A Comprehensive Guide to
BI Transformation and Optimization

Migrating from Qlik to Fabric and Power BI

AXIS

Contents

Embrace the Future: Why Modernizing to Power BI is a Strategic Imperative

As a leader pioneering data-driven change in your organization, you're the visionary charting the course for analytics capabilities. But if you're relying on an aging Qlik Sense environment, you may find your analytics capabilities lagging behind the demands of the business.

While Qlik has served you well, the rise of cloud-native platforms like Power BI and Microsoft Fabric represents a seismic shift in the BI landscape.

This shift towards Microsoft's ecosystem isn't just a trend—it's the new BI industry standard. With Azure, Power BI, and Fabric, Microsoft has emerged as the dominant player in modern BI. Migrating from Qlik to Fabric and Power BI offers unmatched advantages in integration, scalability, and innovation, positioning your company at the forefront of the BI revolution.

Modernization is about more than just adopting the latest technology. It's a chance to strategically align your BI capabilities with your organization's changing requirements. By assessing, optimizing, and migrating your Qlik assets, you can:

- Streamline your data processes
- Enhance performance and usability
- Unlock advanced analytics capabilities
- Reduce maintenance costs and complexity
- Minimize pitfalls often associated with large-scale BI transformations

But perhaps most importantly, modernization is an opportunity to free your business logic from the confines of legacy data silos. By converting your Qlik scripts and models into standardized SQL, you can make your business logic universally accessible and maintainable across your organization.

This is the true power of BI modernization - not just delivering more value faster, but fundamentally transforming how your organization leverages data for insights and decision-making.

> **Modernizing your BI stack is an opportunity to free your business logic from the confines of legacy data silos.**

Consider this: Over time, Qlik Sense environments often evolve into complex ecosystems. What started as a cutting-edge BI solution may now feel like a tangled web of QVDs, scripts, and dashboards built by various teams with inconsistent standards. This "natural drift" is common, especially in organizations that have used Qlik for years and prioritized rapid development to meet immediate business needs.

While Qlik Sense remains a powerful tool, the shift towards cloud-native platforms and the need for more integrated, scalable solutions has put Power BI and Microsoft Fabric at the forefront of modern BI architectures. These platforms offer seamless integration with Azure, enhanced collaboration features, and powerful AI capabilities. For organizations looking to standardize on Microsoft and Azure, consolidating in a single stack makes sense.

The prospect of a huge data transformation project is daunting. The good news is, with the right approach and tools, you can migrate to Power BI while avoiding the pitfalls of a lengthy, resource-intensive manual process. The key is to approach modernization not as a one-time event, but as a strategic journey. By breaking the process down into phases—assessment, triage, migration, and optimization—you can manage complexity, mitigate risks, and deliver value incrementally.

Illuminate the Path: Assessment and Strategic Triage of Your Qlik Environment

Before embarking on any transformation journey, it's crucial to gain a comprehensive understanding of your current Qlik environment. This involves deep analysis of usage patterns, data lineage, and application complexity—far more than just cataloging your applications.

Gaining Clarity on Your Current State

To successfully modernize, you must first illuminate your Qlik ecosystem. Advanced metadata harvesting tools are key to unlocking the deep insights you need for this process. The best solutions will analyze your entire environment and provide a rationalization output that reveals:

- Which apps are driving real value (and which are just collecting dust)
- How data flows through your environment (and where the bottlenecks are)
- Which solutions are ripe for optimization (and which can be retired)

This newfound clarity enables you to make well-informed, strategic decisions about every aspect of your BI landscape. By focusing your efforts where they'll have the greatest impact, you can reduce the uncertainties inherent in large-scale migrations and pave the way for a successful transformation. An effective report forms the basis for a targeted approach to modernizing your BI infrastructure.

> Modernize wisely: Retire the outdated, migrate the essential, reimagine the valuable.

Strategic Application Triage

With a clear understanding of your Qlik environment, you can now make strategic decisions about each component of your BI landscape. This triage process typically involves selecting from among three approaches for each user-facing solution:

1. Deprecate

Identify applications that are no longer relevant, have low usage, or have been superseded by other reports. Deprecating these applications will simplify your environment and reduce migration efforts.

2. Lift and Shift

For essential applications that remain well-designed and meet current needs, a direct migration or "lift and shift" approach may be appropriate. This involves converting Qlik applications to Power BI with minimal changes to the underlying logic or design.

3. Rationalize and Reimagine

Some solutions—applications with high strategic value but low user satisfaction—may benefit from a thorough redesign during migration. This lets you harness the full capabilities of Power BI and modernize your reporting approach. It's an opportunity to consolidate redundant reports, improve data models, and enhance visualizations.

The key to successful triage is balancing immediate needs with long-term vision. While it may be tempting to take the express route and simply "lift and shift" everything, taking time to rationalize and reimagine key applications yields real benefits: more safety, better adoption, increased performance, and better usability. An effective Rationalization output should serve as an oracle in this decision-making process.

The Rationalization Output: Your Strategic Roadmap

The Rationalization output serves as the bridge between assessment and action, acting as a critical artifact that becomes your roadmap for the entire BI modernization journey. A comprehensive report helps you identify the most impactful opportunities, make informed decisions about your migration strategy, and approach modernization not as a one-time event, but as a strategic journey.
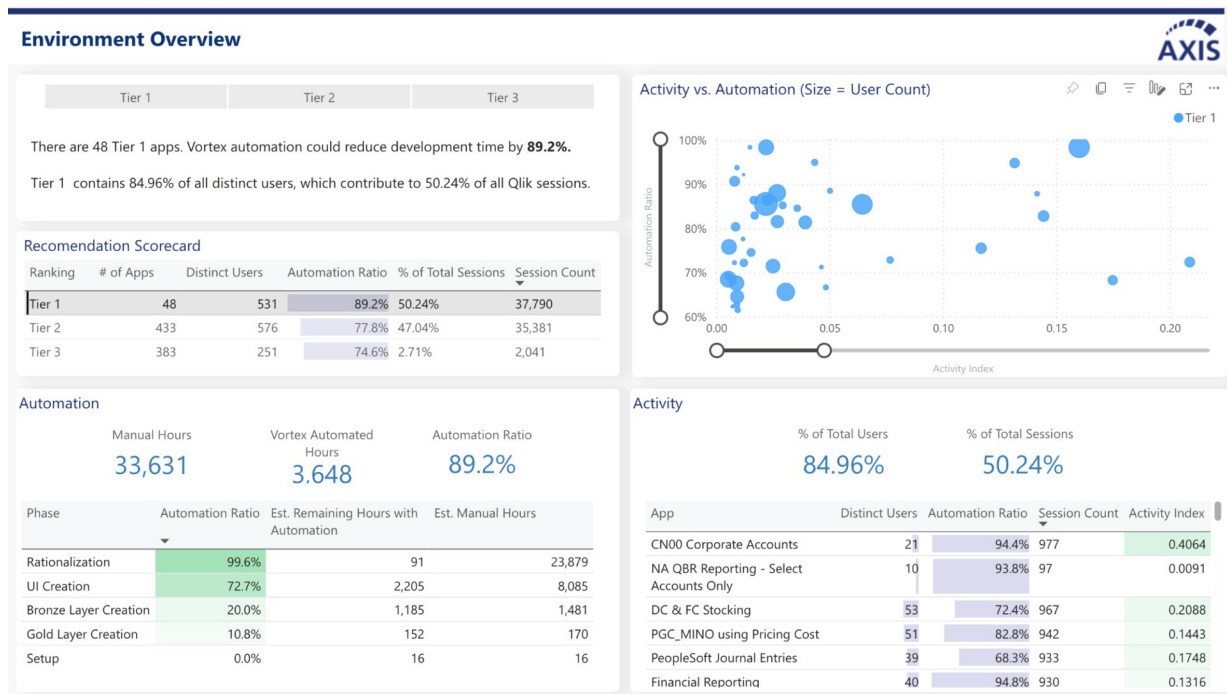
An effective Rationalization output serves several needs during a BI migration:

- Provide a comprehensive view of your Qlik environment, including a detailed app inventory

- Quantify real user activity data for each solution, highlighting frequent use and business impact

- Enable prioritization of migration efforts, focusing on solutions that deliver the most value

- Guide consolidation and optimization efforts for applications requiring reimagining

- Serve as the essential reference for both lift-and-shift scenarios and complex transformations

By leveraging this output, you can ensure that your migration efforts are strategically aligned with your organization's needs and focused on delivering maximum value. It allows you to break down the process into manageable phases, helping you mitigate complexity, minimize risks, and position yourself to deliver value incrementally throughout your BI transformation.

The Rationalization report becomes your strategic guide for prioritization and planning, enabling you to make informed decisions at every stage of the migration process. By providing a clear picture of your current Qlik landscape and a roadmap for transformation, it sets the stage for a successful migration that not only modernizes your technology but also optimizes your entire BI approach.
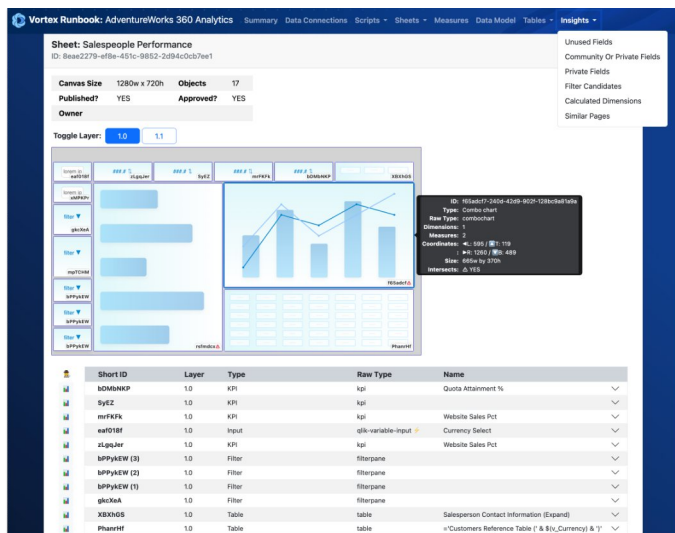
Environment Overview

Tier 1	Tier 2	Tier 3

There are 48 Tier 1 apps. Vortex automation could reduce development time by **89.2%**.

Tier 1 contains 84.96% of all distinct users, which contribute to 50.24% of all Qlik sessions.

Recomendation Scorecard

Ranking	# of Apps	Distinct Users	Automation Ratio	% of Total Sessions	Session Count
Tier 1	48	531	89.2%	50.24%	37,790
Tier 2	433	576	77.8%	47.04%	35,381
Tier 3	383	251	74.6%	2.71%	2,041

Activity vs. Automation (Size = User Count)

Automation

Manual Hours	Vortex Automated Hours	Automation Ratio
33,631	3.648	89.2%

Phase	Automation Ratio	Est. Remaining Hours with Automation	Est. Manual Hours
Rationalization	99.6%	91	23,879
UI Creation	72.7%	2,205	8,085
Bronze Layer Creation	20.0%	1,185	1,481
Gold Layer Creation	10.8%	152	170
Setup	0.0%	16	16

Activity

	% of Total Users	% of Total Sessions
	84.96%	50.24%

App	Distinct Users	Automation Ratio	Session Count	Activity Index
CN00 Corporate Accounts	21	94.4%	977	0.4064
NA QBR Reporting - Select Accounts Only	10	93.8%	97	0.0091
DC & FC Stocking	53	72.4%	967	0.2088
PGC_MINO using Pricing Cost	51	82.8%	942	0.1443
PeopleSoft Journal Entries	39	68.3%	933	0.1748
Financial Reporting	40	94.8%	930	0.1316

Sample rationalization report of a large Qlik environment (Vortex™)

Accelerate the Journey: Essential Artifacts for BI Migration Success

Effective BI modernization requires a combination of the right tools and expert resources. The most successful Qlik to Power BI migrations rely on several key artifacts, each playing a crucial role in ensuring a smooth transition and optimal results.

A Runbook for Migration and Redesign

A comprehensive runbook should provide a complete inventory of your Qlik environment, including all applications, sheets, scripts, dimensions, and measures. It should analyze unused elements and identify similarities between sheets. A detailed runbook serves as a roadmap for your migration journey, ensuring no critical component is overlooked.
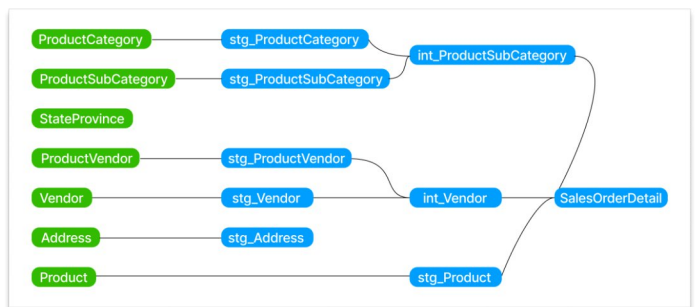

Example of a runbook that inventories Qlik sources (Vortex™)

A runbook is crucial for both lift-and-shift scenarios and when reimagining applications, since it provides a clear scaffolding for migration and a comprehensive baseline if a solution redesign is required. It acts as a single source of truth, guiding your team through each step of the migration process.

Data Lineage Visualization

Understanding how source data flows in complex Qlik environments is critical. The best migration solutions generate comprehensive data lineage graphs as part of their Rationalization output, providing insights for both migration and ongoing data governance. These visualizations help identify dependencies, potential bottlenecks, and opportunities for optimization.

Visualization of data lineage from Qlik sources (Vortex™)

Standardized Data Transformation Logic

A repository of standardized data transformation logic should serve as a Rosetta Stone for translating Qlik scripts to SQL. The repository should convert Qlik's proprietary script language into plain, consistent SQL that can be readily understood and implemented in your target data environment. It should provide a clear representation of your data transformation processes, translating even complex Qlik expressions into equivalent SQL statements. You ensure consistency across migrated solutions and facilitate easier maintenance and future updates.

Standardized logic is valuable for both recreating existing data pipelines and optimizing them in the new environment. It also serves as a foundation for knowledge transfer, enabling your team to understand and work with the migrated data processes more effectively.

Automation accelerates migration, but human expertise perfects it.

Converted Power BI Dashboard

The final artifact should be a functional Power BI dashboard or report that intelligently transforms the visualizations, tables, and objects while maintaining fidelity to the original Qlik application. A converted Power BI dashboard is your tangible proof of transformation and value realization.

A converted dashboard should serve as both an end product for lift-and-shift scenarios and a baseline for further optimization when reimagining what your applications could become. It should demonstrate how migrated data processes integrate into the new Power BI solution, providing a tangible representation of the transformation.

The best migration solutions will generate new Power BI solutions automatically, dramatically reducing manual effort. They'll convert your Qlik applications, data models, and scripts into Power BI-ready assets, getting you 70-80% of the way to your target state. Importantly, an automated approach ensures consistency and reduces the risk of human error in translating complex logic and data structures.

Whether opting for a lift-and-shift approach or a more thorough rationalize-and-reimagine strategy, automated conversion tools offer a solid foundation for migrating Qlik's data processes. But remember, while automation is a key part of the process, it's not the entire solution; expert guidance is essential to fine-tune and optimize these artifacts .

Automated conversion of a Qlik app to Power BI, and later optimization (Vortex™)

Finish the Last Mile: Fine-Tuning for Peak Performance and Adoption

Once your applications are migrated and your data flows are converted, you're nearing the end of the journey. But to realize the full value of your modernized BI platform, you'll need to invest in last-mile optimization.

While the best automated conversion tools can get you 70-80% of the way there, the final 20-30%—often referred to as the "last mile"—is where your migrated BI solution is refined and optimized for peak performance and usability.

Finishing the "Last Mile"

You have several options for tackling the last 20-30% of the journey.

In-house Optimization: If you have a team with expertise in both Power BI and Qlik, you might choose to handle the last mile in-house. This approach gives you full control and leverages your team's knowledge of your business needs. But it may require significant investment in training, and potentially divert your team's focus from critical business operations. Your team will need to translate Qlik's unique features and optimize them in Power BI, ensuring migrated solutions maintain functionality while leveraging new capabilities. Consider carefully whether the benefits of in-house optimization outweigh the impact on your team's other responsibilities.

Engaging Specialists: Bringing in external experts with deep knowledge of both Qlik and Power BI is another option. These specialists can quickly identify optimization opportunities, especially where the platforms differ significantly. While potentially costlier upfront, this approach can lead to faster optimization and a more refined final product. The key is finding specialists who understand both the technical aspects and how to translate business logic between platforms.

Hybrid Approach: Many organizations succeed with a hybrid approach, combining in-house efforts with external expertise. Your team works alongside specialists, learning from them while contributing their business knowledge. This allows for knowledge transfer and capability building. External experts handle complex optimizations, while your in-house team ensures that solutions align with organizational requirements. This is particularly effective when translating Qlik to Power BI, since you're harnessing specialists' platform expertise alongside your team's own deep understanding of the business.

Fine-Tuning Your Power BI Assets

Performance: Optimize data models, measures, and queries for speed and efficiency. Power BI's engine works differently from Qlik's associative engine. Optimizing data models, measures, and queries can significantly improve performance.

User Experience: Refine your dashboards to be intuitive, insightful, and action-oriented. Recreating the exact Qlik experience in Power BI isn't always desirable. This is an opportunity to enhance the user experience, leveraging Power BI's unique features.

Advanced Features: Explore Power BI capabilities that may not have direct equivalents in Qlik. Consider how AI-powered visuals, natural language Q&A, and predictive analytics can enhance your reporting. Evaluate which advanced features align with your needs and how they may provide incremental value.

Remember, optimization isn't a 'nice-to-have'. It's critical for driving user adoption and business value. As your needs evolve and Power BI releases new features, continual refinement will ensure your BI solution remains cutting-edge.

Ensure an Enduring Success: Strategies for Long-Term BI Modernization Value

BI modernization success requires more than just a technical lift-and-shift. Achieving long-term value means focusing on:

Change Management: Ease the transition with communication, training, and support. Develop a comprehensive change management plan to help users transition from Qlik to Power BI.

Adoption Acceleration: Drive excitement and engagement with targeted campaigns. Actively monitor user adoption and gather feedback.

Center of Excellence: Institutionalize best practices and drive continuous improvement. Establish processes for ongoing optimization and feature implementation. Stay engaged with the Power BI community and Microsoft's roadmap to harness new capabilities as they become available.

While the technical aspects of migration are crucial, long-term success and adoption are just as important. By managing the human side of change, you can ensure your organization embraces Power BI as an indispensable tool for data-driven decision making.

Migrating from Qlik to Power BI is a complex undertaking, but the rewards—in agility, performance, advanced capabilities—are substantial. With the right approach, the right artifacts, and the right expertise, you can navigate this journey with confidence and realize transformational value.

Remember, the objective isn't merely to recreate your Qlik setup in Power BI. It's an opportunity to fundamentally rethink and improve how you approach business intelligence. Embrace this opportunity to streamline your reporting, enhance your data models, and leverage cutting-edge features to drive deeper insights.

Your leadership in this transformation can set the stage for a more agile, insightful, and data-driven organization. By understanding each phase of the journey and making informed decisions along the way, you can guide your organization towards a modern BI landscape that meets today's needs and is prepared for tomorrow's challenges.

Don't go it alone

A solution like Vortex™ from Axis Group can dramatically accelerate your modernization efforts with end-to-end migration capabilities. From rapid assessment and automated conversion to expert optimization, Vortex provides all the key artifacts you need for BI migration success.

Vortex stands out as a comprehensive solution that addresses all aspects of the migration process, from initial assessment and rationalization to automated conversion and optimization guidance. If you're ready to take the first step on your BI modernization journey, we invite you to learn more about Vortex.

See how Vortex can reduce your migration effort by up to 70%, unlock your business logic from Qlik silos, and position your organization for data-driven success in your new Power BI landscape.

Vortex is the only solution that truly automates the toughest parts of your migration to Power BI, reducing effort by up to 70%. Our AI-driven automation accelerates every step, from rapid assessment to conversion and optimization.

See **Vortex**™ in action or talk us at migrations@axisgroup.com to get started!

Move faster, work smarter, and ace your Power BI migration with Vortex.

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