

QlikView NPrinting 16 Migration Playbook



The Qlik NPrinting Migration Playbook	3
Why NPrinting 19	4
What's new in Qlik NPrinting 19+	4
The power of NPrinting 19 APIs	4
Role-based security and user management	5
Enterprise scalability	7
Qlik Sense connectivity	9
Section access	9
Web-based architecture	9
Single sign-on	10
Compatibility between NP 16 and NP19	11
Qlik NPrinting November 19 Migration tool	12
Unsupported features with alternate execution options	13
Deprecated features	15
Preparing for a migration	16
Running the Migration tool	17
Updating On-Demand integrations	18
Verifying a report and operationalizing NP 19	19
Education on NPrinting 19 administration	20
Qlik NPrinting references	21
Appendix: NP16 triage list	22

The Qlik NPrinting Migration Playbook

This Playbook is a reference guide for customers that are migrating from QlikView NPrinting 16 to Qlik NPrinting 19. There are many great references across Qlik Help, Qlik Community, and Youtube. This Playbook consolidates existing articles and videos that are related to the challenges you may face in your NPrinting journey.

Disclaimer

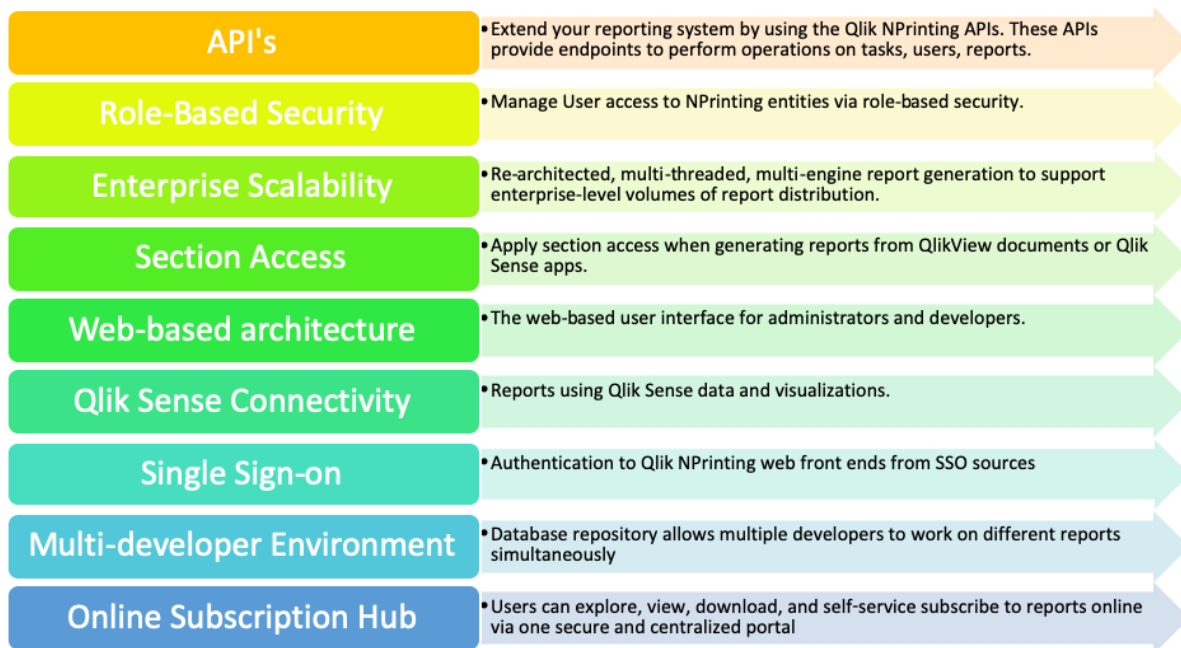
This document is a reference and offers no warranty. Please refer to the Qlik Help documentation for confirmation of Qlik NPrinting capabilities.

Why NPrinting 19

Qlik NPrinting 19+ provides enterprise-scalable reporting for the Qlik Platform (QlikView and Qlik Sense). Qlik NPrinting 19 was first released in 2017 as a re-architected reporting Qlik Add-on. Since 2017, the product has been enhanced through:

- New features
- Quality and scalability metrics
- Security enhancements
- Customer testimonials
- Enablement materials
- Migration guides

What's new in Qlik NPrinting 19+



The power of NPrinting 19 APIs

Qlik NPrinting now offers great system integration and expanded control over reporting outside of Qlik NPrinting. The NPrinting APIs provide endpoints to perform operations on tasks, users, and reports. Key use cases you may consider are:

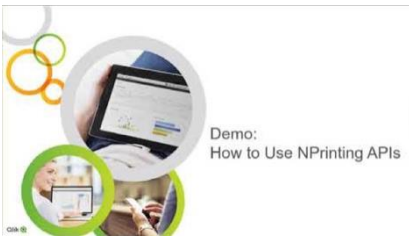
- [Use Qlik NPrinting APIs inside a Qlik Sense load script](#)

- [Distribute NPrinting Reports after Reloading a Qlik App](#)
- [Use Qlik Connectors to FTP a report](#)
- [Send out multiple emails for a single Publish Task in NPrinting 19](#)

Additional References:

[Qlik NPrinting Help site – API Getting Started](#)

Video: [Understanding Qlik NPrinting APIs](#)



Role-based security and user management

Qlik NPrinting has advanced user management capabilities. Prior to using NPrinting 19, or receiving a report, each user must be added to one or more Security Roles. Security Roles control access level in NPrinting. There are four default roles, and you can create custom ones.

NPrinting Administrators can add users:

- manually in the NPrinting Web Console
- from an LDAP source
- from an Excel workbook

Imports from Excel and LDAP can be scheduled or triggered externally to update NPrinting Security Role memberships and NPrinting Group memberships. Merge policies can be managed to coordinate related user data from multiple sources.

- Advanced imports
 1. [Task chaining from QlikView to NPrinting17 and Qlik Sense to NPrinting17 & Task Chaining with NPrinting - adding status check](#)
 2. Users from LDAP (Users, Groups, Roles from LDAP)
 3. Update Users with Filters information from another source (XLS and import)

Additional References:

[Qlik NPrinting Help on Users](#)

[Qlik NPrinting Security Whitepaper](#)

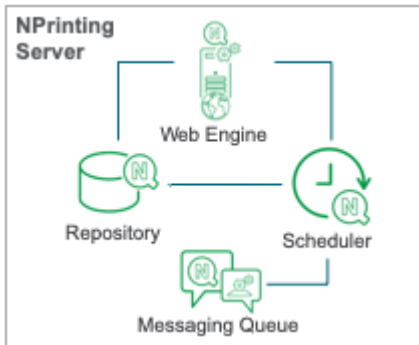
Video: [NPrinting User Management & Security](#)



Enterprise scalability

Please reference the [Qlik NPrinting Scalability Whitepaper](#) for a comprehensive review of the latest Qlik NPrinting 19+ scalability information.

Qlik NPrinting Architecture Elements:



Web Engine

- Entry point into Qlik NPrinting for users, developers, and administrators
- Manages authentication and authorization based on user roles

Repository

- Centralized persistence of Qlik NPrinting content

Scheduler & Message Queue

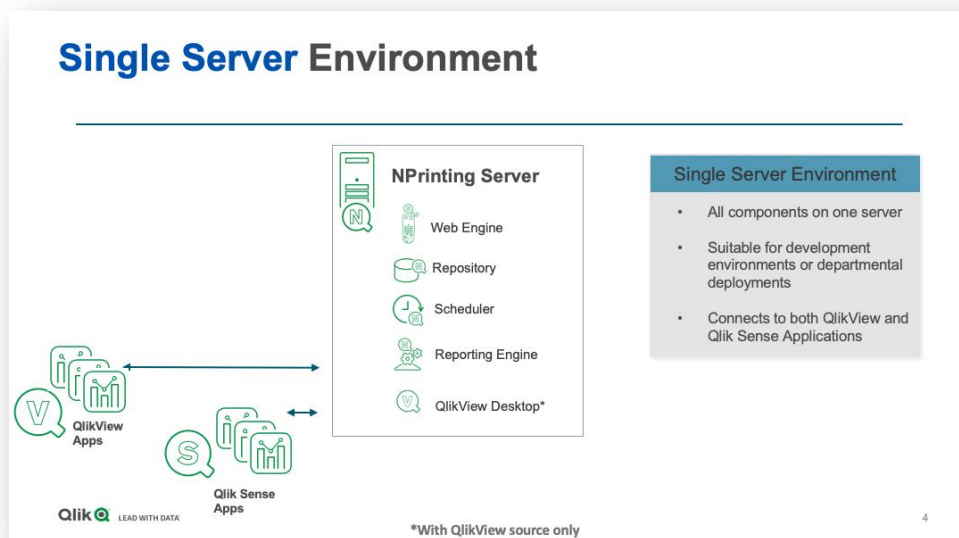
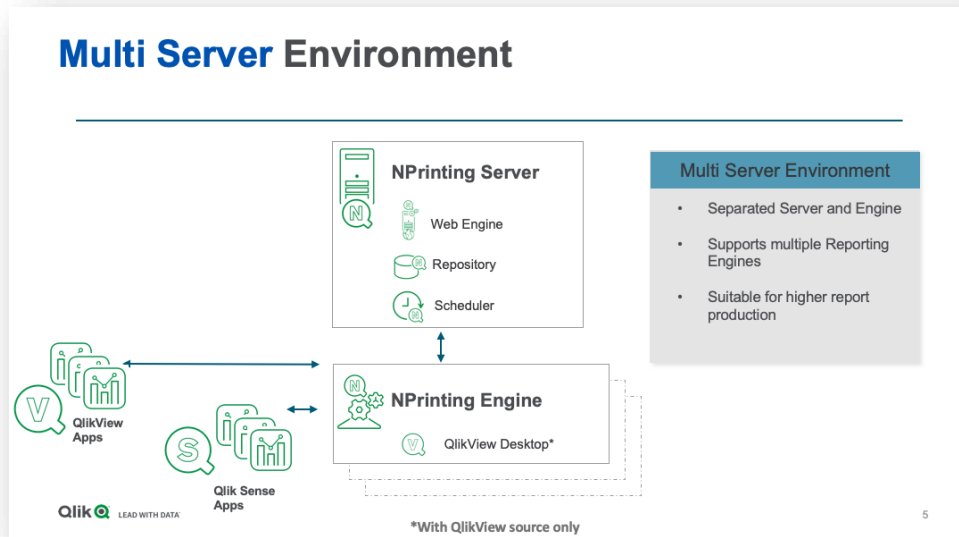
- Job scheduling, prioritization, distribution and delivery
- Decomposes content requests into smaller elements (Leaves)
- Each Leaf is a location of information and instruction to obtain data based on the connection, filters, section access etc.
- Content Requests across various QlikView/Qlik Sense apps are grouped according to connections
- Scheduler will collect content responses (from the engine) and compose into report production file and then distribute



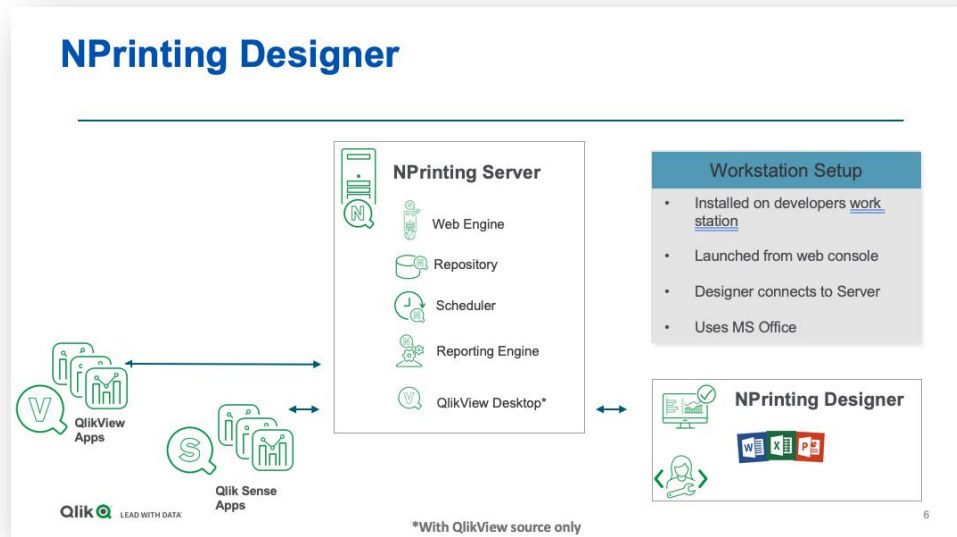
Engine

- Gathers report data from QlikView/Qlik Sense sources
- Engines fill the individual Leaf requests by opening each data source and fulfilling the visualization / tables according the specification of the data and send back a content response

Deployment Options:



NPrinting Designer:



Qlik Sense connectivity

Qlik NPrinting 19+ can support your reporting needs from QlikView and Qlik Sense sources. You can author reports using Qlik Sense data and visualizations from apps that are stored on Qlik Sense servers that you have permission to access.

Section access

You can apply section access when generating reports. This ensures that each recipient sees only the data that they are authorized to view, as assigned by section access controls in the source Qlik apps.

Reference

- [Qlik NPrinting Help on Section Access](#)

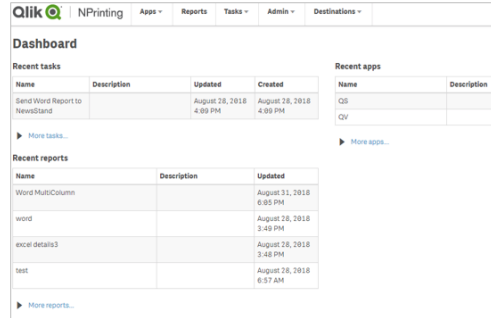
Web-based architecture

The web administration console lets you manage apps, connections, filters, reports, tasks, and users. Report developers require a local installation of NPrinting Designer and Office suite.

The Web Console

Web based administration and development launch pad

- Used by administrators to manage NPrinting Apps, Users, and system configuration
- Used by developers to author reporting applications
- A facility to monitor Task Execution
- Launch point for NPrinting Designer
- Used by Administrators and Report Developers



The screenshot shows the Qlik NPrinting Web Console Dashboard. At the top, there are navigation tabs for 'NPrinting', 'Apps', 'Reports', 'Tasks', 'Admin', and 'Destinations'. The dashboard is divided into three main sections:

- Recent tasks:** A table with columns 'Name', 'Description', 'Updated', and 'Created'. It lists a task 'Send Word Report to NewsStand' with update and creation times of August 28, 2018, at 4:09 PM.
- Recent apps:** A table with columns 'Name' and 'Description'. It lists two apps: 'OS' and 'CV'.
- Recent reports:** A table with columns 'Name', 'Description', and 'Updated'. It lists four reports: 'Word MultiColumn' (updated 8:55 PM), 'word' (updated 3:49 PM), 'excel details3' (updated 3:48 PM), and 'test' (updated 6:57 AM).

Reference:

- [Qlik NPrinting Product Tour](#)

Single sign-on

Authentication in Qlik NPrinting deployments is managed by the Qlik NPrinting web engine, which verifies user identities before allowing access to the Qlik NPrinting Server or NewsStand.

Reference:

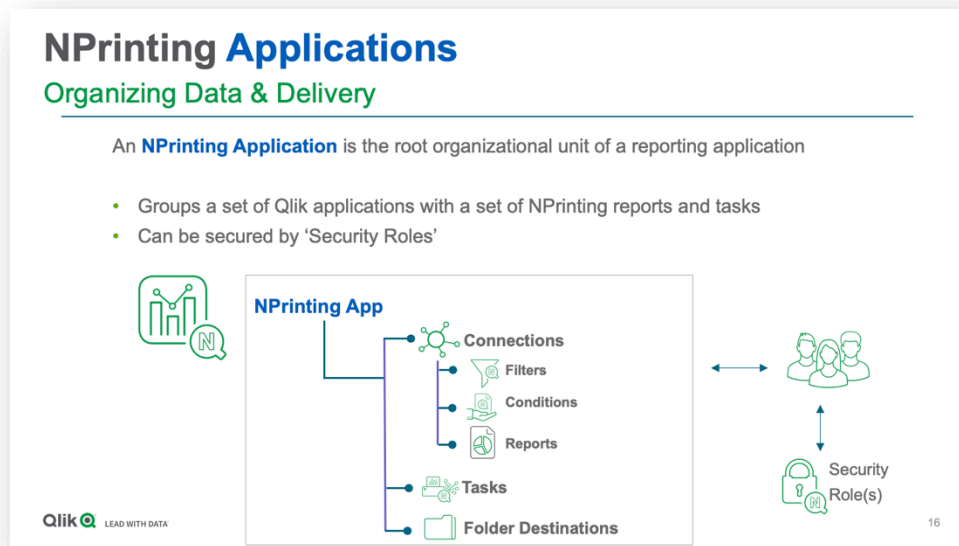
- [Qlik NPrinting Help on Authentication](#)
- Video: [How to Setup Qlik NPrinting SAML Authentication with Okta](#)

Compatibility between NP 16 and NP19

QlikView NPrinting 16 and Qlik NPrinting 19 are different products architecturally. As a result, customers will perform a migration from NP16 to NP19. There will be differences in the NPrinting experience, entity naming, features, and more. This section outlines the Migration tool, which streamlines this process. It also highlights where action must be taken to address differences between the two products.

Terminology update: projects vs apps

Qlik NPrinting 16 projects are organized by NSQs → these become **Qlik NPrinting Apps**. An app acts as a container or project for your NPrinting reports.



Differences in user management

QlikView NPrinting 16	Qlik NPrinting 19
ID was a unique identifier.	Email as unique identifier.
Recipients were segmented by .nsq files.	Recipients shared across apps (user available for any publish task regardless of App).
No user roles.	Users need at least one Security Role. Security Roles can be assigned to a specific app.

CC/BCC are user attributes.	CC/BCC are task attributes (common to all reports delivered as part of a published task).
More import options (import from text file or QV table).	Import via Excel & LDAP, or can use APIs.

Qlik NPrinting November 19 Migration tool

Qlik NPrinting November 19 offers an NP16 Migration tool to streamline and reduce the manual work required during the migration process. The Migration tool is accessible under the Admin Menu option in the Web Console.

Migration Tool: What is migrated

The following entities **are** migrated with NSQs into your new App:

- Connections
- Filters
- Reports
- Report tasks (now called Publish Tasks)
- Conditions (on reports, not tasks)
- Environment variables are replaced by their values

Migration Tool: What is not migrated

The following entities **are not** migrated. You will have to update/adjust as described in the following section:

- Users (see User Management capabilities)
- Output folders (destination folders are recreated in new version)
- Schedules (no longer managed as Jobs, now called Triggers)
- Unsupported task types (see deprecation list)

Migration Tool: Dealing with unsupported features

The migration tool will assist you in cleaning up deprecated features or features that are not migrated. Depending on the situation the tool may take default actions and log the issue for attention by the migration administrator. Examples include:

- Assigns a default value: if no value is found in the NP16 NSQ, a new value is set
- Empty entity: if there is an issue with a filter (unsupported or otherwise) the filter entity will be noted in the log and the filter will be created but left empty for update.
- Remove the feature: e.g. the tool will strip out an HTML email template file.

Unsupported features with alternate execution options

<p>Jobs</p>	<p>Jobs no longer exist in Qlik NPrinting 19+. Publish tasks are used to group reports, triggers, conditions, destinations, users/groups. Publish tasks will execute reports.</p> <p>If sequential task execution is required, the recommended solution is to use Qlik Script to make REST API calls to NPrinting to achieve the desired chaining. Refer to:</p> <ul style="list-style-type: none"> - QV Executing Task Chaining - How to use Qlik NPrinting APIs inside a load script
<p>Bookmark filters</p>	<p>Bookmark filters will be imported as part of the NP November 19 Migration tool execution. A new filter will be setup with the same name, but will be left empty.</p> <p>Suggested actions</p> <ul style="list-style-type: none"> • For each Bookmark in QV > identify the selections. • Track report / bookmark relationship • Migration tool will create the empty Filters for you • Configure each Filter in 19+ (using the tracking sheet) • Filter development options include <ul style="list-style-type: none"> ○ Value ○ Advanced search

	<ul style="list-style-type: none"> ○ Variables
Clone report	<p>Clone reports is now achieved by using the Web Administration view to export a report and then import a report. An Export Report button is located at the top of each saved Report template.</p>
FTP Support	<p>The ability to perform FTP upload of a report is now achieved by using a Qlik Script with NPrinting APIs and Qlik Web Connectors.</p> <p>This strategy is documented in a Community article FTP an NPrinting Report with NPrinting v19. Be sure to download the attachments to this article.</p>
Linked fields	<p>Linked fields were possible in NP16 due to the Single threaded nature of the product. In a multi-engine, multi-node environment the feature is no longer feasible.</p> <p>Many Linked Fields situations can be achieved through APIs and the creation of a filter with the fields across the connections. <i>Note: this will work as a filter but cannot be used as a page, level, or cycle.</i></p>
Jobs	<p>Jobs can be achieved by leveraging the APIs and a task chaining approach.</p> <p>User Import tasks to support multiple steps: Task Chaining with NPrinting - adding status check</p>
Some email tags	<p>For some email tags you can use Qlik Variables to recreate the tags.</p>
Import HTML files into email bodies	<p>There are two alternatives to using HTML files:</p> <ol style="list-style-type: none"> 1. Copy the content of the HTML file and paste it in the email body editor. 2. Use the HTML file to create a new custom report and embed it in the email body.
Dynamic CC/BCC email addresses	<p>Dynamic CC/BCC email address will be delivered to an upcoming version of Qlik NPrinting 20. In the meantime, this can be achieved through:</p> <ol style="list-style-type: none"> 1. the use APIs and Qlik REST connector to “cycle” tasks and dynamically assign users to the “To” line.

	2. Using Distribution Lists as the email recipient.
Verify Filter	Default behavior for filters in Qlik NPrinting. Advanced error handling determines how the report behaves in the event of a filtering error
Test task	<p>You can verify how reports attached to a publish task will generate.</p> <p>In summary:</p> <ul style="list-style-type: none"> - Report templates offer flexible report naming. When you need unique filenames for review you can create them. If all reports must have the same name, then you can use user folders. - Users can be configured with a folder location and a sub-folder location. - Admins can create destination folders that allow report outputs to be written to file. <p>Reference: Verifying Publish Tasks in NPrinting 19</p>

Deprecated features

The following features are not available in Qlik NPrinting 19:

<ul style="list-style-type: none"> • Pretty good privacy (PGP) encryption • Recipient import wizard • Send to printer • Attach external files to email • Report compression • Environment variables 	<ul style="list-style-type: none"> • Reduce task • Reload task • Partial reload task • Macro task • Unsupported output formats (.docm, .pptm)
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Preparing for a migration

This section offers a set of best practices to follow before you migrate. The instructions are best understood by watching this [Support Video](#) starting at minute 4:31

1. The NPrinting 16 environment must be at NPrinting 16.3 to support the project export. The following QlikView environments must be supported:

QlikView version*	QlikView NPrinting version	Additional NPrinting upgrade
11.20	16.2 or older	Upgrade to 16.3 or newer
11.20	16.3 or newer	none
12.10	16.2 or older	Upgrade to 16.3 or newer
12.10	16.3 or newer	none
12.20	16.6 or older	Upgrade to 16.7 or newer
12.20	16.7 or newer	none

2. Examine each report in the .nsq for accuracy. If the Migration tool can't find a template file, an error will be produced. Check that:
 - i. File paths correct.
 - ii. Variabilized paths are accurate
 - iii. Objects that are removed from .qvw are not still referenced in the template.
3. Backup Your NSQ files, templates, and QVWs.
4. If you are planning a migration of QlikView – please perform your Qlik NPrinting migration first and validate the migration before proceeding with your QlikView migration. This allows for less variability of the migration process – if something goes wrong you can isolate to NPrinting vs QlikView.
5. Deploy new NP 19 environment – instructions are found on [Qlik NPrinting Help Site](#). If you have already deployed NP19, run a backup prior to migration – instructions are found on the [Qlik NPrinting Help site](#).
 - a. For information regarding requirements and installation deployment process check out the [NP 19 help site](#).
 - b. Information regarding sizing and other preparation considerations before migrating to your NPrinting 19 deployment: [Finetuning and preparing your NPrinting 19 Deployment for use with QlikView and Qlik Sense](#).
6. Export NP16 project – use the Export Project button in NP16. This will create a zip file which will be used as the source input for the Migration Tool.

Running the Migration tool

Running the Migration tool is best explained by watching the [Support Video](#) starting at minute 16.

Preconditions

- Export the QV NP16 project to a zip file and place the zip file on the NP19 machine
- An NP19 Administrator user has been setup as having role to “Import NP 16 projects”

Steps

1. Admin > Qlik NPrinting 16 Migration Tool.
2. Click Import Project.
3. Select the zip file for the NSQ & Start Importing.
 - a. You will be asked to confirm the file paths to the QlikView documents.
4. The Tool will check that it can create the Connection Cache.
 - a. No steps will run until the connection cache has been successfully run.
5. The Tool will start to write the results of the migration to the visible Log file.
 - a. Actions, Errors, Warnings are displayed.
 - b. Deprecated filter types are displayed.
6. Iteratively review warnings and exceptions using the blue icon next to the log line and take the appropriate action.
 - a. You may need to address updates in the Web Console
 - b. You may need to address updates to the report templates using the NPrinting Designer.
 - c. Reference Help site on [Troubleshooting your migration](#).

Updating a publish task – [Help site reference](#)

1. Perform the necessary User assignment to the Publish Tasks.
2. Define Destinations for the Publish Task.
3. Verify Email Message if required.
4. Create the Triggers (Schedule).
5. Create necessary Conditions.

Managing a failed import

In the event that you aren't happy with the Migration Tool import you can simply delete the App which will delete all of the associated Qlik NPrinting entities that resulted from the import.

Warning: All work you have done within the project will be lost!

Updating On-Demand integrations

There are differences in the On-Demand capability available for Qlik NPrinting 19 vs QlikView NPrinting 16. You will have to update the QlikView OnDemand component in your QVW. NPrinting 19+ On-Demand supports level execution; however, you can no longer trigger reports or tasks with filters and dynamic recipients.

Steps to update:

1. Remove From your QV file the OnDemand objects from your QVW (these may be configured for Report OR Task execution)
2. Install the supported QlikView On-Demand to component for report execution – please reference [NPrinting OnDemand Help Site](#):
 - [On-Demand for QlikView connections](#)

Verifying a report and operationalizing NP 19

Every organization will have its own practices and procedures for verifying report deployment. This section offers suggestions on how a company may consider approaching the verification activity post-migration.

Report developers can verify simple reports by creating publish tasks where they are the only recipient.

For more sophisticated reports, and those that have more specific filtering or data restrictions, there are two other strategies that can be considered:

1. Distributing the reports to the intended recipients and asking them to evaluate and provide feedback.
2. In some situations, there is a need for verification of reports, inclusive of filters, section access, and other data conditions before distribution to the end user. You can configure a publish task to output to designated test folders (local to the server or network share folder) and have someone verify the reports.

Reference: [Verifying Publish Tasks in NPrinting 19](#)

Once the required verification is complete the NP16 reports can be disabled and the NP19+ report enabled. The strategy for doing this is at the discretion of the user.

Education on NPrinting 19 administration

To get familiar with the new areas of Qlik NPrinting 19+ (the NPrinting Designer is essentially the same between NP16 & NP19) it is recommended you review the following:

- [Qlik Help NPrinting - Administration](#)
- [Qlik Help NPrinting - Publishing](#)
- [Qlik Help Youtube - NPrinting](#)

Qlik NPrinting references

Qlik Knowledge Channels	Specific Migration Topics
<p><u>Qlik Help Documentation</u></p> <p><u>Youtube - Qlik Help NPrinting</u></p> <p><u>Youtube – Qlik Support NPrinting</u></p> <p><u>Qlik Support Site - NPrinting</u></p>	<p><u>Migrating from NP 16 made easy</u></p>

Appendix: NP16 triage list

1. How many NP 16 NSQ files are to be migrated? _____
2. How many reports (approx) are to be migrated? _____
3. How many recipients on average on each report? _____
4. Of those reports how many utilize the following capabilities?

Feature	Response / # of reports	Comments or reference report names or ID's
Bookmark filters		
Linked fields		
Jobs		
Import HTML files into email bodies		
Dynamic CC/BCC email addresses		
QV Reload Tasks		
Multiple To in the email		
Variabalized QVW connections		
On-Demand w/ Tasks		
# of Tasks		
# of Recipients		
Location of Recipients	LDAP QVW XLS	
import wizard (community technique with REST connector)		
FTP		
Connections	QVP or Local Connections	

5. Can you provide a high-level deployment architecture?
6. How many Qlik NPrinting 16 environments need to be migrated?
 - a. Development environment _____
 - b. UAT environment _____
 - c. Production environment _____
7. Is NPrinting 16 installed on the same server as QlikView? Yes | No
8. How many reports are using On-Demand? _____
9. Approximate sizes of QV documents being used as the source of reports _____