



# Qlik NPrinting 17.1.x Installation Guide

## Configuring a Reporting Environment with Qlik Sense

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## Before You Begin

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We recommend answering and fulfilling this list of questions, minimum requirements, and prerequisites prior to completing the NPrinting 17.1.x installation

This document provides instructions for installing NPrinting components in clean environments.

## Supported Configurations

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NPrinting 17.1.x and Qlik Sense must be installed on separate Windows server instances in test and production environments to comply with Qlik Support requirements.

## NPrinting Engine and Server Minimum Requirements

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- Windows Server 2012 or Windows Server 2012 R2
- Microsoft .Net Framework 4.5.2 or above
- 8 gigabytes of RAM for NPrinting Server
- 500 MB of disk space for NPrinting Server
- Minimum of 2 GB is required for each core with the minimum of 4GB of RAM in total for NPrinting Engine
- 300 MB of disk space for NPrinting Engine
- Qlik Sense Server 2.2.4 or higher to create connections to Qlik Sense
- Qlik Sense Server 3.0.1 or higher to distribute reports to the Qlik Sense hub
- Qlik Sense generated QlikClient certificate, server certificate, and root certificate
- NPrinting Console supports Internet Explorer 10 or above, Chrome, Firefox, and Edge



**Qlik Sense 3.0.1 does not support Internet Explorer 10 and will not work.**

## NPrinting Designer Minimum Requirements

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- Microsoft Windows 7, 8, 8.1, 10 operating systems (32- or 64-bit), Windows Server 2008 R2, Windows Server 2012, or Windows Server 2012 R2
- Microsoft Office is required for creating MS office templates with NPrinting Designer
- Microsoft .Net Framework 4.5.0 or above

## TCP Ports for NPrinting

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Port	Description
4992	NPrinting Repository service port
4993	NPrinting Web Console port (Uses HTTPS)
4994	NPrinting NewsStand port (Uses HTTPS)
4995	Windows authentication service for binding windows credentials to users in the web console
4996	Web Engine service port for connecting NPrinting Designer to the NPrinting Server
5672	RabbitMQ service port



Depending on firewall rules, ports 4993, 4994, 4995, and 4996 may need to be opened inbound on the server running NPrinting Server to allow access from web browsers and NPrinting Designer.

## TCP Ports for NPrinting Communication with Qlik Sense

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Port	Description
4242	Qlik Sense Repository Service (QRS) port
4243	Qlik Sense Proxy Service (QPS) port



Qlik Sense ports need to be opened inbound on the Qlik Sense server. These ports may need to be opened outbound on NPrinting Server and NPrinting Engine servers depending on firewall configuration.

## NPrinting Installation Prerequisites

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- Determine if NPrinting Engine and Server (Scheduler) will be installed in a virtual machine on premise (such as VMWare), physical server, or cloud provider (such as Amazon / Rackspace / Azure).
- Determine if NPrinting Engine and Server (Scheduler) will be installed on the same system.
- Determine the Windows domain the Qlik Sense server and NPrinting Server (Scheduler) will be attached to.
- Administrative rights and Remote Desktop access to the NPrinting Server(s).

- A Windows domain account for the NPrinting service account with administrator rights and Logon as a service rights on the NPrinting Engine and NPrinting Server systems.

- An account name, password, and email address for the NPrinting administrator console administrator.



This is the account used to administer the NPrinting console. It is different than the services account described previously.

- Validate the environment
  - Clean operating system desired.
  - Ensure the proper operating system is installed per minimum requirements.
  - Ensure Microsoft .Net 4.5.2 is installed.
  - Ensure recommended RAM is available on the system.
  - Ensure the server has access to the Internet for license activation.
  - Ensure firewall is disabled or appropriate ports are opened on firewall to enable NPrinting communications.
  - Qlik Sense QlikClient, server, and root certificates exported and in hand (instructions below).

## Be Prepared

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- Have NPrinting installation files downloaded
- Have NPrinting license and control number in possession
- If Qlik Sense server is already installed, make note of the hostname
- Qlik Sense QlikClient, server, and root certificates exported and in hand.
- Administrator group access to the NPrinting server.
- The domain account used for NPrinting services is designated a Rootadmin on the Qlik Sense server.
- All userids and passwords for authenticating to servers and applications listed are in hand.
- Remote Desktop access to the NPrinting and Qlik Sense servers.

## Pre-Installation Steps

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Validate all prerequisites above have been met before continuing with installation

### Windows Setup



If you plan to rename the machine or workgroup, do it before installing NPrinting Server and NPrinting Engine.



Disable Windows Firewall completely (if this is not acceptable, open inbound ports 4993, 4994, 4995, 4996).

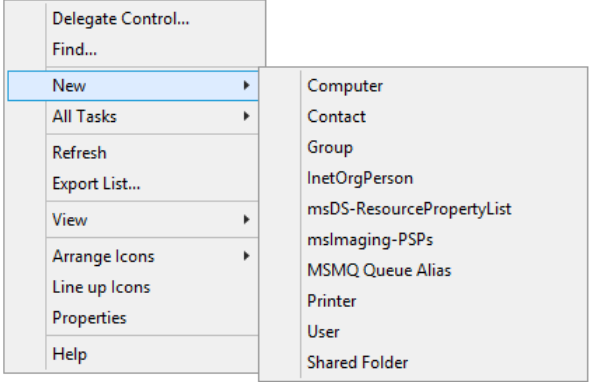
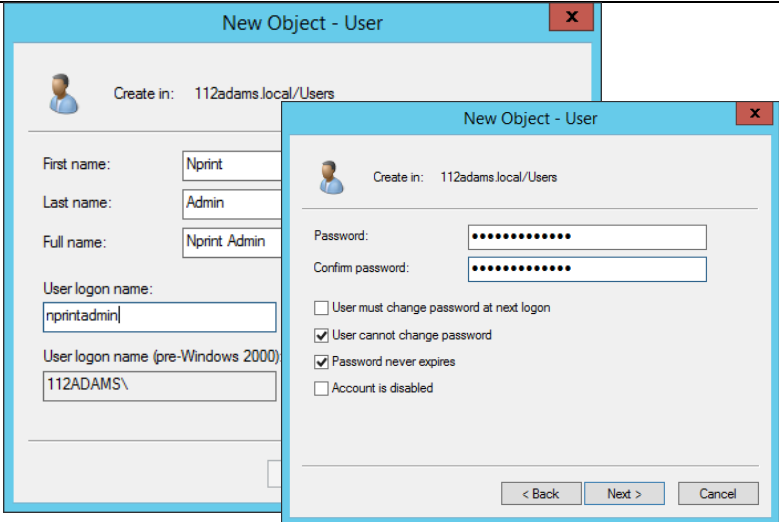


Disable Windows Internet Explorer Enhanced Security Configuration (IE ESC).

## Installation Instructions

Please follow these instructions closely. NPrinting services require a specific order of install to work properly.

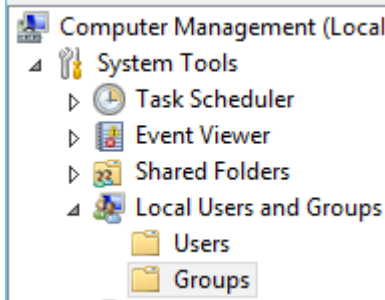
### NPrinting Service Account Setup

<p>The NPrinting service account needs to be a domain account. Please work with domain administrator to create the NPrinting service account.</p>	
<p>To create a domain account, open Launch Active Directory Users and Computers snap-in.</p> <p>Right click on the Users folder and select New --&gt; User.</p>	
<p>Enter a first name for the account.</p> <p>Enter a last name for the account.</p> <p>Enter a user logon name for the account.</p> <p>Click Next.</p> <p>Create a password for the new user and check the User cannot change password and Password never expires options.</p> <p>Click Next, then Finish to create the user.</p>	



After the user is created, go to the NPrinting server system and open the computer management snap-in from the server manager.

Click on the Local Users and Groups entry and select Groups.

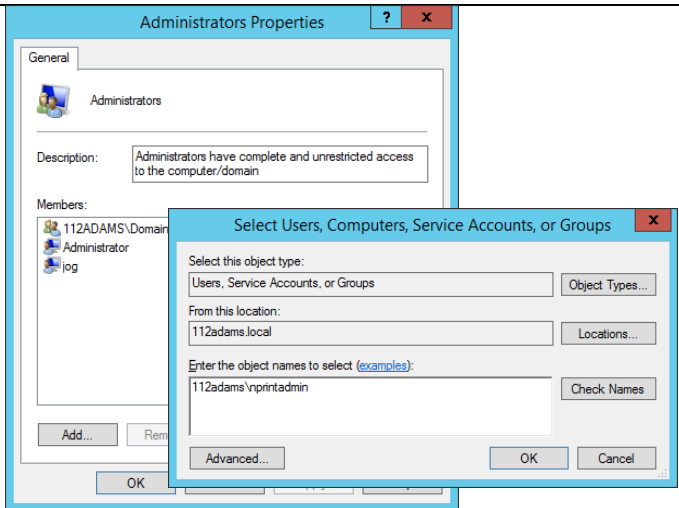


Double click on the Administrators entry.

Click the Add button.

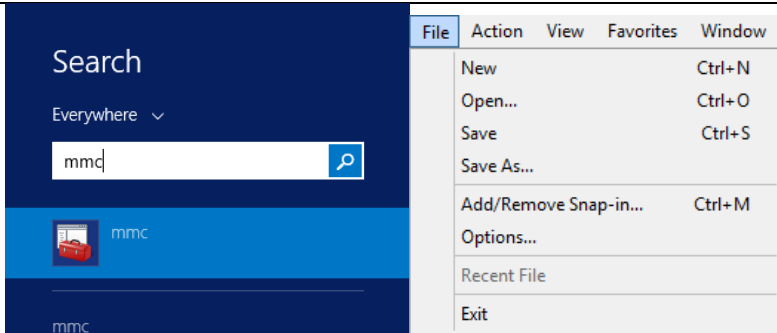
Enter the domain account for the NPrinting services.

Click OK, and then click OK again.

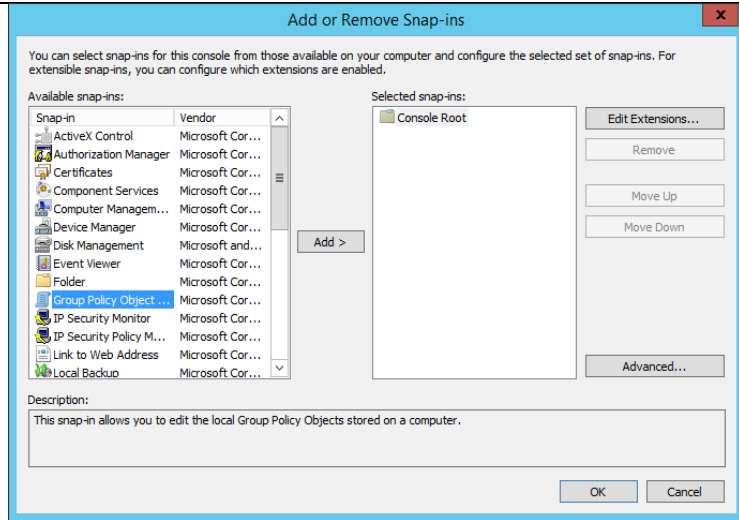


Click on the Start button and search for and select MMC.

When the MMC loads, select File...Add/Remove Snap-in...

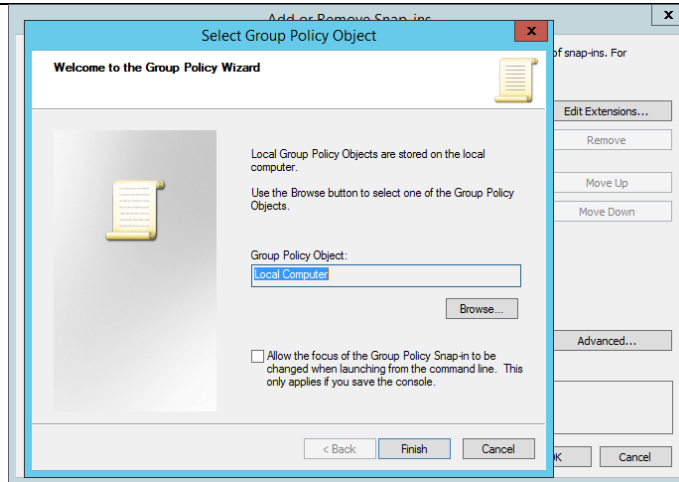


Click on the Group Policy Object entry and click the Add button.



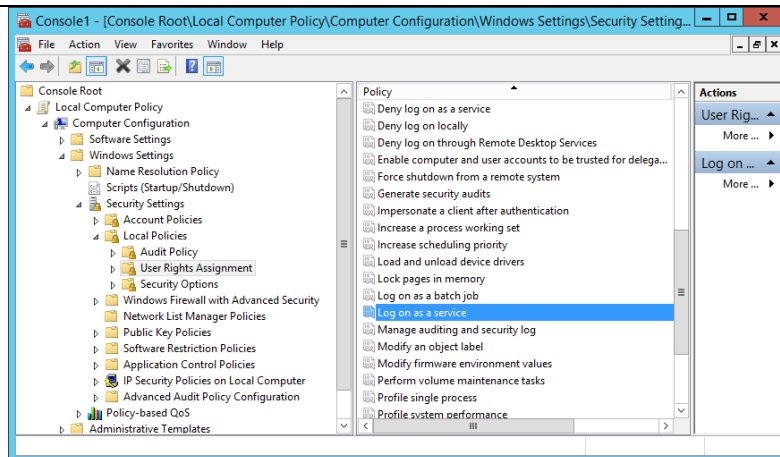
Confirm the group policy object for the Local Computer is highlighted and click Finish.

Click OK to exit the snap-in manager.



Navigate to Local Computer Policy/Windows Settings/Security Settings/Local Policies/User Rights Assignment on the left side of the screen.

On the right side of the screen, scroll down and locate the Log on as a service entry and double click on it.

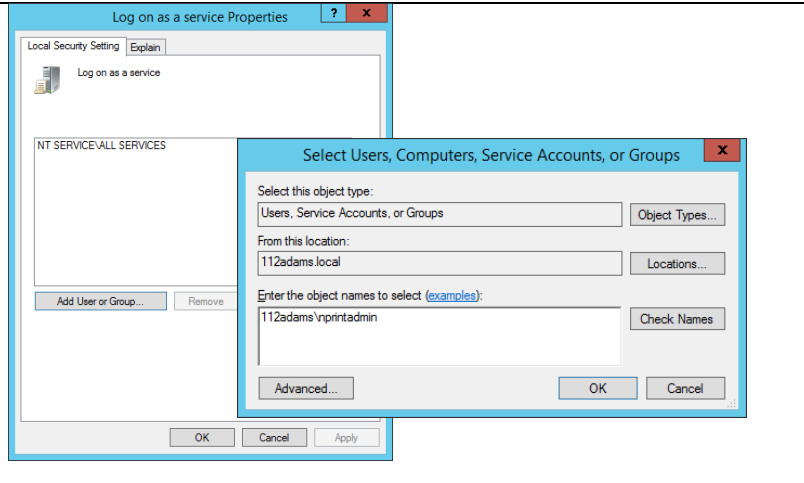


Click on Add User or Group.

Click the Add button.

Enter the domain account for the NPrinting services.

Click OK, and then click OK again.



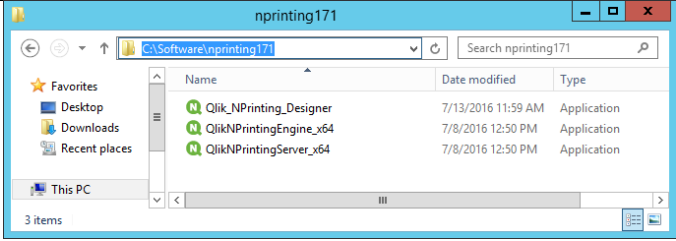
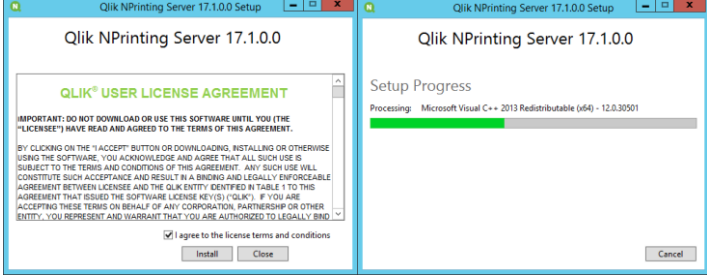

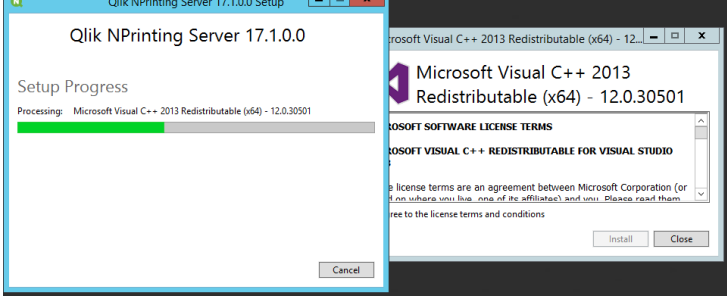
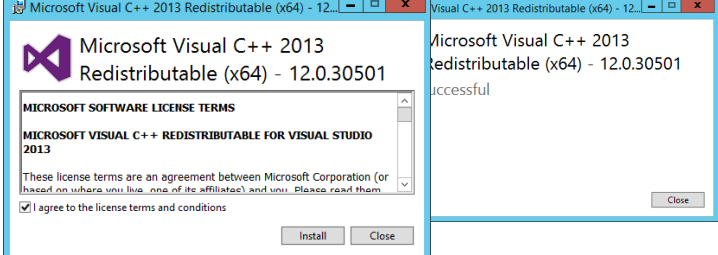


The NPrinting Server installation must be installed before the NPrinting Engine and NPrinting Designer. NPrinting may not work if the installation is not performed in the following order:

1. NPrinting Server
2. NPrinting Engine
3. NPrinting Designer

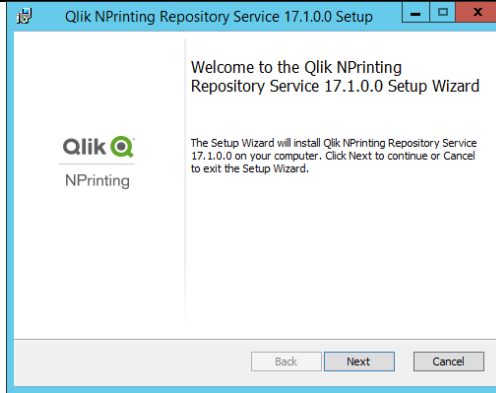
Please install the software in the correct order.

## NPrinting Server Installation

<p><b>Tip!</b> Log into the server as the NPrinting service account.</p>	
<p>Navigate to the location where NPrinting installation files reside.</p> <p>Right click on QlikNPrintingServer_x64.exe and choose Run as Administrator.</p>	
<p>The Qlik NPrinting Server license agreement appears. Select the check box to agree to the license and click the Install button.</p> <p>A Setup progress window will appear.</p>	
<p> When the Setup Progress window appears, click on the window and move it to the left. Below the window is the Microsoft C++ 2013 Redistributable installation.</p> <p>Activate the Microsoft C++ 2013 Redistributable installation window.</p> <p>This window will <b>not</b> be displayed if the appropriate version of Microsoft Visual C++ is already installed.</p>	
<p>Select the check box to agree to the license terms and click the Install button.</p> <p>When the installation completes, click the Close button to exit the Microsoft C++ Redistributable installer.</p>	

The Qlik NPrinting Repository Service installer appears.

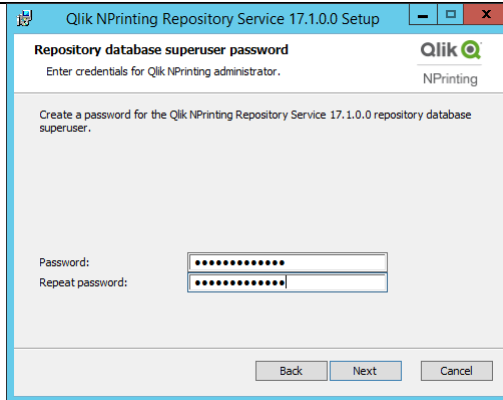
Click the Next button.



Enter a password for the repository database.

Please make note of this password and keep it in a secure location.

Click the Next button.



Enter the credentials that NPrinting will use for the NPrinting administrator.

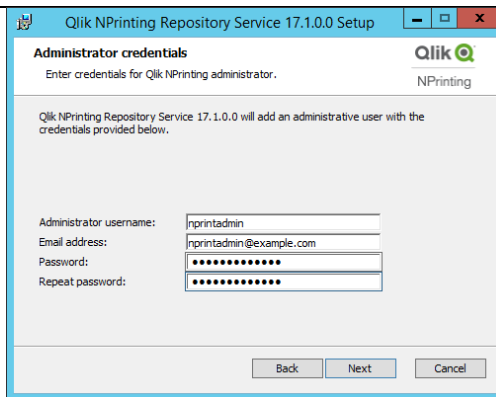


This account is different than the service account because it is NOT a Windows account.

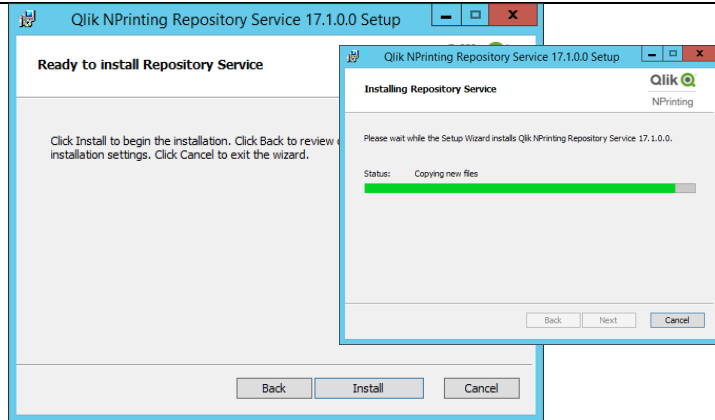
This is an account stored in the NPrinting repository.

Supply a username, an email address, and a password for the NPrinting administrator account.

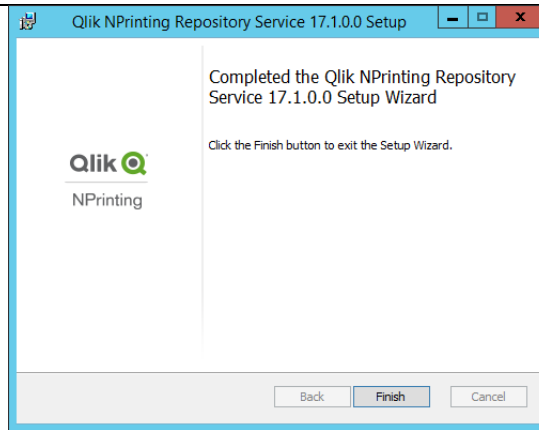
Click the Next button.



Click the Install button to start the installation of the software.



When the NPrinting Repository installation completes, click the Finish button.



The NPrinting Server installation appears.  
Click the Next button.



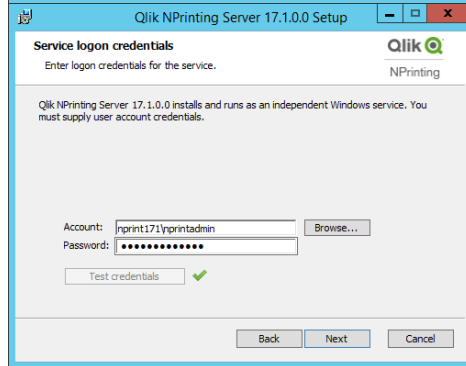
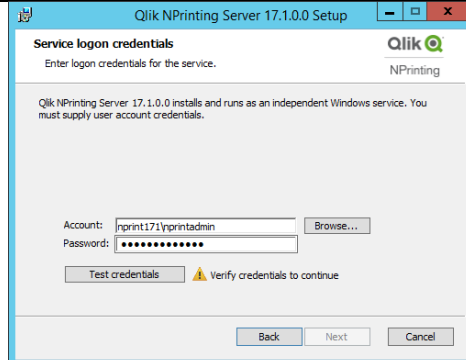
Enter the NPrinting service account (this is the Windows service account added in the create user section of the document) and password in the supplied fields.



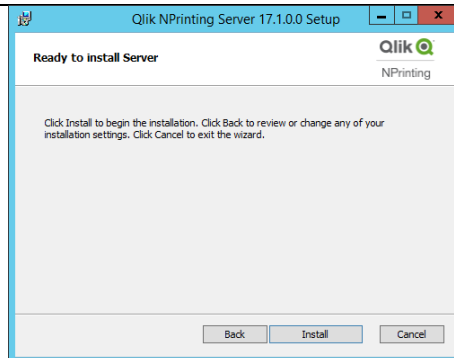
Make sure to enter the account in domain\userid format as in the image.

Click the Test credentials button and verify the yellow warning sign changes to a green check box. If the green check box does not appear, the account does not have Logon as a service right. Please consult the NPrinting Service Account Setup section of this document.

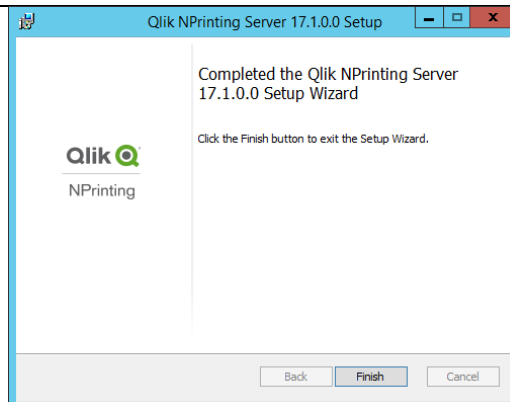
Click the Next button.



Click the Install button to install Qlik NPrinting Server files.

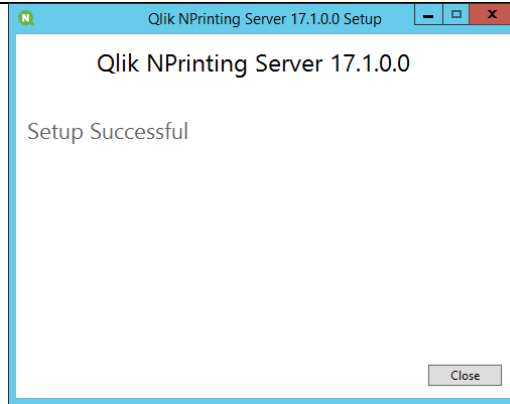


When the installer complete, click the Finish button to exit the installer.



Upon completion of all components, the main setup progress window will state success.

Click the Close button to exit the installation.



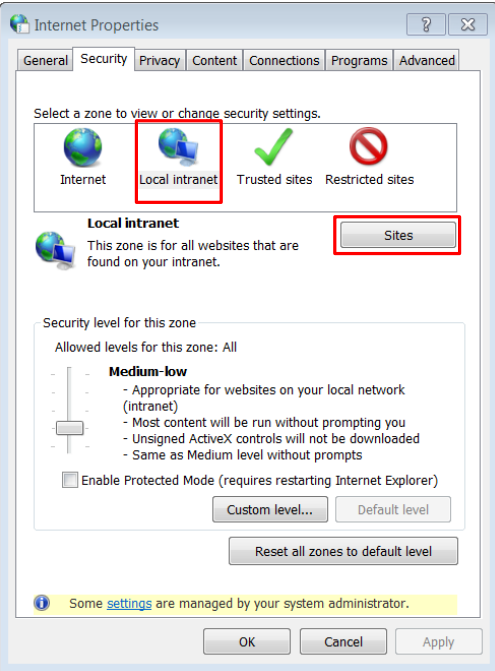
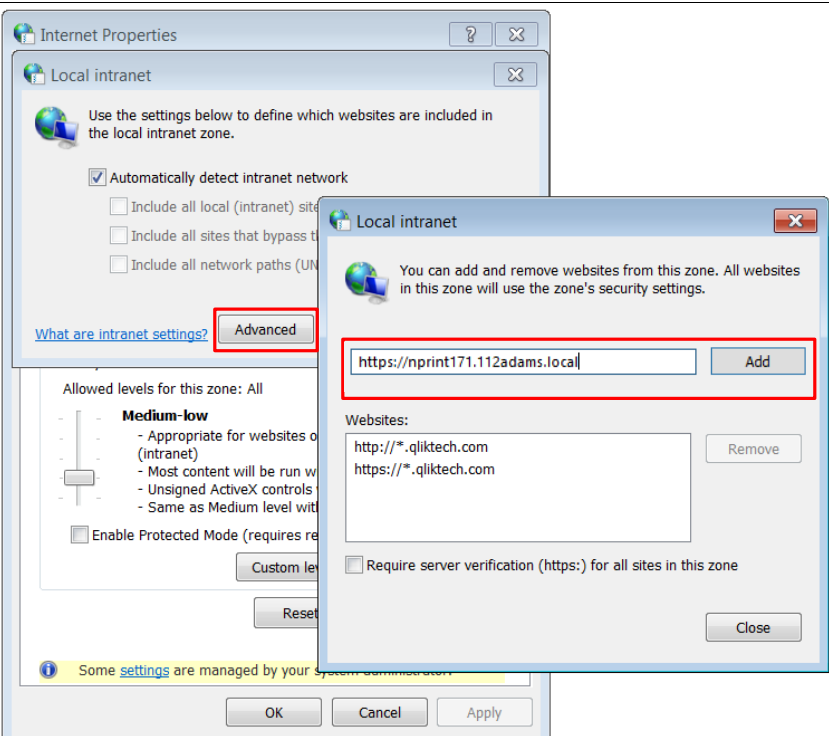


## NPrinting Server Post Install Configuration

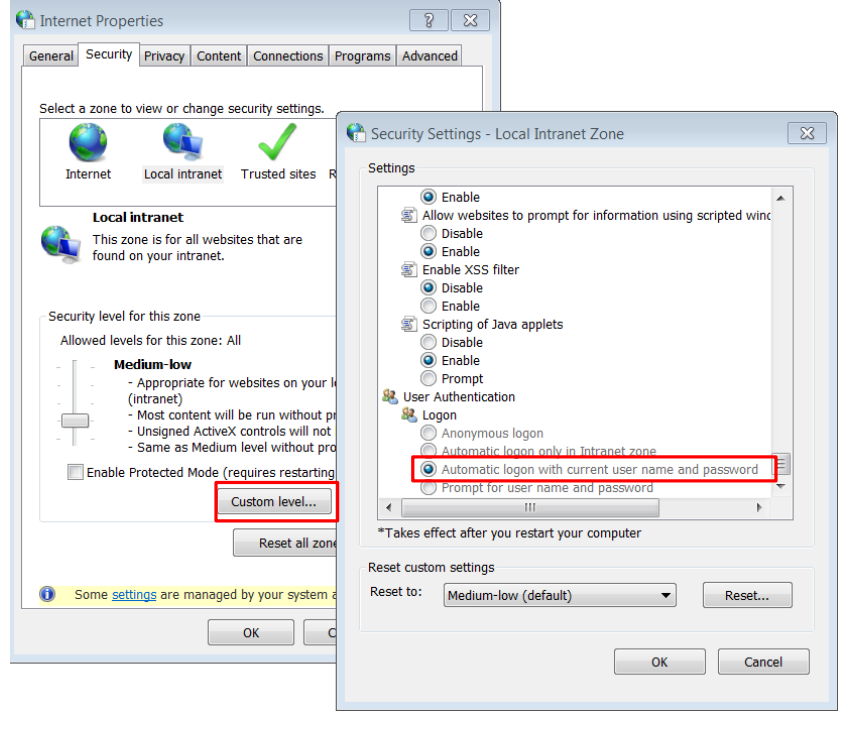
### Configure Internet Options



There is an issue with rendering Qlik Sense images in reports where Sense prompts for username and password thus breaking the NPrinting rendering engine. The following modifications are required on the system on which NPrinting Server is installed to ensure proper image rendering.

<p>Open Internet Options from the Network and Sharing Center in the Control Panel.</p> <p>Click on the Security tab, then click Local Intranet and then click the Sites button.</p>	
<p>Then click Advanced and add <code>https://myNPrintingserverfull.name.domain</code> (for example, <code>https://qlikserver1.domain.local</code>).</p> <p>Click Add, then OK, then Close to get back to the Internet Properties.</p>	

Once back on the Security tab, click on Custom level and make sure that "Automatic logon with current user name and password" is selected



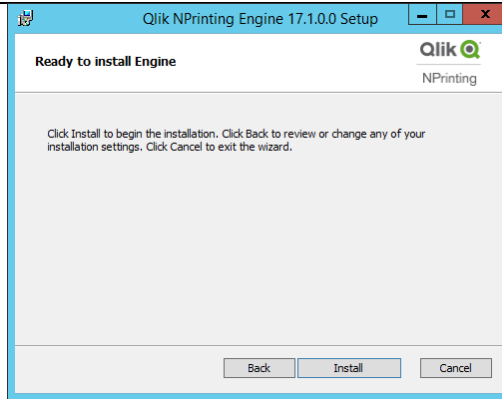
## NPrinting Engine Installation



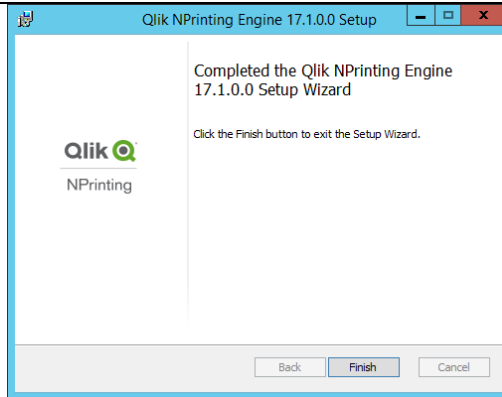
The NPrinting Engine is installed after the NPrinting Server. If NPrinting Server hasn't been installed, please go back to the NPrinting Server Installation section of this document before continuing.

<p><b>Tip!</b> Log into the server as the NPrinting service account.</p>	
<p>Navigate to the location where NPrinting installation files reside.</p> <p>Right click on QlikNPrintingEngine_x64.exe and choose Run as Administrator.</p>	
<p>Enter the NPrinting service account (this is the Windows service account added in the create user section of the document) and password in the supplied fields.</p> <p> Make sure to enter the account in domain\userid format.</p> <p>Click the Test credentials button and verify the yellow warning sign changes to a green check box. If the green check box does not appear, the account does not have Logon as a service right. Please consult the NPrinting Service Account Setup section of this document.</p> <p>Click the Next button.</p>	
<p>Enter the Windows system name in the field provided. It is recommended to enter the machine name only and not the fully qualified domain name of the server.</p> <p>Click the Next button.</p>	

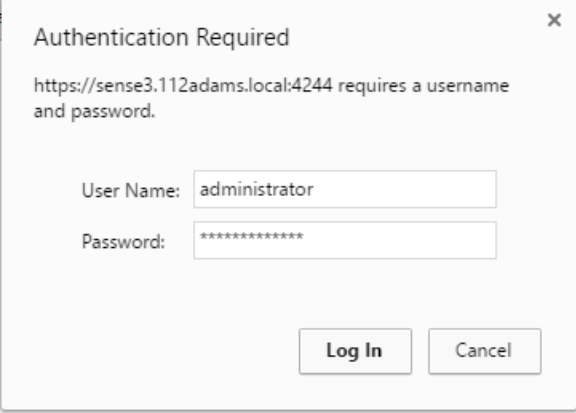
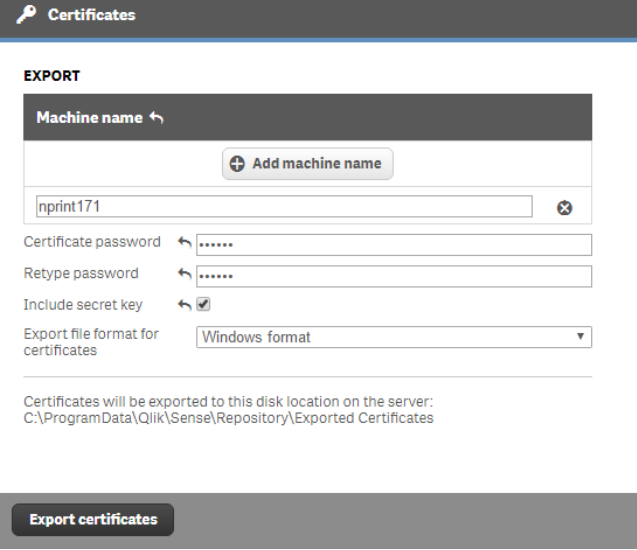
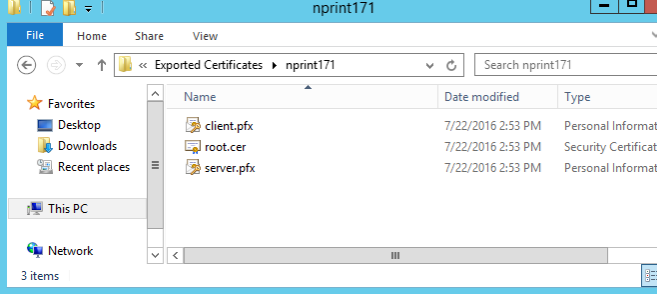
Click the Install button to start copying files to the system.



When the installation completes, the completion window appears. Click the Finish button to exit the installer.

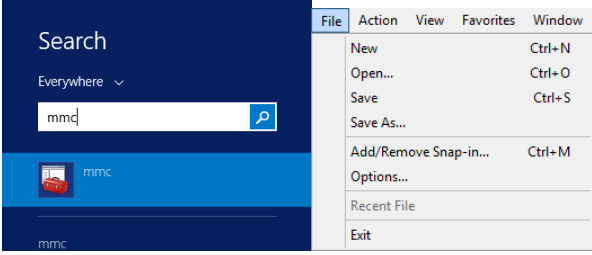
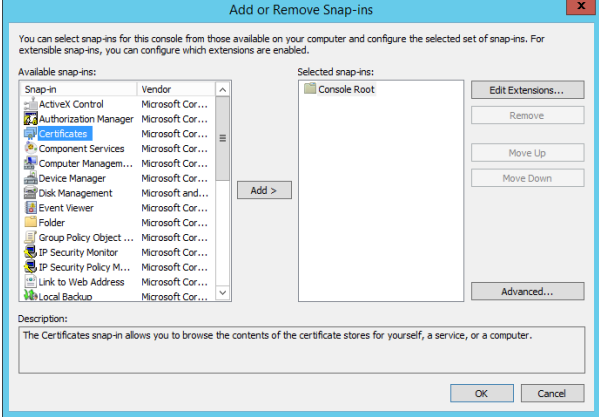
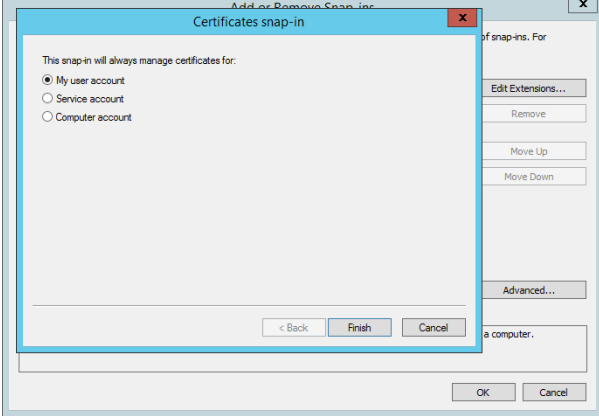


## Exporting Qlik Sense Certificates for use with NPrinting

<p>Navigate to the Qlik Sense server NPrinting will access and log into the QMC with the rootadmin account.</p>	 <p>The dialog box is titled "Authentication Required" and shows the URL "https://sense3.112adams.local:4244 requires a username and password." It contains two input fields: "User Name" with the value "administrator" and "Password" with masked characters "*****". There are "Log In" and "Cancel" buttons at the bottom.</p>
<p>Click on the Certificates menu option in the QMC.</p> <p>To create a certificate export:</p> <p>Click Add machine name and enter the name of the NPrinting Server or NPrinting Engine.</p> <p>Enter a password and re-enter the password for the certificates.</p> <p>Click on the Include secret key check box.</p> <p>Confirm the Windows format export file format for certificates.</p> <p>Click the Export certificates button.</p>	 <p>The "Certificates" window shows the "EXPORT" section. The "Machine name" field contains "nprint171". There are fields for "Certificate password" and "Retype password", both masked. The "Include secret key" checkbox is checked. The "Export file format for certificates" dropdown is set to "Windows format". A note at the bottom states: "Certificates will be exported to this disk location on the server: C:\ProgramData\Qlik\Sense\Repository\Exported Certificates". An "Export certificates" button is at the bottom.</p>
<p>Remote desktop to the Qlik Sense server.</p> <p>Navigate to the %programdata%\Qlik\Sense\Repository\Exported Certificates folder. Look for a folder that is the same as the machine name entered in the certificate export tool in the QMC.</p> <p>Copy this folder to the NPrinting server.</p>	 <p>The File Explorer window shows the path "Exported Certificates &gt; nprint171". It contains three files: "client.pfx" (Personal Information), "root.cer" (Security Certificate), and "server.pfx" (Personal Information). All files were modified on 7/22/2016 at 2:53 PM.</p>

# Import Qlik Sense Certificates on NPrinting Server and NPrinting Engine

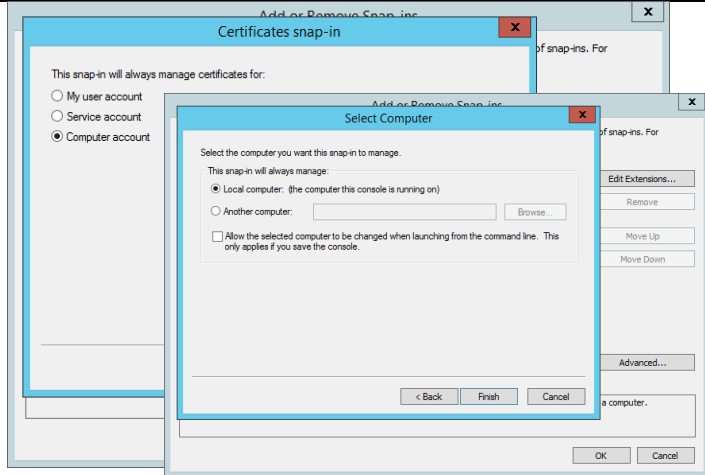
## Importing the QlikClient certificate for the NPrinting Service Account

<p>Remote desktop to the NPrinting Server. Login in with the NPrinting service account credentials.</p> <p>Copy the exported certificate files mentioned in the Exporting Qlik Sense Certificates for use with NPrinting section of this document to the NPrinting Server.</p>	
<p>Click the Start button and search for mmc and click on MMC.</p> <p>Go to File and select Add/Remove Snap-in...</p>	
<p>Select Certificates and click the Add button.</p>	
<p>Select the My user account radio button and choose Finish.</p>	

Highlight Certificates again in the Snap-in manager and click Add.

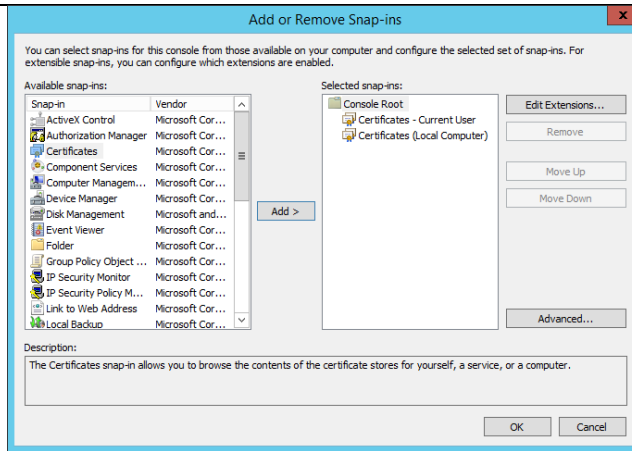
Select the Computer account radio button and click the Next button.

In the Select Computer window select the Local computer radio button and click the Finish button.



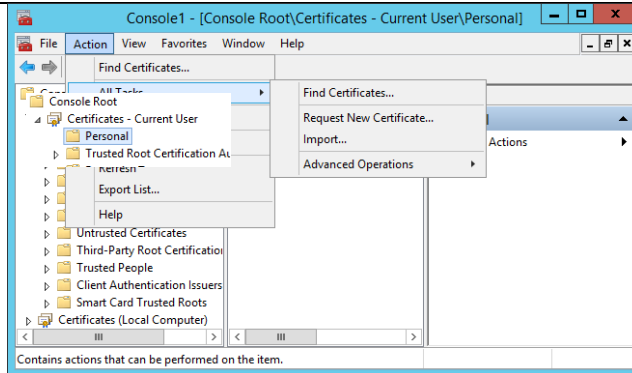
Confirm the Certificates snap-ins for Current User and Local Computer are on the right side list box.

Click the OK button to continue.



In the MMC console, navigate to Certificates – Current User \ Personal

Click on the Action menu and select All Tasks/Import...



The Certificate Import Wizard appears. Click the Next button.



Click the Browse... button and navigate to the path where the certificate files were placed earlier.

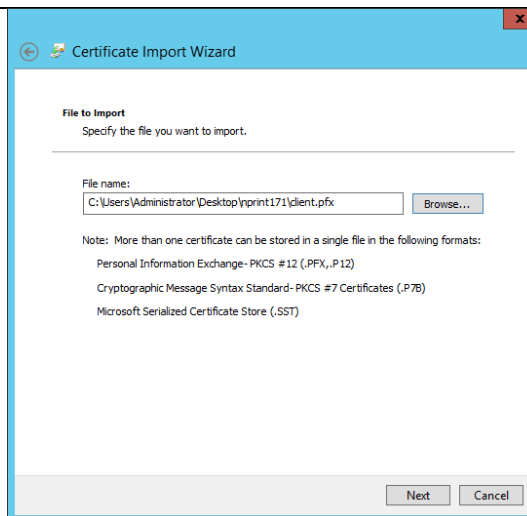
Locate the client.pfx file and click OK.



The file extension may have to be changed to \*.pfx to find the client certificate when searching in the Browse...

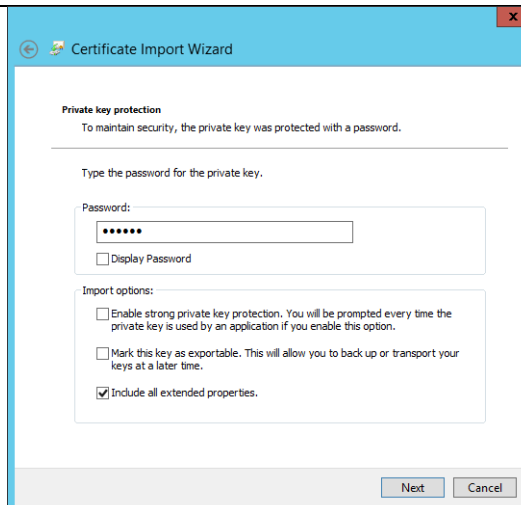
window.

Click the Next button.



Enter the password supplied during the certificate export process. Make sure the first two check boxes are not selected and the third check box is selected.

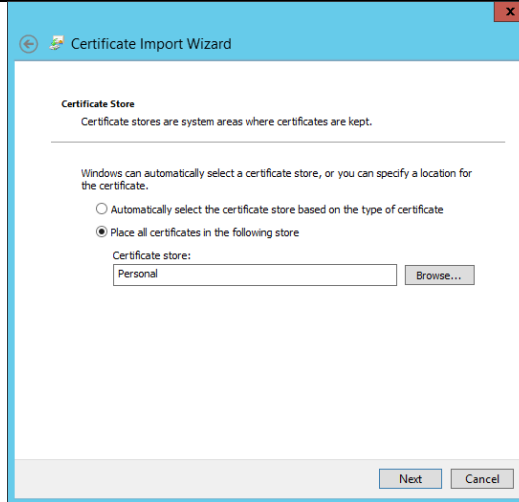
Click the Next button.



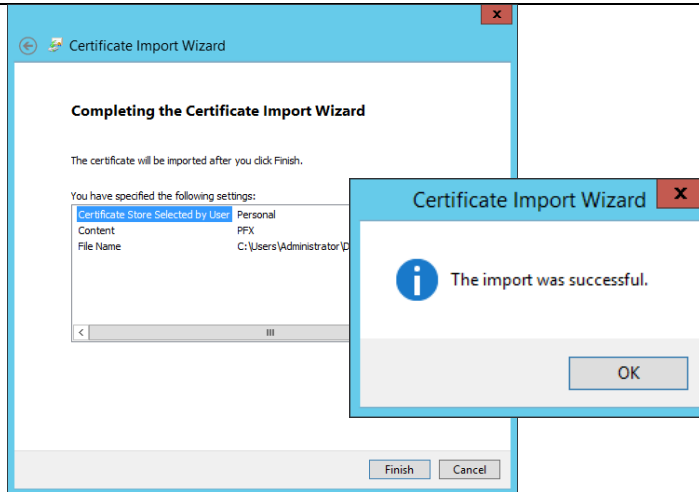


Confirm the destination certificate store for the client certificate.

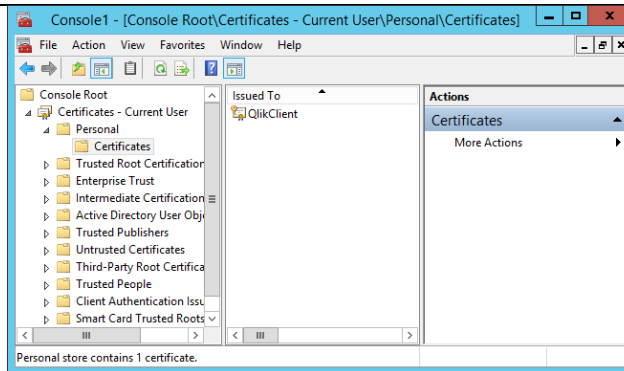
Click the Next button.



Click the Finish button. Once imported, click the OK button to confirm successful certificate import.



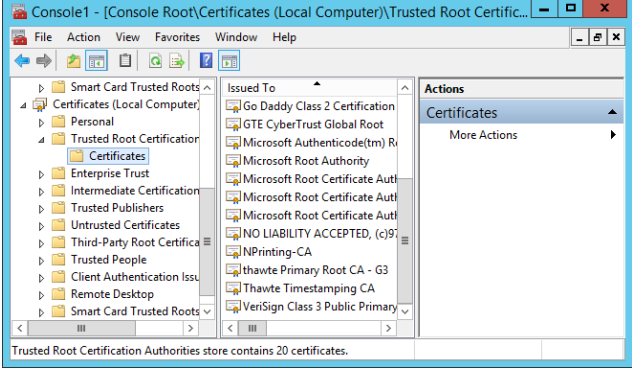
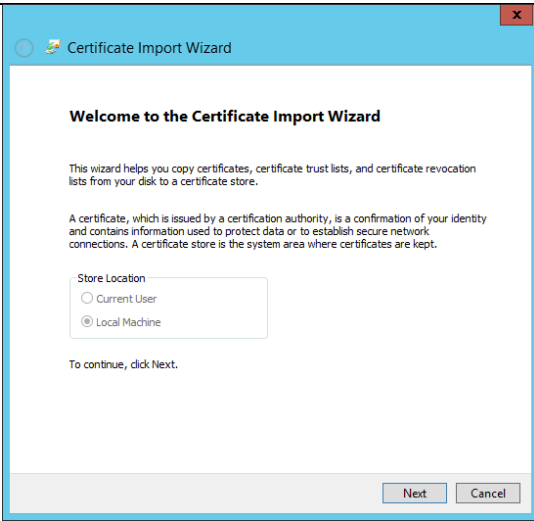
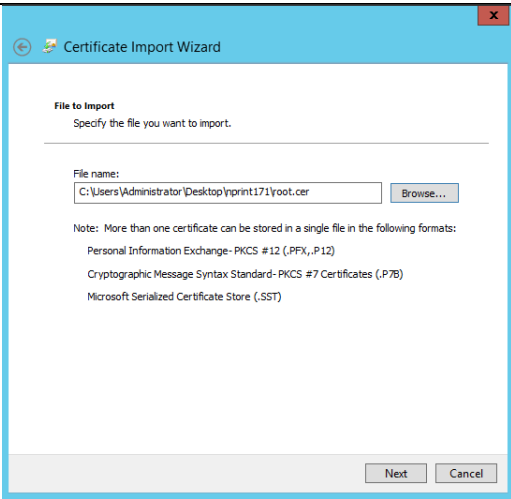
After importing the client certificate, the QlikClient certificate will appear in the Current User \ Personal \ Certificates store.



## Importing the root certificate from the Qlik Sense server

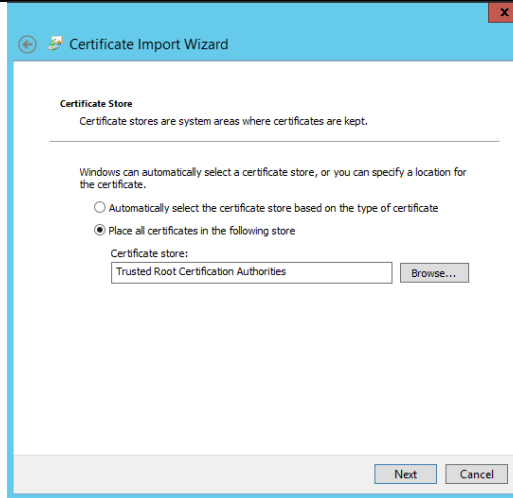


Importing the root certificate is necessary if NPrinting Server and Engine are installed on a separate server than Qlik Sense server.

<p>Navigate to the Certificates (Local Computer) section in the MMC and expand. Expand the Trusted Root Certification Authorities folder and click on the Certificates subfolder.</p> <p>Click on the Action menu and select All Task / Import...</p>	
<p>The Certificate Import Wizard appears. Click the Next button.</p>	
<p>Click the Browse... button and navigate to the path where the certificate files were placed earlier.</p> <p>Select the root.cer file and click OK.</p> <p>Click the Next button.</p>	

Confirm the certificate will be installed in the Trusted Root Certification Authorities certificate store.

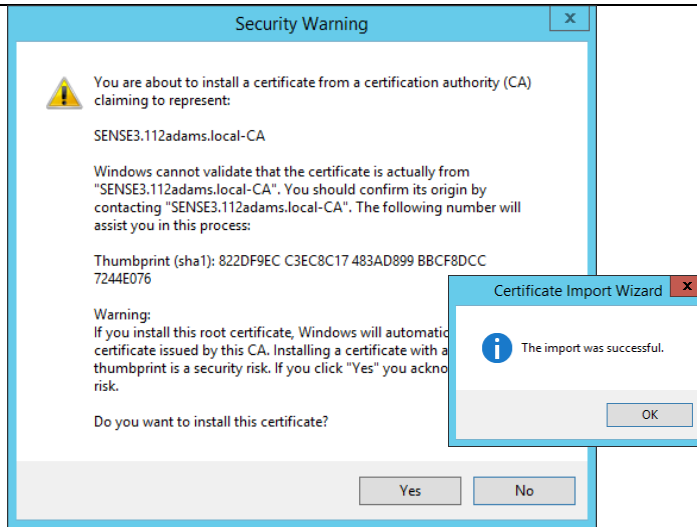
Click the Next button to continue.



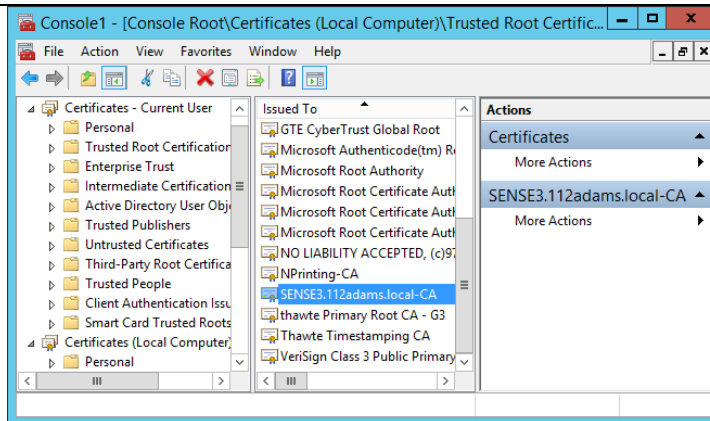
When installing a self-signed root certificate, a security warning **may** appear. If it does, Windows is unable to validate the certificate authority that created the Qlik Sense certificate. This is ok.

Click the Yes button when presented with this message.

Click OK when the success message appears.



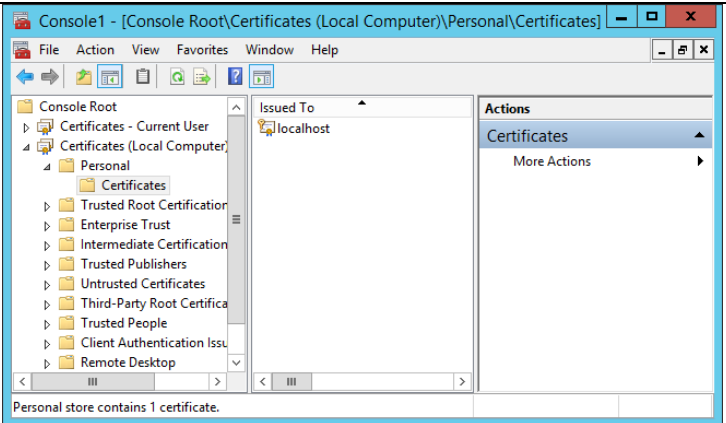
Observe the Qlik Sense generated root certificate for the Qlik Sense server appears in the Certificates (Local Computer) \ Trusted Root Certification Authorities certificate store.



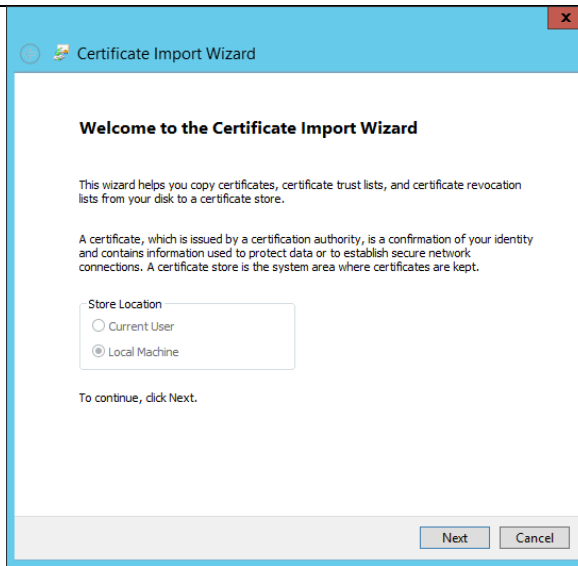
## Importing the server certificate for the NPrinting Server and Engine.

Click on the Personal folder in the Certificates (Local Computer) certificate entry in the MMC.

Select the Action menu and click on All Tasks / Import...



The Certificate Import Wizard appears. Click the Next button.



Click the Browse... button and navigate to the path where the certificate files were placed earlier.

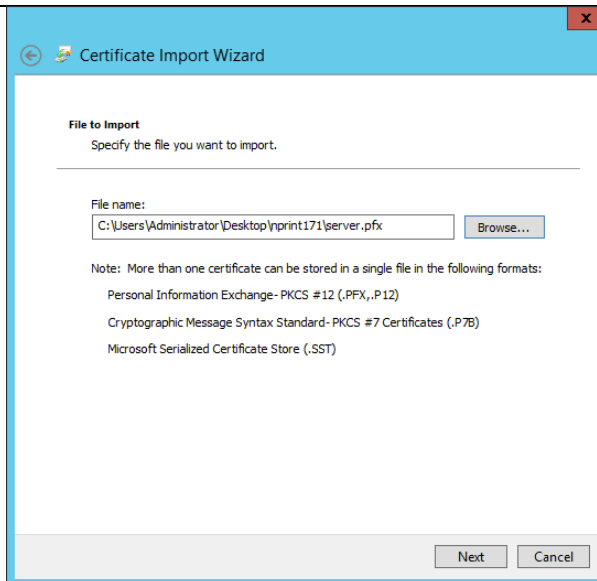
Locate the server.pfx file and click OK.



The file extension may have to be changed to \*.pfx to find the client certificate when searching in the Browse... window.

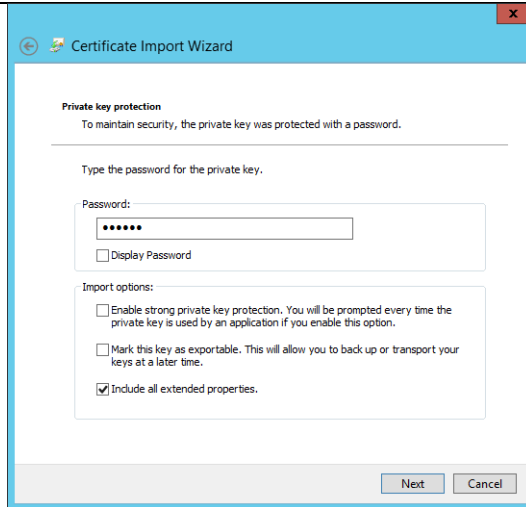
Click the Next button.

Click the Next button.



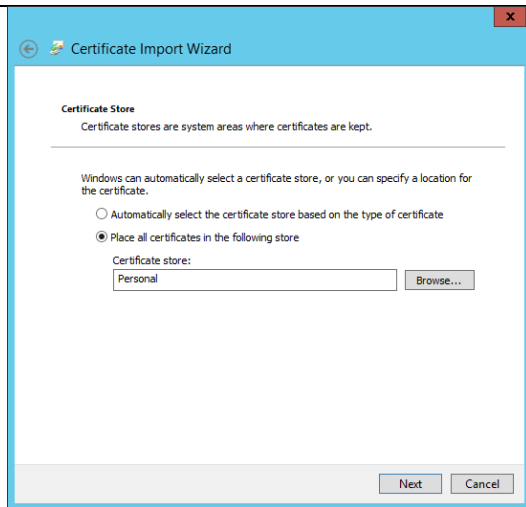
Enter the password supplied during the certificate export process. Make sure the first two check boxes are not selected and the third check box is selected.

Click the Next button.

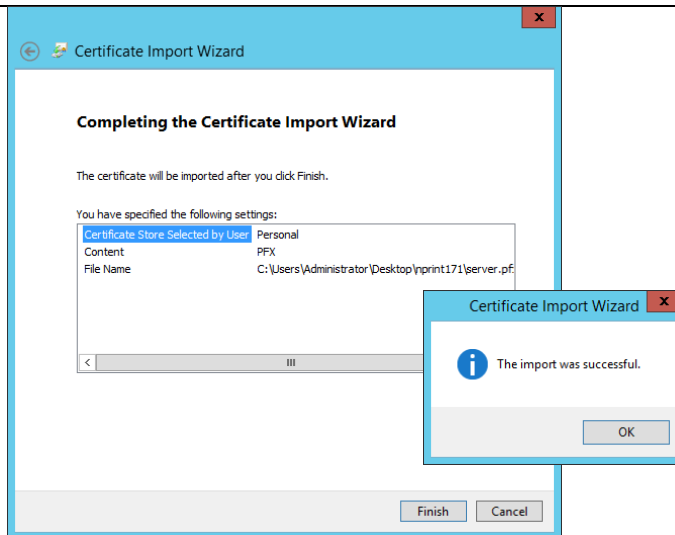


Confirm the destination certificate store for the client certificate.

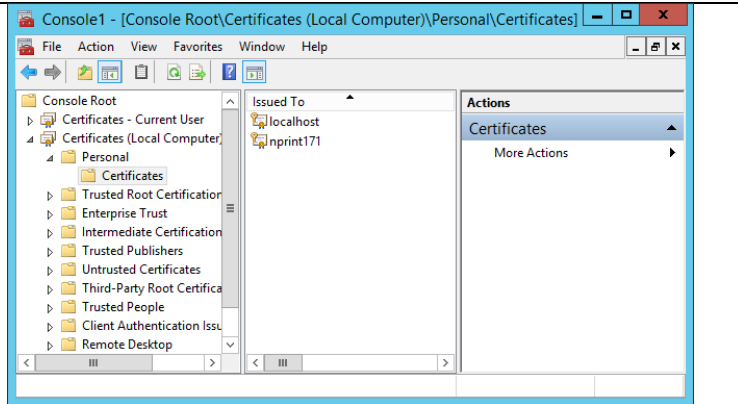
Click the Next button.



Click the Finish button. Once imported, click the OK button to confirm successful certificate import.

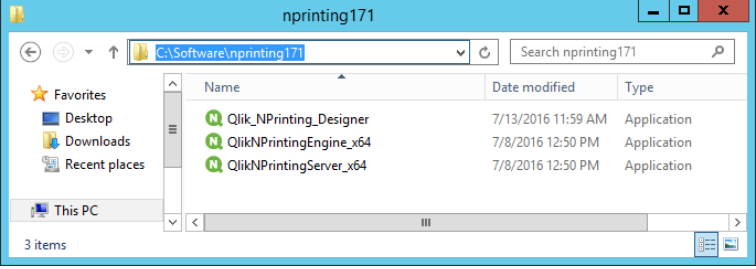
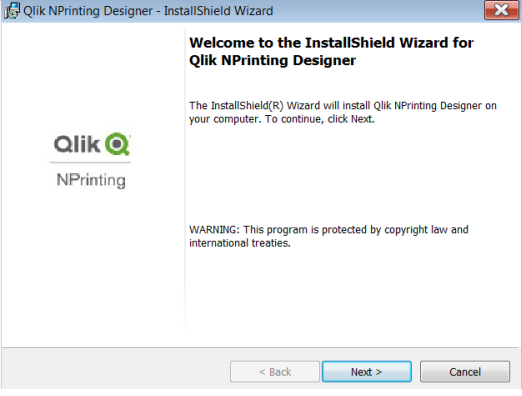
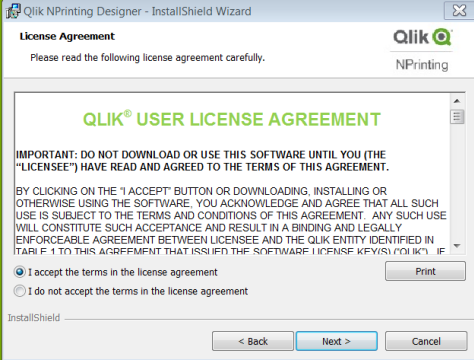
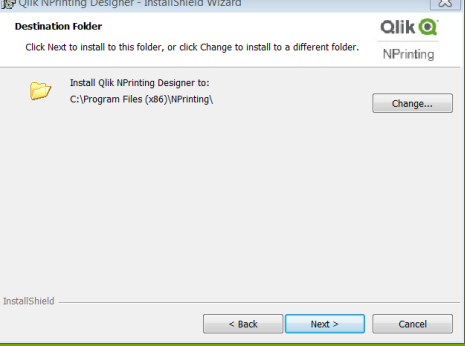


Observe the server certificate with the named entered during the export process appears in the Certificates (Local Computer)\Personal\Certificates certificate store.

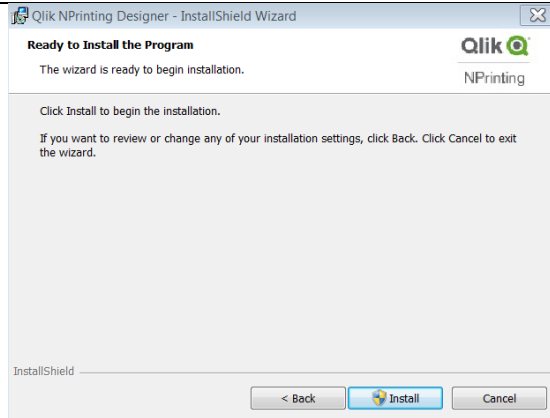


## Install NPrinting Designer

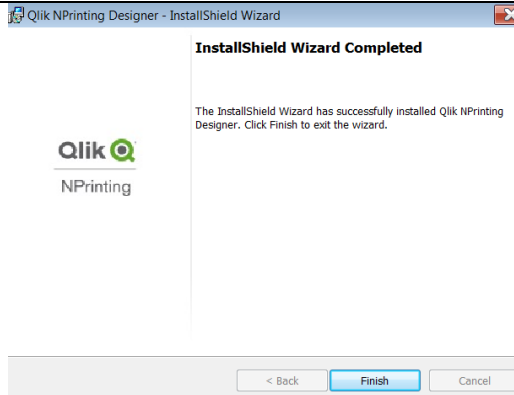
NPrinting Designer is used to create NPrinting report templates. NPrinting Designer is installed typically on a desktop system for report development. However, it does not launch like a conventional desktop application. NPrinting Designer launches from NPrinting's web interface.

<p>Navigate to the location where NPrinting installation files reside.</p> <p>Double click on Qlik_NPrinting_Designer.exe.</p>	
<p>Click Next</p>	
<p>Accept the terms of the license agreement and click next</p>	
<p>Click Next</p>	

Click Install



Click Finish to complete installation

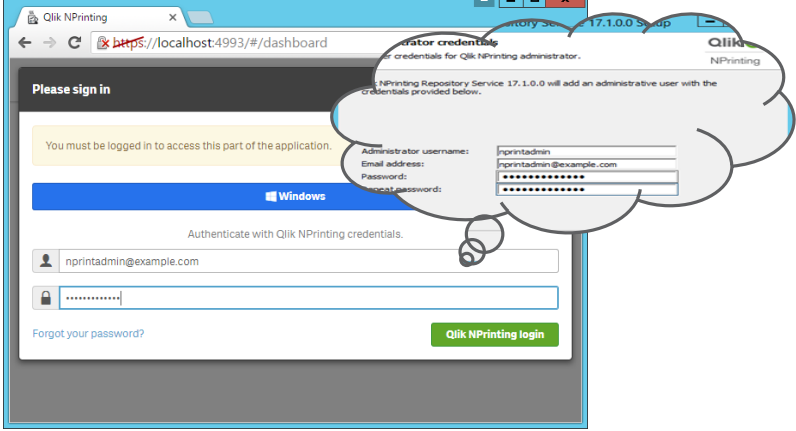
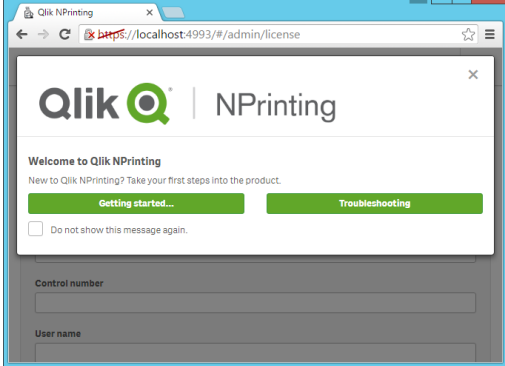




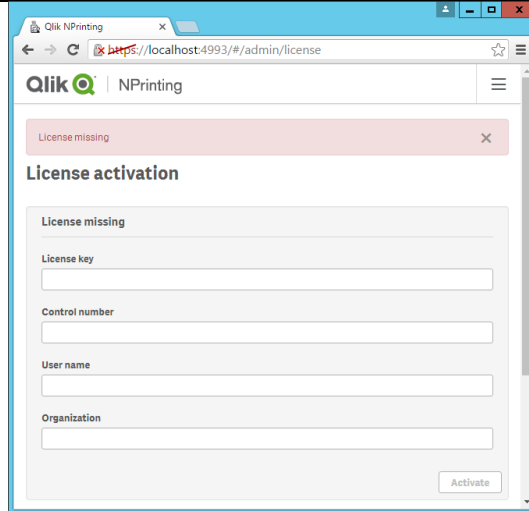
## Login for the First Time and Activate NPrinting

The Qlik NPrinting 17 web console is used for report development, scheduling and administration, and published reports can be viewed in the Newsstand in the browser.

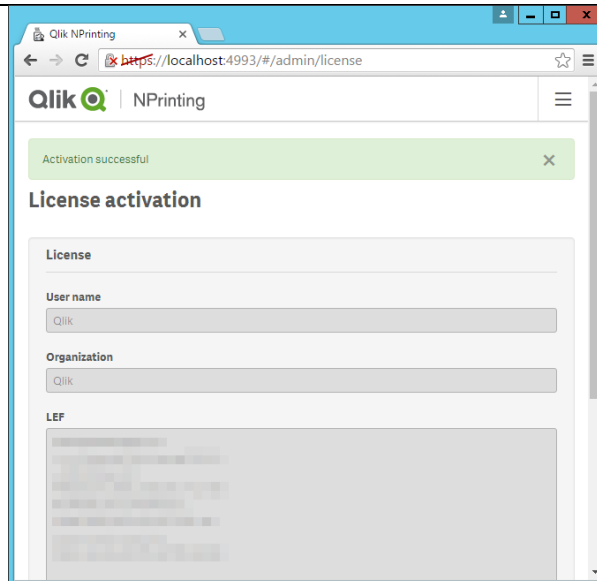
**Tip!** Typically, yourservername will be “localhost”.

Log into Qlik NPrinting 17 web console at the following url:	<a href="https://yourservername:4993">https://yourservername:4993</a>
Access the Newsstand at:	<a href="https://yourservername:4994">https://yourservername:4994</a>
Enter the userid and password created when NPrinting Server was installed.	
Close the Getting Started window	

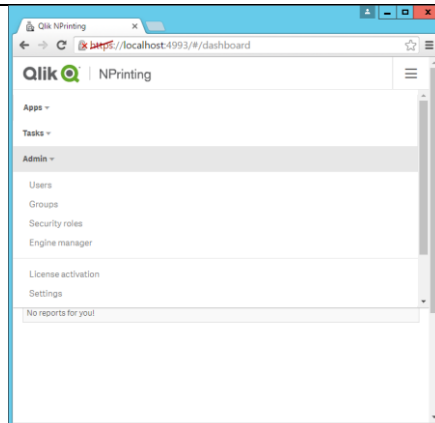
Activate NPrinting Server by inserting the license key and control number. Enter a user name and organization.



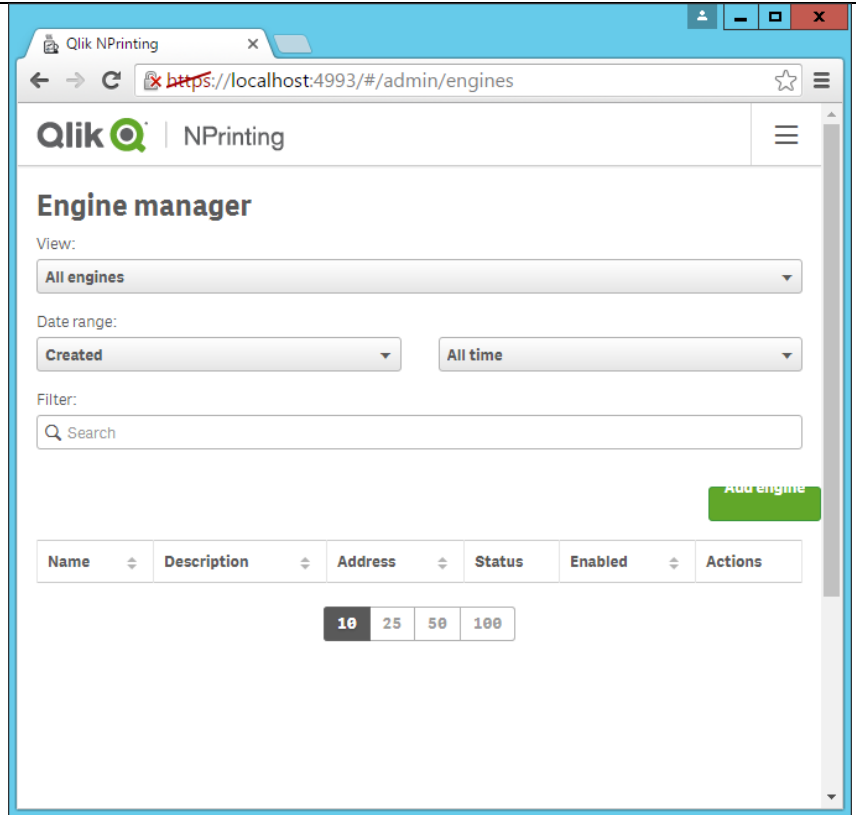
Once the product is activated, start to build out connections to Sense apps, reports and all the other entities needed to deliver reports.



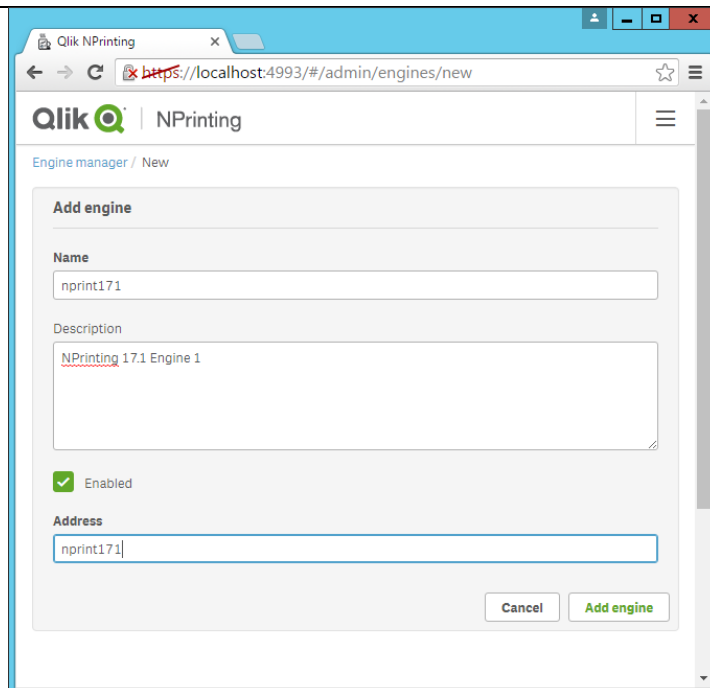
The next step is to activate the NPrinting Engine. To do this, navigate to the Admin area.



Select: Admin>Engine Manager and click “Add engine”.

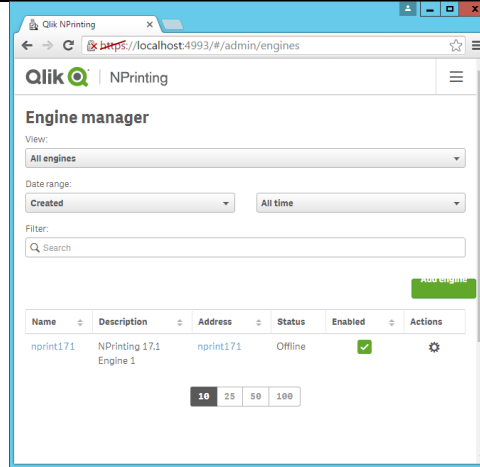


Give the engine a name and insert the machine name into the “Address” dialog box.

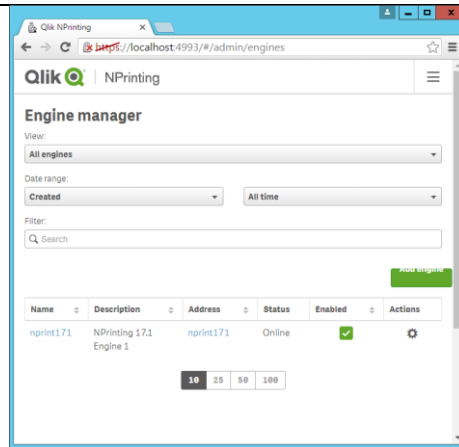


The engine will appear to be “Offline” for up to 5 minutes – this is normal.

The screen will update automatically when the engine becomes online or press F5 to refresh the browser.



Once the engine is online, it is possible to connect to Qlik Sense apps and start developing NPrinting reports.



## Connecting to a Sense app in Qlik NPrinting

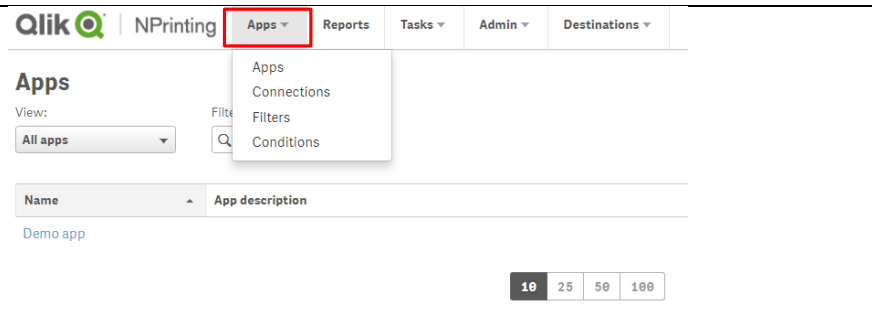
To connect to a Sense app in Qlik NPrinting, first create an NPrinting app, then specify the user who will create the connection, and define the Qlik Sense Hub as a destination in NPrinting (if distributing reports to the Hub).

### Create an app in Qlik NPrinting

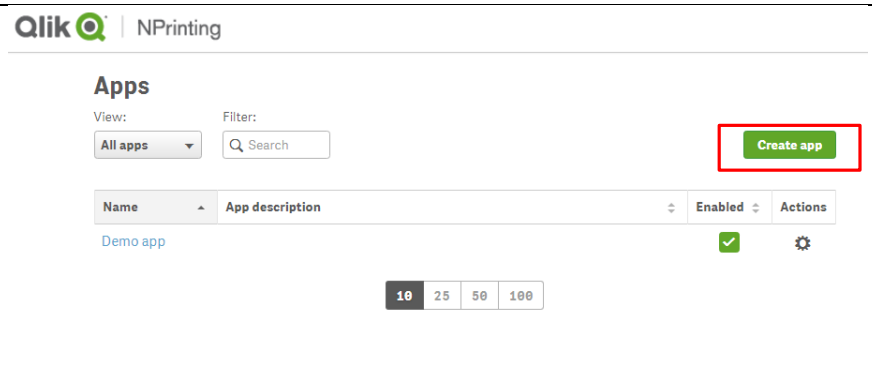
An NPrinting app is a container for entities used in the reporting process, including: connections (QVWs/QVFs used for source data), filters, conditions, reports, and tasks.

Creating an NPrinting app is the first step prior to report authoring and distribution.

Click on Apps from the Apps drop-down menu in the ribbon

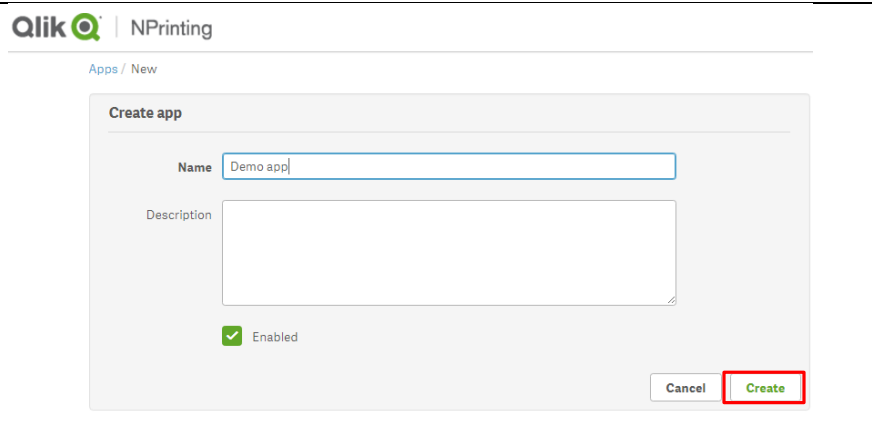


Click the Create app button



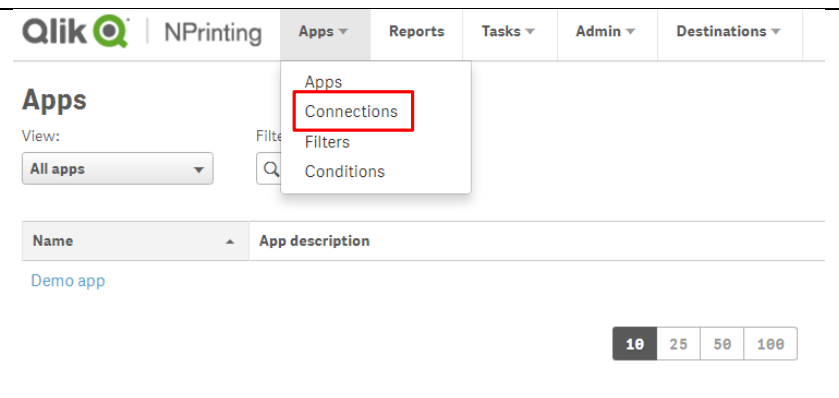
Give the app a name and description, if desired, and click Create.

It is now possible to create a connection to a Qlik Sense document.



## Connections to Sense

Click on Connections from the Apps drop-down menu in the ribbon



Click the Create connection button

Qlik NPrinting

### Connections

View: All connections | App: All | Filter: Search

**Create connection**

Name	Connection description	App	Connection status	Cache status	Last cache update	Actions
Sales Demo		Demo app	Ok	Generated	July 19, 2016 12:05 PM	⚙️
Test App (Sense)		Demo app	Ok	Generated	July 19, 2016 12:25 PM	⚙️

19 | 25 | 50 | 100

Give the connection a name and description, if desired.

In the app field, choose the Qlik NPrinting app with which to associate the connection from the drop-down menu.

Click the QlikSense button as the source.

Qlik NPrinting

Connections / New

#### Create connection

Name: Demo Sense app

Description: [Text Area]

App: Demo app

Source: **QlikView** | **QlikSense**

Proxy address: https://masterlib.112adams.local

Sense app ID: 84f8cb45-f194-4f4e-9865-f6f5e48be512

Identity: Windows2012\QlikService

Apply user section access for reports

Cancel | Create

The proxy address is the address of the Sense server. The address to use for the Qlik Proxy is the Qlik Sense hostname. The Qlik Sense hostname may be found in the QMC under the Nodes menu option. Click on the Nodes menu and make note the hostname for the proxy.

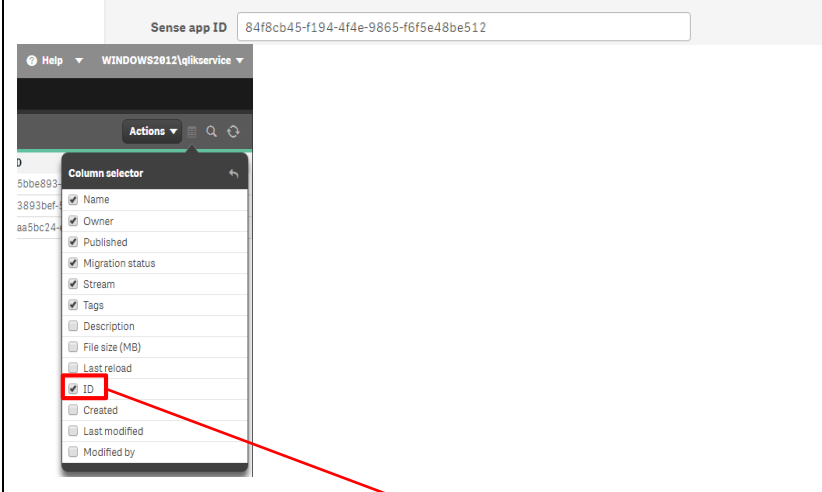
Proxy address: https://masterlib.112adams.local

Nodes Total: 1 | Showing: 1 | Selected: 1

Name	Host name	Status
Central	masterlib.112adams.local	5 of 5 services are running

The Sense app ID is located in the Qlik Sense QMC under the Apps section.

**Tip!** To see the ID column in the app list, add the ID in the Column Selector in the QMC.



Name	Owner	Published	Migration status	Stream	ID
TestApp1	qlikservice (WINDOWS2012\qlikservice)		Successful		9aa5bc24-aa9d-4982-8ed9-d4fd33b73a3d
Operations Monitor	sa_repository (INTERNAL\sa_repository)	2016-06-13 20:55	Successful	Monitoring apps	93893bef-5029-41c8-8ae6-0b6a8d958d00
License Monitor	sa_repository (INTERNAL\sa_repository)	2016-06-13 20:54	Successful	Monitoring apps	95be893-424d-4421-a971-49aaa6460d1c

The **identity** is the Windows domain account of the user creating the connection to the Sense app.

Apps may be unpublished (in the user's Work stream) or published in the Everyone stream.



For the user to access apps published on their own "Work" stream, they must have a Sense token allocated to them in the Qlik Sense QMC.

**A token is not needed for public apps that are published under the "Everyone" stream.** In either case, the identity field must be populated in order to create the connection.

Click the Create button in the lower right-hand corner.

The Connections page will be displayed and the cache status for the new connection will show as 'Generating'.

This will automatically be updated when the cache is generated, or press F5 to refresh the page. Once the cache has been generated, reports can be authored.

Cache generation may take several minutes and will depend on the size of the app and the number of objects in the app.

### Connections

View:  App:  Filter:

Name	Connection description	App	Connection status	Cache status	Last cache update	Actions
Sales Demo		Demo app	Ok	Generated	July 19, 2016 12:05 PM	
Test App (Sense)		Demo app	Ok	Generated	July 19, 2016 12:25 PM	
Demo Sense App		Demo app	-	Generating	-	



Complexity of structure and amount of data greatly affect the metadata loading of NPrinting. After that, the amount of data is still a small bottleneck for Sense, although it's highly optimized for it.

Additional information on connections can be found here:

<http://help.qlik.com/en-US/nprinting/17.1/Content/GettingStarted/HowCreateConnections/Create-Connections.htm>

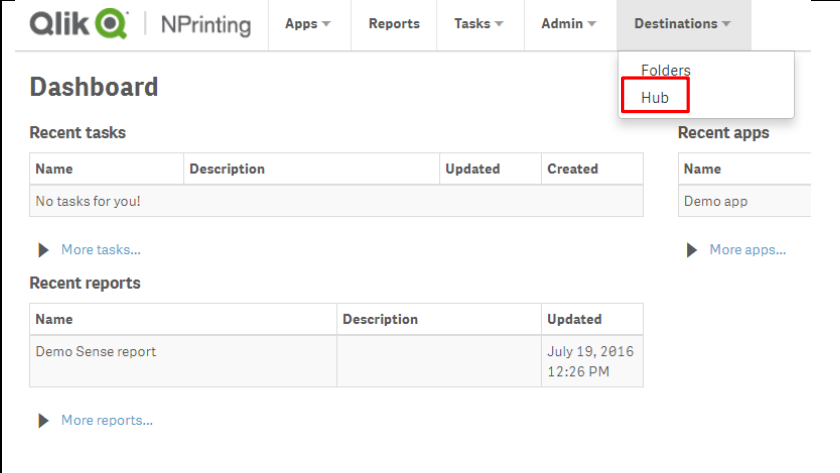
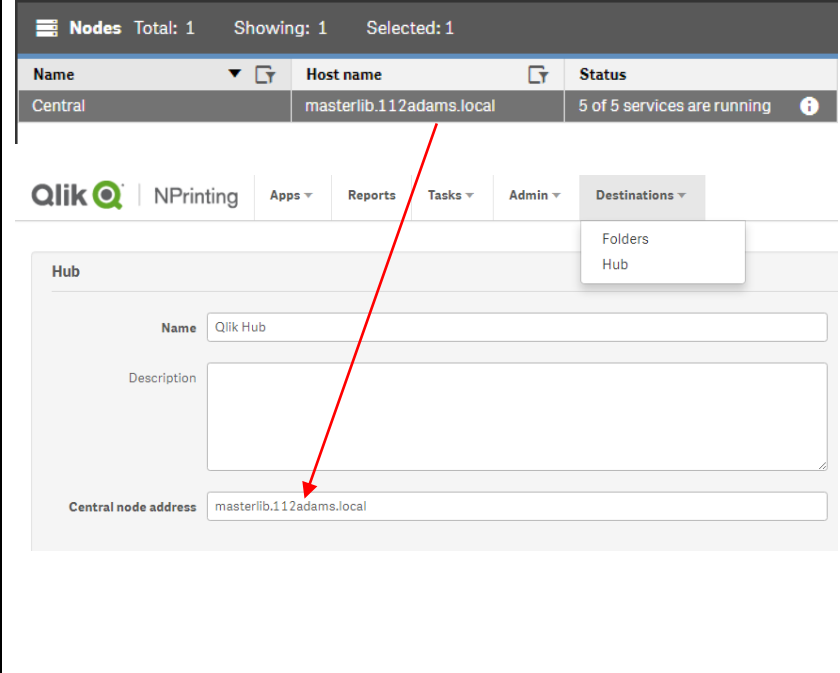


## Set up the hub as a destination

In addition to delivery via e-mail, save-to-disk and the NPrinting Newsstand, Qlik NPrinting 17.1 also offers the possibility to send reports to the Qlik Sense 3.0 Hub.



Users accessing the hub to download reports do **not** need a token allocated to them.

<p>To enable the Hub as a destination for reports, click on Hub from the Destinations drop-down in the ribbon.</p>	
<p>Name the Hub as desired and use the central node hostname for the hub destination address. This can be found in the QMC.</p> <p>Note that https:// does <b>not</b> need to be included for the central node address.</p> <p>Additional information can be found here: <a href="http://help.qlik.com/en-US/nprinting/17.1/Content/AdministeringQVNprinting/SetHubDestination/Hub-destination.htm">http://help.qlik.com/en-US/nprinting/17.1/Content/AdministeringQVNprinting/SetHubDestination/Hub-destination.htm</a></p>	

# Authoring and previewing reports

## Report content



### Qlik Sense objects which are/are not supported

- Reports can include:
  - Charts
  - Tables
  - Formulas
  - Variables
- Reports do **not** include:
  - Sheets
  - Extension objects
  - Stories

## Create a report

Click on Reports in the ribbon and then click the Create report button

The screenshot shows the Qlik NPrinting interface. At the top, there's a header with the Qlik logo and 'NPrinting'. Below that, the 'Reports' section is visible. It includes filters for 'View' (All reports), 'Type' (All), 'Date range' (Created), and 'All time'. A search bar and a 'Create report' button are also present. Below the filters is a table with columns: Name, Type, Report description, App, Enabled, and Actions. One report is listed: 'Demo Sense report' with type 'Power Point', associated with 'Demo app', and is marked as 'Enabled'. At the bottom, there are pagination controls showing '10' items per page.

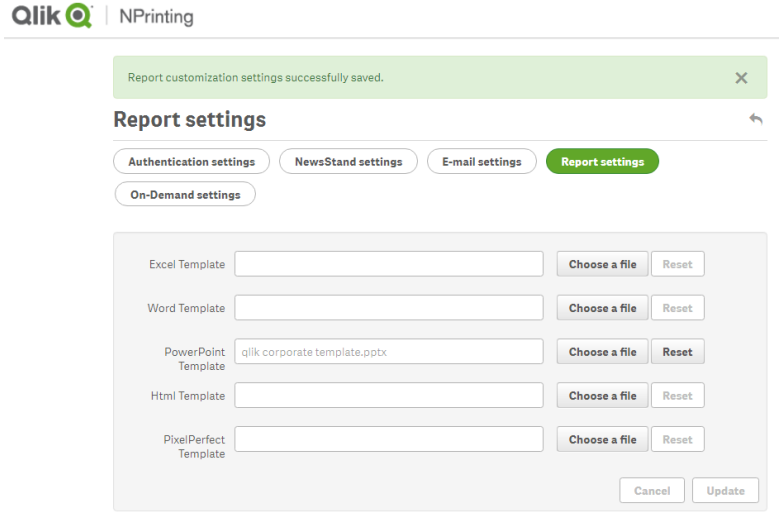
Give the report a name and description, if desired. Choose the format type and the Qlik NPrinting app with which the report will be associated.

Then select from empty file, default template or custom file. Then click the Create button in the lower right-hand corner.

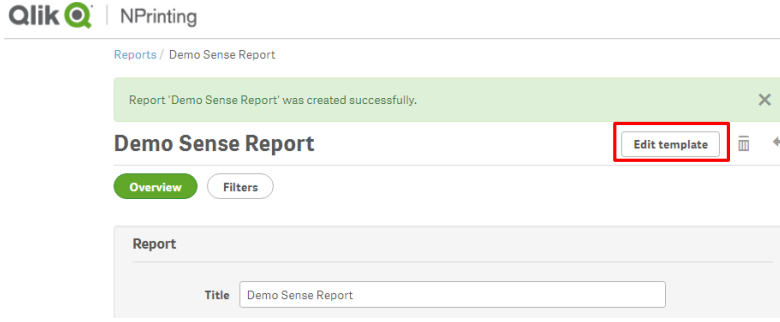
The screenshot shows the 'Create report' form in the Qlik NPrinting interface. The form has the following fields and options:

- Title:** Demo Sense Report
- Description:** (Empty text area)
- Type:** PowerPoint
- App:** Demo app
- Template:** Radio buttons for 'Empty file', 'Default template: qlik corporate template.pptx' (which is selected), and 'Custom'. Below the 'Custom' option is a file selection button labeled 'Choose a file'.
- Enabled:** A checked checkbox.

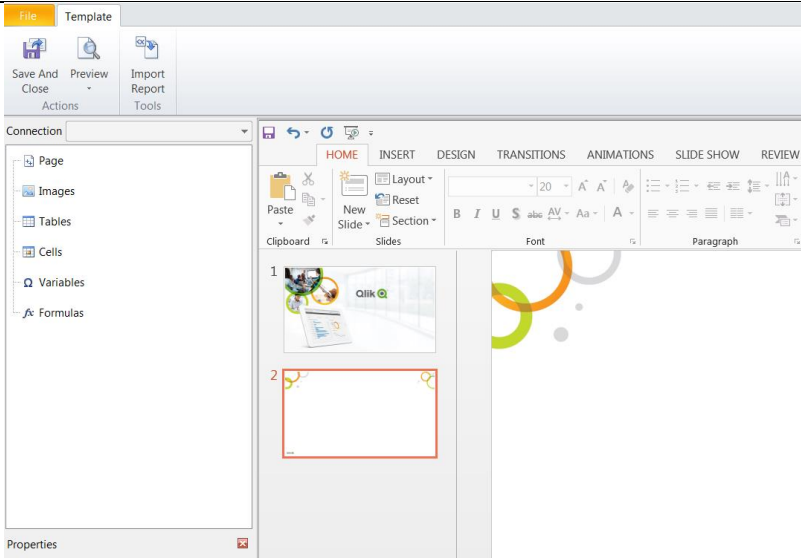
**Tip!** In order to pre-load a default template to include things like logos and design, this can be done from the Admin section in the ribbon → Settings → Report settings.



Once the report is created, click on the Edit template button to launch Qlik NPrinting Designer. Credentials will need to be entered if this is the first time running the Designer.



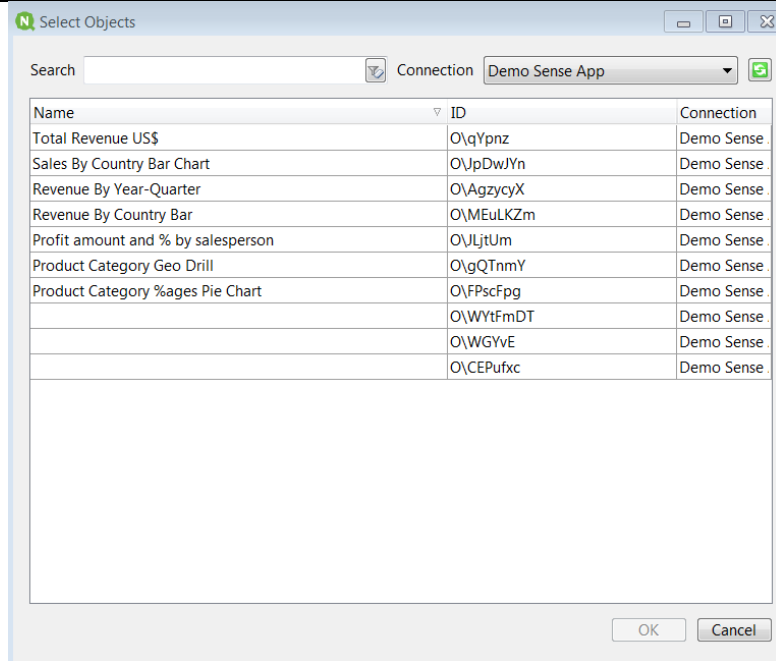
In the left panel, choose from images, tables, cells, variables and formulas to populate the report template.



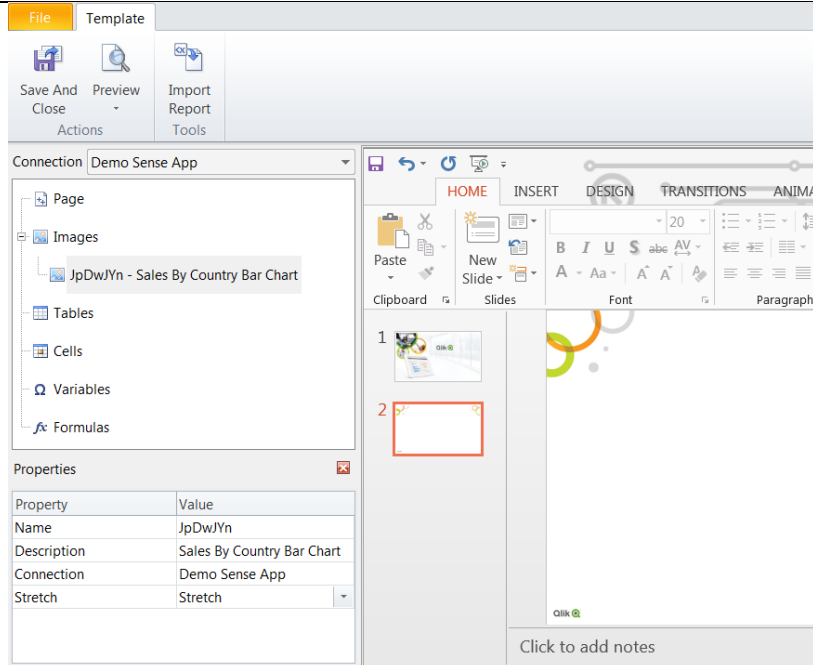
For this example, right-click on images and click on Add objects. The object list from the connection will appear.

**Tip!** The object IDs are not very descriptive or useful for Qlik Sense. Instead, use the object Name which is represented by the **title of the object in Qlik Sense**.

Qlik NPrinting should recognize the title of the object even if Show titles is set to 'Off' in Qlik Sense.

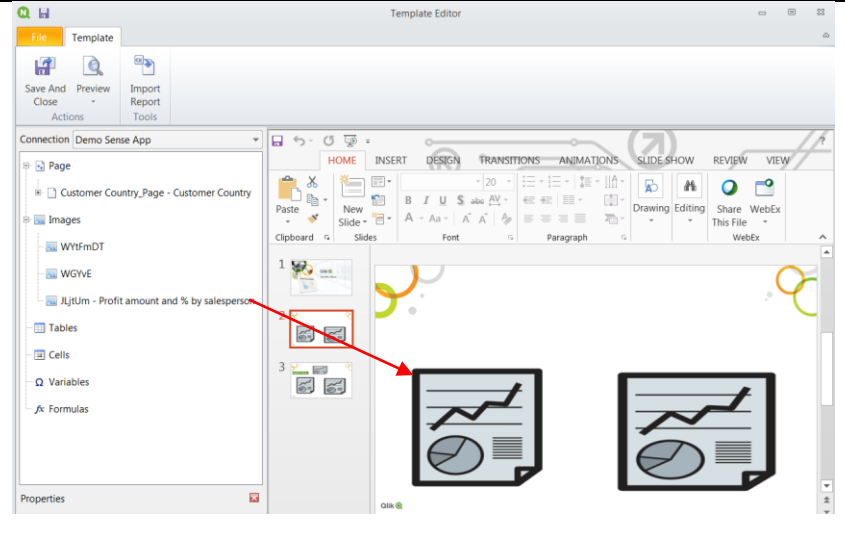


Select the object(s) to include in the report and click OK.



To add the object to the report, simply drag and drop the newly added object into the template in the desired location.

The images can be expanded/shrunk as needed inside the template editor by dragging the edges and resizing.



## Previewing reports

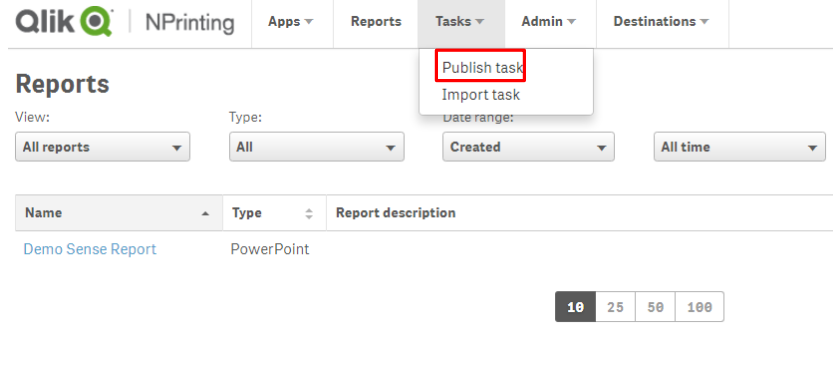
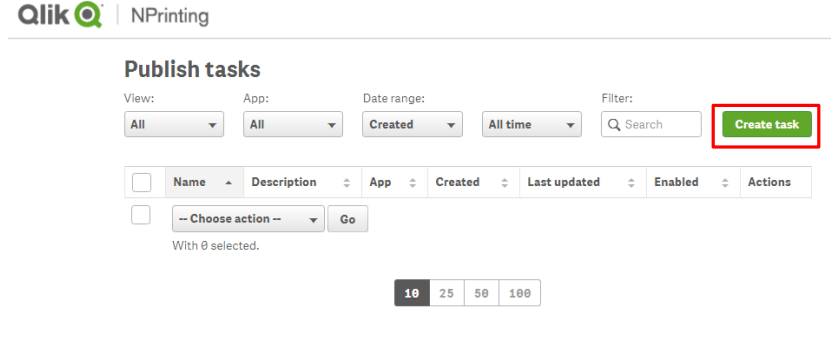
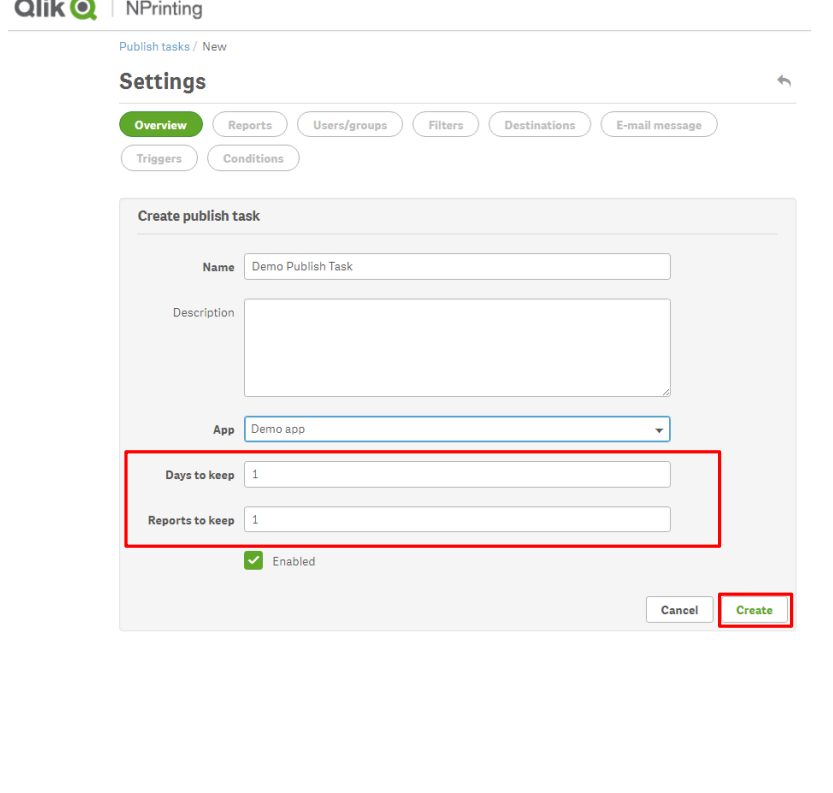
When previewing a report from the template editor, the first connection takes several seconds to establish a connection to Sense for these reasons (see text at right):


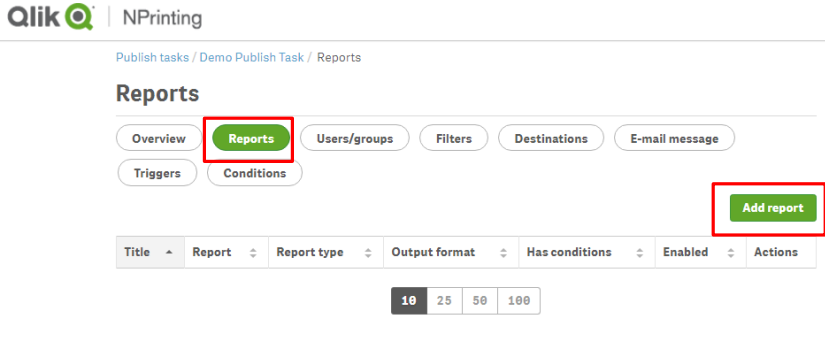
Subsequent previews (even for new reports) will render faster. This is specific to Sense reports, particularly those with images.

- A “handshaking” between NPrinting and QRS happens; Sense checks the validity of the Certificates chain.
- The specific .NET SDK assemblies and their dependencies to connect to Sense are loaded by NPrinting (NPrinting supports different versions of Sense and loads version-specific DLLS)
- NPrinting then connects to a valid Sense Engine (QES). The Sense Engine loads and caches some information about the app structure and some data.
- The more complex the app structure is, the more time it takes to load.
- The more data the app has, the more time it takes to load.
- Subsequent connections are faster because both NPrinting and Sense have already loaded DLLs and cached some data.

## Report Distribution

To distribute reports, create a Publish Task in Qlik NPrinting.

<p>Click on Publish task from the Tasks drop-down menu in the ribbon.</p>	 <p>The screenshot shows the Qlik NPrinting interface. The 'Tasks' dropdown menu is open, and 'Publish task' is highlighted with a red box. The background shows the 'Reports' section with filters for View (All reports), Type (All), Date range (Created), and All time.</p>
<p>Then click the Create task button.</p> <p>Give the publish task a name and description, if desired. Choose the Qlik NPrinting app with which to associate the publish task.</p>	 <p>The screenshot shows the 'Publish tasks' page. The 'Create task' button is highlighted with a red box. The page includes filters for View (All), App (All), Date range (Created), and All time, along with a search bar and a table header.</p>
<p>It is possible to set both the number of days and the number of instances of a report to keep in the Newsstand and Hub “history” from an NPrinting publish task.</p> <p>All reports in a Task will saved for the same period of time and the specified number of instances</p> <p><b>Tip!</b> In case of conflict, the lesser number of reports will be saved; for instance if “Reports to keep” is set to 100, and the “Days to keep” is set to 1, if the Task has a daily trigger, then 1 instances of the report will be saved. The <i>effective</i> “Reports to keep” will be 1.</p>	 <p>The screenshot shows the 'Create publish task' dialog box. The 'Days to keep' and 'Reports to keep' fields are highlighted with a red box. The dialog includes fields for Name (Demo Publish Task), Description, App (Demo app), and an 'Enabled' checkbox. The 'Create' button is also highlighted with a red box.</p>

<p>Once all parameters have been entered, click the Create button in the lower right-hand corner.</p>	
<p> An admin cannot delete published reports in the Newsstand and Hub. What an admin can do is to configure the “reports to keep” and “days to keep” settings in the publish task in order to set up the correct reports lifetime.</p> <p>These settings affect both Newsstand and Hub published reports. The purging batch runs every 10 seconds for Newsstand and every 8 hours for Hub.</p>	<p>Make sure that reports that are sent to the Newsstand and Hub are the ones that should be displayed there. If test reports are to be sent to either destination, create an additional user in NPrinting that can be used for these purposes. A token will not have to be allocated for these additional users in Sense, as accessing the hub and downloading reports does not require a token.</p> <p>Report history is not accessible from the Hub, only the Newsstand.</p>
<p>Next add a report(s) to the publish task. Click on the Reports button and then click the Add report button.</p>	

On the subsequent screen, select the report to be added to the task from the Choose report drop-down menu and edit the friendly name, if desired.

**Tip!**

The friendly name is how reports will be displayed in the

Newsstand and Hub. Any dynamic naming applied to the report will appear in the downloaded version of the report or to any reports sent via e-mail or saved to disk.

Select the desired output format.

**Tip!**

The output formats available will depend on the template type being using.

For example, a PowerPoint template can be rendered as PPTX or PDF, while an Excel template can be rendered as XLSX, XLS, PDF, HTML or TIFF.

Finally, click the Add report button in the lower right-hand corner.

Qlik NPrinting

Publish tasks / Demo Publish Task / Reports / New

Overview Reports Users/groups Filters Destinations E-mail message

Triggers Conditions

**Add report**

Choose report: Demo Sense Report

Friendly name: Demo Sense Report

Report type: PowerPoint

Output format: PPTX

Attach to e-mail

Enabled

Conditions

Add condition

Cancel Add report

Next, select the user(s) to receive the reports in the publish task.

Click on Users/groups and then the Add user or group button.

Qlik NPrinting

Publish tasks / Demo Publish Task / Users/groups

**Users/groups**

Overview Reports Users/groups Filters Destinations E-mail message

Triggers Conditions

Add user or group

<input type="checkbox"/>	Name	User description	Enabled	Actions
<input type="checkbox"/>	-- Choose action --	Go		

With 0 selected.

10 25 50 100



Select the user or group from the Choose recipient drop-down menu and then click the Add recipient button in the lower right-hand corner.

Qlik NPrinting

Publish tasks / Demo Publish Task / Users/groups / New

Overview Reports **Users/groups** Filters Destinations E-mail message

Triggers Conditions

**Add recipient**

Choose recipient sjw

Enabled

NewsStand destination

E-mail destination

Cancel **Add recipient**

Select a destination(s) for report delivery. The default options available are Newsstand, E-mail and Hub.

**Tip!** If a folder(s) needs to be included to save the report to disk, this will have to be configured in the Destinations section prior to creating the publish task.

Qlik NPrinting

Publish tasks / Demo Publish Task / Destinations

**Destinations**

Overview Reports Users/groups Filters **Destinations** E-mail message

Triggers Conditions

Recipients NewsStand E-mail Hub - Select folder -- Add

Publish for all  E-mail for all  Upload for all

sjw

Cancel **Save**

Create a trigger (schedule) for task execution. Click on Triggers and then click the Create trigger button.

Qlik NPrinting

Publish tasks / Demo Publish Task / Triggers

**Triggers**

Overview Reports Users/groups Filters Destinations E-mail message

**Triggers** Conditions

**Create trigger**

Name	Description	Next execution	Enabled	Actions
10 25 50 100				

Give the trigger a name and description, if desired. Select one of the available schedule types.

For recurring triggers, pick from the associated parameters as well as start date, time zone and end parameters. Once all information has been entered, click the Create button in the lower right-hand corner.

Qlik NPrinting

Publish tasks / Demo Publish Task / Triggers / new

### New Trigger

Overview Reports Users/groups Filters Destinations E-mail message

Triggers Conditions

Create trigger for task Demo Publish Task Enabled Disabled

Name: New Trigger

Description:

Schedule

Schedule type: One-shot Daily Weekly

Time: 15:43

Start

Start date: 20/07/2016

Time zone: US/Eastern

Cancel **Create**

The task can also be manually run by clicking the Run now button which can be found in the publish task Overview section.

A message showing that the task was successfully scheduled for execution will appear.

Qlik NPrinting

Publish tasks / Demo Publish Task

The task with id '3d798389-9c80-4ed2-a1f3-f40e59347201' was successfully scheduled for execution.

### Settings

Run now

Overview Reports Users/groups Filters Destinations E-mail message

Triggers Conditions

Publish task

Name: Demo Publish Task

When the publish task has run successfully, the reports can be viewed from the selected destinations.



For the Hub, the **Reports** section will not be visible until it has been populated with at least one report.

Only the most recently published version of the report will be available in the Hub.

Qlik Sense

Work

Reports

Streams

Everyone

Monitoring apps

### Reports

Demo Sense Report

From the Newsstand, the report can be previewed on the web without opening Office, a PDF reader or a web browser (for HTML reports). The report can also be downloaded and report history, dependent on the parameters initially established in the publish task, is also accessible.

NewsStand   Reports   Subscriptions

### Reports

View: **All**   Date range: **Created**   Filter: **All**  

Starred	Preview	Report	Format	Created
☆		<a href="#">Demo Sense Report</a>	PPTX	July 20, 2016 3:48 PM <a href="#">View history</a>

10   25   50   100

### Resulting sample report



## Additional Links

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### NPrinting videos

<http://help.qlik.com/en-US/nprinting/17.0/Content/Videos/Intro-Videos.htm>

<http://help.qlik.com/en-US/nprinting/17.1/Content/Videos/Intro-Videos.htm>

### NPrinting architecture

<http://help.qlik.com/en-US/nprinting/17.1/Content/DeployingQVNprinting/Architecture-sizing.htm>