Moving from Qlik Sense to Qlik Cloud

Your Migration Guide

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Qlik Cloud

Qlik Cloud is a cloud based end-to-end data integration and analytics platform. It enables you to access and act on real-time data within one common platform for all users.

The Qlik Cloud migration process lets you adopt Qlik Cloud at your own pace. It's not quite as simple as transferring everything from your client-managed solutions straight to Qlik Cloud though. Here we explain how to get your migration right to reap the benefits, while avoiding common pitfalls.

Put your strategy first

It's important to approach your migration to Qlik Cloud as a strategic initiative. This way you avoid a simple lift and shift approach that brings your legacy data issues with you. You also need to understand the differences between Qlik Cloud and your client managed solution and how you want the cloud environment to align with your strategic goals.

Assessing your current environment

First things first, make sure your current deployment is in good shape. Migrating poorly maintained Qlik Sense apps will only prolong the migration process. Establish an inventory of the existing Qlik estate, determine the validity of all apps and mark which are migration candidates. Tidying up the environment at this stage will help streamline the migration. Do take sufficient time to retire underutilised apps and remove any unused data files from the environment.

Once you know what needs to be migrated, evaluate your applications, data sources, extensions, customisations, and user access levels. Identify any dependencies, technical limitations, or potential challenges that may arise during the migration process.

You can leverage the tools in the Qlik Migration Centre to assess apps and capture deployment data, such as user identities and then import these into you Qlik Cloud tenant.

Which region?

Decide on which region is most appropriate for your applications, the available regions are:

- Qlik Cloud - US
- Qlik Cloud - EU
- Qlik Cloud - Asia Pacific - Sydney
- Qlik Cloud - Asia Pacific - Singapore
- Qlik Cloud Government (USA Only)
- Qlik Cloud - UK
- Qlik Cloud - DE

The decision on which region is primarily governed by two factors:

- **Performance:** Closeness of the tenant to users and source data.
- **Compliance:** Regulatory or company standards that determine permitted locations where data can be stored.

Some highly regulated industries, such as healthcare, must meet strict regulatory rules for security and compliance. Additionally, many commercial customers leverage data classification approaches for their market-sensitive data to determine if additional security techniques are required for specific data sets. These stricter security requirements may include the need to control the encryption keys that are used to encrypt and decrypt sensitive cloud data. Qlik Cloud allows you to use Customer Managed Keys, enabling customers to use 'bring your own key' (BYOK) as an encryption option to secure your tenant data at-rest within Qlik Cloud.

Planning your phased migration

Migrations are rarely a single event where all apps move to the cloud at once. Instead, it's best to create a phased plan based on business priorities, available technical resources, and project risk planning. This is where Qlik's hybrid model comes in handy. You can choose to keep some apps, like data extraction and transformation, on-premises while moving the presentation app to the cloud, this could even include legacy QlikView apps. The transformation apps can be migrated later if a full cloud solution is the end game.

Ensure your IT department are aware of the plan to move to Qlik Cloud and ensure all risk assessments and approvals have been provided.

The full list of Certifications and Accreditations for Qlik Cloud security can be found at https://www.qlik.com/us/trust, including ISO and SOC certifications.

As standard the initial set-up of the Qlik Cloud tenant will have access control via Qlik's own Qlik Account service e.g., Qlik.com login. It is possible to continue to use this service, however you should confirm with your IS security team what the required standard is for your organisation. Qlik Cloud supports a range of identity providers as follows:

- Okta
- Auth0
- Salesforce
- Azure AD
- Google Identity (Generic integration)
- OneLogin (Generic integration)
- Qlik Account (not available with Qlik Cloud Government)

Establish a user migration plan as the user identity will almost certainly be different in Qlik Cloud, so it makes sense to migrate users in groups where possible. This will save users from needing to log into different Qlik environments for both client managed and Cloud.

Sheets, Stories and Bookmarks

Personal Sheets, Stories and Bookmarks cannot be automatically made available to the original users, these are migrated then reassigned to the appropriate Qlik Cloud user account. For Qlik Application Automation or PowerShell and the Qlik Command Line Interpreter (CLI) package, refer to https://qlik.dev/toolkits/qlik-cli/.

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Static reporting

For customers that currently use nPrinting for generating and distribution of static reports, will need to review alternative solutions as nPrinting is not compatible with Qlik Cloud. Options native to Qlik Cloud are:

- Reporting Services, a capability built into Qlik Automation. Reporting Services will take one or more Qlik sheets from one or more Qlik apps and compile these into a PDF or PowerPoint formatted report. The resulting file can then be distributed via email, Teams, Slack, SharePoint, etc.
- Tabular Reporting, is a feature of a Qlik app. With tabular reporting, report developers can create custom and highly formatted XLS documents from Qlik data and Qlik visualisations, the final output can be XLSX or PDF. A governed report task can burst reports to any recipient via email or SharePoint location. Report layout is managed by an Excel plugin making an excellent solution for advanced to create and administer reports.

Review the number of reports that will be generated per month as the standard Qlik Cloud subscription supports 100 per month, this can be extended with capacity packs in blocks of 1,000. If the reporting output must be an Excel, CSV, other file formats, or contains complex reporting requirements, then there are excellent third-party tools such as Mail and Deploy.

Large apps

Check the size of the apps are within the limits of your Qlik Cloud subscription, typically the limit is a maximum size of 5Gb when loaded into memory. Note, this file size will be between four and 10 times smaller than the expanded into memory size. If an app is too large, the best action to take is to trim it down by removing any unused fields and ensure the data model follows good development practices. If the data model design is optimal, then the app can either be split into apps containing a subset of the data or make use of On-demand App Generation (ODAG). The final option is to add Large App capacity your Qlik Cloud subscription, this can be added in blocks of 20Gb or 50Gb capacity units.

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Managing data connections

As with any cloud-based system, a secure connection must be established to on premise source data or cloud-based data, that is behind a virtual firewall. Data gateways provide a secure means of accessing or moving firewalled data for use in Qlik Cloud. The gateway is installed behind your organisation's firewall, and then registered with Qlik Management Console, over a strictly outbound, encrypted, and mutually authenticated connection. There are two types of gateways:
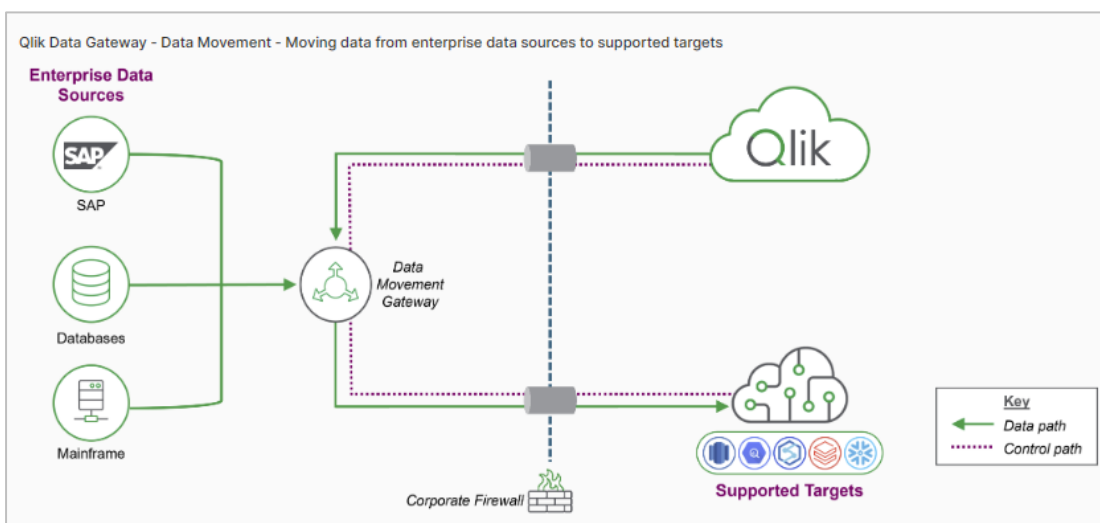
Qlik Data Gateway – Direct Access

Allows Qlik Cloud applications to securely access behind-the-firewalled data.
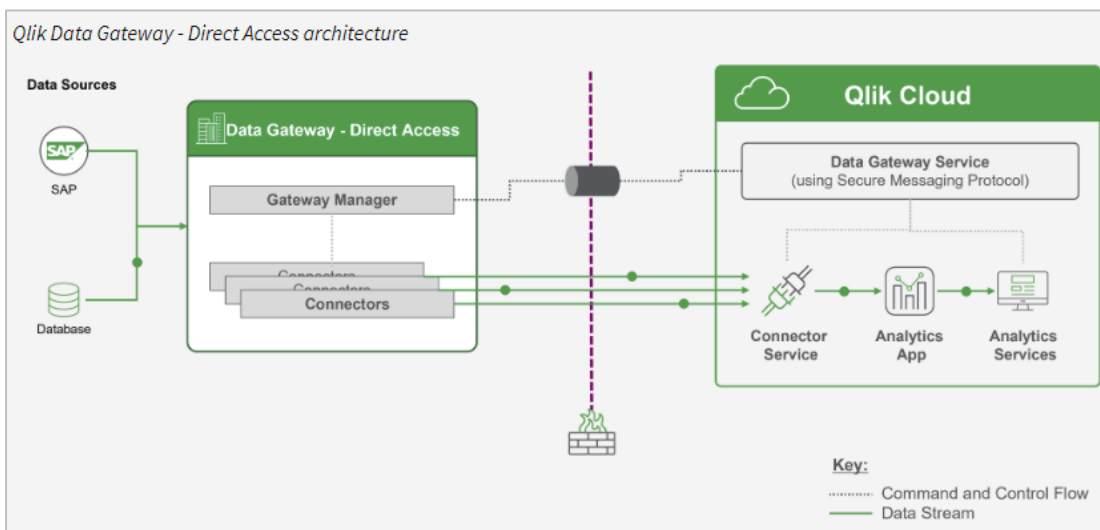
Qlik Data Gateway – Data Movement

Facilitates data movement from your enterprise data source and SaaS applications to supported targets.

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Data storage

A typical Qlik Sense on-premise environment will utilise file storage from a network drive, and have a folder structure that groups files including; extract, transform and data models. These can then be subdivided by data source, such as line of business, etc.

If your data connection strategy is:

- **Qlik Data Gateway – Direct Access** – then Qlik Cloud can store data files into spaces such as by; extract, transform and data model. However, a space cannot be subdivided into folders. If the on-premise folder structure is simple, then appending the folder name to the filename will provide the same level of file structuring, but this can soon become unmanageable with lengthy filenames. The alternative is to use cloud-based storage, such as Amazon S3, Azure Storage, Google Cloud Storage, SharePoint, etc.
- **Qlik Data Gateway – Data Movement** – then the transformation and modelling of the data will likely follow the Qlik Cloud Data Integration process. The most appropriate target platform will be used to store the data, such as Amazon Redshift, Amazon S3, Databricks, Google BigQuery, Snowflake, etc.

Addressing security and governance

Qlik Cloud has different security and governance requirements compared to Qlik Sense. Evaluate your Qlik Sense security rules and identify any specific security requirements for user access control to apps and streams. To achieve the same level of control, you will need to develop alternative security policies for spaces and app section access in Qlik Cloud.
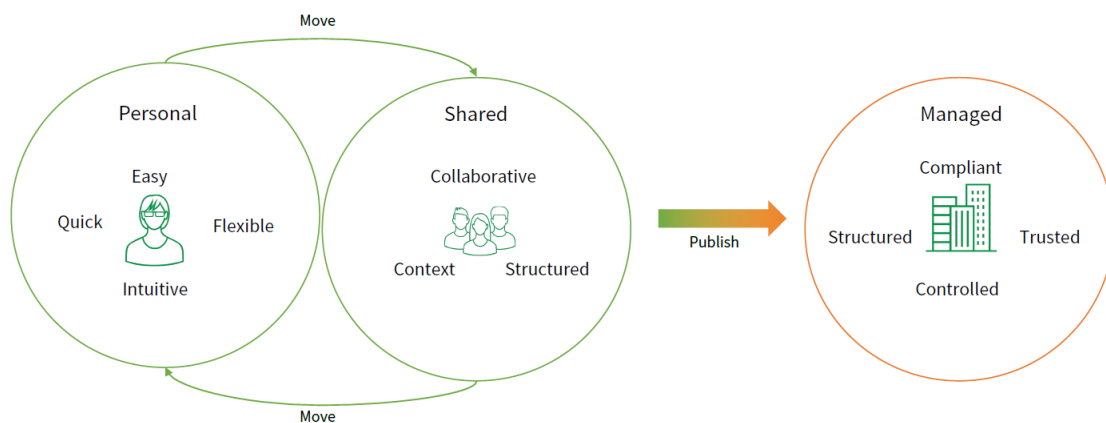
Visualisation extensions

Check what third-party visualisation extensions are installed on your Qlik Sense server and verify with the supplier that these will function correctly on a Qlik Cloud tenant. During the initial Qlik Cloud build process, validate the extensions such as Vizlib or Inphinity are installed correctly and operate as expected.

Resource planning and contingency

Once you have your migration plan ready, it is time to determine the necessary resources for the project. Identify the key personnel responsible for planning, executing, and managing the migration process. Allocate the appropriate staff, budget, and infrastructure to support the migration activities. Anticipate potential risks and challenges that may arise and develop a contingency plan to mitigate potential disruptions to business operations, consider backup strategies and fallback options.

Validate, validate and validate

Never assume everything will be perfect, create proof-of-concept tests to prove elements of the plan are achievable and operate as expected. Such as the third-party extensions work, connection can be made to on-premise data sources, users are authenticated through the identity provider service and the security rules are operating as expected, etc. Involve testers and business users in the process to provide oversight and assurance the migration is configured and operating as intended.

Data tests

The migration should be a like-for-like migration from the on-premises to Qlik Cloud, otherwise it is not a migration project but a reengineering project. Ensure the migrated data matches with the no-premises equivalent; table row counts match, key fields align, gross and grouped sums of metric data match.

Make it real

It's a small thing but give the project a name, something meaningful, or often, a bizarre name works best. This will help with communications across the organisation, secure stakeholder buy-in and drive project focus.

Here's an example of what the plan may look like:

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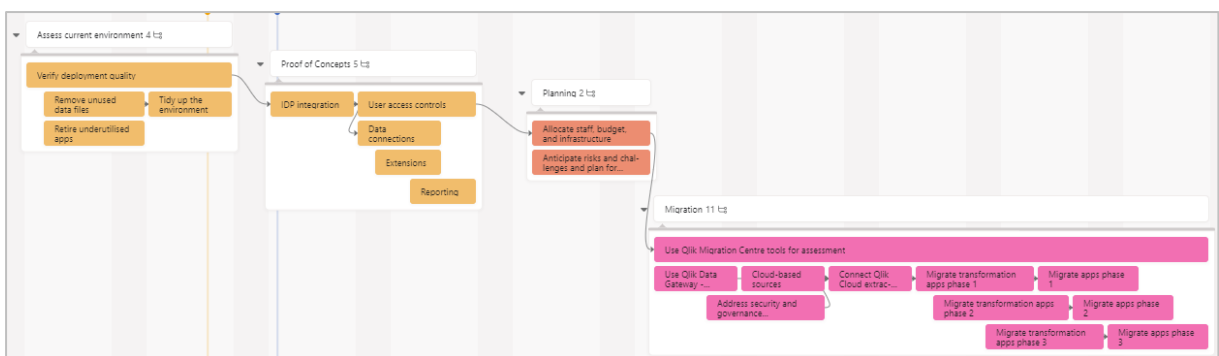
Post migration

Once the migration is complete then make sure to maximise the advanced benefits of Qlik Cloud:

- Data integration to other business systems such as Teams, CRM, Finance, etc.
- Machine learning on your data to help predict potential future outcomes.
- Detect outliers and anomalies in your data quickly with alerts, without the need to open the app.
- Distribute static reports to users on and off the Qlik platform.
- Use shared spaces to develop and share content with other members of your Qlik Cloud Analytics hub. You can also share your personal apps with other members. Use notes to capture and share insights.

How Climber can help

We have specialised in Qlik since the very start in 2007 and have helped many organisations to manage their migration to Qlik Cloud. We have a talented team of business consultants, BI consultants and web developers with different experience and backgrounds. Together, we will help you get the best out of your transition to Qlik Cloud.

Get in touch

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