

Migrating Your Company's Legacy Applications to the Cloud

Introduction

Migrating your company's legacy applications to the cloud can have many benefits, including improved cost savings, agility, and reliability. This document discusses modernization to help guide decision making to build the optimal cloud migration strategy. Before migrating to an on-premise data warehouse to a cloud data warehouse, it is essential to consider certain modernizations and strategies for data movement and transformation.

Using data to solve business problems is a requirement for any successful business plan. For those who haven't modernized, their data platform infrastructure is holding them back. Data platform architectures designed 10+ years ago are simply not ready to solve business problems of today. With extensive data streams, global business needs, and tech-savvy users, businesses must stay current with modern data needs— and it starts with moving legacy applications to the cloud.

Migrating to a modern data warehouse from a legacy environment can be costly upfront in both time and resources. The cost of a cloud data warehouse is structured differently from that of a legacy data warehouse. For example, an on-premise system may require payment for hardware and licenses for users every few years. The costs to meet increased capacity are often an additional expense on top of the hardware budget. The cloud offers more flexibility and options for cost and scale. Instead of a fixed set of costs, you're working on a scale. If you want to use more (or less) of your data warehouse, you can do so immediately. While cloud data warehouses help reduce or eliminate capital and fixed costs, they are not all the same. You'll find varying levels of simplicity and cost savings across vendors, so it's important to check out the operational costs of each data warehouse in relation to its performance. With cloud data warehouses like BigQuery, total cost of ownership becomes an important metric for customers when they've migrated to BigQuery, and Google Cloud's flexibility makes it easy to optimize costs. This whitepaper was created not only to help guide you through considerations like these to achieve a successful migration but to give businesses a new way to think about modern digital transformation.

Overview

- Migrations, in particular from a legacy (onprem) data warehouse to a Cloud data warehouse, should include modernization considerations for data movement and transformation.
 - As we engage with enterprises across the globe, one thing is becoming clear: Today's businesses are solving complex business problems that are data-intensive. But often, their data platform infrastructure is holding them back. Data platform architectures that were designed in the 1990s are not ready to solve business problems for 2020. We don't have to tell you about the explosive data growth that's going on for businesses around the world. If you're managing data infrastructure today, you already know plenty about that data growth. Ever faster and larger data streams, global business needs, and tech-savvy users are all putting the pressure on IT teams to move faster, with more agility.
 - Migrating to a modern data warehouse from a legacy environment can require a massive up-front investment in time and resources. There's a lot to think about before and during the process, so your organization has to take a strategic approach to streamline the process.
 - In any strategy, there needs to be a set of objectives or goals that should be defined to indicate success. Targets can then be set to achieve these goals and people are given responsibility for reaching them.
 - The cost of a cloud data warehouse has a different structure from what you're likely used to with a legacy data warehouse. An on-prem system like Teradata may depend on your IT team paying every three years for the hardware, then paying for licenses for users who need to access the system. Capacity increases come at an additional cost outside of that hardware budget.
 - With cloud, you've got a lot more options for cost and scale. Instead of a fixed set of costs, you're now working on a price-utility gradient, where if you want to get more out of your data warehouse, you can spend more to do so immediately, or vice versa. While cloud data warehouses help reduce or eliminate capital and fixed costs, they are not all the same. You'll find varying levels of simplicity and cost savings across vendors, so it's important to check out the operational costs of each data warehouse in relation to its performance.
 - With a cloud data warehouse like BigQuery, TCO becomes an important metric for customers when they've migrated to BigQuery ([check out ESG's report on that](#)), and Google Cloud's flexibility makes it easy to optimize costs.
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