FTP an NPrinting Report

LEAD WITH DATA Qlik Q

TABLE OF CONTENTS

SUMMARY

- NPrinting 17+ supports the ability to distribute reports to folders.

- The "Qlik FTP/SFTP Web Connector" can upload file(s) over FTP from a hard drive folder to an FTP server.

- The FTP parameters can be submitted dynamically based on data driven expressions

- Like all connectors, the FTP/SFTP Connector is activated through the Qlik load script.

- An NPrinting publish task can also be activated through the Qlik load script using the Qlik REST Connector allowing reports to be written to the hard drive and subsequently uploaded over FTP from the same load script...

- This offers a potential replacement solution for a product feature that was available in NPrinting v16 but was not included in NPrinting v17+

Configure an NPrinting Publish Task to distribute reports to folders

An NPrinting task can be configured to generate report(s) and write them to an accessible hard drive location.

The following steps assume <u>prior</u> configuration of an NPrinting Publish Task that successfully distributes a simple report to a a single recipient.

- Configure a destination folder in the NPrinting Web Console where the service account that runs the NPrinting services has WRITE access to the windows "Path" in the destination. UNC paths are acceptable.
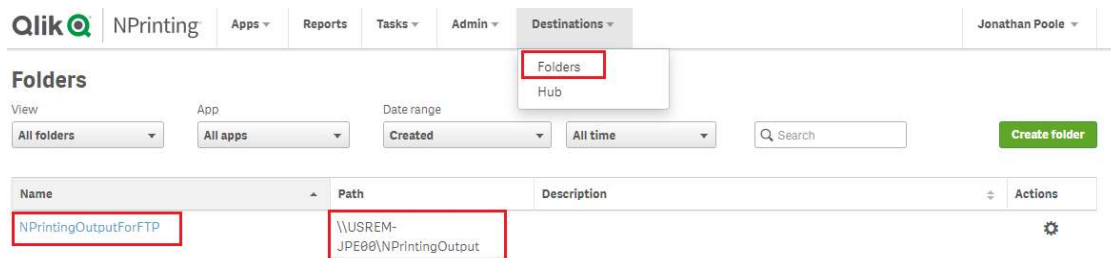
Next, configure the "Publish Task" to distribute the report(s) to the same destination

- Note the Publish Task Name in this sample is **"Send Management Report to Folder Destination"**. You can change the name but make a note of it as we will need to use the name later.
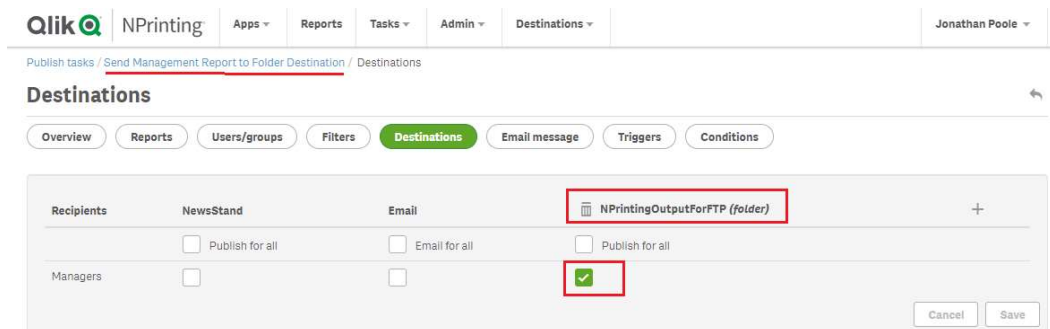
For ease of troubleshooting, enable the NPrinting report that is used by the Publish Task to have dynamic naming and include both the date and time in the report output file name

Ensure your task runs by clicking "Run Now" from the Publish Task "Overview" tab

From Admin->Task Executions monitor the status and verifies it completes successfully.

Queued:

Completed

Check the destination folder and confirm the Report Name has been successfully written

You are now ready to trigger the same publish task from a Qlik load script!

Triggering an NPrinting Publish Task from Qlik load script

It is possible to trigger NPrinting Publish Tasks via the Qlik REST Connector directly from a QlikView or Qlik Sense load script using fully supported Qlik scripting methods and fully supported Qlik products.
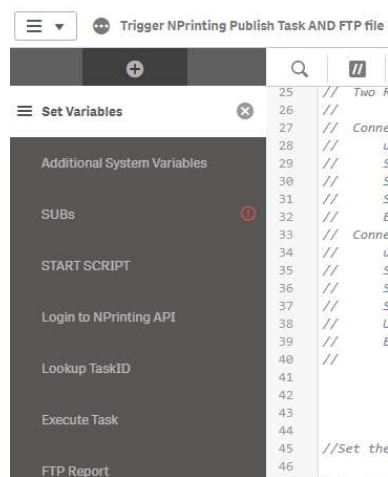
Prior to authoring the script, you must first successfully configure two REST Connections to the NPrinting Server. One REST Connection for GET requests (reading information from the NPrinting API) and a 2nd REST Connection for POST (and related write) requests. The steps to author these REST Connections are variable in this reference document How to use Qlik NPrinting APIs inside a Qlik Sense load script.

Upon successfully configuring and testing the two NPrinting REST Connections you are now ready to write Qlik load script to login to NPrinting and trigger an NPrinting Task execution

There are many ways of writing Qlik load script and the following sample is just one way that attempts to follow best practices through use of functions and variables.

Sample Setup

- Import the app "<Name>" into your Qlik Sense site

- Open the App from the Qlik Sense Hub and proceed to the Data Load Editor.

- Select the "Set Variables" section

- Change the names of both the NPrinting Connections ("NPrintingAPIGET" and "NPrintingAPIPOST") to the names of your two REST connections.

  Tip! You can remove the USERID suffix of a connection by editing the connection name in the QMC

```
47    let vAPIConnectionNameForGET = 'NPrintingAPIGET';
48    let vAPIConnectionNameForPOST = 'NPrintingAPIPOST';
```

- Change the names of the NPrinting Server host and port as well as the Qlik Sense Server host and port. It is ok to put the QlikView Server name for the value vQlikSenseServer.

```
50    //Set these 2 variables to determine the prefix of your NPrinting API endpoint
51
52    let vSSL='True';    // True or False
53    let vNPrintingServer='USREM-JPE00.QLIKTECH.COM:4993';
54    let vQlikSenseServer='USREM-JPE00.QLIKTECH.COM';
```

Using the two REST Connections, it is possible to trigger the execution of an NPrinting Publish task via supported API endpoints.

- Change the name of the NPrinting Publish Task 'Send Management Report to Folder Destination' to be the name of the Publish Task that you are testing with

```
57    // NPrinting publish task to trigger
58    let vNPrintingPublishTaskName        ='Send Management Report to Folder Destination';
```

By triggering an NPrinting Publish Task execution from a Qlik Sense load script you should take care to track and manage how the NPrinting Publish Tasks finishes. If the NPrinting Publish Task fails, then its recommended that the Qlik reload execution be configured to error out so an administrator can track failures in the NPrinting Report generation directly from the QMC.

The sample thus provides two variables to define how long the NPrinting Task will be allowed to complete.

- Optionally change "vTaskTimeoutMinutes" to the desired timeout interval (in minutes)

- Optionally change "vTimeoutCheckIntervalSeconds" to the desired interval at which the load script check for the status of the NPrinting Publish Task Execution (in seconds)

```
// NPrinting publish task to trigger
let vNPrintingPublishTaskName        ='Send Management Report to Folder Destination';
let vTaskTimeoutMinutes = 60 ;  // timeout in Minutes
let vTimeoutCheckIntervalSeconds = 5 ;  // timeout check in seconds
```

That's it for NPrinting Publish Task configuration. To test this section out, go to the "FTP Report"

Section and comment out the //exit script line so that script doesn't attempt to FTP. That steps comes

later.
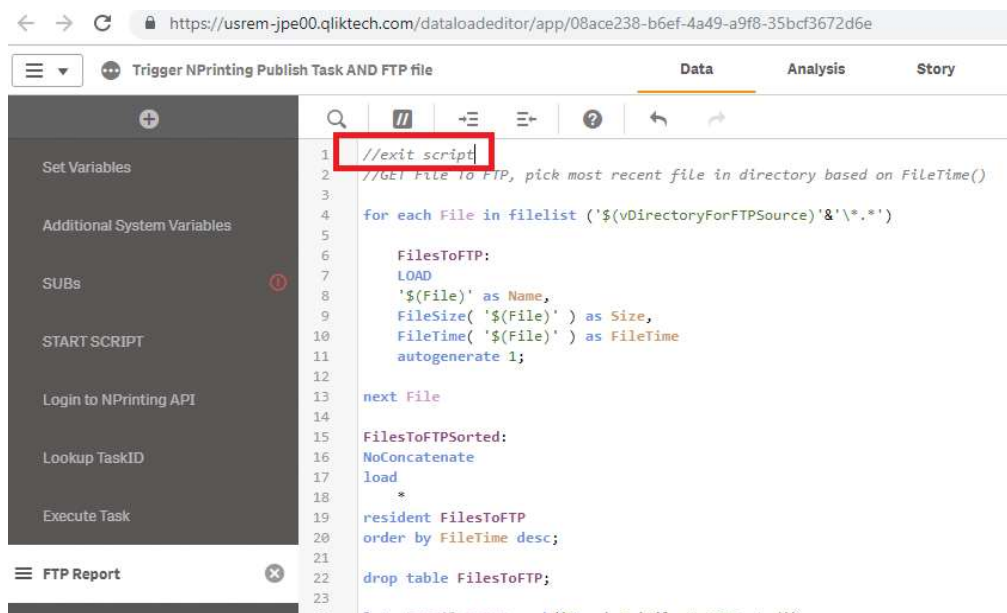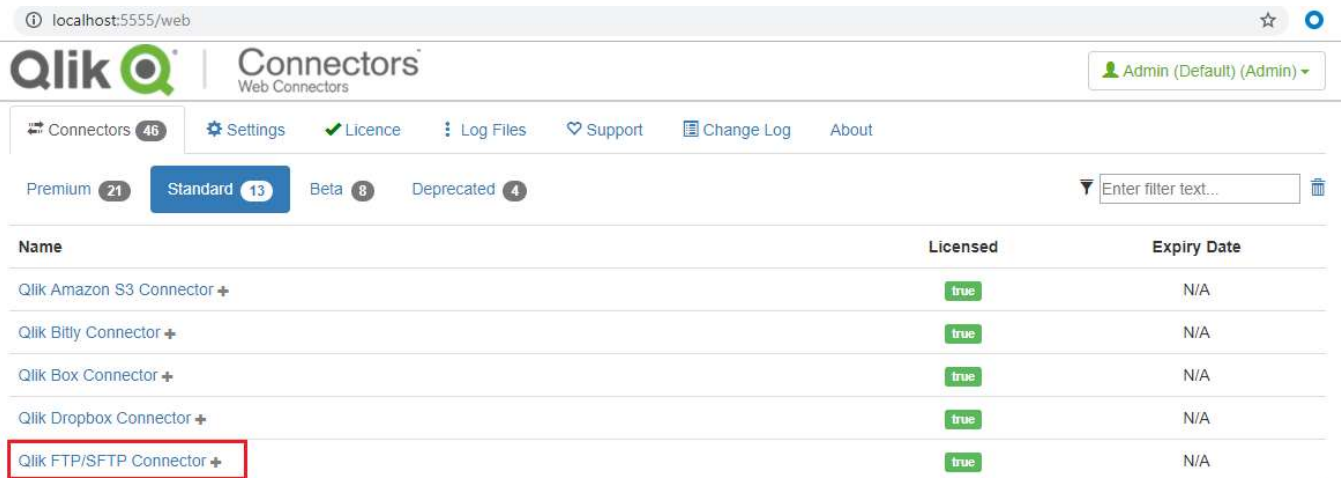
Upon successful completion of the NPrinting

Publish Task Execution, the script is configured

to log additional LOG statements using the

TRACE statement.
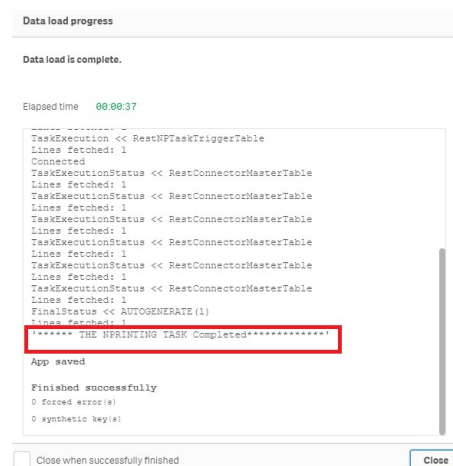
The Qlik FTP/SFTP Web Connector

The Qlik FTP/SFTP Web Connector can be added to the Qlik Server by installing, configuring, starting and licensing the Qlik Web Connector package. To install , configure, start and license the web connectors please refer to the online help <u>Here</u>

- Open the Qlik Web Connectors console

- Under "Tables", select "FTPUploadFile" and click "Parameters"

- Enter the HOST, Port, User Name, and Password that corresponds to your FTP environment.

Uploads a named file to your FTP server from a local folder.

Host *

localhost

FTP Mode (Default=Ftp)

Ftp ▼

Port

21

User Name

user1

Password ❶

••••••••

☐ Ignore Proxy ❶

Source File (e.g. c:\Qlik Web Connectors\Temp\MyData.txt) * ❶

c:\NPrintingOutput\Sales Report12-54-06.pptx

Remote Path (e.g. /myFolder/My File.txt) * ❶

/Upload/Sales Report12-54-06.pptx

Save Inputs & Run Table

- For testing purposes, I suggest manually placing ANY file in the "NPrintingOutput" windows folder and ensure the file access privileges are such that the service account running the Qlik Web Connectors Service and Qlik Sense Engine service can read the file. Use the file's filename in the "Source File" and "Upload Path"

- Click "Save Inputs & Run Table"

- Confirm the test is successful

- Feel free to login to your FTP Server with a 3rd party FTP client to confirm the same
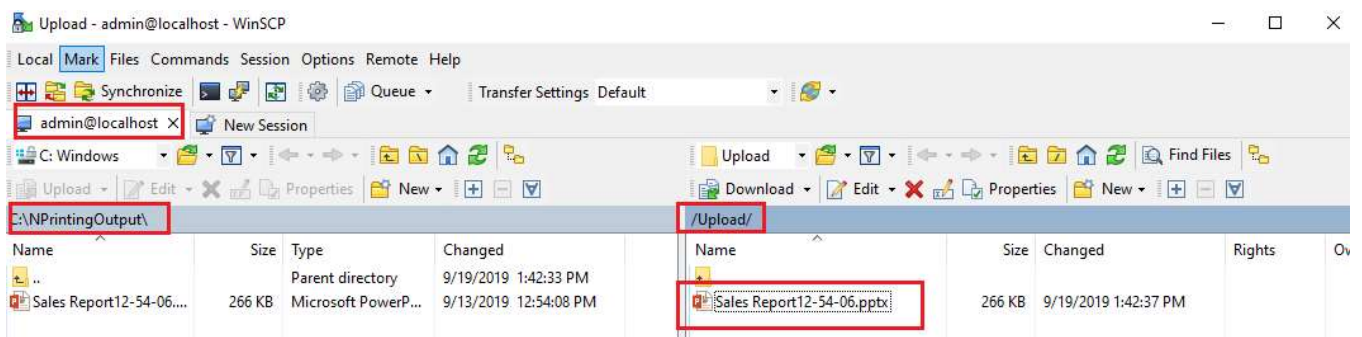
Triggering an FTP from Qlik load script

The upload test above will provide you with sample Qlik Load script

- In the same Web Connectors session, click on the "Qlik Sense Standard Mode" (For QlikView, click the appropriate tab.

-

- Follow the instructions on the page to create a QWC Data Connection in the Qlik load script

Within Qlik Sense you need to go to the 'Create new connection' -> 'Web file' dialog, using URL: 'http://usrem-jpe00:5555/' ✕
and give it a name. You should then ensure that you place the following line at the top of your script and replace
YOUR_CONNECTION_NAME with the name of the connection that you have created.
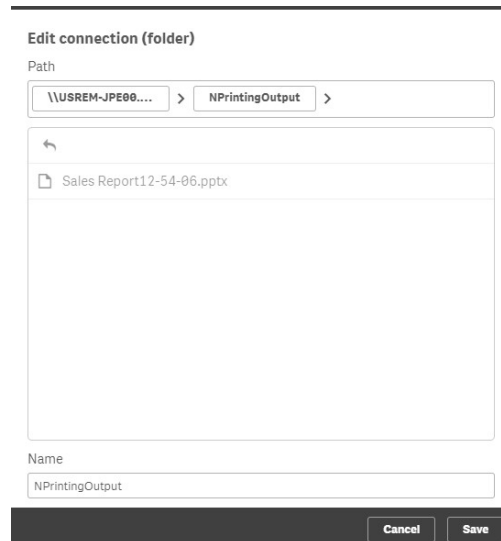let vQwcConnectionName = 'lib://YOUR_CONNECTION_NAME';

- Move the "let vQwcConectionName" statement to the "Set Parameters" section of the sample as highlighted below. At the same time, update the FTP host, port, and the Qlik Web Connectors Server name in the highlighted lines as well.

- Next, create a new Folder Data Connection that points to the same directory that the NPrinting Publish Task writes its reports too. In the sample it points to "\\<YourServer>\NPrintingOutput" and is named "NPrintingOutput"

- On the "Set Parameters" section, add the name of the same folder data connection

- Return to the Web Connectors console.

- Copy the test between the () characters that follows the "URL IS" prefix in the section highlighted below. Paste it into the "FTP Report" section of the load script. We will only be using portions of the URL.

- In the "FTP Report" section of the load script, find the following LET statement for vFTPString.


```
let vFTPString=
        '[http://' & '$(vQlikWebConnectorsServer)' & '/data?connectorID=FileTransferConnector&table=FTPUploadFile
        '&host=' & '$(vFTPServer)' &
        '&ftpMode=Ftp' &
        '&port=' & '$(vFTPServerPort)' &
        '&userName=user1&password=5HKYVqqyDCqhfECvOPH6pg%3d%3d%3akifaQk6RIMIGktgnsOijbA%3d%3d&ignoreProxy=False'
        '&sourceFile=c%3a%5cNPrintingOutput%5c' & '$(vFileToFTP)' &
        '&remotePath=%2fUpload%2f' & '$(vFileToFTP)' &
        '&appID=]'
        ;
```

- Replace the highlighted strings with the corresponding sections from the copied URL from the Qlik Web Connectors console


```
let vFTPString=
        '[http://' & '$(vQlikWebConnectorsServer)' & '/data?connectorID=FileTransferConnector&table=FTPUploadFil
        '&host=' & '$(vFTPServer)' &
        '&ftpMode=Ftp' &
        '&port=' & '$(vFTPServerPort)' &
        '&userName=user1&password=5HKYVqqyDCqhfECvOPH6pg%3d%3d%3akifaQk6RIMIGktgnsOijbA%3d%3d&ignoreProxy=False'
        '&sourceFile=c%3a%5cNPrintingOutput%5c' & '$(vFileToFTP)' &
        '&remotePath=%2fUpload%2f' & '$(vFileToFTP)' &
        '&appID=1'
        ;
```

- Note that the 'sourcFile' parameter uses a variable "vFileToFTP" to provide the encoded file name of the file to FTP. In this sample, the file that is uploaded over FTP is the most recent file found in the FTP directory. The Qlik load script loads a listing of each file and the modification time using the FileTime() function .It sorts the filenames by FileTime in descending order and chooses the first file to FTP.

Now reload the Qlik app and you can monitor the NPrinting Publish Task, Qlik Load Script, and FTP to ensure completion.

Expanding the Chain

When you are ready, you can chain the Qlik app with other upstream reload tasks like QVD generation , Qlik Dashboard reloading, and NPrinting User Imports and Syncs.
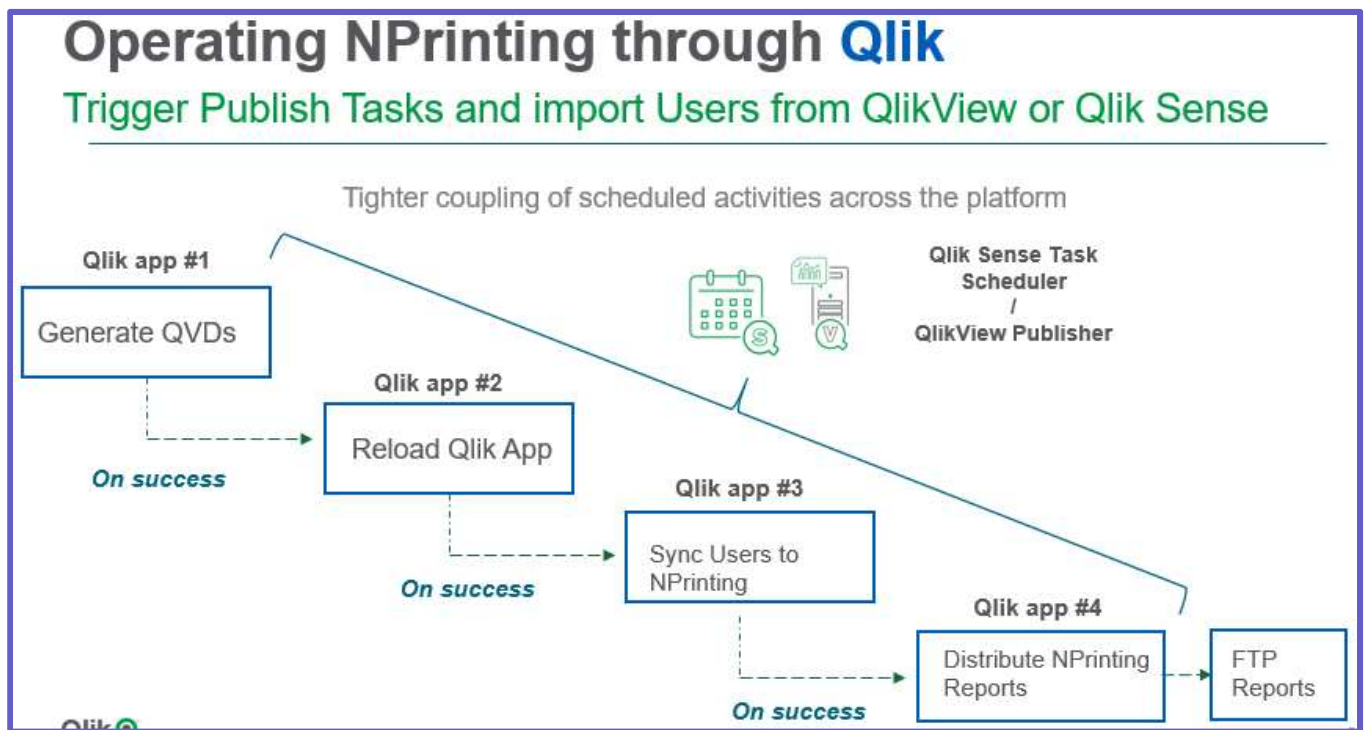
Resources

[Configuring NPrinting Destinations HELP](#)

[How to use Qlik NPrinting APIs inside a Qlik Sense load script](#).

[Qlik NPrinting API Documentation](#)

[Qlik Web Connector Help](#)

[Qlik FTP/SFTP Web Connector Help](#)