Leveraging AWS to Realize the True Value of Cloud Analytics

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As digital transformation remains a top priority across industries, business leaders increasingly focus on integrating cloud technology to enhance data management and analytics processes. According to Allied Market Research, the global big data and business analytics market reached a valuation of $198 billion in 2020 and is expected to grow to nearly $700 billion by 2030.

Sophisticated analytic platforms like Amazon Web Services (AWS) offer businesses an unprecedented opportunity to drive innovation, leverage data to drive business insights, boost operational efficiency and accelerate growth. However, effectively leveraging cloud analytics platforms like AWS is not without its challenges as businesses navigate the complexity of modern data management.

Below, we examine the common challenges, solutions, and best practices that almost any business can implement to enhance their utilization of AWS and make better use of their data.

Technology-Driven Decisions versus Business-Driven Decisions

Many organizations launch into cloud analytics looking at the technology first and then the business use cases for analytics. This results in analytic environments that get underutilized by the business users. It is more beneficial to start with the types of analytics that the business users would benefit from leveraging and then architect the cloud environment to support these business needs to drive the desired business outcomes.

The "Best" Tool Isn't Always the Right Tool

For instance, in cloud migration and data management, many businesses focus on selecting the "best" tool or platform. While this might seem reasonable, the problem is that many companies don't view the best tools as those which complement their data management strategy and ecosystem. Instead, they target those tools considered the most advanced or popular within their respective industries and end up with a portfolio of best of breed technologies. As a result, businesses invest in technologies that don't integrate well with their existing environments. They spend considerable time and money on systems maintenance and grapple with a fundamental lack of interoperability.

Moreover, businesses tend to be reluctant to review the fundamental strategy surrounding their data plan. Many want the enhanced capabilities that come with leveraging cloud analytics but don't want to get caught up in costly and time-consuming change management initiatives. This tendency to view technology and strategy in isolation almost always results in overspending on tools that don't function cohesively alongside existing processes.

Quality Over Quantity

Businesses today are tasked with managing increasingly high volumes of complex data, which involves solving for consistency and extracting interesting or valuable information from a crowded pool.

Just recently, Datavail confronted this issue head-on in our work with a company in the quick-service restaurant industry. As a large organization fielding a seemingly constant inflow of data from multiple locations, they needed a reliable way to distinguish actionable insights from the continuous background noise. In addition to solving for formatting inconsistency between their enterprise data warehouse and analytics team-a common challenge with large-scale cloud migrations-we needed to address an even more important issue related to collected data quality.

Put simply, our customer was having quality issues left and right. For example, some data came in with inaccurate geolocation tags, indicating that a store was located in the middle of the Pacific Ocean. Additionally, some stores were sending erroneous data or consistently submitting late data files. Our customer didn't have the data quality framework to identify the patterns and proactively solve the issue.

Naturally, issues like this make an organization wonder why they're bothering with digital transformation in the first place. The insights generated from modern data volumes are meant to tell a business something meaningful about its operations, whether it's a kink that needs to be resolved or a trend that might be leveraged to drive sales. Our mission with this customer was to help them build an AWS platform that provided a more transparent look at the data coming on and a framework to reduce time to turn valuable insights into action.

Unlocking the Benefits of AWS and Cloud Analytics

Much like any other critical process in business, realizing the actual value of cloud analytics is a matter of establishing and following best practices as closely as possible. Here are a few that we've found beneficial in our experience:

Anticipate and strategize around cost.

While the competitive advantages gained through AWS and cloud migration might translate to cost savings in the long term, integrating new technology isn't always cheap. One way to ease costs is to estimate the data consumption usage of a given tool before entering an agreement. When possible, look to avoid a la carte, pay-by-the-minute solutions, as the costs can add up quickly and eat into your overall budget. Secondly, it's critical to have a solid business case that is well understood and evangelized by both technology and business leaders. Our experience shows that the most successful initiatives have a quantifiable ROI that is linked to corporate objectives.

Establish and enforce a data quality framework.

When migrating to the cloud, you must have specific priorities and know precisely what you hope to accomplish from an analytics perspective. When your objectives are clear, you can begin to build a data quality framework that makes it easier to identify actionable insights. And this will give a clear indication of the tools you'll need to accomplish your goals.

Be open to experimentation.

Digital transformation requires flexibility. Reviewing your data management strategy and remaining open to making changes as needed is important. Periods of trial and error will be unavoidable but taking advantage of AI/ML technologies can help bolster experimentation and lead to gradual improvements based on past performance and results.

In addition to giving businesses quicker access to better quality insights, working toward a comprehensive and thoughtful integration of AWS brings other valuable benefits. It can increase the overall scalability of data management processes, reduce or eliminate your reliance on hardware requiring capital investment, and lead to cost savings on everything from maintenance to highly available solutions. But to achieve and accelerate these positive outcomes, most businesses will need to slow down, reevaluate, and ensure that they extract the total value of cloud-based technology at every turn.