

# Meeting the Data-Related Challenges of Cloud Migration

Simplify and accelerate the move to  
cloud platforms and the governance  
of cloud data assets

**erwin**<sup>®</sup>  
by Quest

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## ► Introduction

Cloud migration is essential for operability and relevance.

In fact, most businesses have done an initial cloud migration, but the expanding use of multi-cloud and data-platform-as-a-service (dPaaS) operations means more migrations more frequently, as IT organizations look to different providers for best-of-breed cloud-based platforms and services. In fact, by 2025, as many as 80 percent of businesses are expected to migrate to the cloud<sup>1</sup>. But as you migrate to the cloud, you'll likely face some data-related challenges before you can realize all of the benefits this platform has to offer.

In the current environment, cloud migration is a requirement. With more people working remotely than ever before due to the COVID-19 pandemic, they need access to the data that's most crucial to doing their jobs. Moving that data to the cloud is the best way to ensure your enterprise stays operable and relevant when employees can't be physically present.

To get the most out of their cloud migrations, companies are aligning these projects with other strategic moves. Not only are they looking at ways of mitigating risk around availability in cases of the pandemic or natural disaster, but they're also examining the availability, elasticity and scalability of the cloud, as well as pay-per-use instances to transform and modernize their businesses.

One of the main details companies are examining is the way they're storing and using their data. With cloud migrations, they're looking to modernize data architecture to get more value from their data to create better products, services and experiences for employees and customers alike. Within the next year, 59 percent of companies plan to increase their cloud spending<sup>2</sup>. They'll move more files and applications to the cloud and will expect to see greater benefits from those moves.



## ► Challenges Faced During Cloud Migrations

Although cloud migrations come with many benefits, challenges will need to be overcome. Without careful planning, these challenges can lengthen the time it takes for your business to realize the advantages plus add costs.

### **Budget and cost considerations**

Budget is one of the main challenges businesses face when moving their data to the cloud. Approximately 80 percent of companies cite cost as the main obstacle to cloud migration<sup>3</sup>. Cloud migrations can be expensive, with costs piling up the longer a migration takes to complete.

Not only are cloud migrations generally expensive, but many companies don't budget for them appropriately. In 2020, companies went over their public cloud spend budget by an average of 23 percent<sup>4</sup>. Most likely, this comes down to a lack of planning, leading to long, drawn-out migrations and ill-informed product decisions. Additionally, completely manual migrations generally take longer and cost more than those that employ automation.

### **Data governance**

Data governance is another challenge many companies face when planning a cloud migration. Around 60 percent of enterprises worry about regulatory issues, governance and compliance with cloud services<sup>5</sup>. The difficulty comes with creating good governance around data while avoiding risk and getting more out of that data. More than three-quarters (79 percent) of businesses are looking for better integrated security and governance for the data they put in the cloud<sup>6</sup>.

Cloud migration provides a unique opportunity to not simply move things as they are to the cloud but also to make strategic changes. Companies are using the move to the cloud to make data governance a priority and show their customers they are good data stewards.

Unfortunately, 72 percent of companies state that deciding which workloads they should migrate to the cloud is one of their top four hurdles to cloud implementation<sup>7</sup>. However, cloud migration is not an endpoint; it's just the next step in making your business flexible and agile for the long term. Determining which data sets need to be migrated can help you prepare for growth in the long run. The degree of governance each set of data needs will help determine what you should migrate and what you should keep in place.

### **Institutional knowledge**

Institutional knowledge is another obstacle many companies face when exploring cloud migrations. People leave the organization and take with them an understanding of how and why things are done. Because of this, you may not know what data you have or how you should be using it. The challenge comes when it's time to migrate; you need to understand what you have, how it's used, what its value is, and what should be migrated. Otherwise, you may spend time and money migrating data, only to discover that no one has touched it in several years and it wasn't necessary for you to retain it.

In addition, if you're planning to use a multi-cloud approach, you need to ensure that the clouds you work with are compatible. Only 24 percent of IT organizations have a high degree of interoperability between their cloud environments<sup>8</sup>. This means that more than three-quarters suffer from inefficient cloud setups and can't readily combine or analyze data from multiple cloud environments.



## ► How You Can Address Your Cloud Migration Challenges

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The preceding list of cloud migration challenges might seem daunting, especially for an organization that collects and manages a great deal of data. When enterprises today face the prospect of manual, cumbersome work related to their business processes, IT infrastructure, and more, they often turn to automation. You can apply the same idea to your cloud migration strategy because automated software tools can aid in the planning and heavy lifting of cloud migrations. As such, they should be considered when it comes to choosing platforms, forecasting costs, and understanding the value of the data being considered for migration.

### **Mitigating budget and cost concerns**

In terms of budget and cost, automated tools that scan repositories in your environment help by adding structure and business context (where it is, who can access it, etc.) in the transformation of legacy structures because migrations aren't "lift and shift." New structures will enable new capabilities for your data and business processes.

Automated tools can help you lower risks and costs and reduce the time it takes to realize value. For 47 percent of enterprise companies, cost optimization is the main reason they migrate to the cloud<sup>9</sup>. Automated software handles data cataloging and locates, models and governs cloud data assets.

Tools that help IT organizations plan and execute their cloud migrations aren't difficult to find. Many large cloud providers offer tools to help ease the migration to their platform. But a technology-agnostic approach to such tools adds value to cloud migration projects. Proprietary tools from cloud vendors funnel clients into a single preferred environment. Agnostic tools, on the other hand, help organizations understand which cloud environment is best for them. Their goal is to identify the cloud platform and strategy that will deliver the most value after taking budget and feature requirements into account.

### **Continuous data governance**

Automation also can help IT organizations address data governance during cloud migrations and then for the rest of the cloud data lifecycle. Automation minimizes human intervention, providing a higher degree of certainty since it's not just someone's interpretation. It enables sustained governance and enables the business to understand the impact of changes both upstream and downstream, which helps you make more informed decisions.

Automated tools can help organizations test migrated data, map data movement, and distribute cloud data to asset-discovery and reporting tools to improve data governance, without creating manual work for IT employees or slowing down business users who historically have had to rely on technical assistance.

### **Retaining and sharing institutional knowledge**

An automated approach to cloud migration helps organizations collect and retain institutional knowledge around their data and enables transparency. With the architecture clearly documented, you can make clear decisions about what can and should be migrated.

Automatically gathering the abstracted essence of the data will make it easier to point that information at another cloud platform or technology if, or likely when, you migrate again. Approximately 91 percent of companies specify hybrid cloud as their ultimate ideal model for IT because they want the ability to move data between clouds<sup>10</sup>.

## ► How erwin by Quest Can Help

erwin is the only software provider that offers integrated enterprise modeling and data intelligence solutions based on data governance for strategic IT and business collaboration. This unique approach means organizations have access to different tools for different aspects of their cloud migrations and the associated challenges. But they can work with a single vendor whose capabilities are further enhanced because of the company's acquisition by Quest.



**Deep expertise.** erwin is distinguished by its experience in working on major data initiatives for the world's largest enterprises. Its technologists and consultants understand best practices in working with and migrating data. Cloud migration is a big bet for your business, so you need a solid partnership to help you navigate it for faster returns on your investment.



**Flexible yet broad framework.** The vendor- and platform-agnostic approach to cloud migration employed by erwin provides the breadth of connectivity and support required for you to choose the platform that works best for you today, tomorrow and well into the future.



**Automation, including data lineage documentation.** Automation is a critical differentiator for erwin's cloud migration tools. Without it, someone must physically document and interpret all of your data. erwin's open, metadata-driven automation framework scans, integrates and activates data at rest as well as data in motion. End-to-end lineage, including intermediate transformation and business logic, is automatically documented.



**More than data "lifting and shifting."** erwin users get a deep analysis of the infrastructure being moved, which helps identify the best cloud environment for their needs. They also can automatically test migrated data, map data movement, and distribute cloud data to asset discovery and reporting tools to improve data governance with little extra work required by the IT staff.



**Detailed visibility and collaboration.** Thanks to erwin's deep analysis of infrastructure, customers know exactly what data they have and how to access and view it. erwin also can use this information to help enterprises create or transform processes based on their data, making cloud migration more cost-effective and helping to promote better data stewardship.



## ▶ Starting a Successful Cloud Migration

erwin Cloud Catalyst is a suite of automated cloud migration and data governance software and services to simplify and accelerate the move to cloud platforms and govern those data assets throughout their lifecycle.

But every customer's environment and data is unique. That's why the first step is to work with you in assessing your cloud migration strategy. Then we deliver an automation roadmap and design the appropriate smart data connectors to help your IT services team achieve your future-state architecture, including accelerating data ingestion and ETL conversion.

This assessment and the subsequent enablement tools erwin provides are key to a successful cloud migration and the ability to maximize the security, quality and value of your cloud data assets for the long-term.

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#### About erwin, Inc

erwin is a leader in enterprise modeling and data intelligence software. The erwin EDGE platform creates an enterprise data governance experience for IT and business collaboration, driving meaningful insights, agile innovation, risk management and business transformation. Integrated data modeling, data governance, enterprise architecture and business process modeling capabilities help guide smart decisions. With erwin by Quest, organizations of all types across the globe can maximize the security, quality and value of their assets to control data chaos and prepare for the next IT challenge.

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