Planning a Successful Qlik Cloud Migration

A practical guide to planning a successful migration to Qlik Cloud – compiled and published by Peraison's migration experts.

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Ready to revolutionize your organization's business intelligence?
Let's go!

Migrating to Qlik Cloud is more than an upgrade - it's an opportunity to transform the value your organization derives from Business Intelligence. Whether you're targeting data integration, analytics, machine learning, or process automation, the latest and greatest modern tooling resides in Qlik's Cloud. Moving in this direction will not only generate immediate business value, but it will future proof your Business Intelligence solutions, and lay a foundation for future success.

Migration projects are intimidating – you likely haven't done this before – there's a lot of moving parts – and you get one chance to get it right. But with careful planning, a strategy tailored to your use case, and a little support, a Qlik Cloud migration can be a seamless exercise. This white paper is written to help anyone considering the move to Qlik Cloud. It will help structure your thinking and provide tips and hints to streamline your migration planning.

We'll begin with the value proposition for Qlik Cloud, provide practical tips on assessing your existing BI landscape, we'll discuss the different approaches to migration, and we'll finish with some firsthand advice on how to make the most of your Qlik Cloud investment.

> Cloud-based analytics platforms empower organizations to unlock the full potential of their data, driving informed decision-making and competitive advantage.
>
> Gartner predicts that by 2025, 80% of enterprises will have shut down their traditional data centers, opting instead for cloud-centric analytics solutions to achieve greater agility and insights.

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Why Qlik Cloud?

Qlik Cloud provides a best-in-class AI Augmented experience for Data Integration, Analytics, and ML, all fully hosted by Qlik, in a performant cost-effective environment. Businesses can effortlessly scale their analytics capabilities, driving insights across the entire organization while reducing IT overhead. What's not to like about that?

Data Integration   ## Data Analytics   ## AI Augmentation

Scalability: Qlik Cloud provides a scalable platform that can grow alongside your business needs. Whether you're a small startup or a large enterprise, Qlik Cloud can accommodate your data analytics requirements without the need for significant infrastructure investments.

Real-time insights: Qlik Cloud empowers users to analyze data in real-time, enabling them to make data-driven decisions quickly. By accessing up-to-date information, businesses can respond promptly to market changes and identify new opportunities.

Self-service analytics: Qlik Cloud offers self-service analytics capabilities, allowing users to explore and visualize data without extensive IT support. This empowers business users to derive insights independently, fostering a culture of data-driven decision-making throughout the organization.

Collaboration: Qlik Cloud facilitates collaboration by enabling team members to share insights, reports, and dashboards easily. Users can collaborate in real-time, annotate visualizations and share insights, fostering a data-driven culture within the organization.

Security and compliance: Qlik Cloud prioritizes data security and compliance, providing robust features such as encryption, and granular access controls. This ensures that sensitive data remains secure and meets regulatory requirements.

Cost-effectiveness: Qlik Cloud offers a cost-effective solution for data analytics, eliminating the need for upfront hardware investments and ongoing maintenance costs associated with traditional on premises deployments. Businesses can scale their analytics capabilities without incurring significant infrastructure expenses.

Feature Comparison

Legend:
- 🟢 Included
- 🌓 Paid Add-On
- ⭕ Not available

Feature	Client-Managed	Cloud
Qlik Associative Engine	🟢	🟢
Native Connectors	🟢	🟢
Green, White, and Gray Selection States	🟢	🟢
Collaborative App Development	🟢	🟢
Qlik Insight Advisor	🟢	🟢
Qlik Insight Advisor Chat	🌓	🟢
Qlik AutoML	⭕	🟢
Qlik NPrinting	🌓	⭕
Qlik Cloud Reporting	⭕	🟢
App Automations	⭕	🟢
Alerting	🌓	🟢
Subscriptions and Notes	⭕	🟢
Qlik Catalog	🌓	🟢
Lineage and Impact Analysis	⭕	🟢

Qlik **Q** LEAD WITH DATA

"After holding off for a few years and letting Qlik's Cloud offering mature, the case for migration simply grew too strong to ignore any longer. We realized value immediately through spinning down our on premises infrastructure and adopting cloud native features and modules. We've never looked back."

 BI Manager , US Pharmaceuticals

Assessing Your Current BI Landscape & Planning For Qlik Cloud

The first step in planning your Qlik Cloud migration is to assess the state of your current business intelligence environment, with a keen eye on the components and features that differ between Qlik on-premises and Qlik Cloud. This will not only help anticipate and address risks and compatibility issues, but will identify the greatest opportunities to capitalize on.

It's important this assessment is thorough and well documented, as it will form the basis for your migration roadmap. The below matrix is predominantly focused on migrating Qlik Sense Enterprise Client Managed (referred to from here on as QSE CM) to Qlik Sense Enterprise SaaS (referred to from here on as QSE SaaS), although there are some Qlik Cloud environment level topics covered, such as authentication and identity provider integration. It surfaces key topics of focus and poses questions you should be asking to drive your assessment. The 'Pro Tips' sections feature our top tips and the most important risks/opportunities to keep an eye on.

Note: This matrix is not exhaustive – it is intended as a framework to get your planning exercise kick started. Identify the parts that are relevant – and layer in your use case specific details to build out your plan.

Start With The Basics…

Work through these first 4 topics to understand if the Qlik Cloud migration project is feasible. Does it align with your company's **Strategy**, does it meet internal security **Compliance** standards, do you have the right **People**, and is there a **Budget** sponsor.

Strategy	**Questions:** • How does a migration to Qlik Cloud align with your company's data management and analytics strategy? • Does your company already have cloud based data analytics and/or data integration tools from another vendor, and how would Qlik Cloud compliment or compete with that solution?
	Pro Tips: • A key value proposition for Qlik Cloud is reducing spend on IT infrastructure and administration. A good place to start your strategy alignment conversation is with your IT department – where does migrating business applications to the cloud sit on their list? • When positioning the Qlik Cloud migration project, don't just focus on 'cost reductions', give plenty of attention to the 'value add' drivers.

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Compliance

Questions:
- Does Qlik's Cloud offering meet your internal, industry, or regulatory security compliance obligations? (For example: GDPR)
- What optional components of Qlik Cloud do you need to consider to meet the required standards? (for example: tenant encryption)

More Info:
- See Qlik's Trust And Security Site for thorough information.

People

Questions:
- Do you have the team, skill sets, and experience required to plan and execute a successful Qlik Cloud migration alone?
- Does the team have the capacity to deliver the migration?

Pro Tips:
- Don't fall into the trap of planning a simple 'lift and shift' – ensure your team understands the value proposition of Qlik Cloud and is motivated to maximize value of Qlik Cloud and capitalize on the opportunities the migration process will surface.

Budget

Questions:
- Have you built a budget and ROI analysis for the Qlik Cloud migration?
- Will you need to run parallel environments for a period of time and how might this impact license, infrastructure, and personal costs?
- How much effort will the physical migration consume – will you need outside help - and what will this cost?
- Have you discussed Qlik Cloud licensing options with Peraison or Qlik directly?

Pro Tips:
- When building the budget and ROI analysis, start with tangible costs like infrastructure and licenses, but don't forget to include headcount costs for environment administration (Note: the Qlik Cloud environment has a very low administrative burden).
- Qlik offer many cost-effective programs to support parallel on premises and cloud tenants during migrations – talk to Peraison for more details of these programs.
- Qlik has new capacity based licensing models built for the cloud

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Getting Into The Weeds…

Once you've worked through the above-mentioned topics and have a green light to proceed, it's time to dive into the weeds and plan how you'll move your content, processes, and users to Qlik Cloud.

Authentication and Identity Providers

Questions:
- Will you leverage Qlik Cloud locally defined user accounts, or a third-party identity provider with SSO and/or MFA requirements?
- Is your current identity provider compatible with Qlik Cloud?
- Can group claims from your identity provider be ingested?
- Are you using more than one active identity provider integration currently on-premises? (Qlik Cloud only allows one active integration).

Pro Tips:
- If you're not currently using an external identity provider, this might be a perfect opportunity to set one up. Centrally managed external identity providers create a simpler user experience and enhanced security.
- It is highly recommended to leverage group claims from within your identity provider. Qlik Cloud does not allow creation of 'groups' within the tenant, traditionally handled on premise through custom properties and security rule.

More Info:
- Read more about Identity Provider Integrations.
- Read more about Managing Space Access With Group Claims.

Access, Roles, Permissions, and Section Access

Questions:
- What access and control is being governed by custom properties and security rules from your QSE CM instance, and how will these access and control needs be handled in Qlik Cloud?
- How will the user roles and permissions from QSE CM transfer to Qlik Cloud?
- Is section access deployed within QSE CM apps, and what updates will have to be made to ensure compatibility in Qlik Cloud?

Access, Roles, Permissions, and Section Access

Pro Tips:
- Generally speaking, the security model in Qlik Cloud is applied at the 'space' level, meaning all members of a 'space' can access all the apps published to a 'space'. This differs to many QSE CM instances where app level access within a stream can be controlled user by user.
- Section access in Qlik Cloud is dependent on different identity attributes and will need some adjustment to ensure continued operation in migrated apps.
- In Qlik Cloud, user roles are applied at the tenant level and at the space level. This granular control replaces the need for custom security rules. We highly recommend taking the time to understand the different role options.
- There is no 'service account' concept in Qlik Cloud. Plan carefully around which users own different resources (apps, data, connections, QAA workflows etc., alerts, subscriptions)

More Info:
- Read more about Tenant Roles and Space Roles.
- Read more about Setting Up Section Access In Qlik Cloud.

Development Workflow and Publishing Structure

Questions:
- How will your existing QSE CM Dev > UAT > Prod workflow transfer to a cloud native workflow where all environments are rolled onto one?
- Are you leveraging DevOps and version control software on premises – is the software compatible with Qlik Cloud - how will you ensure continuity of these development practices in Qlik Cloud?

Pro Tips:
- Before creating any spaces, build a matrix in Excel to plan out what spaces you need, the function of each, and which user groups will need access. It saves a ton of time getting this 90% right up front, and not having to restructure a poorly planned tenant once up and running.
- Keep the space structure as simple as possible – this will reduce the admin burden and help with user orientation.
- Consider the use of dedicated 'data spaces' to segregate data based on transformation level, or access level.
- Qlik Cloud being a SaaS product, there are no system backups or server snapshots. Build your own archiving, rollback, and recovery processes, or integrate with a purpose built third party DevOps tool.

More Info:
- Read more about Spaces

Data Source Connectivity

Questions:
- Can your data sources be accessed from Qlik Cloud?
- Will Qlik's Gateways and Data Transfer utilities be required?
- Where is your data located – is latency a concern – anything you can do to optimize this?
- Is app/data encryption necessary?

Pro Tips:
- If encryption is required, it must be turned on from the very beginning.
- Consider locating your Qlik Cloud instance close to your Cloud DW. Loading data across cloud regions this can significantly elevate costs with cloud data storage providers like Azure and AWS (Eg: Qlik Cloud in a US region loading data from an Azure instance in Europe).

More Info:
- Read more about Data Sources For QDA and Data Sources For QDI.
- Read more about Direct Access Gateways.
- Read more about Encryption.

Integration and Extensions

Questions:
- What third-party applications are integrated with QSE CM – will they be required in Qlik Cloud – how will they integrate with Qlik Cloud? (for example: data writeback products).
- Are open source or paid-for extensions deployed within QSE CM, and are they Qlik Cloud compatible?

Pro Tips:
- QSE SaaS offers a visual object library far superior to QSE CM – investigate this library thoroughly before considering how to continue with any open source extensions.
- Take time to explore the Qlik Application Automation library of connections.

More Info:
- Read more about QSE SaaS Visual Object Libraries
- Read more about Qlik Application Automation Connectors

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Task Scheduling and Task Chain Build

Questions:
- Do you have external event or trigger based tasks in QSE CM, and how will these triggers be communicated to Qlik Cloud?
- Do you plan to run a hybrid environment where some ETL tasks remain on-premises, and how will these workflows be created and managed?
- What task chains exist today in your QSE CM environment?

Pro Tips:
- Document all tasks and task chains from your QSE CM tenant – this will accelerate setting up new task schedules in QSE SaaS.
- There are many ways to design a hybrid environment – take the time to consider your options, and test the intended workflows thoroughly. For example: rebuild QVDs on-premises and deploy to Qlik Cloud, build data model on-premises and deploy to Qlik Cloud, build entire applications on-premises and deploy to Qlik Cloud.

More Info:
- Read more about Reloading Application Data

NPrinting

Questions:
- Are you using NPrinting today – what output formats and destinations?
- How many unique reports do you have, how often are they distributed, and are those distributions 'one size fits all' or are the reports filtered and customized to each recipient?
- Could Qlik Cloud features like Subscriptions and Alerting replace any NPrinting reports?

Pro Tips:
- Try leverage the Qlik Cloud migration as turning point in how your organization delivers analytics to users. Where possible repoint users from static reports to live dashboards, self service subscriptions, and trigger based alerts.
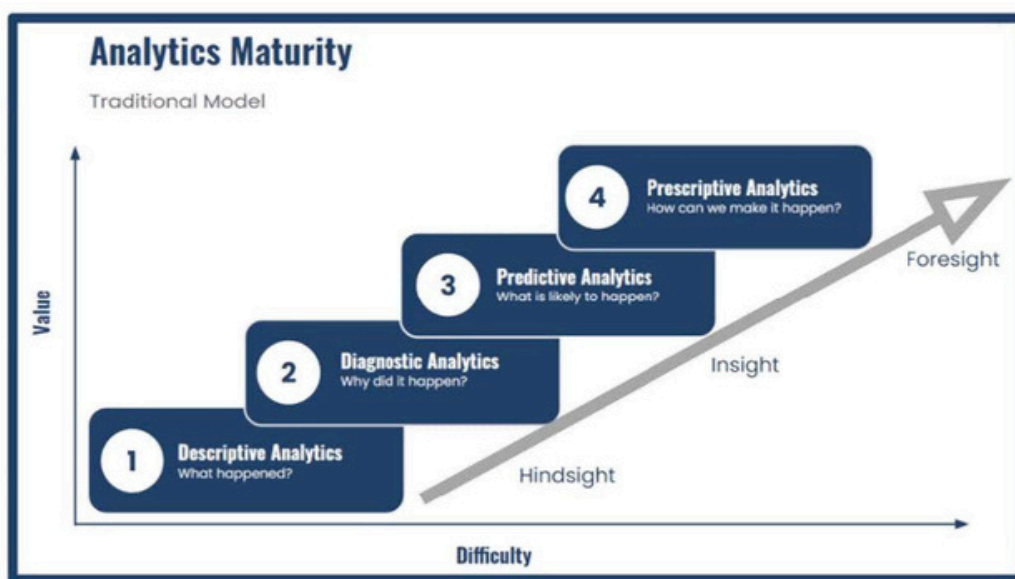- Mail and Deploy is a mature reporting platform that integrates with QSE SaaS.

More Info:
- Watch a video on Migrating NPrinting to Qlik Cloud Reporting.

Which Approach Should We Take?

While there's no perfect answer, the underlying objective should be to drive value from your migration. You're not going to all this effort for the fun of it. You want to create a better business intelligence environment, one that's more productive, one that unlocks the power of data for more people, and ultimately enables your organization to progress along the Analytics Maturity curve. Keep this in mind as a guiding principle when considering which migration path(s) to follow.

Analytics Maturity

Traditional Model

4 Prescriptive Analytics
How can we make it happen?

Foresight

3 Predictive Analytics
What is likely to happen?

Insight

2 Diagnostic Analytics
Why did it happen?

1 Descriptive Analytics
What happened?

Hindsight

Value

Difficulty

Start With Gartner's 6 Rs

It's important you consider the different migration approaches and find one or more that suit your use case. Gartner's '6 Rs' provide a highly regarded framework to kickstart your thinking.

1. Rehosting is effectively a 'lift and shift'. It's fast, keeps the cost down, and creates minimal disruption, but won't allow you to capitalize on Qlik Cloud native features and generates little value for users.

2. Replatforming is often called 'lift, tinker, and shift'. It involves making minor adjustments to applications or data during migration to take advantage of specific cloud services. It will require a little pre-migration work, but will provide benefits in the form of improved performance from your ETL processes and Qlik applications. Some examples of replatforming are reducing the size of Qlik applications at rest or their peak reload RAM consumption, or replacing on-premises visualization extensions with Qlik Cloud native visual objects.

3. Refactoring is effectively rearchitecting your applications and processes to optimize them for Qlik Cloud. This approach requires significant pre-migration work and expertise, but will provide immediate value to users and future proof your content. For example, refactoring might involve adopting change data capture into your ETL process to boost performance and reload frequency. If your current business intelligence content is very outdated you may be forced down this road.

4. Repurchasing means starting from scratch in Qlik Cloud. This approach can work well for QlikView customers, those with very antiquated business intelligence content, or those who have small environments to begin with. Without the tunnel vision and constraints of your existing applications and processes, you're free to build from scratch and fully capitalize on Qlik Cloud's features.

5. Retaining means keeping some existing ETL processes or applications running on-premises, either temporarily or permanently. Many Qlik customers will stagger their migration, moving all users and application consumption to Qlik Cloud as a priority, while continuing to build QVDs and data models in the on-premises environment. Another reason for retaining can be access/security related, or to meet compliance. Complex NPrinting reports or publish tasks is another common driver of some on-premises retention.

6. Retiring should be applied in some form no matter what strategy you adopt. Retiring means using the migration as an opportunity to purge data and applications no longer needed. This requires some pre-migration planning, but will allow a 'fresh start' in Qlik Cloud. Our recommended approach is to build an inventory of all on-premises data and application assets. Overlay usage and ownership metadata, and get buy-in from the userbase before confirming what will be archived.

Ok, that's a lot of options, maybe a little overwhelming even. The 6 Rs provide a great foundation upon which to build your own personalized migration strategy, but every migration journey is different. The trick is to identify where the most value lies, where the friction and risk lies, where your friendly and troublesome users are, and chart a course balancing the risks and opportunities.

Top Tips From Our Migration Team

When looking for the hottest tips on the street with regards Qlik Cloud migrations, who better to ask than Peraison's Qlik consulting team and migration experts – see their top tips below.

Adopt AI:
Qlik's Cloud is awash with augmented AI integrations – whether it be chat bots, machine learning, data science integrations, or automated data exploration - take advantage of these powerful features.

It's a Fresh Start:
It's not often you get a fresh start. Don't miss the opportunity to purge unused, poorly built, or simply outdated content.

Meta Data is King:
Don't underestimate the power of your on-premises meta data to guide your strategy and migration plan.

Be Disruptive:
Qlik Cloud is more than just an upgrade – it's an opportunity to seriously modernize the way data is used to drive your business. So that being said, be a little disruptive and challenge the old ways of doing things.

Plan Plan Plan:
Migrations can feel a little over-whelming, there's a lot to do, and a lot that can go wrong. Take the time to build a thorough plan, get everyone onboard, learn from other's mistakes, consult the experts.

Who Are Your Champions?
Identify your Qlik Cloud champions – is it Marketing, maybe Sales, maybe Finance? Consider using them as your beta customers, and then having them promote the new Qlik Cloud environment to other departments.

Migration Center:
Leverage Qlik's tools and guides available at the Qlik Migration Center

Unlocking the Real Power of Qlik Cloud

As we've already discussed, migrating to Qlik Cloud is more than an upgrade. It's an opportunity to transform the value your organization derives from Business Intelligence, it's a chance to seriously up your analytics game. While the initial focus may be to simply get to the cloud in one piece, you should take the time to digest the cloud native tools, features, and methodologies. Invest time in understanding the Qlik product road map, and build a strategy that will support your journey to true analytics modernization.

Start Your AI Journey

Evolving from traditional analytics to AI analytics is a journey, it won't happen overnight, but the time to start is now. Qlik's Cloud platform features an abundance of augmented AI integrations, and there is a lot more coming. From data profiling during the collection and preparation stages, through to natural language processing, machine learning models, and data science platform integrations for advanced analytics, and then chat bots and generative AI to enhance the way your users consume information. This fabric of AI integrations will rapidly become more cohesive and will become central to the modern analytics methodology.

Insight Advisor:

- Assists data collection and preparation through algorithms that can analyze large volumes of data to detect errors or inconsistencies, and suggest data cleaning techniques, thereby improving the efficiency and accuracy of data preparation.
- Chat Bot interaction lets users ask questions and receive natural language answers. You can think of this as your own private LLM sitting atop you data environment, but with deterministic and trustable outputs, and no hallucinations. The logical model and vocabulary are trained unique to your use case, and provide an incredibly valuable LLM for very little time or cost investment.
- Not only does Insight Advisor Chat provide real 'advice', but it's done within the context of your security framework, governed by section access, so users only see the data they're supposed to.

Data Science Integrations:

- Qlik Cloud can connect to over 20 different Machine Learning and AI end points, as both data sources, and real interactions.
- Qlik Application Automation can also call on these endpoints as part of automated workflows.

Generative AI:

- Embed generative AI into your applications through the OpenAI connector. Common use cases include: Automating the handling of support cases, automated code generation, language translation, general industry research and productivity applications.

Qlik Staige:

- This is your one stop shop to bring your AI strategy to life within Qlik – read more here.
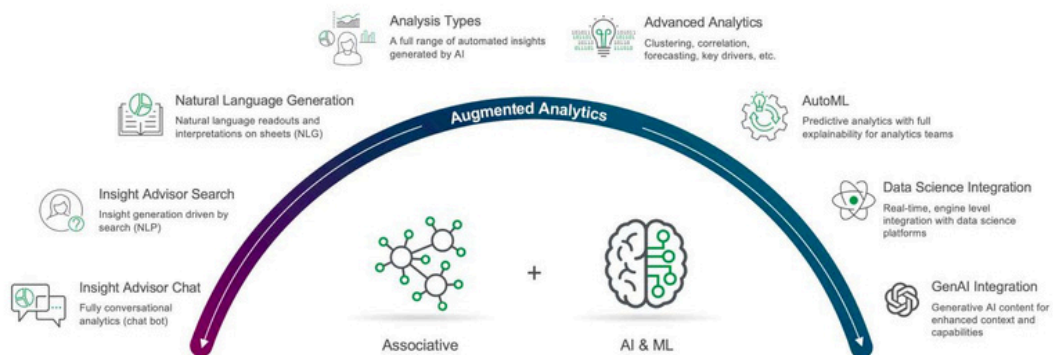
Adopt Active Intelligence

Traditional business intelligence is passive, often dependent on stale data, typically backward looking, and does not support real-time decision making or predictive/prescriptive outputs well. An Active Intelligence approach is one built atop real-time data pipelines, where information delivery is designed to trigger action.

Qlik Cloud Data Integration:

• Connect to your data sources on-premises or in the cloud, and stream real-time data changes into your Qlik applications. Gone are the days of a once a day data reload – real time data is what's needed to drive forward looking operational analytics.

Alerts:

• Alerts are a self-service feature, set up at the application level, and are triggered based on rules, for example: "Notify me when a sales opp is logged with gross margin below 50%".

Subscriptions:

• Subscriptions are another self-service feature that allow users to 'subscribe' to content, whether it be a chart, an entire dashboard, or a series of dashboards. They can choose a cadence at which they want the information pushed to their email, and they can include colleagues in the distribution. No more requesting IT to build a distribute a report.....

Collaborative Notes:

• Think of Notes as your in-app chat thread. You can send context-aware messages to team members to share insights and discuss observations, all within the Qlik eco-system. This keeps the data conversation within the data platform, and out of your email inbox