Analytics Modernization Best Practices

For Qlik Sense SaaS

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SUMMARY

This technical brief provides you with an overview of the steps to take to transition from QlikView to Qlik Sense Enterprise SaaS. It will take you from configuration, installation and implementation to conversion of your QlikView documents to Qlik Sense applications on Qlik Cloud Services.

INTRODUCTION

As new demands for BI and analytics come your way, you'll be required to build new applications and support new use cases. This makes now the perfect time to begin using Qlik Sense SaaS.

Qlik Cloud is our cloud-based platform that houses services like Data Integration and analytics Services driven by Qlik Sense SaaS.

Qlik Sense SaaS is supported by the Qlik Cloud platform.

Qlik Cloud									
Data Services				Analytics Services					
Hybrid Data I Delivery	Data Warehouse Automation	Data ransformation	Application Automation	Visualization & Dashboard	- raginonioa	Embedded Analytics	Alerting & Action		
Foundational Services Catalog & Lineage Catalog & Lineage Conchestration C									
Hybrid Cloud									
RDBMS Data Warehouse Data Lake SAP SaaS Apps Mainframe Stream Files									
	aws	4	<u> Azure</u>	Google Clou	ud On-premis	es			

Start with a compatible version of QlikView (April 2019 or later)

SaaS deployment allows you to upload and consume QlikView inside the Qlik Cloud hub. You can also share QlikView apps with other users by publishing them in spaces. QlikView apps are compatible with Qlik Sense Enterprise SaaS. QlikView users that want to use QlikView apps in a cloud environment must have a unified license. The unified license became available with the April 2019 releases of QlikView and Qlik Sense.

For more information on how to use QlikView apps in Qlik Cloud (Qlik Sense SaaS), see here.

Activate the tenant

Get a Qlik Account, set up your tenant and subscription, and invite users.

A Qlik Account is sometimes referred to as a Qlik ID or ULC. Once registered for a Qlik Account, you automatically have access to multiple Qlik sites, including Qlik Community and Qlik Continuous Classroom (QCC).

A Qlik Account is not just a user registration at Qlik, it also includes an association with the Qlik IdP, the default identity provider for a SaaS tenant. A tenant is a unit in Qlik's software subscription service, a container for items such as users, apps, and spaces.

For more information, see here for Get started administering Qlik Sense Enterprise SaaS.

Governance and security

Add users via an identity provider, or via email invites with a registration process and subsequent user management.

Videos to help:

- Inviting Users in Qlik Sense SaaS
- Managing users in Qlik Sense Enterprise SaaS YouTube

Licensing your deployment

When you buy a new subscription for Qlik Sense Enterprise SaaS, the license key is set automatically during on-boarding. If needed, you can change the license key manually later.

The user who enters the tenant for the first time becomes tenant admin. The tenant admin can then assign the "tenant admin" role to other users. At least one tenant admin is required. You cannot remove yourself as the tenant admin to prevent accidental removal of the last tenant admin.

Managing identity providers

In Qlik Sense Enterprise SaaS, you can use an already existing identity provider (IdP) when setting up your deployment. You can also choose to use the Qlik Account. In Qlik Sense Business, you can only use Qlik Account.

Note: For an overview of how to set up an identity provider, see: Setting-up Identity Providers.

Create your transition strategy

Once the SaaS tenant has been deployed, Qlik Sense Desktop can be installed on a client computer and authenticated against the SaaS deployment you have chosen. This allows you to convert a QlikView document to Qlik Sense.

There are two options:

Option 1: Migrating apps from QlikView Server to Qlik Sense SaaS:

For steps on converting the QlikView document to a Qlik Sense App **without any visualization objects** by dropping the .qvw file into the Qlik Sense Desktop Apps folder, see <u>Manually converting a QlikView</u> <u>document into a Qlik Sense app</u>

- For steps on **converting supported visualization objects** using the Dev Hub's QlikView Converter, see <u>Using the QlikView converter to create a Qlik Sense app.</u>
- Also see <u>Moving QlikView content to Qlik Sense: concepts and best practices.</u> Note: It is not
 always possible to convert all objects. This documentation also has examples of how to re-create
 the App objects, and also how to access the QlikView document compatibility with Qlik Sense prior
 to converting it by using the <u>Sense Profile Score</u> in the <u>QlikView Governance Dashboard</u>.
- QlikView Documents can also be uploaded directly to the Qlik Sense SaaS Hub, where they are
 automatically converted into a QlikView app (.qvapp). With this format the QlikView Visualization
 Objects are preserved, but the App cannot be further developed/changed, or converted back to the
 QlikView document. Steps are available under <u>Uploading and sharing a QlikView app in the Qlik
 Sense cloud hub.</u>

Option 2: Migrating apps from Qlik Sense on Windows to Qlik Sense SaaS:

You can perform a migration of Qlik Sense on Windows apps to Qlik Sense SaaS by manually exporting them via QMC and then importing them directly via the Qlik Cloud Hub's interface.

- Apps can be manually exported via the QMC under **Apps > More actions > Export**.
 - o It can also be done via QRS API. See App: Export app Qlik Sense for Developers
- Automation of this process can be facilitated by Qlik-CLI. See <u>How to use Qlik-CLI to Migrate Apps</u> to Qlik Sense SaaS
- Instructions on preparing (may be necessary to reduce the size initially) and manually uploading the app can be found under <u>Uploading apps to the cloud hub - SaaS editions of Qlik Sense</u>

Publishing between Qlik Sense platforms

You cannot publish apps across some different Qlik Sense editions. For example, you cannot publish an app from Qlik Sense Desktop to Qlik Sense Enterprise. Instead, you have to download a copy of the app from one platform, and then upload the copy to the other platform. You can then publish the app in the edition to which it is copied into.

Note: To find out how data is shared between Qlik platforms, visit our <u>General Data Protection Regulation</u> (GDPR) compliance.

Note: You cannot publish apps in Qlik Sense Desktop.

When copying an app from one Qlik platform to another, consider the following:

- You will have to recreate data connections on the destination platform.
- Some functionality may not be supported on the destination platform.
- You need the appropriate privileges to perform certain actions. For example, only the Qlik Sense Enterprise administrator can import or export apps from the Qlik Management Console.

Qlik Sense Enterprise on Windows, apps can be imported and exported in the QMC. Qlik Sense SaaS, apps can be imported and exported in the hub. To export, click on an app. To import, click **Add new** and then click **Upload app**.

Tools to support your transition strategy:

Governance Dashboard

Utilized the Governance dashboard to review your apps and decide what you want to convert (capacity limitations on SaaS). You can determine the maximum size for App, Storage, and Data File uploaded to Workspace and Data File attached to the app for Qlik Sense Business and Qlik Sense Enterprise SaaS.

For more information, see the documentation on <u>What is the Governance Dashboard? – QlikView</u> <u>Governance Dashboard</u>

Note: When uploading apps into the Qlik Cloud Hub, the maximum size of the App is of 1GB. After uploading, the size may increase up to the limits below. App size includes attached data files and data. For more information see <u>Uploading apps to the cloud hub</u>.

Qlik Sense Business:

• App size limit (in memory): 1.25GB

Qlik Sense Enterprise SaaS:

• App size limit (in memory): 5.0GB

Total data storage is limited to 250 GB for Qlik Sense Business and unlimited for Qlik Sense Enterprise SaaS, while the quota measured during reloading is set to 1.25 GB for Qlik Sense Business and 5.0 GB for Qlik Sense Enterprise SaaS. The logic behind this being: an app on disk is typically 4-6 times bigger in memory (although this is a rule of thumb and exceptions can and do occur) and an app within the "on-disk" size limit may balloon past the "in memory" limit. For more detailed information check <u>Expanded App Memory and Dedicated Capacity.</u>

QlikView Converter tool

The QlikView Converter tool supports the conversion of QlikView documents (.QVW files) to Qlik Sense apps. Leverage the tool to move some of the valuable analytics developed in QlikView to Qlik Sense.

The <u>converter tool</u> can be used in the Dev Hub in Qlik Sense Enterprise and Qlik Sense Desktop.

Note: You will need to analyze your QlikView documents and prepare them for conversion. The amount of work involved depends on the complexity of your QlikView documents, and the type of objects they contain. You then generate the basic Qlik Sense app and set up the sheets and visualizations you require.

If you have already analyzed and prepared your QlikView document, you can go straight to the section on creating applications. To use the converter tool, make sure your system and setup conform to the following requirements:

- Qlik Sense Desktop or Qlik Sense Enterprise, version 3.2 or later.
- The QlikView document that you want to convert was created in QlikView 11.20 or later. You do
 not require QlikView to convert the QVW file.
- The maximum size of QlikView document you can convert using the converter tool is 500 MB.
- In Qlik Sense Enterprise, access rights are required to create apps.
- Security rules example: Applying Qlik Sense access rights for user types
- In Qlik Sense, you need the same access rights to recreate the data connections as were required for the data in the original QlikView app.
- Creation of access rights for data connections

For more details on how to use the QlikView converter, see here.

Video: QlikView App Converter

The QlikView converter will move most objects into Qlik Sense, including:

- Scripts
- Most variables. See <u>QlikView variables excluded from export</u>
- List boxes
- Charts and tables

Objects that cannot be converted include the following:

- Containers
- Triggers
- Macros
- Conditional statements
- Text boxes
- Object layers
- Custom chart colors
- Expression in list boxes

Develop new apps in Qlik Sense

Qlik Sense apps are purpose-built applications created with data. App users explore the data through visualizations selected and enhanced by app developers. Apps are created by three primary methods depending on skill level and how much data manipulation is required upon data load. Options from basic to advanced include:

- Uploaded once and never modified.
- Modified manually through Data manager.
- Replaced or refreshed with net new changes.

When you create an app, you add it to a space. There are two kinds of spaces in which you can create new apps. Personal spaces are private to individual users. Apps and data sources added there cannot be shared with other users. Shared spaces are collaborative. You can create apps and other members of a shared space can access them. You can also work with other space members to develop apps. Data sources in shared spaces are shared with other members. When your app is complete, you can invite your app audience to your shared space or publish the app to a managed space. For more information about working with shared and managed spaces, see <u>Working in Spaces</u>.

The foundation of an app is the data model and load script. Measures and dimensions are reusable data items used to build charts. Sheets and stories display and organize your visualizations. Discoveries can be made by applying filters and selections.

You can find more information in **Qlik Help**.

Qlik Sense Enterprise SaaS additional functionality

Set up Data Connection for on-premises data sources (Qlik Data transfer)

Qlik DataTransfer is a lightweight Windows application that lets you upload data from on-premises data sources to Qlik Cloud and Qlik Sense SaaS tenant without firewall tunneling. The service account owner (SAO) or tenant administrator generates an API key from the tenant, which is then used to authenticate Qlik DataTransfer. Once authenticated, you can schedule automatic data reloads or upload data manually.

Qlik DataTransfer works with the following kinds of data sources:

- App data
- Connection data

• Folders

More documentation:

- Installing Qlik DataTransfer SaaS editions of Qlik Sense
- Uploading on-premises data with Qlik DataTransfer
- Troubleshooting Qlik DataTransfer

Demo videos:

- Installing Qlik Data Transfer Brief video installing Qlik Data Transfer for the first time.
- Uploading on-premises data with Qlik Data Transfer Brief video explaining an example of data
 <u>connections</u>
- Qlik Data Transfer Quick Demo

Note: Qlik does not recommend that the Qlik DataTransfer utility be installed on a machine where QlikView, Qlik Sense or Qlik NPrinting are already installed. Instead, it should be installed on an independent windows machine with network access to the data sources or files used in uploading to Qlik Cloud Services. Please ensure the installing account has administrative access on the installed machine. Finally, always use the latest version of the utility when reporting issues. Previous versions are not supported.

Data Connectors

Qlik Connectors link your data to the powerful Qlik Analytics Platform. You can quickly load it into Qlik Sense or QlikView, Qlik Connectors even let you stream your social media data into your Qlik apps.

Many Qlik Connectors are integrated into Qlik Sense and do not require separate installation. Connectors for QlikView and some of the Qlik Sense Connectors must be installed separately. Installation is simple and requires no additional configuration.

About Qlik Connectors

Qlik Application Automation

Qlik Application Automation provides a no-code visual interface that helps you easily build automated analytics and data workflows. An automation is a sequence of actions and triggers that runs like a program. It can be a simple workflow that collects information from one application and passes it to another, or it can be an end-to-end pipeline that takes you from raw data to active intelligence. Automations let you automate your analytics environment, create data-driven workflows, and embed data and analytics into your business processes. Automations are designed to be simple to build and easy to understand. You can build automations with the no-code automation editor by selecting workflow blocks and ordering them into a logical sequence. Blocks either process data or control the logic of the workflow. Each block is configurable, which lets you create specific workflows that meet your unique use cases.

You check more about it in Qlik Help - Qlik Application Automation

Task chaining

Automations make it easy to use events and actions to trigger other events and actions. This is called task chaining. A task chain is a set of tasks that are executed in an automation, either in parallel or one after the other. This tutorial walks you through an end-to-end example in steps of increasing complexity that shows you how to build a task chain. The goal of this automation is to trigger app reloads for multiple apps in your tenant by chaining multiple reloads together.

Find our more in Task chaining.

Backup QlikView Server and decommission

To Perform a Complete/Clean <u>Uninstall Of QlikView</u>, we recommend you first take a backup of all the QlikView folders, so you can recover your previous installation if need be.

Training and resources

Moving from QlikView to Qlik Sense SaaS

Moving QlikView content to Qlik Sense: concepts and best practices

Qlik Continuous Classroom: Learning Plan Moving from QlikView to Qlik Sense

About Qlik

Qlik's vision is a data-literate world, where everyone can use data and analytics to improve decision-making and solve their most challenging problems. Qlik provides an end-to-end, real-time data integration and analytics cloud platform to close the gaps between data, insights and action. By transforming data into active intelligence, businesses can drive better decisions, improve revenue and profitability, and optimize customer relationships. Qlik does business in more than 100 countries and serves over 50,000 customers around the world.

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