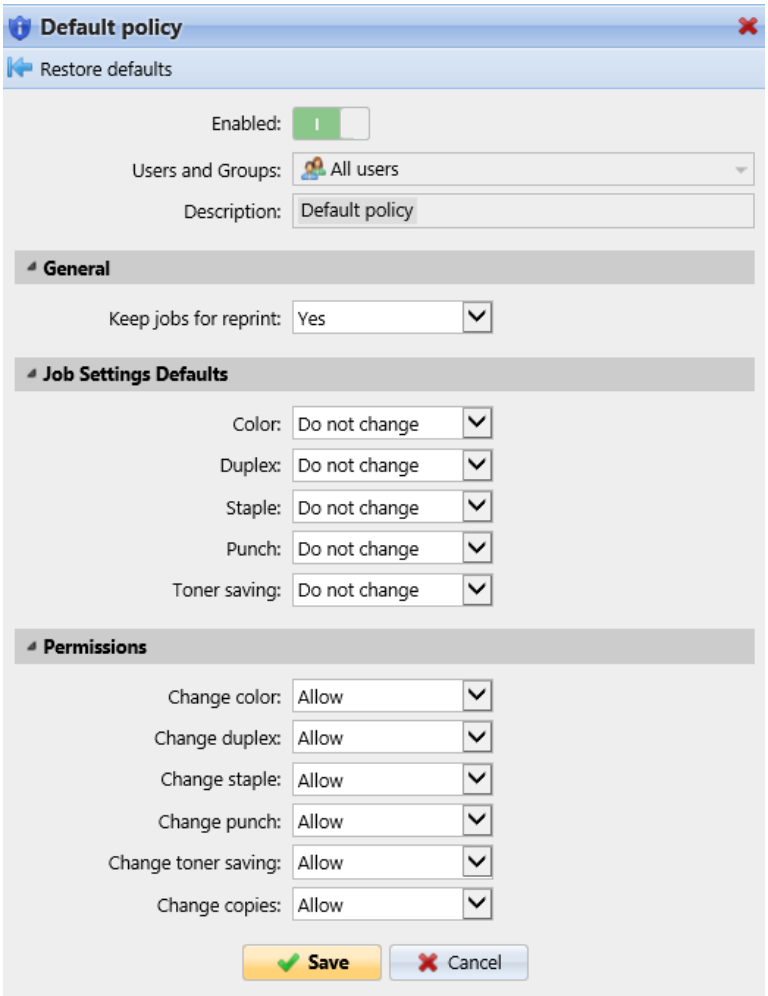
    - **Punch**: *Do not change, No Punch, 2 holes, 3/4 holes*
    - **Toner saving**: *Do not change, No, Yes*
- In the **Permissions** section mark the checkboxes to be able to modify the settings and you can choose whether to *Allow* or *Deny* them:
    - **Change color**
    - **Change duplex**
    - **Change staple**
    - **Change punch**
    - **Change toner saving**
    - **Change copies**

Click **Save** and your new **Print job policy** appears in the **Policies** list.

10.11.2 Default print job policy

The **Default policy** applies to all users and has no restrictions. Except for its name and scope, all the settings of this policy can be changed.

You can restore the default settings by clicking **Restore defaults** on the top-left corner of its panel.



10.11.3 Adding new print job policies

1. On the bar at the top of the **Policies** settings tab, click **+Add**, and then click **+Add print job policy**. The new print job policy properties panel opens on the right side of screen.
2. On the panel, select the users or group of users that the policy will apply to, optionally write a description of the policy, change its settings, and then click **Save**.

The new policy appears on the **Policies** setting tab, under **Print job policies**.

With all the **Permissions** set to *Deny*, users are not able modify their jobs on the MyQ Embedded terminals.

With the **Keep jobs for reprint** setting set to *No*, users are not able to add their jobs to **Favorites** on their account on the MyQ Web Interface or on MyQ Embedded terminals and they cannot reprint old jobs on the embedded terminals either.

The **Keep jobs for reprint** setting is also available when configuring a queue. The following combinations between the Keeps jobs for reprint Policy and Queue setting are available:

- Policy *ON* + Queue *ON* - The print job file is saved and can be reprinted even when not marked as favorite.
- Policy *ON* + Queue *OFF* - The print job file is saved only when marked as a favorite before printing. Favorite jobs can be reprinted.
- Policy *OFF* + Queue *ON* - The print job files are always saved, but because of the policy they cannot be reprinted or marked as favorite by the users. If the Policy is changed to *ON*, then the jobs can be reprinted later.
- Policy *OFF* + Queue *OFF* - The print job files are always deleted right after printing, cannot be reprinted or marked as favorite. If the Queue or Policy is changed to *ON*, jobs cannot be reprinted anyway.

10.11.4 Printer Policies

To open a printer policy properties panel, double-click the printer policy on the **Policies** settings tab, under **Printer policies**.

Each printer policy panel is divided into three sections:

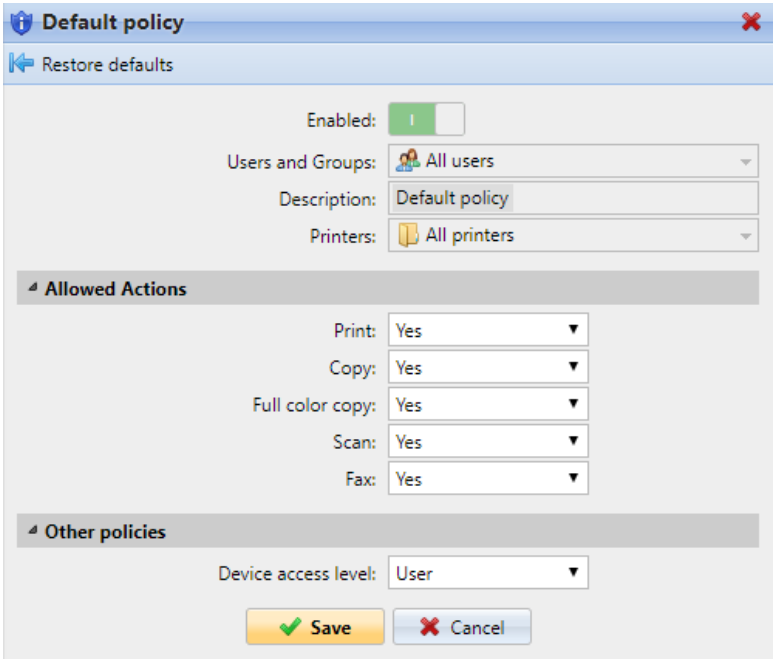
- In the uppermost section, you can enable or disable the policy, select the **Users and Groups** of users that it will apply to, select the **printers** that it will apply to and write the policy description.
- In the **Allowed** actions section, you can restrict access to particular operations on the selected printing devices. The available operations are:
  - **Print**
  - **Copy**
  - **Full color copy**
  - **Scan**
  - **Fax**

- In the **Other policies** section, you can provide users with administrator access to printing devices via the embedded terminal menu. For some devices, this option is not supported.

10.11.5 Default printer policy

The **Default policy** applies to all users, all printers, has no restrictions and gives users **User access** to embedded terminals. Except for its name and scope (It applies to all users and all printers), all settings of this policy can be changed.

You can restore the **Default policy** default settings by clicking **Restore defaults** on the top-left corner of its panel.



10.11.6 Adding new printer policies

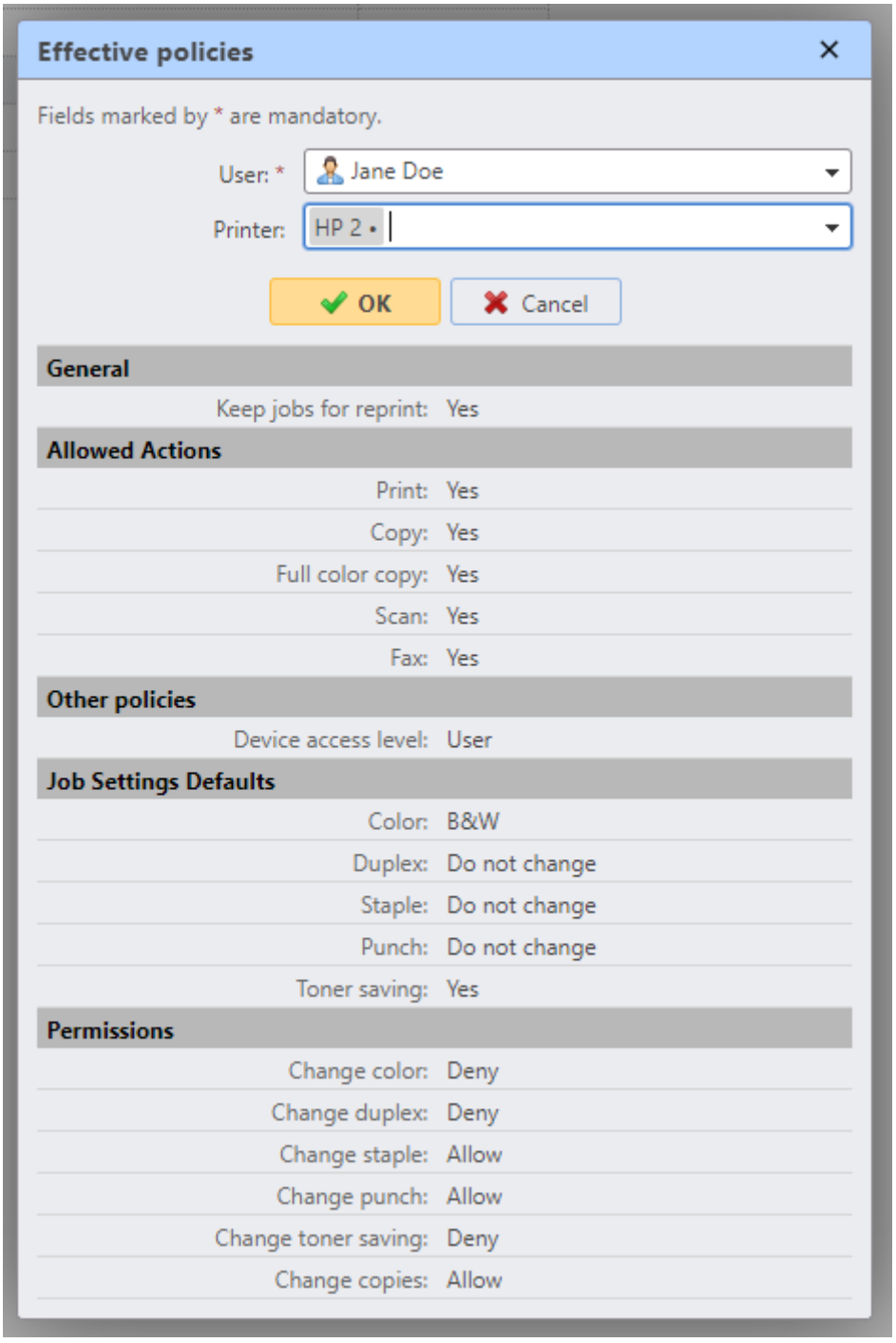
1. On the bar at the top of the **Policies** setting tab, click **Add**, and then click **+Add printer policy**. The new policy properties panel opens on the right side of screen.
2. On the panel, select the users or group of users that the policy will apply to, optionally write a description of the policy, change its settings, and then click **Save**. The new policy appears on the **Policies** settings tab, under **Printer policies**.

10.11.7 Checking policies applied to individual users

The levels of policy applied to individual users at specific printers can easily become complex, however, you can use the **Show Effective Policies** action to get a quick overview of policies on a user level.

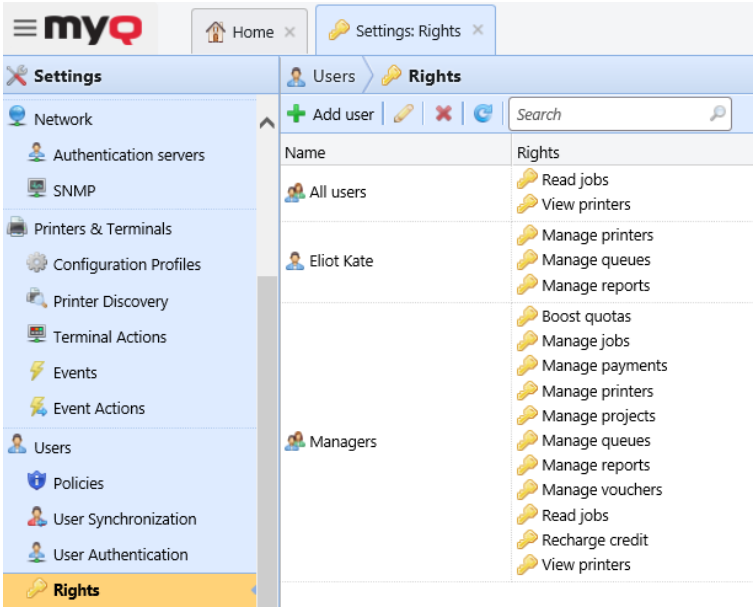
1. From the **Users** tab, select **Actions** from the top-left of the navigation bar, and click **Show Effective Policies**.
2. Select the user for whom you want to view effective policies, and optionally, a specific printer, and click **Show Effective Policies.**

The policies currently applied to this user (on the relevant printer if selected) are listed in the categories **Allowed Actions**, **General**, **Job Settings Defaults**, **Other Policies**, and **Permissions**.



10.12 Rights

On the **Rights** settings tab, you can provide users or groups of users with administrator rights or provide them with rights to run one or more of the MyQ agendas: they can perform actions, change settings or see information that are inaccessible under a standard user account. On the tab, you can add users or groups and provide them with the rights.



On the toolbar at the top, you can:

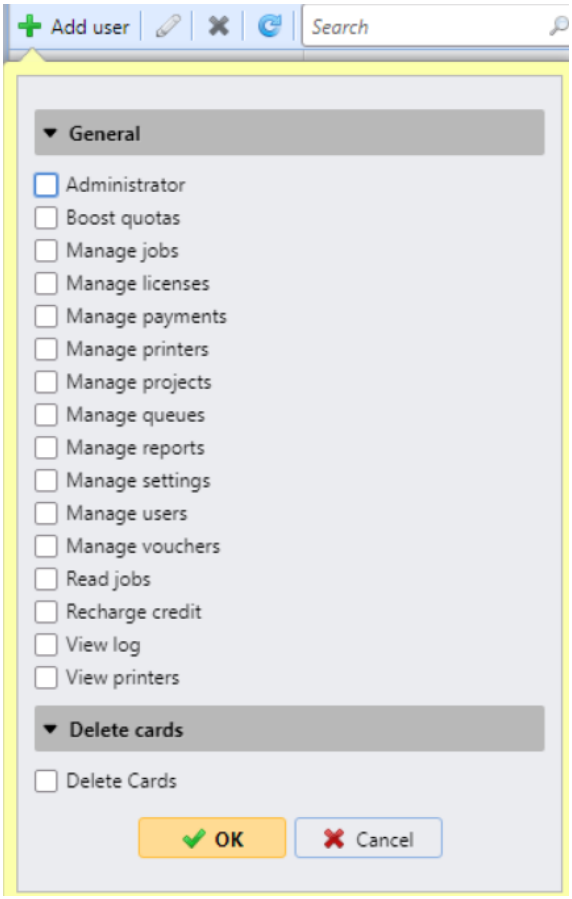
- **Add user** - add a new user or group with assigned rights.
- **Edit** - edit an existing user or group with assigned rights.
- **Delete** - delete a user or group with assigned rights.
- **Refresh** - refresh the list of users and groups.
- **Search** - search for a user or group with assigned rights. You can either use user names or rights for filtering your search results.

If the server is used as a Site server, user rights are managed by the Central server. The rights are visible in the Site server's Rights settings, but are non-editable.

10.12.1 Providing Users and Groups with Rights

To add a new user or a group of users to the list on the **Rights** settings tab:

1. On the **Rights** settings tab, click **+Add user**. The Select user or group dialog box appears.
2. In the dialog box, select the user (or group) and click **OK**. The rights panel opens.
3. Select the user (or group) rights.
4. Click **OK**. The user (or group) appears on the list on the **Rights** settings tab along with the assigned rights.



10.12.2 Editing Users' Rights

To open the user rights properties panel (or the group rights panel), double-click the user (or the group) on the list of users and groups on the **Rights** settings tab. The panel appears on the left side of the screen.

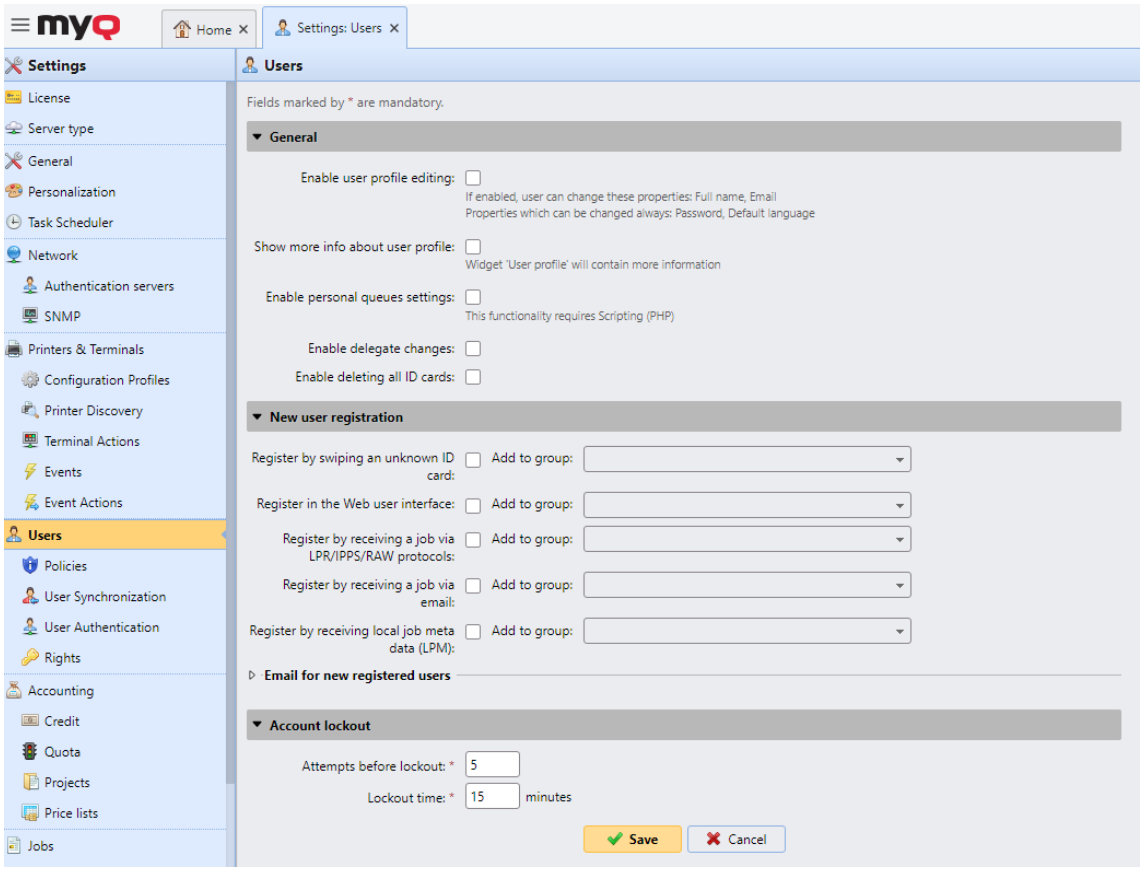
In the user rights panel, under the **General** section, you can assign rights concerning the general run of MyQ. These rights are described below:

- **Administrator** - The user is provided with administrator (*admin) rights.
- **Boost quotas** - The user gets access to the **Quota Boosts** main tab.
- **Manage jobs** - The user can edit other users' jobs.
- **Manage licenses** - The user can view and manage MyQ licenses on the **License** settings tab.
- **Manage payments** - The user gets access to the **Payments** main tab.
- **Manage printers** - The user gets access to the **Printers** main tab, to monitor printers and change their settings, as well as the **Printers & Terminals** settings tab and all its subsections, where they can modify settings.
- **Manage projects** - The user gets access to the **Projects** main tab, can add projects and change their settings.
- **Manage queues** - The user gets access to the **Queues** main tab and can change the settings there.
- **Manage reports** - The user can manage all reports.

- **Manage settings** - The user gets access to management of all settings on the **Settings** tab of the MyQ Web interface except for the settings on the **Rights** tab.
- **Manage users** - The user gets access to the **Users** main tab, the **Users** settings tab and the **Policies** settings tab, can add users and change their settings and rights. The user also gets access to the **Accounting** settings tab, but cannot change the settings. Access to the **Credit** settings tab is granted, but the user is only allowed to change Users and Groups. Access to the **Quota** settings tab is granted, but but the user is only allowed to change Quota definitions, not Quota global settings.
- **Manage vouchers** - The user gets access to the **Voucher Batches** main tab.
- **Read Jobs** - The user can see other users' jobs.
- **Recharge credit** - The user gets access to the **Recharge credit** main tab.
- **View log** - The user can view the MyQ log.
- **View printers** - The user gets access to the **Printers** main tab, to monitor printers.
- **Delete Cards** - If granted, the user has the **Delete all ID cards** button available on their User profile widget in the MyQ web UI and they are able to delete all their ID cards.

10.13 Users Settings

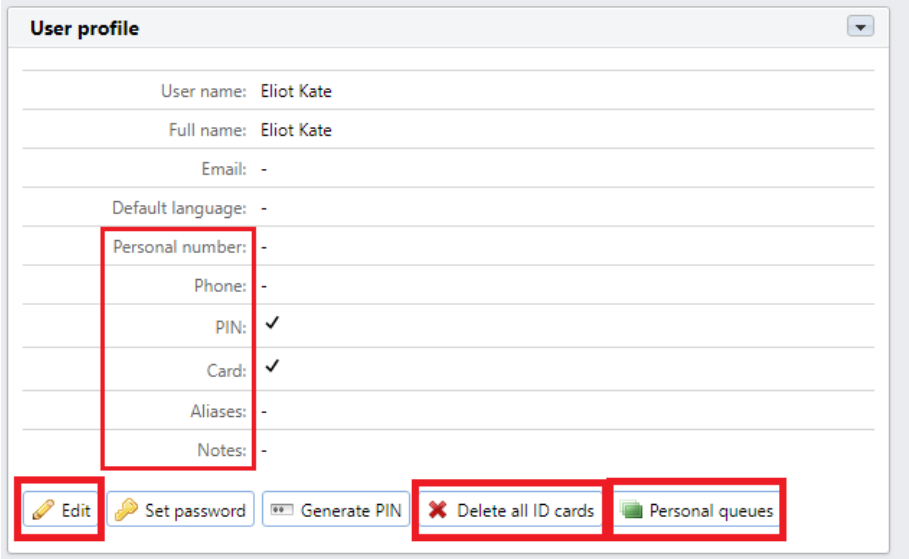
In the **Users** settings tab (**MyQ, Settings, Users**), the MyQ administrator can manage MyQ users' **General** settings, **New user registration settings**, and MyQ **Account lockout** options.



General section

- **Enable user profile editing** - If enabled, users will be able to change their full name and email. For more information, check Enable user profile editing.
- **Show more info about user profile** - If enabled, the User profile widget will contain more user-related information (Personal number, Phone, PIN, Card, Aliases, Notes).
- **Enable personal queues settings** - If enabled, users can use personal queues. For more information, check Personal Queues.
- **Enable delegate changes** - If enabled, users will be able to change their delegates. For more information, check Delegated Printing.
- **Enable deleting all ID cards** - If enabled, users will be able to delete all their ID cards.

If all of the above are enabled, the users can view additional user information, **Edit** their account, **Delete all ID cards**, and use **Personal Queues** in their User profile widget:



New user registration section

In this section, the MyQ administrator can enable automatic user registration to MyQ in multiple ways, For more information, check Automatic user registration.

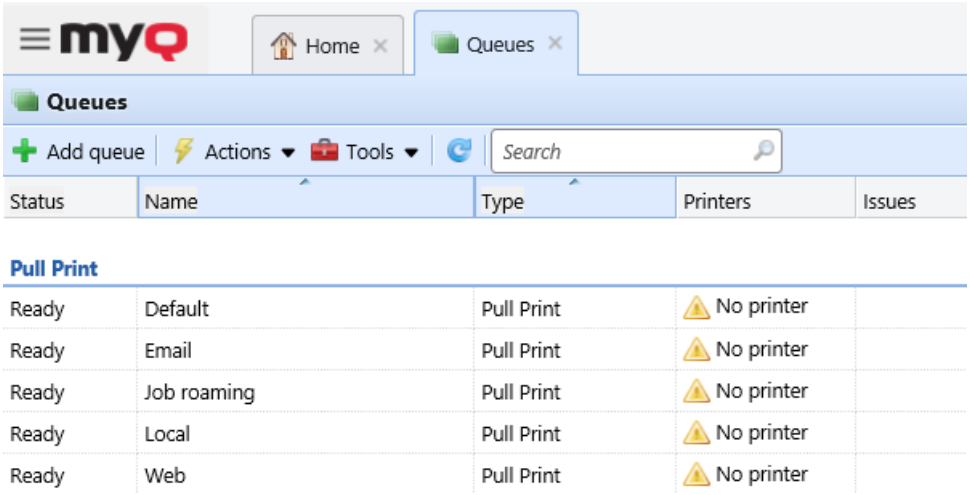
Account lockout section

In this section, the MyQ administrator can set the number of failed login **Attempts before lockout** (*5* by default), and the **Lockout time** in minutes (15 minutes by default).

11 Queues

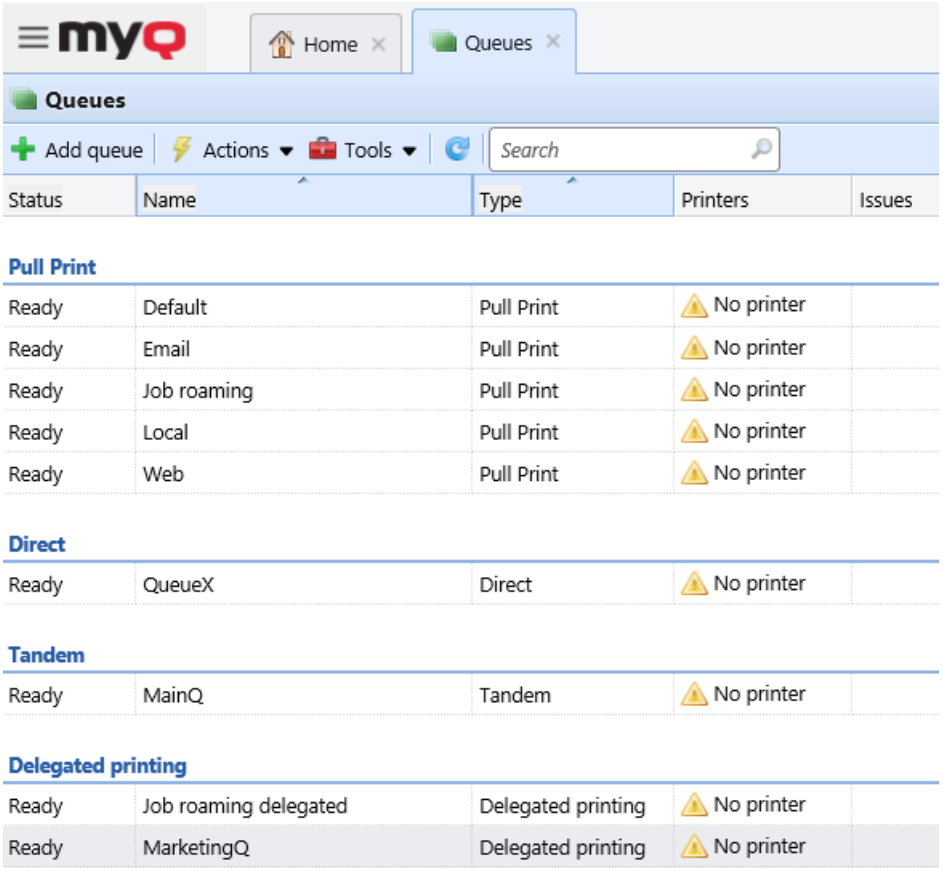
This topic discusses one of the key functions of MyQ: setup and management of print queues. It covers the following subjects:

- Overview, adding and deleting queues: List of queues, Adding and deleting queues.
- Individual queues settings: Editing queues
- Direct, Tandem, Pull Print, and Delegated printing queue types: Queue types
- Ways of detecting users: User detection methods
- You can create collections of watermarks and associate them with queues: Watermarks
- Some extra options for queues: Advanced queue options



11.1 List of queues

On the **Queues** main tab, you can see queues and information about them. The queues are divided into groups according to their type: **Pull Print**, **Direct**, **Tandem**, and **Delegated printing**.



11.1.1 Default queues

After installing MyQ, there are five default **Pull Print** queues on the **Queues** main tab: **Default**, **Email**, **Job roaming**, **Local**, and **Web**.

- **Default**: Pull Print queue where all users have access and all printers are assigned.
- **Email**: All jobs sent from email are assigned to this queue.
- **Job Roaming**: Job Roaming enables users to transfer their jobs from one location to another. Jobs sent to one branch are automatically assigned to this system queue and can be printed on printing devices at any other branch. This queue can only be used is a MyQ Central and Site servers environment; for more information, see the *MyQ Central Server Installation Guide*.
- **Local**: Used with locally connected printing devices (USB, LPT).
- **Web**: All jobs sent directly from the web user interface are assigned to this queue.

There is also a default **Delegated printing** queue:

- **Job roaming delegated**: Delegated printing jobs used with job roaming are automatically assigned to this system queue. This queue can only be used is a MyQ Central and Site servers environment; for more information, see the *MyQ Central Server Installation Guide*.

11.2 Queue types

For each queue, except for the default queues, you can select from four options as to what happens with the jobs that are sent there. This section describes these four queue types.

11.2.1 Direct queue type

A direct queue can have only one printing device assigned to it. Print jobs in this queue are sent directly to the printing device and are immediately printed.

When you add printers using printer discovery, you can automatically create a direct queue for every newly discovered device.

11.2.2 Tandem queue type

A tandem queue can be used on places with multiple printers and a higher printing volume. Jobs sent to this queue are evenly distributed among the devices and do not have to wait for one particular printer. This way, a large volume of print jobs can be spread between printers and printed in a significantly shorter time.

The queue can have multiple printing devices assigned to it. Print jobs from the queue are distributed among the printing devices that are not busy at the moment and they are immediately printed. If there are multiple idle printing devices, the print job is sent to the printer with the lowest printed pages counter.

To maintain a balanced printing device load, make sure that the printed page counters on all of the used printing devices are similar. Otherwise the printing devices with the lower printed page counter might be overused.

You can manually change the page counter on the **Printer total counter adjust for load balancing:** setting on the printing device properties panel on the **Printers** main tab. The number that you enter is added to the counter.

11.2.3 Pull Print queue type

With this queue, users can send multiple jobs and print them when they want on any of the printers assigned to the queue.

The queue can have multiple printing devices assigned to it. All of the assigned printers have to be equipped with MyQ embedded terminals. Jobs sent to a pull print queue are processed by the system and saved on the server.

Once the user logs in on any printer assigned to this queue, the print job is sent to this device and the user can print it.

To use a pull print queue, an embedded terminal or a hardware terminal is required.

For more information on embedded terminals, see:

- MyQ Canon Embedded
- MyQ Epson Embedded
- MyQ HP Embedded

- MyQ Kyocera Embedded
- MyQ Lexmark Embedded
- MyQ Ricoh SmartSDK Embedded
- MyQ Sharp Embedded
- MyQ Toshiba Embedded
- MyQ Xerox Embedded

11.2.4 Delegated printing queue type

The delegated printing feature enables users and groups of users to choose delegates who can print their print jobs. After the delegating user (or group of users) sends a job to the **Delegated printing** queue, all delegates can see the jobs and print them. For further information about the **Delegated printing** feature, see Delegated printing.

The **Delegated printing** queue type works in the same way as the **Pull Print** queue type, except that it supports the delegate printing feature.

The delegates do not need to have rights to the delegated printing queue where the job was sent.

11.3 Adding and deleting queues

11.3.1 Adding a queue

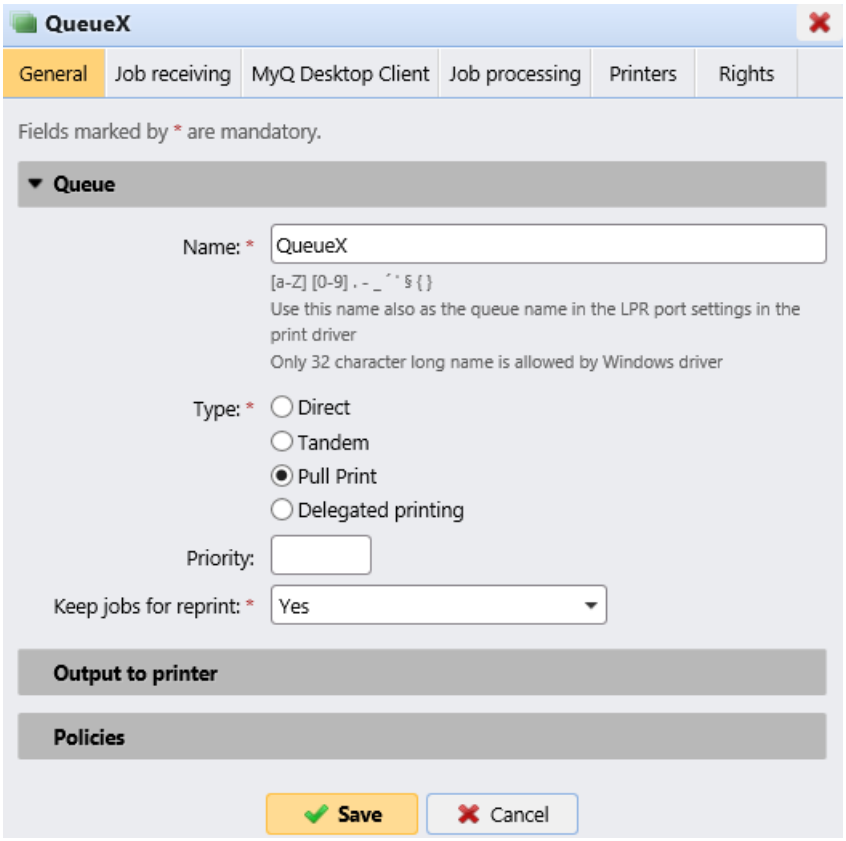
1. On the **Queues** main tab, click **+Add queue**. The new queue properties panel opens on the right side of the screen.
2. On the panel, add a **Name** for the queue, select a **Type**, further modify the queue's settings (Queues general settings), and click **Save**.

11.3.2 Deleting a queue

1. On the list of queues on the **Queues** main tab, select the queues that you want to delete, and then click **Actions** (or right-click the queue). The Actions drop-down box appears.
2. In the **Actions** drop-down box, click **Delete**. The queues disappear from the list.

11.4 Editing queues

Each individual queue has its own properties panel. To open the panel, double-click the queue on the list of queues on the **Queues** main tab (or right-click the queue, and then click **Edit**). The properties panel opens on the right side of the screen.



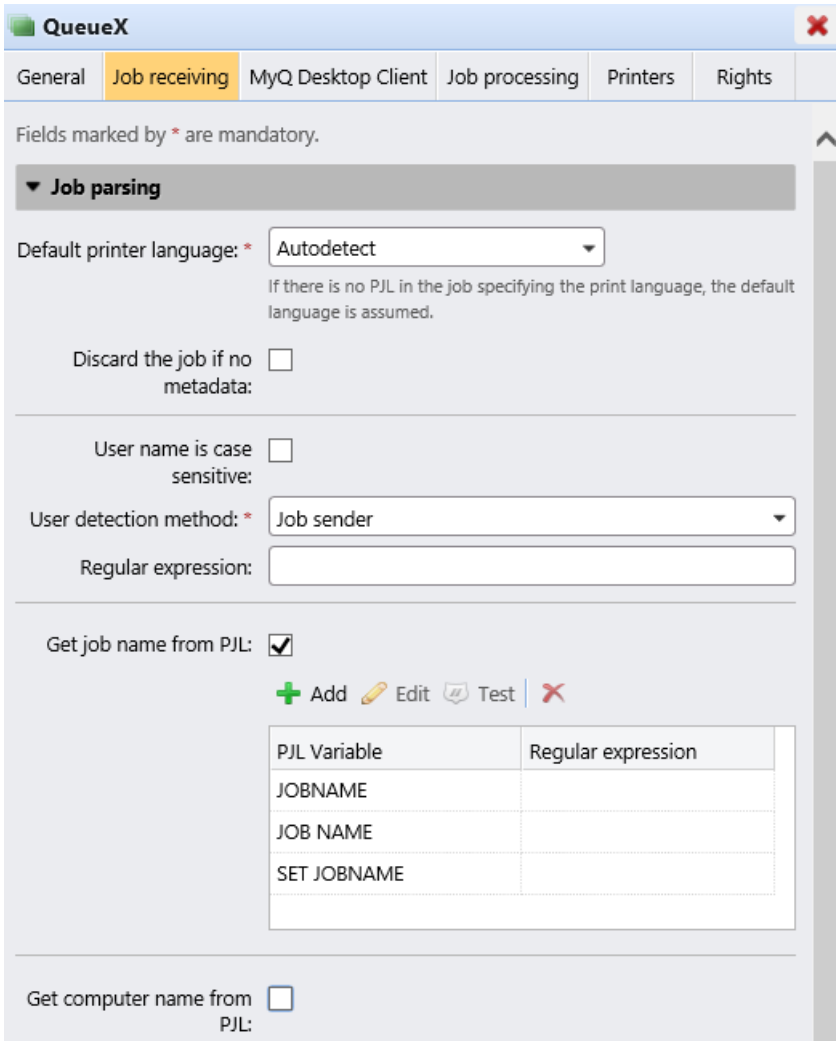
The basic setup of a queue can be done in four tabs: the **General** tab, the **Job receiving** tab, the **Printers** tab, and the **Rights** tab.

General tab settings

- **Name** - Enter a name for the queue. This is an essential parameter for directing print jobs to MyQ and it is part of the print port setting. It is unique, case sensitive and cannot contain diacritics and spaces. This entry is mandatory.
- **Type** - Select a type for the queue. The available queue types are: *Direct*, *Tandem*, *Pull Print*, and *Delegated Printing*. For more information, see Queue types.

Jobs receiving tab settings

- **User detection method** - Here you can set the user detection method. For more information, see User detection methods.
- **Get job name from PJL** - This gives you the option to discard a job when it comes without metadata.



Printers tab settings

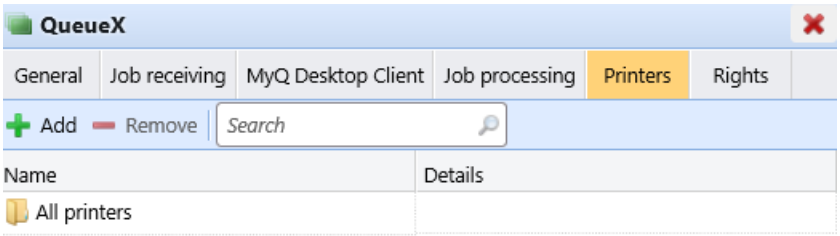
By default, the **All printers** group is automatically assigned to every queue. You can delete this group to restrict the number of assigned printers.

To add a printing device or a group of printing devices to the queue:

1. On the bar at the top of the **Printers** tab, click **+Add**. A search dialog box appears.
2. In the dialog box, find the printing device (or group of printing devices) that you want to add to the queue, and then click **OK**.

To remove a printing device or a group of printing devices from the queue:

1. On the bar at the top of the **Printers** tab, select the printing device (or group of printing devices), and then click **–Remove**. The printing device (or group of printing devices) disappears from the **Printers** tab.

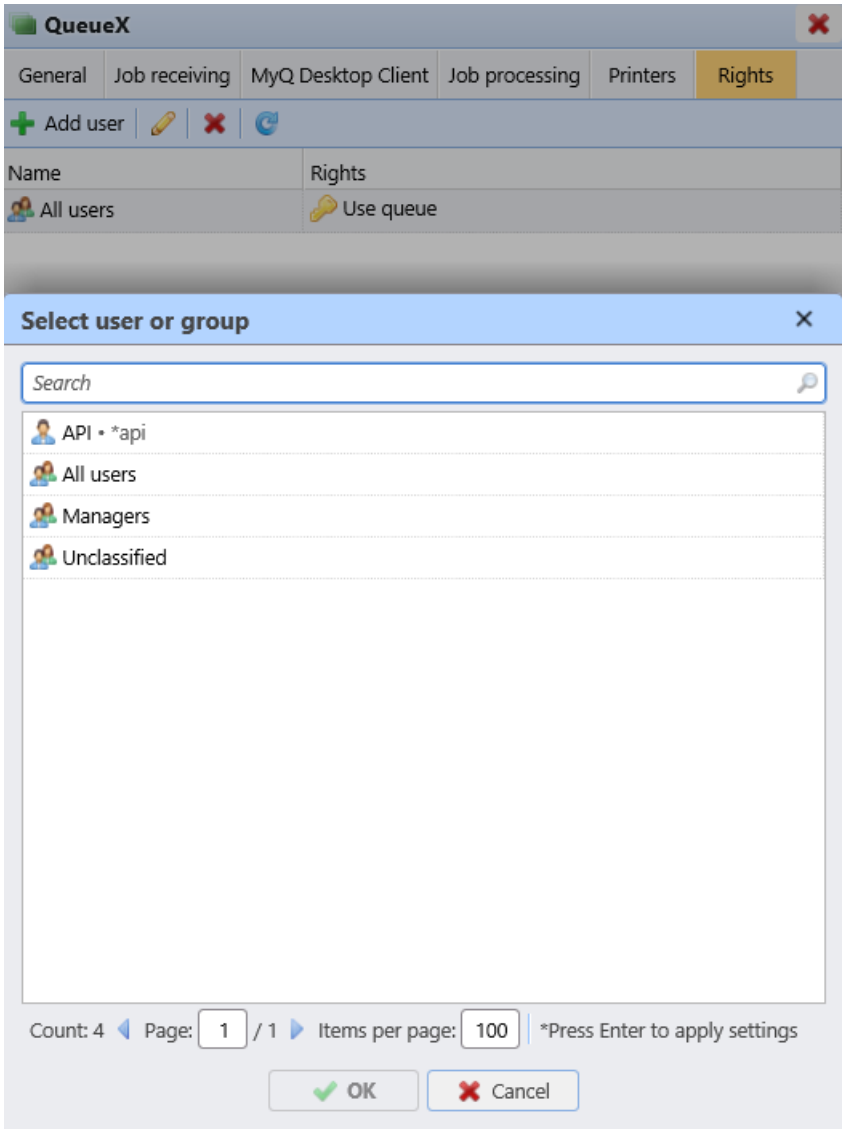


Rights tab settings

By default, the **All users** group is automatically assigned to every queue. You can delete this group to restrict the number of users with the right to use the queue.

To provide a user or a group of users with rights to the queue:

1. On the bar at the top of the **Rights** tab, click **+Add User**. The Select user or group dialog box appears.
2. In the Select user or group dialog box, select the user (or group of users) that you want to provide with rights to the queue, and then click **OK**.



To remove the rights to the queue from a user or a group of users:

1. On the **Rights** tab, select the user (or group of users), and then click the remove button (**X**). The user (or group of users) disappears from the **Rights** tab.

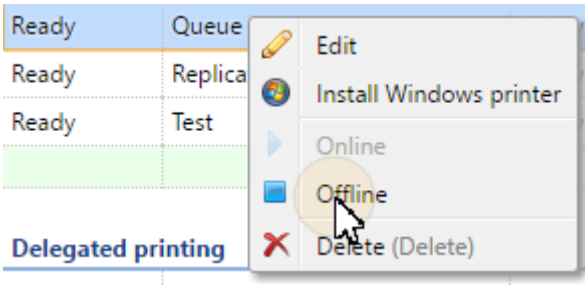
11.5 Online/Offline queues

While the default queues are always online, each of the manually added queues can be switched to the offline mode. Queues switched to the offline mode do not receive any print jobs. However, users can still print jobs that are already waiting in these queues.

Jobs sent to an offline queue are rejected with the log message: *"Unknown or inactive queue '...'. The job was discarded."* displayed in the log, on the **Log** main tab of the MyQ Web Interface.

To switch between the online and offline mode of a queue:

1. Select the queue from the list on the **Queues** main tab, and then click **Actions** (or right-click the queue). The Actions drop-down box appears.
2. In the Actions drop-down box, click **Offline** (or **Online**). The queue switches to the offline or (online mode).



11.6 Personal Queues

Personal queues in MyQ enable users to select the queues where their print jobs are sent to. The users can create multiple queues to ascertain that at least one of them has available printing devices where the job can be released.

If a user is not allowed to send the job to the currently checked personal queue, MyQ skips it and moves to the next one. If all personal queues are skipped, the job is sent to the queue set on the print port.

11.6.1 Activating the feature

To activate personal queues:

1. On the **Users** settings tab, select the **Enable personal queues settings** option.
2. On the properties panel of the queue where the user's jobs are sent to by the print driver, add the PHP script shown below. The script moves the jobs to the first available personal queue of the user.

```
// get all user's queues sorted by priority
$personalQueues = $this->owner->personalQueues;
// loop them
foreach ($personalQueues as $q) {
// skip queue if no printer is available
if ($q->isAnyPrinterAvailable() === false) {continue;}
// queue printer is available, move job to queue
$this->moveToQueue($q->name);
// job is moved, stop the loop
break;}
```

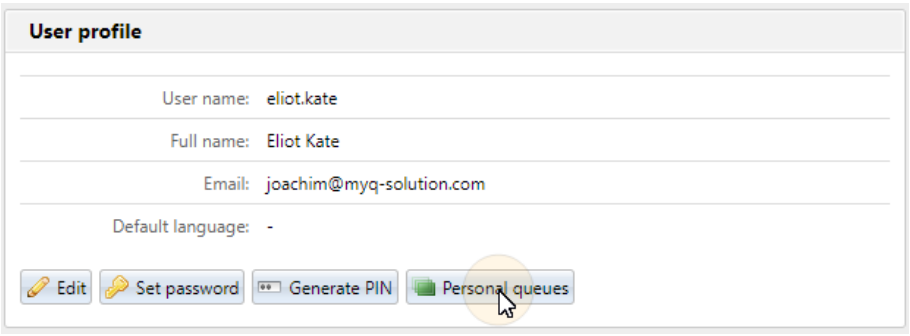
After the feature is set up, each user can see a button for setup of their personal queues on their account on the MyQ Web Interface.

11.6.2 Setting personal queues

Once the feature is activated, both the MyQ users and the MyQ administrator can add and delete personal queues.

MyQ Users

Users add and delete the personal queues on their user account on the MyQ Web Interface. To do this, they need to log in to the interface, then click **Personal queues** there, and lastly set the queues in the Personal queues dialog box.

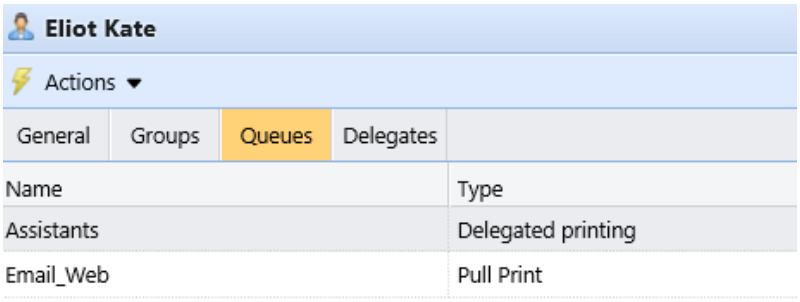


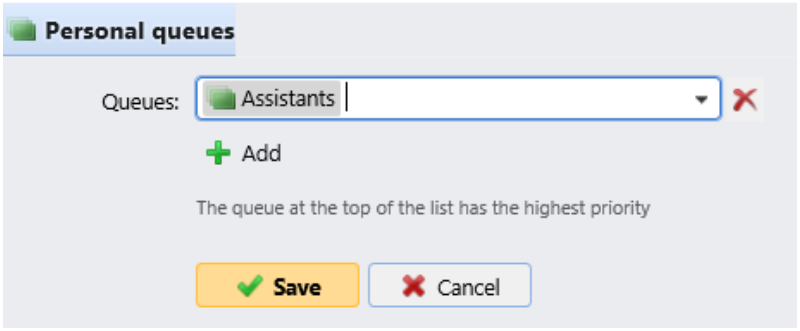
After the user sends the job, MyQ checks the personal queues and sends the job to the first queue with available printing devices.

MyQ Administrator

The MyQ administrator adds and deletes the user's personal queues on the **Queues** tab of the user's properties panel on the **Users** main tab in the MyQ Web Administrator Interface. To access the tab, open the **Users** main tab (**MyQ, Users**), then double-click the user (or right- click the user, and then click **Edit** on the shortcut menu) to open the properties panel, and lastly click **Queues** on the panel.

On the **Personal queues** section, add and/or delete personal queues for the user.





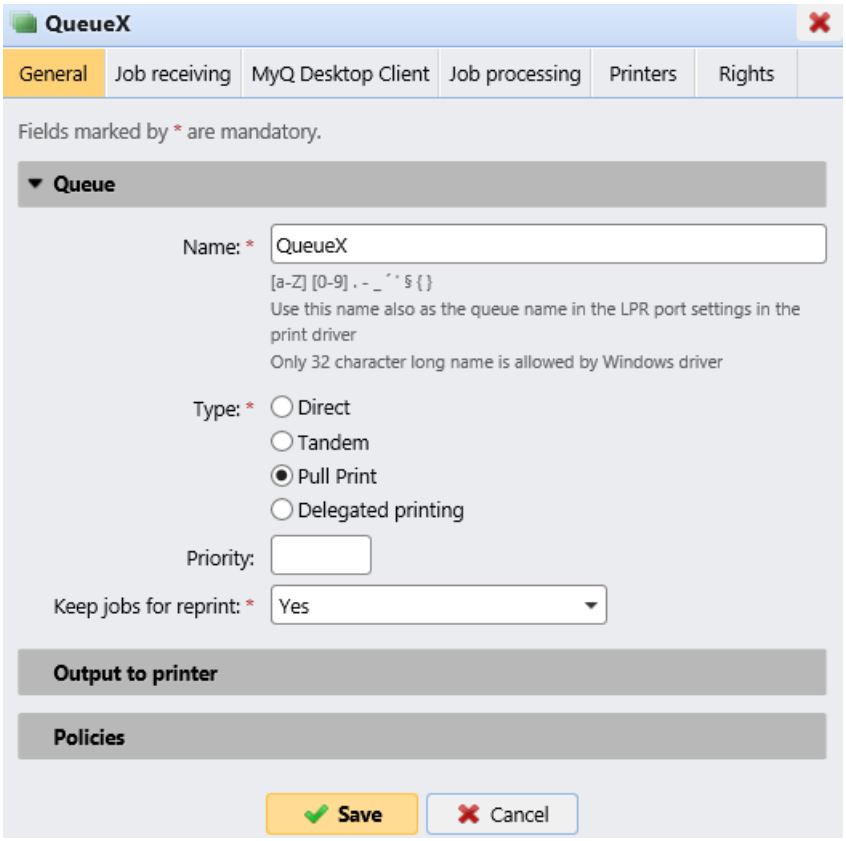
11.7 Advanced queue options

Once you have created a queue and set the basic options, like the name, type, printers and rights assignments, you can select some of the more advanced queue and job management features:

- General
- Job receiving
- Job processing
- MyQ Desktop Client
- Job Scripting

11.7.1 General tab

Available advanced settings on a queue's general tab:



Queue section

- **Priority**: When multiple jobs from pull print queues are to be released at the same time, the jobs
  that are sent to the queues with a higher priority are released before the jobs with lower priority. For example, if there are three jobs waiting to be released on a printing device, one with a priority number *0*, one with a priority number *-1* and one with a priority number *2*, the job with the priority number *2* is printed first, the job with the priority number *0* is printed second and the job with the priority number *-1* is printed third.
- **Keep jobs for reprint**: *Yes, No.* The **Keep jobs for reprint** setting is also available when configuring a Print Job Policy. You can find the available combinations in Print Job Policies.

Output to printer section

- **Protocol**: By default, print jobs are sent from MyQ to printing devices via the RAW protocol. Instead of it, you can use one of the alternative standard protocol options (*IPP, IPPS* or *LPR*) or the MyQ printing protocol, which can be used in two versions:
  - MPP: jobs sent via this protocol are compressed
  - MPPS: jobs sent via this protocol are compressed and encrypted via SSL
- **Port:** Here you can change the port of the selected protocol.
- **Use Fiery if available**: If you use a Fiery module for processing Postscript jobs, make sure that this option is selected and set the IP address of the module on

the properties panel of the printing device to which the module is connected. Otherwise, you can deselect the option.

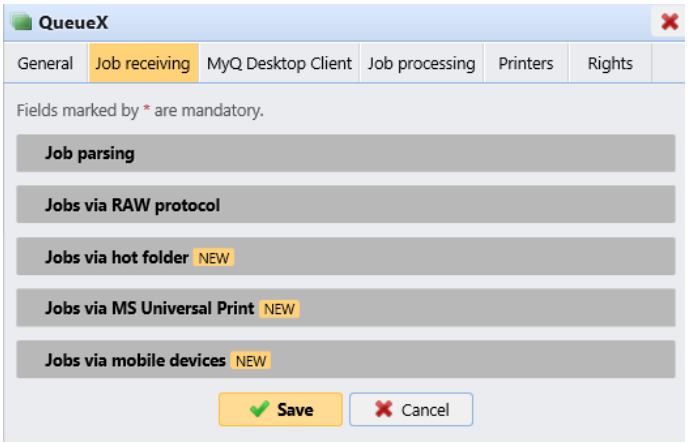
Policies section

The final job settings are a combination of these queue settings, user policies and user changes made on the embedded terminal. All settings are set to *Do not change* by default.

- **Color:** *Do not change, Color, B&W*
- **Duplex:** *Do not change, Simplex, Duplex long edge, Duplex short edge*
- **Staple:** *Do not change, No Staple, Upper left corner, Booklet, Lower left corner*
- **Punch:** *Do not change, No Punch, 2 holes, 3/4 holes*
- **Toner saving:** *Do not change, No, Yes*

11.7.2 Job receiving tab

On the **Job receiving** tab of each queue, you can set how a job is parsed and other job receiving options.



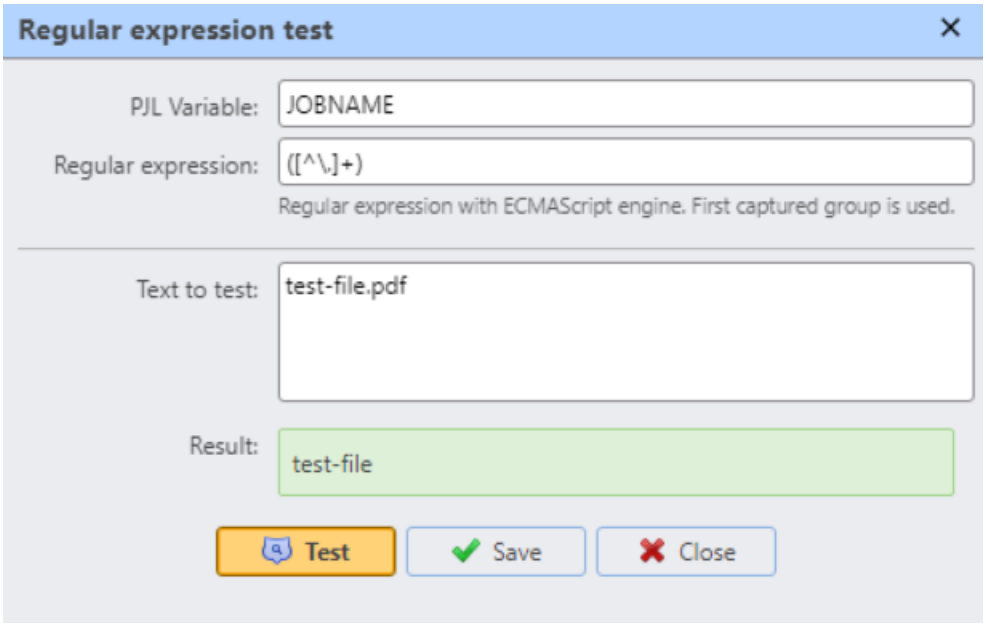
Job parsing section

- **Default printer language**: Choose the default printer language from the drop-down menu. The available options are:
  - **Unknown**
  - **Autodetect** (default setting)
  - **PCL 5**
  - **PostScript**
  - **ESC/P**
  - **Prescribe**
  - **PCL 6**
  - **PDF**
  - **JPEG**
  - **XPS**

    If there is no PJL in the job specifying the print language, the default language is assumed.

- **Discard the job if no metadata**: If this option is selected, MyQ discards all jobs that do not contain metadata from the Job Parser. It can be used together with the **Credit** or **Quota** features to prevent printing jobs without necessary information (number of pages, color etc.). When a job is discarded due to this setting, the following message appears in the MyQ Log: "*Job metadata is required for the queue but the job parser is turned off. Job is canceled. | queue=QueueX*".
  If you select this option, make sure that the Job Parser is enabled. In new installations the Job Parser is activated by default.
- **User name is case sensitive**: If you have a case sensitive operational system, such as LINUX, where you can create two users whose user names differ only in cases, for example users *juliette* and *Juliette*, you should select the **User name case sensitive** option. With this option selected, MyQ differentiates between two users that differ only in the case used. For example, if the user *Juliette* is registered in MyQ (and the user *juliette* is not) MyQ rejects jobs sent from the OS account *juliette*.
- **User detection method**: Select how the job owner is identified (*Job sender* by default). Described in detail in user detection methods.
- **Regular expression**: You can use regular expressions to capture a part of the string that MyQ detects within any of the user detection methods. MyQ uses regular expressions with the ECMAScript engine, meaning that the first captured group is used: first, MyQ finds the first match for the regular expression, and then it identifies the job owner with the first group captured in the match. This way you can search for a string and define which part of it will be identified as the job owner. For example, you can use the regular expression to find an email address in the detected name string and use the group capturing to save just the part preceding the @ symbol.
- **Get job name from PJL**: With this option enabled, MyQ takes the job name from the *JOBNAME* parameter in the PJL header instead of detecting it from the LPR protocol. Click **+Add** to enter PJL variables and regular expressions, **Edit** to modify any existing variables, **Test** to actually test if your regular expressions work, and **X** to delete a variable/regex set. The job name in the PJL header may differ from the printed document's name.
  In the below example, you can see how a variable/regex set works, and if it manages to find the job name from the PJL header:
  - In the **PJL Variable** field, there should be the *JOBNAME* variable, or any other variable used to detect the job name.
  - In the **Regular expression** field, there should be the regular expression you want to use in order to detect the job name. In the example, the *([^\.]+)* regex takes all characters before it reaches dot (which is specified as "\." – backslash is required in case of dot, because it is one of the special characters).
  - In the **Text to test** field, there should be the text from the print job's PJL header:
    "test-file.pdf"

  After clicking **Test**, the test result is displayed at the bottom. In this example, *test-file* was successfully detected.



- **Get computer name from PJL**: With this option enabled, MyQ takes the computer name from the PJL header instead of detecting it from the LPR protocol. Click **+Add** to enter PJL variables and regular expressions, **Edit** to modify any existing variables, **Test** to actually test if your regular expressions work, and **X** to delete a variable/regex set.
  - In the **PJL Variable** field, there should be the *SET JOBATTR* variable, or any other variable used to detect the computer name.
  - In the **Regular expression** field, there should be the regular expression you want to use in order to detect the computer name.
  - In the **Text to test** field, there should be the text from the PJL header.

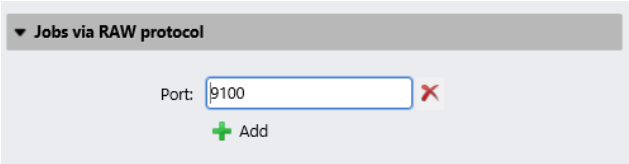
  After clicking **Test**, the test result is displayed at the bottom.

Jobs via Raw protocol section

The RAW protocol is the default protocol for systems that do not use Windows OS and for standard TCP/IP.
The advantage of this protocol is that it sends data without further processing and has smaller packet headers.

As RAW comes without any job metadata, you must use a different port for each queue (starting from port *9100*). The used ports are added to Windows Firewall.

Click **+Add** next to **Port** and select a port.



Make sure that the queue has the following settings:

- **User detection method**: Select *User detection from PJL*, *MyQ Client* or *Detect user from the job name*
- If *User detection from PJL* is selected, **+Add** the desired PJL variable(s) and regular expression(s)

Because there are no metadata, the queue is determined by the TCP port, the user always from the PJL and the sending computer is the client's IP address.

Jobs via hot folder section

In this section, you can associate the queue with one or multiple network folders where print jobs are stored.

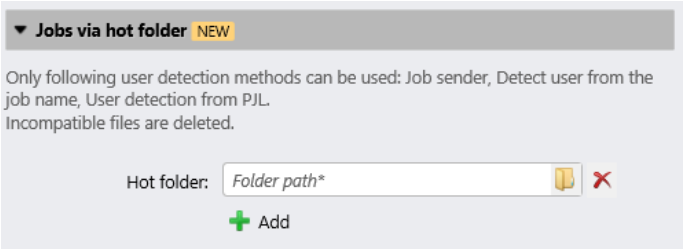
If the folder is password protected, MyQ will use the credentials of the account MyQ service is running under.

The MyQ server will regularly monitor the network folder for new files. If there is new job in the folder, the MyQ server checks if it is supported for printing. Supported files will be downloaded and deleted from the folder, unsupported files will be deleted. The operation is logged in the MyQ log ("*job 123.prn was downloaded from \\serverXYZ\folder1*", "*job 123.cpr was deleted from \\serverXYZ\folder1, file type is not supported*").

- Directly supported files: **.prn, .pcl, .ps, .eps, .pdf, .jpg, .bmp, .tif, .png, .txt**
- MS Office files are supported, but they are converted to PDF: **.doc, .docx, .xls, .xlsx, .ppt, .pptx, .odt, .ods, .odp**

Only the following user detection methods can be used: *Job sender*, *Detect user from the job name*, *User detection from PJL*.

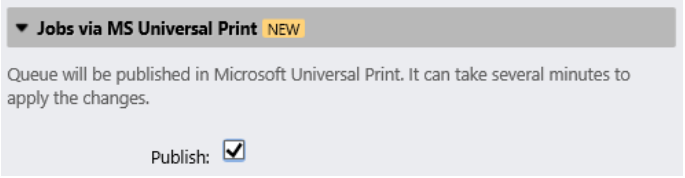
Click **+Add** next to **Hot folder** and type or browse for the folder path.



Jobs via MS Universal Print

In this section, you can associate the queue with MS Universal print.

To do that, check the **Publish** checkbox. After a few minutes, your queue will be available as a virtual printer in MS Azure Universal Print.

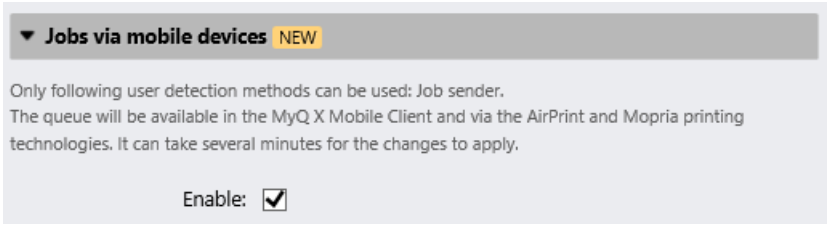


To use this option, you first need to set up MS Universal print.

Jobs via mobile devices

In this section, you can make the queue available in the MyQ X Mobile Client, and in AirPrint and Mopria.

Mark the **Enable** checkbox, and click **Save**.

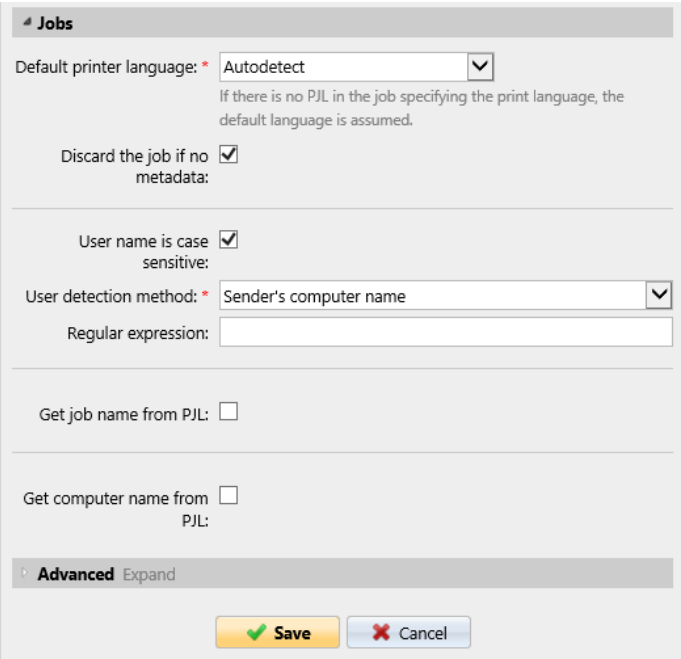


Only the *Job sender* user detection method can be used with this queue.

User detection methods

One of the essential MyQ functions is to identify the owner of a sent print job. You can select from a number of identification options. The most common way is to identify the user as the OS account where the job was sent from (Job sender). If there are many users who send their jobs from one account, you can use one of the three authentication options: *prompt for a PIN/card, prompt for a username and password or prompt the user to select from a list.*

Apart from the above-mentioned options, MyQ offers several advanced identification options that can be used in special cases, such as if you want to use a DNS server to identify the user's computer or detect the user from the job name.



The available user detection methods are:

- Job sender
- Sender's computer name
- Print server's DNS name
- Sender's computer DNS name
- Detect user from the job name
- MyQ Desktop Client
- User detection from PJL

Job sender

The basic and most common user detection method option is to identify the owner as the OS user account where the job was sent from.

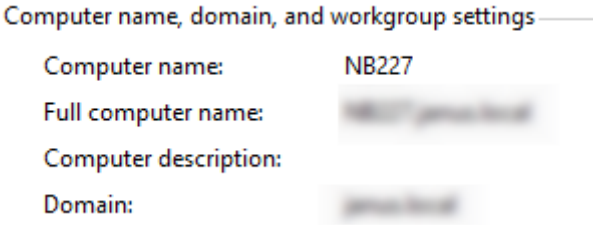
If the user logs on the account **Eliot.Kate** and sends the job from there, MyQ identifies them as **Eliot.Kate**.

Sender's computer name

With the **Sender's computer name** option selected, the job owner is identified as the name of the computer where the job is sent from. This way, it does not matter on which OS account the sending user is logged in, and all jobs are accounted on the computer.

By default, the **Computer detection method** is set to *Default* mode. This is the standard setting that works in almost all cases. For information about alternative options, please contact your MyQ support.

A regular expression can be used to capture a part of the detected string.



06/08/2...	Info	LP...	10.1.3.11...		Job received: id=2890 | time=1s | size=19KB | user=NB227 | project= | name=user16@documentxy.com:B01&1&&05R | hostname=NB227 | queue=Test

Using a DNS server to resolve the job owner

With the two user detection method options: **Print server's DNS name** and **Sender's computer DNS name**, a DNS server is used to resolve the job owner as one of the two respective values:

1. **Print server's DNS name** : The computer or server where the print driver is installed. If the DNS server succeeds in resolving the server IP address, the job owner is identified with the server name; otherwise the job owner is identified with the IP address.

05/31/2...	Info	LPR ...	10.1.3....		Job received: id=2770 | time=1s | size=88KB | user=WIN-GOMOSMT0AO9.[redacted].local | project= | name=user16 | hostname=10.1.3.110 | queue=Test

2. **Sender's computer DNS name**: The computer where the job is sent from. If the DNS server succeeds in resolving the computer IP address, the job owner is identified with the computer name; otherwise the job owner is identified with the IP address.

05/31/2...	Info	LPR ...	10.1.3....		Job received: id=2772 | time=1s | size=88KB | user=10.1.3.110 | project= | name=user16 | hostname=10.1.3.110 | queue=Test

The actual value depends on the location where the print driver is installed.

For example: If the print driver is installed on the print server Server 1 and shared with the computer *laptop100* where the user prints from, the values are different:

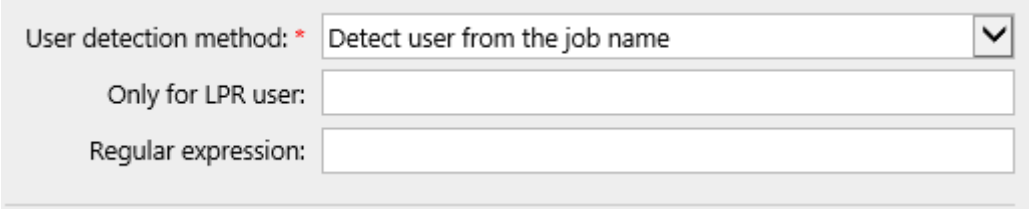
- When you select the **Print server's DNS name** method, the job owner is identified with the server, e.g. Server1.domain.com,
- When you select the **Sender's computer DNS name** method, the job owner is identified with the computer, e.g. laptop100.domain.com.

If the computer does not use shared drivers but sends the jobs via its own drivers, both values are the same.

A regular expression can be used to capture a part of the detected string.

Detect user from the job name

With the **Detect user from the job name** option, the job owner is identified with the name of the print job. This method can be used in cases where jobs are automatically generated and sent to print by external systems, such as ERP systems. These jobs can have a specific form where the user name is part of the job name, for example *user16@documentxy.com*.



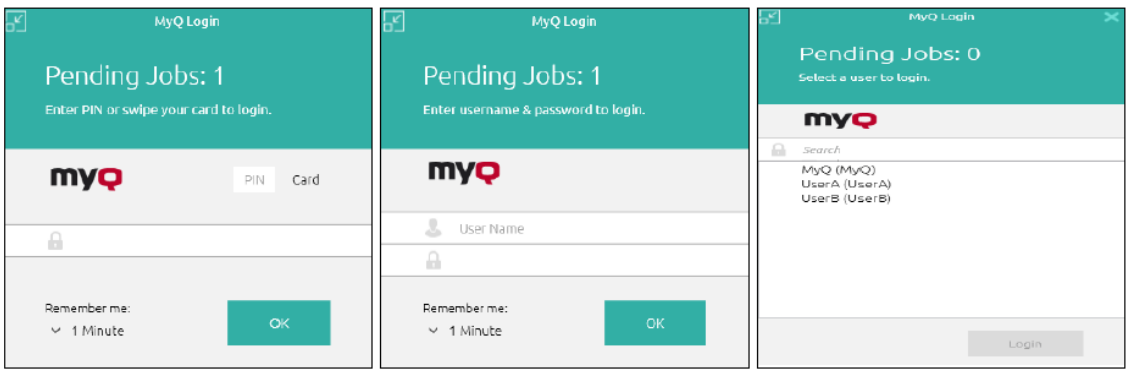
The **Only for LPR user** setting is displayed after you select the **Detect user from the job name** option. This setting allows you to combine the **Detect user from the job name** method with the **Jobs sender** identification method. The job owner is first detected as the job sender and only if the username matches the name entered in the **Only for LPR user** text box, the job owner is identified with the job name.

This advanced user identification method may be required, for example, for some prints from the SAP system. Prints from SAP are usually not sent directly to printing devices, but first to the Windows spooler (SAP LPD or SAP Print) which processes and forwards the prints to the device. This service usually runs under the system account (*SYSTEM*), and therefore the job sender detected from each such job is *SYSTEM*. In such cases, you can enter the user *SYSTEM* in the **Only for LPR user** text box. MyQ detects the sender and if it is *SYSTEM*, it identifies the job owner as the job name.

MyQ Desktop Client

This option is available on computers with either Windows or macOS. It requires the MyQ Desktop Client application running on the computer where the print job is sent from.

When a user sends a job to this queue, the job is automatically paused on the MyQ server and remains in the **Paused** status with the **unauthenticated* user as the job owner, until the user authenticates themselves via the MyQ Desktop Client application. Depending on the setting of the application's **Authentication method**, the user is prompted to either enter their PIN, swipe their card at a card reader, enter their user name and password, or select themselves on the list of all MyQ users. After the user is authenticated, the job's status on the MyQ server is changed to **Ready** and the job owner changes to the correct user name and it can be printed. If the user fails to authenticate themselves in MyQ Desktop Client, the job is rejected.



For information on how to install and set up MyQ Desktop Client, see the *MyQ Desktop Client for Windows* or *macOS* manuals.

In cases where there is no card reader connected to the computer where the users identify themselves from, users can type the card number instead of swiping it.

User detection from PJL

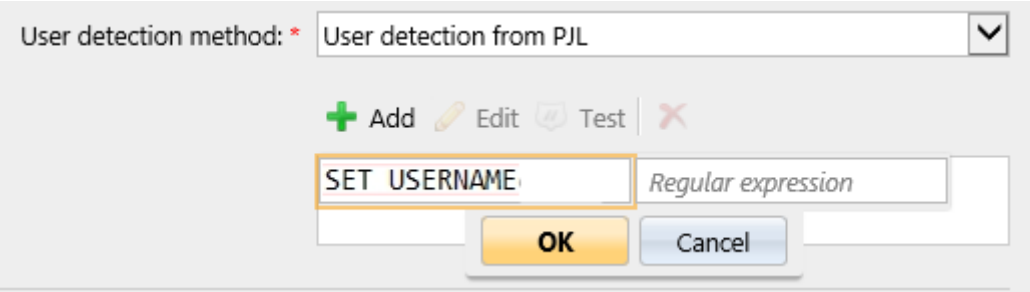
With the **User detection from PJL** identification option, MyQ detects the job owner from one of the command lines of the print job's PJL header.

```
!R!SEM6;EXIT;←%-12345X@PJL JOB NAME="something 1 tom 051116 113449735"
@PJL SET TIMEOUT=300
@PJL SET RESOLUTION=600
@PJL SET BITSPERPIXEL=4
@PJL COMMENT="INFO:NUP 1; DUPLEX OFF; QTY 1; COLORMODE COLOR;"
@PJL COMMENT="APP:C:\Program Files\Windows NT\Accessories\WORDPAD.EXE;"
@PJL SET ECONOMODE=OFF
@PJL SET USERNAME="Kai"
@PJL SET JOBNAME="Something 051116 113449735"
@PJL SET QTY=1
@PJL SET KCOLORMODE=COLOR
@PJL SET KGLOSS=LOW
@PJL SET KTRAPPING=2
```

To select the line that is used for the definition of the job owner, click **+Add** and enter the variable (*SET USERNAME*) in the **PJL Variable** field. You can enter multiple variable/regex sets by clicking **+Add** for each one in a new line. MyQ tries to find a PJL line containing the first defined variable, and then eventually repeats the search for the next variable, until it either finds a non-empty value with the definition of the job owner or there are no more variables to search for.

A regular expression can be used to capture a part of the detected string. If no regular expression is specified, the whole string of the PJL variable is used.

Click **Edit** to modify any existing variables, **Test** to actually test if your regular expressions work, and **X** to delete a variable/regex set.

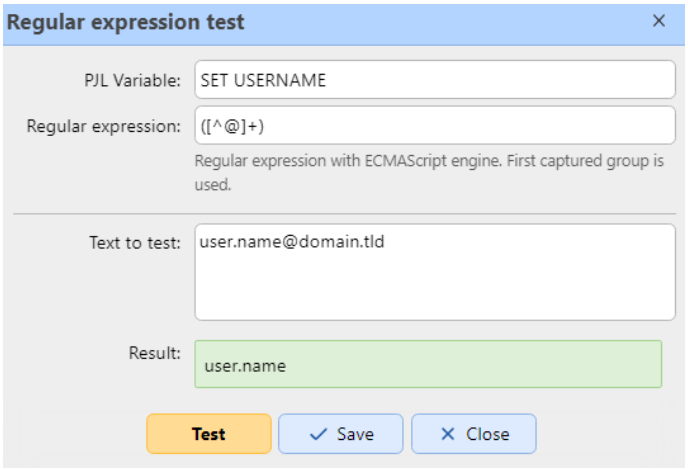


In the below example, you can see how a variable/regex set works, and if it manages to find the user by searching for the username in the email address from the PJL header:

- In the **Text to test** field, there should be the text from the print job's PJL header:
  user.name@domain.tld

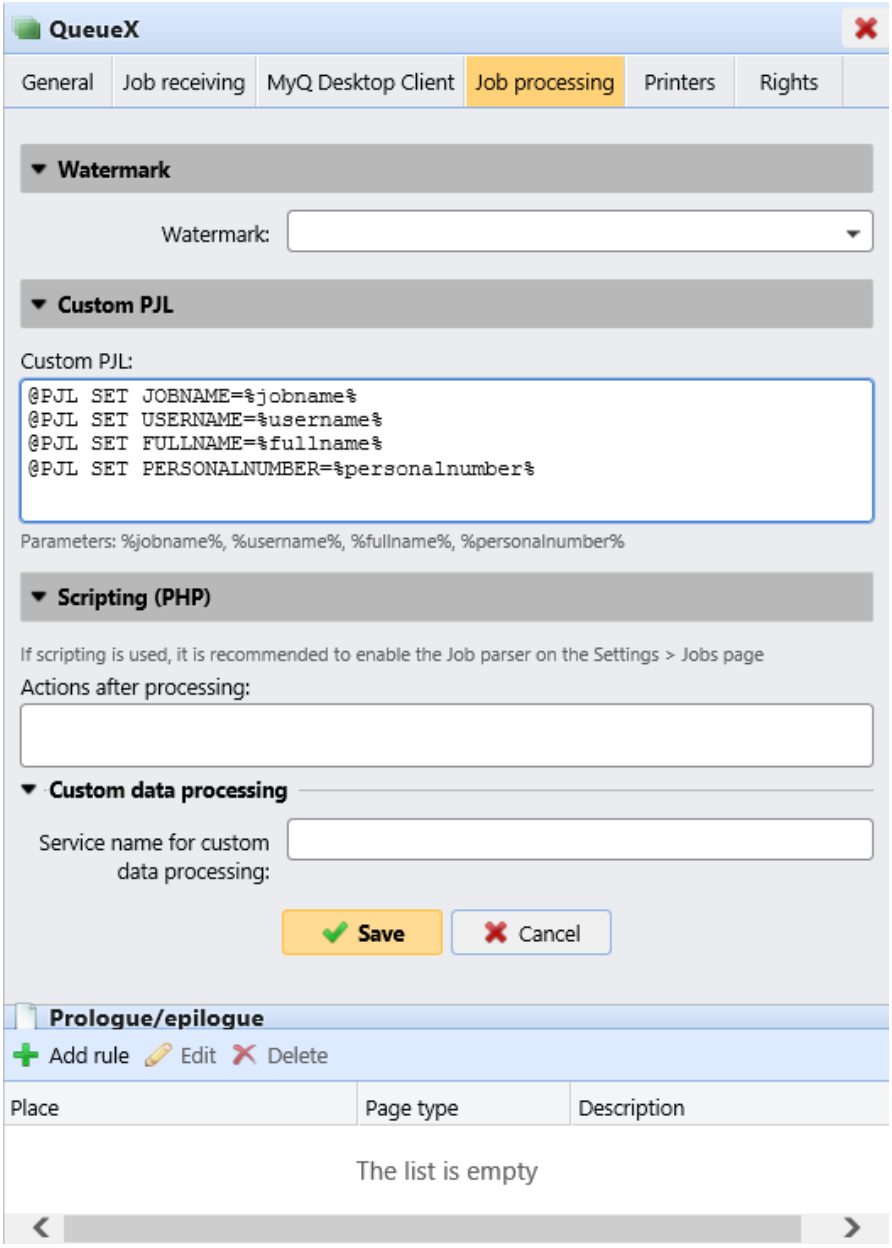
- In the **PJL Variable** field, there should be the *SET USERNAME* variable, or any other variable used to detect the job owner.
- In the **Regular expression** field, there should be the regular expression you want to use in order to detect the user name. In the example, the *([^@]+)* regex checks if a character is not "@" and uses it, and "*+*" means to proceed with the next character. The result is that it takes all characters before it reaches "@".

After clicking **Test**, the test result is displayed at the bottom. In this example, *user.name* was successfully detected.



11.7.3 Job processing tab

On the **Job processing** tab of each queue, you can enforce additional job processing actions by selecting one or more of the predefined job settings or by creating any number of custom PJL commands.



Watermark section

Choose your saved watermarks from the **Watermark** drop-down.

Custom PJL section

In the **Custom PJL** field, you can set custom PJL commands to enforce other actions or provide additional information to the MyQ server. For example, you can use *@PJL SET PAPER=A4* to enforce the A4 paper format or *@PJL COMMENT="USERDOMAIN:somedomain.com;"* to provide the MyQ server with the information about the domain of the printing user.

You can also use the following MyQ variables: *%jobname%, %username%, %fullname%, %personalnumber%.*

When you enter your own PJL sequence, it is necessary to enter the correct syntax. The command should always start with **@PJL**.

To be applied, a PJL command has to be supported by the printing device where the job is released. The information on what PJL commands are supported by a particular model of printing devices can be found in the documentation provided by the device manufacturer.

Scripting (PHP) section

You can use PHP scripts to further process the job after it is received by the MyQ server. Together with the PJL options and customizable queues, PHP scripting provides you with a large variety of job management options, such as the distribution of jobs between printing devices based on their size or color.

This option may be disabled or enabled in your Easy Config settings.

Scripting is detailed in Job Scripting.

Prologue/epilogue section

You can find further details in Prologue/epilogue.

Prologue, Epilogue

Some printing devices brands support the Prescribe PDL (page description language), which can be used to set up special rules for additional modification of the printed output. For example, you can use Prescribe to add a custom header or footer to selected document pages or to the whole document.

In MyQ, these rules are part of the options available on the properties panels of print queues. For each queue, you can create custom rules by importing a text file with a set of Prescribe commands and selecting the part of the printed document the commands should be applied to.

Multiple rules can be defined for each queue.

> ⚠ Prologue/epilogue functionality is only fully supported when using the PCL5 language. With other PDLs it is only possible to add a prologue placed at the beginning of the document.

Adding, editing, and deleting rules

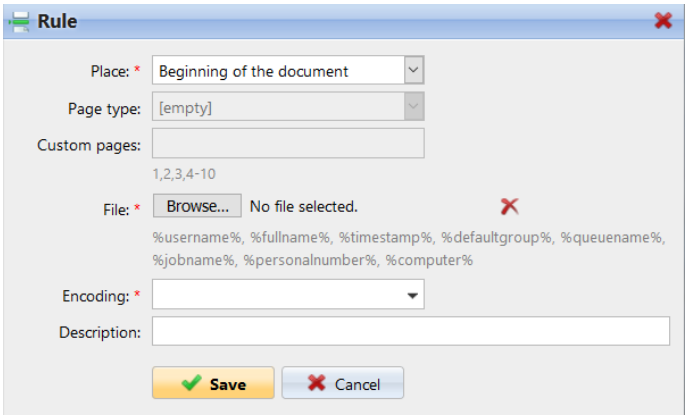
The rules can be added and edited in the **Job processing** tab, on the **Prologue/epilogue** section of a queue's properties panel.

Go to the **Queues** main tab (**MyQ, Queues**), right-click on the queue where you want to set up the rules, and click **Edit** (or select the queue, click **Actions** on the bar at the top of the tab, and then click **Edit**, or double-click on the queue).

Adding rules to a queue

1. Open the queue's properties panel.
2. On the panel, click **Job processing**. The Job processing tab opens.

3. On the tab, in the **Prologue/epilogue** section, click **+Add**. A panel with the settings of the new rule opens at the bottom.
4. Set up the rule (see editing a rule below), and then click **Save**. The new rule is added to the list of rules on the **Prologue/epilogue** section.



Editing a rule

To open the settings of a rule, double-click the rule on the **Prologue/epilogue** section. The settings open at the bottom of the panel.
The available settings are:

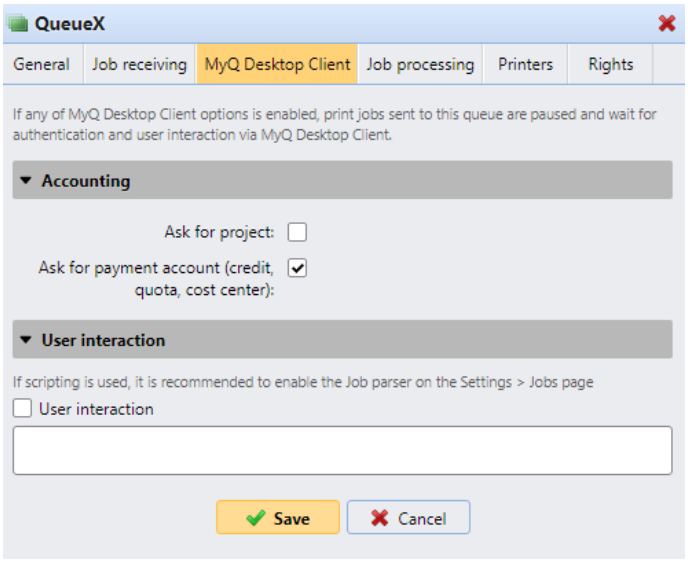
- **Place:** The object defined by the Prescribe code can be placed to the *beginning of the document*, *end of the document*, *beginning of selected pages*, or *end of selected pages*.
- **Page type:** Here you can select the pages the Prescribe code will apply to: *All pages, Odd pages, Even pages* or *Custom pages*.
- **Custom Pages**: Here you can further specify the pages the Prescribe code will apply to.
- **File:** Here you can upload the text file with the Prescribe code.
- **Encoding:** Here you have to select the encoding that is used in the text file with the Prescribe code.
- **Description:** Here you can type a description of the rule. You will see this description in the rules overview.

Deleting a rule

1. Open the queue's properties panel.
2. On the panel, click **Job processing**. The Job processing tab opens.
3. On the tab, in the **Prologue/epilogue** section, select the rule, click **Delete**, and then confirm the action in the confirmation dialog box. The rule is removed from the panel.

11.7.4 MyQ Desktop Client tab

On the MyQ Desktop Client tab of each queue, you can set up accounting options and employ PHP scripts to set up interaction with MyQ users via dialog boxes displayed in MyQ Desktop Client on their computer.



If you have any form of accounting enabled (Credit, Quota, Projects), the **Accounting** section is visible and you can modify the settings for newly created queues. If accounting options are disabled, the section is not visible. If you disable any form of accounting and then re-enable it, the settings in the MDC tab are remembered.

- Mark the **Ask for project** checkbox if you want users to select projects before printing a job.
- Mark the **Ask for payment account (credit, quota, cost center)** checkbox if you want users to select a payment account before printing a job (enabled by default).

For more information, check the *MyQ Desktop Client* guides.

In the **User Interaction** section, you can enable **User Interaction** (described in User Interaction Scripting), add the script in the field, and click **Save**.

11.7.5 Job Scripting

PHP scripts can be used to further process a job after it is received by the MyQ server (Job Processor Scripting) or to provide users with basic interaction options via MyQ Desktop Client (User Interaction Scripting). An overview of classes and functions used can be found in Job Scripting Reference.

Job Processor Scripting

A Job Processor script is a PHP code, which runs in the context of a job being processed. The script runs after a job has been parsed and all user/queue policies have been applied. It runs before the job is made **ready** or **paused**.

The typical usage of the script is the modification of the job based on its properties. For example:

```
if ($this->pageCount > 10) {
  $this->duplex = "longEdge";
```

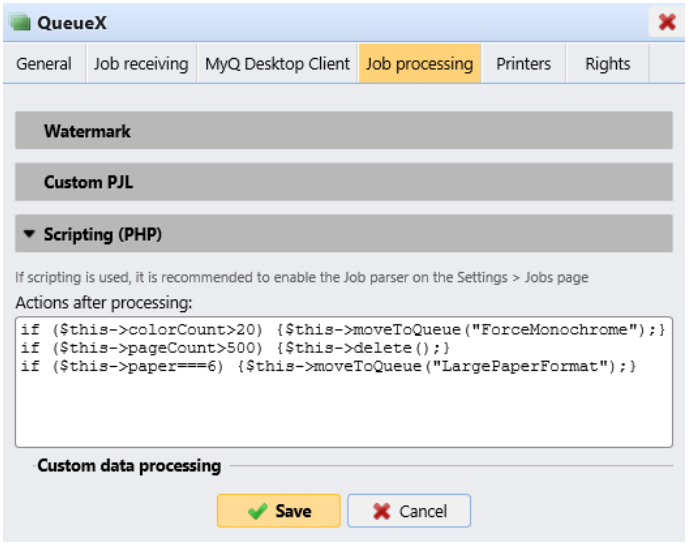
```
}
```

In this example, if the job has more than 10 pages, it's released as duplex. **$this** is the job being processed. It's an instance of the **Job** class.

Basic PHP functions can be used. For MyQ specific classes and functions, see Job Scripting Reference.

To set up processing via the PHP script, go to the properties panel of the queue where you want to use it, open the **Job processing** tab, and go to the **Scripting (PHP)** section. Under **Actions after processing**, enter the script in the box.

> Please note, editing scripting may be disabled or enabled in your Easy Config settings. If it is disabled, a note will be added to the **Scripting (PHP)** section of this menu.



PHP scripts actions examples

In this section you can find examples covering a variety of job management options. These examples should give you an idea about how to use the PHP scripting in MyQ. You can also substitute the properties and methods in the examples to use them as building blocks of more complex scripts.

Actions based on the number of pages

Move jobs with a higher number of color pages to a monochrome queue.

```
if ($this->colorCount>20) {
 $this->moveToQueue("ForceMonochrome");
 }
```

Delete jobs with a large number of pages.

```
if ($this->pageCount>500) {
```

```
 $this->delete();
 }
```

Actions based on the size of the job
Move large jobs to a dedicated queue.

```
if ($this->dataSize>1000000) {
 $this->moveToQueue("LargeJobs");
 }
```

Delete oversized jobs.

```
if ($this->dataSize>5000000) {
 $this->delete();
 }
```

Actions based on paper format
Move jobs with the A3 paper format to a dedicated queue.

```
if ($this->paper==="a3") {
 $this->moveToQueue("LargePaperFormat");
 }
```

Actions based on the job owner
Move jobs of a certain owner to a dedicated queue.

```
if ($this->owner->name==="eliot.kate") {
 $this->moveToQueue("EliotKate");
 }
```

Change the owner of the job.

```
if ($this->owner->name==="eliot.kate") {
 $this->owner=MyQ()->getUserByUserName("simon.kate");
 }
```

Actions based on the duplex property
Move duplex jobs to a duplex queue.

```
if ($this->duplex) {
 $this->moveToQueue("Duplex");
```

```
 }
```

Move simplex jobs to a simplex queue.

```
if ($this->duplex===false) {
 $this->moveToQueue("Simplex");
 }
```

Actions based on the color property
Move color jobs to a color queue.

```
if ($this->color) {
 $this->moveToQueue("Color");
 }
```

Actions based on the job name or the source application
Move jobs printed in MS Word to a dedicated queue.

```
if (strpos($this->name,"Microsoft Word")!==false) {
 $this->moveToQueue("MSWord");
 }
```

Delete jobs sent from Facebook.

```
if (strpos($this->name,'Facebook')!==false) {
 $this->delete();
 }
```

Actions based on the rights to a queue
Move jobs of users who are not allowed to print to one queue to a different queue

```
if ($this->owner->canPrintToQueue("Color")===false) {
 $this->moveToQueue("Monochrome");
 }
```

Actions based on group membership
Move jobs sent by members of a group to a dedicated queue

```
if ($this->owner->hasGroup("Clerks")) {
 $this->moveToQueue("Clerks");
 }
```

Actions based on the PDL of the job
Move all jobs sent in a certain PDL to a dedicated queue

```
if ($this->lang===0) {
 $this->moveToQueue("UnknownPDL");
 }
```

Sending custom log messages to MyQ
Send a log info message to MyQ Log

```
MyQ()->logInfo("This message appears in the MyQ log.");
```

Complex actions

If the number of pages multiplied by the number of copies exceeds a certain number, delete the job and inform the user

```
// get the number of pages and the number of copies
$pages_number = $this->pageCount; $copies_number = $this->copies;
// if total (pagescopies) exceeds 500, delete the job and notify its owner
if ( $pages_number * $copies_number>500) {
 $this->delete(); $this->owner->sendNotification("error","Job refused",
"Cannot
 print jobs exceeding 500 pages.");
}
```

Move the job to a queue, if allowed

```
if ($this->color) {
  if ($this->owner->canPrintToQueue("JPS2")) {
     $this->moveToQueue("JPS2");
  } else {
     $this->owner->sendEmail("Job error", "Color printing denied");
     $this->delete();
  }
}
```

Move the job to the first available personal queue

```
// get all user's queues sorted by priority
$personalQueues = $this->owner->personalQueues;
```

```
// loop them
foreach ($personalQueues as $q) {
    // skip queue if no printer is available
    if ($q->isAnyPrinterAvailable() === false) {
        continue;
    }

    // queue printer is available, move job to queue
    $this->moveToQueue($q->name);
    // job is moved, stop the loop
    break;
}
```

User Interaction Scripting

A User Interaction Script allows to program an interaction with the job owner and modify the job based on the user's response. Specifically, it allows to display a series of UI dialogs with questions and action buttons (*YES/NO, PRINT/NO, YES/NO/CANCEL*). Depending on the user selection, further dialogs can be displayed and actions can be taken. Finally when the last dialog is processed, the script is finished and the job is set as **ready** and can be released.

If a User Interaction Script is present, it must be first successfully executed before the job can be released. The job is forced in the **pause** state until then.

Basic PHP functions can be used, and almost all of those described in Job Scripting Reference. The only two methods not supported by the feature are **$this->job->setPrinted()** and **$this->job->pause()**. Apart from the common classes, methods, and properties, you can use several additional functions to communicate with the MyQ Desktop Client application.

How to write a User Interaction Script

On the MyQ Desktop Client tab of a queue, in the **User Interaction** section, add the script in the field, and click **Save**.

First, you need to define the **main()**. function. This function decides if the dialog box should be opened (under which conditions) and which dialog box should be shown.

Then you can define on-click functions with reactions to the selected option: **onYes(), onNo(), onPrint(), onCancel()**.

Public properties are kept between calls. In fact, they are sent to the client and back.

Script Structure

See the following script:

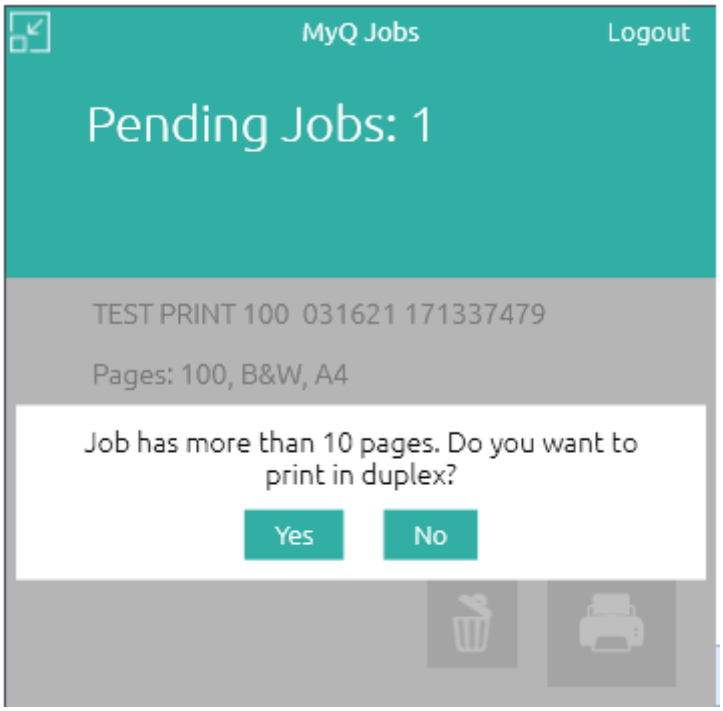
```
public $hasMoreThan10pages;
```

```
// script entry point
function main() {
    /** Job object */
    $job = $this->job;
    $this->hasMoreThan10pages = $job->pageCount > 10;
    // Show dialog if the job has more than 10 pages
    if ($this->hasMoreThan10pages === true) {
        $this->dialogYesNo("Job has more than 10 pages. Do you want to
print in duplex?");
    }
}

// If yes clicked
function onYes() {
    // $this->hasMoreThan10pages is available also here
    $this->job->duplex = 'longEdge';
}

// If no clicked
function onNo() {
    // nothing. Job will be released.
}
```

Using the above script, this dialog is displayed in MDC:



If you are familiar with the PHP language, the script is actually a body of the `class UserScript {...}` statement.

You can define properties like `$hasMoreThan10pages`. Properties are persistent among multiple script invocations for the same job. Use them to store a state between multiple dialogs.

There is the `main` function. It's called once when the script starts. Use it to display the first dialog.

Then there are the `onXXX` functions. They are the action handler called when an `XXX` button is pressed. For example, the `Yes` button is handled via the `onYes` function.

If you display no dialog, the script is finished.

API Reference

See Job Scripting Reference on how to modify the job and also for many other operations you can perform.

The User interaction script runs in the context of the User class. The sent job can be accessed as `$this->job`.

Objects from all classes, except for the Session class, can be accessed via the job object, for example the `owner $this->job->owner`. Objects from the Session class can be accessed via the `MyQ()` global feature; for example: `MyQ()->logInfo("This message appears in the MyQ log.");`.

UserScript Class

User Interaction Script is the body of the `UserScript` class as described above. MyQ also provides several built-in methods of the User class in addition to your own methods.

Dialog Creation Methods

Function	Description
void **dialogYesNo**(string $text)	Creates a dialog with the `$text` as the content and Yes, No buttons.
void **dialogPrintNo**(string $text)	Creates a dialog with the `$text` as the content and Print, No buttons.

Function	Description
void **dialogYesNoCancel**(string $text)	Creates a dialog with the **$text** as the content and Yes, No, and Cancel buttons.
void **dialog**(string $text, Field[] $fields)	Creates a dialog with the **$text** as the content and an array of custom fields. A field can be a button or any other field type, like a list, for example. Buttons are always displayed below other fields.
FieldButton **button**(string $title, string $id)	Creates a custom button which can be used in the **dialog()** function. **$title** is a text displayed on the button. The button **$id** is used when executing the button handler. MyQ searches for an **onXXX** handler where **XXX** is the **$id**.
FieldList **singleSelectList**(string $name, array $items)	Creates a list of options from which the user can choose only one (radio group). It can be used in the **dialog()** function. The **$items** is an associative array where the key is an item's reference and the value is an item's display name visible in the UI.
FieldMultiSelectList **multiSelectList**(string $name, array $items)	Creates a list of options from which the user can choose multiple ones (check boxes). It can be used in the **dialog()** function. The **$items** is an associative array where the key is an item's reference and the value is an item's display name visible in the UI.

onCancel Method

onCancel handles the Cancel button and is provided by default. It calls **terminate()**. You can provide your own implementation to change the behavior.

Other Methods

Function	Description
void **terminate**()	Terminates the script processing. The script has not been executed successfully and the job stays in the **pause** state. The user must execute the script again.
mixed **getField**(string $name)	Gets the value of the field with the **$name** after the user has interacted with the dialog. The field must have been created by the methods **singleSelectList** (the result is a scalar value) or **multiSelectList** (the result is an array of values, which can be an empty array).

User interaction script examples

Print a color job in B&W

```
// script entry point
function main(){
// If the job is color, show a Yes/No dialog to ask if they want to
print the job in B&W.
 if ($this->job->color){
  $this->dialogYesNo("Jobs sent to this queue are printed in B&W,
  do you still want to send the job here?"); }
}

// If Yes clicked, the user is informed that the job was sent to the B&W
queue via a MDC
notification.
function onYes(){
 $this->job->owner->sendNotification("info","Job successfully
sent","Your job was sent
 to the B&W queue.");
}

// If No clicked, the job is deleted and the user is informed about it
via a MDC
notification.
function onNo(){
 $this->job->delete(); $this->job->owner->sendNotification("info","Job
deleted","Your
 job was deleted.");
}
```

Move job to a personal queue

```
// script entry point
function main() {
    /** Job object */
    $job = $this->job;

    // Get the personal queues and create a list
    $queues = $job->owner->getPersonalQueues();
    $queueList = [];
    foreach ($queues as $queue) {
        $queueList[$queue->name] = $queue->name;
    }

    $list = $this->singleSelectList('Personal queues', $queueList);

    $this->dialog('Select a queue', [
        $list,
        $this->buttonPrint(),
        $this->buttonCancel()
    ]);
}

// If print clicked
function onPrint($inputs) {
    $queue = $this->getField('Personal queues');
    $this->job->moveToQueue($queue);
}

// If cancel clicked
function onCancel() {
    // nothing. Job will be released.
}
```

Job Scripting Reference

This is a reference of classes and functions you can use in Job Processor Scripting and User Interaction Scripting.

There are five classes that can be used within the scripts: Job, User, Queue, Session, and QuotaInfo. The object of the **Job** class represents the job sent to MyQ, the object of the **User** class represents the job's owner, and the object of the **QuotaInfo** class represents quotas of the job's owner. The **Queue** class can be used to move the job to one of the personal queues of the job's owner and methods of the **Session** class may be used for additional specific tasks, such as sending a log message to MyQ.

Job class

The **Job** class has the following methods and properties:

Methods

- this **pause**() - Pause the job.
- this **copyToQueue**(string $queueName) - Copy the job to queue `$queueName`. The new job is processed normally according to the rules in the target queue.
- this **moveToQueue**(string $queueName) - Move the job to queue `$queueName`. The new job is processed normally according to the rules in the target queue.
- this **setReleased**() - Set the job as released (printed) without actually releasing it. (`setPrinted` is still supported for BC).
- this **delete**() - Delete the job.

Properties

Job Properties show how the job looks after applying user/quota policies. This is how the job will be released. The `null` value means that the job parser was not able to get the property from the job file.

By setting a property, you can modify how the job will be released. This overrides any user/quota policy. If you set a property to `null,` the job will be released as originally received.

Setting `monoCount` , `colorCount` or `paper` doesn't actually modify the job. The new values are used only for credit/quota calculations.

Name	Type	Writable	Description
name	string	yes	Name of the job
dataSize	int	yes	Data size of the job in bytes
queue	Queue	-	Job's queue
monoCount	int	yes	Count of the monochrome pages of the job
colorCount	int	yes	Count of the color pages of the job

Name	Type	Writable	Description
pageCount	int	-	Total sum of the pages of the job
paper	string	yes	Format of the paper with the following strings as its values: 'a4' 'a3' 'other' 'a5' 'b4' 'b5' 'folio' 'ledger' 'legal' 'letter' 'statement' This variable is employed by the 'set' method in MyQ. Use it in commands of the PHP script.
duplex	Boolean	yes	Job is in duplex. Possible values: 'simplex' 'longEdge' 'shortEdge' Note: Changing this property only updates the metadata of the job. The job is not converted to simplex/duplex.
color	Boolean	-	Job is in color. Note: Changing this property only updates the metadata of the job. The job is not converted to B&W/color.
owner	User[ ]	yes	Owner of the job Note: The user policies are not updated; Projects are not updated.
copies	int	yes	Number of copies of the job Note: Changing this property only updates the metadata of the job. The number of copies to be released is not changed.

Name	Type	Writable	Description
tonerSaving	Boolean	yes	Toner Saving mode enabled
filename	string	yes	A path including the filename of the job. The path is relative to the job folder. Note: The path must exist, otherwise the job is not parsed and is declared as "deleted".
lang	int	-	The PDL of the job with the following integers as its values: UNKNOWN = 0, PDL_PCL = 1, PDL_PS = 2, PDL_ESCP = 3, PDL_PRESCRIBE = 4, PDL_PCLXL = 5, PDL_PDF = 6, PDL_JPEG = 7

User class

The **User** class has the following methods and properties:

Methods

- this **sendEmail(***string $subject, string $body***)** - Send an email to the user.
- bool **canPrintToQueue(***string $queueName***)** - The user has the rights to send jobs to the queue.
- bool **hasGroup(***string $name***)** - The user is a member of the group.
- this **sendNotification(***string $type, string $title, string $body***)** - Send a notification to the user via MyQ Desktop Client:
  - type: info, warning, error
  - title: notification title
  - body: notification text (plain text format)
- QuotaInfo **getQuotaInfo()** - Get information about user's quotas.

Properties

Name	Type	Writable	Description
name	string	-	Login name of the user

Name	Type	Writable	Description
email	string	-	Email of the user
fullname	string	-	Name and surname of the user
delegates	User[ ]	-	Array of the user's delegates
notes	string	-	Notes
personalQueues	Queue[ ]	-	Array of personal queues ordered by priority

Queue class

The **Queue** class has the following methods and properties:

Methods

- **bool isAnyPrinterAvailable()** - There is at least one printing device available to the queue.

Properties

Name	Type	Writable	Description
name	string	-	Name of the queue

Session class

The session object is accessible via the MyQ() global function. The **Session** class has the following methods:

Methods

- User **getUserByUserName(***string $userName***)** - Find a MyQ user by their user name. If no user is found, null is returned.
- this **logError(***string $message***)** - Create an error message in the MyQ log.
- this **logWarning(***string $message***)** - Create a warning message in the MyQ log.
- this **logInfo(***string $message***)** - Create an info message in the MyQ log.
- this **logNotice(***string $message***)** - Create a notice message in the MyQ log.
- this **logDebug(***string $message***)** - Create a debug message in the MyQ log.
- string **getJobsPath()** - Get the path to the folder on the MyQ server where the print job is stored. Ends with a backslash.

QuotaInfo class

The **QuotaInfo** class contains information about the user's current state of quotas. It has the following methods:

- bool **canColor**() - Check if the user can print or copy in color.
- bool **canPrint**() - Check if the user can print.
- bool **canCopy**() - Check if the user can copy.
- bool **canScan**() - Check if the user can scan.

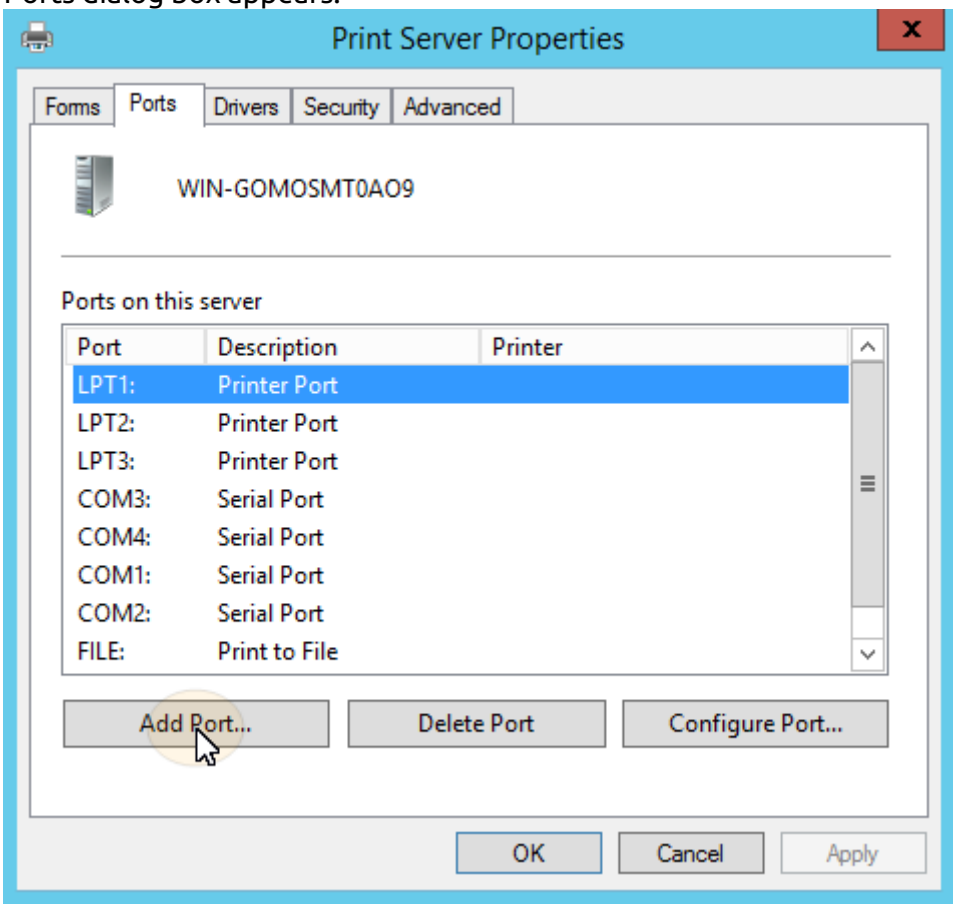
12 Printing to MyQ

This topic discusses the settings that need to be done outside of MyQ to enable MyQ essential functions, such as monitoring jobs and detecting users.

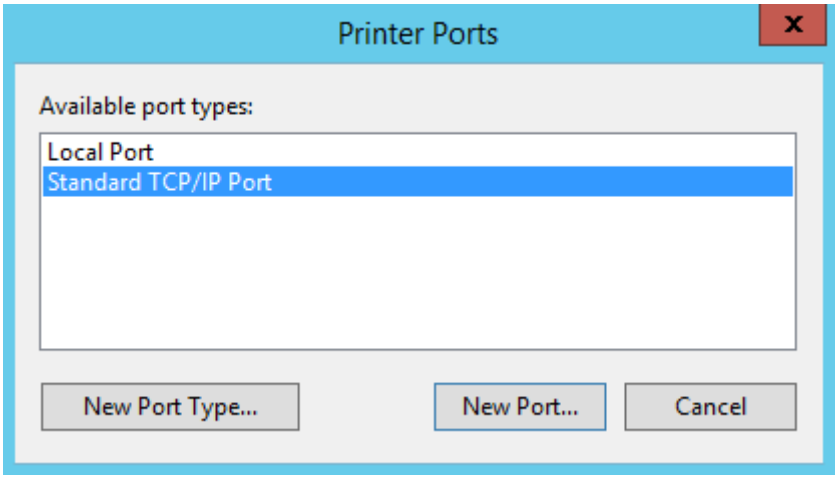
Microsoft Windows and MacOS settings are described below. Although the procedure of installing and setting the print drivers is different on other operating systems, the principle remains the same. You need to add a printer or print port, set the MyQ server's IP address or hostname, and set the name of the queue where jobs are sent via this port.

12.1 Windows settings

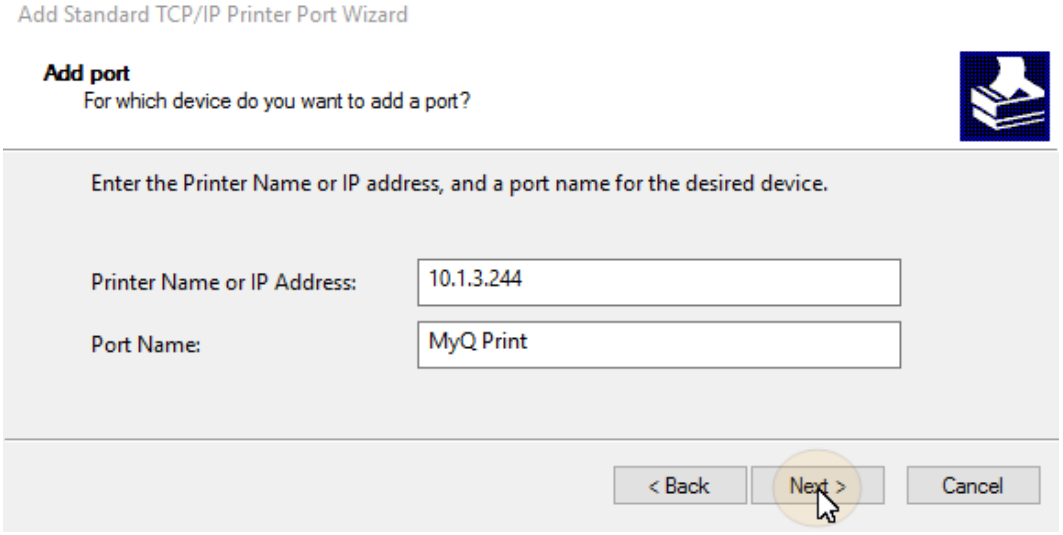
1. In **Windows**, under **Devices and Printers**, select any printer, and then click **Print server properties**. The Print server properties dialog box appears.
2. In the dialog box, open the **Ports** tab, and then click **Add Port** . The Printer Ports dialog box appears.



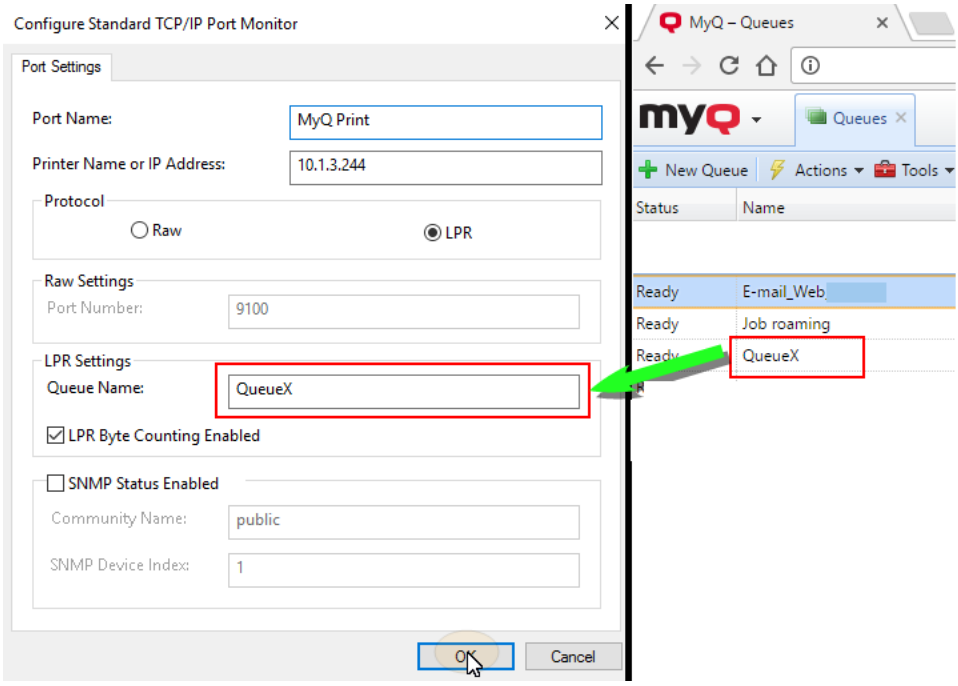
3. On the Printer Ports dialog box, select **Standard TCP/IP Port**.



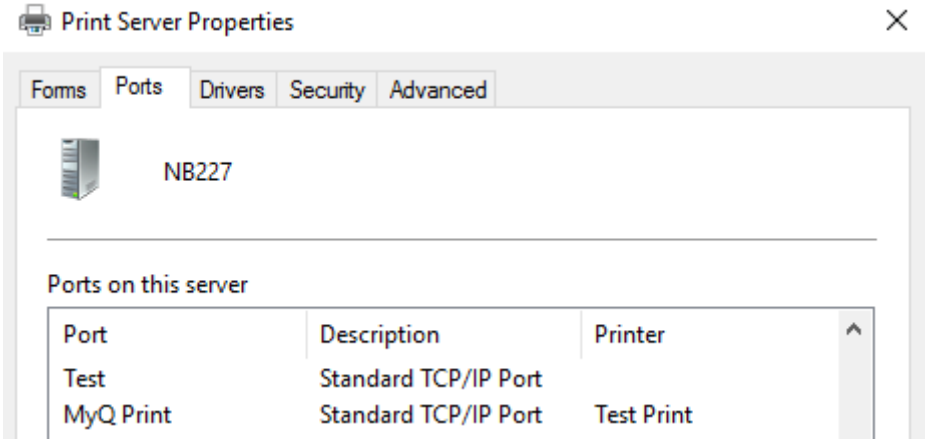
4. Click **New Port**. The Add Standard TCP/IP Printer Port Wizard dialog box opens.
5. Click **Next**.
6. Enter the IP address or the hostname of the MyQ server.
7. Optionally change the **Port Name**.
8. Click **Next**. You are asked to provide additional port information.



9. Under **Device Type**, select **Custom**.
10. Click **Settings**. The Configure Standard TCP/IP Port Monitor dialog box appears.
11. In the dialog box, under **Protocol**, select the **LPR** option. Under LPR settings, enter the name of the MyQ queue where you want to print to. Select the **LPR Byte Counting Enabled** option. Click **OK** after the settings are changed.

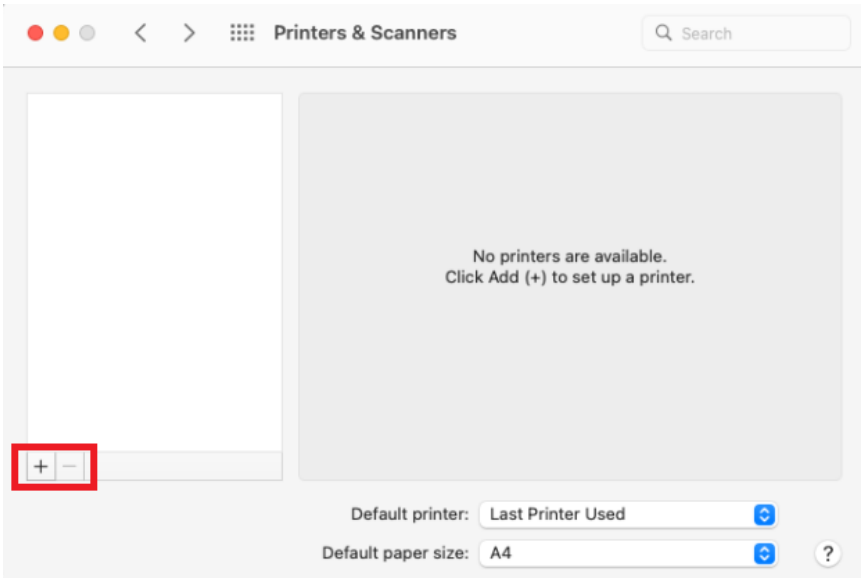


12. Back on the Add Standard TCP/IP Printer Port Wizard dialog box, click **Next**. You are informed about the characteristics of the new port.
13. Click **Finish**. The new port is added to the list of ports in the **Ports** section of the Print server properties dialog box.

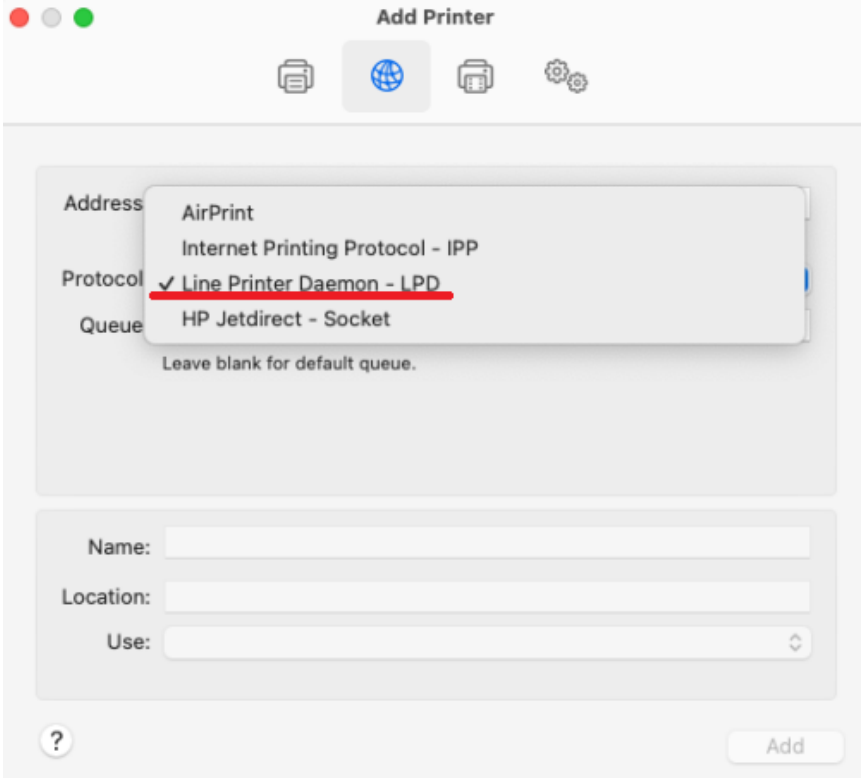


12.2 MacOS settings

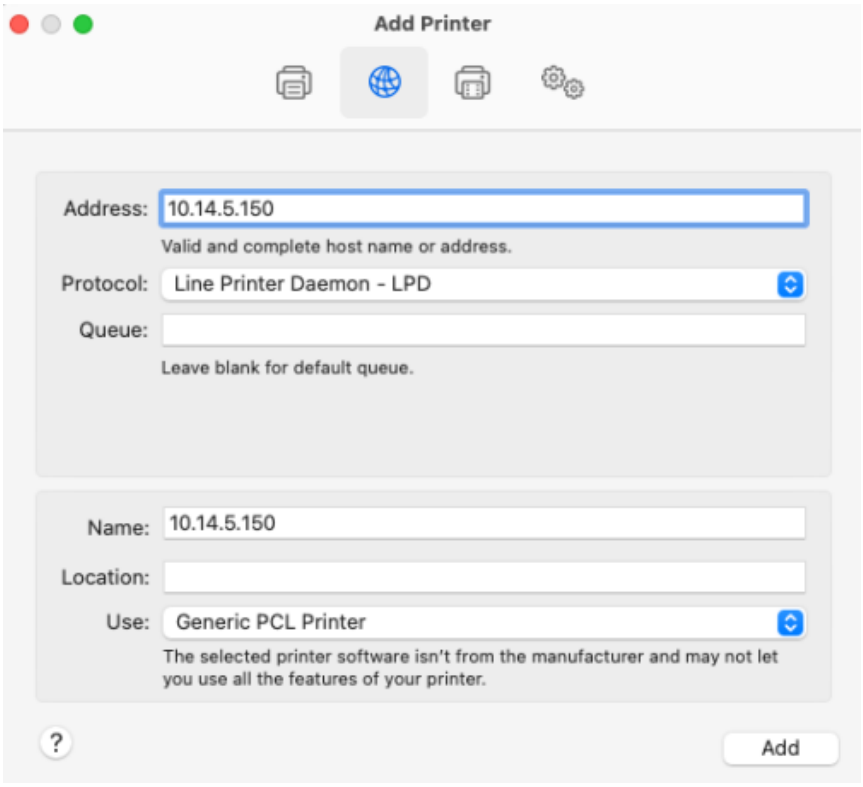
- Go to **Apple menu > System Preferences**, and then click **Printers & Scanners**.
- Click the plus button (**+**) to add a new printer.



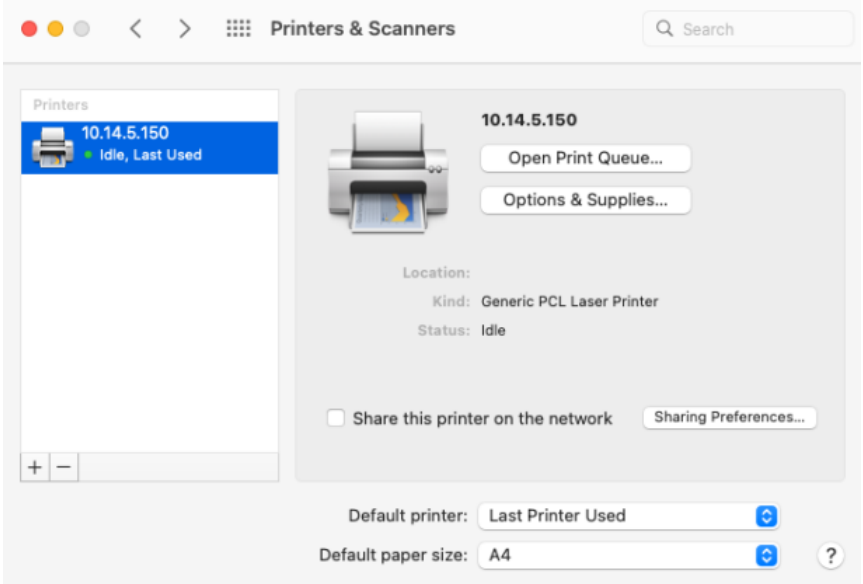
- In the **Protocol** field, select *Line Printer Daemon - LPD* from the list.



- In the **Address** field, add the IP address or host name of the localhost. In the **Queue** field, add a queue name according to the MyQ server setting. Add a **Name**, and a **Location** for your printer. In the **Use** field, select a printer driver from the list. Click **Add** to setup the printer.



- Once the printer is set up, it appears on the Printers & Scanners list.



13 Methods of Printing

This topic presents several options of printing with the MyQ system.

- Direct printing
- Pull Print printing
- Delegated printing
- Printing from email and from the MyQ Web User Interface
- Printing via the MyQ mobile printing application
- Google Cloud Print to MyQ
- AirPrint and Mopria Print Service
- Microsoft Universal Print
- Client Spooling
- Fallback Printing

There are other printing options, related to advanced features of MyQ, such as running MyQ on multiple servers, or to a variety of embedded terminals that can be purchased together with the MyQ system. Information about these options are provided in the respective guides describing these features and in the MyQ embedded terminal manuals.

13.1 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 especially for this device and cannot have any other devices attached to it. As soon as MyQ receives the job, it sends it to the printing device to be printed.

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

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

Users that send their jobs using this method do not need to be identified on the printing device and therefore no terminal is needed there.

13.2 Pull Print printing

Whereas the direct printing method is intended to be direct and quick, the pull print method is used for the opposite reasons. With this method, users can send a print job to be held on the MyQ server for as long as they need and select from a number of printing devices where it can be printed.

To print the job, the user just needs to authenticate themselves on the printing device terminal. After the authentication, the job is either immediately printed or displayed on the terminal touch panel, where it can be managed by the user. Depending on the type and settings of the terminal, users might have either one, or both of these options.

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

To use this method, an embedded terminal or a hardware terminal is required.

For more information on embedded terminals, see:

- MyQ Canon Embedded
- MyQ Epson Embedded
- MyQ HP Embedded
- MyQ Kyocera Embedded
- MyQ Lexmark Embedded
- MyQ Ricoh SmartSDK Embedded
- MyQ Sharp Embedded
- MyQ Toshiba Embedded
- MyQ Xerox Embedded

13.3 Delegated printing

The delegated printing feature is an extension of the pull print printing method that allows users to share their print jobs with a specified group of other users. These users can release the jobs on an embedded terminal in the same way they would release their own jobs.

The users that are allowed to print jobs of a certain user (or a certain group of users) are called their delegates. The delegates can be designated by the users themselves or by the MyQ administrator. When a user sends a job to MyQ, they can decide to share it with their delegates. Jobs that are to be shared have to be sent via the **Delegated printing** type queue.

Two settings are necessary to enable this feature: the delegates have to be defined and a **Delegated printing** queue has to be created and be accessible to the user or group.

For information on how to define the delegates, see Selecting user delegates.

For information on how to create and set the **Delegated printing** queue, see Queues.

13.4 Printing from email and from the MyQ Web UI

MyQ enables users to print documents from the MyQ web user interface or by sending an email to a special email address. It supports printing the following source formats:

- pdf/a
- jpeg, bmp, tif, png
- txt (UTF8)
- MS Office and LibreOffice documents: doc, docx, xls, xlsx, ppt, pptx, odt, ods and odp. (You have to have the corresponding suite installed on the server.)
- email body in plain text and HTML

The minimal required version of MS Office is MS Office 2013 64bit with the latest service pack (MS Excel files using MS Office 2013 are not supported). This means that MS Office 2013, 2016, 2019 and O365 64bit are supported.

The minimal required version of LibreOffice is LibreOffice 6 64bit.

If only one of the tools (MS Office or LibreOffice) is installed, it is used for all formats. If both tools are installed, MS Office formats are used by MS Office and LibreOffice formats by LibreOffice (recommended solution).

After the MS Office/LibreOffice installation, MyQ services need to be restarted in order to start recognizing these formats.

All print jobs sent from email are automatically assigned to the **Email** queue and can be printed only on printing devices assigned to this queue.

All print jobs sent from the web user interface are automatically assigned to the **Web** queue and can be printed only on printing devices assigned to this queue.

13.4.1 Printing from the web UI setup

To enable and setup the print:

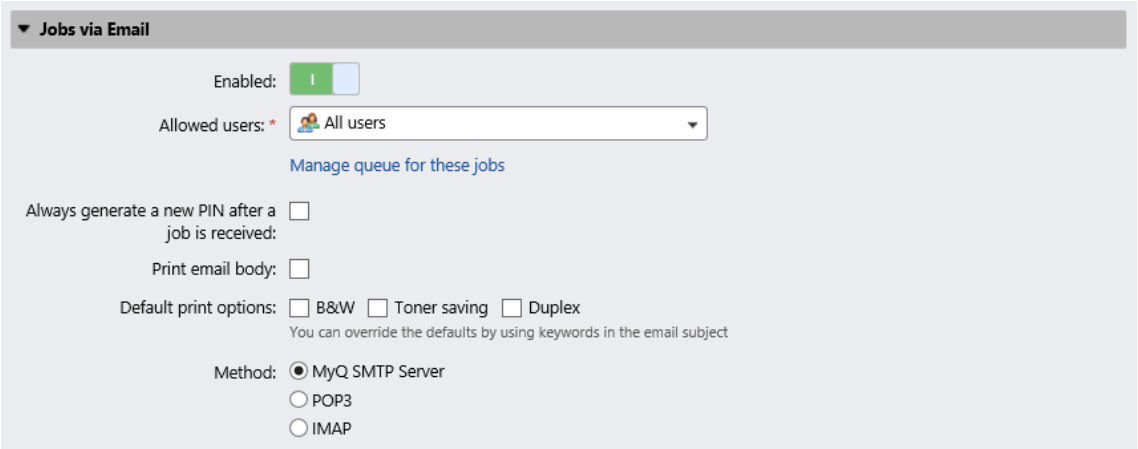
On the **Jobs** settings tab, under **Jobs via Web**, set the following parameters:

1. Enable the **Jobs via Web** option.
2. Select the users that are allowed to use this feature.

Once the **Jobs via Web** option is enabled, all users with rights to the **Web** queue have the **Print File** button displayed on their web user interface account. They can click this button and insert print jobs directly to MyQ. The job size limit is *120MB* by default and it's based on the **Maximum upload file size** setting (available in **MyQ, Settings, System Management**, in the **Advanced** section).

13.4.2 Printing from email setup

Once the **Jobs via Email** option is enabled, the users can print a document by attaching it to an email and sending it to a special email account dedicated to print. Jobs send via email are limited to *500MB* per email message, all attachments included.



If you select the **Always generate a new PIN after a job is received** option, 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 do not receive the new PIN and cannot access their MyQ accounts.

You can enable users to **Print email body** and restrict the print to *B&W*, *Toner saving* and/or *Duplex* mode by selecting one or more **Default print options**.

In addition, users can change their print job parameters by adding keywords to the email subject. These changes have priority over the **Default print options** selected in MyQ. Users can choose from the following keywords: **#color** (color print), **#mono** (monochrome print), **#duplex** (print on both sides of a paper), **#simplex** (print on one side of a paper), **#ecoon** (toner saving print mode on), **#ecooff** (toner saving print mode off). They can be used as any part of the subject and do not have to be separated. For example, an email with the *MyPrintJob #mono#duplex* subject will force the job to be printed in monochrome and duplex.

There are two ways of receiving the print jobs sent via emails: you can either use MyQ as an SMTP server and forward all emails with the print jobs there, or you can use MyQ as an email client that fetches all emails from a specific email account on your server via the POP3 or IMAP protocol.

Forwarding emails to the MyQ SMTP server

With this option, MyQ listens on the MyQ SMTP server port set on the **Network** settings tab and receives any email starting with print as the email with the print job. If you select this option, you need to take the following steps:

1. On your company mail server, create an email account for receiving print jobs.
2. Redirect the sent emails from this address to *print@[IP/hostname]*, where IP/hostname is either the IP address of MyQ server, or its hostname. Any email received on this address will be processed as a print job and its owner will be identified by their email address.

Receiving print jobs via POP3 or IMAP

On your company mail server, create an email account for receiving print jobs.

On the **Jobs** settings tab of the MyQ Web Interface, under **Jobs via Email**:

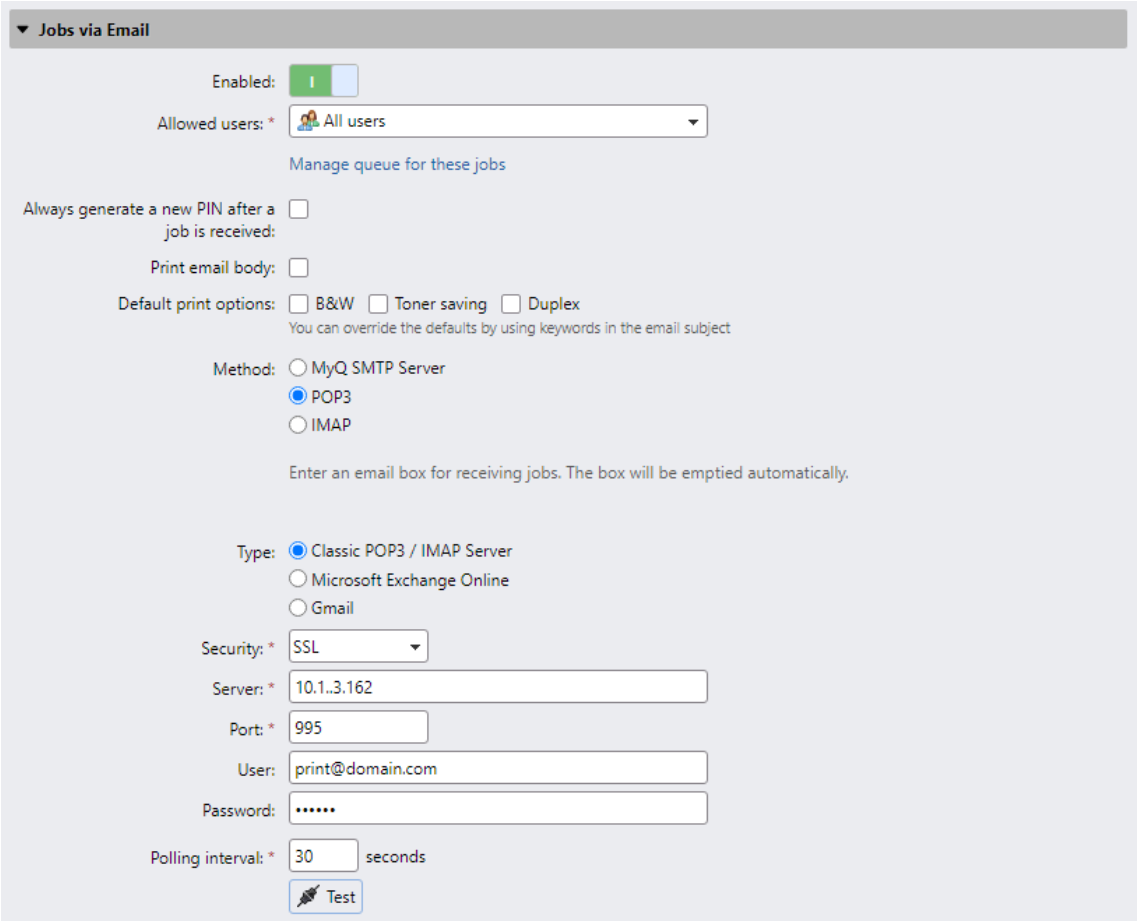
Under **Method**, select the protocol that you want to use.

Select a type from *Classic POP3/IMAP Server*, *Microsoft Exchange Online* or *Gmail*.

For *Classic POP3/IMAP Server*:

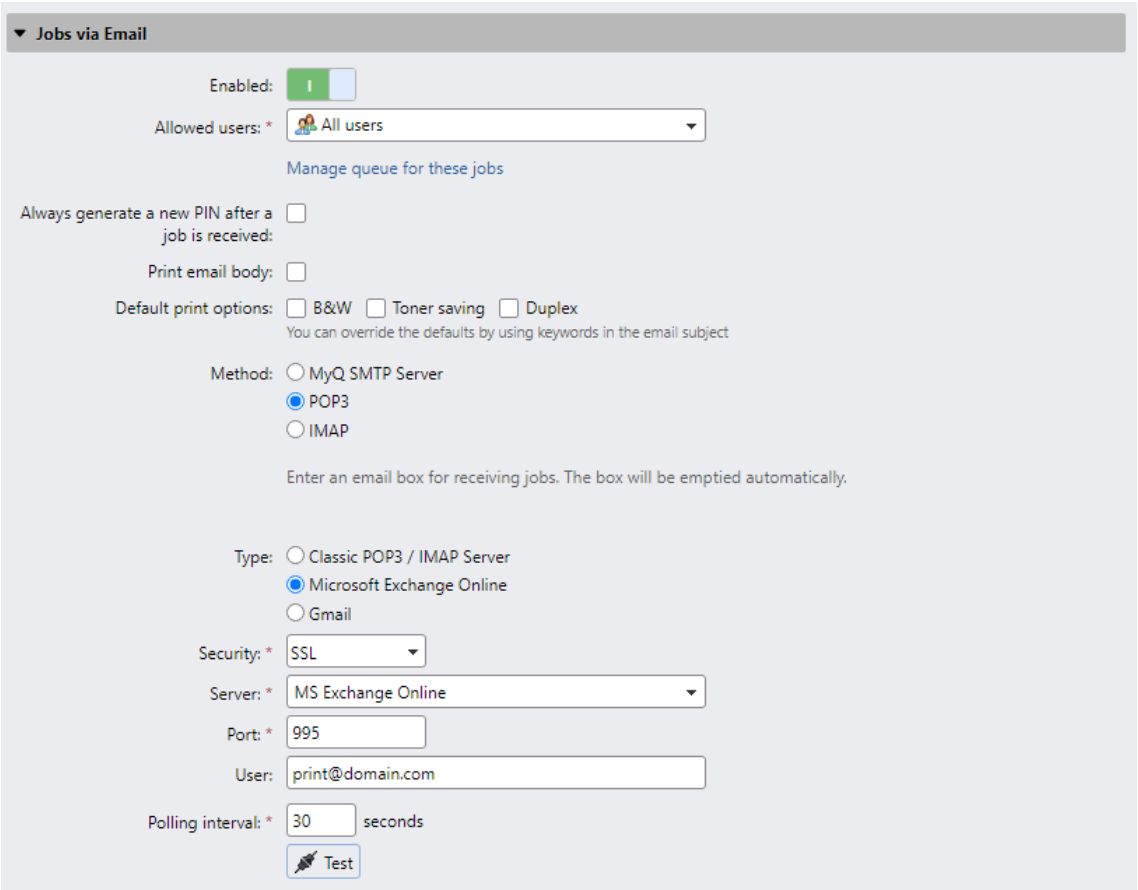
- Ensure that the protocol port is correctly set in the **Port** text box.
- If you want to secure the communication between MyQ and the mail server, select one of the security options (*SSL, STARTTLS*).
- Enter the IP address or the hostname of the mail server in the **Server** text box.
- Enter the address of the email account that will receive the print jobs in the **User** text box.
- Enter the password of the email account in the **Password** text box.
- By changing the value of the **Polling interval** setting, you can change the interval after which MyQ fetches new emails from the mail server.

- By clicking **Test**, you can test the connection to the mail server, and then click **Save** to save your changes.



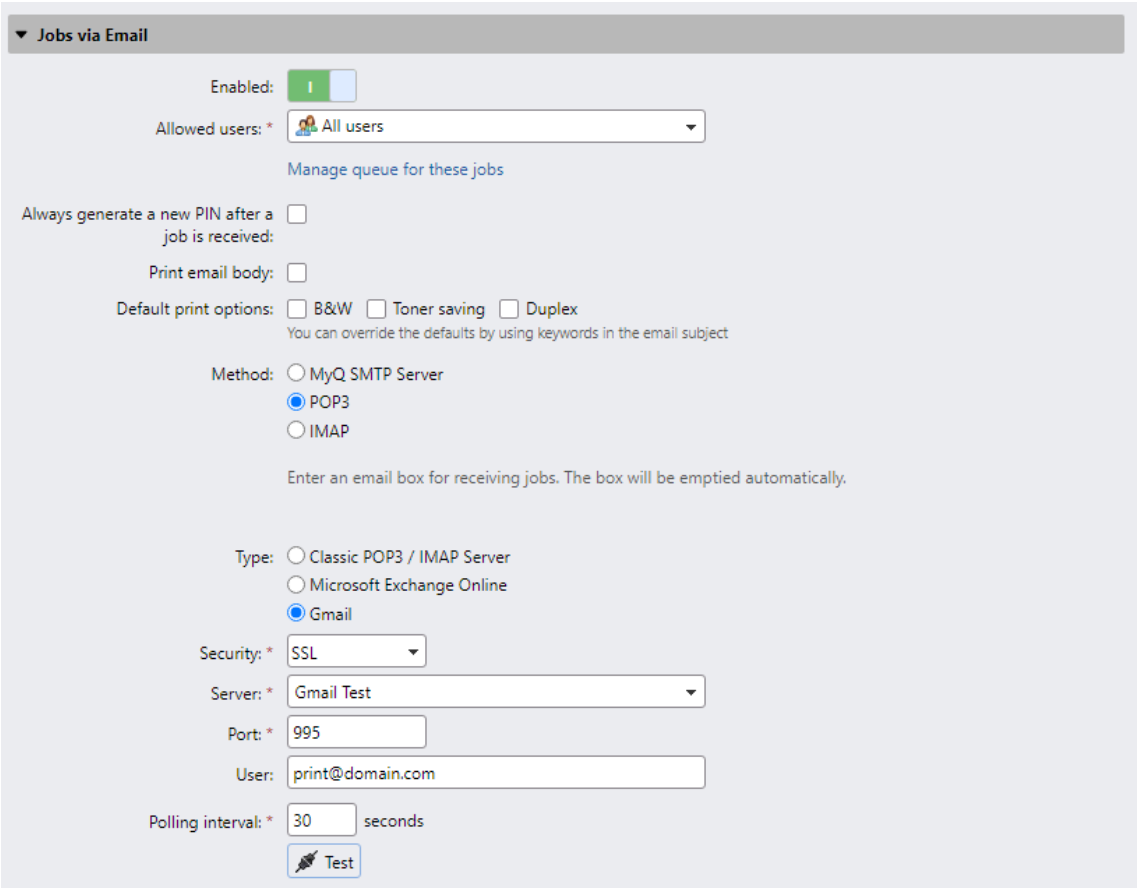
For *Microsoft Exchange Online*:

- If you have already set up a Microsoft Exchange Online server in the **External Systems** settings, that server is selected in the **Server** field. If not, you can click on the **Server** field and then click **Add** to add your Microsoft Exchange Online server. In the pop-up, add a **Title** for your server, the **Client ID** and the **Tenant ID**, and click **OK**. For more information, check Microsoft Exchange Online Setup.
- Set the **Port** setting to the correct value that the email server listens to. You can find the default Microsoft settings here https://support.microsoft.com/en-us/office/pop-imap-and-smtp-settings-8361e398-8af4-4e97-b147-6c6c4ac95353 .
- Choose between the *SSL* and *STARTTLS* **Security** options.
- Enter the address of the email account that will receive the print jobs in the **User** text box.
- By changing the value of the **Polling interval** setting, you can change the interval after which MyQ fetches new emails from the mail server.
- Click **Test** to test the connection to the mail server, and then click **Save** to save your changes.



For *Gmail*:

- If you have already set up a Gmail with OAuth2 server in the **External Systems** settings, that server is selected in the **Server** field. If not, you can click on the **Server** field and then click **Add** to add your Gmail server. In the pop-up, add a **Title** for your server, the **Client ID** and the **Security key**, and click **OK**. For more information, check Gmail with OAuth2 setup.
- Set the **Port** setting to the correct value that the email server listens to.
- Choose between the *SSL* and *STARTTLS* **Security** options.
- Enter the address of the email account that will receive the print jobs in the **User** text box.
- By changing the value of the **Polling interval** setting, you can change the interval after which MyQ fetches new emails from the mail server.
- Click **Test** to test the connection to the mail server, and then click **Save** to save your changes.



13.4.3 Processing documents in Office formats

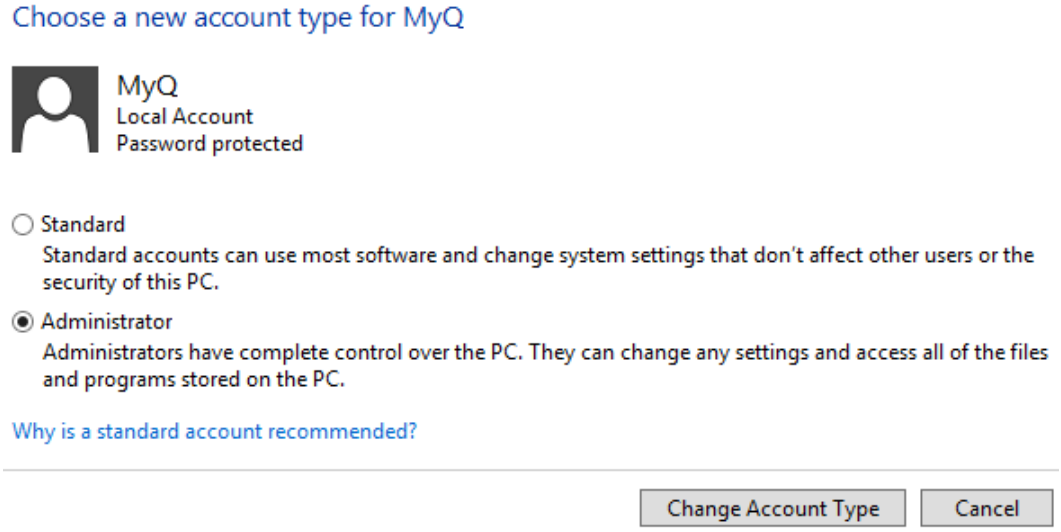
On the **Jobs** settings tab, under **Office file formats**, select a method of processing the Office format files. You can select from:

- **Convert to PDF** - MyQ opens the document in the Office application, converts the job to PDF and sends it directly to the printing device. The printing device has to support direct print of the PDF format. The corresponding office package (in 64bit) has to be installed on the MyQ account. For processing documents in MS Office formats, it is recommended to run MyQ service under a new local admin account rather than the default Local System account.
- **Via a Windows printer** - MyQ opens the document in the MS Office application and prints it using a selected windows printer (print driver). To select the printer, choose the printer that you want to use on the setting drop-down. You also have to change the printer security settings to allow MyQ to print from that print driver. In **Windows**, under **Devices and Printers**, right-click the printer. In the printer's properties, open the **Security** tab and allow print and managing printers to the account that the MyQ services are running under.

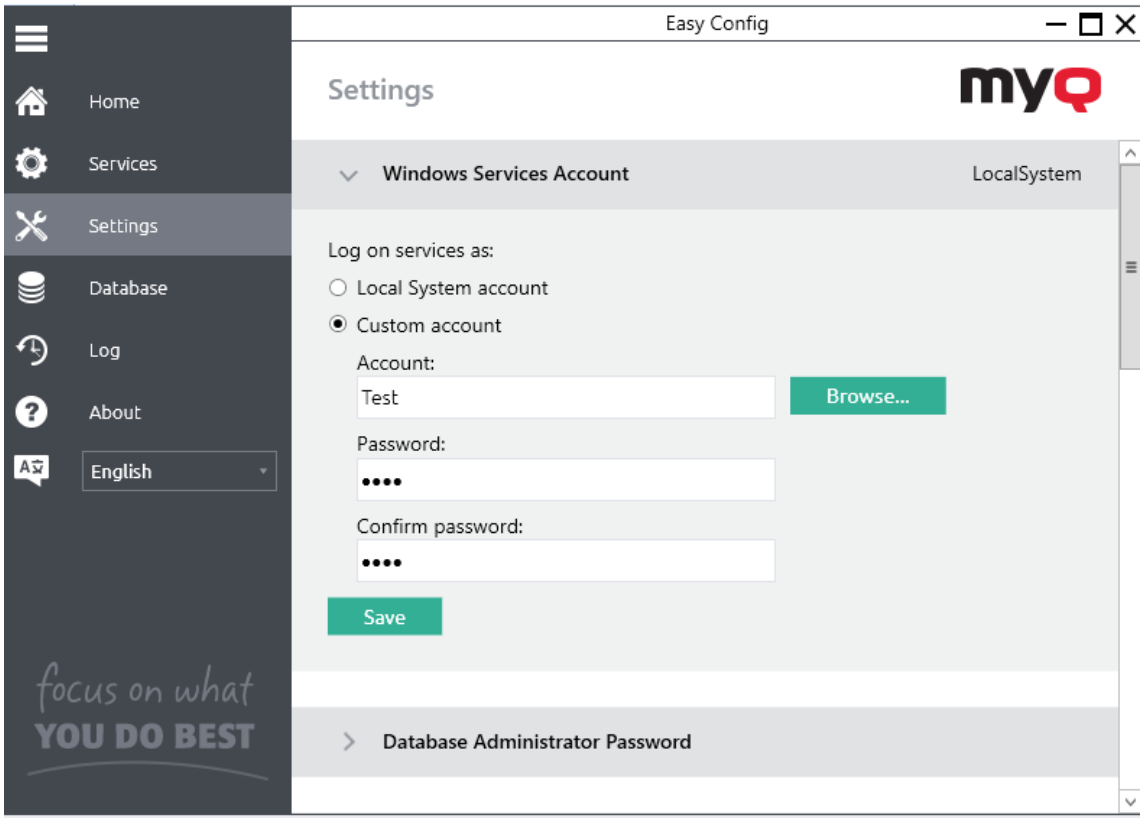
After the MS Office/LibreOffice installation, MyQ services must be restarted for the system to start recognizing these formats.

Creating a new local admin account

1. Create a new local admin account with full administration rights (details can be found here).



2. Log on to the newly created account.
3. Install the corresponding Office package on the MyQ server.
4. Run all the applications that will be used for the conversion (*Word, Excel, PowerPoint, LibreOffice, etc.*) and close all welcome screens and dialog boxes that might appear on the application startup.
5. Open the MyQ Easy Config application and go to the **Settings** tab. Under **Windows Services Account**, select **Custom account**. Then, either browse for the user, or enter the user's credentials and click **Save**. MyQ services are then automatically restarted.

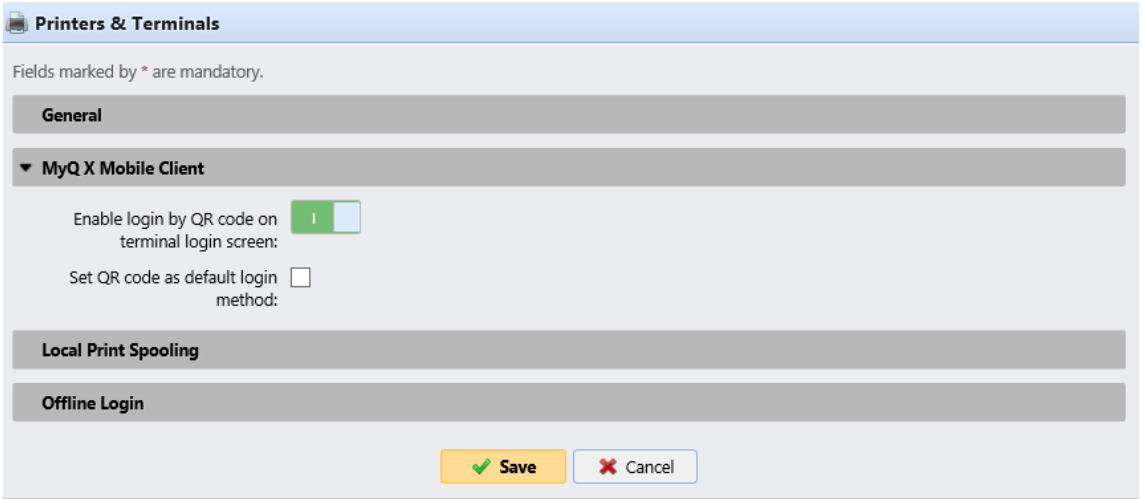


13.5 Printing via the MyQ X Mobile Client app

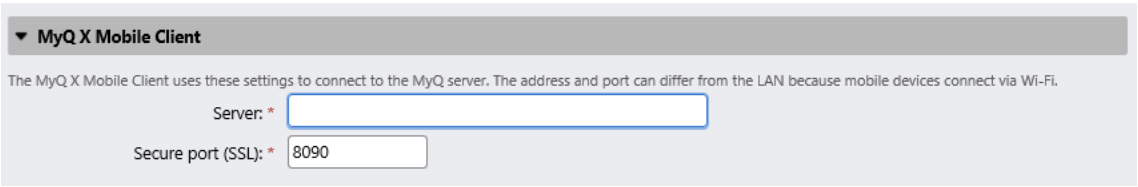
MyQ users can use the MyQ X Mobile Client application to manage print jobs and send them to the print server directly from their mobile phones, securely release the jobs on selected printing devices, unlock printing devices via scanning a QR code, and recharge MyQ credit.

The administrator can also set the following features:

1. On the MyQ Web Interface, open the **Printers & Terminals** settings tab (**MyQ, Settings, Printers & Terminals**) and go to the **MyQ X Mobile Client** section.
2. If you want to enable users to use their mobile application to login to terminals by scanning a QR code, select the **Enable login by QR code on terminal login screen**. This is enabled by default.
3. If you want to be able to set the QR code as the default login method on embedded terminals, mark the **Set QR code as default login method** checkbox.



In the **MyQ X Mobile Client** section in the **Network** settings tab, you can set the **Server** hostname or IP address and the communication port (**Secure port (SSL)**)for the MyQ mobile applications which will be used when the corresponding QR codes are generated.



You can generate a QR code for a printing device on the list of printing devices on the **Printers** main tab. Right-click the printing device there, and then click **Print QR code**.

13.6 Print from Chromebooks, Chrome and other Google apps

As Google ended their support for Google Cloud Print, MyQ offers the following alternatives for secure printing or remote printing:

- IPPS via Chromebook - setting up printing via IPPS enables users to print from Google Chromebooks natively.
- Printing from email/web - print documents from the MyQ web user interface or by sending an email to a special email address.

13.7 AirPrint and Mopria Print Service

AirPrint enables users to print photos and documents from their MacBook, iMac, iPhone, iPad, or iPod touch without having to install additional software (drivers).

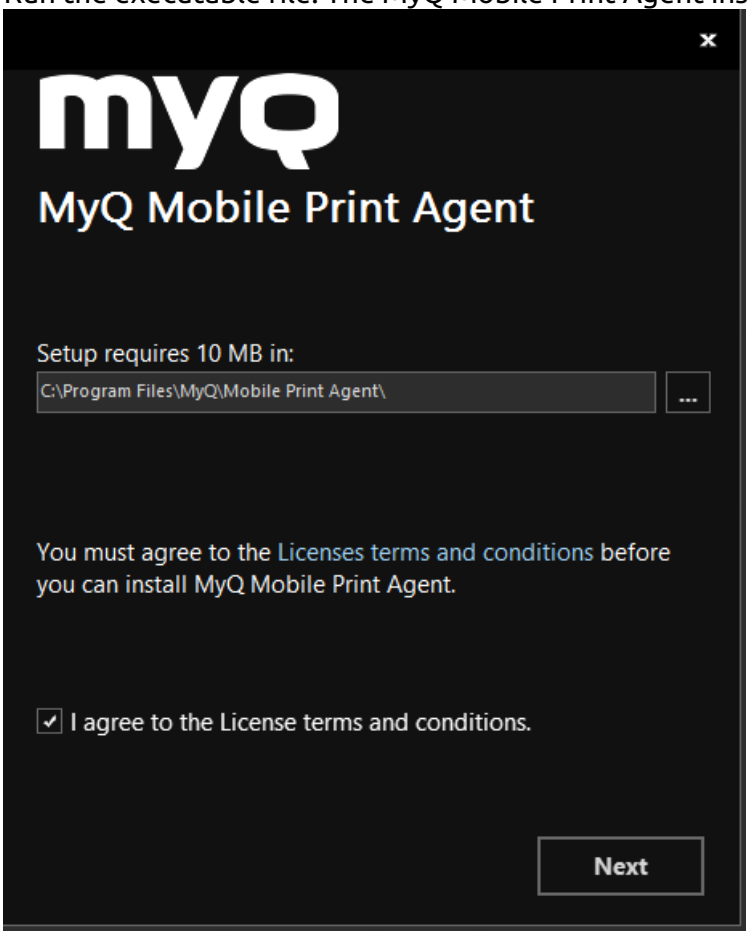
Mopria Print Service does the same for users with an Android smart phone or tablet. Android users must download the Mopria Print Service app from Google Play.

As an administrator, you only have to install the Mobile Print Agent once, to give your iPhone and/or Android users access to MyQ queues.

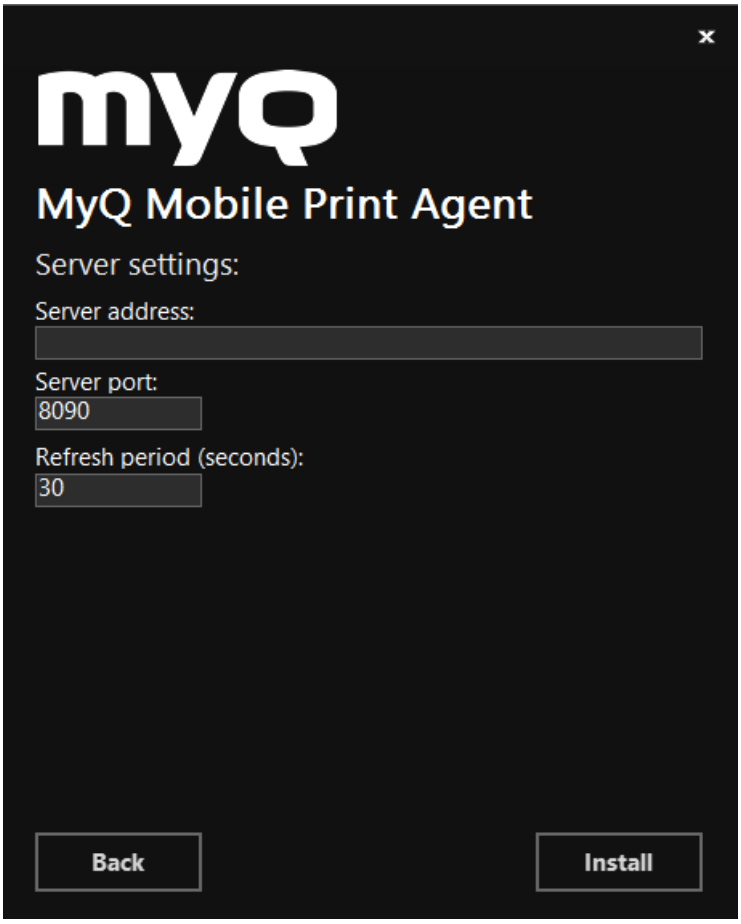
AirPrint and Mopria Print Service are working with MyQ by exposing MyQ print queues as AirPrint / Mopria Print Service printer devices. The MyQ user connects to the company's Wi-Fi network, selects the queue where they want to send the print job and authenticates themselves with their MyQ credentials. After the first authentication, the credentials are stored on the device. **Pull Print** and **Delegated printing** queues are
displayed as available printers on the user's device.

Enable AirPrint and/or Mopria Print Service

1. Make sure that on the MyQ Web UI, in **MyQ, Settings, Jobs**, the **Jobs via mobile print** is **Enabled** (it is enabled by default).
2. Download the latest MyQ Mobile Print Agent installation file from the MyQ Community portal on your server.
3. Run the executable file. The MyQ Mobile Print Agent installation wizard opens.



4. Select the folder where you want to install the MyQ Mobile Print Agent. The default path is:
   C:\Program Files\MyQ\Mobile Print Agent.
5. After this, you need to agree to the license terms and conditions to continue with the installation, and click **Next**. The Server settings window opens.



6. Enter the settings:
   a. **Server address**: the IP address of the MyQ Print Server.
   b. **Server port**: the editable port that the MyQ Mobile Print Agent will use (*8090* by default).
   c. **Refresh period**: The time taken to refresh the connection with the Print Server, in seconds (*30* by default).
7. Click **Install**. The MyQ Mobile Print Agent is installed.
8. Click **Finish** to exit the installation wizard.

13.8 Microsoft Universal Print

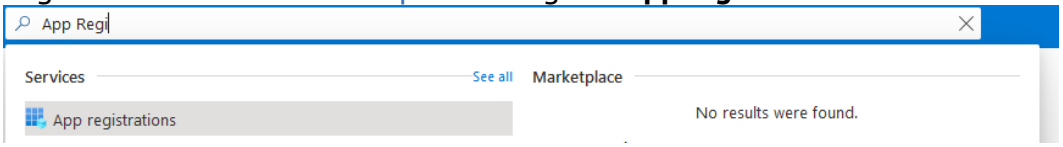
Microsoft Universal Print is a multi-tenant, cloud-based print service that enables cloud-only print solution for organizations.

MyQ integrates MS Universal Print and allows administrators to create virtual printers in Microsoft Azure automatically. MyQ checks periodically if there are any new jobs to be downloaded and if yes, they are downloaded to the associated user and queue, and they are handled as normal jobs in MyQ.

It is first needed to set up Universal Print in Microsoft Azure, and then configure it in MyQ.

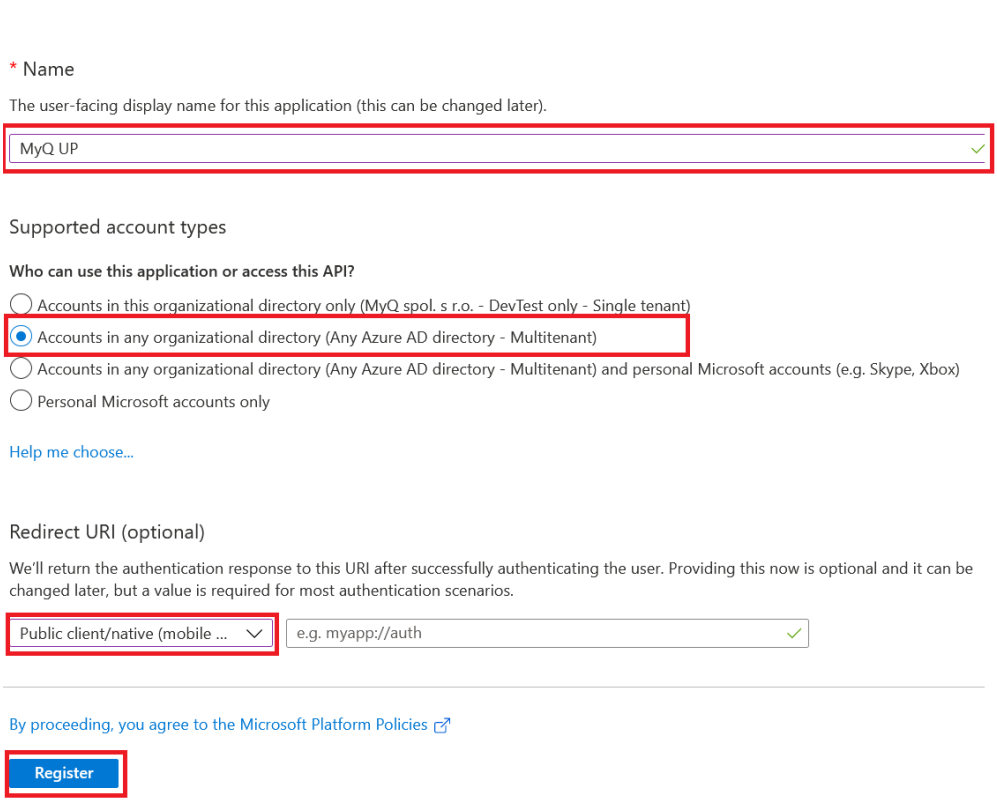
13.8.1 Setting up Universal Print in Microsoft Azure

1. Log in to the Microsoft Azure portal and go **to App registrations**.

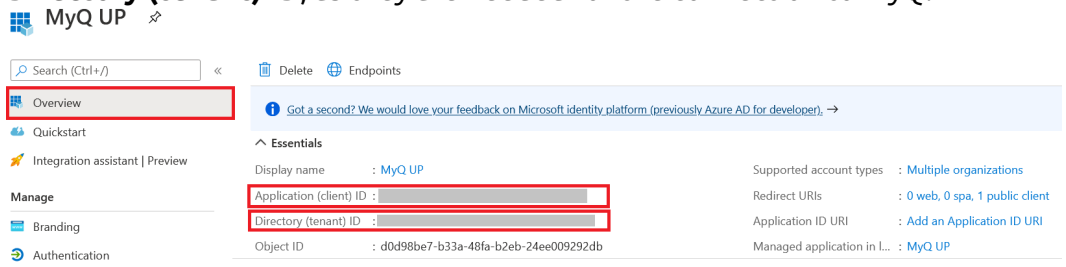


2. Click **New Registration** and fill in the new app details:

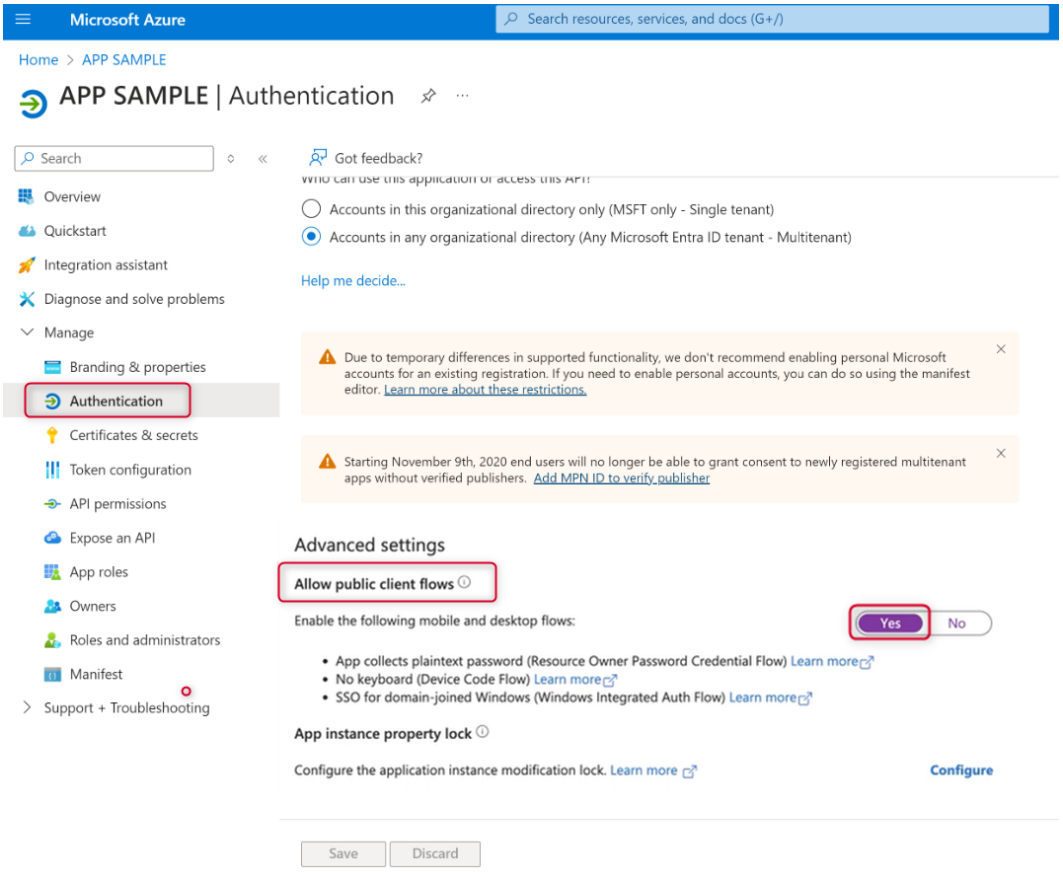
a. **Name** - The name for this application (this can be changed later). For example, *MyQ UP*.
b. **Supported account types** - Who can use this application or access this API? Select the *Accounts in any organizational directory (Any Azure AD directory - **Multitenant**)* option.
c. **Redirect URI (optional)** - The authentication response is returned to this URI after successfully authenticating the user. Select the *Public client/native (mobile&desktop)* option from the drop-down.
d. Click **Register**.



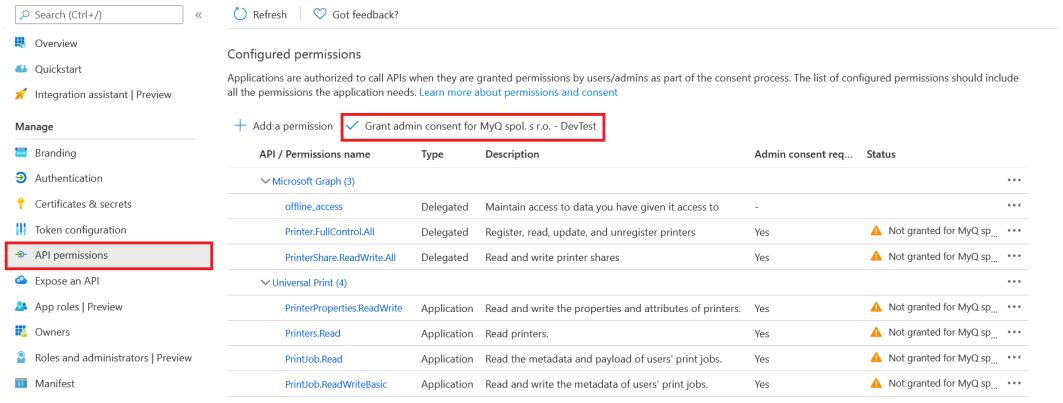
3. The new app overview page opens. Copy the **Application (client) ID** and the **Directory (tenant) ID**, as they are needed for the connection to MyQ.



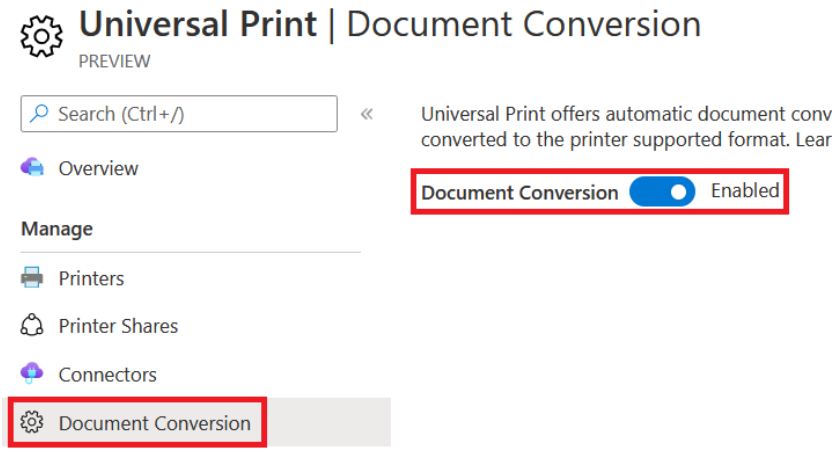
4. Under **Authentication > Advanced Settings,** enable the **Allow public client flows** option. This setting allows the application to authenticate directly from the client (e.g., a mobile app or a single-page application) without requiring a backend service.



5. On the left-hand menu, click **API permissions** and click **Grant admin consent** for the scopes seen in the image below:



6. Go to Universal Print and enable **Document Conversion**.



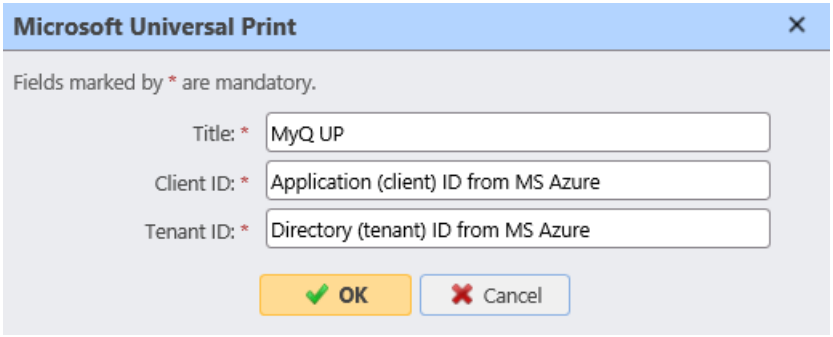
The table below shows the details of the required scopes:

Scope ID	Description
06ceea37-85e2-40d7-bec3-91337a46038f	Microsoft Graph: PrintShare.ReadWrite.All Read and write printer shares
7427e0e9-2fba-42fe-b0c0-848c9e6a8182	Microsoft Graph: offline_access Allows MyQ to request the Access token via the complete MS OAuth2 flow only once, and then use Refresh token to exchange it for the Access token.
93dae4bd-43a1-4a23-9a1a-92957e1d9121	Microsoft Graph: Printer.FullControl.All Register, read, update, and unregister printers
3e306194-d6c5-43ad-afbb-0e7b16a9c10b	UP: Printers.Create Create (Register) printers
1c90a3a7-465b-49c4-adcc-c8ac83d3d3f8	UP: PrinterProperties.ReadWrite Read and write the properties and attributes of printers.
2b1bdd6b-9a0f-47c6-a806-b3e20cfd07a8	UP: Printers.Read Read printers

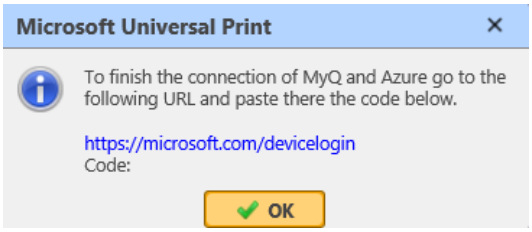
Scope ID	Description
b695614a-52ec-4835-9e13-bdf5ff4c7448	UP: PrintJob.Read Read the metadata and payload of users' print jobs.
11f87dac-027f-4d76-bd29-1ea1536b93da	UP: PrintJob.ReadWriteBasic Read and write the metadata of users' print jobs.

13.8.2 Setting up Universal Print in MyQ

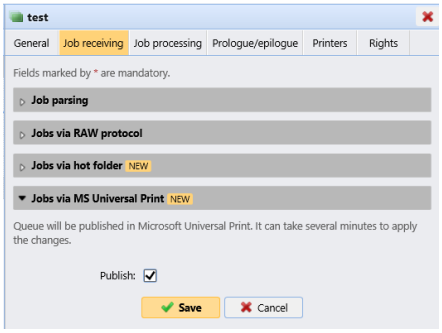
1. Log in to the MyQ web administrator interface, and go to **MyQ, Settings, External Systems**.
2. In the External Systems section, click **+Add** and select *Microsoft Universal Print* from the list.
3. In the pop-up window, fill in the required fields:
   a. **Title** - add a name for your Microsoft Universal Print external system; for example, *MyQ UP*.
   b. **Client ID** - the **Application (client) ID** you copied during the MS Azure setup.
   c. **Tenant ID** - the **Directory (tenant) ID** you copied during the MS Azure setup.
4. Click **OK**.



5. Copy the **Code** from the pop-up window, click on the URL, enter the code and follow any other instructions. Once done, MyQ is connected to MS Azure Universal Print. (There is a 15min timeout for confirming the code. If it is not confirmed and a user tries to create a printer in Azure via MyQ, a message appears in the *Issues* column in the Queues section, that it is needed to confirm the code. If the time for confirming the code is up, then when a user is trying to create the printer, the device code request will be generated again and there will be a message with a new user code in the *Issues* column).



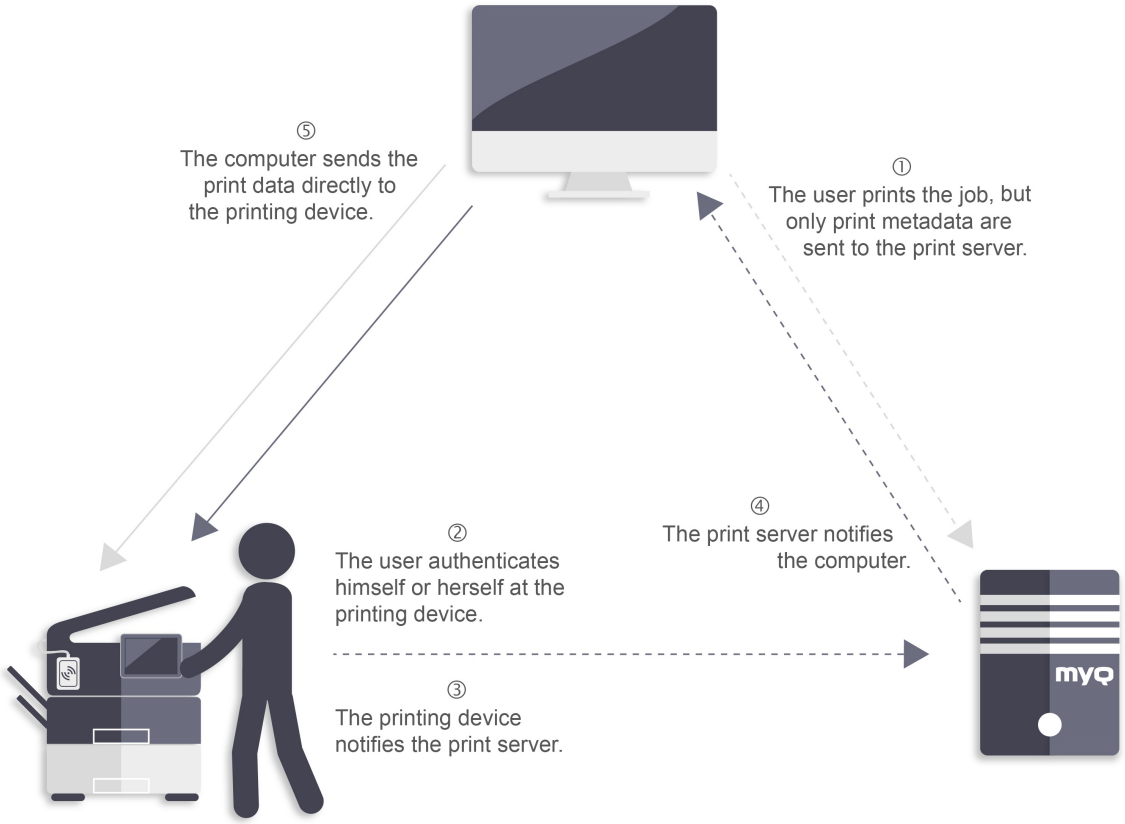
6. Go to **MyQ, Queues** and select the queue(s) you want to associate with Universal Print. Double-click on the queue (or right-click and edit, or select the queue, click Tools and edit) and on the queue properties, click on the **Job receiving** tab. In the **Jobs via MS Universal Print** section, check the **Publish** checkbox. After a few minutes, your queue will be available as a virtual printer in MS Azure Universal Print.



13.9 Client Spooling

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

When a user prints their job while this feature is activated, only the print metadata are sent to the server and the actual print job does not leave the computer (it is stored there as a RAW file). It waits until the user authenticates themselves at a printing device and selects to print the job there. After that, 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.



To enable this feature, you have to set a TCP/IP port for the service, install the MyQ Desktop Client application on the client's computer and enable the Client Spooling feature. (For information on how to install and set up MyQ Desktop Client on client's computers, see the *MyQ Desktop Client for Windows* guide).

If the computer of the user is switched off during the sending of the job, the job is **Paused** on the server. The administrator can release the job once the user has switched on their computer again.

MyQ Print Server 8.2 is also compatible with MyQ Smart Print Services 7.6 with all the client features (Client Spooling: ON/OFF and LPM), however the compatibility to use SPS 7.6 **is not available** on MyQ Print Server higher versions (10/10.1+).

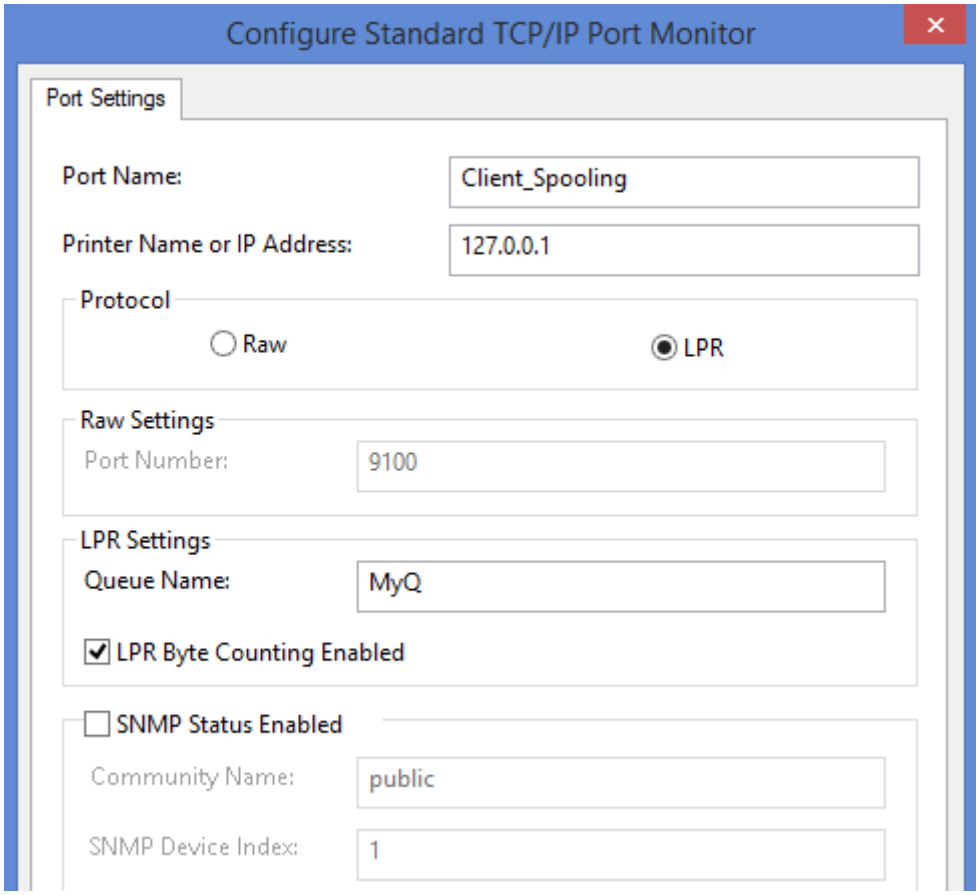
It is highly recommended to upgrade your SPS clients to MyQ Desktop Client 8.2+.

13.9.1 Windows settings

The settings in the Configure Standard TCP/IP Port Monitor dialog box (in the printer's settings) must have the following values:

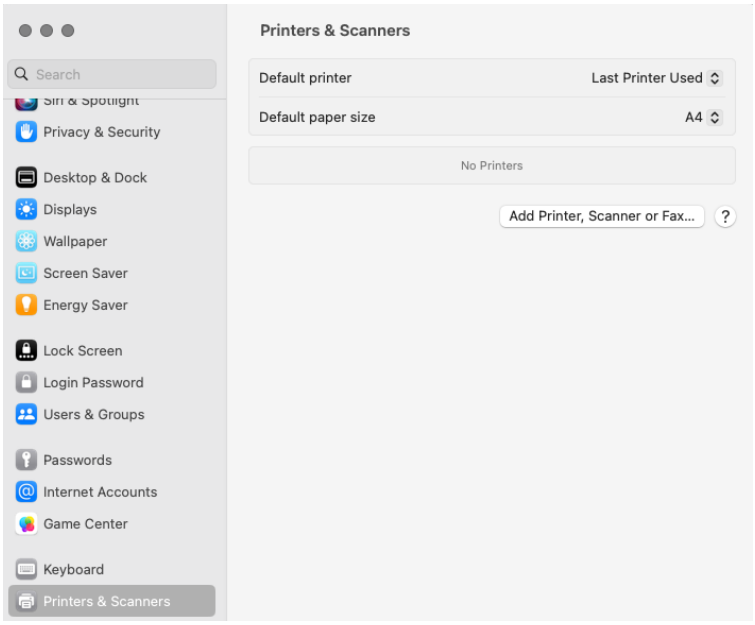
- **Printer Name or IP Address**: *127.0.0.1* (IP address of the localhost in Windows) or *localhost*
- **Protocol**: Select *LPR*

- **Queue Name**: queue name according to the MyQ server setting (same as if printing to the MyQ server)
- **LPR Byte Counting Enabled**: *Selected*
- **SNMP Status Enabled**: *Deselected*

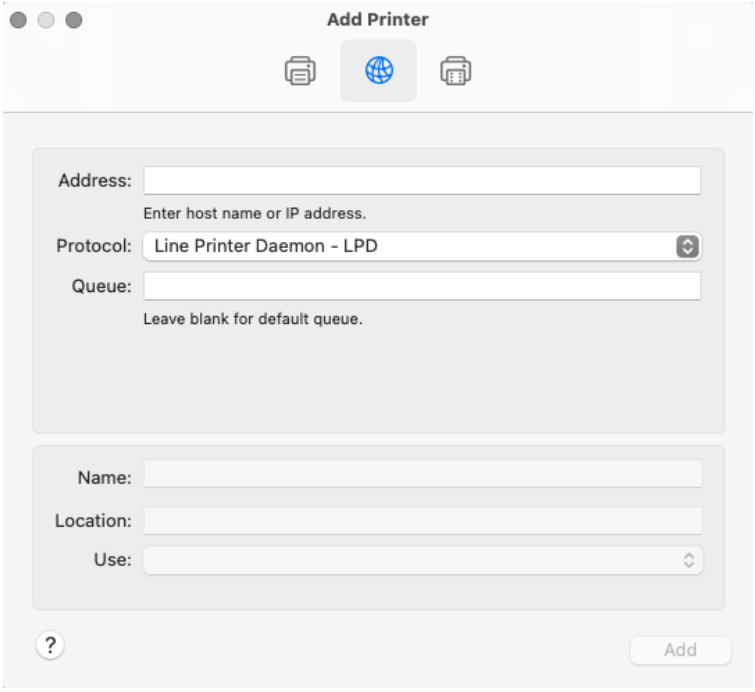


13.9.2 MacOS settings

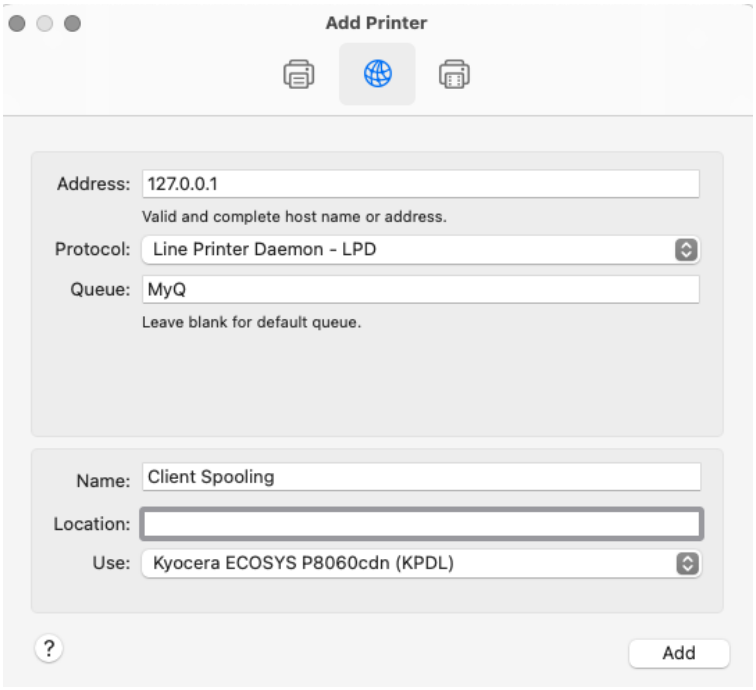
- Go to **Apple menu > System Preferences**, and then click **Printers & Scanners**.
- Click **Add Printer, Scanner or Fax** to add a new printer.



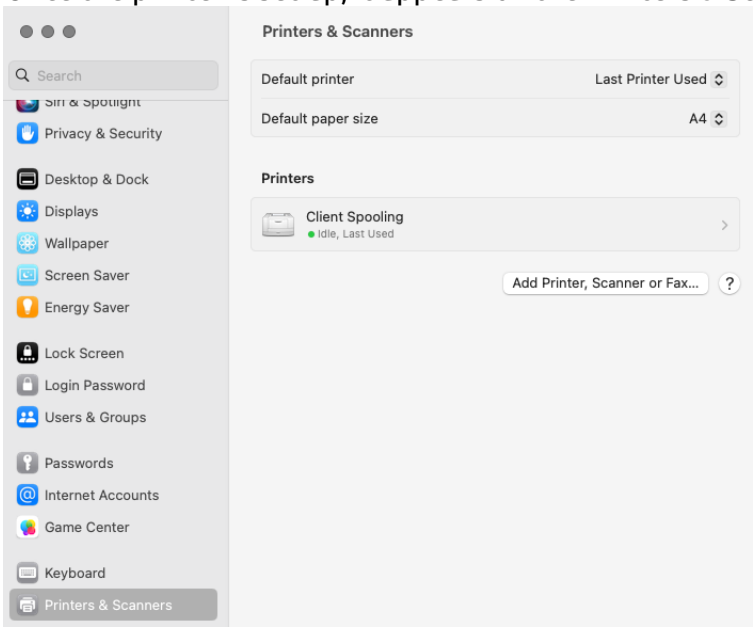
- In the ribbon, select the IP icon. In the **Protocol** field, select *Line Printer Daemon - LPD* from the list.



- In the **Address** field, add the IP address or hostname of the localhost. In the **Queue** field, add a queue name according to the MyQ server setting. Add a **Name**, and optionally a **Location** for your printer. In the **Use** field, select a printer driver from the list. Click **Add** to setup the printer.



- Once the printer is set up, it appears on the Printers & Scanners list.



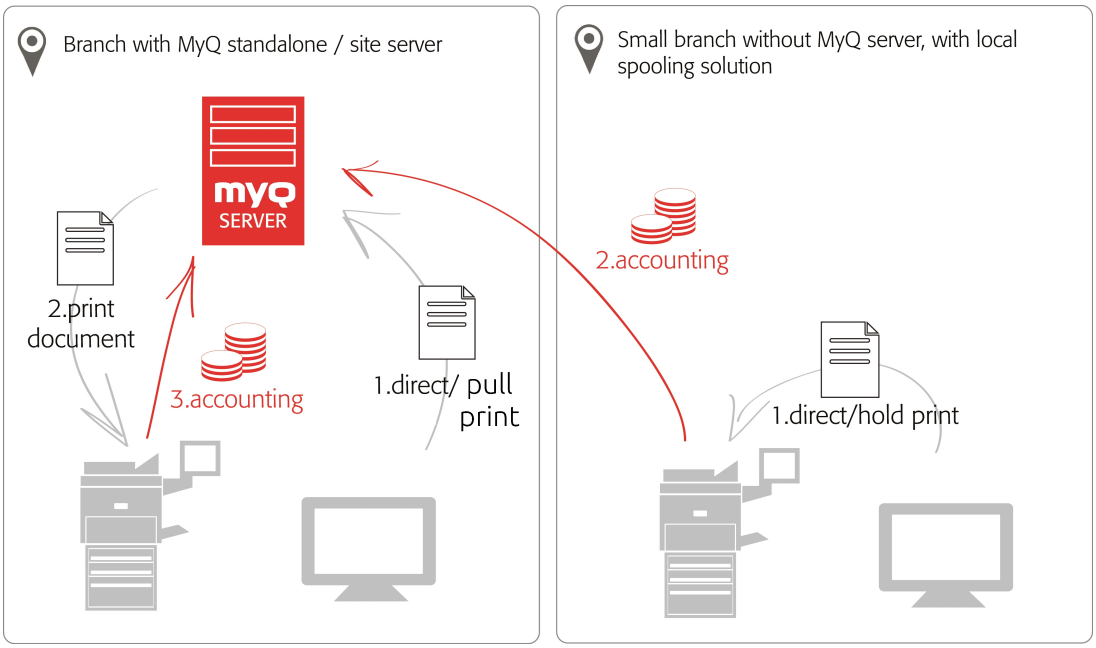
For a description of how Client Spooling works and its known limitations, continue to the MyQ Desktop Client manuals:

- MyQ Desktop Client for Windows
- MyQ Desktop Client for macOS

13.10 Device Spooling

Under normal circumstances, print jobs are sent to the MyQ server where they are stored and wait for release. It means that every print job has to be sent from a user PC to the MyQ server and then from the MyQ server to a printing device. This is fine for networks with a good bandwidth connection, but it might not be an optimal solution for customers with many small branches and limited bandwidth to the MyQ Central server. In such cases, it is unproductive to send the job from the branch to MyQ server and back.

Device Spooling is a feature that solves this problem. With Device Spooling enabled, a print job is sent directly to the device and saved to its hard disk. It waits there to be released in the standard way.



13.10.1 Limitations

- Project Accounting is not supported (print jobs have the *Without Project* option set)
- Favorite jobs are not supported
- Job Roaming is not supported
- Print job archiving is not supported
- Job preview is not supported

13.10.2 Setting up Device Spooling

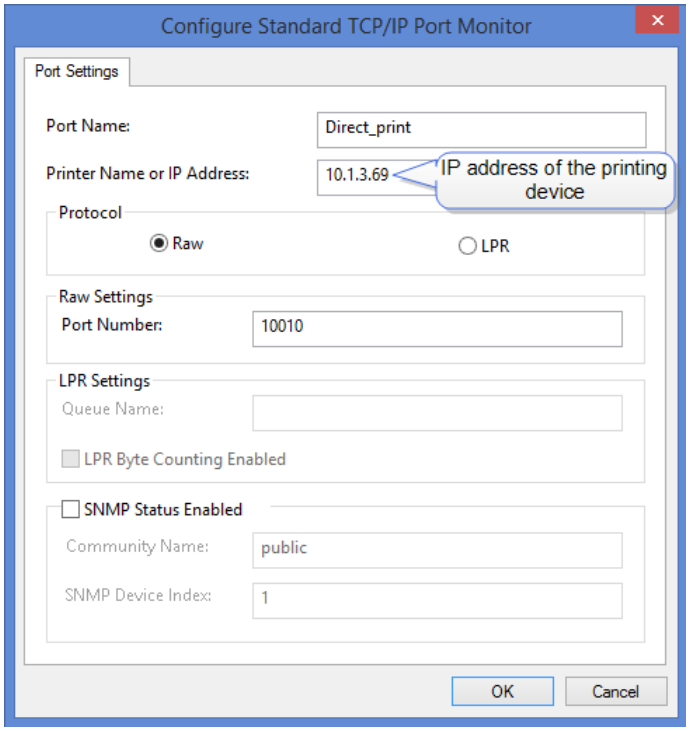
To open the setup screen, go to **MyQ, Settings, Printers & Terminals**. Under **Device Spooling**, you can activate the feature and change its settings:

- **Enabled**: Click to enable or disable the feature.
- **Delete ready jobs older than ___ hours**: Hours to wait before the spooled jobs are deleted from the printing device's hard disk.
- **Pull Print**: Select to activate pull print for Device Spooling. With the Pull Print 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 mutually connected devices at the branch, the jobs spooled on the devices can be shared between them. In such cases, jobs sent to one device are displayed on the list of print jobs and can be printed on other devices. The pull print feature is limited to devices on the same subnet.
  For the local pull print functionality, it's necessary to have the same time set on all of the participating devices. The easiest way to do this is to synchronize the devices with a time server, such as *time.windows.com, time.nist.gov*, etc. You can do this in the Date/Time settings on the device Web UI.
- To submit the changes, click **Save** at the bottom of the tab. The Apply new settings dialog box appears. Keep the **Reset all terminals** option selected and click **OK**. The settings are then distributed to all connected terminals.

13.10.3 Print drivers for Device Spooling

To enable users to send jobs directly to the printing device and use Device Spooling, you have to create a new print port and set a port protocol and port number. When configuring the port, use the **Raw** protocol and one of the four following ports:

- *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 there until the user logs in and prints it. It is not possible to print this job on any other than this particular printing device.
- *10012*: Port for Device Spooling pull print. The job is spooled by the printing device. Once the user logs on any of the devices connected to the same subnet, information about this job is provided and the job is displayed in the list of the available jobs and can be printed.
- *10013*: Port for Device Spooling delegated print. Works the same as the Device Spooling pull print, except that the job can be printed by delegates of the sending user.



13.10.4 IP filters

To ensure proper functioning of the offline pull print feature, you have to turn off IP filters or set a new IP filter which includes all the IP addresses of the printing devices, where the pull print jobs can be stored.

13.10.5 Print languages supported by Device Spooling

The following print languages are supported by Device Spooling:

- PCL XL
- PCL5c
- KPDL
- PDF

13.11 Offline Login

⚠ This feature is currently only supported on Kyocera and Ricoh terminals.

For MyQ to operate properly, a 100% reliable network connection is necessary. Connection problems can lead to serious issues; for example, users may not be able to start their user sessions on the printing devices and perform any copy, print or scan actions. The **Offline Login** feature prevents such situations. User information, including credentials, are cached at the device and if the server is unavailable, cached data are used for user authentication. Users can then log in and perform all the actions that do not require network access to the MyQ server.

When combined with Client or Device Spooling, the offline login feature offers a robust backup plan for server outages.

13.11.1 Offline Login setup

Go to **MyQ, Settings, Printers & Terminals** on the MyQ Web administrator interface. In the **Offline Login** section, you can enable the feature and change its settings:

- **Enabled**: Click to enable or disable the feature.
- **Cache user credentials for ___ hours**: The device remembers the credentials for the set time period (in hours); after the period ends, users cannot log in the offline mode anymore.
- **User Synchronization**: Opens the Offline Login - User Synchronization properties panel. On the panel, you can enable the user synchronization, set the update interval (in hours), and manage printing devices and users you want to synchronize.

You can synchronize max. 100 users to one printing device. If a group contains more users, only the first 100 users will be synchronized with the printing device.

It is possible to store 3 ID Cards and 3 PINs per user via User Synchronization. A user's credentials (ID Card or PIN) are also stored on the device if there was an active user session while the server was still online.

If after you change the settings the Apply new settings dialog box appears, keep the **Reset all terminals** option selected and click **OK**. The settings are then distributed to all connected terminals.

13.11.2 Offline Login

In case the connection to the MyQ server is lost, users can log in via their PIN or ID card in offline mode.

Requirements:

- The PIN or ID Card login methods are the only ones supported. This can be set in the printers' configuration profile.
- The connection needs to be secure.

13.11.3 Offline Login Limitations

- Credit is not supported
- Quota is not supported;
- Projects - print jobs are set to the *Without Project* option

13.12 Fallback printing

With MyQ Desktop Client installed and running on the end user's workstation, you can select a backup printing device to be used for print when connection to the MyQ

server is lost. The **Fallback printing** feature serves as an important backup tool in case of a server outage. Furthermore, it can be combined with the **Device or Client Spooling** and the **Offline login** features on MyQ embedded terminals to enable using hold print, pull print and delegated print on the printing device.

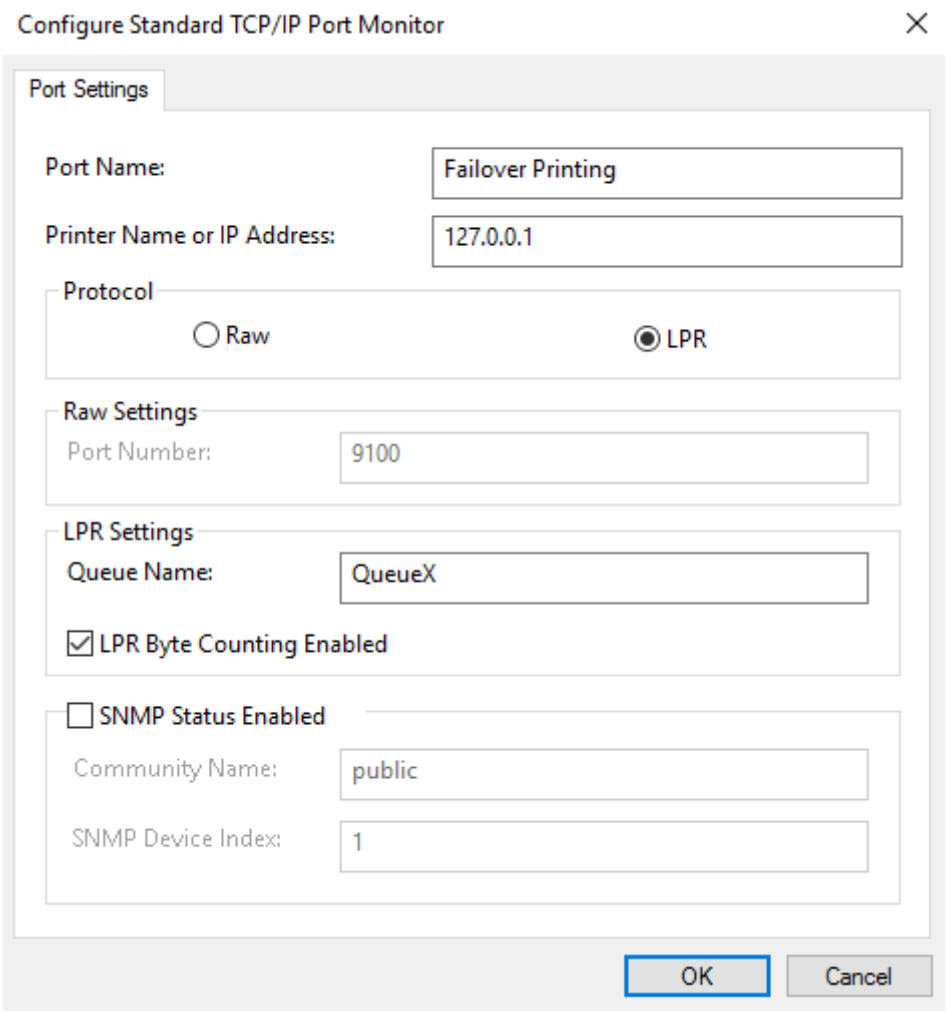
> For information on how to install and set up MyQ Desktop Client on client's computers, see the *MyQ Desktop Client for Windows* guide.
>
> For information about support and setup of the **Device Spooling** and the **Offline login** features on a particular MyQ embedded terminal, see the respective MyQ embedded terminal manual.

After the installation, you need to configure the print driver port to send print files to MyQ Desktop Client, which then sends them either to the MyQ server or directly to the printing device, depending on the availability of connection to the MyQ server.

13.12.1 Windows settings

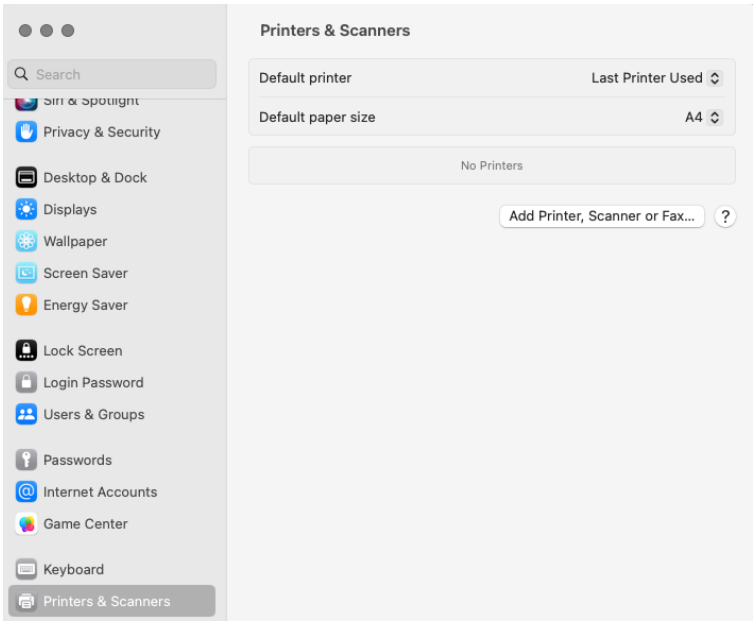
The settings in the Configure Standard TCP/IP Port Monitor dialog box must have the following values:

- **Printer Name or IP Address**: *127.0.0.1* (IP address of the localhost in Windows) or *localhost*
- **Protocol**: *LPR*
- **Queue Name**: queue name according to the MyQ server setting (same as if printing to the MyQ server)
- **LPR Byte Counting Enabled**: *Selected*
- **SNMP Status Enabled**: *Deselected*

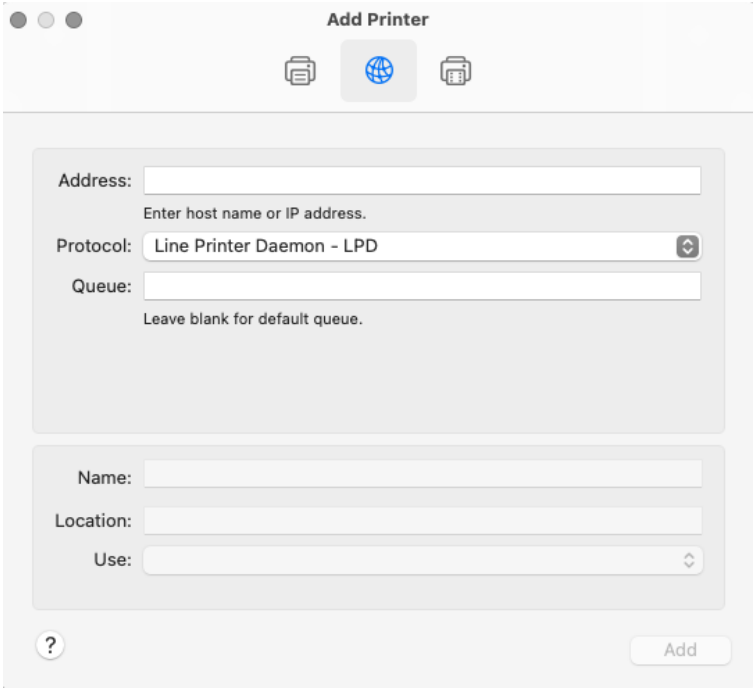


13.12.2 MacOS settings

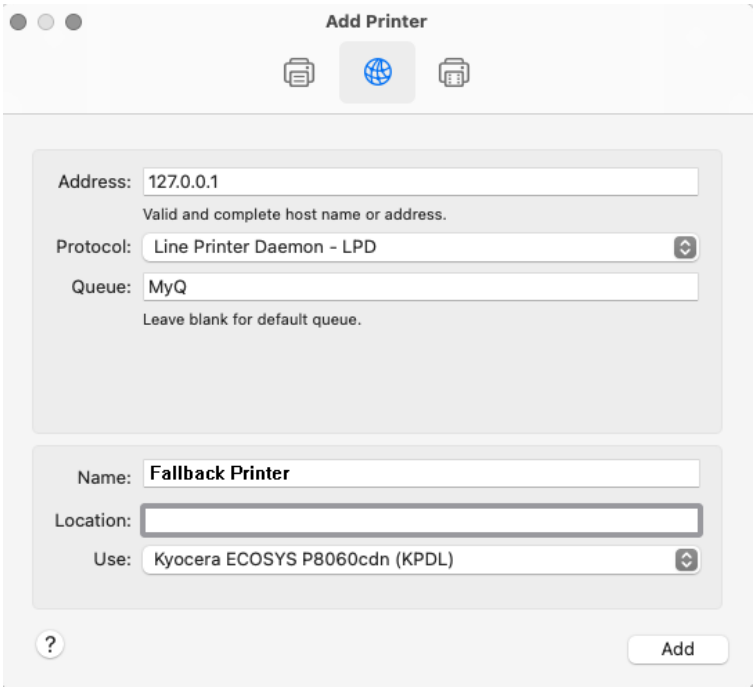
- Go to **Apple menu > System Preferences**, and then click **Printers & Scanners**.
- Click **Add Printer, Scanner or Fax** to add a new printer.



- In the ribbon, select the IP icon. In the **Protocol** field, select *Line Printer Daemon - LPD* from the list.



- In the **Address** field, add the IP address or hostname of the localhost or MyQ server's IP address. In the **Queue** field, add a queue name according to the MyQ server setting. Add a **Name**, and optionally a **Location** for your printer. In the **Use** field, select a printer driver from the list. Click **Add** to setup the printer.



- Once the printer is set up, it appears on the Printers & Scanners list.

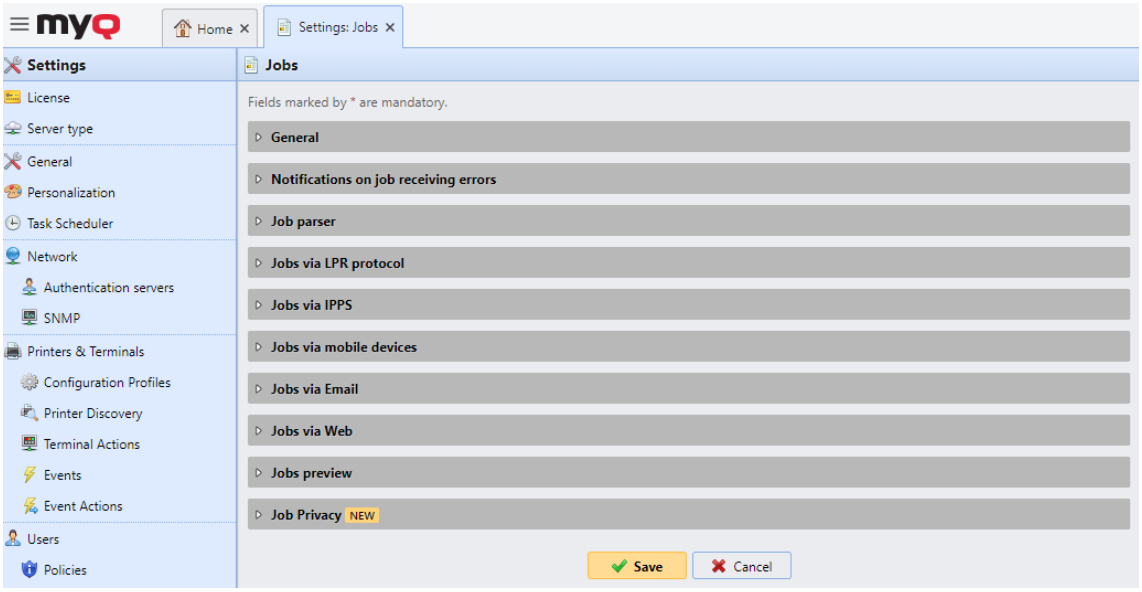
14 Jobs

This topic discusses one of the key functions of MyQ — setting and management of print jobs. It covers the following subjects:

- Print jobs global settings: Jobs settings tab
- Print jobs list, individual jobs settings and deleting jobs: List of jobs, Editing jobs, Deleting jobs
- Print jobs parser: Jobs Parser
- Notifying users and the administrator about refused jobs: Notifying the admin and users about refused jobs
- Using PJL commands for additional job processing actions: Processing Jobs via PJL Commands
- You can use PHP scripts to further process the job after it is received by the MyQ server: Scripting (PHP)
- When your brand supports PDL (page description language) check out this chapter: Prologue, Epilogue
- Setting up and previewing jobs: Jobs Preview
- When you have a dedicated Job Archiving license and the Job Preview feature set up on the MyQ server, you can automatically archive all print jobs that are sent to MyQ: Job Archiving

14.1 Jobs settings tab

On the **Jobs** settings tab, you can set the global properties of jobs in the MyQ print environment.

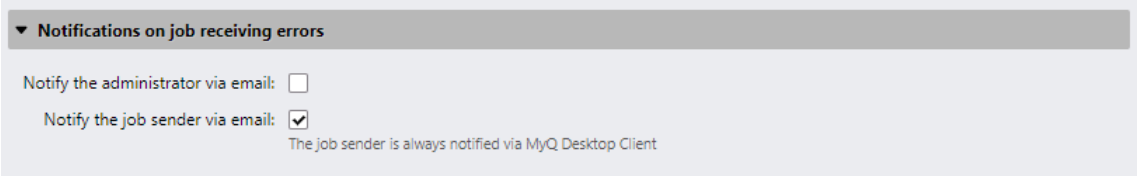


14.1.1 General

Here you can set the **Maximum job size** (default size is *600MB*).

In the **Office file formats** subsection, you can select the method of processing and printing the Office format files. You can select from *Convert to PDF* (default) and *Via a Windows printer*. For details check Processing documents in Office formats.

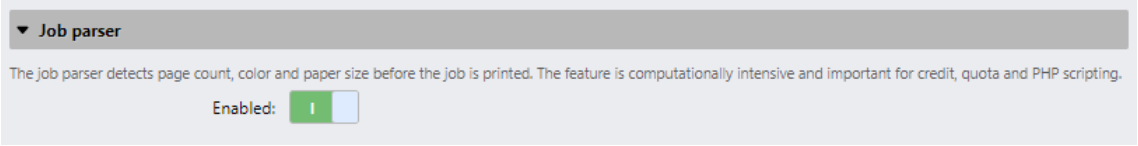
14.1.2 Notifications on job receiving errors



Check the **Notify the administrator via email** and/or the **Notify the job sender via email** boxes, to send notification emails about refused jobs.

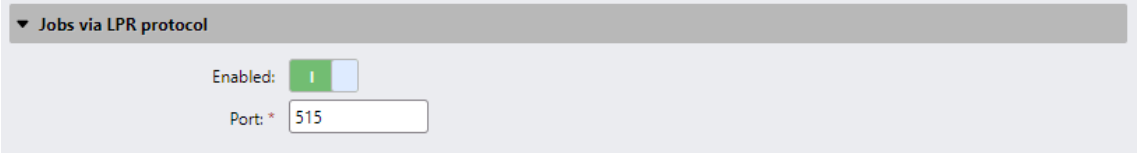
The job sender is always notified via MyQ Desktop Client, if installed.

14.1.3 Job parser



Here you can activate, or deactivate the Job parser tool. You need to activate the Job Parser if you want to know job details (page count, color, paper size, etc.) before the job is printed. It is necessary for features like credit, quota and PHP scripting. If you don't use these features, you might want to disable the Job parser, as it is CPU intensive. The default setting is **Enabled**.

14.1.4 Jobs via LPR protocol



Here you can enable the **Jobs via LPR protocol** feature (*enabled* by default). If it is deactivated, MyQ cannot receive print jobs via LPR.

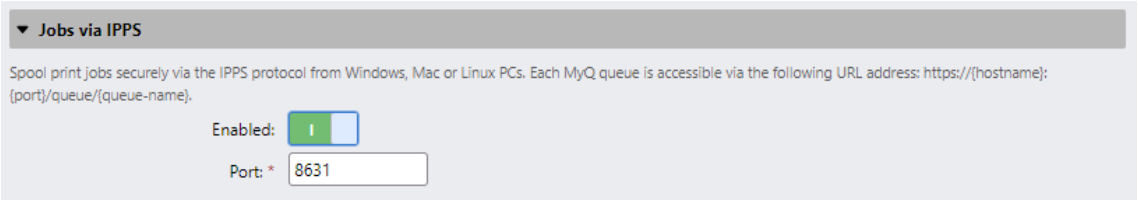
The server knows the job sender (to be able to notify MyQ Desktop Client about job processing) through the hostname sent by the LPR protocol. The maximum length of the hostname is 31 characters.

The maximum job size received over LPR is *100GB*. Jobs with a size of over *2GB* are described as: "*More than 2GB*"; for jobs below *2GB*, the real size is displayed.

It is recommended to keep the **Jobs via LPR protocol** option enabled. If it is disabled, jobs sent from print drivers cannot be received by MyQ.

You can also change the **port** here, although it is recommended to use the default setting (*515*).

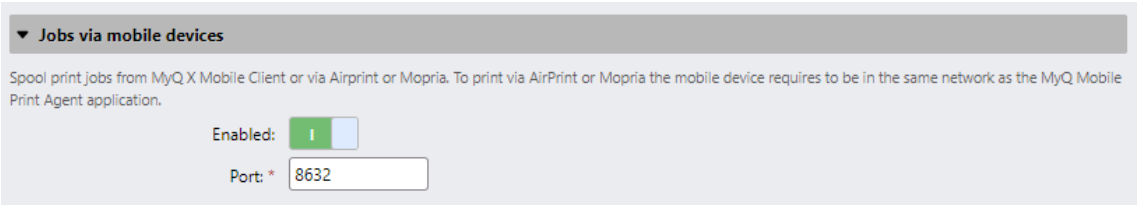
14.1.5 Jobs via IPPS



Here you can enable printing jobs via the IPPS protocol. You can also change the **port** here (default is *8631*).

For more information, see Jobs via IPPS.

14.1.6 Jobs via mobile devices

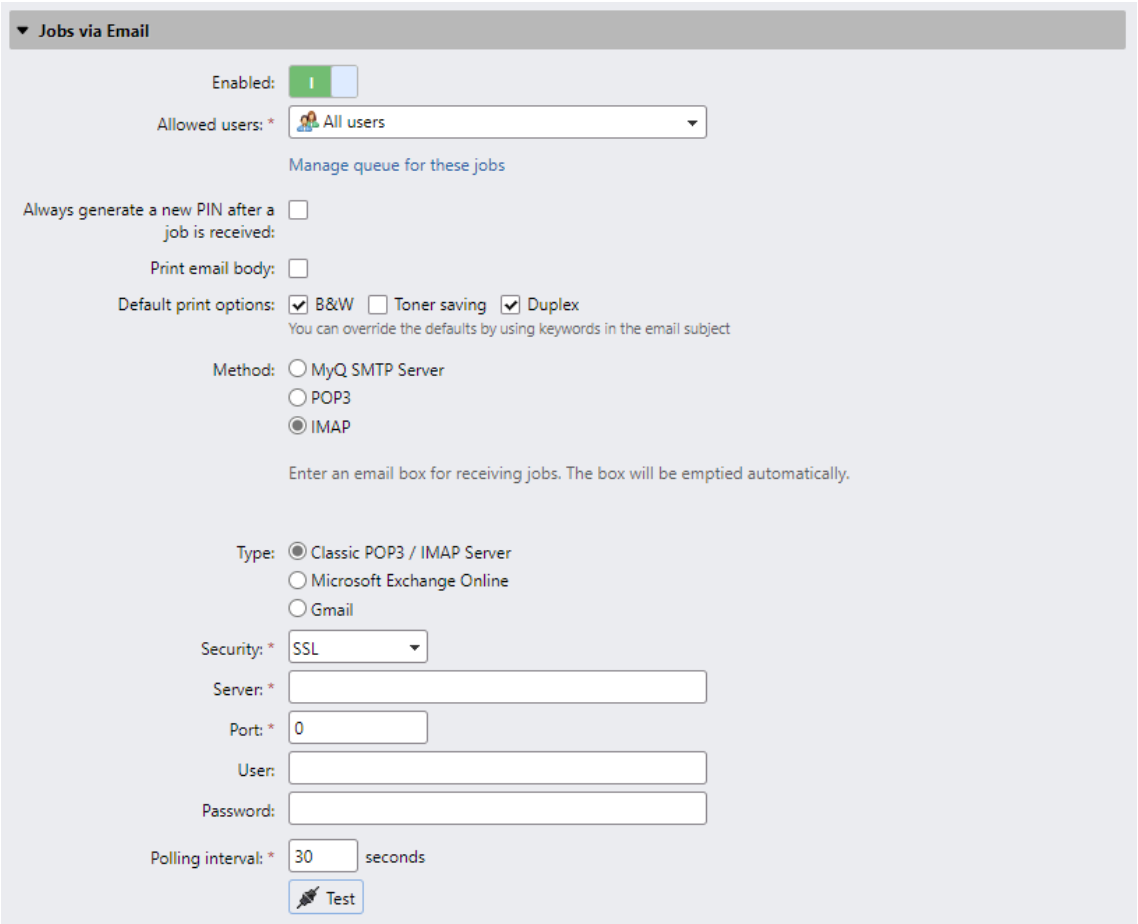


This feature allows you to use mobile printing via MyQ X Mobile Client and AirPrint or Mopria. It is enabled by default.

The standard **port** is *8632* and it's editable.

For more information, see MyQ X Mobile Client app, and mobile printing via AirPrint or Mopria.

14.1.7 Jobs via Email



Here you can enable or disable the **Jobs via Email** feature, which enables receiving print jobs sent via email. The email attachment is processed and sent as a print job (the email body can be processed as well). PDF/A, TXT and JPEG formats are supported. For MS Office formats, MS Office or LibreOffice must be installed on the MyQ server.

You can select the **Allowed users** who are able to send **Jobs via Email** and manage which queues will be used for these jobs.

Additionally, you can:

- Enable the option to **Always generate a new PIN after a job is received**, this will generate a new PIN for a user each time they send a job via email.
- Enable **Print email body**, which will print the main text of an email in addition to any attachments.
- Dictate **Default print options** for jobs via email, choose from **B&W**, **Toner saving**, and **Duplex**.

You can set up an **Email Box**, a specified email which will be regularly checked for print jobs, the inbox will be emptied automatically. Enter the **Method** of box (MyQ SMTP Server Server, POP3, or IMAP), and fill in the relevant details.

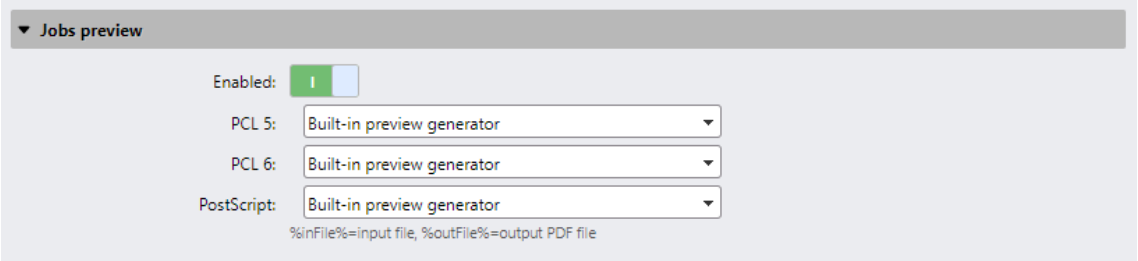
For more information, see Printing from email and from the MyQ Web UI.

14.1.8 Jobs via Web

Here you can enable or disable the **Jobs via Web** feature, which enabled receiving print jobs via the MyQ web interface.

For more information, see Printing from email and from the MyQ Web UI.

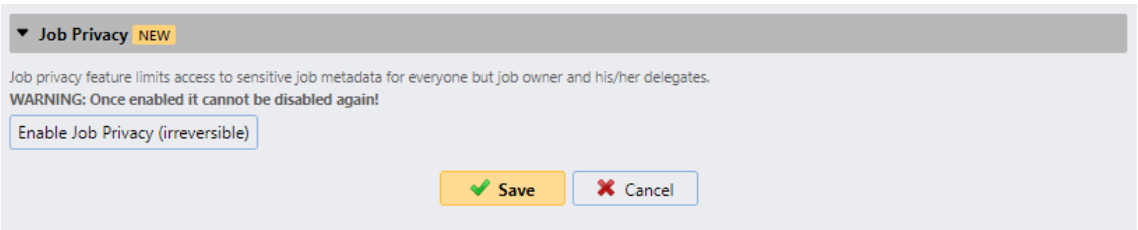
14.1.9 Jobs preview



Here you can enable/disable and set up jobs preview.

For more information, see Jobs preview.

14.1.10 Job Privacy



Here you can enable the Job Privacy feature.

> ⚠ Once enabled the **Job Privacy** feature cannot be disabled.

For more information, see Job Privacy.

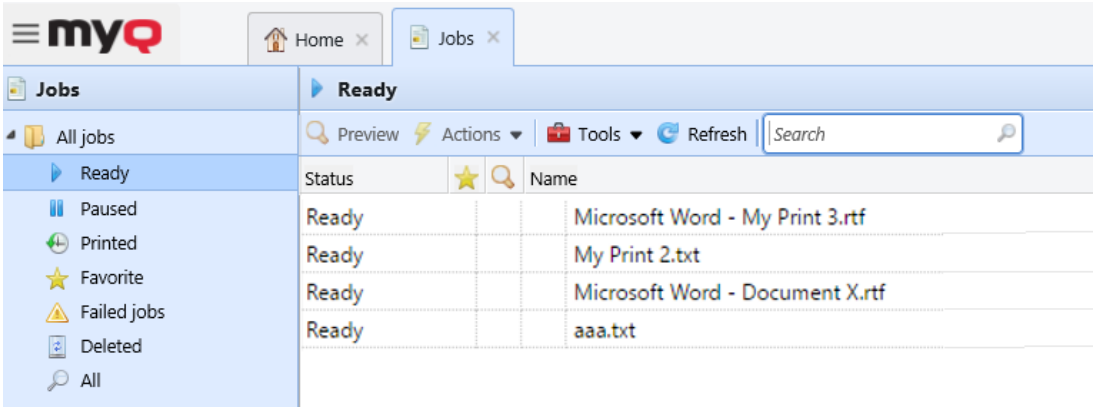
14.1.11 Watermark Collections section

Here you can set up watermark collections.

For more information, see Watermarks.

14.2 List of jobs

On the list of jobs on the **Jobs** main tab, you can see all print jobs and information about them.



14.2.1 Jobs display options

On the left side of the **Jobs** main tab, you can see the **All jobs** drop-down menu. On the menu you can select from the following options:

- **Ready** - Displays jobs ready to print.
- **Paused** - Displays paused jobs.
- **Printed** - Displays printed jobs.
- **Favorite** - Displays favorite jobs.
- **Failed jobs** - Displays failed jobs.
- **Deleted** - Displays deleted jobs.
- **All** - Displays all jobs.

14.2.2 Job status

There are seven print job status types:

- **Processing** – The job is being examined and prepared for printing.
- **Ready** - The job has been placed on a print queue and is waiting for users to authorize it or for preceding jobs to finish.
- **Paused** - The job has been manually paused by the user or automatically by the MyQ system.
- **Printing** - The job is being sent to the printing device.
- **Printed** - The job has been printed and is stored on the MyQ server. The print job is marked as Printed when it was completely sent to the printer. On a printer where MyQ can check actual printing results (printers with EMB terminal 8.1 and higher), this status is updated according to the printing results.
- **Failed** - The job was either not parsed correctly, failed to be processed or had no metadata (not allowed) and failed to be printed.
- **Deleted** - The job has been deleted from the MyQ server.

14.2.3 Favorite jobs

All print jobs, except for the deleted ones, can be marked as **Favorite**. Favorite print jobs are only automatically deleted if this option is enabled in the System management settings, and remain permanently stored on the MyQ server, except for

favorite jobs from external code books that are no longer available at the code book's data source.

14.3 Editing jobs

To open a print job properties panel, double-click the job on the list on the **Jobs** main tab (or select the job, then click **Actions** on the toolbar above, and then click **Edit** in the job action dialog box). The panel opens on the right side of screen.

On the panel, you can see general information about the print job, such as its name and ID, size, its author and the IP address of the author's computer. If you use the **Jobs Parser** tool, you can see additional data such as the B&W total, color copies, number of copies, paper format, duplex, toner saving, staple, punch, the printer language used, and the price of the job. For more information, see Job Parser.

You can also change the print job's **Owner** and **Project** in their respective list boxes.

Only an administrator and user group leaders can change the owner of a print job. The administrator can move jobs between all users and the user group leader can move jobs between members of their subordinate group.

If you change the job owner, the new owner has to have rights to the current queue and project. If you change the project, the current job owner has to have rights to the new project.

14.3.1 Deleting jobs

To delete selected jobs:

1. On the jobs list on the **Jobs** main tab, select the jobs that you want to delete, and then click **Actions**.
2. In the Actions drop-down box, click **Delete**. You can find the deleted jobs on the **Deleted** jobs list.

14.4 Job Parser

An embedded print job parser is a part of the MyQ system. This tool provides you with additional information about individual print jobs.

Based on those, you can set additional print job rules, or control the job price before a job is printed. This is important, especially for credit accounting and quotas.

The job parser supports the majority of available printer drivers in PCL5, PCL6 and PostScript.

The job parser is activated by default on the **Jobs** settings tab during a new installation. An upgrade will keep the old setting.

The job parser provides the following information:

- page description language (PDL) - A page description language (PDL) is a language that describes the appearance of a printed page. It receives a code of a document sent to a printing device, interprets it and uses it to instruct the

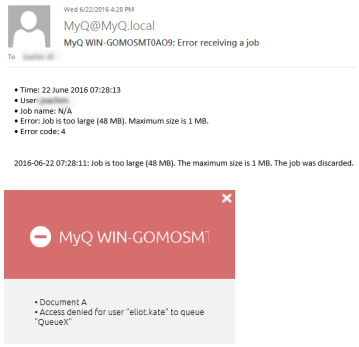
printing device where and how to place text and graphics onto the print page. The most common page description languages are **PCL5**, **PCL6** (XL) and **PostScript**.
- job name
- user name
- number of B&W pages
- number of color pages
- number of copies
- Simplex/Duplex option
- paper format
- staple
- punch
- toner saving

14.5 Notifying the admin and users about refused jobs

In case a print job is refused for some reason, for example if it was sent to a wrong queue, or if the user has been denied printing by a MyQ policy, the job owner and the MyQ administrator can both be informed about the event.

The administrator can be notified via email, and the user can be notified via email or via a small pop-up dialog box at the bottom-right corner of the screen. Users are just notified about the event, whereas the administrator is informed about the problem's details.

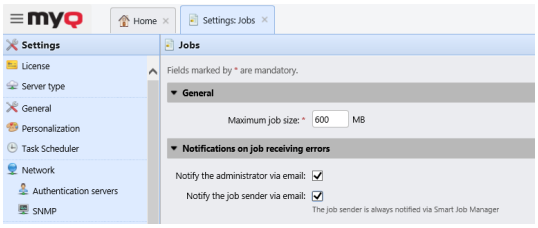
To be able to see the pop-up messages, users should have the MyQ Desktop Client application installed and running on their computers.



To activate the notifications via email

On the **Jobs** settings tab, under **Notifications on jobs receiving errors**, you can select two options:

- **Notify the administrator via email**: The email message is sent to the administrator's email address set on the **General** settings tab, under **General**.
- **Notify the job sender via email**: the email message is sent to the primary email address set as **Email** on the user's properties panel on the **Users** settings tab.



To activate the notifications via the MDC pop-up window

The only condition for activation of the pop-up notification for a user is for MyQ Desktop Client to be installed and running on their computer.

For information on how to install and set up MyQ Desktop Client, see the *MyQ Desktop Client for Windows or macOS* guide.

14.6 Jobs Preview

With MyQ's default software, **MAKO**, or a third-party job preview software installed on the MyQ server, you can enable MyQ users and the MyQ administrator to preview print jobs that are sent to MyQ in one of the three most common page description languages: **PCL 5, PCL 6** and **PostScript**.

After the feature is set up, both users and the administrator can open the job preview on the **Jobs** main tab in the MyQ Web Interface.

To set up the feature, go to **MyQ, Settings, Jobs**.

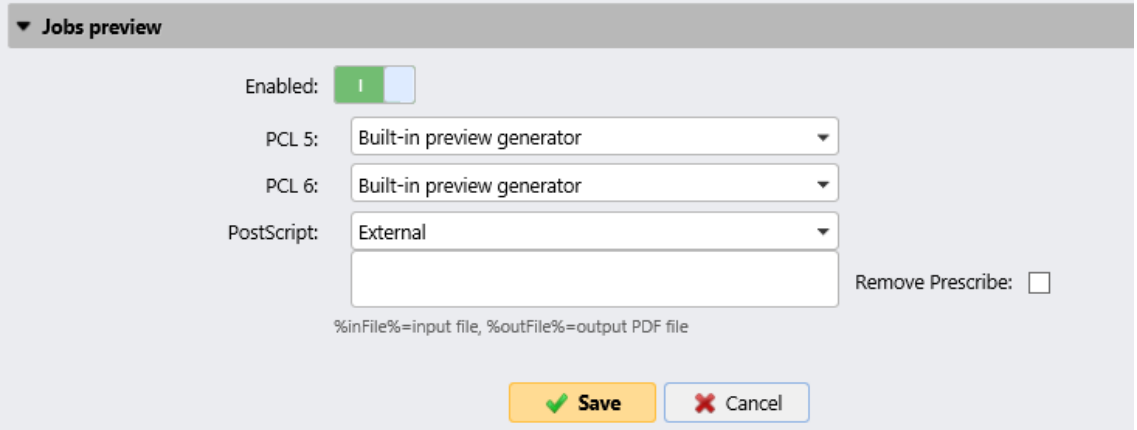
In the **Jobs preview** section you can enable or disable the preview. Select one or more output types from **PCL 5, PCL 6** and/or **PostScript**, and from the drop-down, choose the actual tools to be used for the preview. The options are:

- **Built-in preview generator**: MyQ's internal preview engine, **MAKO**
- **External**: A third-party engine of your choosing. If selected, it is necessary to type the command and parameters to be used for the preview, and it's optional to choose to **Remove Prescribe** or not, if the external software does not support **Prescribe** orders.

The following examples show you what the command line can look like:

PostScript (GhostScript: tested for 921): *"C:\Program Files\Ghostscript\gswin64c" -q -dNOPAUSE -dBATCH -sDEVICE=pdfwrite -sOutputFile="%outFile%" "%inFile%"*

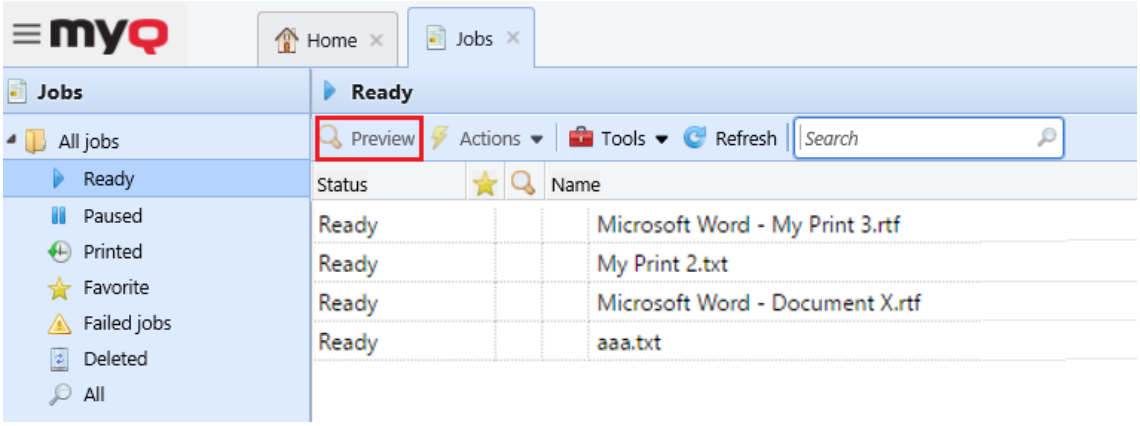
PCL (GhostPCL): *"C:\Program Files\GhostPCL\gpcl6win64" - dNOPAUSE -sDEVICE=pdfwrite -sOutputFile="%outFile%" "%inFile%"*



14.6.1 Previewing jobs

The jobs can be previewed on the **Jobs** main tab in the MyQ Web Interface (**MyQ, Jobs**).

To preview a print job, select the job on the tab and click **Preview** at the left side of the toolbar (or right-click the job, and then click **Preview** on the shortcut menu).



The default number of pages shown in the Jobs Preview using the built-in preview generator is *5*. This number can be changed in the *config.ini* file, under:
[JobPreview]
jobPreviewPages=numberOfPages

If *jobPreviewPages=0* is set, a preview of all the pages is generated.

14.7 Job Archiving

With a dedicated **Job Archiving** license and the Jobs Preview feature set up on the MyQ server, you can automatically archive all print jobs that are sent to MyQ. On selected brands of printing devices, you can also archive all copy and scan jobs.

This way you can have full control over what has been printed, scanned and copied within your printing environment, which can be required for example in high security areas in order to be able to identify sources of data leaks.

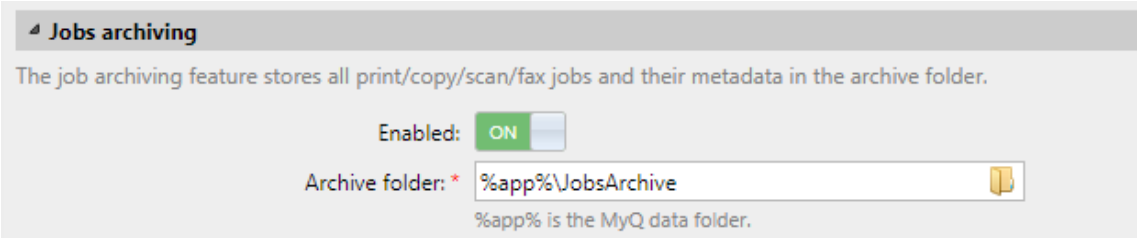
For information on how to acquire the **Job Archiving** license, please contact the MyQ Sales department.

14.7.1 Setting up job archiving

The feature is not part of the default setup of the MyQ server and before the **Job Archiving** license is added to the server, the settings of the feature on the MyQ Web Interface are hidden from the administrator.

After you add the licenses, you can set up the feature on the **Jobs** settings tab of the MyQ Web Interface.

You can enable or disable the feature and change the folder where the jobs are archived (by default it is the
JobsArchive subfolder of the MyQ data folder).

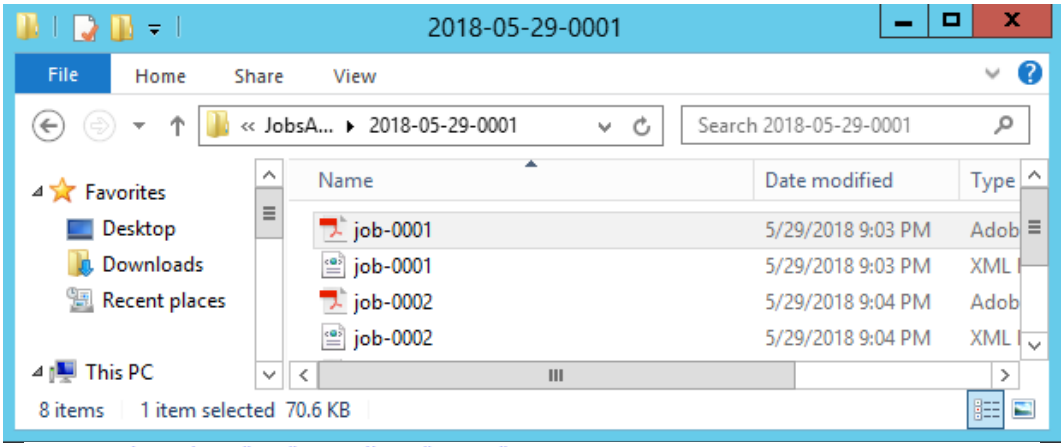


14.7.2 Viewing archived jobs

The jobs are stored in subfolders of the **Archive folder**, each of these sub-folders has the form:
YYYY-MM-DD-XXXX, where the front part informs about the date when the sub-folder was created, while the number at the last part serves to sort sub-folders created in the same day.

In the subfolders, you can find two files for each of the printed, copied or scanned jobs:

- a PDF file with the preview of the job
- an XML file with basic information about the job, such as the type of the job or the username of the printing user.

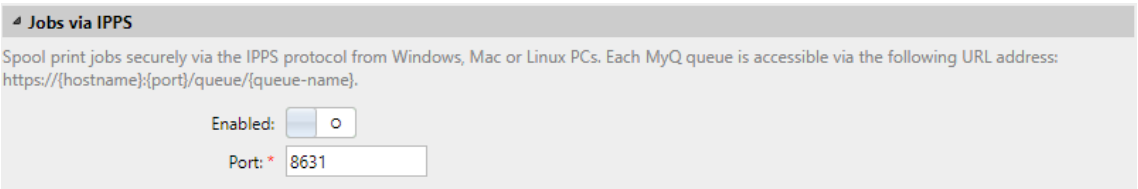



```
<?xml version="1.0" encoding="UTF-8"?>
- <data>
    <timestamp>2018-05-29 21:03:39</timestamp>
    <username>eliot.kate</username>
    <jobType>copy</jobType>
    <serverName>10.14.5.96</serverName>
    <serverVersion>7.1.0.366</serverVersion>
    <printerAddr>10.14.4.12</printerAddr>
  - <files>
      <file>job-0001.pdf</file>
    </files>
</data>
```

14.8 Jobs via IPPS

To use **Jobs via IPPS** you should first adjust the following:

- Make sure that the IPP client is enabled on your machine. For example, on Windows 10, this should be enabled by default, but on Windows Servers, you need to enable it explicitly:
  - Control Panel - Programs - Turn Windows features on or off - in the dialog, click **Next** until you get to the features tab - Install "Internet Printing Client", and Restart the machine.
- Next, you need to install the MyQ certificate on your machine. For example, in MyQ Server 8.2+, you can create a self-signed certificate in the following way (check here for more info):
  - Go to **MyQ, Settings, Communication Security**. Select *Built-in Certificate Authority*, add your host name as a Subject Alternative Name (SAN), click **Generate new**, click **Save**, and then **Export**.
  - Install the certificate and place it into Trusted Root Certification Authorities.
  - Restart all MyQ services.
- Enable Jobs via IPPS in **MyQ, Settings, Jobs, Jobs via IPPS**.



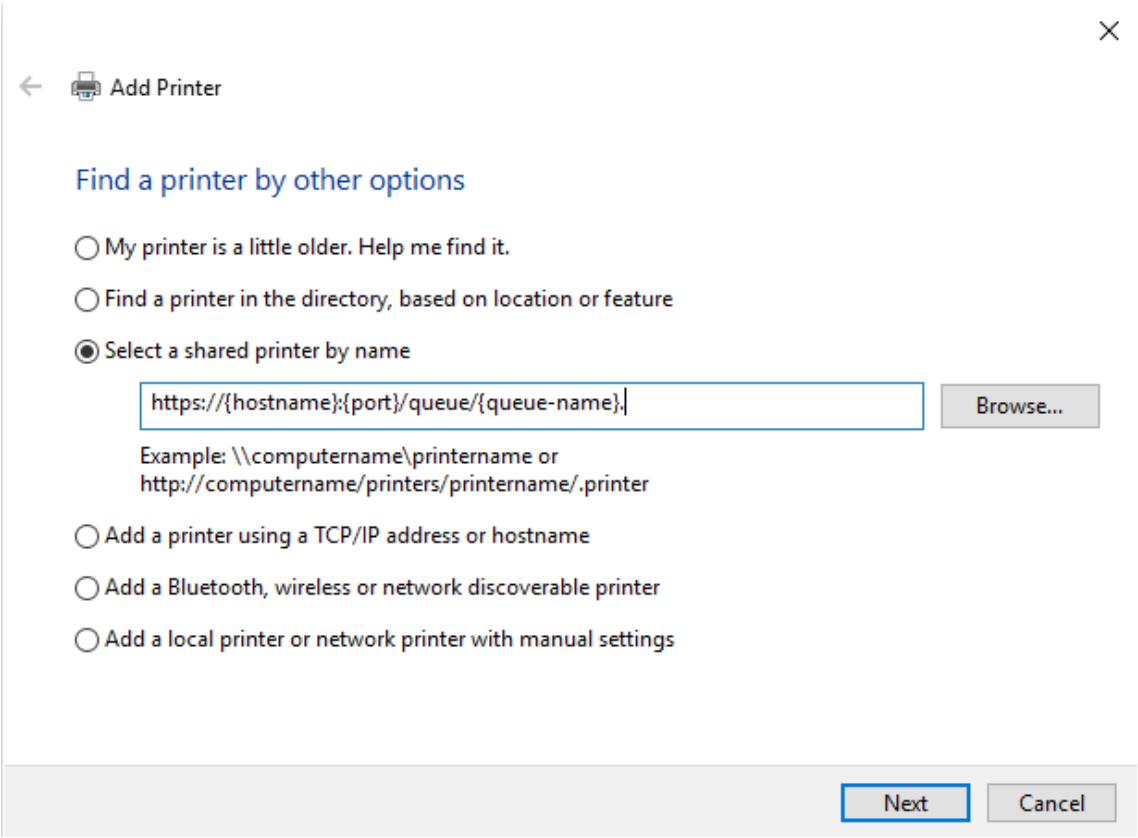
The feature is available on Windows, Linux, Chromebooks and Mac PCs. For all of them you need to adjust the URL *https://{hostname}:{port}/queue/{queue-name}* to your own needs to get IPPS working. For the port number use the one set in **MyQ, Jobs, Jobs via IPPS** (*8631* by default).

> ⚠ PM Server uses the 631 port for IPP print and 717 for IPPS and cannot be changed (see MyQ, Settings, Network, PM Server), so these values cannot be used for MyQ IPPS printing.

The maximum job size received over IPPS is unlimited.

14.8.1 IPPS via Windows

When you add a new network printer to be used with IPPS, make sure to search using the queue name, host name and port in the URL.



The sharing of a Windows IPPS printer is not supported.

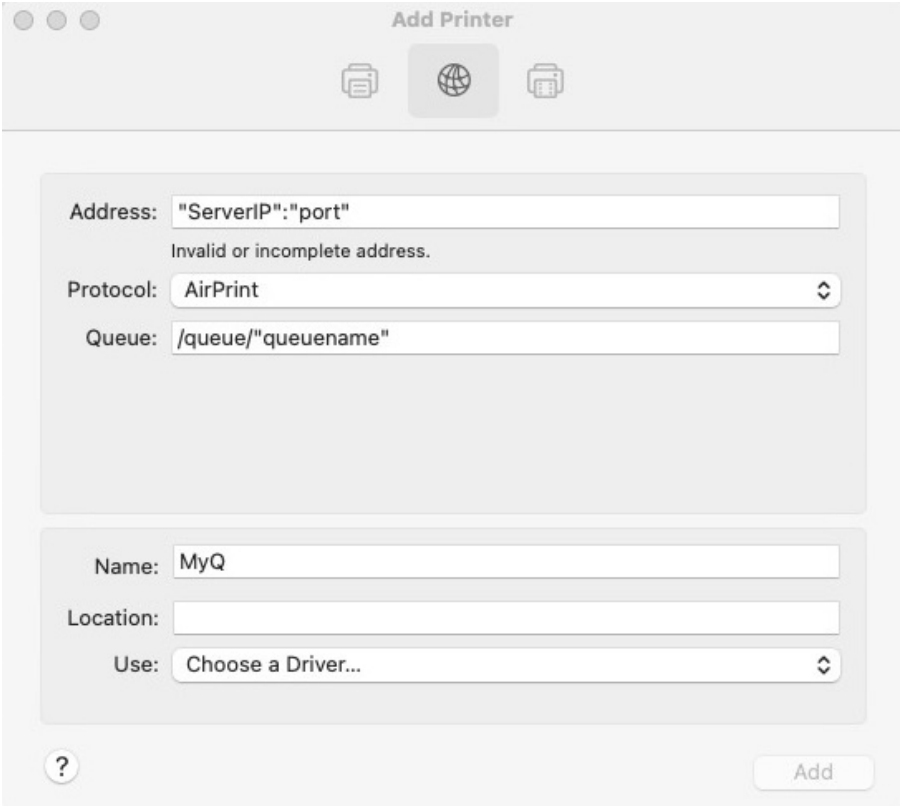
14.8.2 IPPS via MacOS

To add IPPS printing via MacOS:

1. Go to the **Add printer** page.
2. Go to the **IP** tab on the ribbon.
3. Fill out the following fields:

a. **Address**: add the server IP or hostname and the server port in the following format: “ServerIP or hostname”:”port”. For example, *10.12.15.19:8631*
b. **Protocol**: select the **AirPrint** protocol.
c. **Queue**: add /queue/ and then the name of the MyQ queue. For example, */queue/MarketingQueue*

4. Click **Add**.

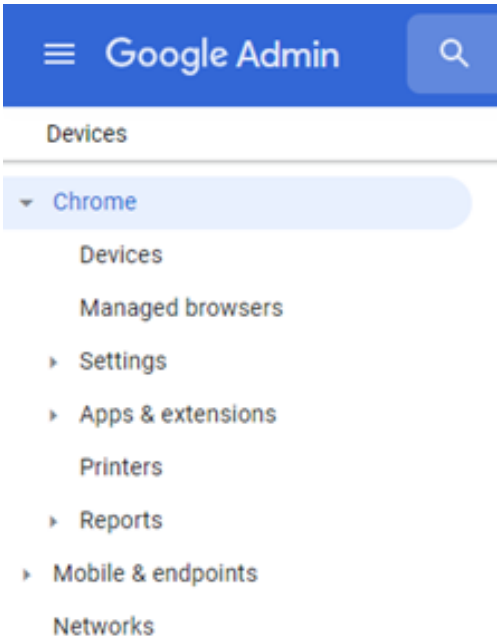


Since AirPrint is used, users are required to sign in to be able to print.

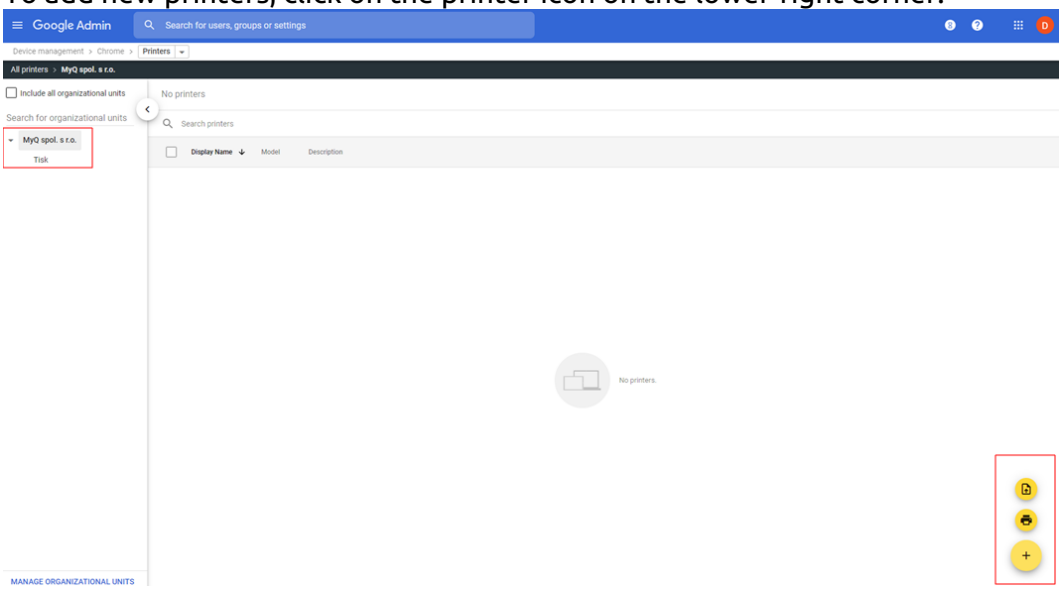
14.8.3 IPPS via Chromebook

To add IPPS printing via Chromebook:

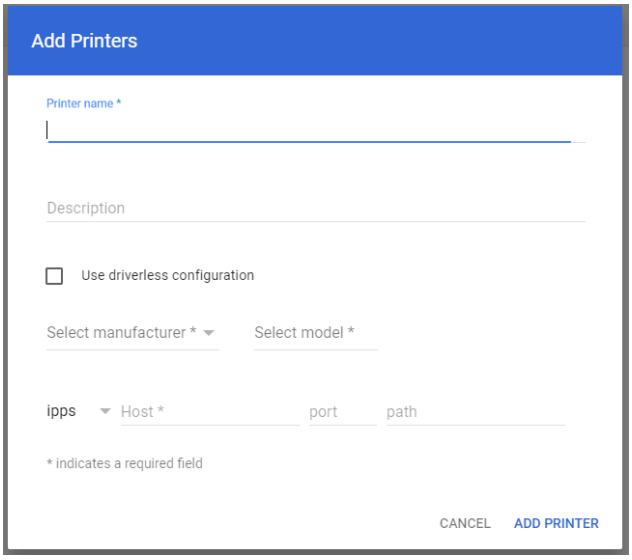
1. In the Chromebook, sign in to your Google Admin Console in *https://admin.google.com/* using an administrator account.
2. In the Google Admin Console, select **Devices** and then **Chrome** and **Printers**.



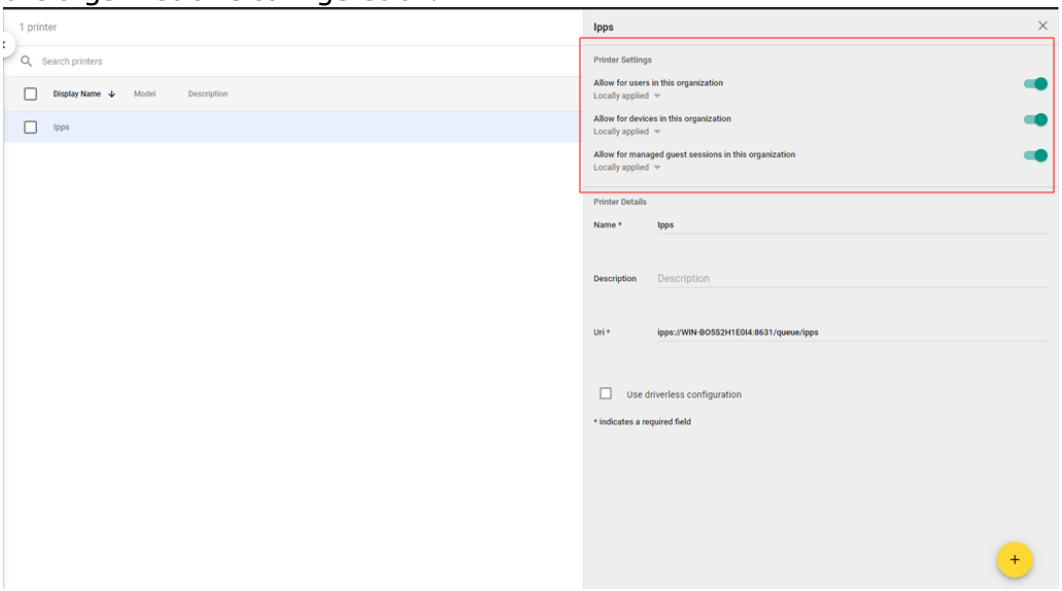
3. To apply the IPPS setting to all the printers, select the top organizational unit on the list. Otherwise, select any of the child units.
4. To add new printers, click on the printer icon on the lower-right corner.



5. In the **Add Printers** window, fill in the mandatory fields and adjust the device URL *https://{hostname}:{port}/queue/{queue-name}* according to your own configuration.
6. Select **ADD PRINTER** and the new printer is now created.



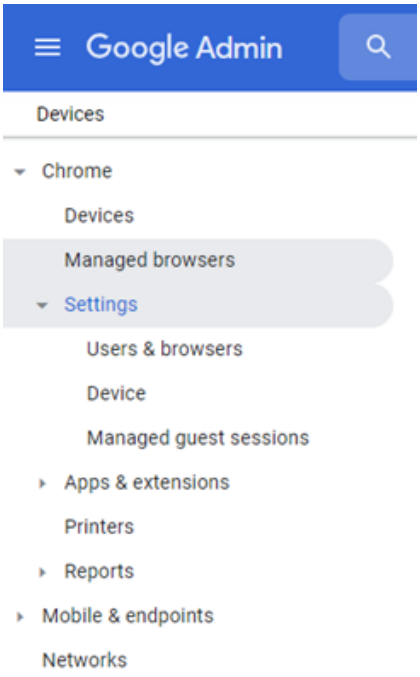
7. Select the new printer to confirm if the IPPS settings are applied according to the organization's configuration.



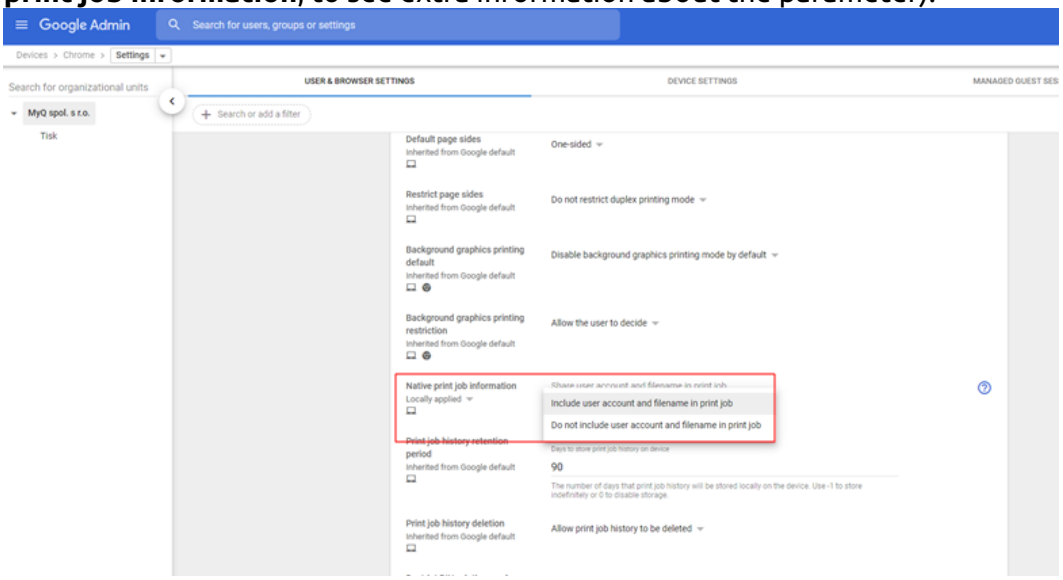
The driverless configuration is not recommended as there might be jobs that cannot be printed this way. There is no error in the Chromebook when this happens and not on MyQ's side either, since the job never reaches MyQ.

To include user accounts and file names in the jobs printed via Chromebook:

1. In the Chromebook, sign in to your Google Admin Console in *https://admin.google.com/* using an administrator account.
2. In the Google Admin Console, select **Devices**, **Chrome**, **Settings** and then **Users & browsers**.

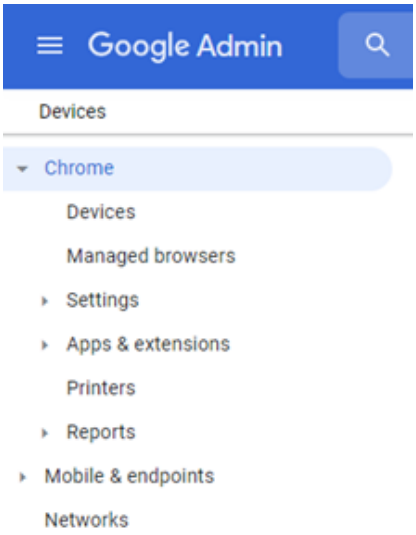


3. In the Users & browsers settings window, scroll down to **Printing – Native print job information**. From the drop-down, select *Include user account and filename in print job* (You can click on the question mark icon next to **Native print job information**, to see extra information about the parameter).

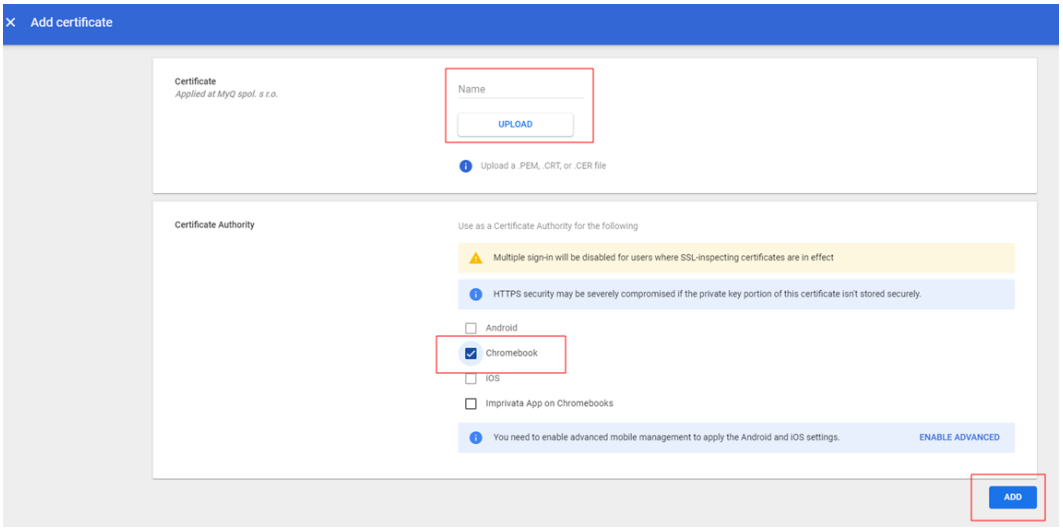


If you want to (optionally) deploy SSL certificates via the Google Admin Console:

1. In the Chromebook, sign in to your Google Admin Console in *https://admin.google.com/* using an administrator account.
2. In the Google Admin Console, select **Devices** and then **Chrome** and **Networks**.



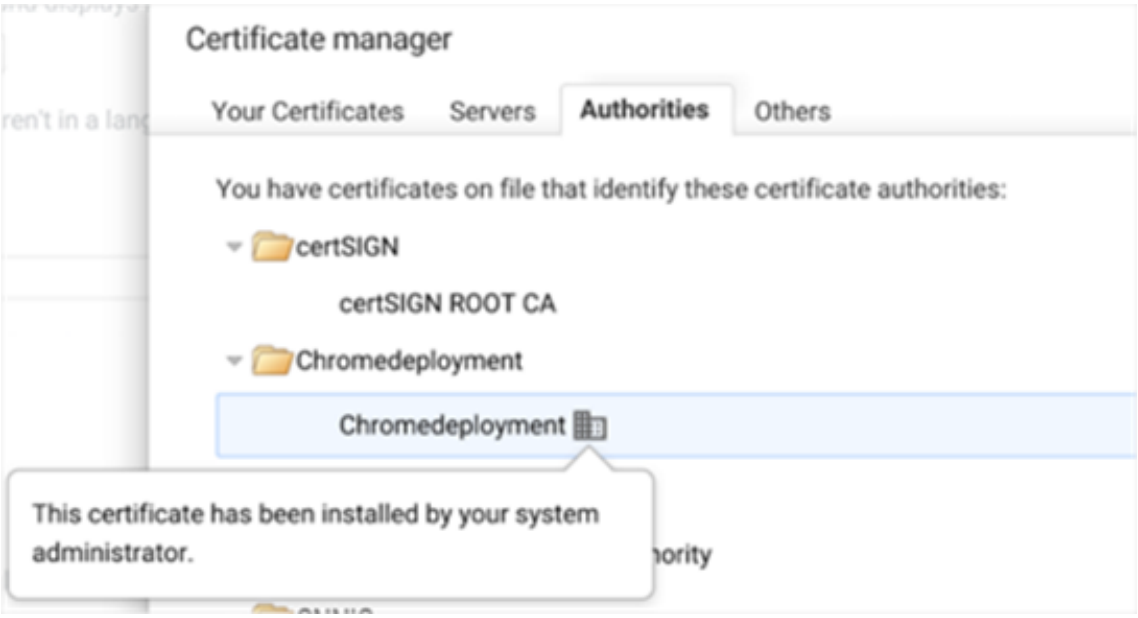
3. In the Networks window, select **Certificates** and in the Certificates window, select **Add Certificate**.
4. Type a **Name** for the certificate and click Upload to upload your certificate.
5. In the Certificate Authority section, choose Chromebook.
6. Click **ADD**.



To deploy the certificate, use an open guest Wi-Fi network. Your Chrome devices will authenticate to Google and receive the TLS or SSL certificate. The pushed certificate will apply to all enrolled Chrome devices on the primary domain.

To verify the CA on managed Chrome devices:

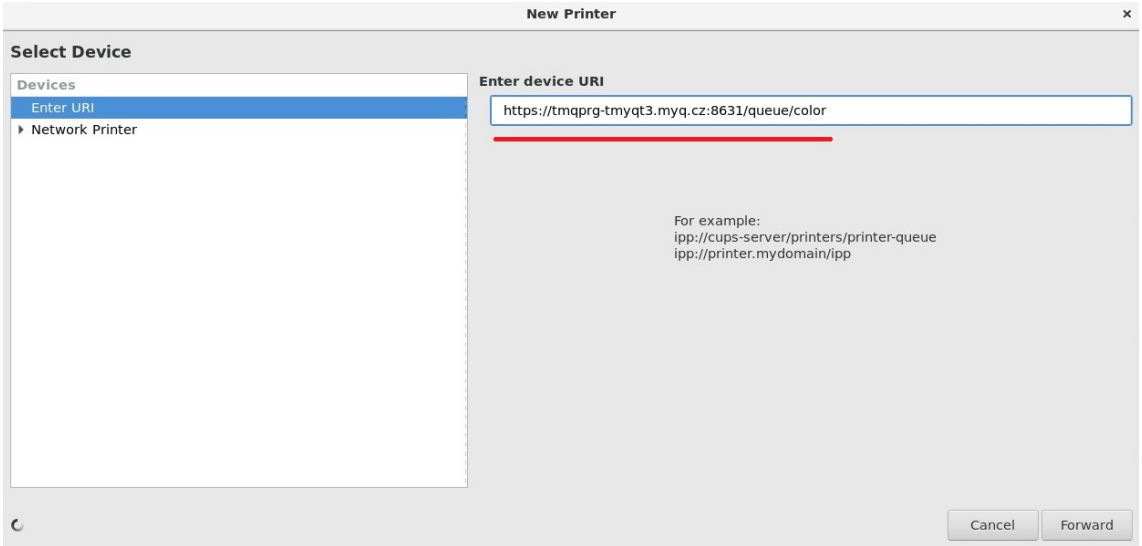
- Go to *chrome://settings/certificates*.
- Click **Authorities**.
- Scroll down to see the newly-added CAs. CAs setup in your Admin console is highlighted as follows:



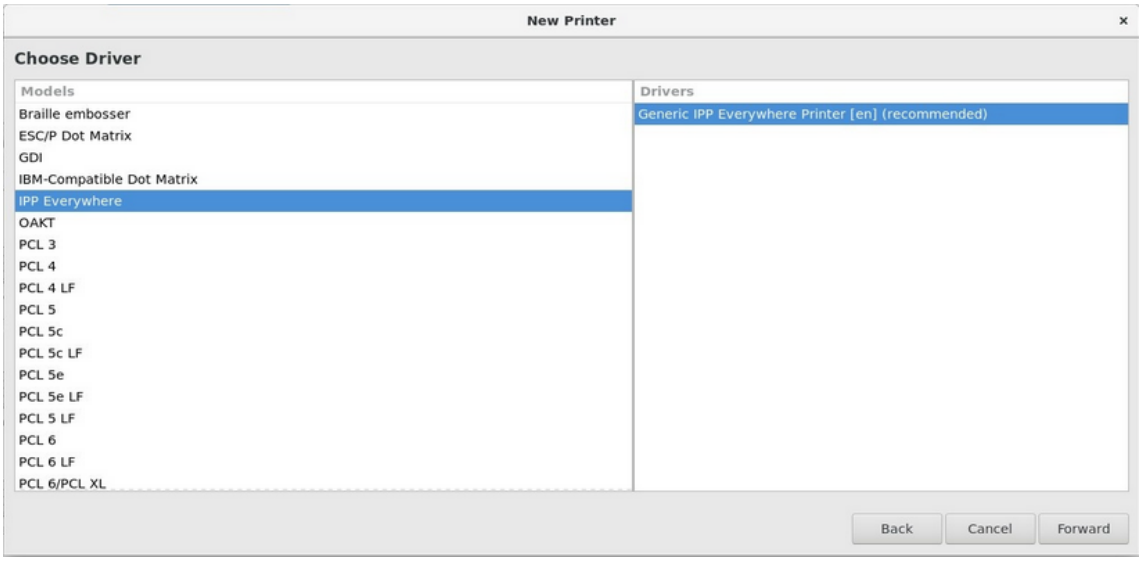
14.8.4 IPPS via Linux

To add IPPS printing via Linux:

- Set up a CUPS service in order to add a printer.
- Add a printer with the MyQ Print Server hostname.
- In the New Printer window, click **Enter URl**. Type the device URL in the **Enter device URl** field, in the *https://{hostname}:{port}/queue/{queue-name}* format.



- Click **Forward**.
- In the Choose Driver pane, mark **Select printer from database**, and then select *Generic*.
- Click **Forward**.
- In the next window, under **Choose Driver**, select *IPP Everywhere*. Although the selection option says IPP, this protocol is used for IPPS spooling.



- Click **Forward**.
- Enter the name of the printer.
- Click **Finish**.

IPPS Authentication is not used (job is assigned according to username).

14.9 Job Privacy

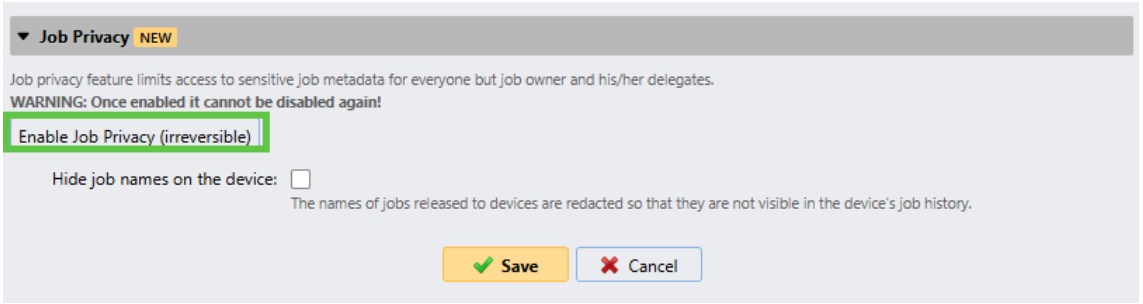
The Job privacy feature limits access to sensitive job metadata for everyone, except for the job owner and their delegates.

You can enable the feature in the **Jobs** settings tab (**MyQ, Settings, Jobs**).

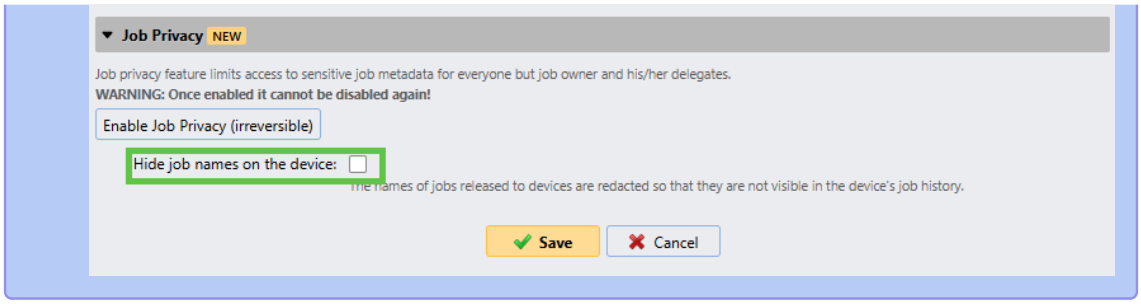
If you have a MyQ Central server setup and Job Privacy is enabled at your Central server, it will be automatically enabled on all the connected Site servers.

Once the Job Privacy feature is enabled, it cannot be disabled again!

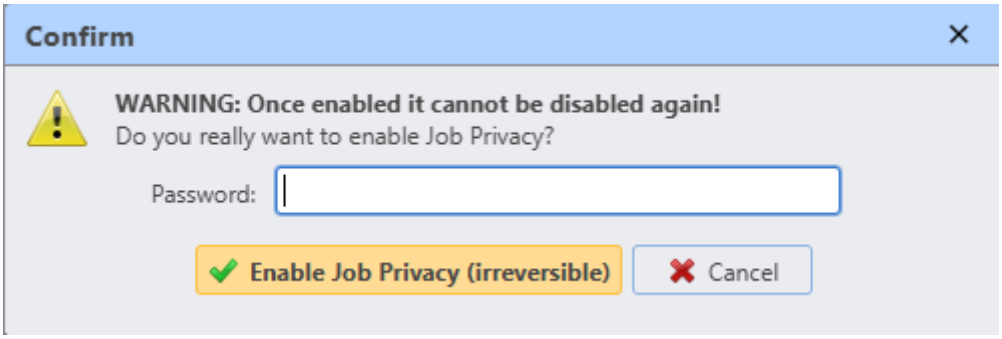
To use the feature, click on the **Enable Job Privacy (irreversible)** button.



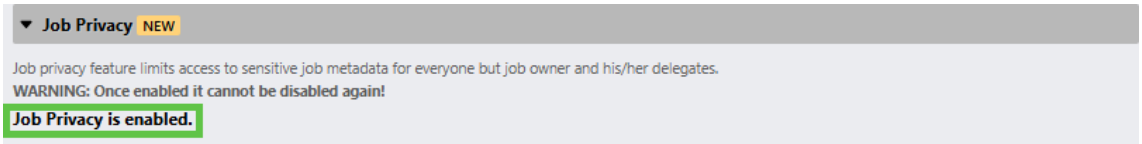
In addition, you can enable or disable the option to **Hide job names on the device**. Enabling this option means the names of jobs released to devices are redacted so that they are not visible in the device's job history.



In the confirmation pop-up, type your MyQ administrator password in the **Password** field, and click **Enable Job Privacy (irreversible)**.



The Job Privacy feature is now enabled.



14.10 Watermarks

On the MyQ Web Interface, you can create collections of watermarks and associate them with the queues where they will be used. Each collection can contain multiple watermarks and can be associated with any number of queues.

PostScript and PCL drivers are supported, but should be selected by the user when they want to see the watermarks printed in their document.

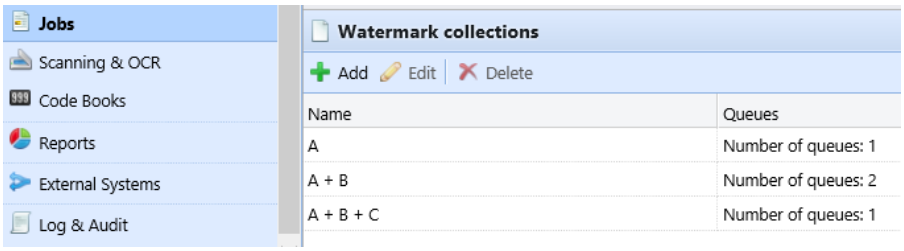
Jobs sent to a queue will have the watermarks of the associated collection printed on each page.

Individual watermarks can be positioned horizontally at the top of the page, horizontally at the bottom of the page, or diagonally. The text size of the watermark can be from *6* to *25*. You can also represent the text of the watermark as a QR code or a Bar code.

A watermarks collection cannot be deleted if there is at least one queue attached to it.

14.10.1 Creating, editing, and deleting watermark collections

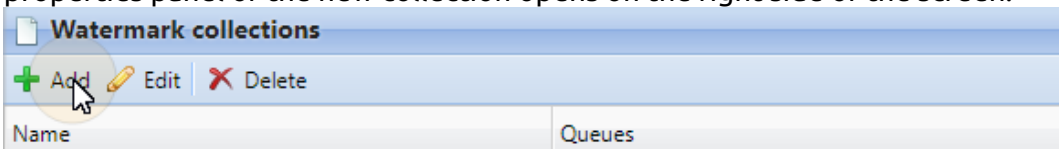
The watermarks collections are created in the **Watermark collections** section at the bottom of the **Jobs** settings tab (**MyQ, Settings, Jobs**).



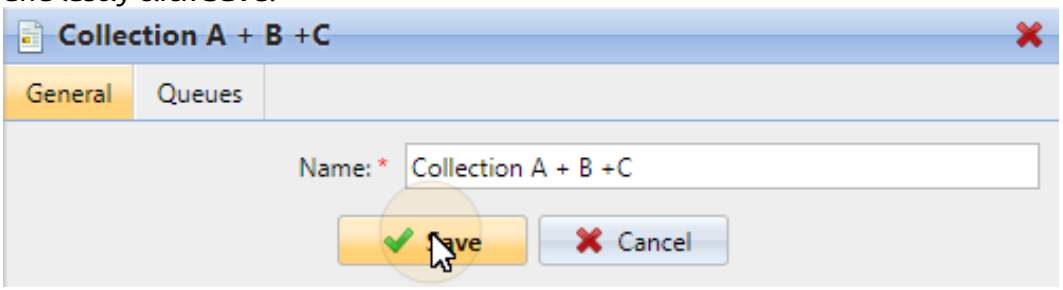
Creating a new watermark collection

To create a new watermark collection:

1. On the **Jobs** main tab, under **Watermark collections**, click **+Add**. The properties panel of the new collection opens on the right side of the screen.

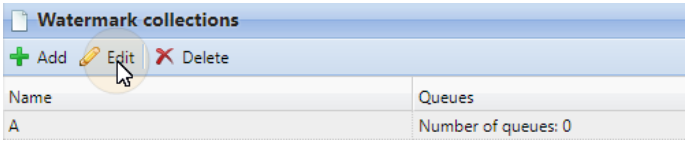


2. On the panel, enter the **Name** of the collection, then create the watermarks, and lastly click **Save**.



Editing a watermark collection

The properties panel of the collection opens immediately after the collection is created. To open a properties panel of an already existing collection, select it on the list on the **Jobs** main tab, under **Watermark collections** and click **Edit**.

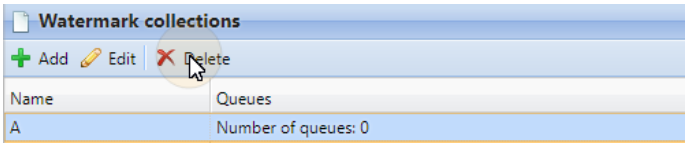


On the properties panel, you can rename the collection, create and remove watermarks and assign or remove them from queues.

Deleting a watermark collection

To delete a collection:

On the **Jobs** main tab, under **Watermark collections**, select the collections that you want to delete, and then click **Delete**.

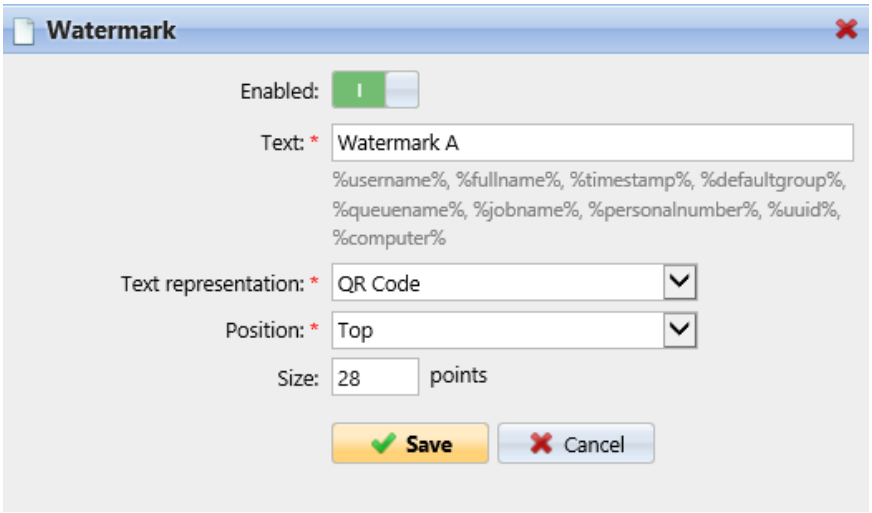


14.10.2 Adding, editing, and deleting watermarks

Within each watermark collection, you can create an unlimited number of watermarks. Each of the watermarks in the collection can be activated or deactivated.

Creating a new watermark

On the properties panel of the watermark collection, on the **General** tab, click **+Create watermark**. The properties panel of the new watermark opens. On the panel, set up the watermark, and then click **Save**.



Editing a watermark

The properties panel of a watermark opens immediately after the watermark is created. To open the properties of an already existing watermark, double-click it on the list on the **Jobs** main tab, under **Watermark collections**.

Each watermark has the following properties:

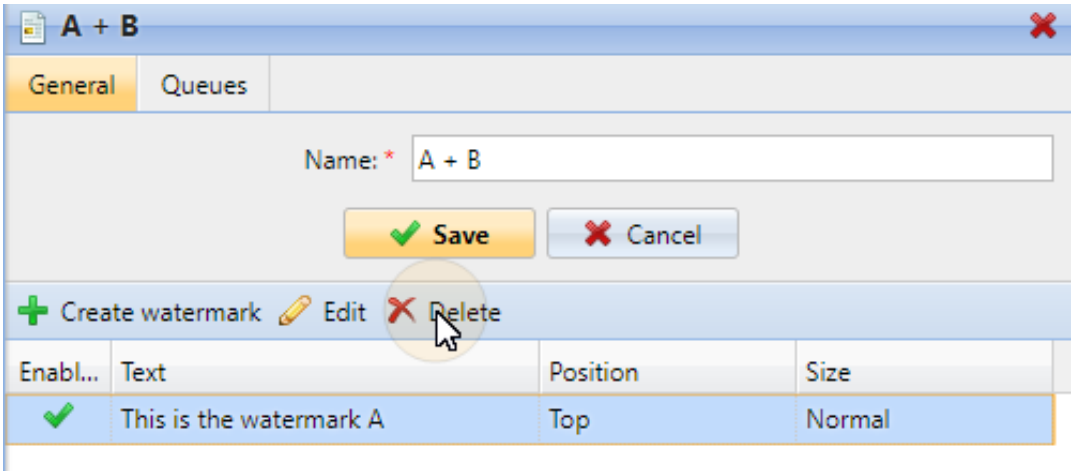
- **Enabled**: Enable/disable the watermark
- **Text**: Text of the watermark; max. length: 512 characters.
- **Text representation**: National characters which are included in the font (standard New Times Roman) are included for Text. The QR/Bar Codes support generally any unicode text. Restrictions can be found here: QR Code, Code 128, PDF417, and the most restrictive Code 39. The text can be represented in the following forms:
  - Text
  - QR Code
  - BAR Code 128
  - BAR Code 39
  - BAR Code PDF417

- **Position**: The watermark's position on the page (the default is: *Bottom right*)
  - Top
  - Top Left
  - Top Right
  - Bottom
  - Bottom Left
  - Bottom Right
  - Diagonal: "Bottom to Top" (only available when *Text* is selected as **Text representation**; greyed out in *QR* and/or *BAR code*)
  - Diagonal: "Top to Bottom" (only available when Text is selected as **Text representation**; greyed out in *QR* and/or *BAR code*).
- **Size**: The watermark's text size (the default is: *28* and the **Font** is *Times New Roman*, which can be changed in the *config.ini*) should be a number from *6-85*
  - *28* is small,
  - *57* is medium,
  - *85* is large.
- **Transparency**: Only visible when *Text* is selected as **Text representation**. The available values are:
  - Dark
  - Medium
  - Light

A watermark in Postscript does not reflect paper orientation. It always prints as portrait.

Deleting a watermark

On the properties panel of the watermark collection, select the watermarks that you want to delete, and then click **Delete**.



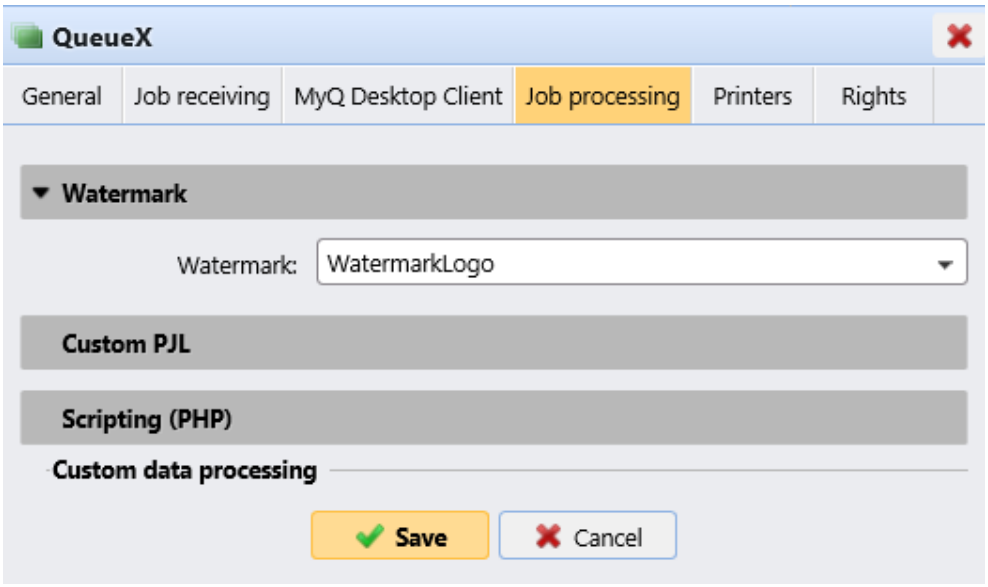
14.10.3 Attaching watermark collections to queues

You can attach a watermark collection to a queue either within the setup of the collection, or within the setup of the queue.

Each queue can have only one watermark collection attached to it.

Attaching watermark collections to queues within the setup of the queues

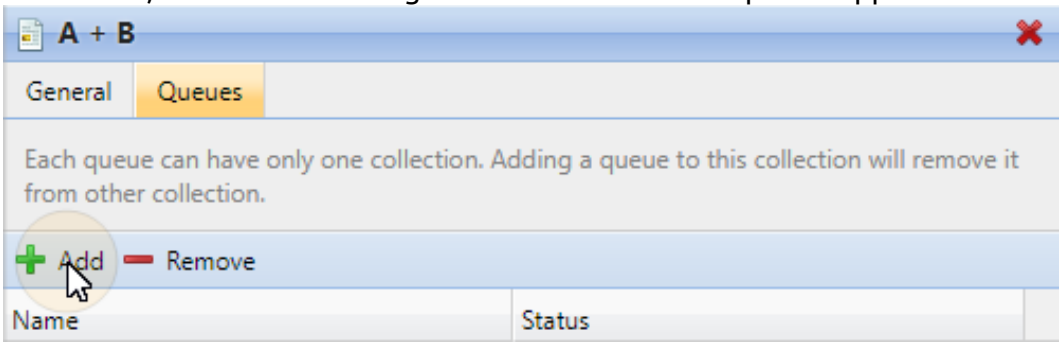
The collection can be selected on the **Job processing** tab of the properties panel of the queue. To open the properties panel, go to **MyQ, Queues**, and then double-click the queue on the list. On the **Job processing tab,** in the **Watermark** section, select the **Watermark** from the drop-down, and then click **Save**.



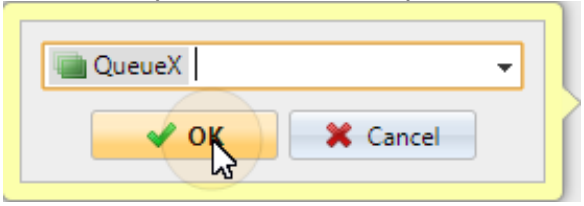
Attaching watermark collections to queues within the setup of the collections

To assign a new queue to a watermark collection, select it on the on the list on the **Jobs** main tab, under **Watermark collections** and click **Edit**.

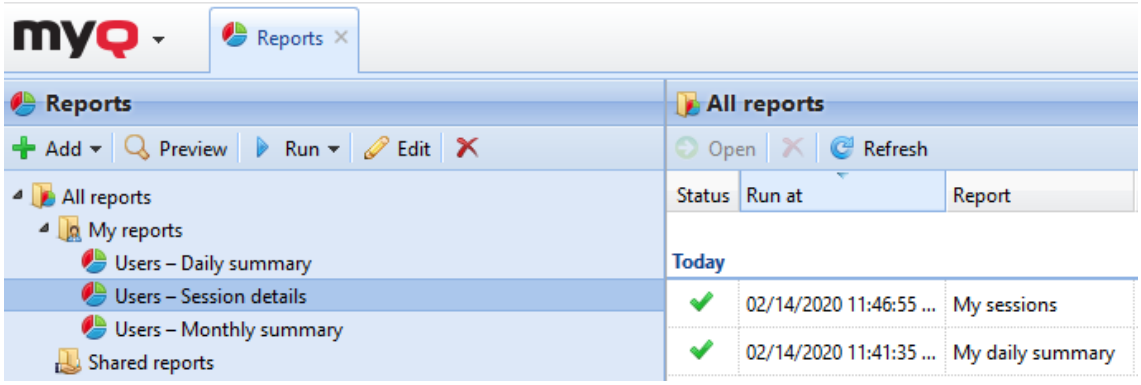
1. On the properties panel of the watermark collection, click **Queues**. The **Queues** tab opens.
2. On the tab, click **+Add**. A dialog box with a selection of queues appears.



3. Select the queue from the drop-down, and then click **OK**.



15 Reports



In the MyQ web interface, on the **Reports** main tab (**MyQ, Reports**), you can create and generate reports with a variety of data concerning your printing environment. The reports can be related to users, printing devices, print jobs, etc.

Reports in MyQ are divided into two main categories: **My Reports** and **Shared reports**. **My Reports** show
users reports created by themselves, while **Shared reports** show them reports created by the administrator or by other users.

There are three default reports: **My daily summary**, **My sessions** and **My monthly summary**. These are displayed in the **My Reports** folder of the MyQ administrator, who can modify them, delete them or change their design. For all the other users, the default reports are displayed in the **Shared Reports** folder and cannot be changed in any way.

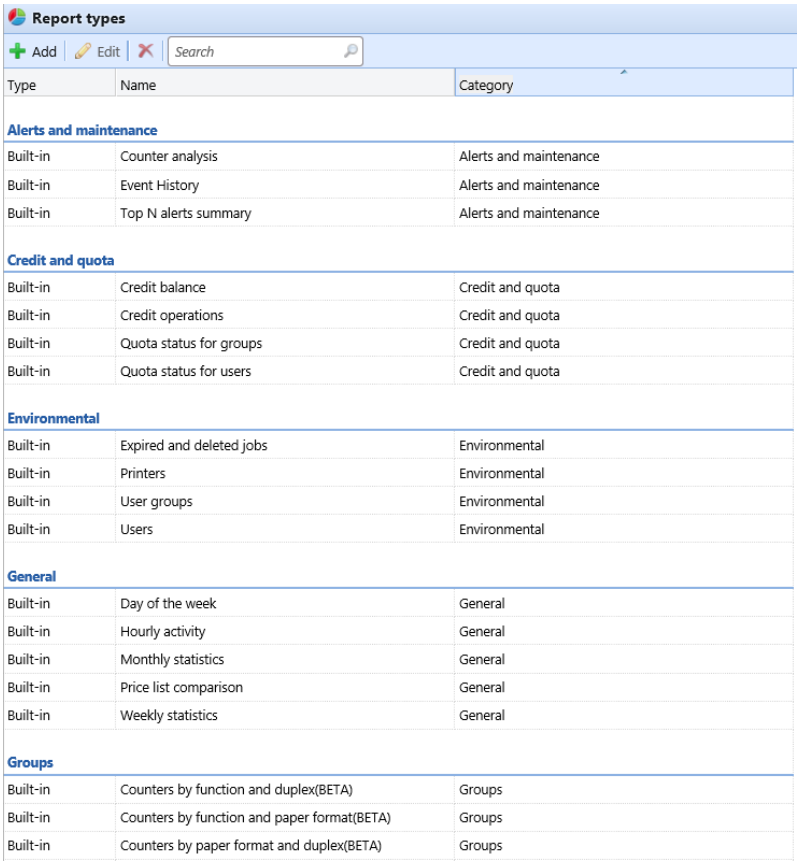
In addition to the three default reports, the administrator can create an unlimited number of reports and sort them into sub-folders of the **My Reports** folder. Users can create their own reports but they are limited to use only certain report types depending on the rights granted by the administrator.

Each report can be directly displayed on the web interface and saved in any of the following formats: *PDF, CSV, XML, XLSX* and *ODS*. The reports can be automatically generated and stored in a predefined folder. There is no data limitation for the generated report, it includes all the data from the specified period.
All the reports have the MyQ logo displayed by default, but it can be replaced by your company's logo. To upload a custom logo go to **MyQ, Settings, Personalization**. In the **Custom application logo** section, click **+Add** next to **Custom logo** and upload your own file (supported formats - *JPG, JPEG, PNG, BMP* and recommended size - *398px* x *92px*).

15.1 Report Types

When you are creating reports on the **Reports** main tab, you can choose from a large number of built-in report types that are sorted into multiple categories. Some of the types are included in more categories (for example, *Groups: Daily Summary, Print Jobs: Daily Summary*, etc.), while some of the types are particular to only one category (for example, *Device Alerts in Alerts Maintenance or Credit Balance in Credit &*

Quota).
You can overview all of the report types on the **Reports** settings tab, under **Report types** (in **MyQ, Settings, Reports**).



Report types

Add | Edit | Search

Type	Name	Category
Alerts and maintenance		
Built-in	Counter analysis	Alerts and maintenance
Built-in	Event History	Alerts and maintenance
Built-in	Top N alerts summary	Alerts and maintenance
Credit and quota		
Built-in	Credit balance	Credit and quota
Built-in	Credit operations	Credit and quota
Built-in	Quota status for groups	Credit and quota
Built-in	Quota status for users	Credit and quota
Environmental		
Built-in	Expired and deleted jobs	Environmental
Built-in	Printers	Environmental
Built-in	User groups	Environmental
Built-in	Users	Environmental
General		
Built-in	Day of the week	General
Built-in	Hourly activity	General
Built-in	Monthly statistics	General
Built-in	Price list comparison	General
Built-in	Weekly statistics	General
Groups		
Built-in	Counters by function and duplex(BETA)	Groups
Built-in	Counters by function and paper format(BETA)	Groups
Built-in	Counters by paper format and duplex(BETA)	Groups

15.1.1 Providing users with rights to use a report

The administrator can run all the built-in reports and provide other users and groups with rights to run them as well. In **MyQ, Settings, Reports**, right-click on a report and click **Edit**. On the **General** tab, in the **Permission** for running the report field, choose users and groups from the list and click **Save**.

You can also add custom report types developed by the MyQ development team. To do so, just click **+Add**, upload the custom report definition file, select users or groups to access it, and click **OK.** For more information about custom report types, please contact MyQ support.

15.1.2 Report Categories

- Alerts and Maintenance - These reports provide information about device alerts and unusual changes on device counters.
- Credit and Quota - These reports contain information concerning credit and quota, for example the remaining credit or the state of quota of selected users.
- Environmental - These reports inform about the environmental impact of printing. They show how many trees needed to be harvested, how much energy

was spent and how much carbon dioxide was emitted during the production of the paper used for printing and copying within your company's printing environment.
Data sources vary in their estimations. MyQ calculations in the report are based on the following data estimates:
    - **Carbon dioxide for paper production**: 12,7 gram per paper sheet
    - **Energy used for production**: 48 Wh per paper sheet or 32Wh for a recycled paper sheet
    - **Trees**: 8333 paper sheets are counted as 1 tree.
- General - These reports provide general information about the MyQ system, such as total counters statistics and printing peaks or comparison of price lists used for printers.
- Groups - These reports inform about groups of users. They can contain information about membership, printed pages, weekly stats etc.
- Print Jobs - These reports contain information about jobs printed in MyQ, such as the list of all expired and deleted jobs over a certain period.
- Printers - These reports inform about all the printing devices in the MyQ system (both local and network). Generated reports can contain graphs of the device usage, daily, weekly and monthly counters, etc.
- Projects - These reports contain information regarding projects and project accounting in MyQ, such as daily summary of projects or projects assigned to selected users over a certain period.
- Users - These reports can contain various information about users. They can concern their print jobs, credit statements, printed pages etc.

Alerts and Maintenance Reports

The following reports are included in the **Alerts and Maintenance** category:

Counter Analysis

This report shows the page counts per session, covering B&W pages, color pages, total pages, and scans by the user. It shows sessions where the counters reached or exceeded the predefined value.

The report is not available when Job Privacy is enabled.

Device Alerts

This report shows you the device alerts grouped by printer name.

Event History

This report shows the occurrence of predefined device errors and alerts. It only shows alerts that are turned on in **Settings** > **Events** in the MyQ Web UI.

Top N Alerts Summary

This report shows the most common errors and alerts. The number of alerts shown can be customized.

Charts are available for this report.

Credit and Quota Reports

The following reports are included in the **Credit and Quota** category:

Credit Balance

This report shows the current Credit balance.

Credit Operations

This report shows a list of credit transactions (top-up and spent).

Quota Status for Groups

This report shows all of the accounting/cost center group quotas.

Quota Status for Users

This report shows the user-based quotas usage and settings.

Environmental Reports

The information in these reports is based on the following data:
1 tree = 8333 pages / 1 page = 12.7g of CO2 / 1 page = 48Wh of energy / 1 recycled page = 32Wh of energy

The following reports are included in the **Environmental** category:

Expired and Deleted Jobs

This report shows a list of expired/deleted jobs and the environmental impact of not printing them. They are sorted by print queue.

The report is not available when Job Privacy is enabled.

Printers

This report shows the environmental impact of each printer.

User Groups

This report shows the environmental impact of each User Group.

Users

This report shows the environmental impact of each User.

The report is not available when Job Privacy is enabled.

General Reports

The following reports are included in the **General** category:

Day of the Week

This report shows the output volume by day of the week.

Charts are available for this report.

Hourly Activity

This report shows the output volume by time of day.

Charts are available for this report.

Monthly Statistics

This report shows the output volume by month.

Charts are available for this report.

Price List Comparison

This report shows the price lists applied to various printer groups.

Weekly Statistics

This report shows the output volume by week.

Charts are available for this report.

Groups Reports

The following reports are included in the **Groups** category:

Counters by Function and Duplex(BETA)

This report shows counters per group by print/copy, color, and duplex.
The function field refers to whether a page was printed or copied.

Reports marked as BETA only contain data from Embedded Terminals running MyQ 8+. If some of your Embedded Terminals run earlier versions of MyQ, their data will not be included in the report.

The report is not available when Job Privacy is enabled.

Counters by Function and Paper Format(BETA)

This report shows counters per group by print/copy, color, and paper format.

The function field refers to whether a page was printed or copied.

Reports marked as BETA only contain data from Embedded Terminals running MyQ 8+. If some of your Embedded Terminals run earlier versions of MyQ, their data will not be included in the report.

The report is not available when Job Privacy is enabled.

Counters by Function Paper Format and Duplex(BETA)

This report shows counters per group by color, duplex, and paper format.

The function field refers to whether a page was printed or copied.

Reports marked as BETA only contain data from Embedded Terminals running MyQ 8+. If some of your Embedded Terminals run earlier versions of MyQ, their data will not be included in the report.

The report is not available when Job Privacy is enabled.

Daily Summary

This report shows a summary of the daily output by group.

Day of the Week

This report shows a summary of the daily output based on the day of the week by group.

Monthly Summary

This report shows a summary of the monthly output by group.

This report supports aggregated columns.

Top N

This report shows the groups sorted by largest output volume.
Charts are available for this report.

It will show the top 5 by default, but this can be changed in the **Design** section of the report, under **Filters and Parameters**, by changing the number for **N**.

Total Summary

This report shows the total output volume per group for a predefined period.

This report supports aggregated columns.

The report is not available when Job Privacy is enabled.

User Group Membership

This report shows the list of members of the group and their membership options.

The report is not available when Job Privacy is enabled.

Printers Reports

The following reports are included in the **Printers** category:

Counters by Function and Duplex(BETA)

This report shows counters per device by print/copy, color, and duplex.
The function field refers to whether a page was printed or copied.

Reports marked as BETA only contain data from Embedded Terminals running MyQ 8+. If some of your Embedded Terminals run earlier versions of MyQ, their data will not be included in the report.

The report is not available when Job Privacy is enabled.

Counters by Function and Paper Format(BETA)

This report shows counters per device by print/copy, color, and paper format.

The function field refers to whether a page was printed or copied.

Reports marked as BETA only contain data from Embedded Terminals running MyQ 8+. If some of your Embedded Terminals run earlier versions of MyQ, their data will not be included in the report.

The report is not available when Job Privacy is enabled.

Counters by Function Paper Format and Duplex(BETA)

This report shows counters per device by color, duplex, and paper format.

The function field refers to whether a page was printed or copied.

Reports marked as BETA only contain data from Embedded Terminals running MyQ 8+. If some of your Embedded Terminals run earlier versions of MyQ, their data will not be included in the report.

The report is not available when Job Privacy is enabled.

Daily Summary

This report shows the list of print jobs printed by device on a daily basis.

This report supports aggregated columns.

Day of the Week

This report shows a summary of the daily output based on the day of the week by device.

This report supports aggregated columns.

Meter Reading via SNMP

This report shows the device's total output volume.

This report (unlike the rest of MyQ reports) includes accounting data of the jobs bypassing MyQ server.

Monthly Summary

This report shows a summary of the monthly output by device.

Top N

This report shows the printers sorted by largest output volume.

Charts are available for this report.

Total Summary

This report shows the total output volume per printer for a predefined period.

This report supports aggregated columns.

The report is not available when Job Privacy is enabled.

Print Jobs Reports

Reports in this category should not be used for accounting purposes. Print Job reports display print jobs either as received by MyQ (for devices without an embedded terminal) or they reflect the printing parameters selected on the embedded terminal, rather than the final printed outcome.

The following reports are included in the **Print Jobs** category:

Daily Summary

This report shows the list of print jobs printed by user on a daily basis.

The report is not available when Job Privacy is enabled.

Expired and Deleted Jobs

This report shows the list of expired and deleted jobs.

This report supports aggregated columns.

The report is not available when Job Privacy is enabled.

Favorite Jobs

This report shows the list of user's favorite jobs.

The report is not available when Job Privacy is enabled.

Printed Jobs Summary

This report shows the list of all the print jobs printed by the user for a predefined period.

The report is not available when Job Privacy is enabled.

Projects Reports

The following reports are included in the **Projects** category:

Counters by Function and Duplex(BETA)

This report shows counters per project by print/copy, color, and duplex.
The function field refers to whether a page was printed or copied.

Reports marked as BETA only contain data from Embedded Terminals running MyQ 8+. If some of your Embedded Terminals run earlier versions of MyQ, their data will not be included in the report.

The report is not available when Job Privacy is enabled.

Counters by Function and Paper Format(BETA)

This report shows counters per project by print/copy, color, and paper format.

The function field refers to whether a page was printed or copied.

Reports marked as BETA only contain data from Embedded Terminals running MyQ 8+. If some of your Embedded Terminals run earlier versions of MyQ, their data will not be included in the report.

The report is not available when Job Privacy is enabled.

Counters by Function Paper Format and Duplex(BETA)

This report shows counters per project by color, duplex, and paper format.

The function field refers to whether a page was printed or copied.

Reports marked as BETA only contain data from Embedded Terminals running MyQ 8+. If some of your Embedded Terminals run earlier versions of MyQ, their data will not be included in the report.

The report is not available when Job Privacy is enabled.

Daily Summary

This report shows the list of print jobs printed by project on a daily basis.

This report supports aggregated columns.

Day of the Week

This report shows a summary of the daily output based on the day of the week by project.

This report supports aggregated columns.

Monthly Summary

This report shows a summary of the monthly output by project.

This report supports aggregated columns.

Print Jobs per Project

This report shows the list of print jobs assigned to each project.

The report is not available when Job Privacy is enabled.

Project Groups Total Summary

This report shows the total output volume per project for a predefined period.

Projects per User

This report shows the output volume per user and project. The data is grouped by user.

This report supports aggregated columns.

The report is not available when Job Privacy is enabled.

Top N

This report shows the projects sorted by largest output volume.

Charts are available for this report.

User Project Assignment

This report shows the list of projects assigned to each user.

The report is not available when Job Privacy is enabled.

Users per Project

This report shows the members of each project.

This report supports aggregated columns.

User Session Details

This report shows the list of all the user's interactions on the device sorted by project.

This report supports aggregated columns.

The report is not available when Job Privacy is enabled.

Users Reports

The following reports are included in the **Users** category:

Counters by Function and Duplex(BETA)

This report shows counters per user by print/copy, color, and duplex.
The function field refers to whether a page was printed or copied.

Reports marked as BETA only contain data from Embedded Terminals running MyQ 8+. If some of your Embedded Terminals run earlier versions of MyQ, their data will not be included in the report.

The report is not available when Job Privacy is enabled.

Counters by Function and Paper Format(BETA)

This report shows counters per user by print/copy, color, and paper format.

The function field refers to whether a page was printed or copied.

Reports marked as BETA only contain data from Embedded Terminals running MyQ 8+. If some of your Embedded Terminals run earlier versions of MyQ, their data will not be included in the report.

The report is not available when Job Privacy is enabled.

Counters by function paper format and duplex(BETA)

This report shows counters per user by color, duplex, and paper format.

The function field refers to whether a page was printed or copied.

Reports marked as BETA only contain data from Embedded Terminals running MyQ 8+. If some of your Embedded Terminals run earlier versions of MyQ, their data will not be included in the report.

The report is not available when Job Privacy is enabled.

Daily Summary

This report shows the list of print jobs printed by user on a daily basis.

The report is not available when Job Privacy is enabled.

Day of the Week

This report shows a summary of the daily output based on the day of the week by user.

The report is not available when Job Privacy is enabled.

Monthly Summary

This report shows a summary of the monthly output by user.

The report is not available when Job Privacy is enabled.

Session Details

This report shows the list of all user's interactions on the device.

The report is not available when Job Privacy is enabled.

Top N

This report shows the users, sorted by largest output volume.

Charts are available for this report.

The report is not available when Job Privacy is enabled.

Total Summary

This report shows the total output volume per user for a predefined period.

The report is not available when Job Privacy is enabled.

User Rights

This report shows the list of users with enhanced access rights.

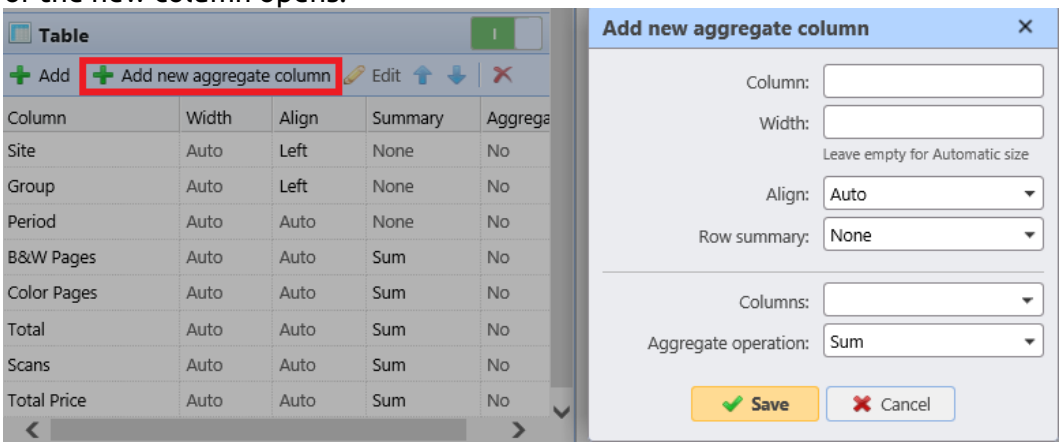
The report is not available when Job Privacy is enabled.

15.1.3 Creating new aggregate columns

For some types of reports, you can create any number of custom aggregate (summary) columns. An aggregate column can display either the sum or the average of a selection of any number of other columns available for the type.

To create a new aggregate column for a report:

1. Go to **MyQ**, **Reports**. On the list of reports on the right side, select the report and click **Edit** on the ribbon (or right-click, edit). The report properties panel opens on the right side of the screen.
2. Go to the **Design** tab on the properties panel.
3. In the **Table** section, click **+Add new aggregate column**. The properties panel of the new column opens.



4. In the panel, set the columns properties, select the **Aggregate operation** you want to use (*Sum* or *Average*), and click **Save**. The new aggregate column is listed with the other table columns, and you can double-click on it to edit it.

Supported types of reports for aggregate columns

The aggregate (summary) columns can be created for the following types of reports:

- From the **Groups** category: Monthly summary, Total summary
- From the **Print jobs** category: Expired and deleted jobs
- From the **Printers** category: Daily summary, Day of the week, Meter reading via SNMP, Total summary
- From the **Projects** category: Daily summary, Day of the week, Monthly summary, Project groups total summary, Projects per user, Users per project.

15.2 Reporting sources

Accounting in MyQ depends on the MyQ server version, the MyQ embedded terminal version and the printing device. MyQ 8.0+ currently uses the user-session architecture. The values in every report are based on user sessions (except for the **Meter reading via SNMP** printers report, described below).

- Counters are calculated in the following way:
  - B&W pages = B&W prints + B&W copies + Fax

    - Color pages = Color prints + Color copies + Single color copy
    - Total Pages = B&W pages + Color pages
    - Total prints = B&W prints + Color prints
    - Total copies = B&W copies + Color copies
- Price related columns include discounts.
- Any printers monitored via MyQ Desktop Client are included in the reports.
- Any non-MyQ users activity (*unauthenticated) is included in the reports.
- MyQ does not track deleted printers. If a deleted printer is later added and activated in MyQ, the reports will not include any activity during the time the device was deleted.
- If a printer is deactivated but not deleted, the reports include information about the period it was inactive only after it is reactivated. In that case, after the reactivation, all the activity is accounted to users not authenticated in a single session. The reports cannot include printers' data while they are deactivated.
- When an embedded terminal is installed on the printing device, accounting is also done for any direct/tandem print queues of the device.
- When an embedded terminal is not installed or a device is used with a MyQ Hardware terminal, accounting is done via SNMP by the MyQ Print Server (depends on provided data via SNMP from the device).

15.2.1 Values calculation in the Meter reading via SNMP printers report

The values in this report are based on counters read directly from the printers.

- Any printers monitored via MyQ Desktop Client are **not** included in the reports.
- The highest and lowest values are compared for a selected period and printer/group of printers.
- The total value displayed in the report is the summary of all the subtotal values, without *Pages printed* while the device was deactivated.

15.3 Report values description

Description of values in the reports' default and additional columns and how they are accounted.

These values are accounted as page counts in the following way: 2 clicks for the A3/Ledger page format and 1 click for the rest (A4 etc..); in case of Duplex, it is 4 clicks for the A3 / Ledger format and 2 clicks for the rest (A4 etc.). L formats are coverage counters.

- B&W prints
- B&W copies
- Color prints
- Color copies
- Single color copy
- Total prints
- Total copies

- Fax
- Color pages (L1)
- Color cost (L1)
- Color pages (L2)
- Color cost (L2)
- Color pages (L3)
- Color cost (L3)
- Print color pages (L1)
- Copy color pages (L1)

If discounts are used, they are not applied to all “cost” values in reports, e.g. *Color cost (L1)", "Color cost (L2)" or "Color cost (L3)*. However, "Total cost", "Color cost" do reflect discounts.

These values are accounted as paper sheets in the following way : 1x A3 / 1x A4 etc.

- A4 paper
- A3 paper
- A5 paper
- B4 paper
- B5 paper
- Other paper
- Folio paper
- Ledger paper
- Legal paper
- Letter paper
- Statement paper
- Rest of the paper formats

These values are accounted as paper sheets as well, however, when a printing device is used without an installed Embedded terminal, this counter is specified via SNMP and depends on the counter used from the printing device.

- Simplex
- Duplex

Terminals version 7 and lower might have reported Duplex values differently depending on the vendor – either as the number of images (e.g. 1 page printed duplex as Duplex=2) or the number of sheets (Duplex=1). Since Terminals 8.2, these values are unified as the number of sheets. The combination of data from older Terminals with Terminals 8.2 in Reports may cause an inconsistency in the Duplex values.

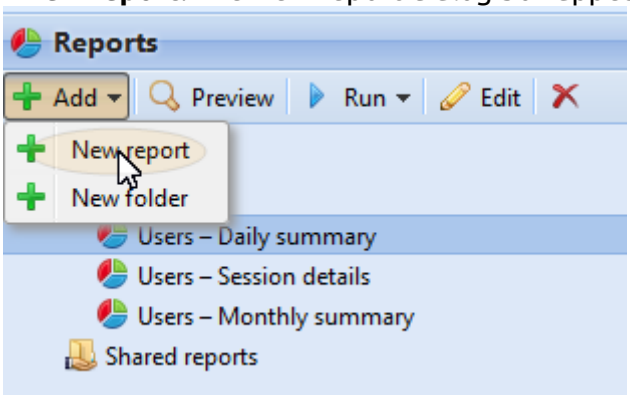
A job printed in 1x A3 monochrome sheet, on both sides in duplex mode, on a device where an Embedded terminal is installed, is accounted in MyQ as 1x A3 paper + 4x print monochrome and 1x duplex. In the MyQ log it will look like this:

PM=4, A3=1, Duplex=1

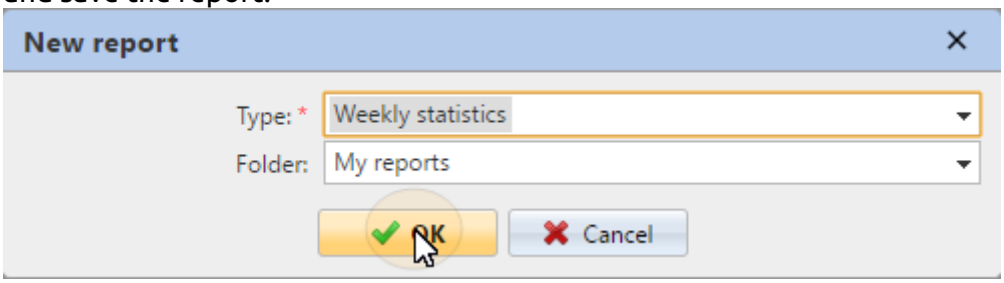
15.4 Creating and editing reports

You can create a new report in a few steps:

1. At the top-right corner of the **Reports** main tab, click **+Add**, and then click **+New report**. The New report dialog box appears.

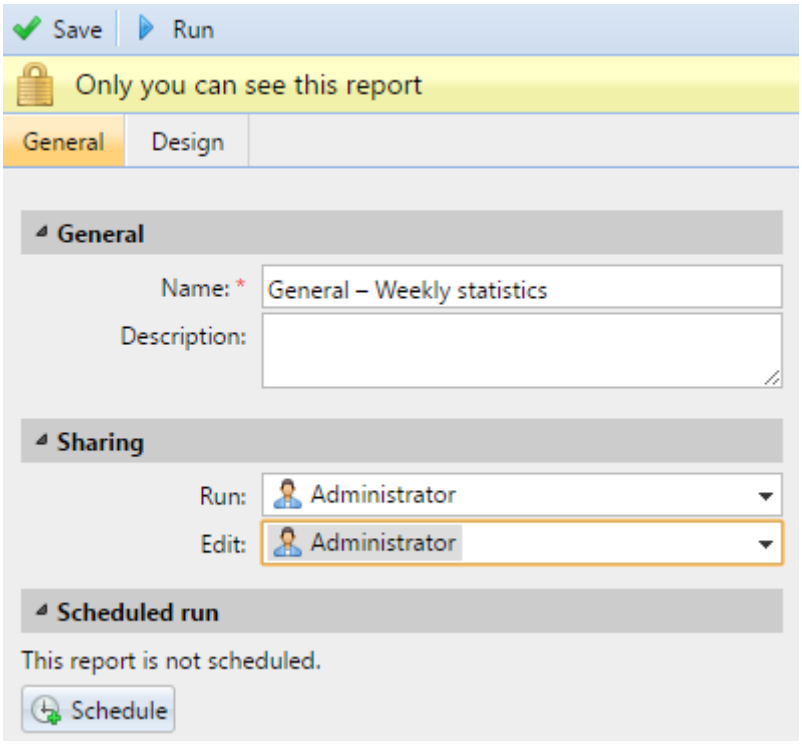


2. In the box, select the type of the new report and the folder to place it, and then click **OK**. The editing panel of the new report opens. On the panel, edit and save the report.



15.4.1 Editing a report

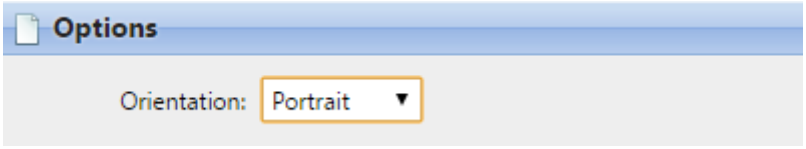
1. On the **General** sub-tab of the report's editing tab, you can change the report's **Name**, add a **Description**, select **Sharing** rights, meaning the users or groups who will have the rights to **Run** the report and those who will have the rights to **Edit** the report. You can also click **Schedule** to set its scheduled run. Once done, click **Design** to open the Design sub-tab of the report.



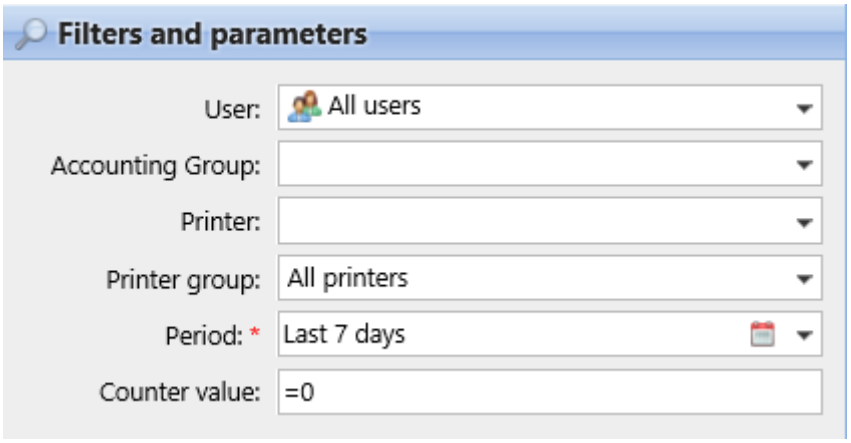
2. On the **Design** sub-tab, you can set the report's layout, select the items (Users, Printers, etc.) to be included in the report, add or remove columns and change their order.

Options

- **Orientation**: Select either the **Portrait**, or the **Landscape** orientation.



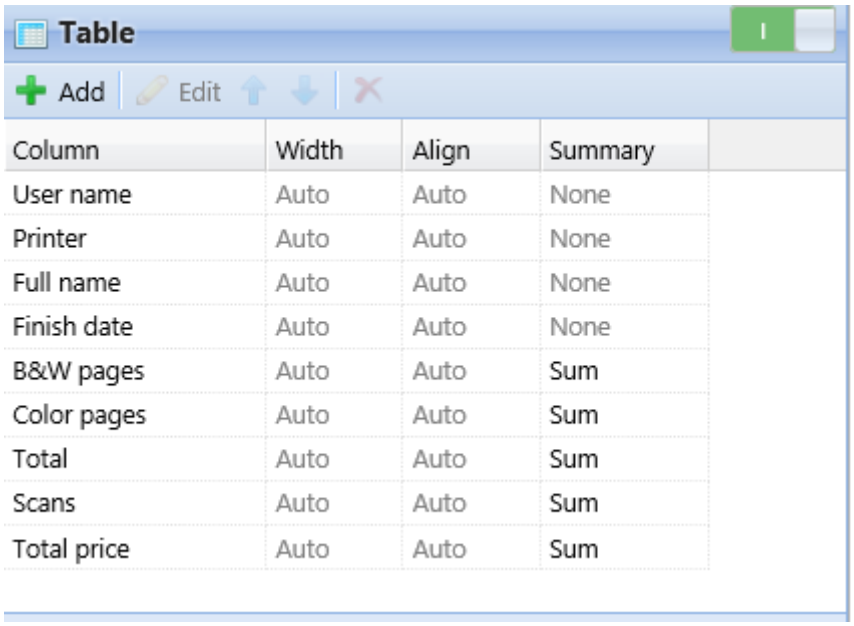
Filters and parameters



Available filters and parameters differ depending on the report type. These are the main parameters available for most of the standard reports types:

- **User**: Select the users to be included in the report. If you select the **Me** option and share this report with all users, each user can only see just the data that concern themselves; this way you can make personalized reports for each user.
- **Accounting Group**: Select the accounting groups of users to be included in the report.
- **Printer**: Select the printers to be included in the report.
- **Printer group**: Select the groups of printers to be included in the report.
- **Period**: Select the time period to be covered by the report.

Table



Here you can enable and disable the table option.

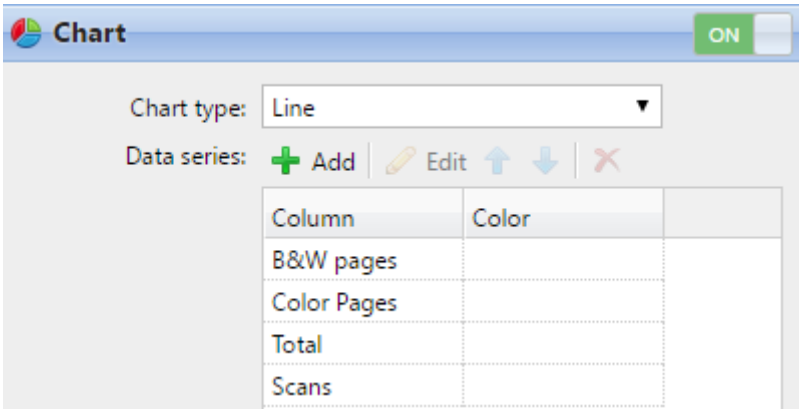
You can also add and remove columns to the table, edit them and change their order. For each column, you can change the width, alignment and the type of summary that will be shown on the final (bottom) row (Sum, Average or None).

To add a new column, click **+Add**. To open the editing options of an existing column, double-click it (or select it, and then click **Edit**). To remove a column, select it and click **X**. To move a column up or down the order, select it, and then use the up/down arrows.

Period	B&W pages	Color Pages	Total	Scans	Total price
2017-3	5,621	9,189	14,810	5,506	$5,440.000
2017-4	1,211	569	1,780	1,234	$7,072.000
Period	**B&W pages**	**Color Pages**	**Total**	**Scans**	**Total price**
	6,832	**9,758**	**16,590**	**6,740**	**$12,512.000**

Some reports do not include the option to use tables and their data can be displayed only in the chart form.

Chart

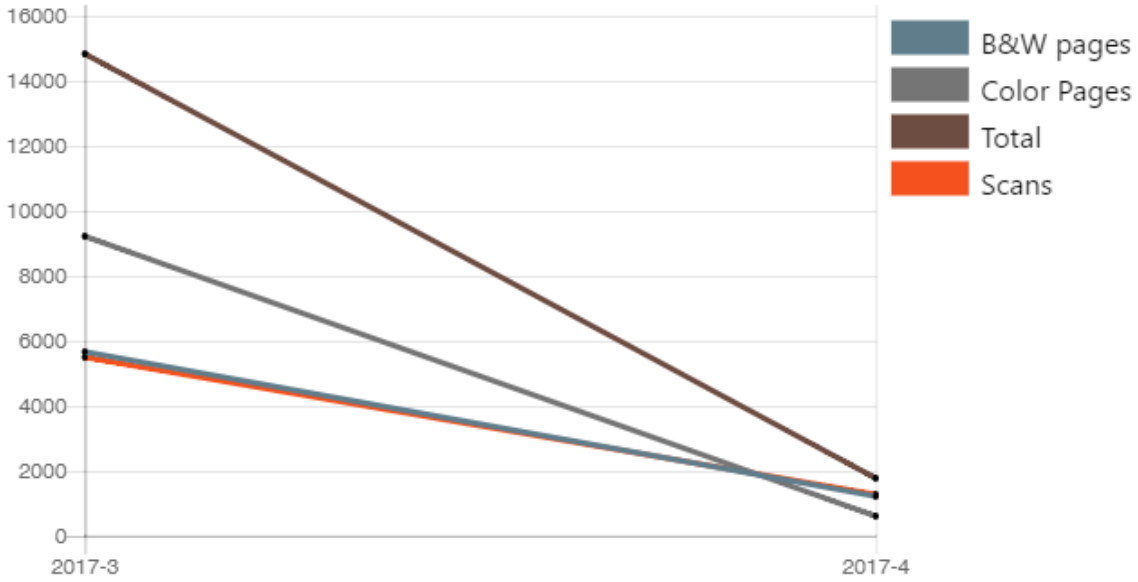


Here you can enable and disable the chart option.

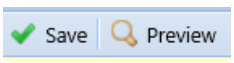
You can also select from the **Bar, Line, Pie** and **Doughnut** chart types. Furthermore, you can add and remove data types to be shown on the chart and select colors for each data type.

To add a data type, click **+Add**. To open editing options of a data type, double-click it (or select it, and then click **Edit**). To remove a data type, select it and click **X**. To move a data type up or down the order, select it, and then use the up/down arrows.

Some reports do not include the option to use charts and their data can be displayed only in the table form.



Designing your own reports can be a bit tricky, since it always depends on many factors - amount of data included (columns), length of column names and values, report orientation etc. To get the best result, you can click **Preview** anytime during the report's creation to check what the new design will look like. Only after you are satisfied with the layout, click **Save** to save the report.



15.5 Generating reports

To preview a report

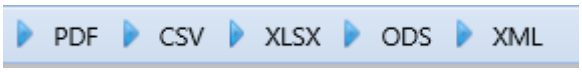
Select the report and click **Preview** (or right-click it and click **Preview** on its shortcut menu). The report is shown in HTML format and the number of included data is limited.

To run a report

Select the report and click **Run**. (Or right-click it and click **Run** on its shortcut menu). The report runs in the specified format (*PDF, CSV, XML, XLS* or *ODS*) with no data limitation.

To export the displayed report

After the report is generated, click one of the format buttons on the bar at the top of the report screen to download it.



There is a fixed limit of records of the reports that are generated on the **Reports** main tab of the MyQ Web Interface. It can be set in the **Limit results to:** text box on the **Reports** settings tab (**MyQ, Settings, Reports**). It is set to *1000* by default. This only applies to the reports run on the MyQ Web Interface; scheduled reports are always complete.

16 Connection to BI tools

Starting from version 8.2 (patch 16), MyQ Print Server exposes data to be analyzed with external BI tools (Business Intelligence tools).

The below information refers to the setup and use of Power BI by Microsoft, along with a MyQ setup.

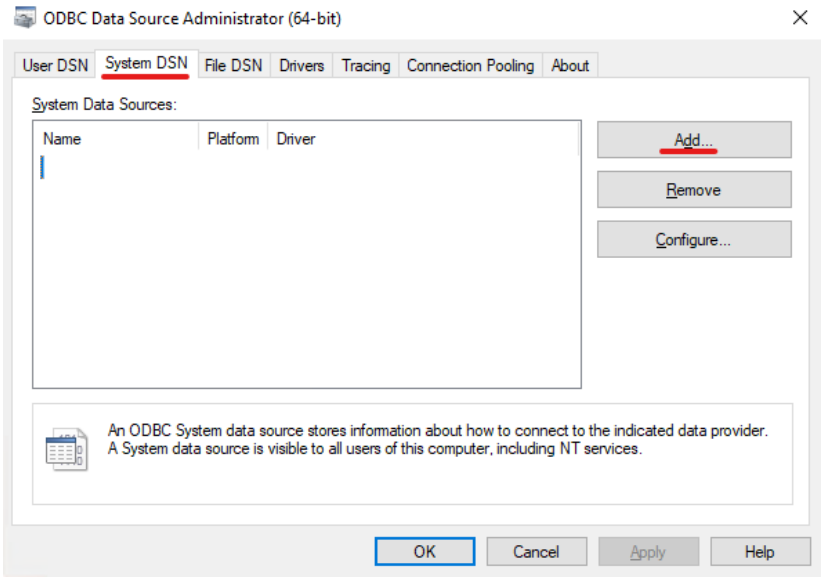
For further information about Power BI, visit:
https://docs.microsoft.com/en-us/power-bi/fundamentals/desktop-getting-started

16.1 Embedded Database Connection Configuration

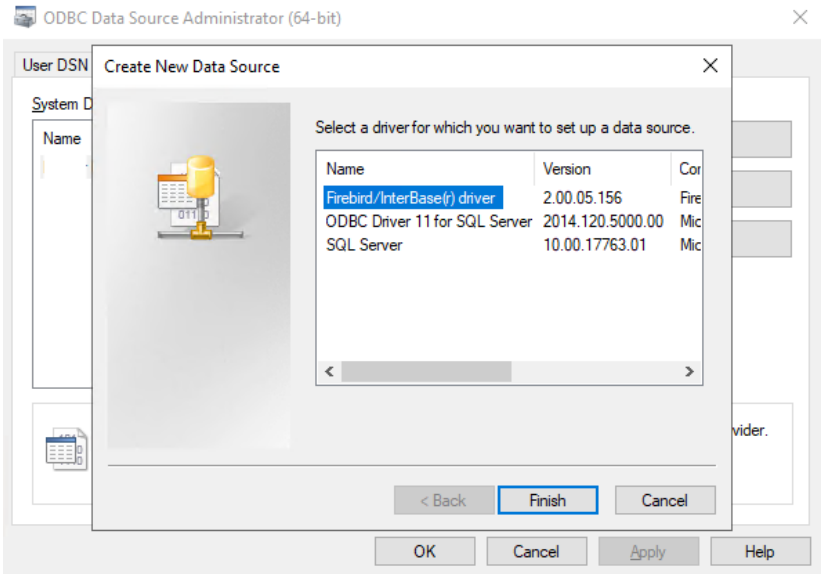
Power BI can access the MyQ Embedded Database via ODBC. In order to create an ODBC data source:

> Power BI will only let you connect to a ODBC data source that is available on the local PC it is running within. Your data source should be created on the same PC that Power BI desktop run.

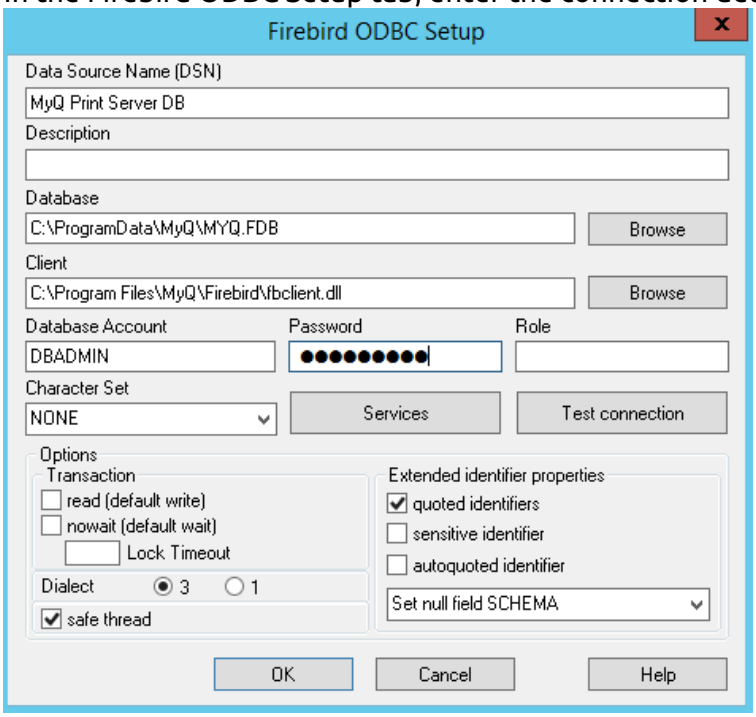
1. Download and install the latest ODBC driver for Firebird from:
   https://firebirdsql.org/en/odbc-driver/
2. Once installed, open the **ODBC Data Sources** application from the Windows Apps menu.
3. Go to the **System DSN** tab and click **Add**.



4. In the Create New Data Source window, select *Firebird/InterBase(r) driver* and click **Finish**.



5. In the Firebird ODBC Setup tab, enter the connection details:



a. **Data Source Name (DSN)**: Add a name as an identifier for the connection
b. **Database**: Add the path to your database file (*C:\ProgramData\MyQ\MYQ.FDB* by default)
c. **Client**: Add the path to the Firebird library client used for the connection. It is recommenced to use the MyQ Print Server client, found in *C:\Program Files\MyQ\Firebird\fbclient.dll* by default
d. **Database Account**: Add the Database Account user name. The default one is *SYSDBA*, but it is highly recommended not to use the default database account, but enable and use the **database read-only account** available in the External Reports settings tab.

e. **Password**: Add the Database Account password. In case you are using the default database account (not recommended) and you haven't changed the password in MyQ Easy Config, the default one is *masterkey*.
f. The rest of the fields can be left unchanged. Click **Test Connection** and if successful, click **OK**.

16.2 Creating Reports

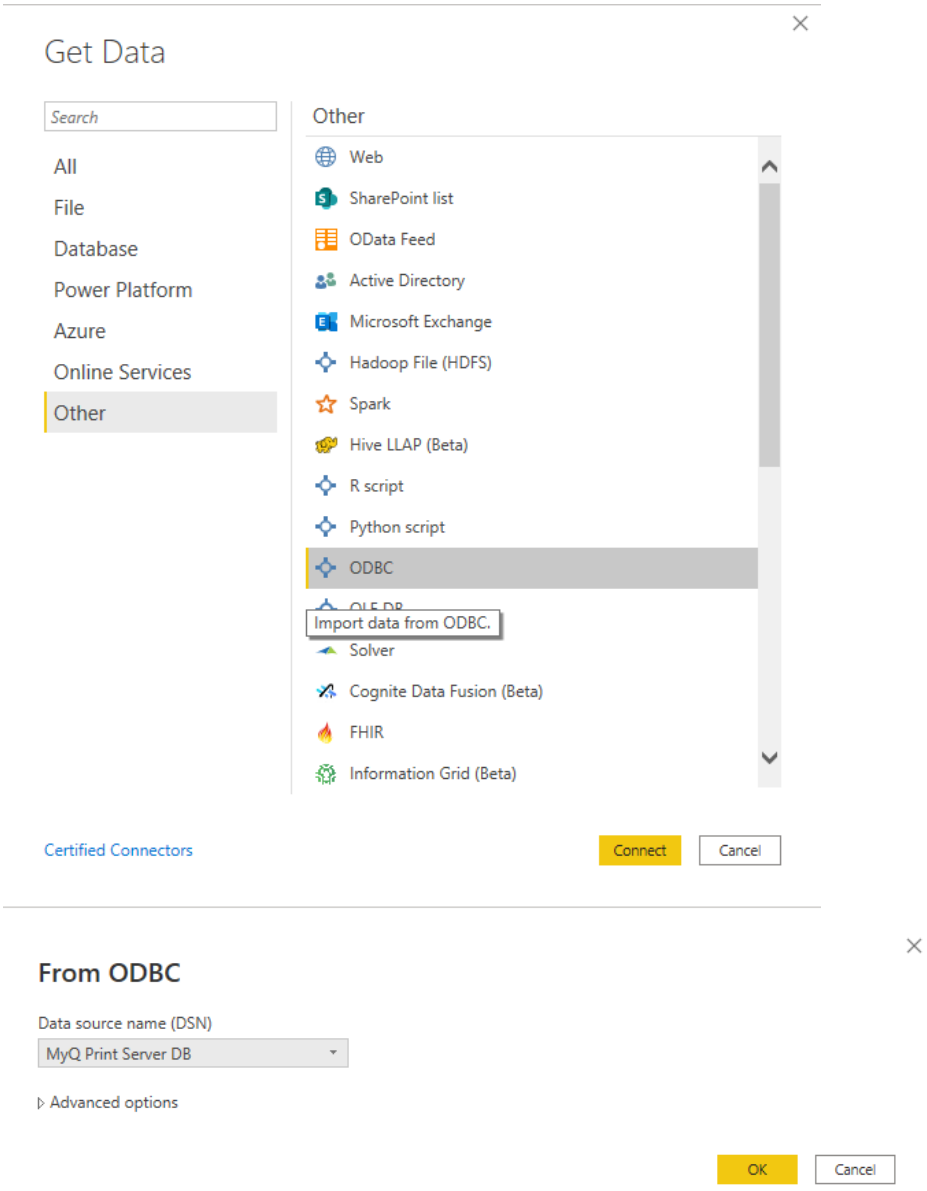
Reports can be created according to each customer's specific requirements. It is possible to create the reports manually, or use the Power BI template created by MyQ in order to generate reports quickly.

- Manual reports creation
- Reports creation via template import
- Report examples
- Database Views description

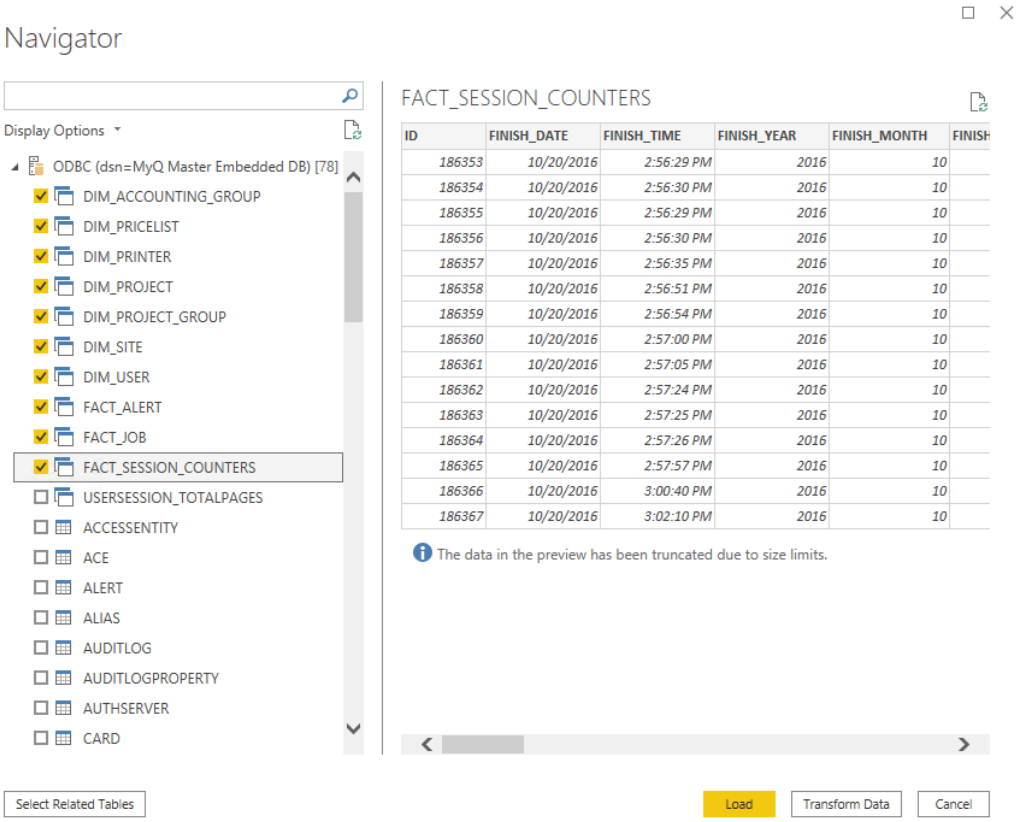
16.2.1 Manual Reports Creation

To manually create the reports, open Power BI and:

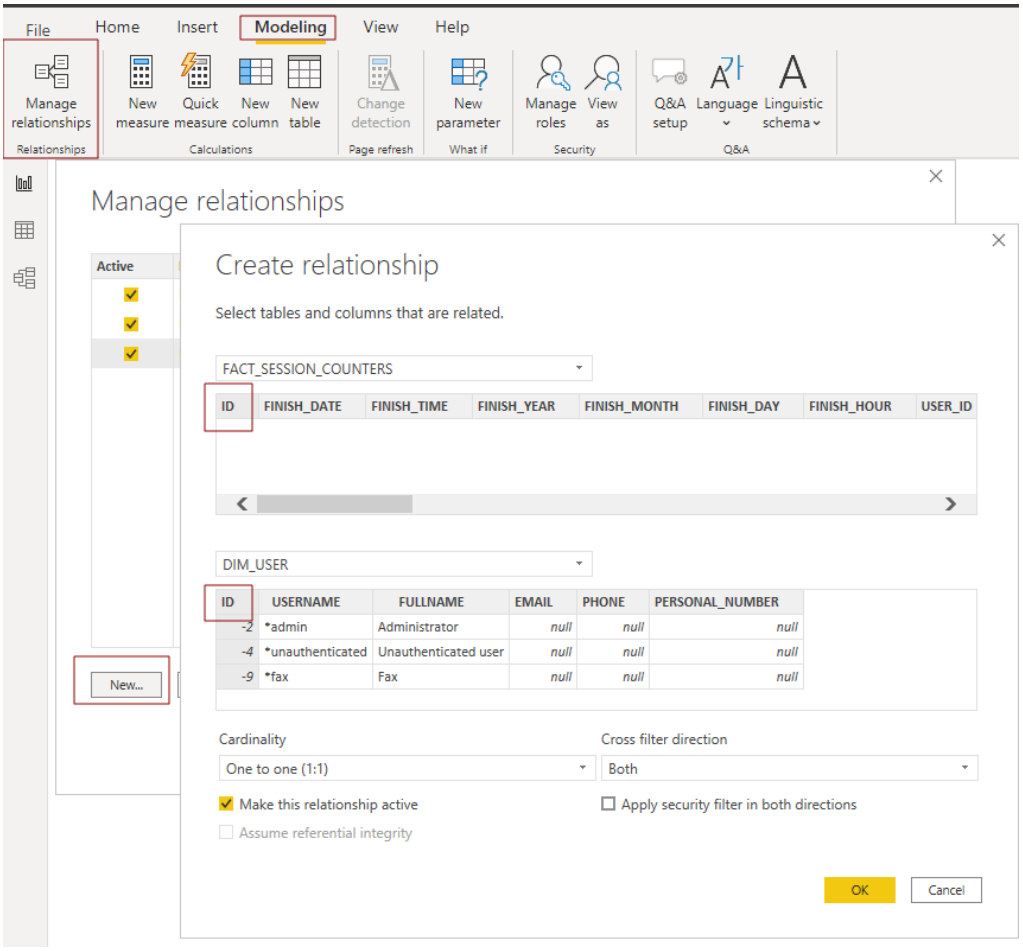
1. Establish the connection to your database:
   a. Click **Get data, More...**. In the new window, select **Other**, click on **ODBC** on the list, and click **Connect**. In the new prompt, select the Data source name (DSN) you created in the ODBC Data Sources app and click **OK**.



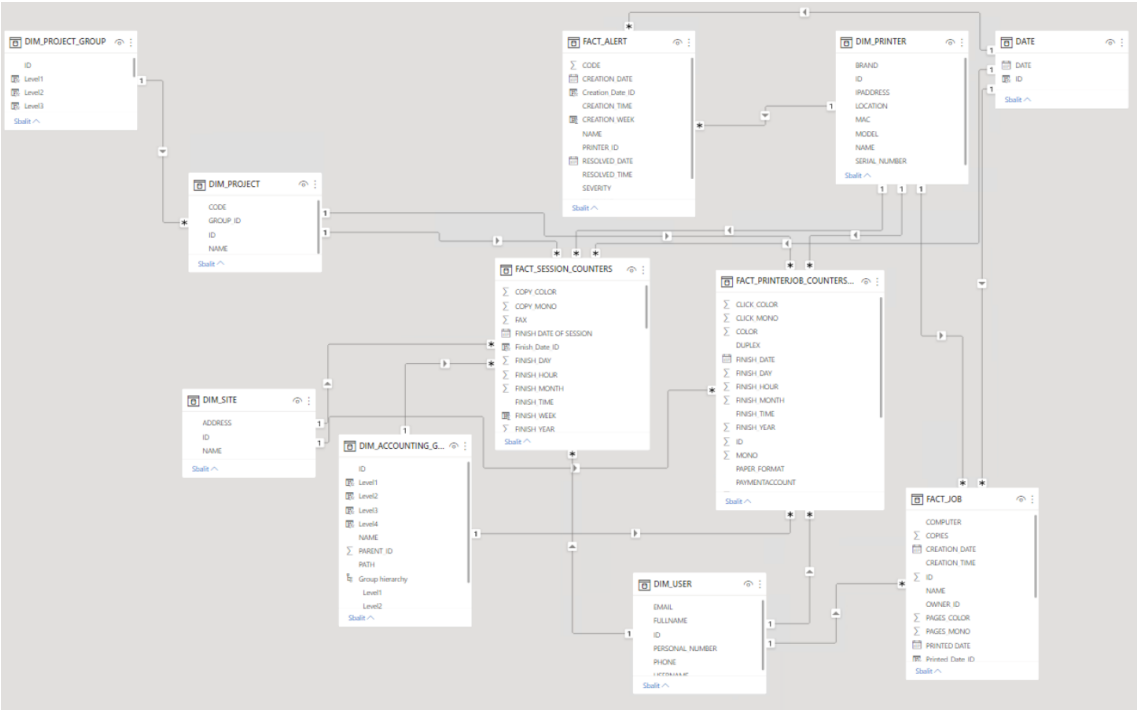
2. In the Navigator window, select all the options with the **DIM_** and **FACT_** prefixes and click **Load** (see Database Views description).



3. Power BI loads the data, however the relationships between them must be created manually, since Power BI cannot extract them:
   a. Go to the Modeling menu and click on **Manage relationships**.
   b. Click **New...** and create the relationships between the views, selecting the IDs in each of them. Click **OK** once done.



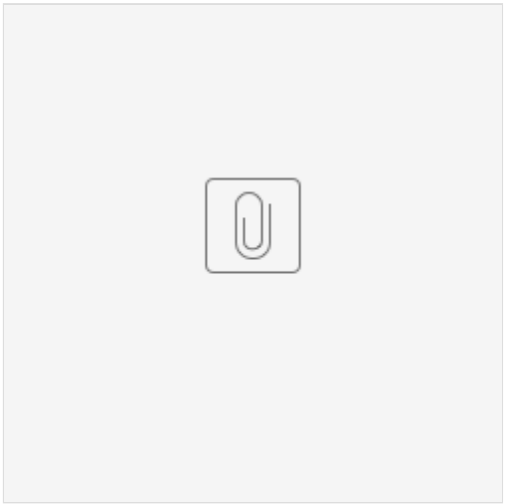
4. Your model has been created and you can add visualizations to the report.



16.2.2 Reports creation via template import

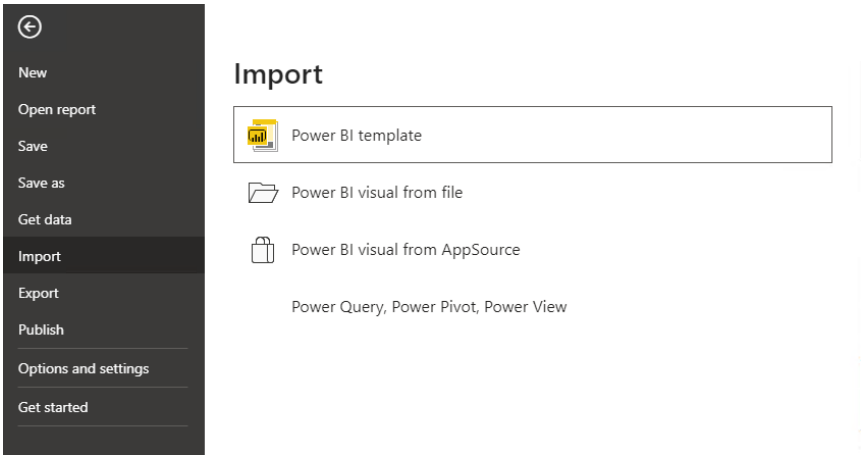
An ODBC DSN must be configured before using the template.

- ODBC template

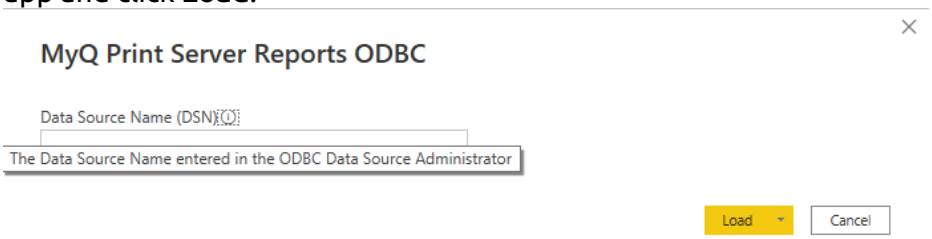


To import the template provided by MyQ , open Power BI and:

1. Open the **File** menu, select **Import**, and click on **Power BI template**. Find and open the correct template according to your database.



2. Establish the connection to your database:
   a. Add the **Data source name (DSN)** you created in the ODBC Data Sources app and click **Load**.



3. Power BI imports the data. The reports can be edited; the changes are saved in a different file so the template can be reused.

16.2.3 Report examples

The examples below were generated using the MyQ template.

SAVINGS

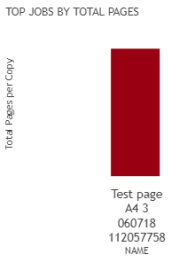
1984
Total pages

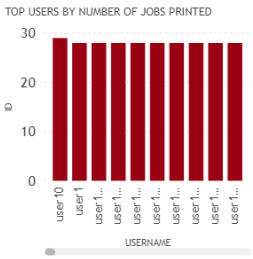
PRINTED JOBS IN COLOR

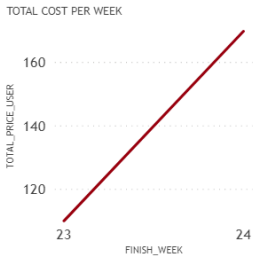
247

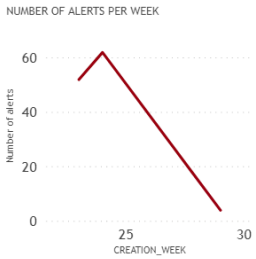
PRINTED JOBS IN B&W

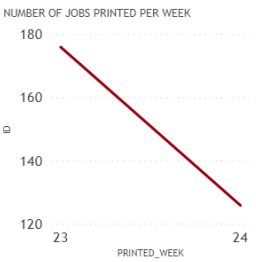
55

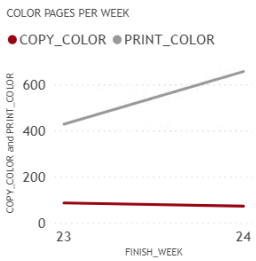


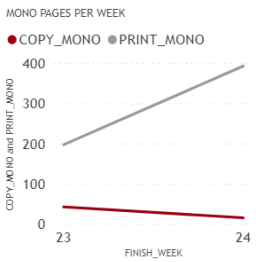


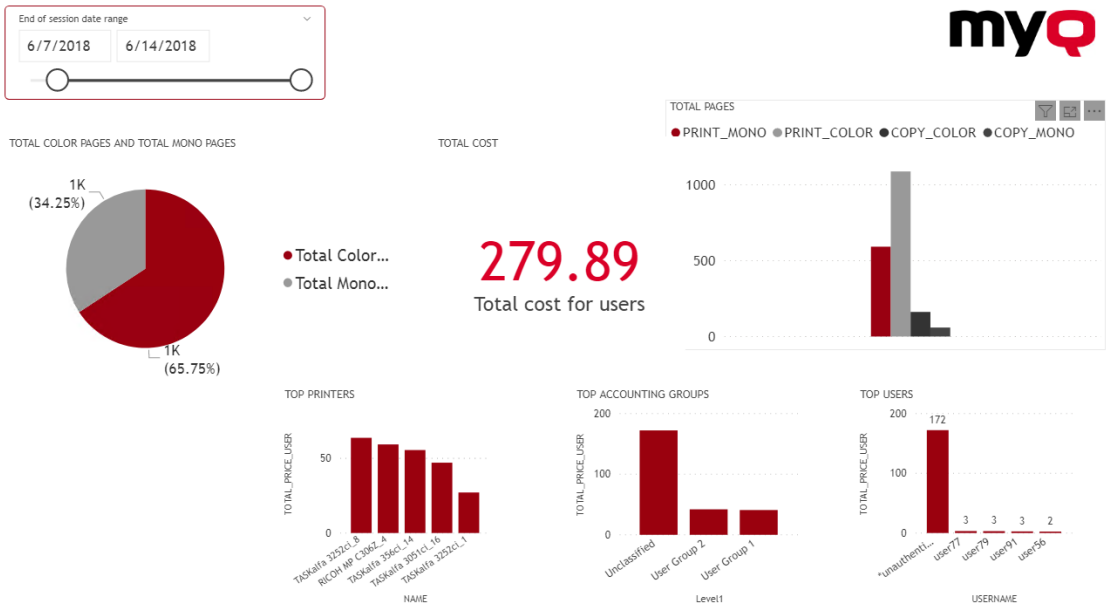












16.2.4 Database Views description

There are two groups of views; **dimensions** and **facts** . The fact views contain measures, numeric data which can be used in calculations for reports. The dimension views contain descriptive information used for the measures in the facts. Dimension views have the **dim_** prefix and fact views have the **fact_** prefix.

The IDs in the views are internal MyQ IDs and can be used to establish relationships between views.

Site Dimension (dim_ Site) - Information about the site where the sessions were registered.

Field Name	Description
ID	Site ID
Name	Site name
Address	Site URL

Printer Dimension (dim_Printer) - Information about the printer

Field Name	Description
ID	Printer ID
Name	Printer name
IPAddress	Printer IP address
MAC	Printer MAC address
Brand	Printer brand
Model	Printer model
Location	Printer location
Serial_Number	Printer serial number

User Dimension (dim_User) - Information about the user

Field Name	Description
ID	User ID
Username	MyQ username
Fullname	User's name and surname
Email	User's email
Phone	User's phone number
Personal_number	User's MyQ personal number

Accounting Group Dimension (dim_ Accounting_ Group) - Information about user groups

Field Name	Description
ID	Group ID
Name	Group name
Parent_ID	The parent group ID. Null if the group has no parent group.
Path	The path of the group, formed by the ID of the ancestor groups separated by the character "|". This can be used to build the hierarchy of user groups.

Project Dimension (dim_Project) - Information about projects

Field Name	Description
ID	Project ID
Name	Project name
Code	Project code
Group_ID	ID of the project group containing the project

Project Group Dimension (dim_Project_Group) - Information about project groups

Field Name	Description
ID	Project group ID
Name	Project group name
Parent_ID	The parent group ID. Null if the group has no parent group.

Field Name	Description
Path	The path of the group, formed by the ID of the ancestor groups separated by the character "|". This can be used to build the hierarchy of project groups.

Job Fact (fact_job) - Information about print jobs

Field Name	Description
ID	Job ID
Session_ID	Session ID
Name	Job name
Owner_ID	Job owner ID
Printer_ID	Printer ID where the job was printed. Null if not printed
Computer	Computer name or address where the job was sent from
Size_in_bytes	Job size in bytes
Pages_mono	Number of pages in black and white
Pages_color	Number of pages in color
Copies	Number of copies
State	Job state
Printed_date	Date when the job was printed
Printed_time	Time when the job was printed

Field Name	Description
Creation_date	Date when the job was created
Creation_time	Time when the job was created

Session Counter Fact (fact_Session_Counters) - Information about user sessions

Field Name	Description
ID	Job ID
Finish_date	Date when the session was closed
Finish_time	Time when the session was closed
Finish_year	Year when the session was closed
Finish_month	Month when the session was closed
Finish_day	Day when the session was closed
Finish_hour	Hour when the session was closed
User_ID	ID of the user who created the session
Printer_ID	Printer ID
Site_ID	Site ID
Project_ID	Project ID
User_group_ID	Accounting group ID
Total_price_user	Total price of the session for regular users
Total_price_admin	Total price of the session for users with admin rights

Field Name	Description
Total_pages	Total pages of the session
Print_mono	Number of pages printed in black and white
Print_color	Number of pages printed in color
Copy_mono	Number of pages copied in black and white
Copy_color	Number of pages copied in color
Copies	Number of copies
Fax	Number of pages printed due to fax, in black and white
Scan	Number of scanned pages
PaperA4	Number of A4 sheets used
PaperA3	Number of A3 sheets used
PaperA5	Number of A5 sheets used
PaperB4	Number of B4 sheets used
PaperB5	Number of B5 sheets used
PaperFolio	Number of Folio sheets used
PaperLedger	Number of Ledger sheets used
PaperLegal	Number of Legal sheets used
PaperLetter	Number of Letter sheets used
PaperStatement	Number of Statement sheets used

Field Name	Description
PaperOther	Number of sheets with other paper formats used

Printer job counters (fact_PRINTERJOB_COUNTERS_V2) - Information about printer job counters

Field Name	Description
ID	Session ID
Finish_date	Date when the session was closed
Finish_time	Time when the session was closed
Finish_year	Year when the session was closed
Finish_month	Month when the session was closed
Finish_day	Day when the session was closed
Finish_hour	Hour of the day when the session was closed
User_ID	ID of the user who created the session
Printer_ID	ID of the printer
Site_ID	ID of the site
Project_ID	ID of the project used for the session
User_group_ID	ID of the accounting group
Type	Type of the operation (print, copy, scan, fax)
Paper_format	Paper format

Field Name	Description
Price	Price for the job
Duplex	Yes if the job was printed in duplex mode No if the job was not printed in duplex mode
Mono	Number of pages printed in black and white
Color	Number of pages printed in color
Single_color	Number of pages printed in single color
Click_mono	Number of printed mono images
Click_color	Number of printed color images
Sheets	Number of used papers

Alert Fact (fact_Alert) - Information about printer alerts

Field Name	Description
Printer_ID	Printer ID where the alert was generated from
Severity	Alert severity
Training	Level of training required to handle the alert
Code	Alert code
Creation_Date	Date when the alert was generated
Creation_Time	Time when the alert was generated

Field Name	Description
Resolved_Date	Date when the alert was resolved
Resolved_Time	Time when the alert was resolved

There is a limitation that even if you are using a Job Privacy license, the data in the database are not changed by this feature and are still readable.

17 Scanning and OCR

The MyQ system is able to automatically send scanned documents to the scanning user with the **Scan to Me** feature.

MyQ also allows you to use Optical Character Recognition (**OCR**) by either integrating the MyQ OCR server or using a custom 3rd-party application.

The first section of this topic shows you how to set up the **Scan to Me** feature on the MyQ server, how to use it, and how to limit the size of emails with scans.

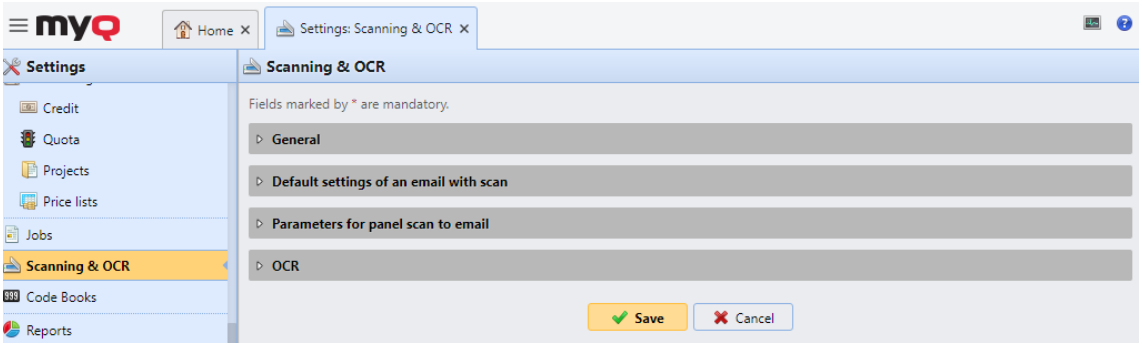
The second section shows you how to set up your **OCR** server.

17.1 Scan to Me

With the **Scan to Me** feature enabled, MyQ serves as an email server — it receives a scanned job from printing devices via the SMTP protocol, detects the device where the job is sent from, finds the user that is currently logged on the device and sends the job to their folder or email (depends on the user's settings).

Scan to Me is also one of the essential features of the MyQ Embedded terminals. Apart from it, the embedded terminals offer a large number of advanced destinations such as **Cloud** and **FTP servers**.

First, you need to set up the feature on the MyQ server and on the printing device to enable the MyQ users to use all of the scanning options. After that, you need to provide the users with an email addresses, where they can direct the scanned documents to.



The correct time and date must be set on the printing device to avoid issues with correct functionality.

17.1.1 Setting up the feature

To set up **Scan to Me**:

- Enable and setup scanning on the MyQ server
- Set SMTP on the printing device
- Set the destinations for the MyQ users on the MyQ server

Enable and setup scanning on the MyQ server

Go to the **Scanning & OCR** settings tab, under **General** and **Enable scanning**.

You can also change the subject and message of the email with the scanned document there. As the sender of the document, you can select either the email of the logged user or the default sender email set on the **Network** settings tab, under **Outgoing SMTP server**.

Set SMTP on the printing device

The scanning function requires enabling the SMTP protocol, setting the SMTP server address and entering a sender email on the printing device web interface. For information about how to enter the printing device web interface and find the particular settings, see the printing device manual.

To enable the scanning function, take the following steps on the printing device web interface:

- Enable SMTP protocol.
- Enter the MyQ server IP address or hostname.
- Ensure that the SMTP port is the same as the SMTP port in the **Network** settings tab, under MyQ SMTP server. The default port in MyQ is *25*.
- Enter sender email address. The address value is arbitrary.

Set the destinations for the MyQ users on the MyQ server

On the properties panel of each individual MyQ user (see Editing user accounts), you can set the destinations using three options: **Sending scans to the user's primary email, Sending scans to other predefined emails, Storing scans to the user's scan folder**.

To provide a user with these options, set the appropriate fields on their properties panel.

17.1.2 Using the Scan to Me feature

To send the email to the desired destination, the scan needs to be directed to a specific receiver email address. There are two options to enable the MyQ users to send the scans there: provide them with the respective receiver email address, or predefine these email addresses on the printing device's Web User Interface.

Email addresses for Scan to Me

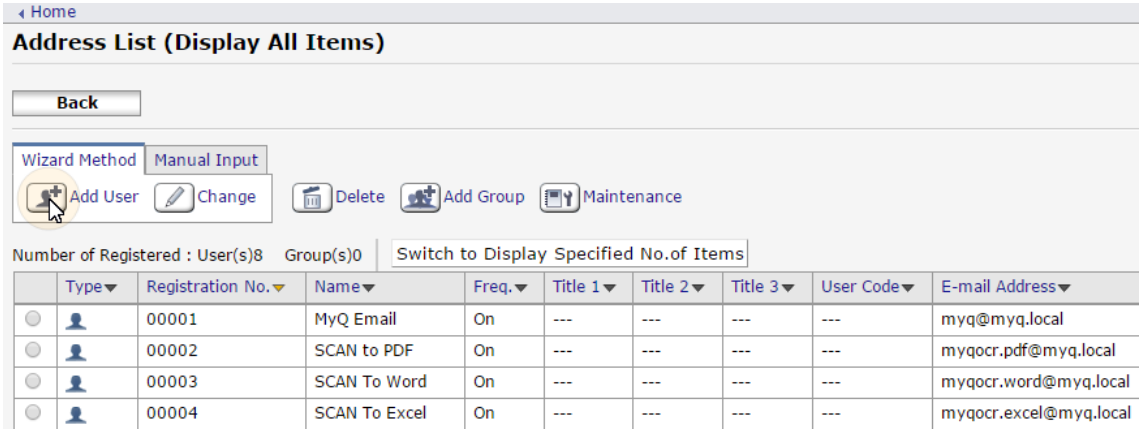
- **Sending scans to the user's primary email** - The scanned document is sent to the user email set in the email text box on the user properties panel.
  The receiver email address has to be *email@myq.local*.
- **Sending scans to other emails** - The scanned document is sent to all emails set in the **User's scan storage** text box (multiple emails should be separated by commas) on the user properties panel.
  The receiver email address has to be *folder@myq.local*.

- **Storing scans to the user's scan folder** - You have to create a shared folder and ensure that MyQ has access to this folder. After this, enter the folder's location to the **User's scan storage** text box. The scanned document is sent to MyQ, and then stored in the shared folder via the SMB protocol. The stored document file name consists of the user account name, and the date and the time when the scan was sent.
  The receiver email address has to be *folder@myq.local*.

To enable MyQ to save the scan file in the user scan folder, you have to make sure that the folder is shared over your network and that the computer where you run MyQ has all the necessary access rights to this folder.

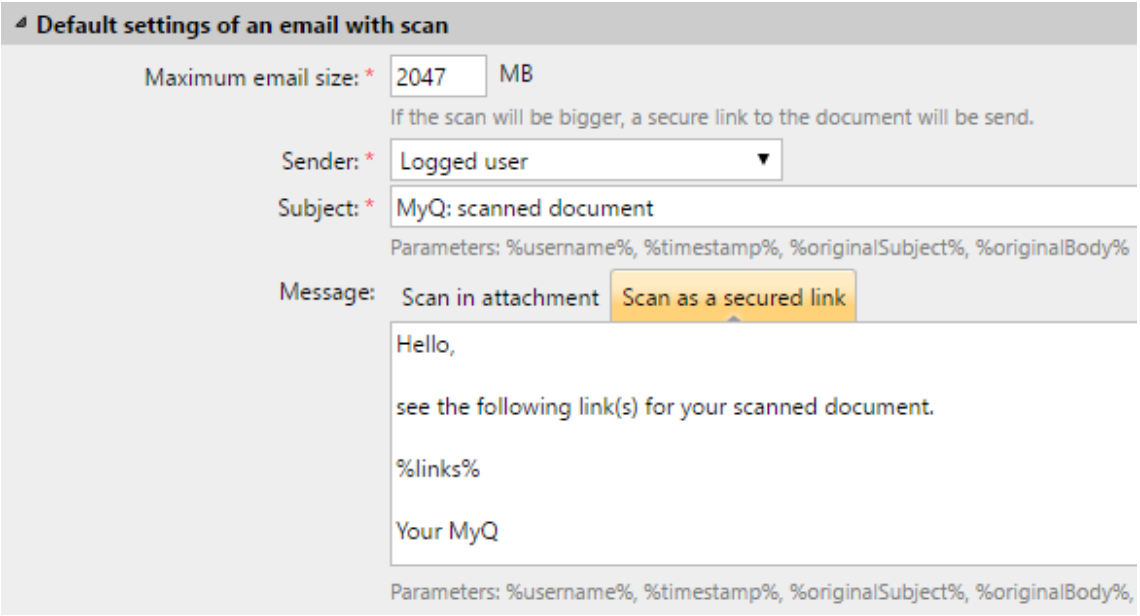
Predefined list of the MyQ destinations on the printing device

On the **Address List** on the printing device's web interface, you can predefine email addresses where the scanned documents are sent to.



17.1.3 Scan email size limits

Due to email size restrictions in some email servers, users might not be able to send scans exceeding a certain size to their emails. To prevent such situations, you can set the maximum size of emails with scans on the MyQ Web Interface. Emails exceeding the limit are then replaced by emails with a secure link to the scan file, which is saved on the MyQ print server.



- **Maximum email size** - Set the maximum size limit (in MB) of the email with the scan. The default value is *2047MB*.
- If the scan is bigger than the above limit, it will be sent as an email with a secure link to the scan.
  - You can edit the email **sender**, **subject** and **message** as well. You can use multiple parameters, such as *%username%*.
  - The *%links%* parameter represents the actual link to the stored scan file.

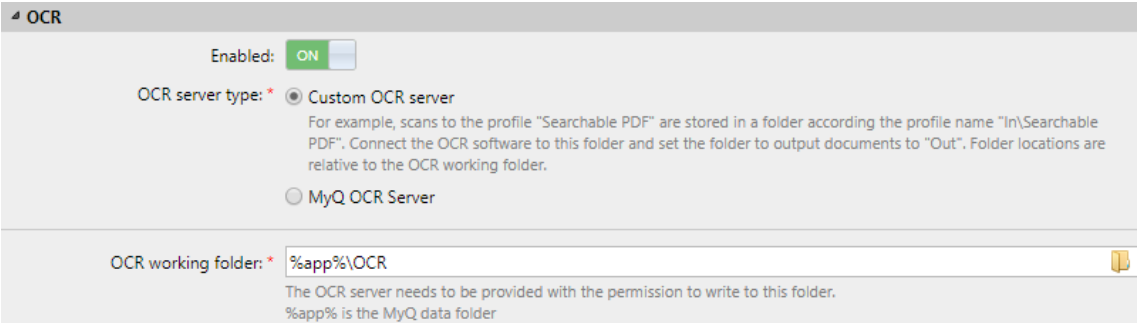
17.2 OCR

Optical Character Recognition (**OCR**) is a service that converts scanned documents to a searchable and editable format, such as an MS Word document or a searchable PDF. To provide this functionality, you can either use the MyQ OCR server, which is a part of the MyQ solution, or you can employ a third-party application.

For more information, check the MyQ OCR Server guide.

17.2.1 Activation and setup

The OCR feature has to be enabled on the **Scanning & OCR** settings tab, under **OCR**.



Choose the **OCR server type**:

- *Custom OCR server* - select this option if you have your own Document Management System (DMS) for document processing or any other OCR-capable application.
- *MyQ OCR Server* - select this option if you already have the MyQ OCR Server set up and running.

You can change the folder where the scanned data is sent in the **OCR working folder** field. It is however, not recommended to change the default folder (*C:\ProgramData\MyQ\OCR*).

The OCR folder contains two sub-folders: **in** and **out**. In the **in** folder, the scanned documents are stored before being processed. In the **out** folder, the processed documents are saved by the OCR software and are ready to be sent.

In the **Profiles** section, you can set up OCR profiles to be used in the Easy Scan terminal action.

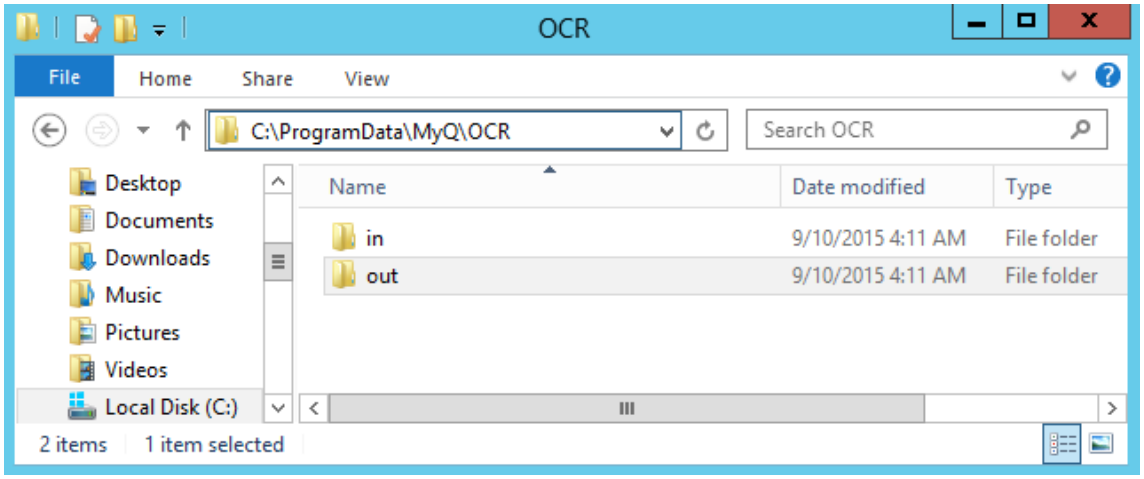
Click **Add**, set a **Name** for your new profile and select the **Output**, and click **Save**. You can now set this OCR profile as the **Default value** in the **Format** parameter of your Easy Scan terminal action.

A document sent to be processed by OCR is received with a certain delay, depending on the OCR software speed, and on the size of the document.

Running the OCR software on the same production server as MyQ may affect your system's performance.

17.2.2 OCR processing

To send a scanned document to OCR, the entered receiver email address has to be in the form: **myqocr.*folder*@myq.local**, where *folder* is the folder where the document is saved before it is proceeded by the OCR software, for example *DOC* or *PDF*. If the folder is not there, MyQ will create it.



The OCR software should listen to the document sub-folders of the **in** folder (*in\doc, in\txt,...*), process the file that was sent there, save the converted document to the **out** folder and delete the source file from the *in*folder** folder.

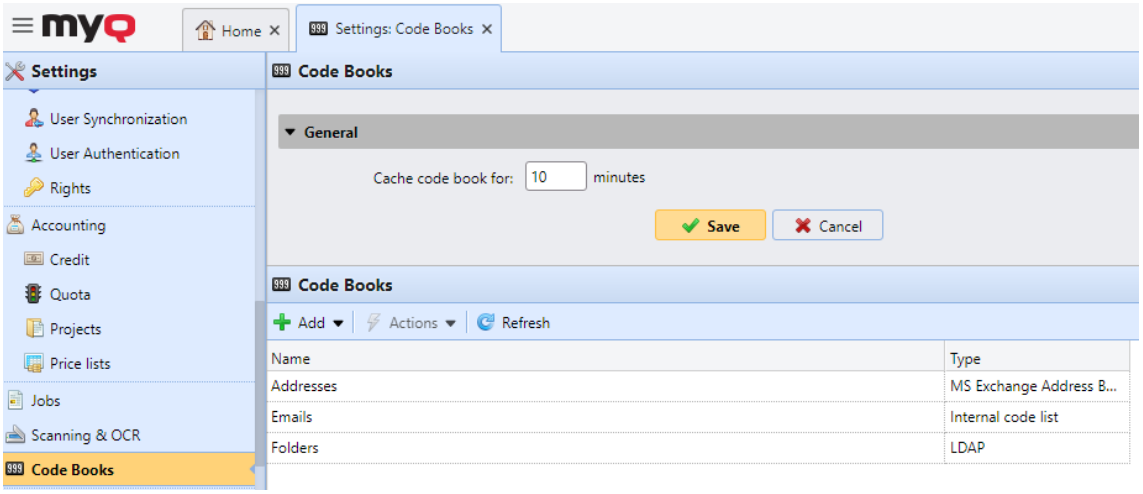
MyQ listens to the **out** folder, sends the converted file to the user and deletes it from the folder.

The converted file is sent to the folder or email address listed in the **User's scan storage** text box, in the user properties panel.

The file sent to the **out** folder by the OCR software has to have the same name as the source file in the **in***** folder. If the name of the converted file differs from the source file, it is deleted without being sent to the user.

18 Code Books

On the **Code Books** settings tab (**MyQ, Settings, Code Books**), you can add code books and code lists with defined values for each of them. These code books and lists can be used with your scan profiles in multiple ways, such as allowing users to use scan recipients from an LDAP source, set up output folders from an internal code list, search users from an MS Exchange address book, etc.

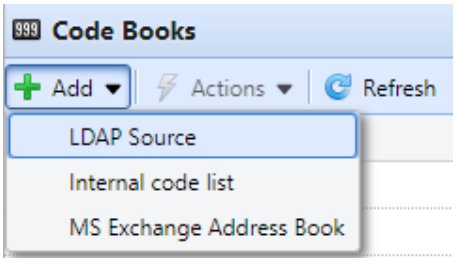


In the **General** section you can find the **Cache code book for: __ minutes** setting. The value set here determines how long the code book will be cached in MyQ, to be available in case of a lost connection between the MyQ server and the LDAP server. The default value is *10* minutes.

In the **Code Books** section, you can add and modify your Code Books.

Three types of Code Books can be added:

- LDAP Source
- Internal code list
- MS Exchange Address Book



To add a new Code Book, click **+Add** and select the type you want to add from the drop-down.

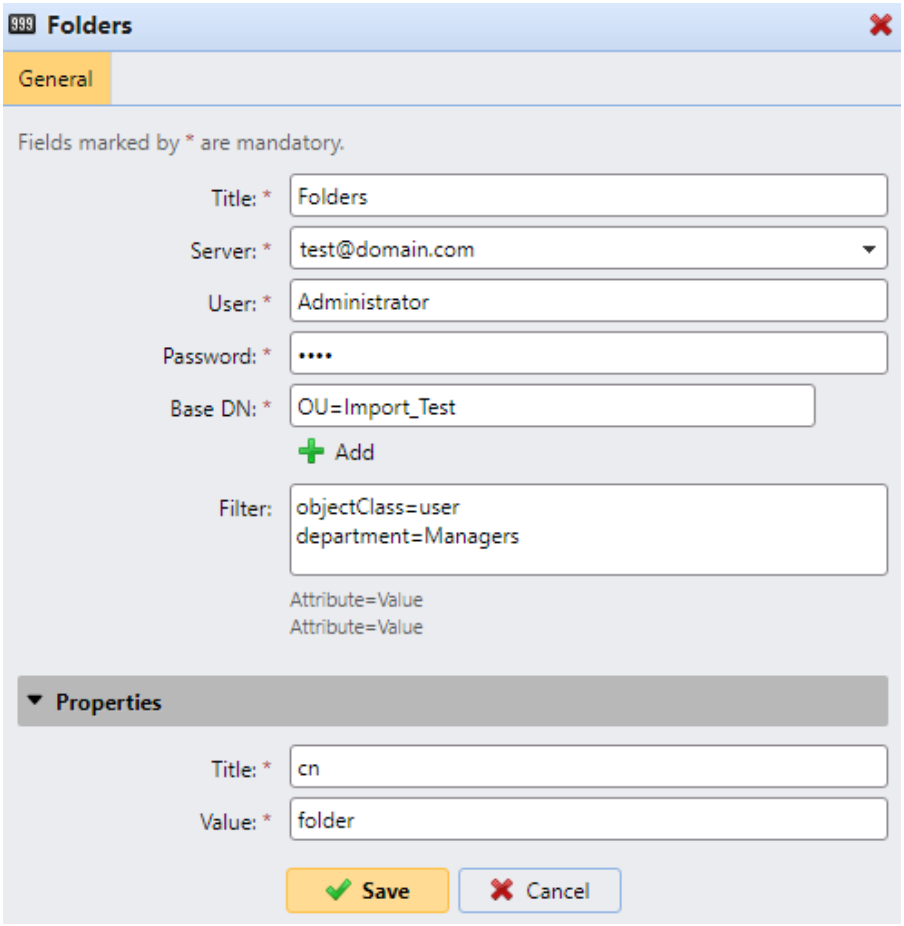
To delete a Code Book, select it, click **Actions**, and select **Delete**, or right-click on the Code Book and select **Delete**.

To edit a Code Book, select it, click **Actions**, and select **Edit**, or right-click on the Code Book and select **Edit**, or double-click on the Code Book.

18.1 LDAP Source Code Books

On the **Code Books** settings tab (**MyQ, Settings, Code Books**), you can enable selecting scan recipients directly from an LDAP server by importing the codes from that server.

In the Code Books section, click **+Add** and select *LDAP Source* from the drop-down. The new code book's properties panel opens on the right side of the screen.



On the properties panel, fill in the required information, and click **Save**:

- **Title** - The code book's name.
- **Server** - The LDAP server that you want to import the attributes from.
- **User** - The user name for accessing the LDAP domain server.
- **Password** - The password for accessing the LDAP domain server.
- **Base DN** - The base domain(s) that you import the attributes from. Click **+Add** to add a text box for an additional base DN, and then enter the domain. You can add multiple domains this way.
- **Filter** - You can filter the users import by specifying the attributes' values. **Attribute=Value**. Users with different values in this attribute are not accepted and are filtered out of the import. You can use the ***** symbol to search for substrings. The symbol can be appended from both sides. For example, if you add a cn=*in* condition, only users whose common name attribute contains "in"

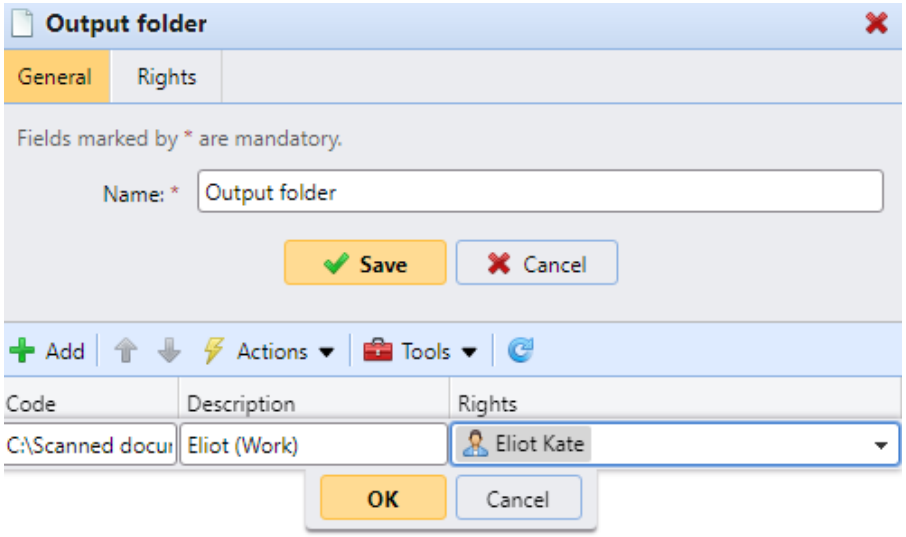
are accepted. Add one condition per one raw. Users are accepted if they satisfy at least one condition.

- **Properties**: **Title**, **Value** - Define the titles and values of the code for each user by entering their attributes from the LDAP database. For example, you can enter the *cn* attribute as the **Title** and the *folder* attribute as the **Value**. This way, each code will contain the user's folder and its title will be the user's full name.

18.2 Internal Code List

On the **Code Books** settings tab (**MyQ, Settings, Code Books**), you can predefine code lists with values and use the values as options available for users.

In the Code Books section, click **+Add** and select *Internal code list* from the drop-down. The new code book's properties panel opens on the right side of the screen.



On the properties panel, on the **General** tab, enter a **Name** for your new internal code list, and click **Save**. The new code list is added to the list on the **Code Books** settings tab.

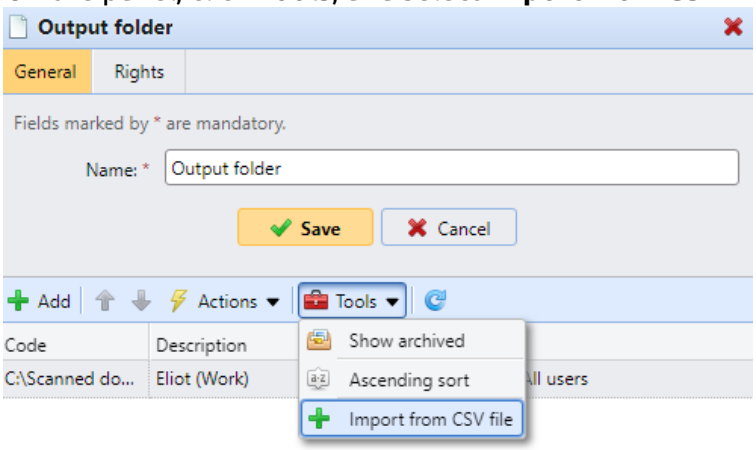
On the **Rights** tab, you can provide users or groups of users with the right to use the code list. Click **Add User** and select the user or group from the drop-down. Check the boxes for the rights you want to assign to them.

18.2.1 Add new codes to an existing code list

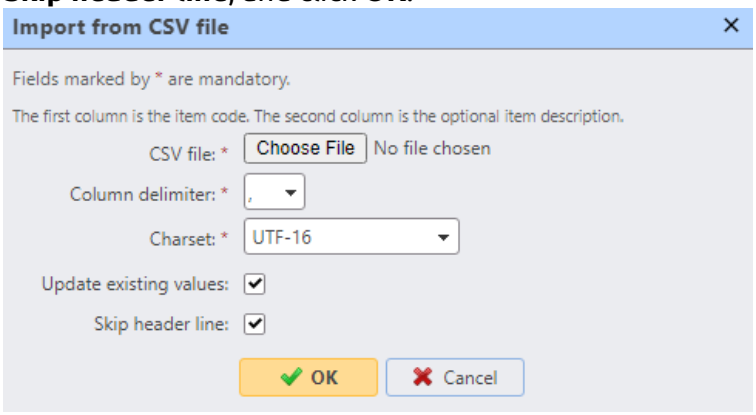
1. Double-click on the code list (or right-click the code list and click **Edit**). The code list's properties panel opens on the right side of the screen.
2. On the panel, click **+Add**.
3. Enter the **Code** name and its **Description** (the description will be shown on the terminal). You can also assign access **Rights** to this code to users or groups. Finally, click **OK**.

18.2.2 Import codes from a CSV file

1. Double-click on the code list (or right-click the code list and click **Edit**). The code list's properties panel opens on the right side of the screen.
2. On the panel, click **Tools**, and select **Import from CSV file**.



3. In the Import from CSV file panel, browse and select the CSV file that you want to import, select the **Column delimiter** used in the file, select the character set (**Charset**) used in the file, choose if you want to **Update existing values** and/or **Skip header line**, and click **OK**.



Each line of the CSV file has to consist of either one, two or three columns. The first column contains the code, while the optional second and third columns contain the code's description and the users or groups with access to this code. For example:

Code1,This is Code 1,All users
Code2,This is Code 2,"eliot.kate"
Code3, This is Code 3
Code4

18.3 MS Exchange Address Book

You can use an MS Exchange Address Book to retrieve personal contacts from the user's mailbox from the MS Exchange Server. You can set parameters for Email, Fax and Phone.

The following versions are supported:

- MS Exchange Server 2013 SP1 (from build 15.0.847.32)
- MS Exchange Server 2016
- MS Exchange Server 2019

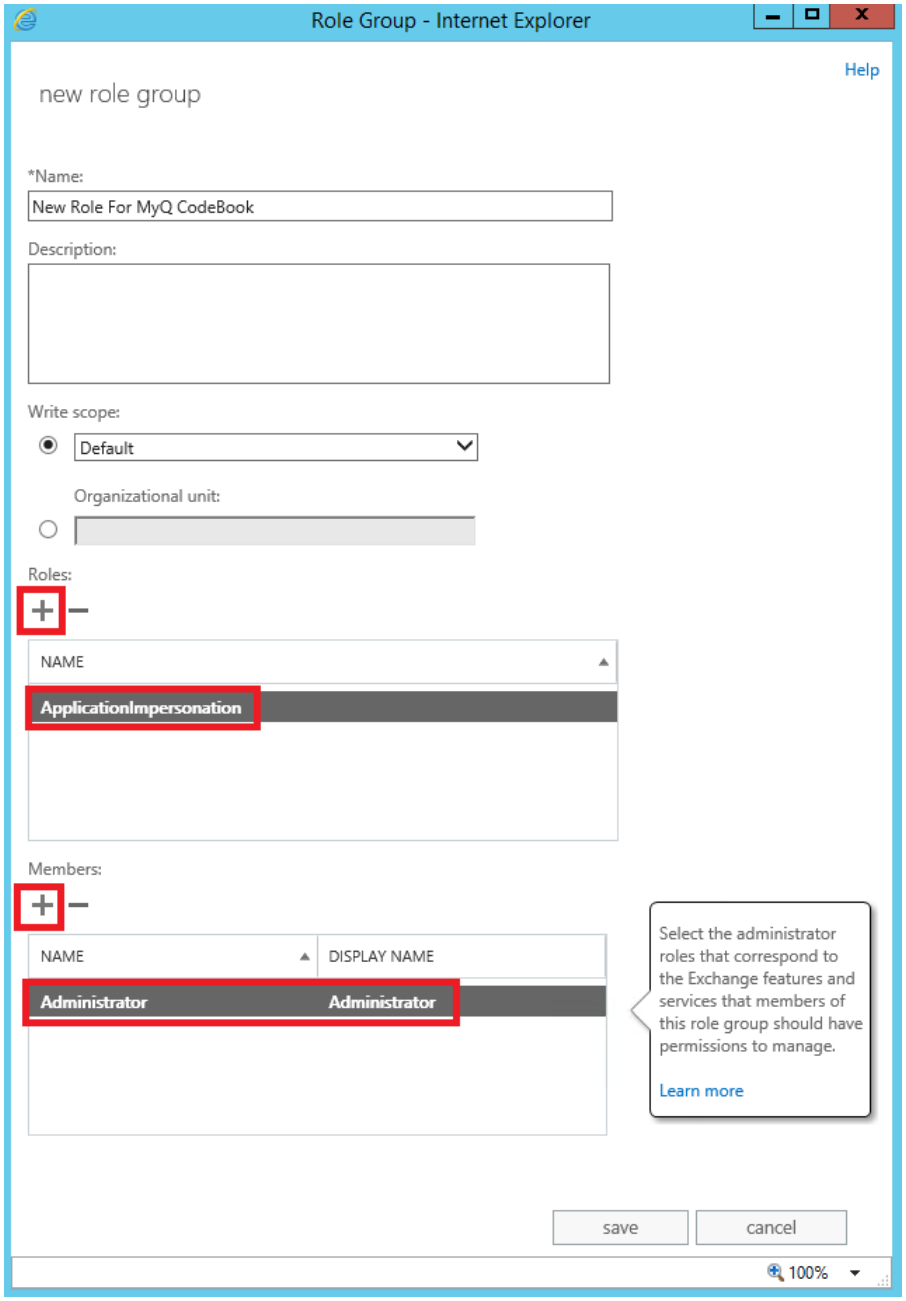
18.3.1 MS Exchange Server Configuration

All settings on IIS (Internet Information Services) have to be set up correctly to allow third-party applications (MyQ) to communicate with the EWS service.

On your MS Exchange Server, the only necessary setting is configuring an account with the '**ApplicationImpersonation**' right, in order to be able to access other users' mailboxes.

To do that:

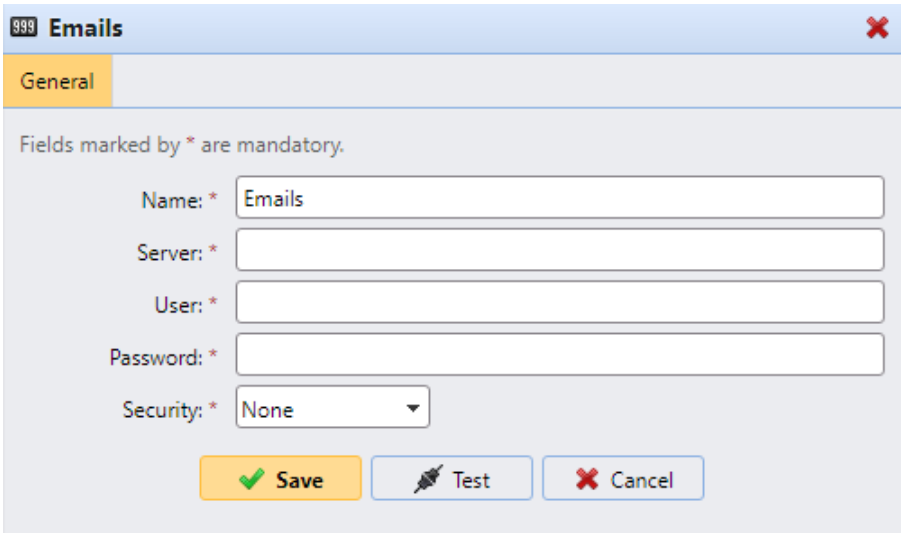
- Log in to your Exchange Admin Center.
- Go to the **permissions** tab, and Create (+) a new **Admin Role**.
- In this new role, add the **ApplicationImpersonation** right.
- In this new role, add user/admin account that you want to use in MyQ for accessing personal contacts of other users' mailboxes.



18.3.2 Adding a new MS Exchange Code Book in MyQ

On the **Code Books** settings tab (**MyQ, Settings, Code Books**), in the Code Books section, click **+Add** and select *MS Exchange Address Book* from the drop-down. The new code book's properties panel opens on the right side of the screen.

On the properties panel, fill in the required information:

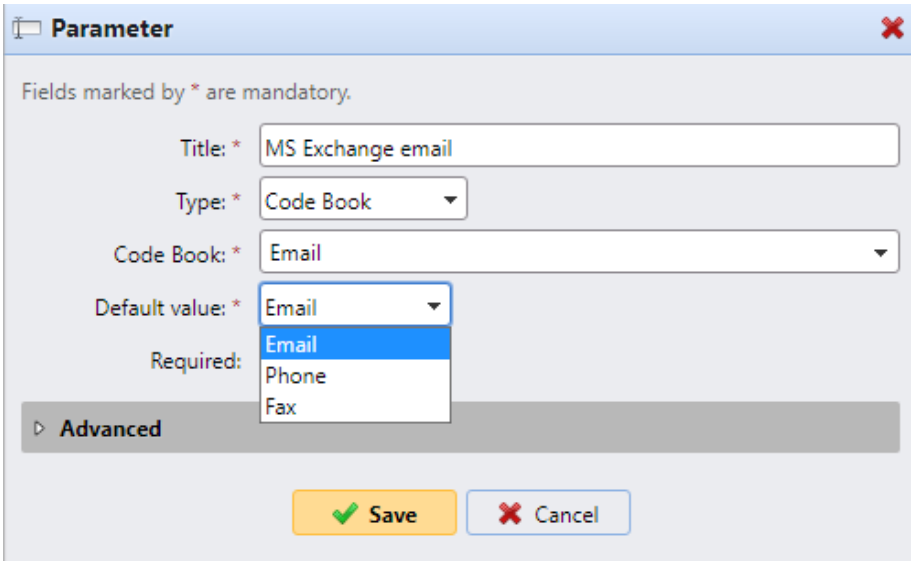


- **Name** - Add a name for the code book.
- **Server** - The host name or the IP address of the MS Exchange Server.
- **User** - The name of the user who has the required rights (*applicationImpersonation* to access other users' mailboxes) on the MS Exchange Server.
- **Password** - The above user's password.
- **Security** - Select *None* or *SSL*.

Click **Test** to check the connection to the MS Exchange Server, and click **Save** to make the new MS Exchange code book available.

18.3.3 Using MS Exchange Code Books on a MyQ scan profile

Go to **MyQ, Settings, Terminal Actions** and create a new parameter for a scan profile of your choice. To do that, double-click the scan profile. In the properties panel that opens on the right side of the screen, go to the **Parameters** tab. Click **+Add** and fill in the required information to setup the new parameter.



- **Title** - Add a title for this new parameter.
- **Type** - Select *Code Book* from the drop-down.
- **Code Book** - Select your MS Exchange Address Book from the drop-down.
- **Default value** - Select the type of contact to be displayed for the user:
  - *Email* - Will display emails from retrieved contacts.
  - *Phone* - Will display phone numbers from retrieved contacts.
  - *Fax* - Will display fax numbers from retrieved contacts.
- **Required** - Mark the checkbox if you want to make this parameter mandatory.

After opening the MS Exchange code book on a terminal, only the first 50 items are shown. Users can search for any non-listed items by using the name of the hidden contact. Email, Fax and Phone are separately shown.

19 Credit

With the credit accounting feature activated, users can copy, print and scan only if they have enough credit on their account in MyQ. Printing is allowed only for print jobs that do not exceed the credit and copying is terminated immediately after the credit is exceeded. The credit system can be restricted to selected users and groups.

Users can view the current amount of credit on their accounts on the MyQ Web Interface and in the MyQ mobile application. If a printing device is equipped with an embedded terminal or a reader with an LCD display, the logged users check the current state of their credit there and are allowed to select only those jobs that do not exceed their credit.

Based on the setup and properties of the printing environment, a variety of recharge methods may be employed. The MyQ administrator can manage the credit on the MyQ Web Interface, and also provide the users with the option to recharge the credit themselves on embedded terminals, on recharging terminals, in the MyQ mobile application, via recharging vouchers, or via a third-party payment method.

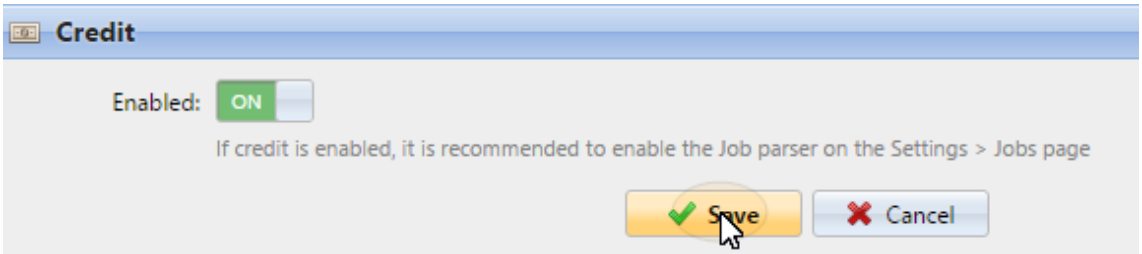
The MyQ Administrator (and authorized MyQ users) can also reset the credit to a specific amount on the MyQ Web Interface.

19.1 Activation and setup

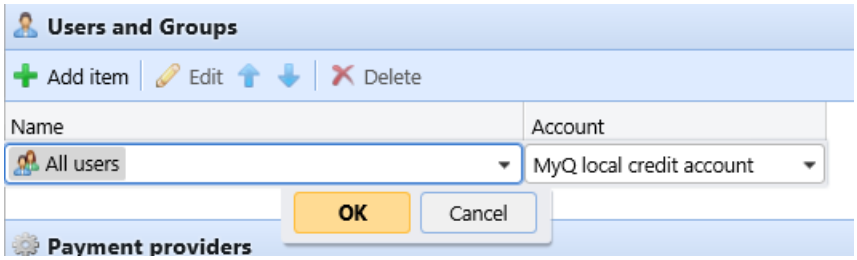
The activation and setup of credit accounting is managed on the **Credit** settings tab (**MyQ, Settings, Credit**).

To set up credit accounting:

Enable credit accounting on the **Credit** settings tab:



Activate credit for a user or for a group of users:



- Under **Users and Groups**, click **+Add item**. A new item appears on the list of users and groups on the **Credit** settings tab.
  - Select a **Name** from the drop-down list:
  - Select an **Account** from the drop-down list. The available options are:
    - Managed by the printer

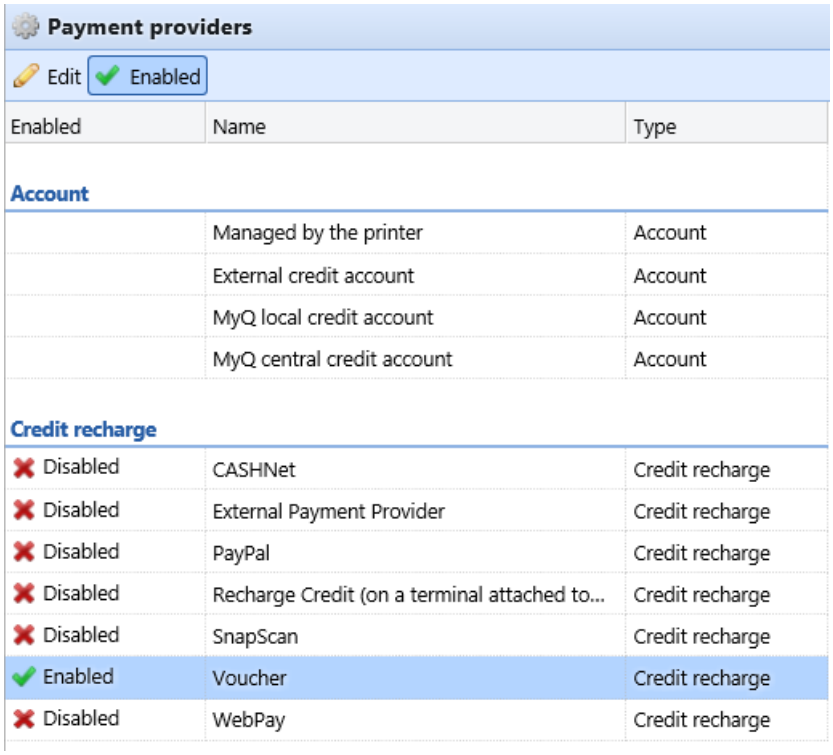
    - External credit account
    - MyQ local credit account
    - MyQ central credit account
- Click **OK** to save the settings.

Enable/disable methods of payment for credit recharge

Available payment methods:

- Recharge Credit (on a terminal attached to a printer)
- Voucher
- PayPal
- External Payment Provider
- WebPay
- Recharge Terminal
- CASHNet
- TouchNet uPay
- SnapScan

To enable any of these options (if disabled), select it in the **Payment providers** section, and then click **Enabled** on the bar at the top of the section (or right-click the item, and then click **Enabled** on the shortcut menu).



19.2 Manual credit recharge

The administrator (and users authorized to recharge credit) can manually recharge the credit of each user to a specific value. This can be done either on the **Credit Statement** main tab, or on the **Users** main tab in the MyQ Web administrator interface.

On the **Credit Statement tab**, you first open the credit recharge action, and subsequently select the users and groups to recharge credit.

On the **Users tab**, first select the users or group, and then recharge their credit.

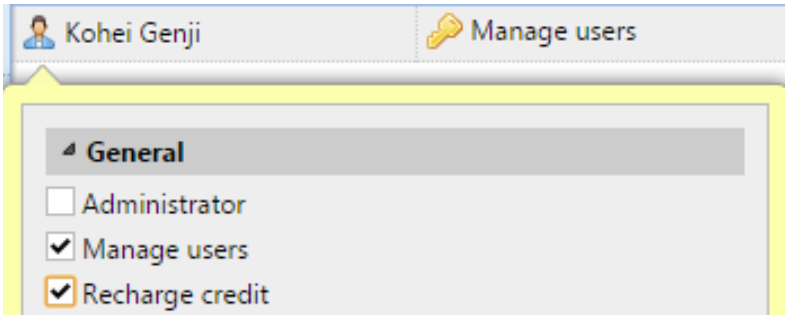
Users' credit can be reduced by entering a negative number in the recharge credit dialog box. By entering *-100*, the credit is decreased by 100.

19.2.1 Providing users with rights to recharge credit

By default, the only person who can recharge credit is the administrator. However, the administrator can authorize a MyQ user to recharge credit as well. The user needs to be provided with the rights to access the credit settings and to recharge credit. This is done on the **Rights** settings tab of the MyQ Web Interface.

To authorize a user to recharge credit on the **Credit Statement** tab, you need to provide them with the right to **Recharge credit**.

To authorize a user to recharge credit on the **Users** tab, you need to provide them with the right to **Recharge credit** and the right to **Manage Users**.



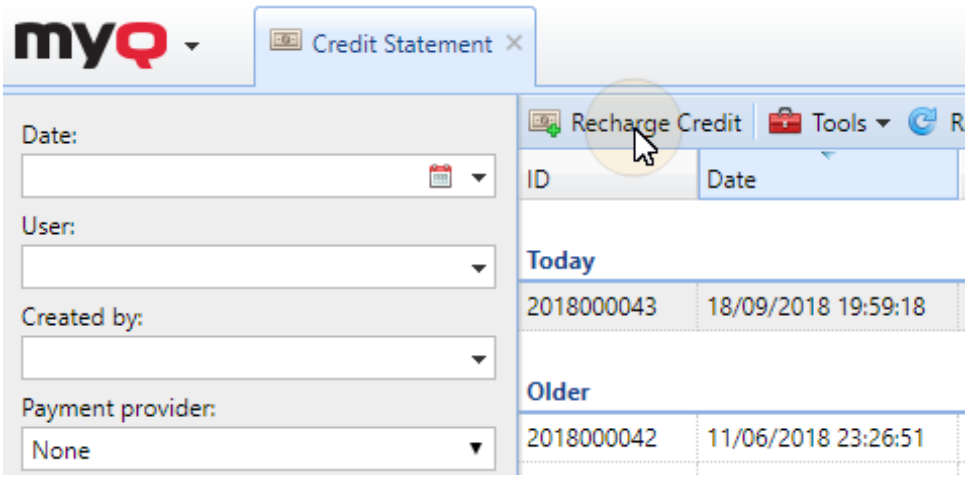
The authorized user can then recharge credit on their MyQ Web interface in the same way as the MyQ administrator.

19.2.2 Recharging credit on the Credit Statement tab

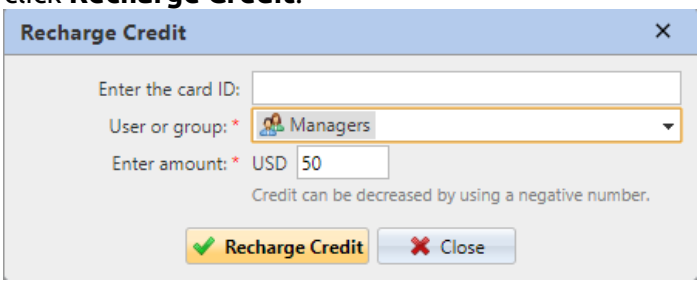
On the **Credit Statement** tab, you can overview the changes in the credit balance of MyQ users, and also recharge credit to users and groups. To open the tab on the MyQ Web administrator interface, go to **MyQ, Credit Statement**.

To recharge credit to users or groups:

1. Click **Recharge Credit**. The Recharge Credit dialog box appears on the tab.



2. In the dialog box, either **Enter the card ID** of a user card, or select the **User or group** to recharge the credit to, then **Enter amount** to be recharged, and lastly click **Recharge Credit**.

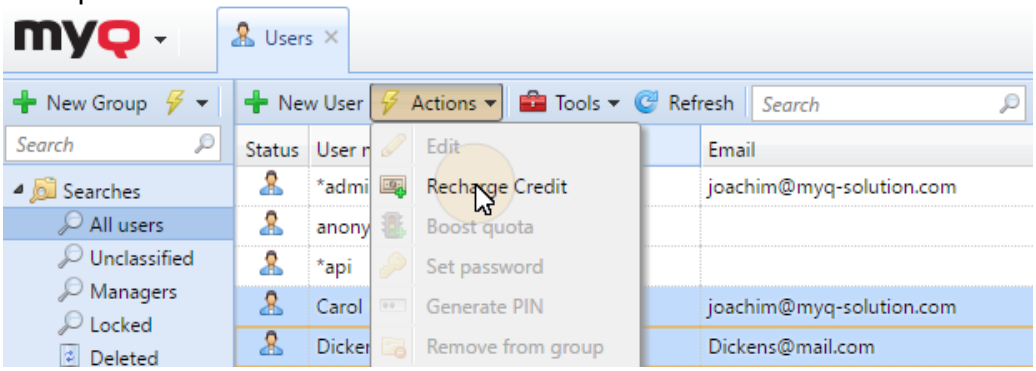


19.2.3 Recharging credit on the Users main tab

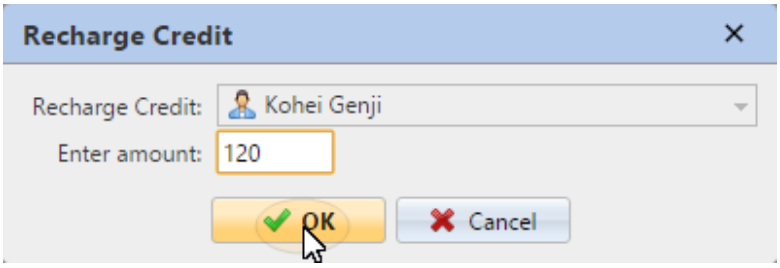
To open the **Users** main tab on the MyQ Web administrator interface, go to **MyQ, Users**.

To recharge credit to selected users:

1. Select the users.
2. Click **Actions**.
3. Click **Recharge Credit** in the **Actions** drop-down. The Recharge Credit dialog box opens.

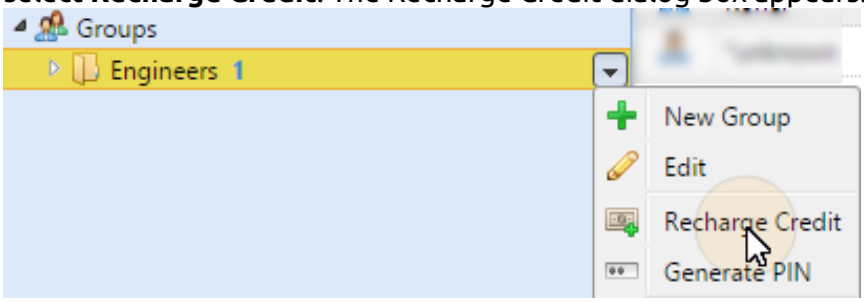


4. **Enter amount** to be recharged, and then click **OK**. The credit is increased by the specified amount.



To recharge credit to a group of users:

1. In the panel on the left side of the **Users** main tab, right-click the group, and select **Recharge Credit**. The Recharge Credit dialog box appears.



2. In the dialog box, **Enter amount** to be recharged and click **OK**. The credit is increased by the specified amount.

19.3 Recharging credit by vouchers

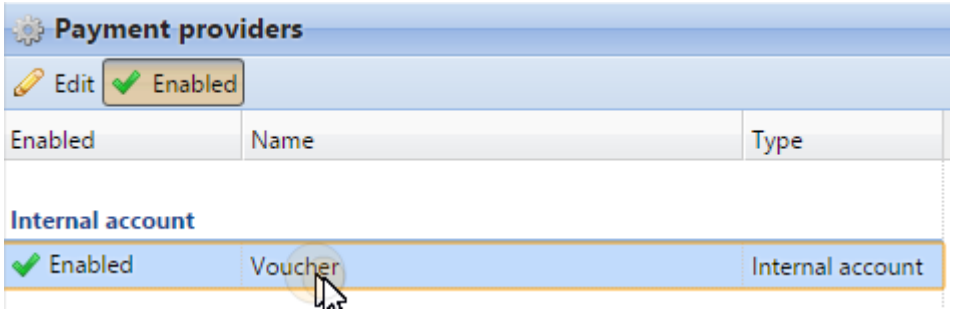
The MyQ administrator (and users authorized to manage vouchers) can generate and print any number of vouchers of a defined value to be distributed to users.

The vouchers can be sold to MyQ users through any standard distribution channel. Once the user has the credit voucher, they can recharge their credit on their account on the MyQ Web Interface, on embedded terminals, on MyQ TerminalPro terminals and in the MyQ mobile application.

All generated and used vouchers are logged in the MyQ database. The information about which voucher was used and for which user can be accessed on the MyQ Web administrator interface. This ensures full control and transparency and enables the administrator to prevent possible misuse.

19.3.1 Setting the voucher format

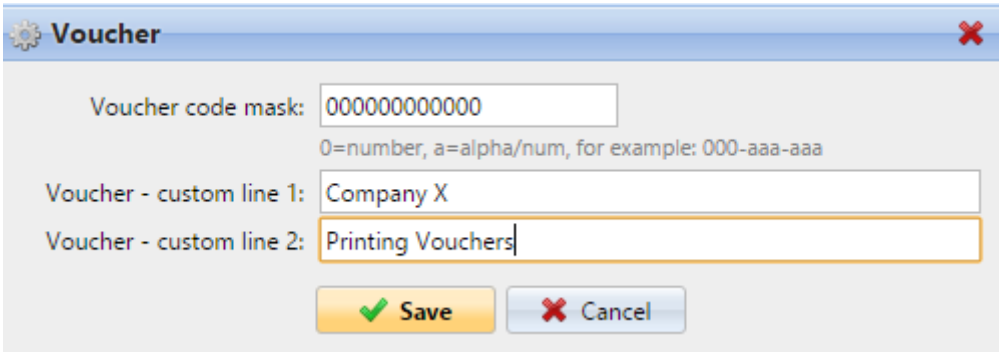
Before the vouchers are generated, it is necessary to set the format of the voucher unique code and define the text printed on the voucher. These parameters can be set and modified on the **Credit** settings tab, under **Payment providers**, under **Internal account**. Double-click the **Voucher** item (or select the item and click **Edit**) to open the **Voucher** properties panel.



The unique code format can be defined by creating a **Voucher code mask** – a predefined code template consisting of zeroes and lower case a's. Zeroes are substituted by numbers and a's are substituted by upper case letters or numbers. For example, the *00a0000aaa* mask will generate numbers such as *86D9841POE, 03E8976E67,* etc.

Always set the code format adequate to the number of users and the frequency of the voucher generation process, to ensure a sufficient variety of codes. If the amount of the currently valid codes is large and the variety not sufficient, the chance of randomly guessing the valid code number is high and the credit system can be easily bypassed.

The text entered in the **Voucher-custom lines 1 and 2** fields is displayed on the printed vouchers. You
can enter, for example, the name of your company and additional information.



Do not forget to set the currency on the **General** settings tab, if you have not set it earlier. The currency on the printed voucher is the same as the one set in MyQ.

19.3.2 Custom logo for Credit Vouchers

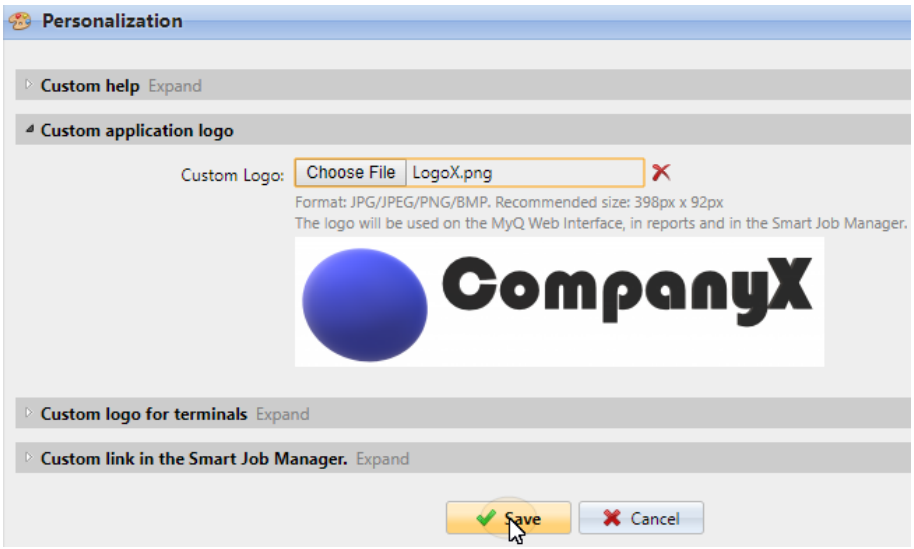
If you want to use your own logo on MyQ credit vouchers instead of the default MyQ logo, you can import the new logo on the **Personalization** settings tab in the MyQ Web Administrator Interface.

The file with the logo has to be in the *JPG, JPEG, PNG* or the *BMP* format; the recommended size of the logo is *398px* x *92px*.

To import the logo:

1. On the MyQ Web administrator interface, open the **Personalization** settings tab. (**MyQ, Settings, Personalization**).

2. On the tab, under **Custom application logo**, click **+Add**, browse and upload the file with the logo, and lastly click **Save** at the bottom of the tab. A preview of the new logo is displayed on the tab.

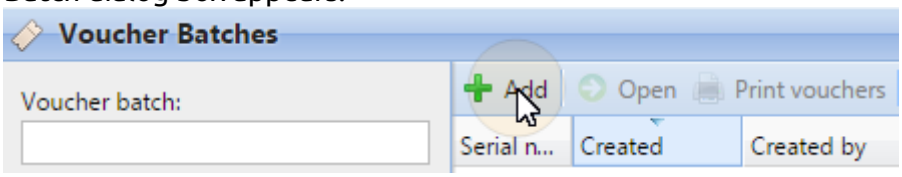


19.3.3 Voucher Batches

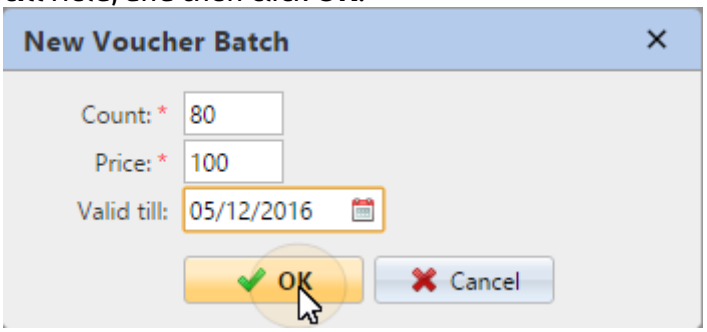
Vouchers can be generated on the **Voucher Batches** tab of the MyQ Web Interface. To open this tab, go to **MyQ, Voucher Batches**.

To generate new vouchers:

1. On the bar at top of the **Voucher Batches** tab , click **+Add**. The New Voucher Batch dialog box appears.



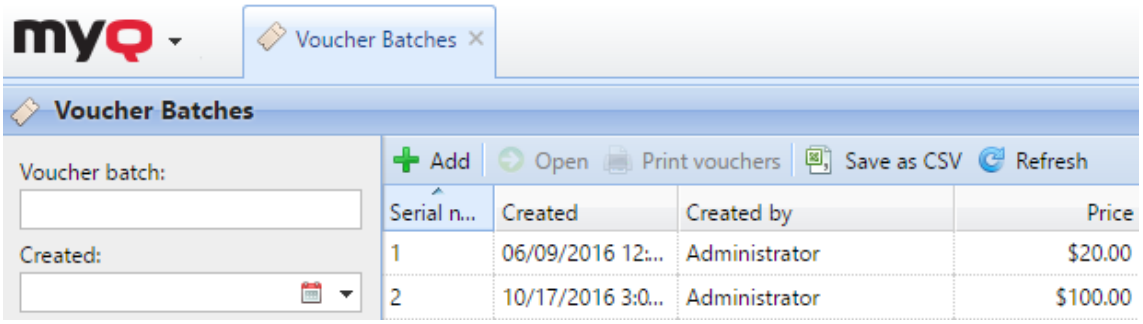
2. In the dialog box, enter the number of vouchers to be generated in the **Count** field, the **Price** of the vouchers in the batch, add the validity period in the **Valid till** field, and then click **OK**.



The new voucher batch record is displayed in the voucher batches list. You can overview all of the vouchers by double-clicking this record.

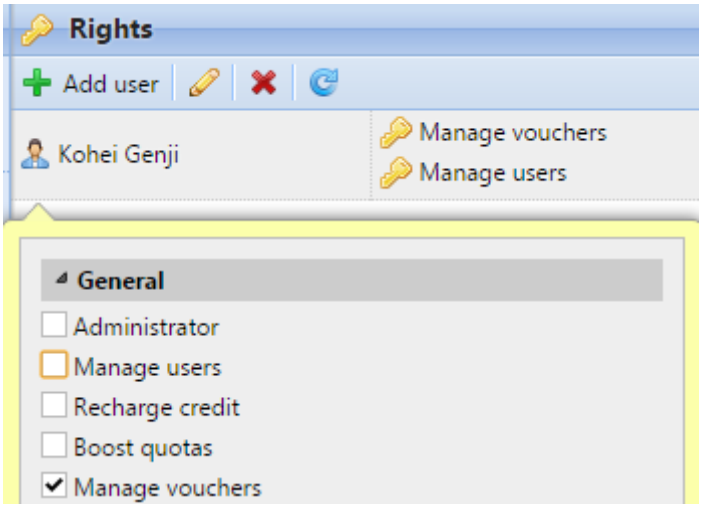
Managing Voucher Batches

Voucher batches can be filtered by serial number, date, creator, price and expire date. From the **Voucher Batches** main tab, you can export the list of voucher batches to a CSV, and display and print vouchers included in particular batches.



19.3.4 Providing users with rights to manage vouchers

To enable users to manage vouchers on the **Voucher Batches** main tab, provide them with the **Manage Vouchers** rights.



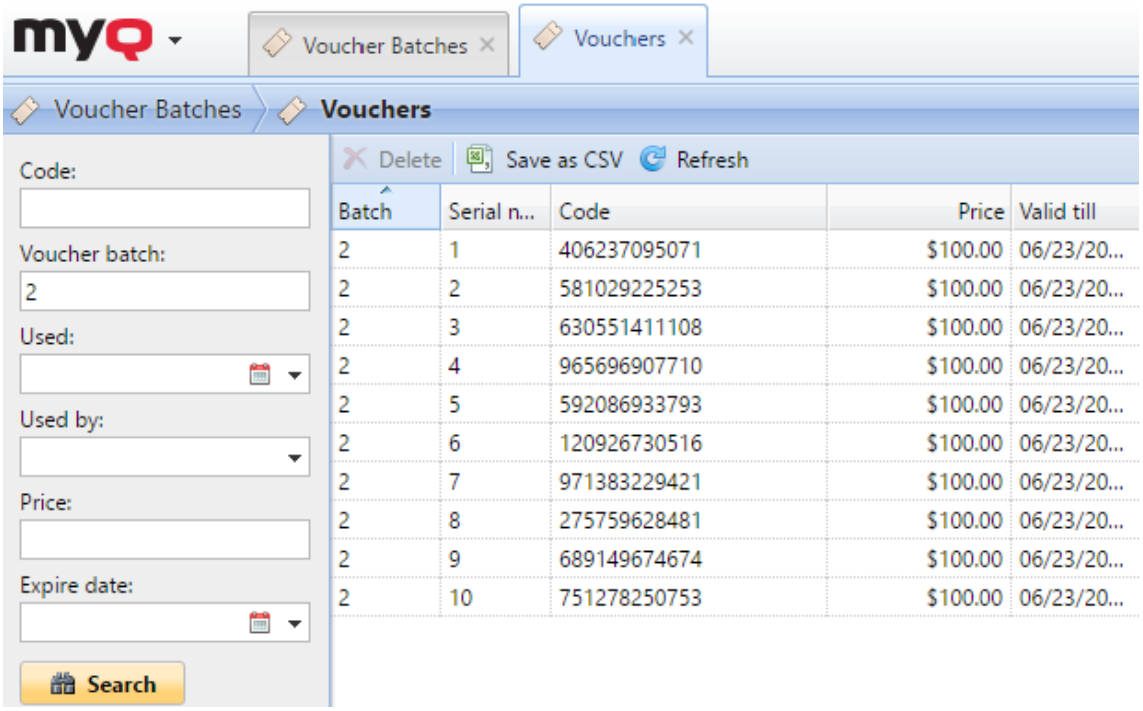
For more information about rights and how to provide them, see **Rights**.

19.3.5 Vouchers usage overview

To open the table of all the vouchers generated in one batch, double-click the batch on the **Voucher Batches** main tab (or select the batch, and then click **Open** on the bar at the top of the tab).

In the table, you can see records of all of the generated vouchers with information such its unique code, price, validity, the current status of the voucher usage, etc. If the number of records is too high to be displayed clearly, you can filter them by using filters on the left side. Vouchers can be filtered by code, voucher batch, price, etc.

To delete a voucher, select it in the table and click **Delete** on the bar at the top of the tab. When a voucher is deleted, the code on the voucher becomes invalid.



19.4 Recharging credit via PayPal

Another way of recharging credit in MyQ is to let users directly buy the credit via PayPal on their accounts on the MyQ Web interface.

A PayPal Business account is required to receive the payments.

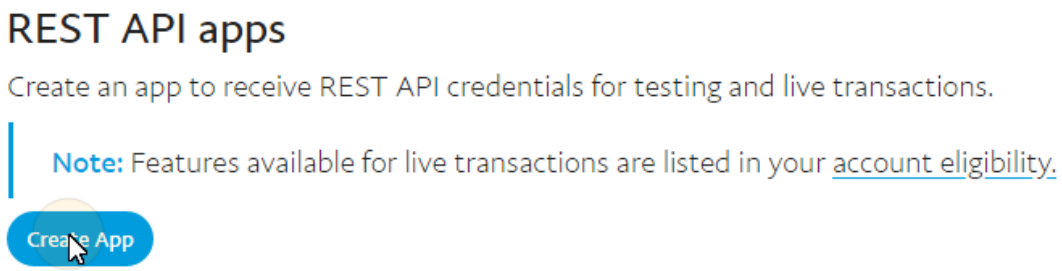
The currency used on the PayPal account of the paying users has to match the currency set on the MyQ server. In case someone pays in a different currency, the payment does not go through and stays in the pending transactions of the receiving PayPal account. In order to receive the payment, the administrator has to approve the transaction on the PayPal account. After this, the credit must be manually recharged on the MyQ server as the information about the payment is not sent to MyQ.

19.4.1 Setting up the PayPal payment option

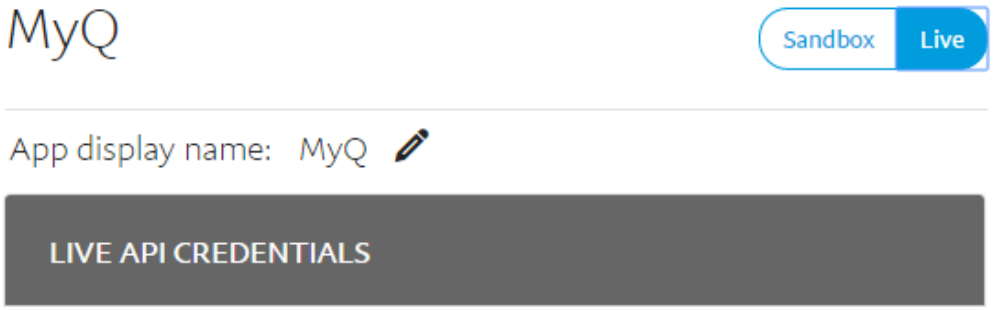
To set up PayPal as a payment option, you have to create a new App to link your company's PayPal business account with MyQ, and then set up the PayPal payment option on the MyQ Web Interface.

19.4.2 Create a new REST API app in the PayPal Developer environment

1. Log in to the PayPal Developer environment (https://developer.paypal.com/) with your PayPal Business account's credentials, and then open the **Dashboard**.
2. On the **Dashboard**, under **MyApps & Credentials**, create a new REST API app. The new app's settings tab opens.

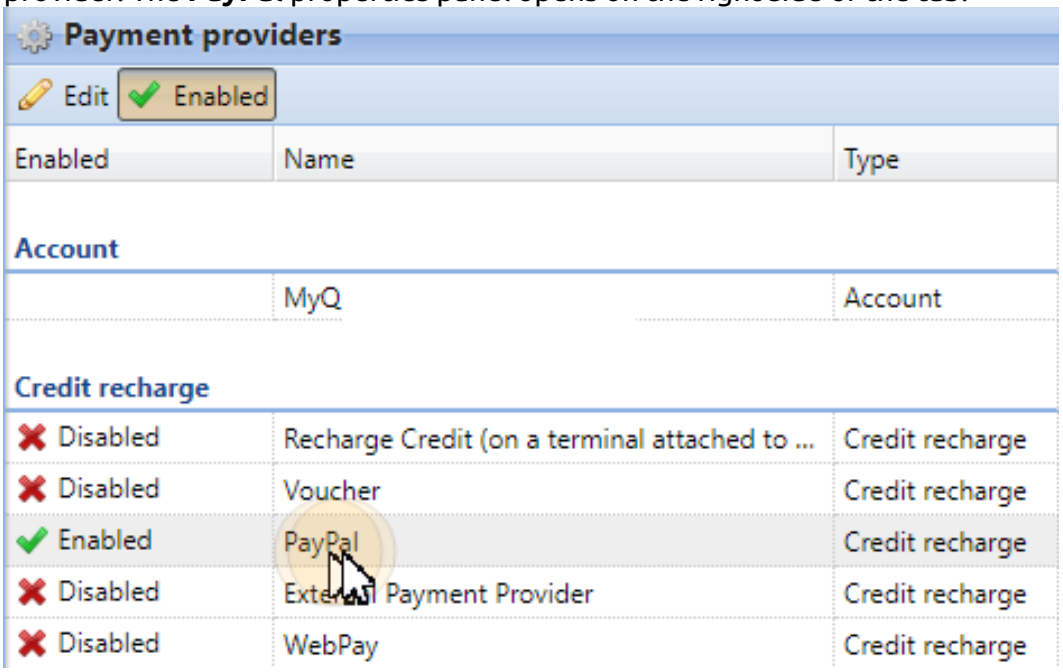


3. Select **Live** at the upper-right corner of the tab, and remember (copy) the app's **Client ID** and **Secret**. The credentials will be used to connect the account to MyQ.

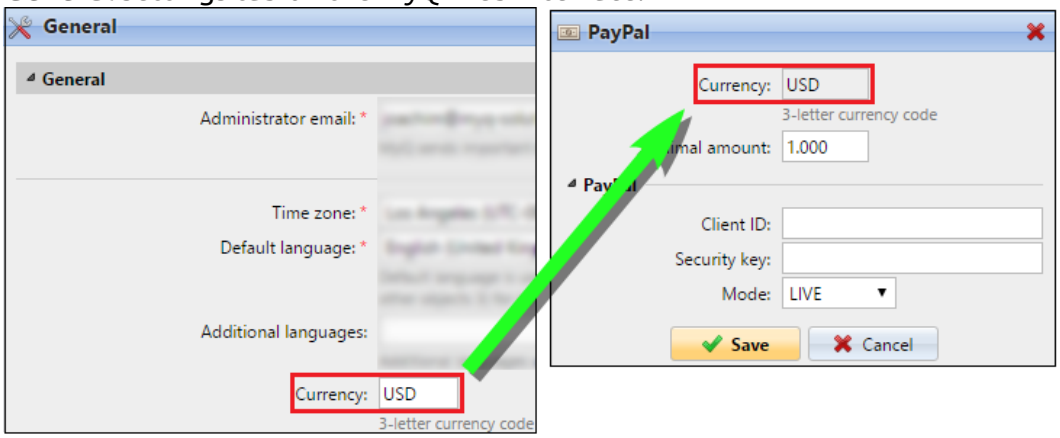


19.4.3 Set up the PayPal payment option on the MyQ Web Interface

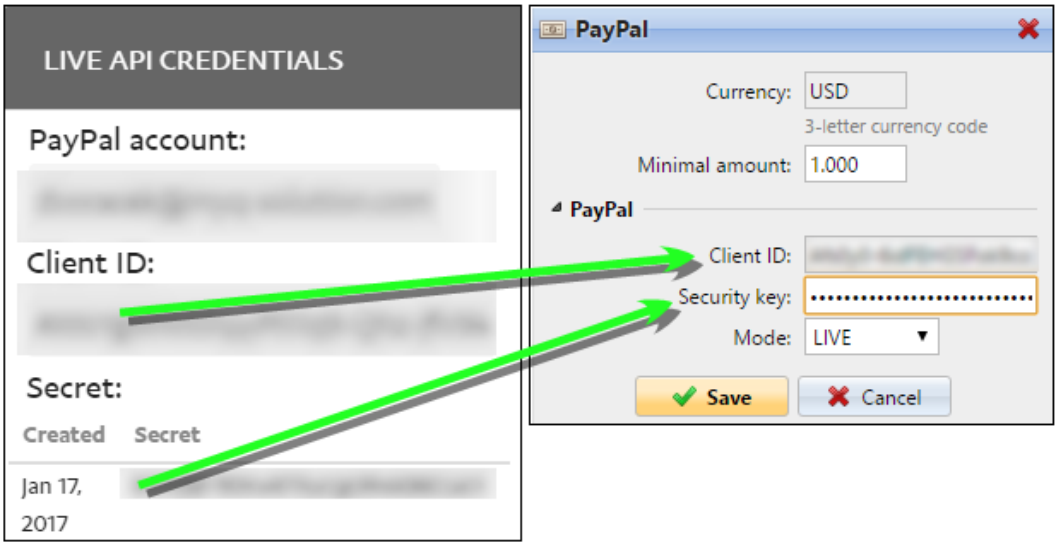
1. Open the **Credit** settings tab (**MyQ, Settings, Credit**).
2. On the tab, under **Payment providers**, double-click the **PayPal** payment provider. The **PayPal** properties panel opens on the right side of the tab.



3. The value of the **Currency** setting corresponds to the currency set on the **General** settings tab on the MyQ Web Interface.



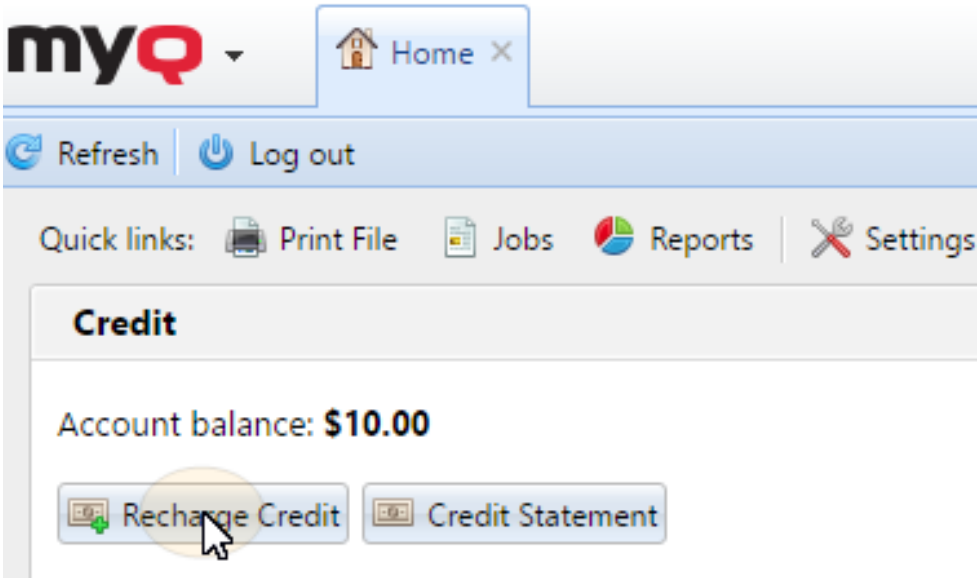
4. Type the minimal amount that users will have to pay when they buy credit.
5. Enter the **Client ID** of the REST API app into the **Client ID** text box on the PayPal properties panel and the **Secret** into the **Security key** text box below it.



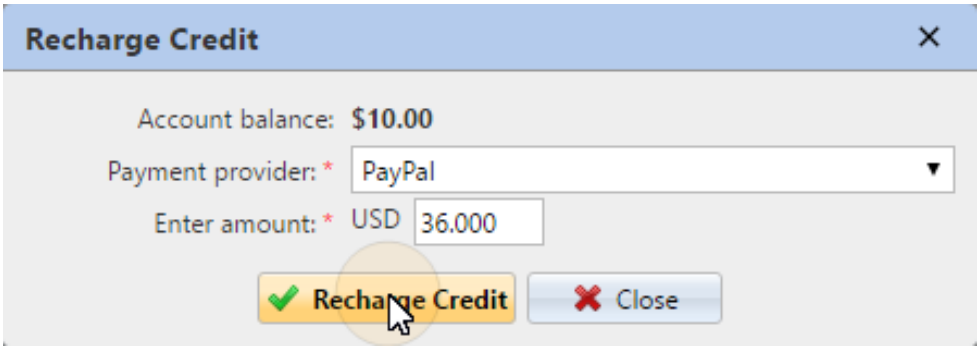
6. Make sure that the *LIVE* **Mode** is selected, and then click **Save**. (The *SANDBOX* mode is used only for testing purposes).

19.4.4 Recharging credit via PayPal on the user's account on the MyQ Web Interface

First of all, the user needs to log in to their account on the MyQ Web Interface. To recharge the credit there, the user has to click **Recharge credit** under **Credit**. The Recharge credit dialog appears.



In the dialog box, the user has to select the **PayPal** payment provider, enter the amount of credit that they want to buy, and then click **Recharge Credit**.



A window with the PayPal payment options opens in the web browser; the rest of the steps correspond to the standard PayPal payment process.

After the payment is successfully sent to MyQ, the **Payment successful** dialog box appears.

PayPal tries to connect to the MyQ server via the hostname or IP address that is set on the **Network** settings tab of the MyQ Web Interface. In case a hostname is set on the tab and paying users receive the "*This site can't be reached / XYZ's server DNS address could not be found. / DNS_PROBE_FINISHED_NXDOMAIN"* message, try to replace the hostname with the IP address of your server.

19.5 Recharging credit via WebPay

The WebPay payment gate enables customers to directly pay for their credit via a payment card or via a digital wallet.

19.5.1 Setting up WebPay

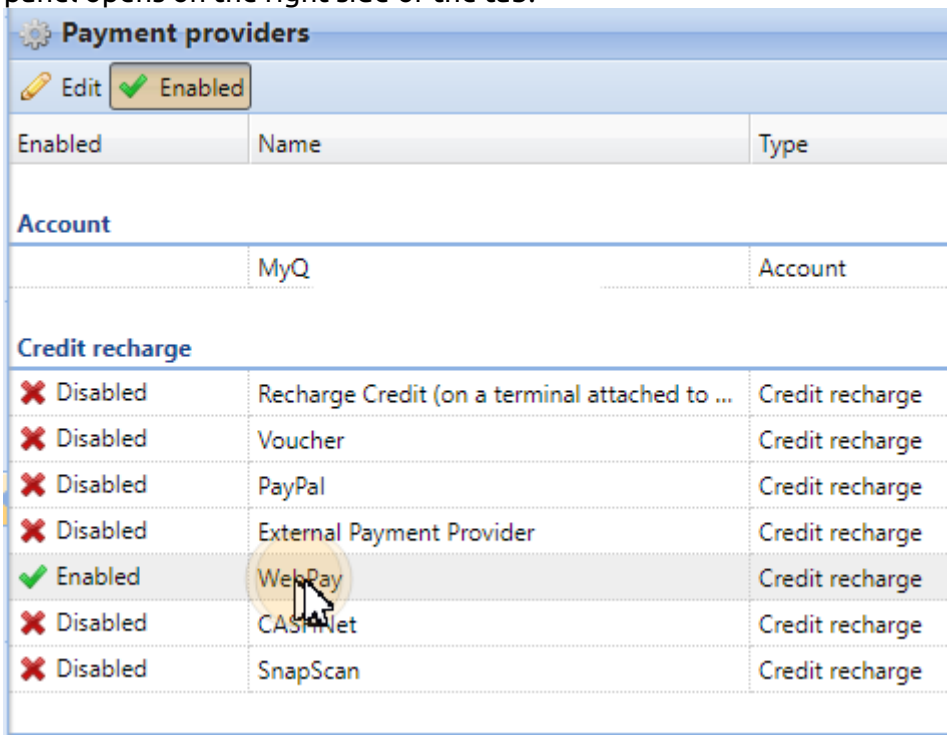
You need to have a WebPay account, get a public and a private key; the public key has to be uploaded to the WebPay server and the private one needs to be uploaded to MyQ. Also, you need to remember/copy the password of the private key. You can either use your own keys (for more information, check the WebPay documentation) or use the WebPay tools to create new ones.

MyQ needs the following data:

- **Merchant number**: The Merchant number can be found on the WebPay portal, under **Key management**.
- **Private key**: The private key can be generated on the WebPay portal, under **Key Management**. It can be in the *.key*, *.pem* or *.crt* format.
- **Private key password**: The private key password is the password that is provided to WebPay during private key generation, or the passphrase used to create the private key manually.

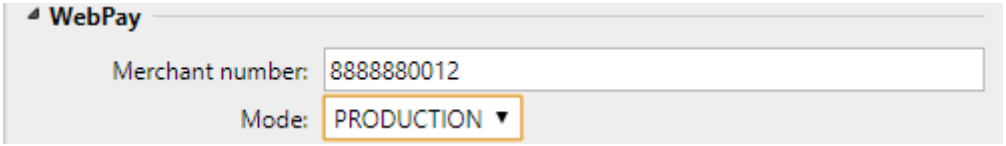
19.5.2 Setting up the WebPay payment option on the MyQ Web Interface

1. Open the **Credit** settings tab (**MyQ, Settings, Credit**).
2. On the tab, under **Payment providers**, right-click the **WebPay** payment provider, and then click **Edit** on the shortcut menu. The **WebPay** properties panel opens on the right side of the tab.

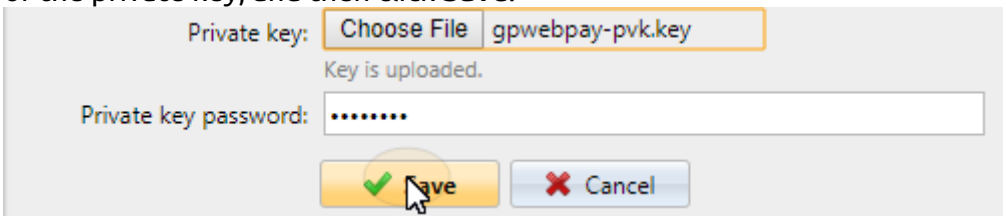


3. The value of the **Currency** setting corresponds to the currency set on the **General** settings tab of the MyQ Web Interface.
4. Type the **minimal amount** that users will have to pay when they will buy credit.

5. Enter the **Merchant number** of the REST API app into the **Merchant number** text box and set the **MODE** to *PRODUCTION*.

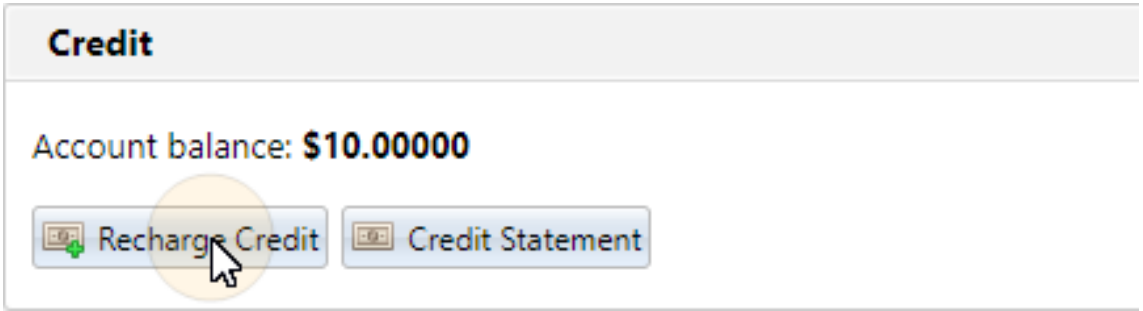


6. Upload the **Private key** from WebPay (click **Choose File**, select the file, and then click **Open**), enter the **Private key password** provided during generating of the private key, and then click **Save**.

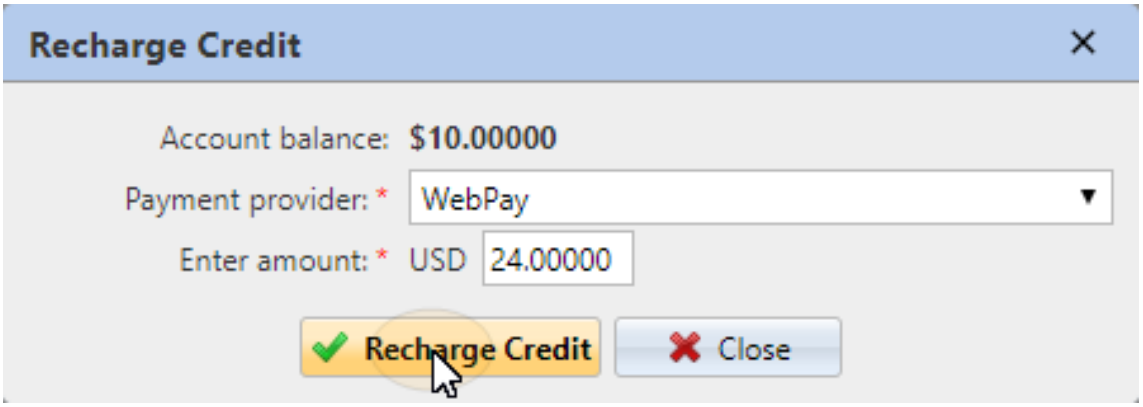


19.5.3 Recharging credit via WebPay on the user's account on the MyQ Web Interface

First of all, the user needs to log in to their account on the MyQ Web Interface. To recharge the credit there, the user has to click **Recharge credit** under **Credit**. The Recharge credit dialog appears.



In the dialog box, the user has to select the **WebPay** payment provider, enter the amount of credit that they want to buy, and then click **Recharge Credit**.



A window with the **WebPay** payment options opens in the web browser; the rest of the steps correspond to the standard WebPay payment process.

After the payment is successfully sent to MyQ, the **Payment successful** dialog box appears

> WebPay tries to connect to the MyQ server via the hostname or IP address that is set on the **Network** settings tab of the MyQ Web Interface. In case a hostname is set on the tab and paying users receive the "*This site can't be reached / XYZ's server DNS address could not be found. / DNS_PROBE_FINISHED_NXDOMAIN*" message, try to replace the hostname with the IP address of your server.

19.6 Recharging credit via CASHNet

The **CASHNet** payment gate enables customers to directly pay for their credit via a payment card or via a digital wallet.

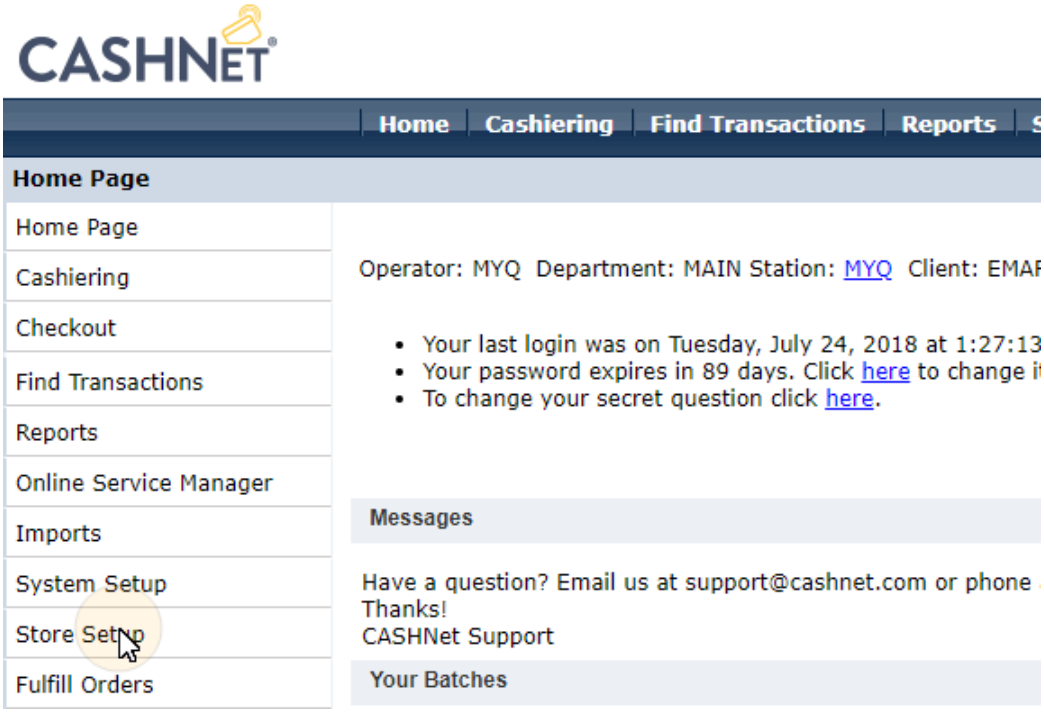
To be able to integrate the **CASHNet** payment gate into MyQ, you need to have a **Checkout store** created by the provider of the service. For the correct setup and MyQ integration, you need to save the following data:

- **Operator ID**, **Password**, **Station**, and **Client Code** are necessary for logging in to the CASHNet Web User Interface.
- **Merchant name**, **Station**, **Store URL**, and **Item code** of the **Checkout store** are necessary for the integration into MyQ.

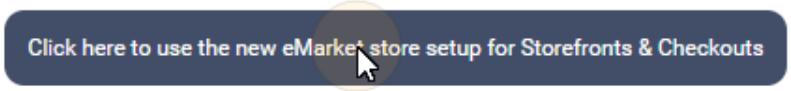
19.6.1 Setting up the CASHNet payment option

19.6.2 Set up the eMarket store on the CASHNet Web User Interface

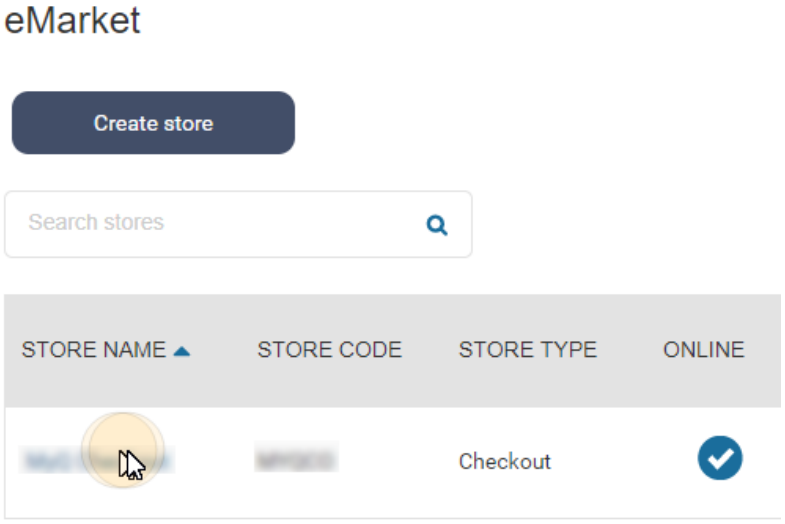
1. Log in to the **CASHNet** Web User Interface.
2. Open the **Store Setup** tab.



3. On the tab, click the dark blue button with the text **Click here to use new eMarket store setup for Storefronts&Checkouts**. The eMarket store setup page opens.

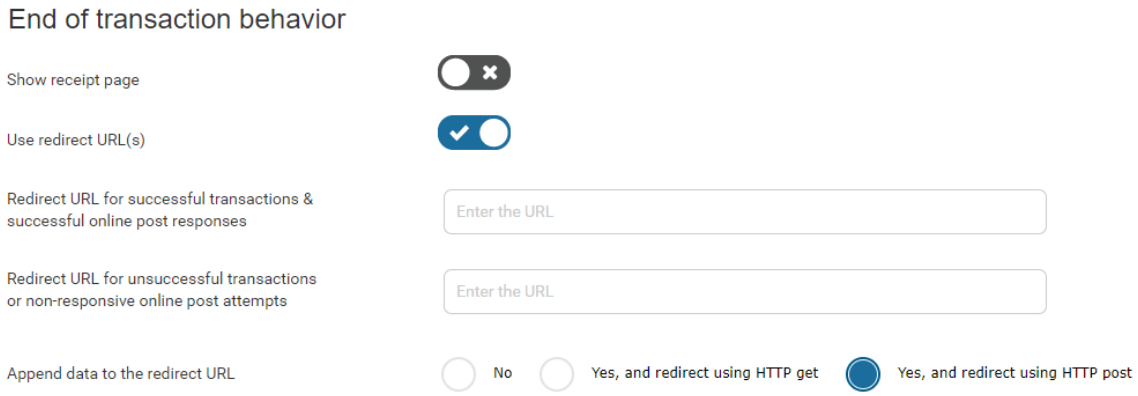


4. On the page, double-click the **Checkout store** button to open its setup page.



5. On the Checkout setup page, under **End of transaction behavior**, configure the following options:
   a. **Show receipt page**: *disable*
   b. **Use redirect URL(s)**: *enable*

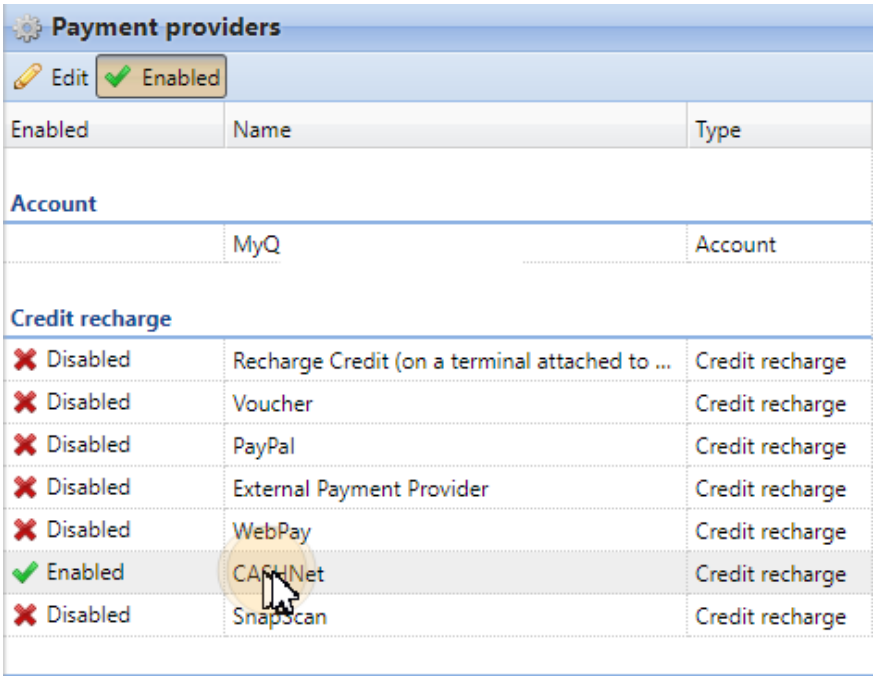
c. **Redirect URL for successful transactions & successful online post responses**: leave empty
d. **Redirect URL for unsuccessful transactions or non-responsive online post attempts**: leave empty
e. **Append data to the redirect URL**: set to *Yes, and redirect using HTTP post*



You can now leave the CASHNet Web User Interface.

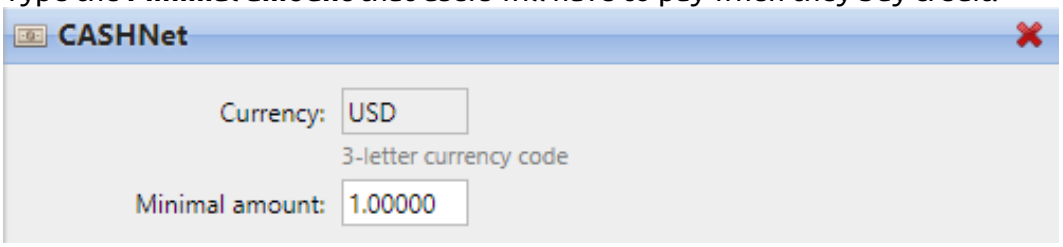
19.6.3 Set up the CASHNet payment option on the MyQ Web Interface

1. Open the **Credit** settings tab (**MyQ, Settings, Credit**).
2. On the tab, under **Payment providers**, double-click the **CASHNet** payment provider (or right-click the **CASHNet** payment provider, and then click **Edit** on the shortcut menu). The **CASHNet** properties panel opens on the right side of the tab.



3. The value of the **Currency** setting corresponds to the currency set on the **General** settings tab of the MyQ Web Interface.

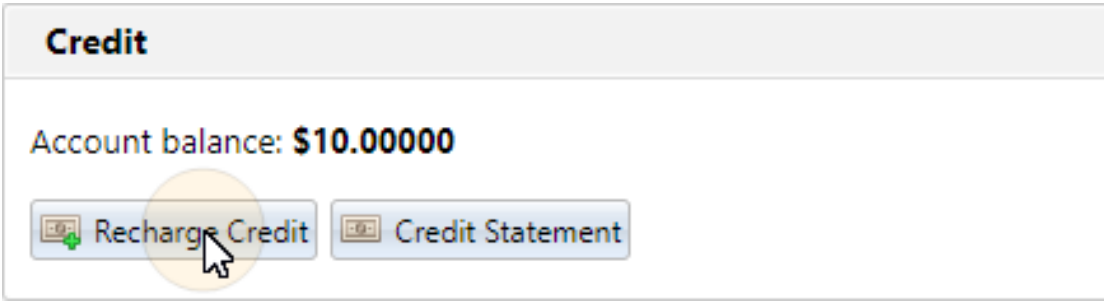
4. Type the **Minimal amount** that users will have to pay when they buy credit.



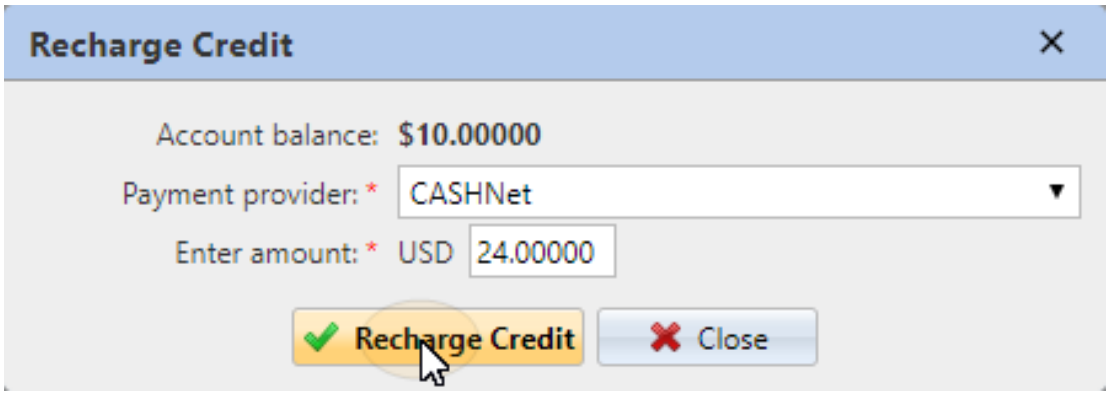
5. Enter the **Merchant name**, **Station**, **Store URL**, and **Item Code** of the Checkout store, and then click **Save**.

19.6.4 Recharging credit via CASHNet on the user's account on the MyQ Web Interface

First of all, the user needs to log in to their account on the MyQ Web Interface. To recharge the credit there, the user has to click **Recharge credit** under **Credit**. The Recharge credit dialog appears.



In the dialog box, the user has to select the **CASHNet** payment provider, **enter the amount** of credit that they want to buy, and then click **Recharge Credit**.



A window with the **CASHNet** payment options opens in the web browser; the rest of the steps correspond to the standard **CASHNet** payment process.

After the payment is successfully sent to MyQ, the **Payment successful** dialog box appears.

CASHNet tries to connect to the MyQ server via the hostname or IP address that is set on the **Network** settings tab of the MyQ Web Interface. In case a hostname is set on the tab and paying users receive the "*This site can't be reached / XYZ's server DNS address could not be found. / DNS_PROBE_FINISHED_NXDOMAIN*" message. Try to replace the hostname with the IP address of your server.

19.7 Recharging credit via SnapScan

With the **SnapScan** app, users can pay for their MyQ credit via a QR code displayed in the app on their mobile phones.

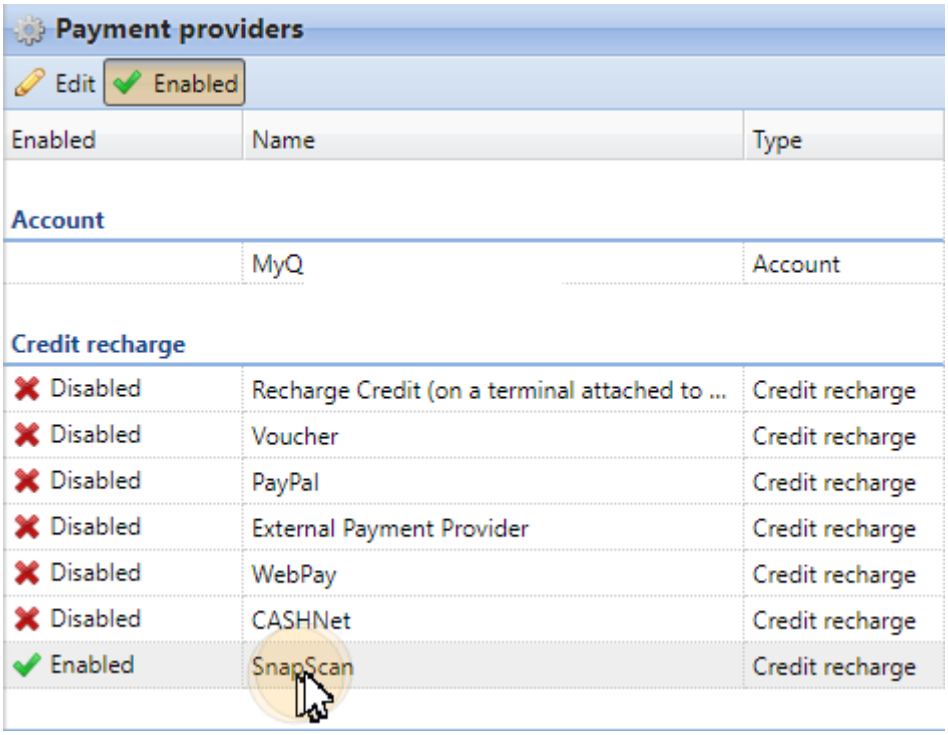
To be able to connect **SnapScan** to MyQ, you need to create a **Merchant Snapscan Account** and obtain the **Merchant Account API**. Within the setup of the connection on the MyQ Web Interface, you must enter the **Merchant ID** and the **API key** of the account.

As **SnapScan** is a South African service, users need to use a phone with a South African Mobile number (*+27*) to be able to scan the QR code and pay for the credit.

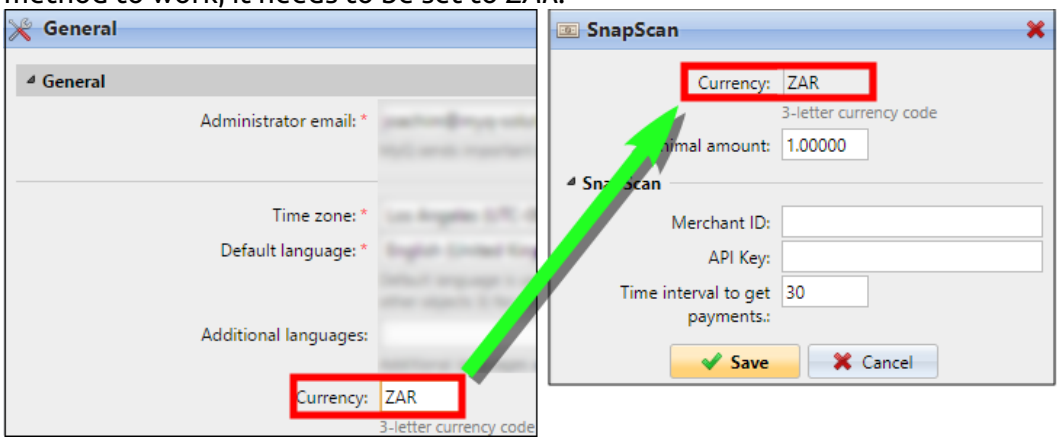
19.7.1 Setting up the SnapScan payment option

To set up the SnapScan payment option on the MyQ Web Interface:

1. Open the **Credit** settings tab (**MyQ, Settings, Credit**).
2. On the tab, under **Payment providers**, double-click the **SnapScan** payment provider. The **SnapScan** properties panel opens on the right side of the tab.



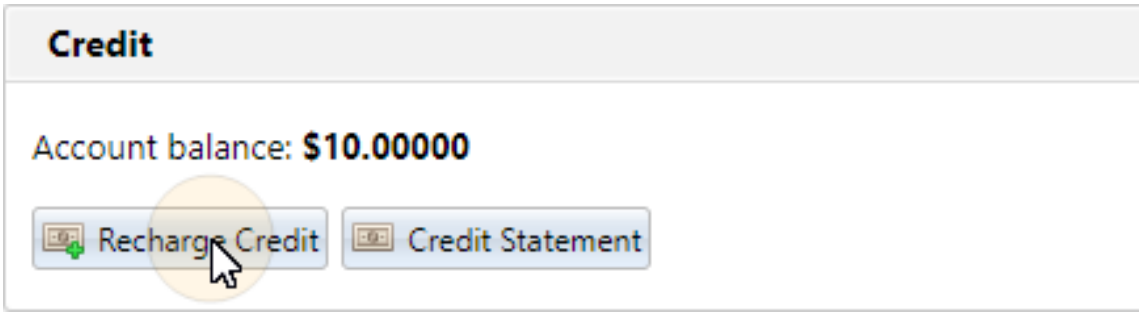
3. The value of the **Currency** setting corresponds to the currency set on the **General** settings tab of the MyQ Web Interface. For the SnapScan payment method to work, it needs to be set to *ZAR*.



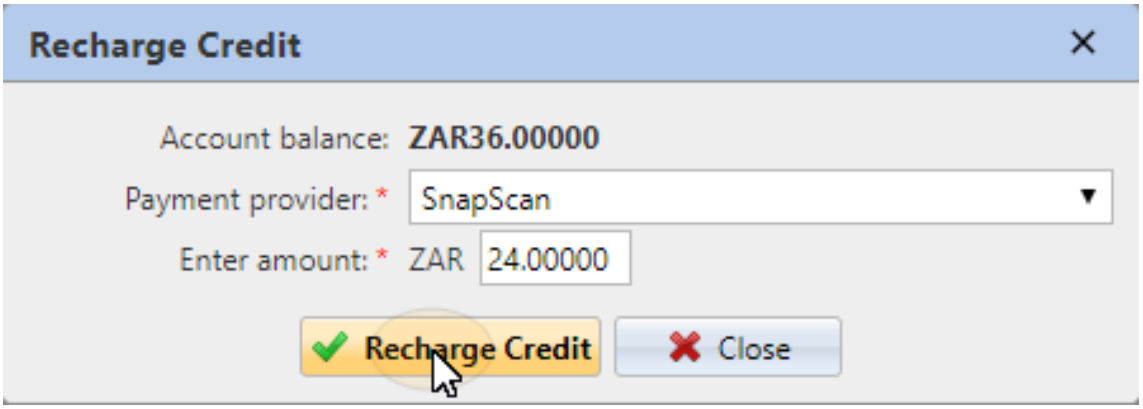
4. Type the **Minimal amount** of money that has to be paid when a user buys the credit.
5. Enter the **Merchant ID**(Company Name) and the **API key** provided by SnapScan.
6. Set the **Time interval to get payments** (in seconds), and click **Save**. The **Time interval to get payments** setting limits the time for the recharge action; if MyQ does not receive confirmation of the payment within the interval, the credit recharge is canceled. If the payment is successful but MyQ does not receive the response within the time limit, the user has to contact the MyQ administrator, who can manually recharge the credit.

19.7.2 Recharging credit via SnapScan on the user's account on the MyQ Web Interface

First of all, the user needs to log in to their account on the MyQ Web Interface. To recharge the credit there, the user has to click **Recharge credit** under **Credit**. The Recharge credit dialog appears.



In the dialog box, the user has to select the **SnapScan** payment provider, **enter the amount** of credit that they want to buy, and then click **Recharge Credit**.



A window with the SnapScan payment options opens in the web browser; the rest of the steps correspond to the standard SnapScan payment process.

After the payment is successfully sent to MyQ, the **Payment successful** dialog box appears.

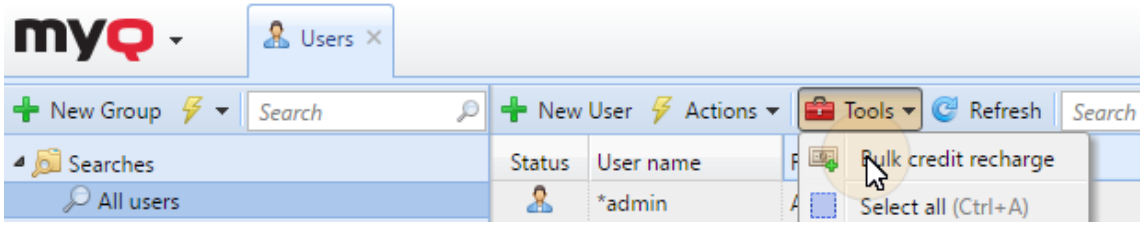
SnapScan tries to connect to the MyQ server via the hostname or IP address that is set on the **Network** settings tab of the MyQ Web Interface. In case a hostname is set on the tab and paying users receive the "*This site can't be reached / XYZ's server DNS address could not be found. / DNS_PROBE_FINISHED_NXDOMAIN*" message, try to replace the hostname with the IP address of your server.

19.8 Bulk credit recharge

In MyQ, you can also import a bulk of credit from a bank statement or a CSV file.

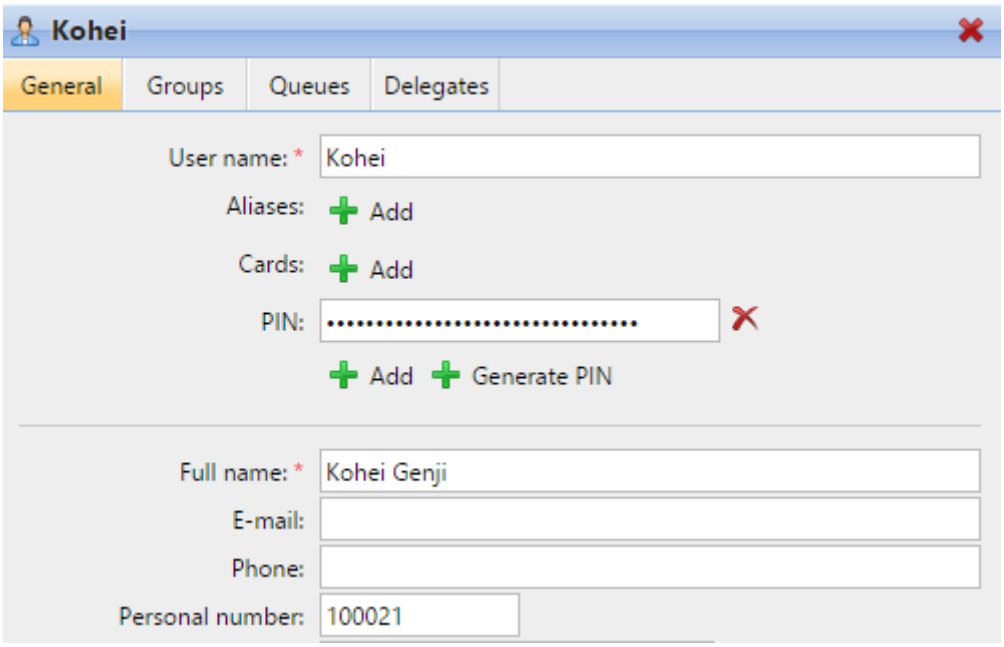
The feature can be managed on the **Credit Statement** tab or on the **Users** main tab. To import a bulk of credit from a bank statement or CSV on either of the two tabs:

On the bar at the top of the tab (**Users** or **Credit Statement**), click **Tools**, and then click **Bulk credit recharge** in the **Tools** drop-down box. The Bulk credit recharge dialog box opens.



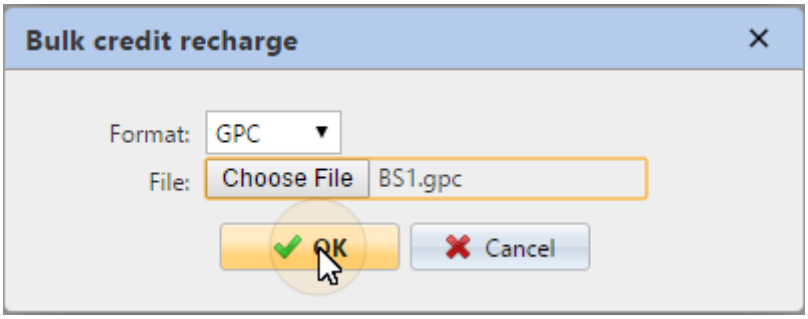
For bulk credit recharge from a bank statement:

The MyQ system can process the data from a GPC file. The variable symbol from the bank statement is used as unique data for the pairing of the payment and the MyQ user. The number must correspond to the user's personal number. The personal number can be imported or manually entered in the **Personal Number** field on the user properties panel, on the **Users** main tab.



On the bar at the top of the tab (**Users** or **Credit Statement**), click **Tools**, and then click **Bulk credit recharge** in the **Tools** drop-down box. The Bulk credit recharge dialog box opens.

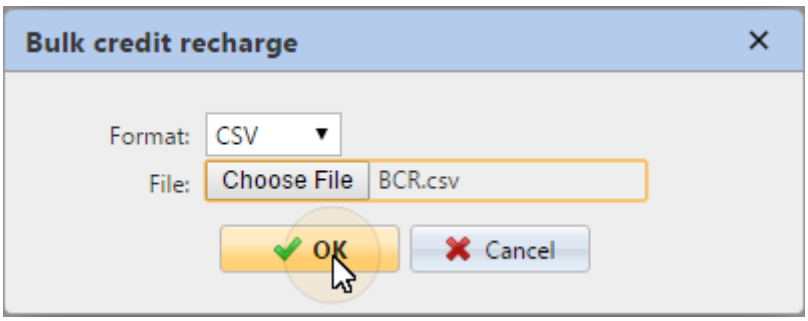
In the dialog box, select the **GPC** format option, choose the GPC file, and then click **OK**. Before importing the file, MyQ checks whether the GPC file has not already been imported. This avoids duplication of the credit recharge.



If the system finds that the import of data from this file has already taken place, an error message appears and no data are imported. If MyQ identifies the GPC file as new, it checks all the payments on the bank statement step by step, and if it finds a variable number equal to the personal number of a MyQ user, the user's credit is increased by the corresponding amount from the bank statement. Once MyQ 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 variable number not corresponding to any personal number in MyQ.

For bulk credit recharge from a CSV file:

On the bar at the top of the tab (**Users** or **Credit Statement**), click **Tools**, and then click **Bulk credit recharge** in the **Tools** drop-down box. The Bulk credit recharge dialog box opens.



In the dialog box, select the **CSV** format option, choose the CSV file, and then click **OK**. You will be informed about the success of the operation and you can see the added amount of credit in the **Credit** columns on the user list.

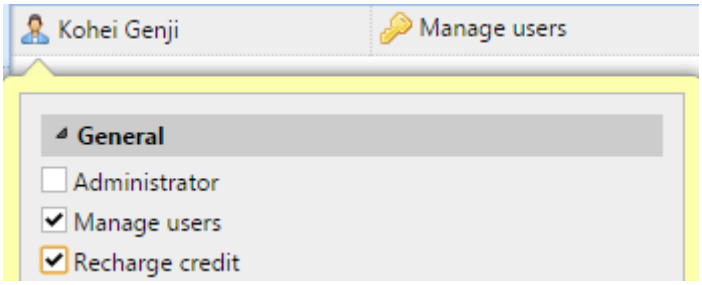
Structure of the CSV file:
Each non-empty row has to consist of two entries separated by a delimiter: *name of the user*delimiter*amount of credit*. The entered delimiter has to be the same as the delimiter set on the **General** settings tab, under **Column delimiter in CSV**.

19.9 Manual reset of users' credit on the MyQ Web Interface

The administrator (and users authorized to recharge credit) can manually reset the credit of each user to a specific value. This can be done either on the **Credit Statement** main tab, or on the **Users** main tab if the MyQ Web interface.

On the **Credit Statement** tab, you first open the credit reset action, and subsequently select the users and groups whose credit is to be recharged. On the **Users** tab, you first select the users or the group, and then reset their credit.

To authorize a user to reset credit on the **Credit Statement** tab, you need to provide them with the rights to **Recharge credit**. To authorize a user to reset credit on the **Users** tab, you need to provide them with the rights to **Recharge credit** and to **Manage Users**. The authorized user can reset the credit on their MyQ Web interface in the same way as the MyQ administrator.

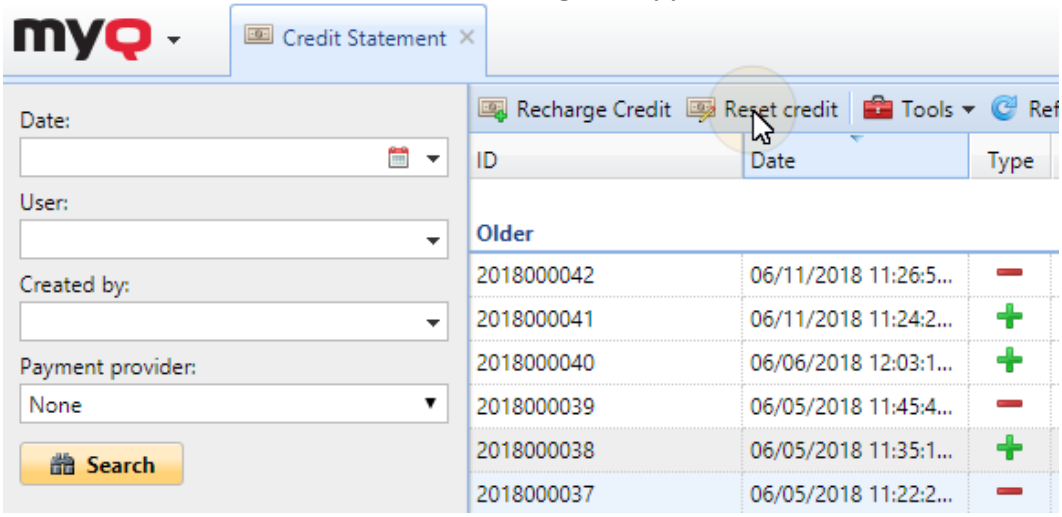


19.9.1 Resetting credit on the Credit Statement tab

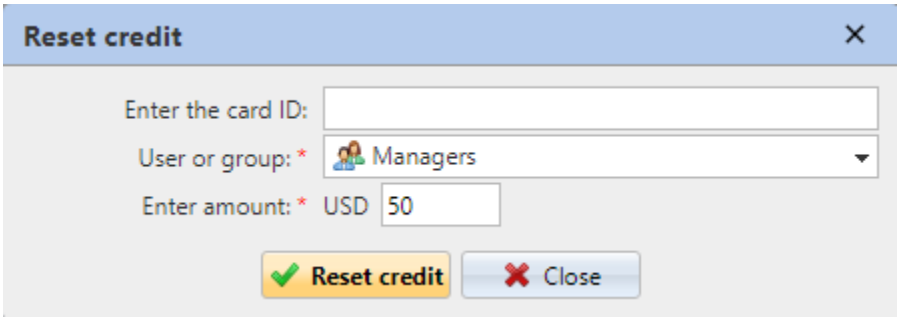
On the **Credit Statement** tab, you can overview the changes in the credit balance of MyQ users, and also reset credit to users and groups. To open the tab on the MyQ Web Interface, go to **MyQ, Credit Statement**.

To reset credit to users or groups:

1. Click **Reset Credit**. The Reset Credit dialog box appears on the tab.



2. In the dialog box, either **Enter the card ID** of a user, or select the **User or group** to reset the credit to, then **Enter amount** of the credit, and click **Reset Credit**.

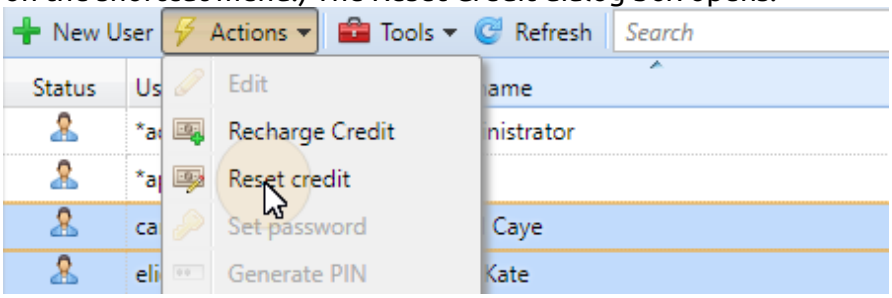


19.9.2 Resetting credit on the Users main tab

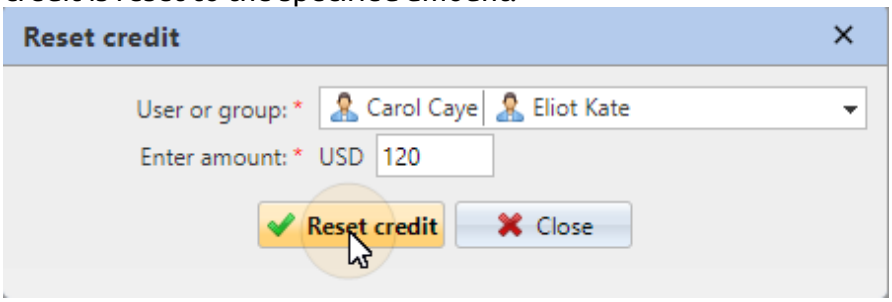
To open the **Users** main tab on the MyQ Web Interface, go to **MyQ, Users**.

To reset credit to a specific user:

1. Select the users, click **Actions**, and then click **Reset credit** in the actions drop-down (or select the users, right click one of them, and then click **Reset credit** on the shortcut menu.) The Reset Credit dialog box opens.

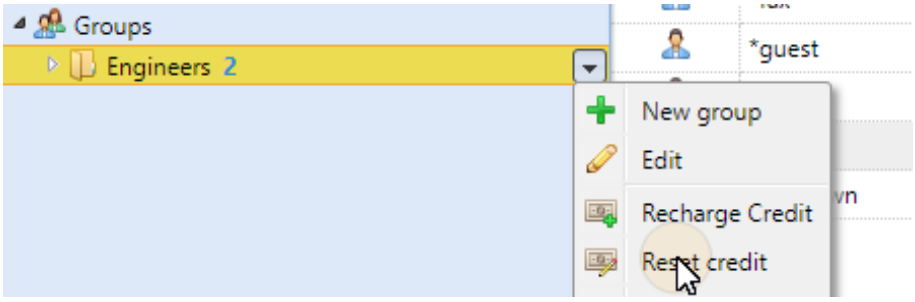


2. In the dialog box, **Enter amount** of the new credit, and then click **OK**. The credit is reset to the specified amount.



To reset credit to a group of users:

1. On the panel on the left side of the **Users** main tab, right-click the group, and then click **Reset credit** on the shortcut menu. The Reset Credit dialog box appears.



2. In the dialog box, **Enter amount** of the new credit, and click **OK**. The credit is reset to the specified amount.

19.10 Credit accounting reports

On the **Reports** main tab, you can create, edit and generate two types of reports with information about credit:

- The **Credit balance** type of reports contains information about the actual state of the credit balances of the selected users (or members of the selected group). The data are ordered by user name.
- The **Credit operations** type of reports shows all changes of credit balance of the selected users (or members of the selected group) over a defined time period. It also contains information about the person who either spent or recharged the credit, the type of the recharge method and eventually about numbers of used credit vouchers. The data are ordered chronologically.

Credit and quota – Credit operations

Created 11/14/2017 5:33:10 AM

Period 11/08/2017 12:00:00 AM – 11/14/2017 11:59:59 PM

Full name	Group	Created	Credit charge	Credit balance	Operation type	Charge method	Charger name	Voucher code
Eliot Kate								
Eliot Kate	Unclassified	11/13/2017 7:22:03 AM	-CZK14.00000	CZK10.00000	CREDIT	0	Administrator	0
Eliot Kate	Unclassified	11/13/2017 7:30:56 AM	CZK24.00000	CZK34.00000	CREDIT	WebPay	Eliot Kate	0

20 Quota

With the quota feature activated, you can set a limit to the usage of print related services. You can either limit the number of printed or scanned pages, or set an overall cost limit for all the services using prices from a price list. If the limit is close to be reached, the user or group receive an email with a warning and if the limit is reached or exceeded, they can be prevented from further printing and copying.

Each quota can monitor one of the following parameters:

- the total number of printed and copied pages
- the number of printed and copied color pages
- the total number of printed and copied monochrome pages
- the total number of scanned pages
- the overall cost of print services

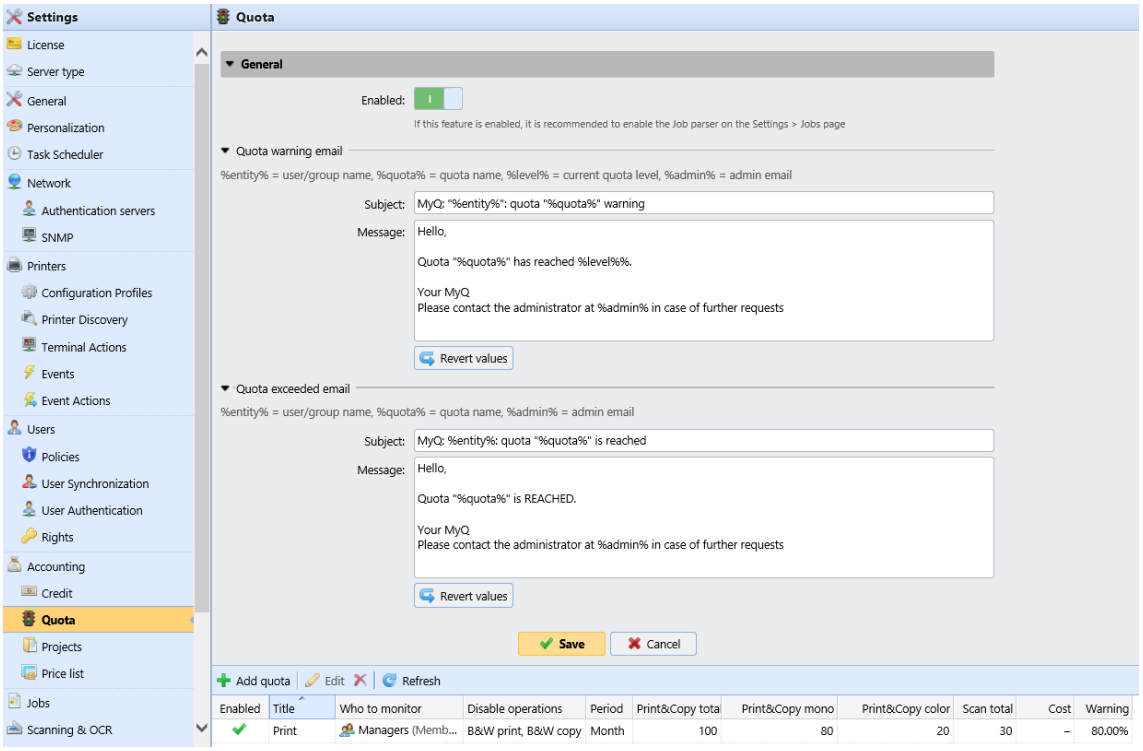
Quotas are active permanently until disabled and they reset after the specified interval. Users can check their quota status on their web user interface and in the MyQ mobile application. If a printing device is equipped with an embedded terminal, users can see the current percentage of their quota status there.

The quota on 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 Job parser to get the print job metadata (number of pages, color etc.). For information about how to set the prices and how to activate the parser, see Price List and Jobs.

20.1 Activation and general setup

You can enable the Quota feature by selecting the **Enable** quota option at the top of the **Quota** settings tab (**MyQ, Settings, Quota**). Each quota can then be individually enabled or disabled on its properties panel.

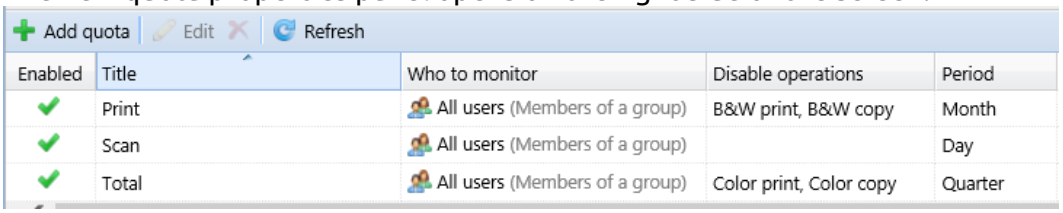
On this tab, under **Quota warning email**, you can type the subject and the body of the email that is sent after reaching the preset warning (e. g. 80% of the quota) and, under **Quota exceeded email**, the subject and the body of the email that is sent when the limit of a user or group is reached or exceeded.



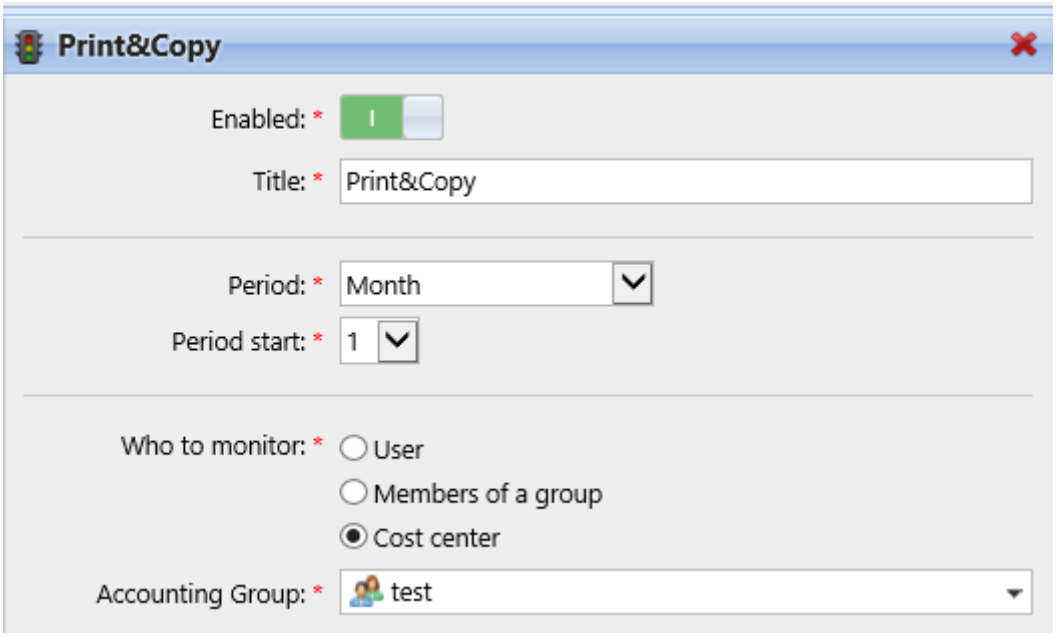
20.2 Creating quotas

To add a new quota:

1. On the bar in the bottom section of the **Quota** settings tab, click **+Add Quota**. The new quota properties panel opens on the right side of the screen.



2. On the panel, enter the quota name, set its parameters, and then click **Save**.



The new quota is enabled and appears on the **Quota** overview list (**MyQ, Quota**).

20.2.1 Combining quotas

Quotas are independent of each other. Therefore, it is always the most strict quota that applies to a particular user or group.
For example: There are two quotas applied to a user. Both of them disable printing after a certain amount of printed pages – one after five printed pages and the other after ten printed pages. After the users prints five pages, the lower quota applies and they cannot print. The quota can be boosted, allowing the user to print more pages. If they print five more pages, the higher quota applies.

20.3 Editing Quotas

The quota properties panel opens immediately after a new quota is created. To open an already existing quota, double-click on it on the list on the **Quota** main tab (**MyQ, Quota**). After you set the properties, click **Save** to submit the changes.

Each quota has the following set of properties:

Basic settings: enabling and naming the quota

- Each quota is enabled by default. To disable or re-enable it, click the **Enabled** button.
- Enter the name in the **Title** text box.

Time period

- In the **Period** list, select the reset period of the quota (*Day, Week, Month, Quarter, Half year, Year, Last X days*). The default period is *Month*. The *Last X days* period counts the number of pages or the overall cost over the last X days. For example, if the quota is 10 pages over three days and the user printed 5

pages the day before yesterday and two pages yesterday, they can print up to three pages today.
- In the **Period start** list, select the date when the period starts for the *Month, Quarter, Half year* and *Year* **Period**, day of the week for the *Week* **Period** or the number of days for the *Last X days* **Period**.
  - If you choose the *Day* **Period**, you must also set a time at the **Reset quota at** field.

Monitored users or groups

You have to select from three options regarding the quota scope. It can apply to one user, to all members of one group, or to a cost center.

- To select a user the quota applies to, select the **User** option, and then choose the user from the list.
- To select a group and apply the quota to all its members, select the **Members of a group** option, and choose the group from the list. This way, the quota applies to each user independently; If the limit is ten pages, every user can print ten pages.
- To select an accounting group or a cost center the quota applies to, select the **Accounting Group** or **Cost center** option, and then choose the accounting group or cost center group from the list (this option depends on the Accounting settings; the option selected there is displayed in Quota). This way, every member contributes to the total. If the limit is ten pages and one member prints seven pages, there are only three pages remaining for the group.

Monitored value

- If you select *Cost* as the **Monitored value**, the quota is counted in amount of money spent.
  - Set the quota cost **Limit**
- If you select *Pages* as the **Monitored value**, the quota is counted in the amount of printed, copied and/or scanned pages.
  - Set the **Print&Copy total, Print&Copy color, Print&Copy mono** (supported by terminals 8.1 or newer) and **Scan total** in pages.

If the monitored value is set to 0, this operation is effectively disabled for this quota. For example, if the **Print&Copy color pages** value is set to **0**, no color pages can be printed or copied within this quota. Correspondingly, no email notifications will be sent stating that this quota limit is reached.

Actions taken when the warning level is reached

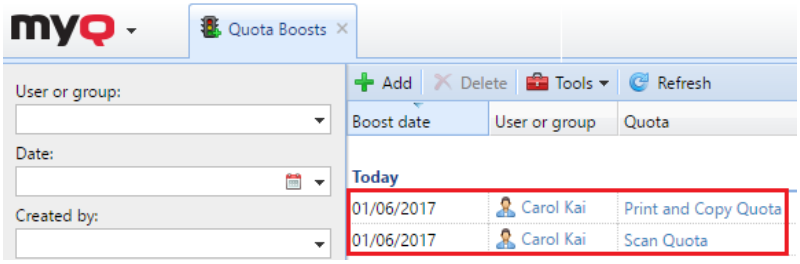
- Enter the warning level (in %) in the **Warning level** text box. After the percentage of the overall limit is reached, a warning email is sent to the user.
- If you want someone else to be notified (for example the user's manager) once the warning level is reached as well, select or enter the users or email accounts in the **Send a notification to** combo box.

Actions taken when the quota is reached

- You can disable one or more operations after the quota is reached or exceeded.
  - If the **Monitored value** is *Cost*, select them under **Disable operations**. The options are **Print, Copy, Color print** (on terminals 8.1 or newer), **Color copy** (on terminals 8.1 or newer), and **Scan**.
  - If the **Monitored value** is *Pages*, mark the **Disable operation** checkbox and the operation that has reached the limit will be disabled.
- Mark the **Terminate the current job when reached** checkbox if you want to interrupt the current job when the quota is reached. If both **Disable operation** and **Terminate the current job when reached** are checked, the job will be interrupted when the quota is reached and the user will be redirected to the MyQ
  home screen. If **Disable operation** is checked and **Terminate the current job when reached** is not, the current job will be finished and the user will be redirected to the MyQ home screen.
  - The action is not supported by scan quota
- If you want someone else to be notified (for example the user's manager) after the quota is reached as well, select or enter the users or email accounts in the **Send a notification to** combo box.

20.4 Boosting quotas

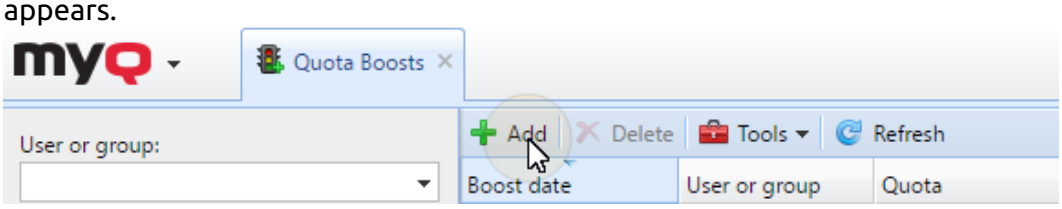
In situations when a user or a group of users have reached their quota and urgently need to print, you can boost the quota by a specific number of pages or by a specific amount. Quotas can be boosted on two tabs of the MyQ Web Interface: the **Quota Boosts** main tab and the **Users** main tab. Records of the boosted quotas appear on the boost quota records list on the **Quota Boosts** main tab.



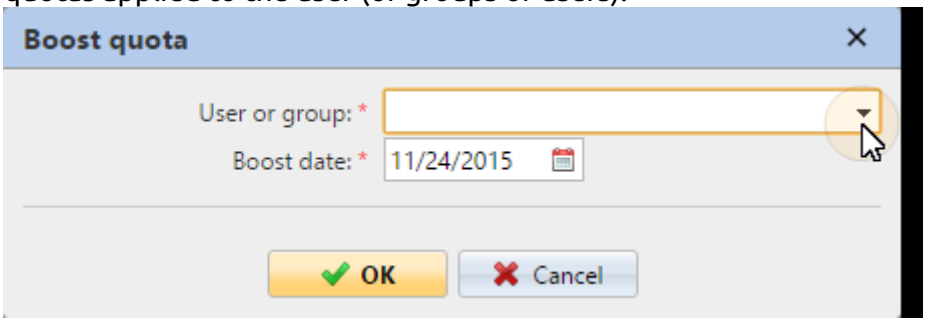
20.4.1 Boosting quotas on the Quota Boosts main tab

On the MyQ Web Interface, go to **MyQ, Quota Boosts**. To boost a quota here:

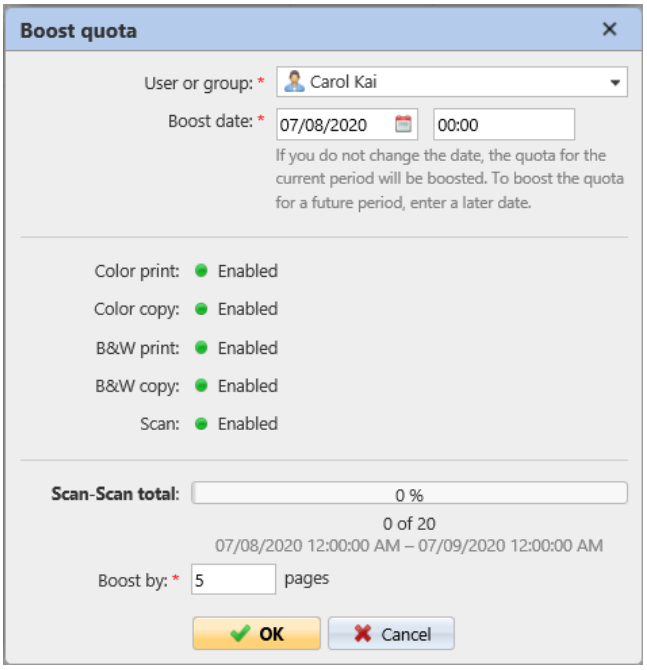
1. On the bar at the top of the tab, click **+Add**. The Boost quota dialog box appears.



2. Select the **User or group** and the **Boost date**, and then click **OK**. The Boost quota dialog box extends – more sections are displayed. The first of the new sections shows the current availability of operations and the rest show the quotas applied to the user (or groups of users).



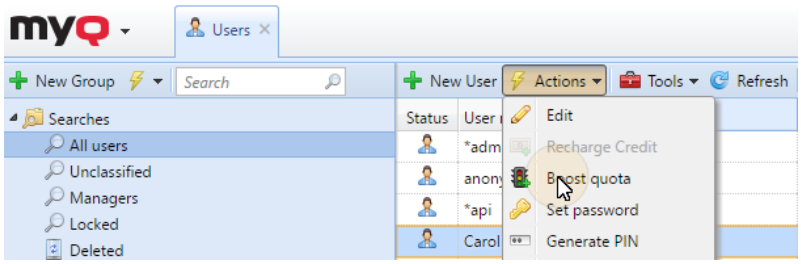
3. Enter the number of pages or the amount of money to the **Boost By** text box in the particular quotas sections (each quota has to be boosted separately), and then click **OK**.



20.4.2 Boosting quota of a particular user on the Users main tab

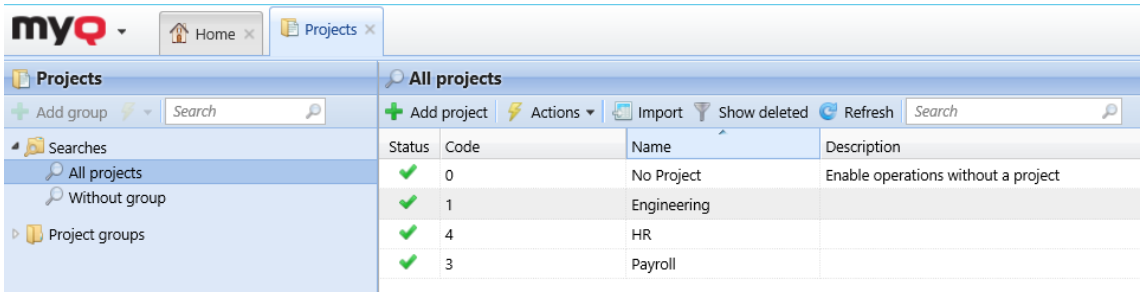
On the MyQ Web Interface, go to **MyQ, Users**. To boost a quota here:

1. On the tab, select the user, click **Actions** , and then click **Boost quota** in the Actions drop-down box. (Or right-click the user, and then click **Boost quota** on the shortcut menu.) The Boost quota dialog box appears with the user selected in the **User or group** drop-down.
2. Enter the number of pages or the amount of money to the **Boost By** text box in the particular quota sections (each quota has to be boosted separately), and then click **OK**.


myQ
Users
New Group
Search
New User
Actions
Tools
Refresh
Searches
All users
Unclassified
Managers
Locked
Deleted
Status
User
*adm
anony
*api
Carol
Edit
Recharge Credit
Boost quota
Set password
Generate PIN

21 Projects

With the project accounting feature activated, users can assign print, copy, and scan jobs to particular projects and consequently distribute the print cost among the projects and charge it appropriately. Project accounting can also be used as another independent level of internal accounting in addition to devices, users, and groups. Projects can be manually created on the MyQ web interface or imported from a CSV file. They can be assigned to print jobs in the MyQ Desktop Client pop-up window, on the MyQ web interface, on an embedded terminal, on a touch panel of a HW terminal, or in the MyQ X Mobile Client app.

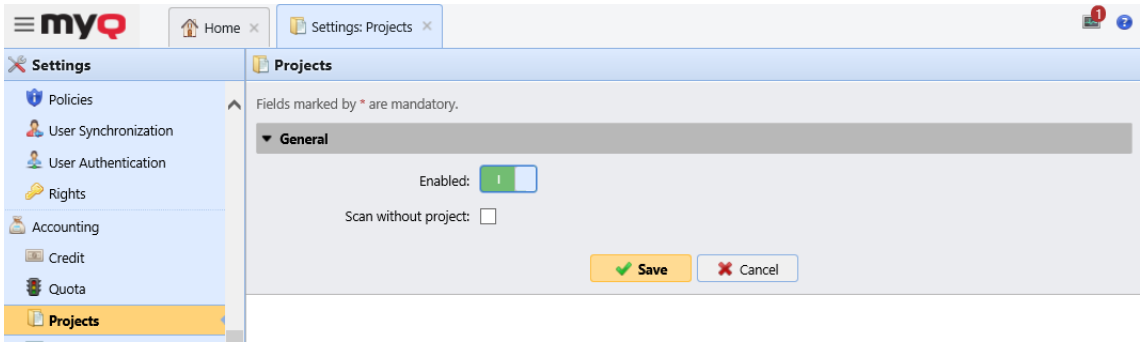


21.1 Projects activation and setup

On the **Projects** settings tab (**MyQ, Settings, Projects**), you can enable, or disable projects. Furthermore, you can change the global settings of the projects feature there.

Select the **Enabled** option to globally activate project accounting.

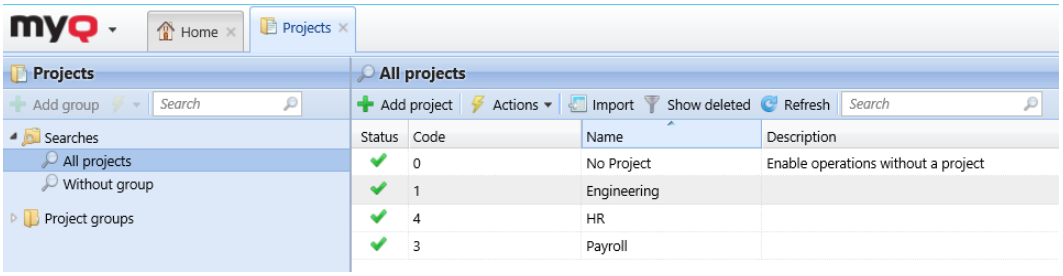
Scan without project: Users scan directly when this option is selected. They have to select a project when the option is not selected.



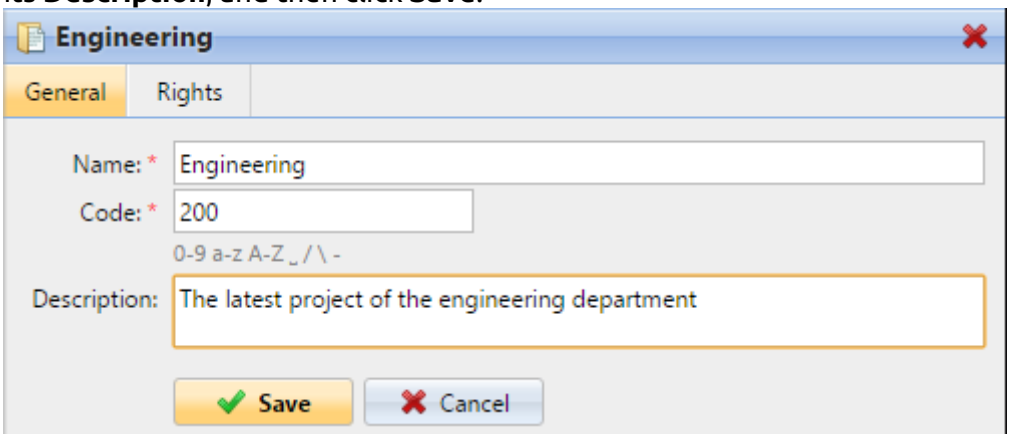
21.2 Creating projects

To add new projects to MyQ, go to **MyQ, Projects** and:

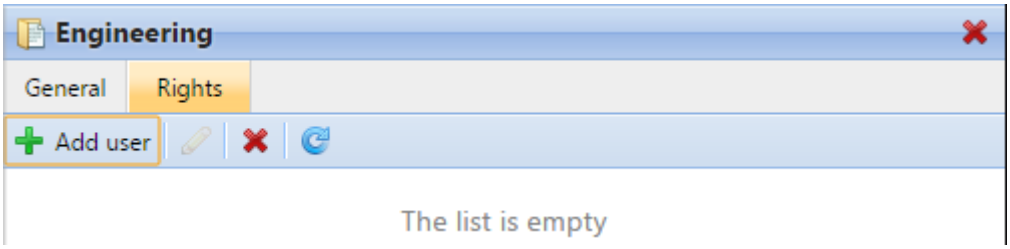
1. On the bar at the top of the **Projects** main tab, click **+Add Project**. The new project properties panel opens on the right side of the screen.



2. On the **General** tab, enter the project **Name**, a unique project **Code**, optionally its **Description**, and then click **Save**.



3. Click on the **Rights** tab, to manage user rights to the project (all users have rights to a project by default). On the bar at the top of the **Rights** tab, click **+Add User**. The Select user or group dialog box appears, where you can select the user (or group of users) that you want to provide with rights to the project, and then click **OK**. To remove the rights from a user, select the user and click the remove button (**X**). The user (or group of users) disappears from the **Rights** list.

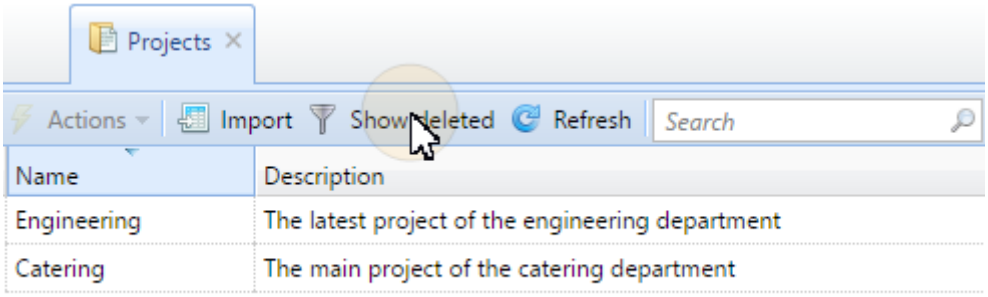


21.3 Project management

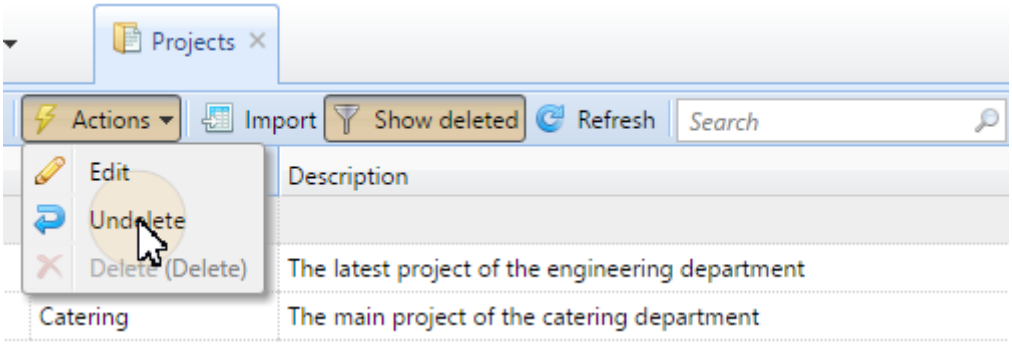
After the projects are created, you can see them listed on the **Projects** main tab. Using the buttons on the bar at the top of the tab, you can add new projects, edit current projects, import projects from CSV files and display/hide deleted projects.

21.3.1 Restoring deleted projects

1. Click **Show deleted** to display the project.



2. Select the project, click **Actions**, and then click **Undelete** in the Actions drop-down.



21.3.2 Managing project groups

For bigger companies, it is easier to manage projects in groups on e.g. a functional or geographical level. The maximum is five levels deep. Rights set on the group level will automatically be inherited by sub-groups and/or the projects inside these groups. It is then possible to set specific rights to sub-groups or specific projects. After saving these rights they will not be overwritten by the default group rights.

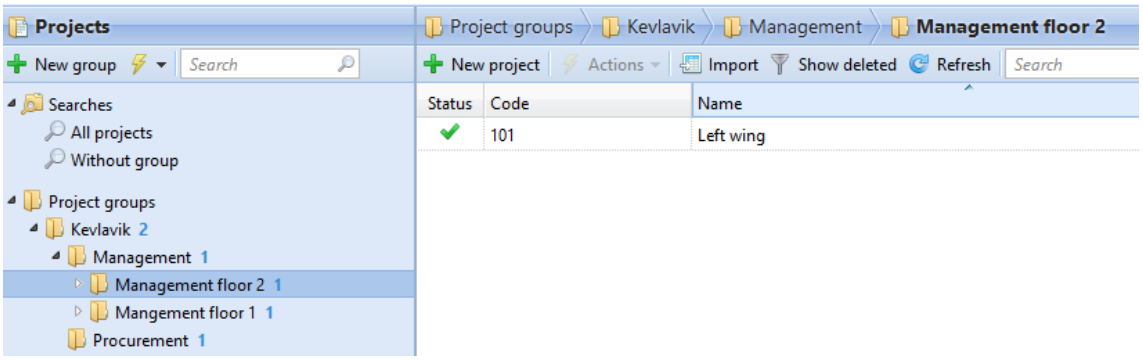
Creating groups

1. Right-click **Project groups** and select **New group**.
2. Set the **Name** on the **General** tab of the project group in the right pane.
3. Click the **Rights** tab to add or delete users from the project group.
4. Click **Save**. The project group will be visible in the left pane.

Adding a project to a group

1. Select the group that you want to add a project to.
2. Click **New project** on the menu bar.
3. Enter the project details.
4. Click **Save**. The **Project group Code** will be upped by one.

When you select a project group in the left pane, the path is displayed on the top bar of the window.



21.4 Importing projects from CSV files

Another option of adding projects to MyQ is to import them from CSV files. This can be done manually and also as a scheduled task.

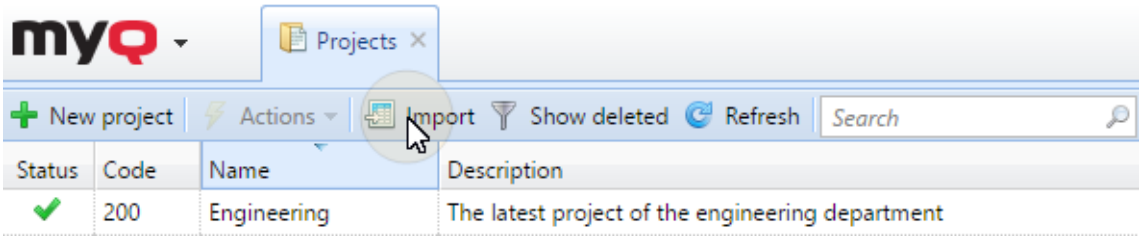
- The manual import is described in Manually importing projects.
- For information on how to set up the scheduled task, see Setting up the Project synchronization scheduled task.
- You can find the required syntax of the CSV file in Syntax of the projects' CSV file.

You can import projects with a hierarchy.

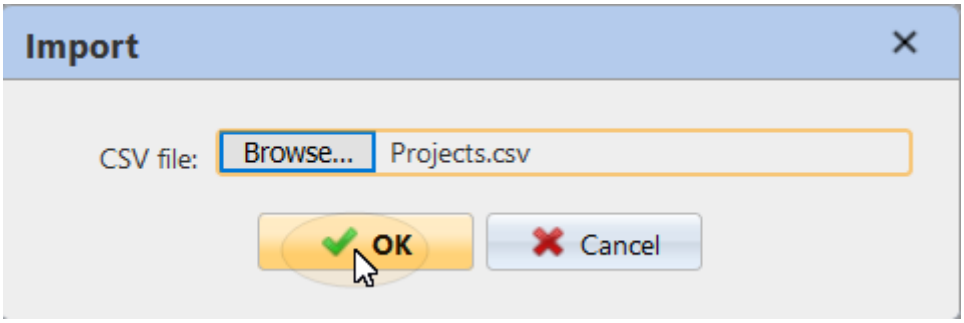
Within the CSV import, new projects are added and existing projects are updated. Projects already present in MyQ that are not listed in the CSV file are left untouched. Each project is recognized by the value of its code, and updated only if the CSV file contains a row with the same code.

21.4.1 Manually importing projects

On the bar at the top of the **Projects** main tab, click **Import**. The Import dialog box appears.



In the dialog box, **Browse** and select the CSV file, and then click **OK**. After the import is done, imported projects are listed on the **Projects** main tab.

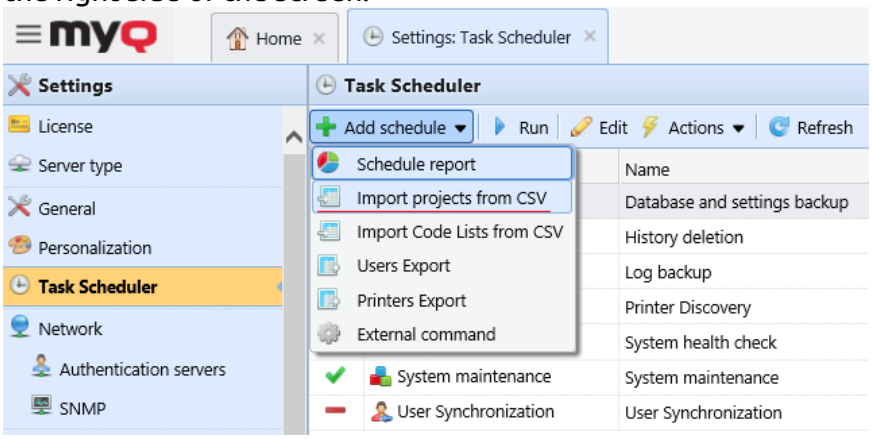


In addition, an information message appears at the top of the tab. By clicking log for details, you can display the import log.

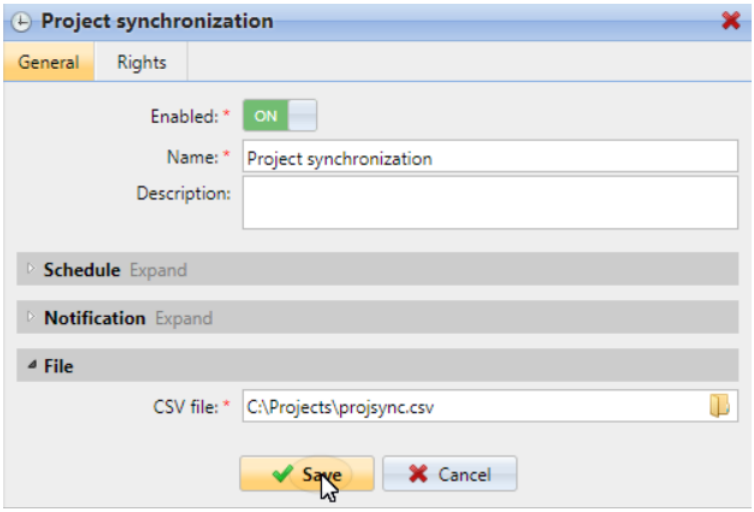
Any errors occurring during the import can be related to incorrect syntax or non-existing user or group of users listed in the CSV file.

21.4.2 Setting up the Project synchronization scheduled task

1. On the **Task Scheduler** settings tab, click **+Add schedule**, and then **Import projects from CSV**. The properties panel of the new synchronization opens on the right side of the screen.



2. On the panel, set up the schedule, as described in Task Scheduler.
3. In the **File** section, browse and select the **CSV file** (the file should be stored on the MyQ server).
4. Click **Save**.



21.4.3 Syntax of the projects' CSV file

Each row must consist of six columns, separated by the delimiter set on the **General** settings tab, under **Column delimiter in CSV**. The file must contain a header row, otherwise an error occurs and the projects will not be imported. The order of the columns is irrelevant; each column is identified by its name in the header, which must always be in English, regardless of the language setting in MyQ.

Values:

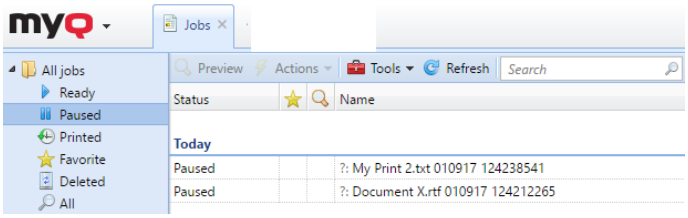
- **active:**
  - 1=project is added to MyQ
  - 0 =project is not added to MyQ
- **code:** unique code of the project
- **name:** name of the project
- **groups:** the path of the project in the hierarchy. Levels must be separated by the pipe character (|). If the column is empty, the project is created in or moved to the root of the hierarchy.
- **description:** internal description of the project
- **users** the users or groups of users allowed to use the project. Multiple entries should be separated by commas (,).

active	code	name	groups	description	users
1	300	Project1	parent|child	Optional description	"All users"
0	400	Project 2			

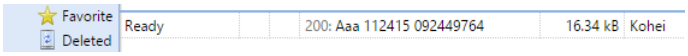
21.5 Assigning projects to print jobs

If project accounting is enabled, unassigned print jobs are paused and have to be assigned to a project before they can be printed. They are displayed on the **Jobs** main tab, under **Paused**, with a question mark preceding the job name. You can

assign them on the **Jobs** main tab, in the MyQ Desktop Client pop-up window, or on an embedded terminal.



As soon as the project is assigned, its name is displayed instead of the question mark. If "without project" is selected, the question mark disappears.



Users who want to print an unassigned job on an embedded terminal have to select one of their projects (projects they have rights to) or eventually select the **Without project** option there (if they are allowed to print without projects). The same applies to scanning and copying – users have to select one of the projects or the **Without project** option before opening the particular panel or performing a quick action. The exact behavior of project accounting on embedded terminals can vary depending on vendor and device model. See the particular embedded terminal manual for further information.

- How to assign projects in MyQ Desktop Client
- How to assign projects on the Jobs main tab

21.5.1 Assigning projects in MyQ Desktop Client

This option is available on computers with either Windows or macOS. It requires the MyQ Desktop Client application running on the computer where the print job is sent from.

MyQ Desktop Client is running in the background and, unless Project accounting or any other features of the application are active for the logged user, all print jobs are sent to MyQ without any intervention. Once the user has rights to more than one projects, all the jobs that they send are paused and the MyQ Desktop Client pop-up window opens to offer the available projects to the user. If only one project is available to the user, it is automatically assigned, and the job is sent to the server.

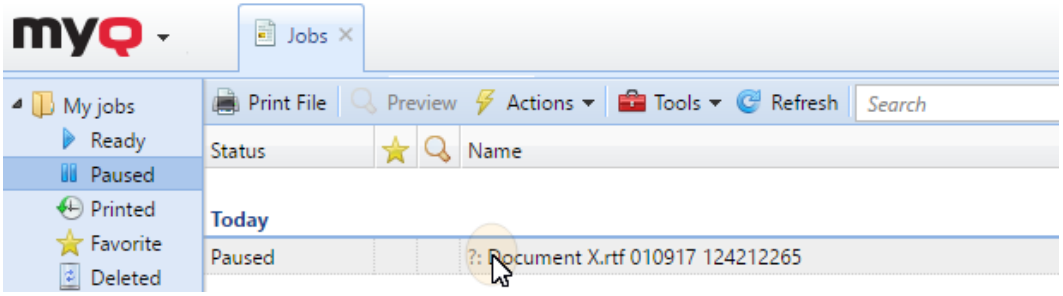
The user can assign the job to an available project and print within that project. If printing without a project is allowed in MyQ, the user can select the **No project** option; otherwise they have to select one of the available projects. If there are more jobs waiting in the queue, the user can check the ones to be printed to a particular project and jobs for another project can be printed in the next step.

For information about MyQ Desktop Client, including installation, setup, and optional features of the application, see the *MyQ Desktop Client for Windows* or *macOS* manuals.

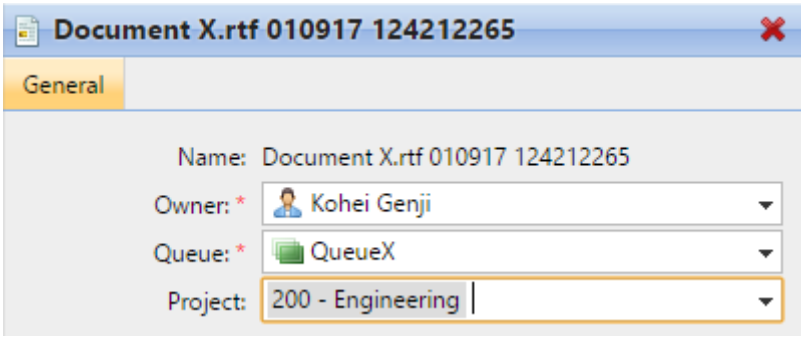
21.5.2 Assigning Projects on the Jobs main tab

To assign a project to a print job:

1. On the **Paused** list on the **Jobs** main tab, double-click the print job that you want to assign the project to. The print properties panel opens on the right side of the screen.



2. On the panel, select the **Project** that you want to assign to the job, and then click **Save**.

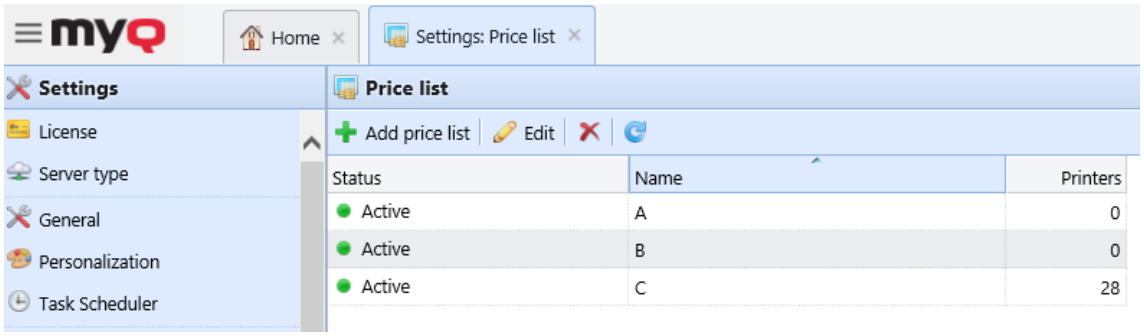


22 Price List

On the **Price List** settings tab, you can create price lists and attach them to configuration profiles. Price lists are used to assess the price of each printing device operation. That is necessary for monetary accounting and MyQ advanced features such as credit accounting and monetary quotas.

You can also set discounts or increase price of print, copy, scan and fax services for particular users and groups.

To open the **Price list** settings tab, go to **MyQ, Settings, Price list**.

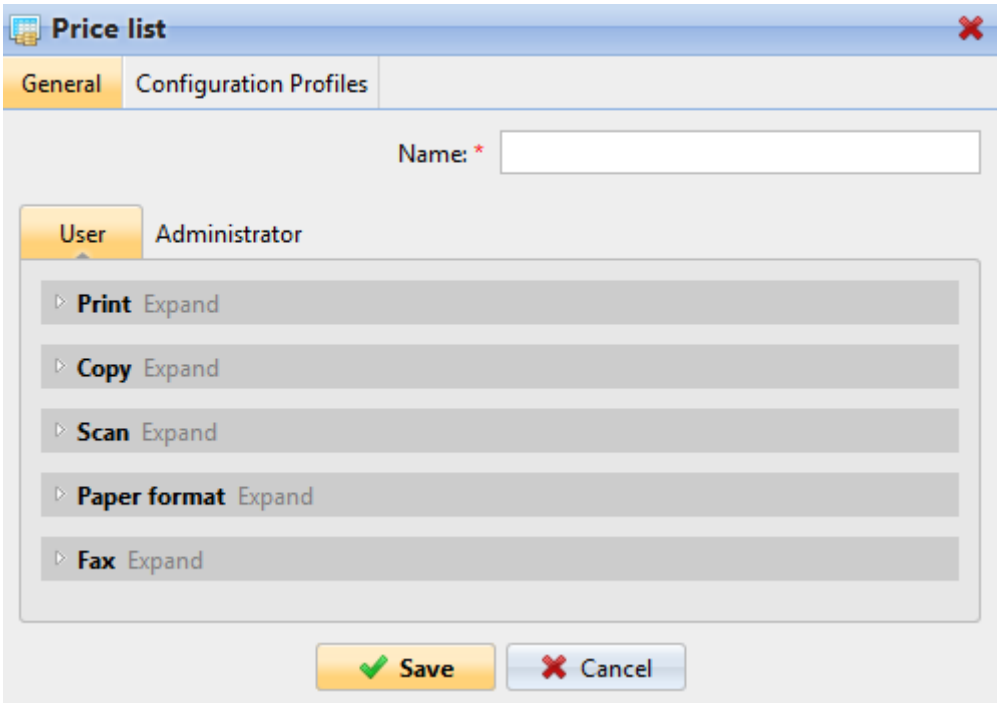


22.1 Adding price lists

1. On the bar at the top of the **Price List** settings tab, click **+Add price list**. The new price list properties panel opens on the right side of the screen.
2. On the panel, enter the price list name.
3. Set up the price list.
4. Click **Save**.

22.2 Editing price lists

On the properties panel of the price list, you can rename the price list, define prices of print, copy, scan and fax services and attach the price list to printing devices. To open the panel, double-click the price list on the list of price lists on the **Price List** settings tab.



22.2.1 Setting prices of print, copy, scan and fax services

On the **General** tab of the price list's properties panel, you can set prices of print, copy, scan and fax services. There are two subtabs: the **Users** subtab, where you set prices for MyQ users, and the Administrator tab, where you set prices for the MyQ administrator.

- **Print** - In this section, you can set the price per printed page for monochrome and full-color print. Some printing devices allow pricing according to coverage of paper. You can set prices for three states of coverage: **Low**, **Medium** and **High**.
- **Copy** - In this section, you can set the price per copied page for monochrome, full color and single color copying. Some printing devices allow pricing by coverage of paper. You can set prices for three states of coverage: **Low**, **Medium** and **High**.
- **Scan** - In this section, you can set the price per scanned page.
- **Paper format** - In this section, you can set the price per sheet for different paper formats.
- **Fax** - In this section, you can set the price per printed faxed page.

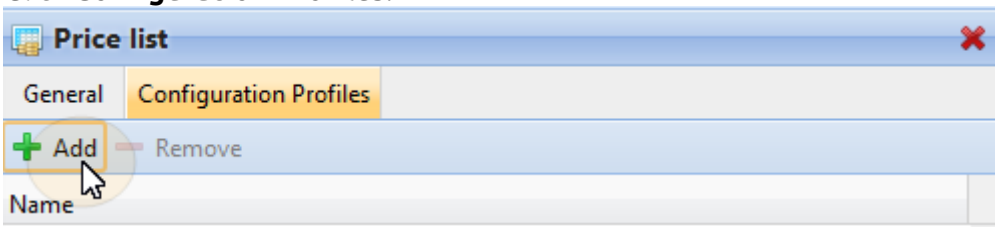
Some printing devices lack the counters necessary for obtaining information about some parameters, for example information about size of paper. Those parameters are not counted in the final price of jobs that are
carried out on these machines.

Whenever the price list is updated (its parameters values are changed and the price list is saved), a new price list is created. Pages printed with the previous version of the price list are counted according to the old settings.

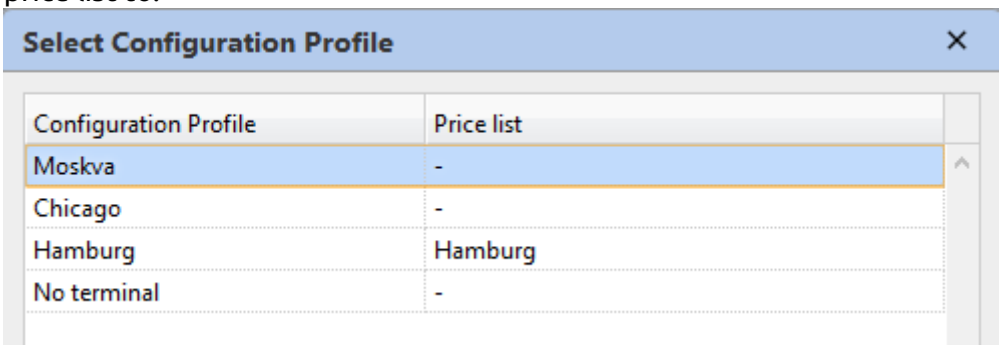
22.2.2 Attaching price lists to printing devices

On the **Price List** properties panel

1. On the list of price lists on the **Price List** settings tab, double-click the price list. The new price list properties panel opens on the right side of the window.
2. Click **Configuration Profiles**.



3. Click **+Add**. The Select Configuration Profile window opens.
4. In the dialog box, select the configuration profile that you want to attach the price list to.



5. Click **OK**. The configuration profile appears on the printing devices list on the **Printers** tab.

You can also attach a price list to a configuration profile when you go to **Settings, Configuration Profiles**, in the overview double-click a profile and change the **Price List** in the right pane on the window.

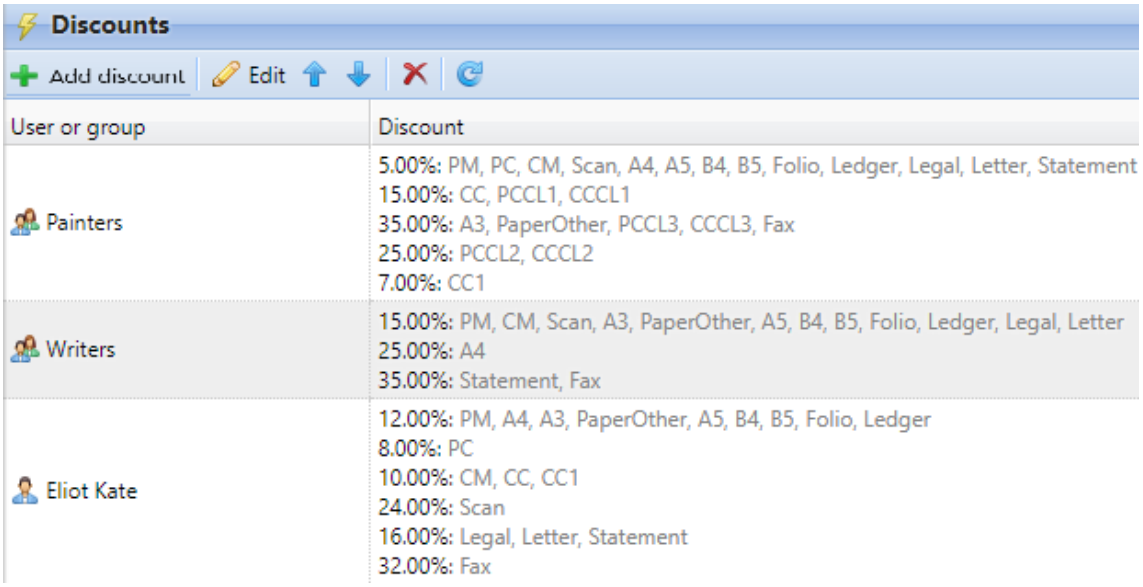
You cannot attach more than one price list to a single configuration profile. If you add a price list to a configuration profile that already has a different price list attached to it. The old price list is replaced by the new one.

22.3 Discounts

The prices set in price lists are applied to all users and groups without any possible distinction. To distinguish between particular users and groups, you can provide the users and groups with discounts, or increase the prices in the list for them.

The discounts are set in percent and are applied to all price lists. Within the discount, you can set a particular value for each print, copy, scan or fax price lists' item. The price of an action is increased by setting a negative discount for the item, for example a *-15%* discount.

The **Discounts** section, where the discounts are set, is also part of the **Price List** settings tab.



22.3.1 Creating a new discount

1. Click **+Add discount** at the upper-left corner of the **Discounts** widget. The new discount properties panel appears on the right side of screen.
2. Set the discount.
3. Click **OK** to save it.

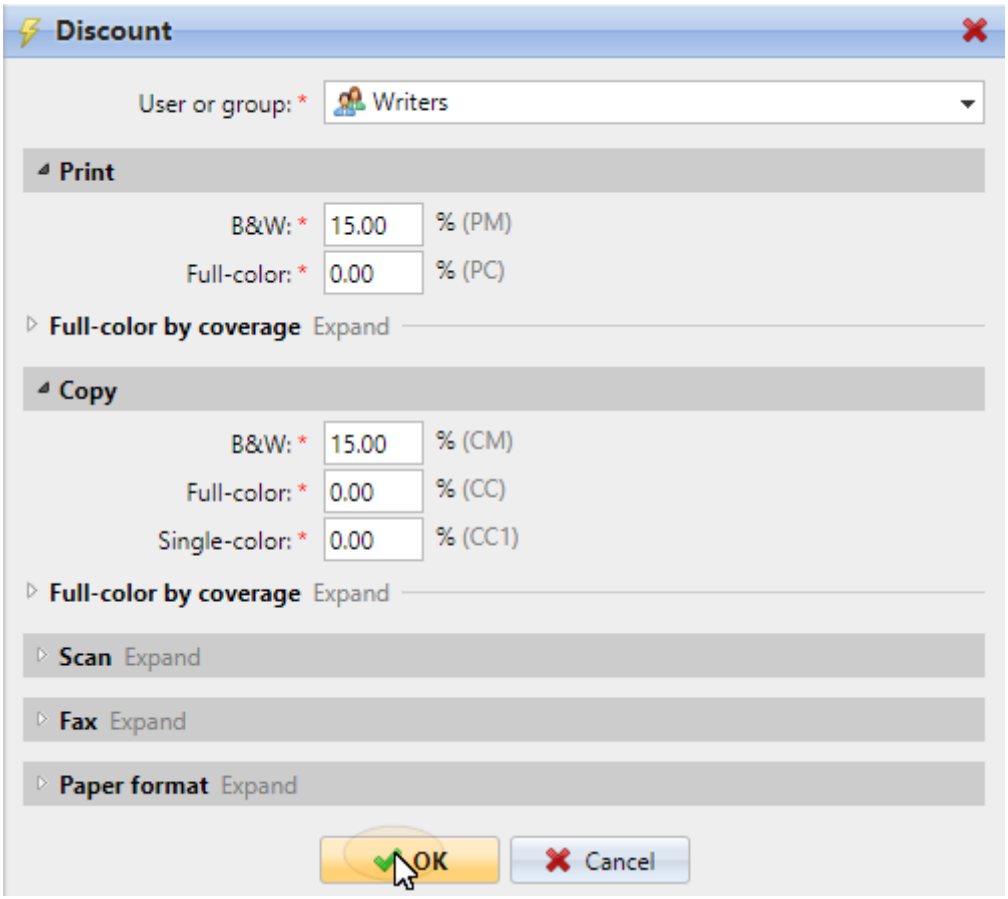
22.3.2 Editing a discount

To open the editing options of a discount, double- click the discount (or right- click the discount, and then click **Edit** on the shortcut menu). The discount's properties panel appears on the right side of the screen.

For each discount, you need to set the user or group that it will be applied to, and the values of each item (such as B&W print or Full-color copy) of the discount in percent.

To increase the price of an item, set the discount to a negative number (such as *-15%*).

After the discount is set, click **OK** to save it.



22.3.3 Deleting a discount

1. Select the discount.
2. Click **X**.

23 External Systems

In **MyQ, Settings, External Systems**, there are two sections:

- **External Systems**, and
- **REST API applications**

The **External Systems** section is used for:

- setting up Microsoft Exchange Online
- setting up Gmail (with OAuth2)
- setting up SharePoint Online
- setting up Amazon S3
- setting up OneDrive Business
- setting up Microsoft Universal Print
- the MyQ and ScannerVision integration (embedded terminals and a **MyQ Ultimate license** are required; you can find further details in MyQ Smart Workflows and in MyQ Embedded terminal manuals).

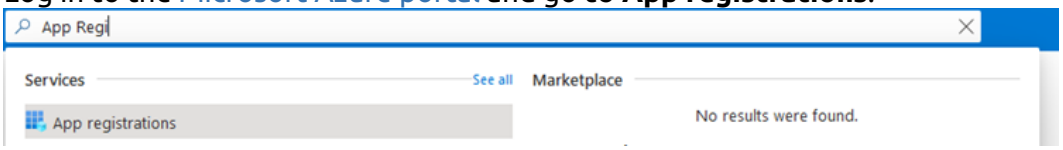
In the **REST API applications** section you can add applications to MyQ by clicking **+Add** and filling in the **Title** and **Scope**. The **Client ID** and **Secret** fields should be used for the application's configuration.

23.1 Microsoft Exchange Online Setup

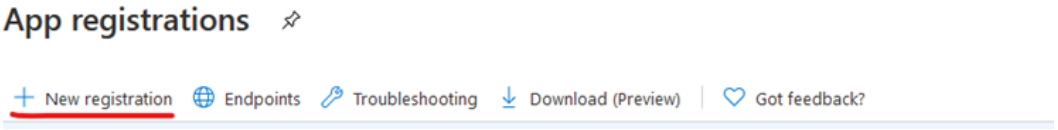
It is first needed to set up Microsoft Exchange Online in Microsoft Azure, and then configure it in MyQ.

23.1.1 Microsoft Exchange Online setup in Microsoft Azure

1. Log in to the Microsoft Azure portal and go **to App registrations**.



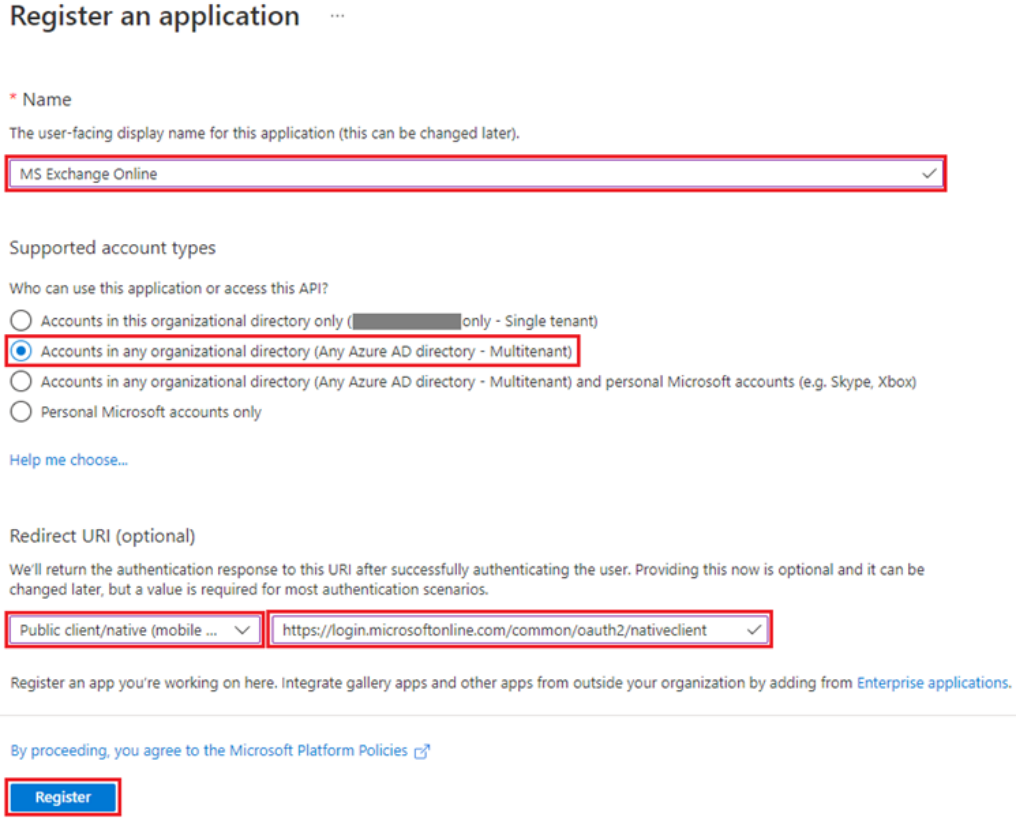
2. Create a **New registration**:



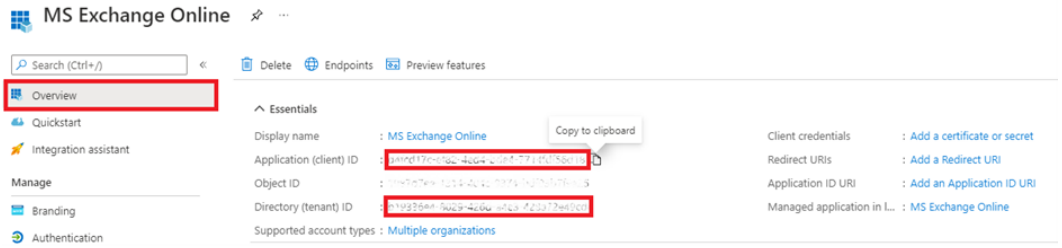
3. Create a **multitenant app**:
   a. **Name** - The name for this application (this can be changed later). For example, *MS Exchange Online*. It is important to use the same name as the one used in MyQ under External Systems
   b. **Supported account types** - Who can use this application or access this API? Select the *Accounts in any organizational directory (Any Azure AD directory - Multitenant)* option.
   c. **Redirect URI (optional)** - The authentication response is returned to this URl after successfully authenticating the user. Select the *Public client/native*

(mobile&desktop) option from the drop-down and fill in https://login.microsoftonline.com/common/oauth2/nativeclient as the redirect URI.

d. Click **Register**.



4. The new app overview page opens. Copy the **Application (client) ID** and the **Directory (tenant) ID**, as they are needed for the connection to MyQ.

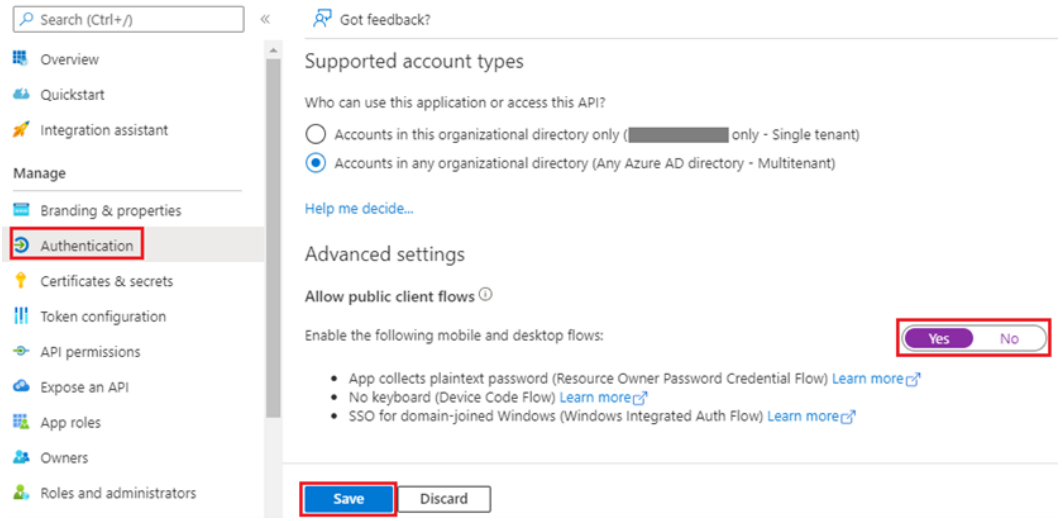


5. On the left-hand menu, click **Manifest** and modify and **Save** the JSON with the following:

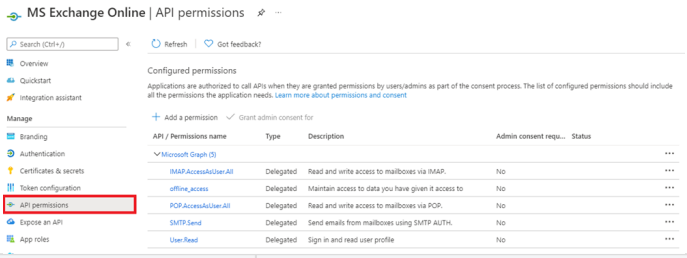
```
"allowPublicClient": true,
    "replyUrlsWithType": [
        {
            "url": "https://login.microsoftonline.com/common/oauth2/
nativeclient",
            "type": "InstalledClient"
        }
    ],
    "requiredResourceAccess": [
```

```
        {
            "resourceAppId": "00000003-0000-0000-c000-000000000000",
            "resourceAccess": [
                {
                    "id": "258f6531-6087-4cc4-bb90-092c5fb3ed3f",
                    "type": "Scope"
                },
                {
                    "id": "d7b7f2d9-0f45-4ea1-9d42-e50810c06991",
                    "type": "Scope"
                },
                {
                    "id": "652390e4-393a-48de-9484-05f9b1212954",
                    "type": "Scope"
                },
                {
                    "id": "7427e0e9-2fba-42fe-b0c0-848c9e6a8182",
                    "type": "Scope"
                }
            ]
        }
    ],
```

6. On the left-hand menu, click **Authentication**. In Advanced settings, under Allow public client flows, select **Yes** next to Enable the following mobile and desktop flows, and then click **Save** at the top.



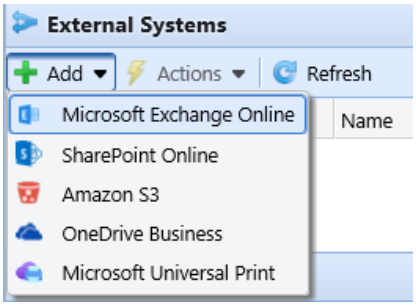
7. On the left-hand menu, click **API permissions** and add the additional permissions required for the correct functionality, described in the table below.



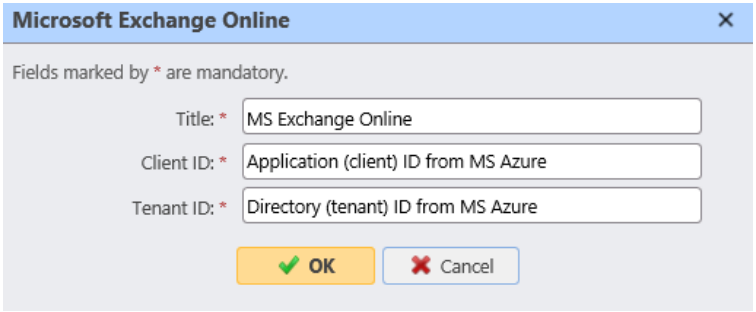
Scope ID	Description
7427e0e9-2fba-42fe-b0c0-848c9e6a8182	Microsoft Graph: **offline_access** Allows the app to see and update the data you gave it access to, even when you are not currently using the app. This does not give the app any additional permissions.
e1fe6dd8-ba31-4d61-89e7-88639da4683d	Microsoft Graph: **User.Read** Sign in and read user profile
652390e4-393a-48de-9484-05f9b1212954	Microsoft Graph: **IMAP.AccessAsUser.All** Allows the app to read, update, create and delete email in your mailbox. Does not include permission to send mail.
d7b7f2d9-0f45-4ea1-9d42-e50810c06991	Microsoft Graph: **POP.AccessAsUser.All** Allows the app to read, update, create and delete email in your mailbox. Does not include permission to send mail.
258f6531-6087-4cc4-bb90-092c5fb3ed3f	Microsoft Graph: **SMTP.Send** Allows the app to send emails on your behalf from your mailbox.

23.1.2 Microsoft Exchange Online setup in MyQ

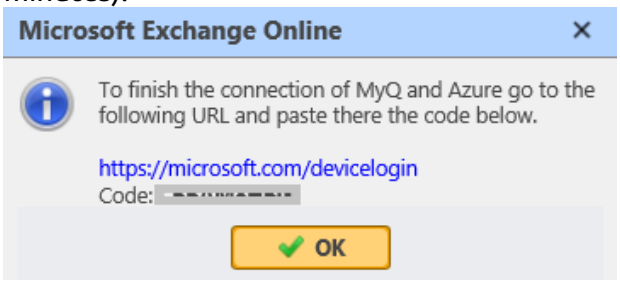
1. Log in to the MyQ web administrator interface, and go to **MyQ, Settings, External Systems**.
2. In the External Systems section, click **+Add** and select *Microsoft Exchange Online* from the list.



3. In the pop-up window, fill in the required fields:
   a. **Title** - add the name you chose during App registration in MS Azure; for example, *MS Exchange Online*.
   b. **Client ID** - the **Application (client) ID** you copied during the MS Azure setup.
   c. **Tenant ID** - the **Directory (tenant) ID** you copied during the MS Azure setup.
4. Click **OK**.



5. After setting up the external system in MyQ, you are requested to confirm a **code** through the Microsoft website (https://microsoft.com/devicelogin). The code you need to confirm is shown in the pop-up window, just below the link to the Microsoft website. There is timeout for confirming the code (usually it is 15 minutes).



The email functionality will not work until the confirmation is successfully completed.
***This confirmation must be done with the Microsoft account that owns the email box (email address), which is used to connect to the exchange (Sender email** in the MyQ, Settings, **Network** tab).*

For example, if you use the sender email “print@somedomain.com”, then you need to authenticate on the Microsoft website as this user during this step.

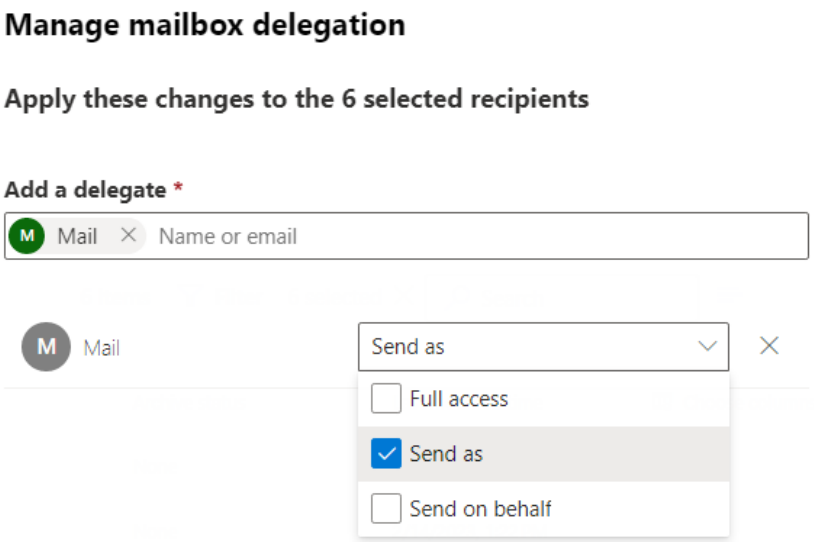
Microsoft Exchange Online is now connected to MyQ and is ready to be used in the **Network** settings tab, as an Outgoing SMTP server and in the **Jobs** settings tab, in Jobs via Email as a POP3 or IMAP server.

23.1.3 Additional Settings

Send scan as the logged-in user

If MyQ is set to send scans as the logged-in user in MyQ, Settings, Scanning & OCR - Default settings of an email with scan - Sender, the mailbox authenticated in MyQ has to have a *Send As* permission for all users.

1. Log in to Exchange admin center.
2. Go to Mailboxes, select all users.
3. Click on “**Mailbox delegation**”.
4. Select the mailbox that has been authenticated in MyQ when the Exchange Online connector was created (you can find it in Settings - Connections).
5. Choose "**Send as**" permission.



6. Click Save.

Your selected mailbox for outgoing emails has now been assigned the rights to send scanned documents on behalf of the user who scanned them.

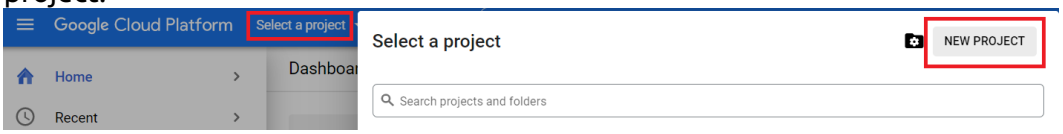
If you select to send emails as the default sender, this change is not required.

23.2 Gmail with OAuth2 setup

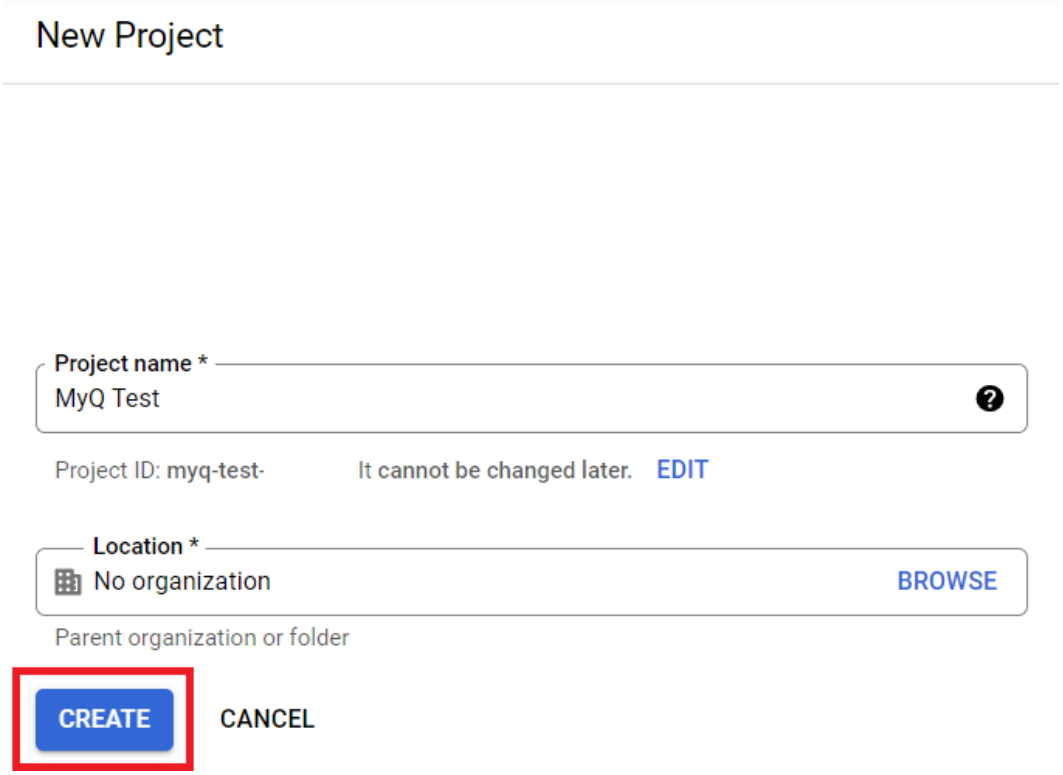
It is first needed to set up Gmail with OAuth2 in Google Cloud Platform, and then configure it in MyQ.

23.2.1 Gmail with OAuth2 setup in Google Cloud Platform

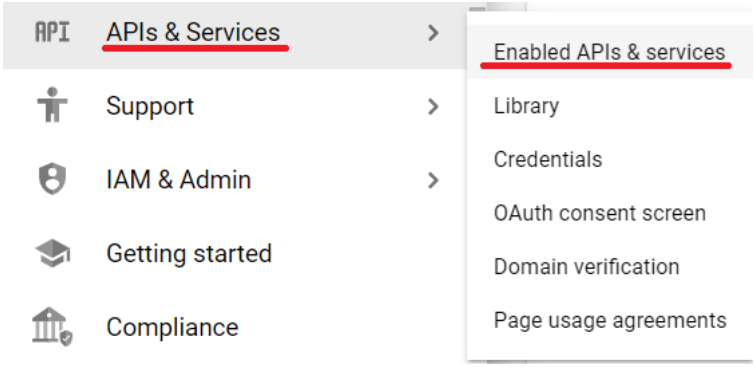
1. Log in to Google Cloud Platform and click on **Select a project** to create a new project.



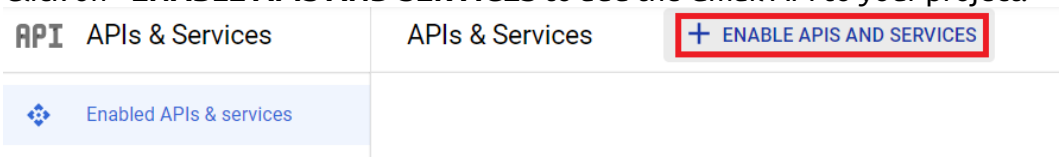
2. Add **Project name**, optionally add a location, and click **Create**.



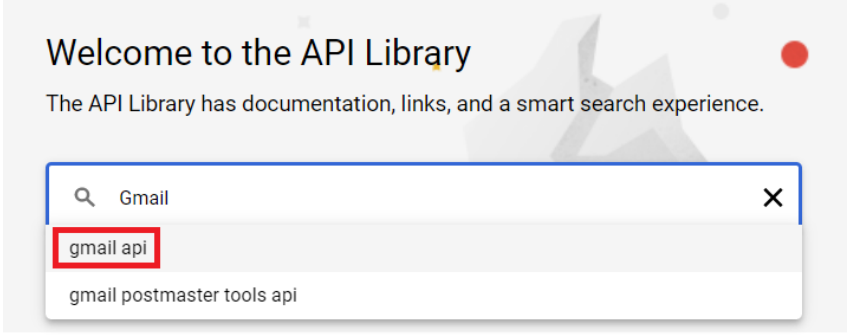
3. On the left-side menu, hover over **APIs & Services** and click on **Enabled APIs & services**.



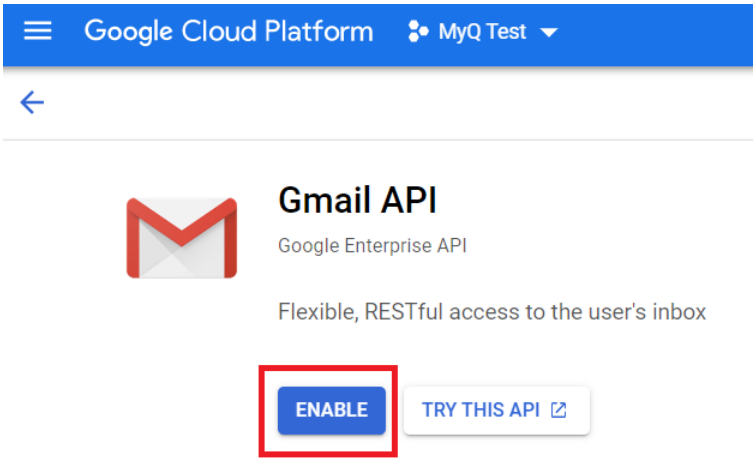
4. Click on **+ENABLE APIS AND SERVICES** to add the Gmail API to your project.



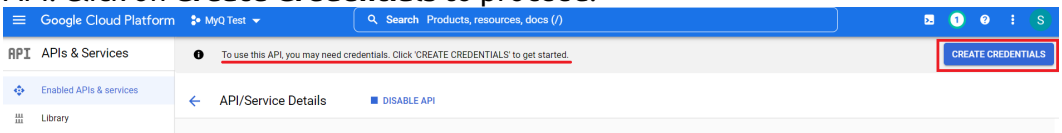
5. Type Gmail in the search field and click on the Gmail API result.



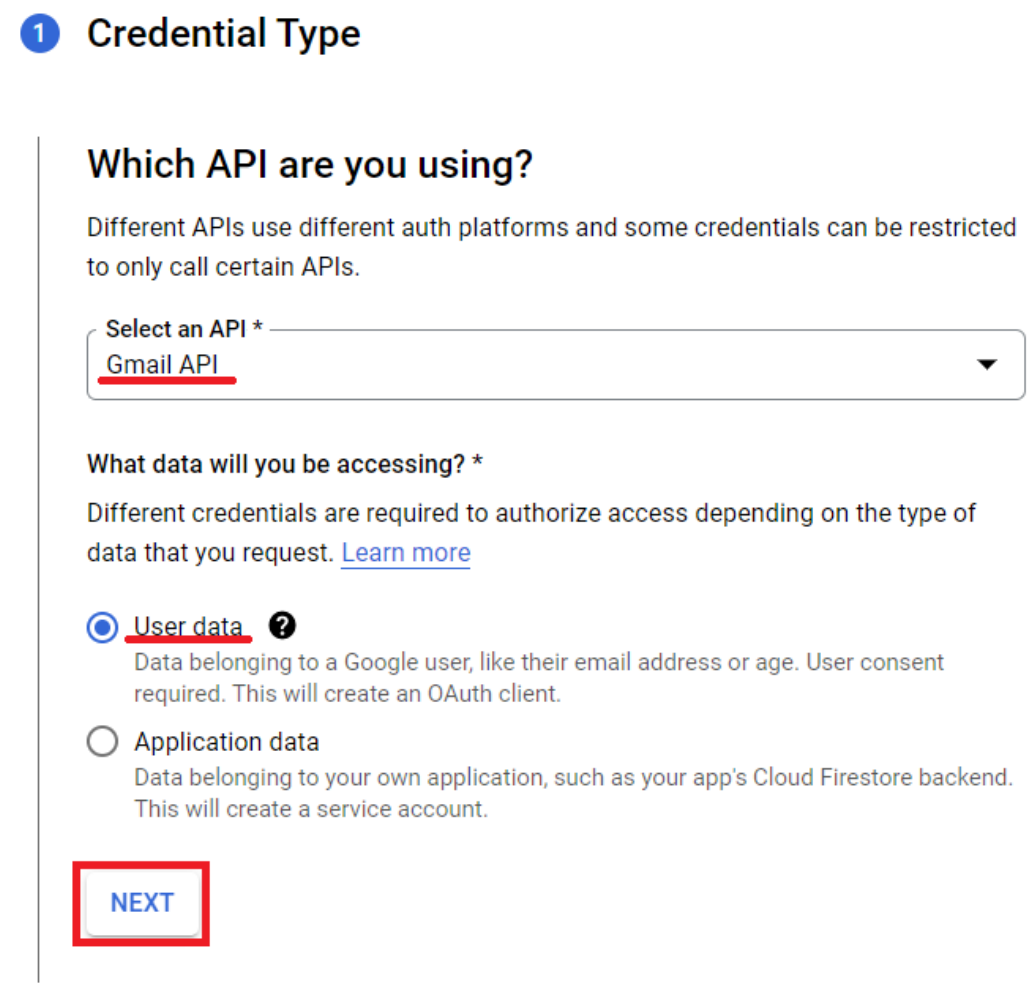
6. Click **Enable** under the Gmail API.



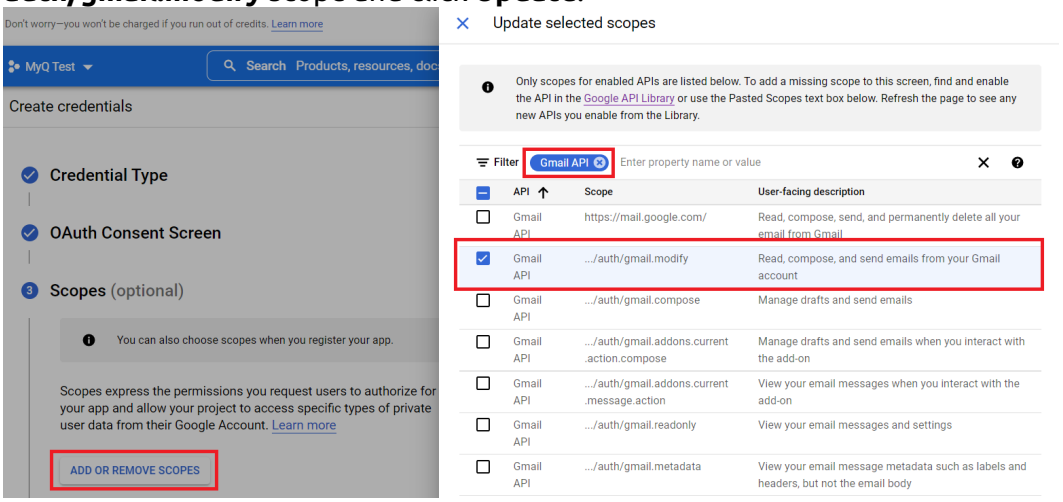
7. Once enabled, you are prompted to create credentials in order to use the Gmail API. Click on **Create Credentials** to proceed.



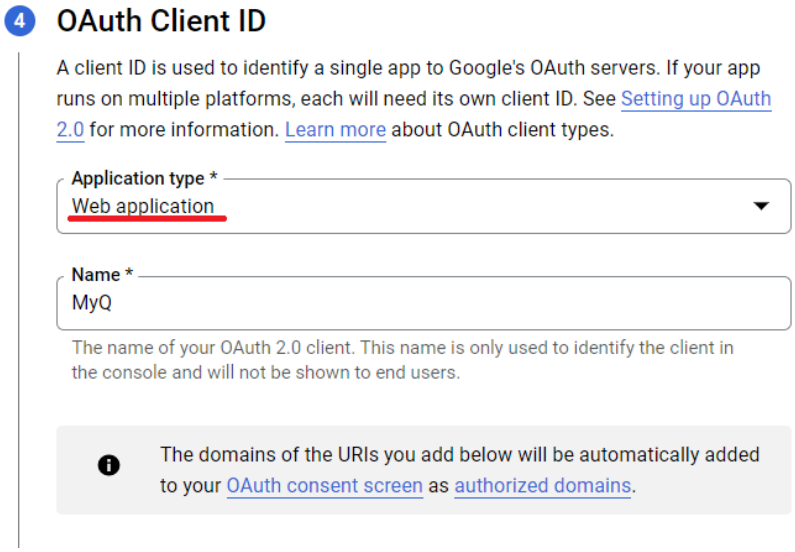
8. In the create credentials window, in the Credential Type section, choose *Gmail API* in the **Select an API** field, choose *User data*, and click **Next**.



9. In the Scopes section, click **Add or Remove Scopes**. In the Update selected scopes windows, type Gmail API in the search field, select the **Gmail API .../auth/gmail.modify** scope and click **Update**.

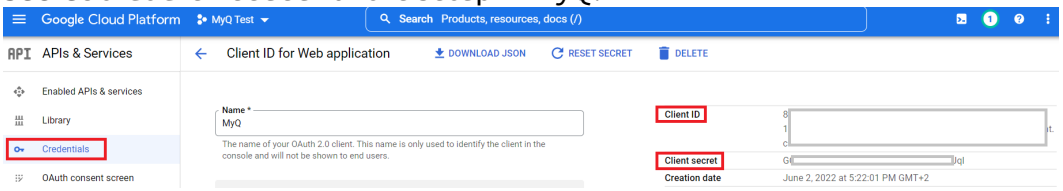


10. In the OAuth Client ID section, select *Web application* in the **Application type** field, and add a **Name** for your OAuth2 client.



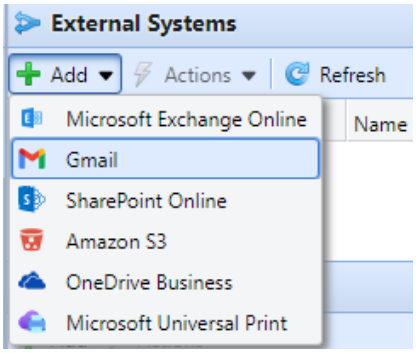
11. In the **Authorized redirect URIs** field, click Add URI and type **https://helper.myq.cz/** . This step is mandatory for the authorization code to work.

12. In the OAuth consent screen section, click **Add Users** and add the users' email addresses used for sending emails and/or receiving print jobs via email.
13. Once done with all the sections, click **Create**.
14. Navigate to APIs & Services, Credentials, to view your **Client ID** and **Client secret** that are needed for the setup in MyQ.

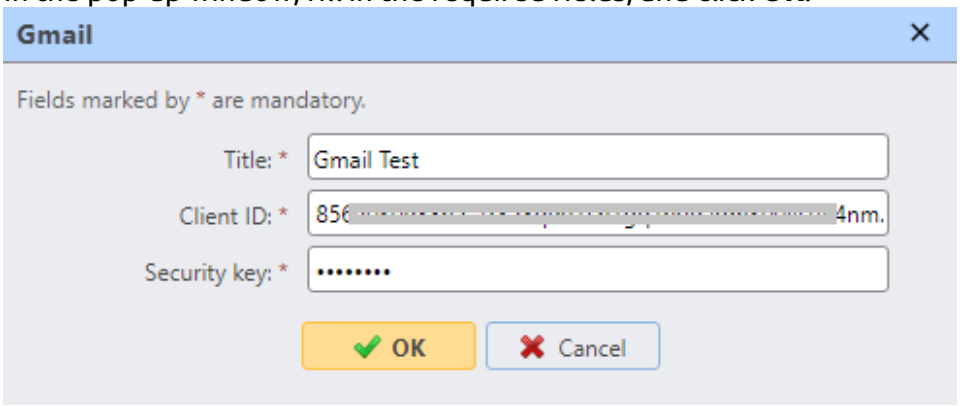


23.2.2 Gmail setup in MyQ

1. Once you are finished in Google Cloud Platform, log in to the MyQ web administrator interface, and go to **MyQ, Settings, External Systems**.
2. In the External Systems section, click **+Add** and select *Gmail*.

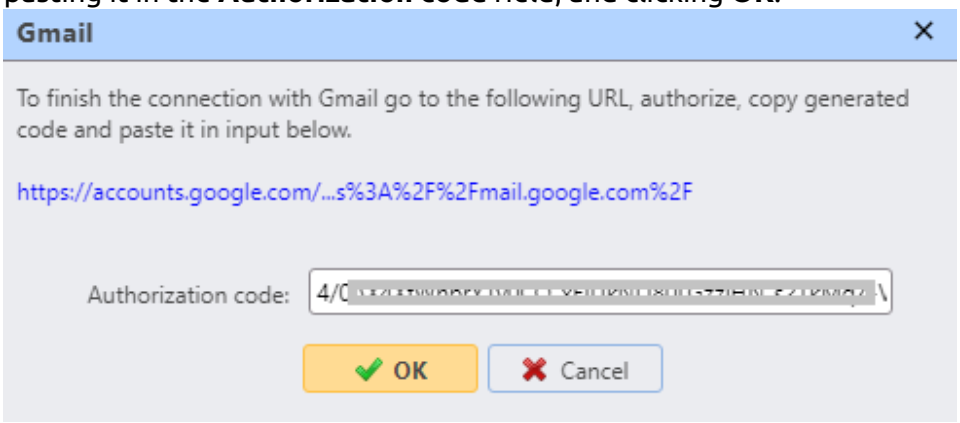


3. In the pop-up window, fill in the required fields, and click **OK**:



   a. **Title** - Add a title for your Gmail external system.
   b. **Client ID** - Add the **Client ID** from the Google Cloud Platform credentials.
   c. **Security key** - Add the **Client secret** from the Google Cloud Platform credentials.

4. After setting up the external system in MyQ, you are requested to authorize the connection by going to the provided URL, copying the generated code, pasting it in the **Authorization code** field, and clicking **OK**.



Gmail is now connected to MyQ and is ready to be used in the **Network** settings tab as an Outgoing SMTP server, and in the **Jobs** settings tab, in Jobs via Email as a POP3 or IMAP server.

23.3 MyQ Smart Workflows

In order to create a MyQ Smart Workflow you need to install and configure the ScannerVision server to work with the MyQ server.

ScannerVision is a solution to automate document workflows, by capturing, processing, and storing scanned documents. This may include bar code reading, recognizing texts with the help of Optical Character Recognition (OCR), or converting documents to another format. Storage possibilities include a network folder, a database, cloud storage or storing as an e-mail attachment.

ScannerVision extends the features of MyQ by allowing the user to perform a customized and personalized scan workflow, and can utilize the user's credentials to access the storage where the scanned document will be placed, making not only secure printing possible, but also secure scanning.

23.3.1 Requirements

Minimum requirements prior to the installation:

- MyQ Ultimate license (license for the MyQ server + license for ScannerVision)
- Two servers setup (one for the MyQ server, one for the ScannerVision server). In case of a MyQ Central Server setup, one server can be used.
- ScannerVision server 9.1+
  - EMB Kyocera 7.5.9
  - EMB Kyocera 8.1.1+
  - EMB HP Enterprise 8.1.1+ (supported in exploded mode as well)

Additional Information

Additional information about MyQ products can be found in the MyQ Docs portal:

- *MyQ Embedded Terminal Manuals* for branded embedded terminals information
- *ScannerVision User Manual* for advanced ScannerVision user information

23.3.2 ScannerVision Server Installation

.NET Framework 4.8 has to be installed on the server before installing ScannerVision. If it is not installed, open Server Manager and install it.

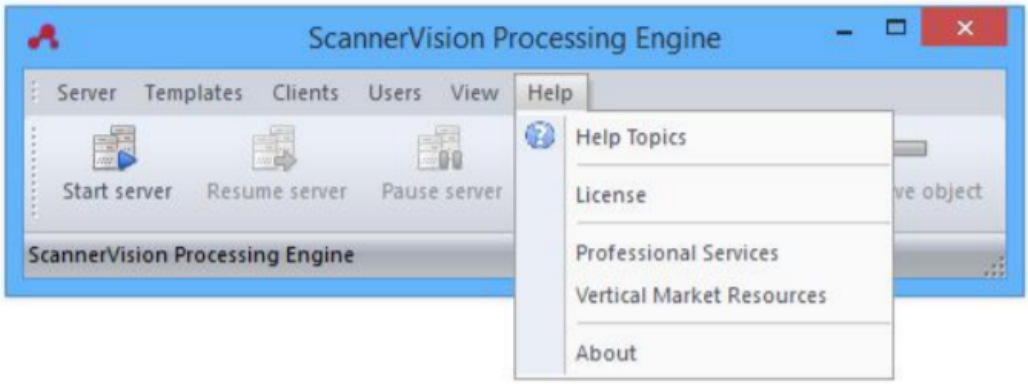
To install the ScannerVision server:

1. Run the ScannerVision installer.
2. Follow the installation wizard's instructions and install the server.
3. Activate the product.

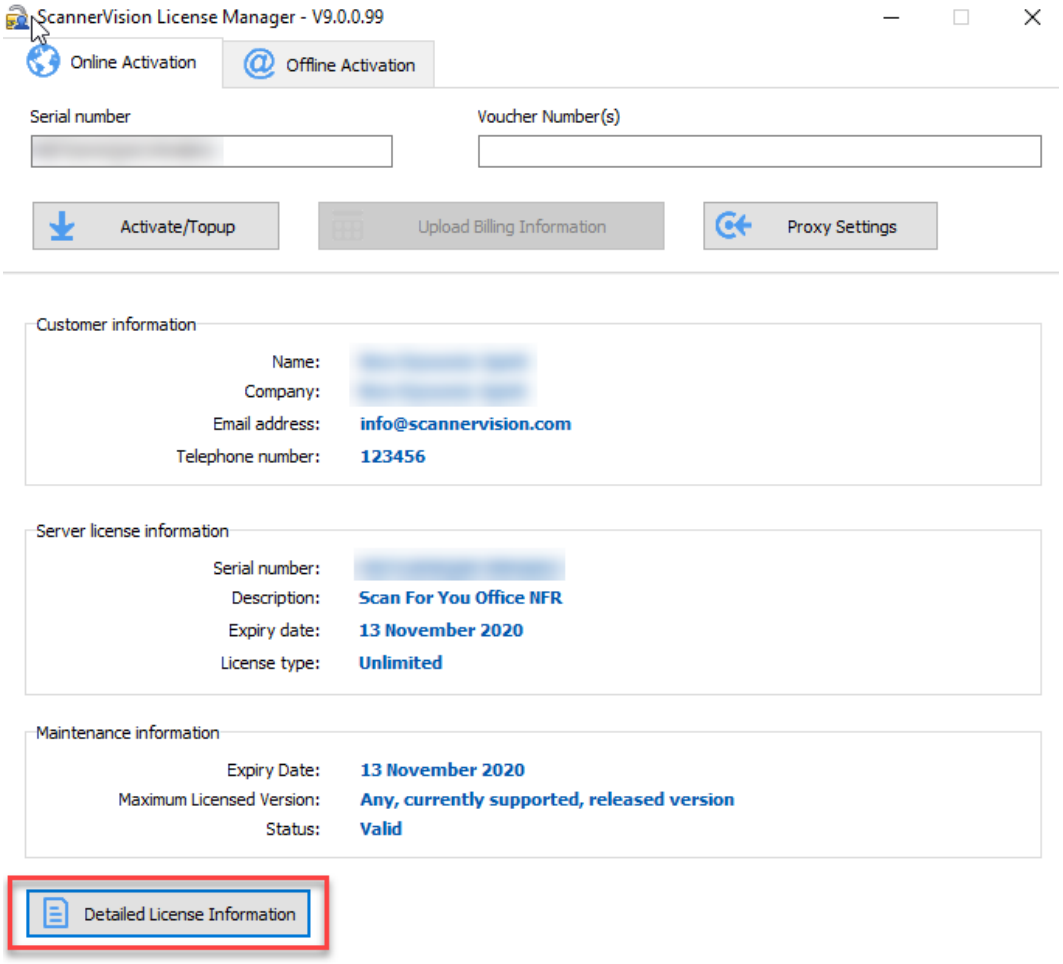
License check

Once the ScannerVision server is installed and activated, verify the license information:

- Open the ScannerVision Processing Engine user interface application.
- On the top menu, click **Help, License**.



- ScannerVision License Manager opens. Click **Detailed License Information**.



- Check if the number corresponds to the MyQ device licenses number.

23.3.3 Configuration

Once the ScannerVision server is installed, there are configuration steps to be done, both in MyQ and in ScannerVision:

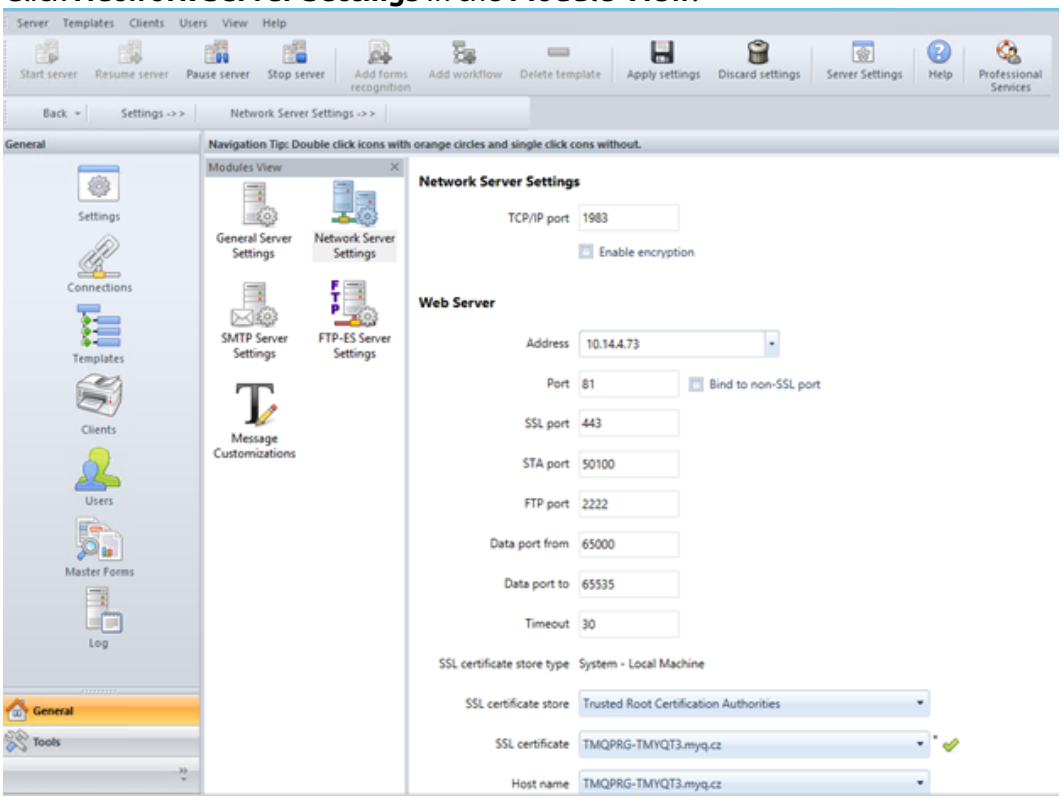
- Configuring ScannerVision
  - Templates
  - Clients
  - Users
- Adding ScannerVision as a terminal action in MyQ

Configuring ScannerVision

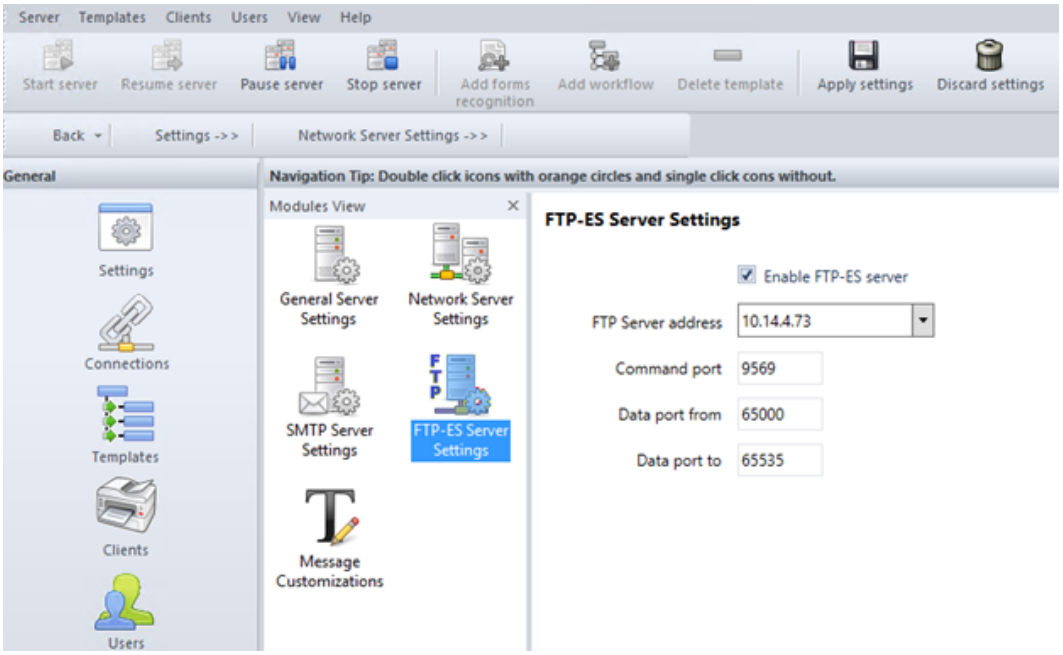
In order to set ScannerVision properly, you need to configure Network settings, Templates, Clients and Users.

Network Settings

1. Open ScannerVision. **Settings** is shown by default.
2. Click **Network Server Settings** in the **Module View**.



3. Add the IP address or hostname of the ScannerVision Web Server in the **Address** field.
4. Change the preset ports if necessary.
5. Enable/disable non SSL.
6. Configure the **FTP-ES server settings**:



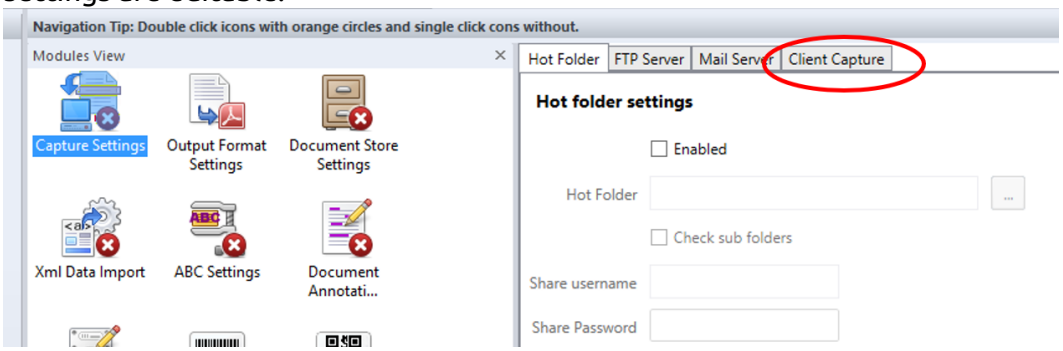
7. **Save** your settings.

Templates

Templates control what actions ScannerVision performs. They determine where documents come from, what processing is done on them and where they ultimately end up. Multiple templates can be defined and assigned to users and groups.

To add a new template:

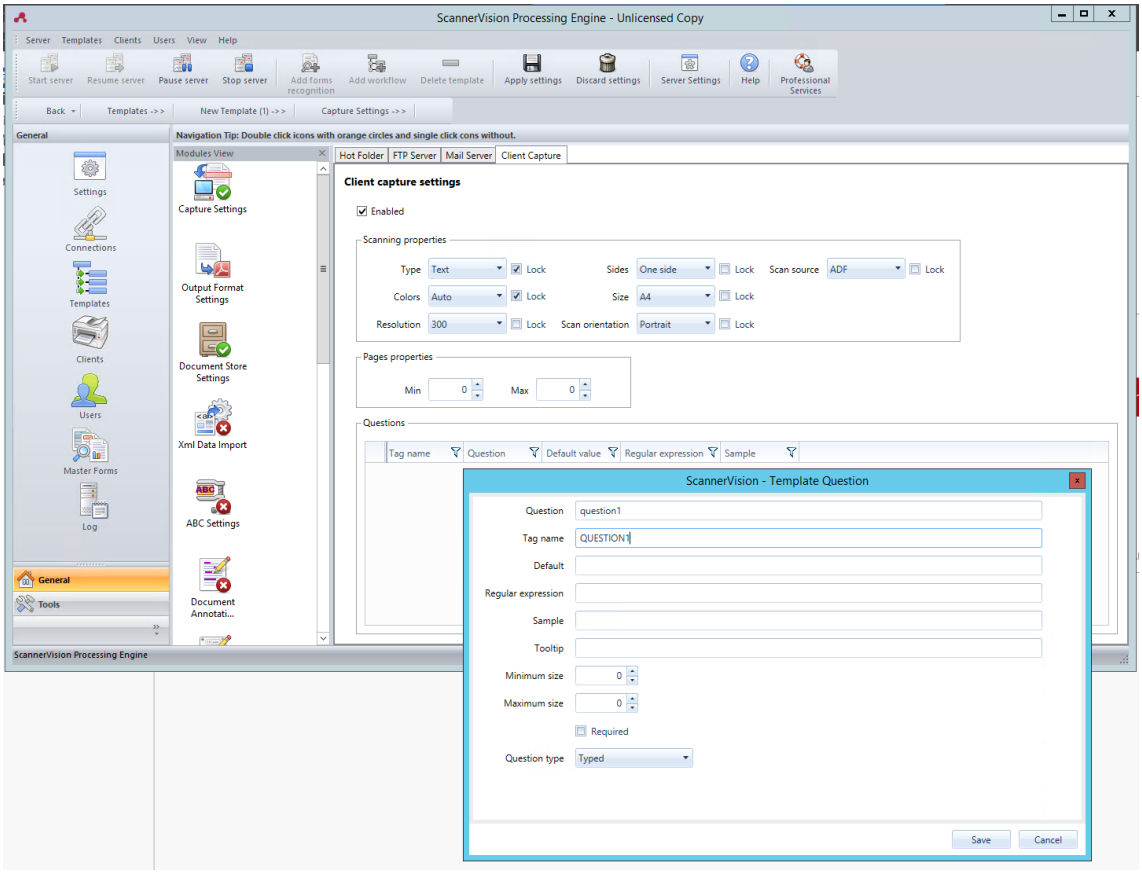
1. Open ScannerVision Processing Engine and click **Templates** in the **Navigation Pane**.
2. Click **Add Workflow** on the top menu.
3. **Name** the new template and mark it as **Enabled**.
4. Click **Apply Settings** on the top menu.
5. Once saved, double-click on the new template. In the right tab of the window, select **Client Capture**.
6. In the Client Capture tab, mark the **Enabled** checkbox. Now the template's settings are editable.



Adding Questions on a Template

Questions are used to capture necessary document information. To add a new **Question** to a template, in the Client Capture tab:

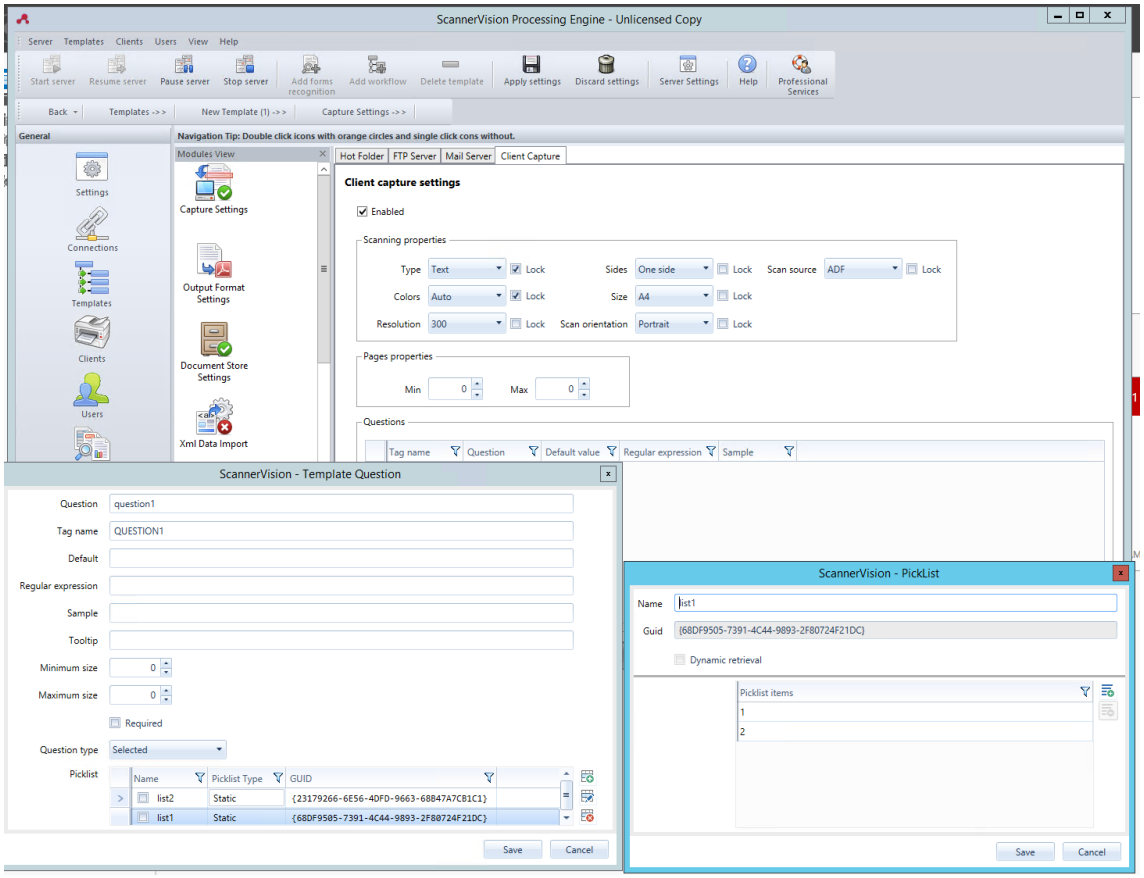
1. Right click on the **Questions** area.
2. Select **Add question**.
3. In the new Template Question window, fill in the **Question**, **Tag name**, and **Default** text fields, and any other of the optional fields.
4. In **Question Type** select *Typed*.
5. Click **Save**.



Adding a PickList to a Question

A **PickList** can be added to a **Question** within a template, if the **Question Type** selected is *Typed*. To add a **PickList**:

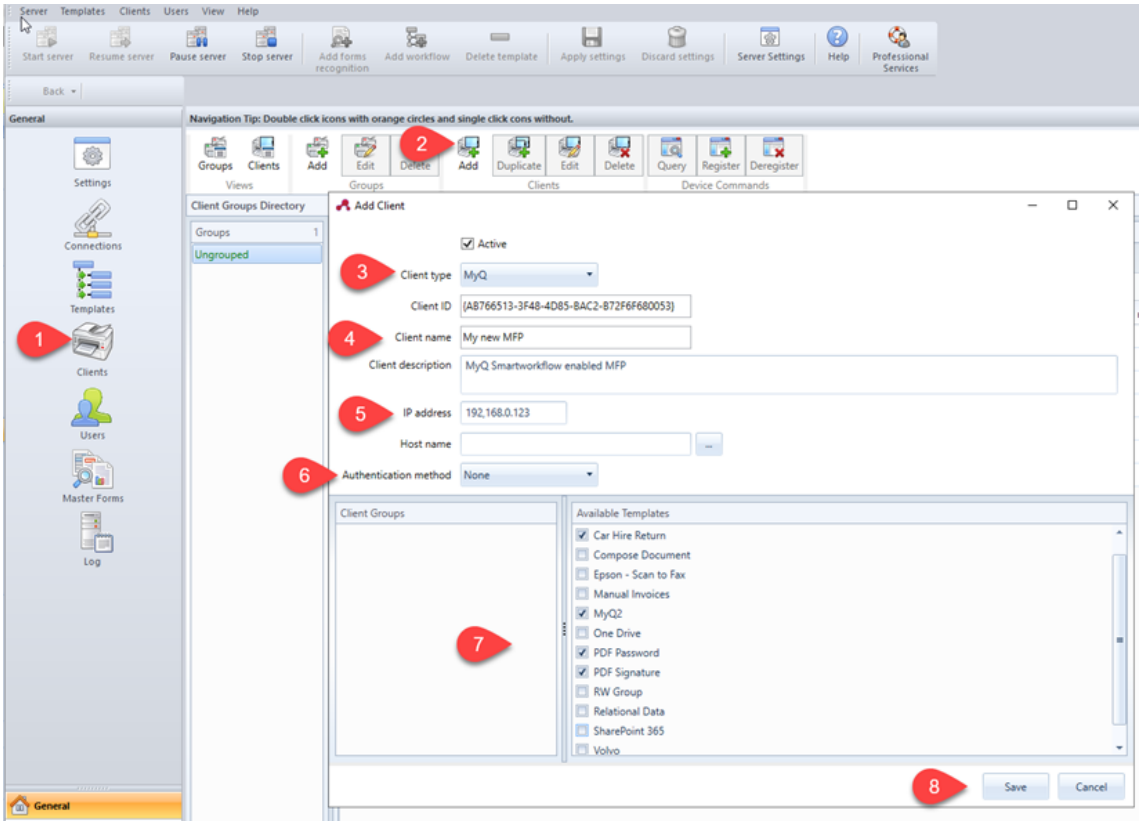
1. Click on the **Add PickList** button on the right.
2. Once there, select *Static* as the **PickList Type**.
3. In the Picklist window, enter a **Name** for the picklist.
4. Add picklist items by pressing the plus (**+**) button on the right.
5. Click **Save**.
6. Once saved, select the picklist(s) to be displayed for this question and click **Save**.



Clients

The clients you configure here represent the MyQ terminals connected to ScannerVision. To add a client, go to ScannerVision Processing Engine and:

1. Click **Client** on the **Navigation Pane**.
2. Click **Add** under the **Clients** view.
3. Choose *MyQ* as the **Client type**.
4. Optionally add a **Client name** and **Client description**.
5. Add the printing device's **IP address** (make sure to use the device's IP address and not the MyQ server one).
6. Choose an **Authentication method** from:
   a. *None* - everyone can access the same templates
   b. *ScannerVision* - Used for Single Sign On; Users have customized template lists.
7. Choose the templates to be accessed by everyone, in case *None* was the authentication method of choice.
8. Click **Save**.

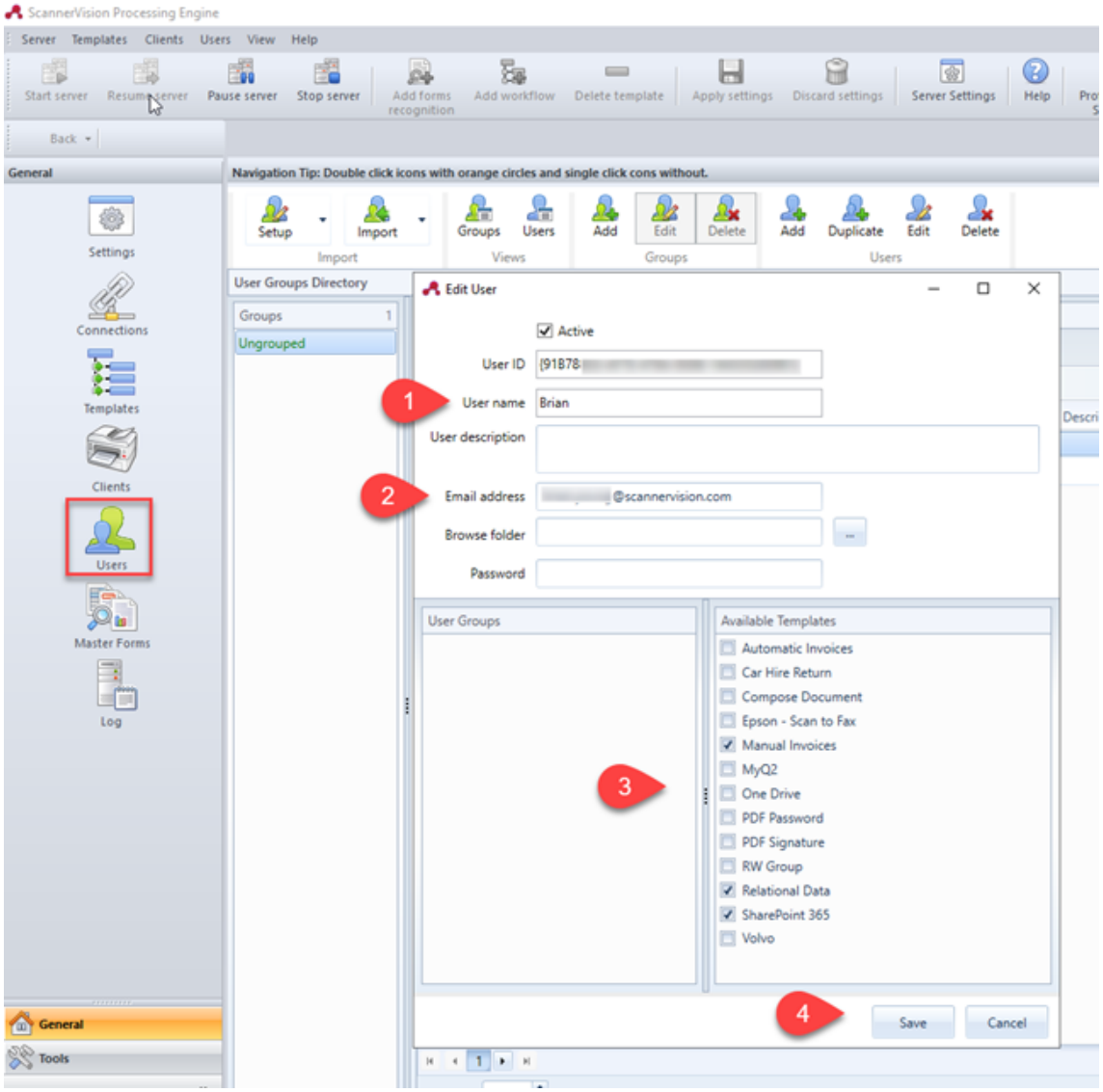


Configuring Users

Users can be imported from a Windows Server, LDAP, AD or they can be manually added. For further instructions, please check the *ScannerVision User Manual*. Users also need to have templates assigned to them.

Whichever method is chosen, the users in ScannerVision have to match MyQ Users. If users are imported, their properties such as names and email addresses will match, however **Templates** will still need to be assigned to them. To check and make necessary modifications, go to ScannerVision Processing Engine, click **Users** on the **Navigation Pane** and:

1. Make sure that the **User name** matches the MyQ user name (if users were manually added).
2. Make sure that the **Email address** matches the MyQ user's email address (if users were manually added).
3. Select templates for the user from the **Available Templates**.
4. Click **Save**.



Adding ScannerVision as a Terminal action in MyQ

After configuring ScannerVision (network settings, templates, clients, users), you should create a MyQ Smart Workflow in **Terminal Actions**.

1. Go to **MyQ, Settings, Terminal Actions**.
2. Add the **External Workflow** action node by right-clicking on **Home screen**. The node is added to the list and the terminal preview. Double-click on it to modify its settings. The node's properties pane opens on the right side.
3. Fill out the **External workflow** as follows:
   a. Enter a **Title**. After saving, this will be shown as the name of the **External workflow** action in the **Home** screen pane and on the terminal preview.
   b. Enter the **URL** of the ScannerVision server; *ScannerVisionServer:port*. *http* or *https* depends on the ScannerVision server settings.
   The port number is not required if the default settings (*80* for non SSL and *443* for SSL) are used on the ScannerVision server. If the port was changed, the port

number is required.
For example: *https://10.14.5.125* for SSL only with the default port used and *http://10.14.5.125:81* for non SSL and the port was changed from *80* to *81*.
c. Change the **Printers** and/or **Rights** if you want to create a specific MyQ Smart Workflow.
d. Click **Save**.

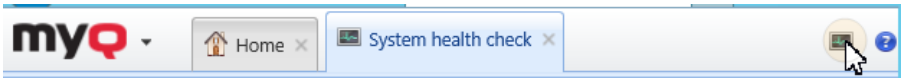
24 System health check

MyQ performs registered checks which can return error messages with their level of severity and they can be viewed in the system health check. The errors concern database health, disk space availability, PIN length settings, time zone configuration, etc.

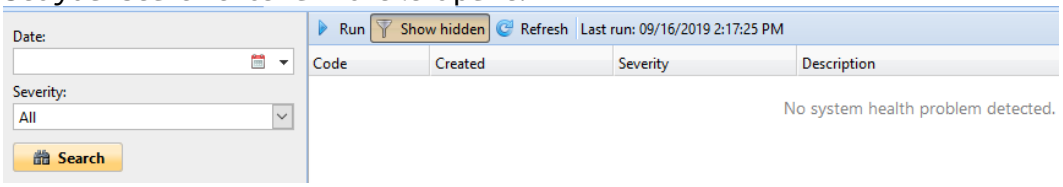
Every error message is logged in the MyQ main log.

When the error message has a **Critical** severity, the related MyQ service is stopped and the administrator gets an email notification about it.

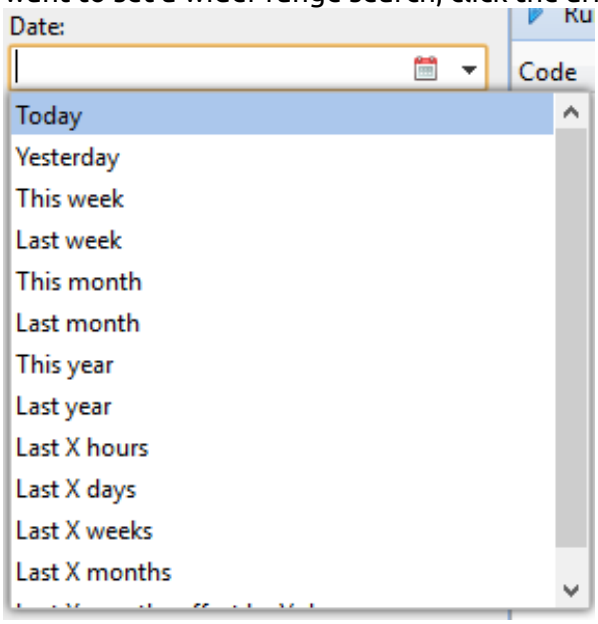
To access the system health check overview, log in as admin to MyQ and go to **MyQ, System health check**, or click on the system health check icon on the top-right side of the window.



1. Set your search criteria in the left pane.



You can search for errors on a specific **Date** by clicking the calendar icon. If you want to set a wider range search, click the arrow to choose a date:



Select a **Severity** from the drop down list.

2. Click **Search**. The search result is shown in the right pane.
3. Click **Run** to trigger the System health check **Task schedule** to perform a check with these date and severity settings.

Error codes and their severity are listed in the table below.

Code	Severity	Description
101	High	Main database health is not good; multiple messages can appear in the log
102	High	Log database health is not good; multiple messages can appear in the log
103	Medium	PIN length needs to be increased; see Generating PIN
104	High	Disk space is on warning level; see Disk space checker
105	Critical	Disk space is on critical level; see Disk space checker
106	High	Time zones misconfiguration; see Time zone
107	Medium	Queue(s) has an error
108	Medium	Obsolete terminal version
109	High	MyQ Server is not responding to HTTP requests. HTTP Server or HTTP router will be restarted
110	High	MyQ Server is not responding to HTTP requests in a reasonable time
111	High	Terminal package(s) does not respond to health check request
112	High	At least one service is not running
113	High	The logon account of at least one service doesn't match the configured account
114	Medium	Database password is default
115	Medium	Administrator password is default

25 Updating MyQ

The MyQ update to a higher version or reinstalling the same version is performed automatically after running the installation executable file.

Before a MyQ update on Windows Server 2012/2012 R2/2016/2019 (or on Windows 8.1/10), make sure that the latest Windows updates are downloaded and installed on the server.

When upgrading or updating MyQ, ensure all antivirus exclusions are made and that there are no running scan operations on the MyQ directories structure.

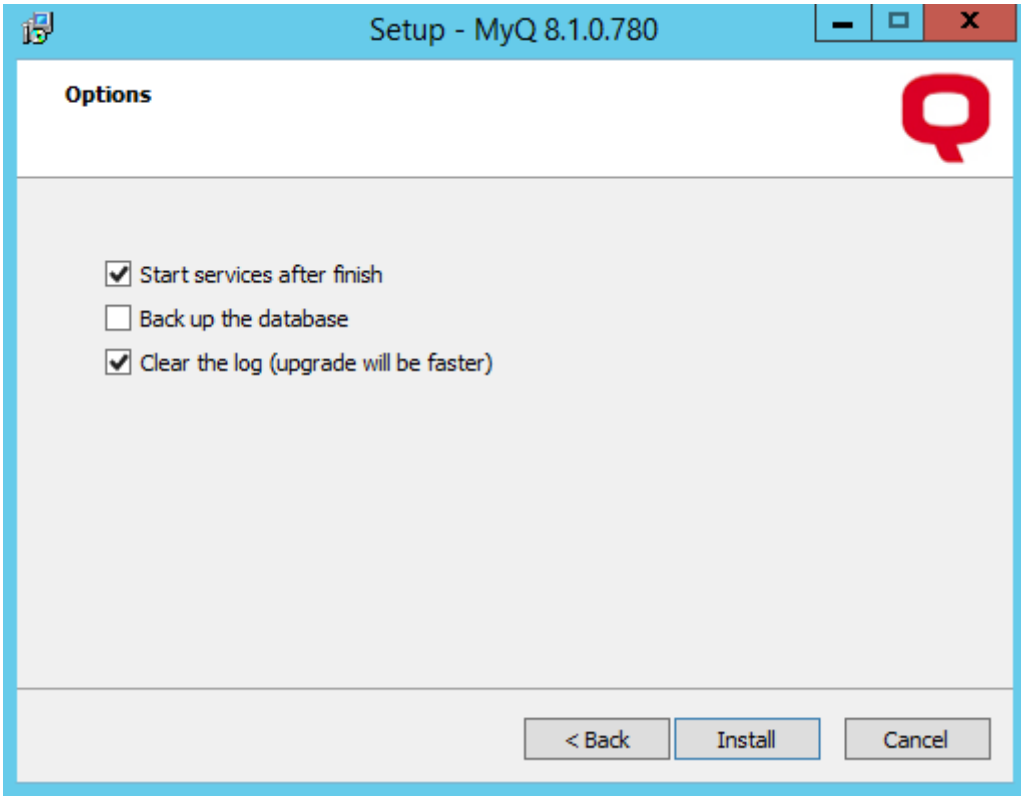
It is strongly recommend to backup your database before the update.

A direct upgrade to version 8.0 and higher versions from versions lower than 6.0 is no longer supported. These versions have to be upgraded via an intermediary version, for example via 6.2.

- For version 4.2 or lower, the intermediary versions are: 4.3 -> 5.2 -> 7.1.
- For version 5.2 to 5.10 the intermediary version is 7.1.

To update MyQ:

1. Run the MyQ software installation executable file. The Select Setup Language dialog box appears.
2. Select your language, and then click **Next**. The Setup dialog box appears. It informs you that there is an older version of MyQ and that the installer will start the update process.
3. Click **Yes**. The Select Additional tasks dialog appears.
4. Select if you want a MyQ Easy Config shortcut to be created and click **Next**. The rest of the update process is nearly identical to this of installing MyQ, except that you are asked to choose upgrade options.



You can find an upgrade manual with more details on the MyQ Community portal.

26 Uninstalling MyQ

To uninstall MyQ:

1. Run **unins000.exe**. You can find this file in your MyQ program folder (the default folder is: *C:\Program Files\MyQ*). The MyQ Uninstall dialog box appears.
2. Click **Yes**.

All parts of MyQ will be uninstalled except for the **Data Folder** and its **Job Folder**. You can delete these folders manually. In case you install MyQ again, the installation program will ask if you want to use the old database files or replace them with new files.

27 Available languages

Language	Abbreviation
Arabic (Saudi Arabia)	ar
Bosnian (Bosnia & Herzegovina)	bs
Bulgarian (Bulgaria)	bg
Chinese (Simplified)	zh-cn
Chinese (Traditional)	zh-tw
Croatian (Croatia)	hr
Czech (Czech Republic)	cs
Danish (Denmark)	da
Dutch (The Netherlands)	nl
English (United Kingdom)	en
English (United States)	en-us
Estonian (Estonia)	et
Finnish (Finland)	fi
Flemish (Belgium)	nl-be
French (France)	fr
German (Germany)	de
Hungarian (Hungary)	hu
Icelandic (Iceland)	is

Language	Abbreviation
Italian (Italy)	it
Japanese (Japan)	ja
Korean (South Korea)	ko
Latvian (Latvia)	lv
Lithuanian (Lithuania)	lt
Norwegian (Norway)	no
Polish (Poland)	pl
Portuguese (Brazil)	pt-br
Portuguese (Portugal)	pt
Russian (Russia)	ru
Serbian (Serbia)	sr
Slovak (Slovakia)	sk
Slovenian (Slovenia)	sl
Spanish (Spain)	es
Spanish (United States)	es-us
Swedish (Sweden)	sv
Turkish (Turkey)	tr
Welsh (Wales)	cy

28 Business Contacts

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Business information	http://www.myq-solution.com info@myq-solution.com
Technical support	support@myq-solution.com
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