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Moving to the Cloud for Better Data Analytics and Business Insights

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The benefits of moving data analytics to the cloud can disappear if businesses don't have the necessary expertise to manage the cloud's complexities. Here are some best practices to consider to avoid challenges and maximize ROI.

The benefits of cloud analytics are powerful, and decision-makers are taking note. IDC and <u>Statista</u> forecast significant big data and business analytics growth through 2022, projecting these markets to reach approximately \$275 billion around the globe.

There are tremendous benefits in moving data analytics to the cloud, namely, better return on investment. Engineers have designed these platforms to process and analyze massive quantities of data at accelerating speeds. In turn, cloud analytics help businesses extract value from their data for better decisionmaking, improved operations, and faster growth. Those benefits disappear, however, if businesses don't have the necessary expertise to manage the cloud's complexities.

Mistakes can cost you, particularly if you don't closely monitor your data consumption usage or plan appropriately. For example, <u>Gartner</u>, <u>Inc.</u> predicts that 60% of infrastructure and operations leaders will encounter public cloud cost overruns through 2024.

To avoid challenges and maximize ROI, we recommend managers consider these best practices.

Review Your Strategy and Plan

First, look at your cloud technology infrastructure. Is it viable over the long term? Database software is evolving, so you'll want to consider your needs today and in the future. As serverless computing evolves, are your solutions taking advantage of the cost and flexibility of a pay-per-transaction model that eliminates the need for historically expensive instances?

Both data governance and cybersecurity should guide your plan. Review your policies, determine what's necessary to comply with industry regulations, and ensure you aren't moving personally identifiable information to the cloud.



Clean Up Your Data

If you're consolidating data from various sources, consider how your master data management strategy ensures consistency across your data ecosystem. Customers with different names, such as "Acme LLC" in one database and "Acme Foods LLC" in another, can lead to downstream inefficiencies that can be costly to remediate.

Database structure is vital to your strategy. According to <u>Gartner, through 2025</u>, "More than 75% of [master data management] MDM programs will fail to meet business expectations because of a failure to connect MDM value to business value." That said, Gartner analysts report that by 2025, 50% of chief data officers will achieve digital acceleration goals using augmented data management practices across MDM, data hubs, data quality, and integration.¹ To extract meaningful insights from data, you need high-quality master data management solutions. If data isn't clean, it can lead to poor decision-making.

Know Each Tool's Purpose

It's easy to be enamored by the leading technologies on the market. However, you must assess how a cloud analytics tool aligns with your data management strategy and what outcomes it delivers.

As McKinsey & Company's Henning Soller notes, modern cloud databases offer <u>capabilities, tools, and support</u> that are more advanced than on-premises technologies. Before moving to the cloud, IT leaders must prioritize their business use cases and identify the analytics their company wants to leverage. These business needs should shape the cloud environment and drive the adoption of tools.



Employ Cloud Analytics for Better Data Insights

Organizations often struggle with managing data volumes or knowing when to modernize. For example, one of our customers wanted to modernize its data movement architecture. They were flooded with raw and unrefined data from point-of-sale systems in their 37,000 quick-service restaurants. In addition, several stores were delivering varying data qualities, and the reporting formats weren't ideal for analysts.

To help solve this problem, we created a new platform that improved transparency around data collection, validation, and categorization. Leveraging Python, we broke down the script to the atomic level so files could be reassembled in the desired format for business users and leveraged autoscaling groups to refine server activity for better cost control.

These changes gave analysts comfort on two levels: first, they knew the data was of high quality, and secondly, they could now leverage data in formats that are more conducive for analysis, such as JSON or Parquet. They also provided them a snapshot of "data completeness" from the previous night, week, or quarter—data that enabled them to optimize their business.

Consider Cloud Platforms

Cloud platforms like Amazon Web Services (AWS) offer on-demand computing, storage, and data warehousing for specific analytics use cases to companies that efficiently leverage their tools. They can also dramatically reduce the time required to spin up a data infrastructure. In turn, organizations are able to quickly act on a business hypothesis and test its validity. If it turns out to provide insights, the solution can be evolved upon and productionalized. If not, the resources can be quickly freed up to move on to the next hypothesis.

When used effectively, cloud platforms help businesses scale. However, you must constantly monitor costs. Depending on data volumes, costs can quickly grow out of hand. Knowing this, it's best to assess your data consumption around storage and computing needs. Otherwise, you might get hit with surging cloud costs.

High-quality data helps business leaders unlock new insights. But the massive amount of data can make it difficult to tell which information is the most valuable. Deploying a sound data management plan, auditing and cleaning data, employing data analytics, and leveraging the proper tools will help your enterprise grow and achieve next-level success.

¹Gartner, Magic Quadrant for Master Data Management Solutions, published 6 December 2021 – ID G00745059

