CLOUD MIGRATION

IS IT LIPSTICK ON A PIG OR BITING THE BULLET FOR PAST SINS?

WHITEPAPER

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Abstract/summary of the report

Moving to cloud, gives us the flexibility to empower business users with not just datasets that they may require today but to give them the ability to build their own data sets as and when required. In short, moving to a true self-service ecosystem

Point of View

There is no gainsaying the fact that migration of data to cloud heralds in an era of opportunity. It is akin to the American Dream. The CDO triumphantly leads the organization from data darkness to light. What most of us practitioners of data fail to realize is that this is not just an opportunity to enable new frontiers of business enablement but more importantly an exercise to remedy past mistakes that may have gone unnoticed in the guise of Big Data initiatives.

Remediation of past errors could come in the form of moving away from data lakes that have turned into swamps. These are massive data ecosystems that have proved to be more of a liability than an asset. They are a drain on the IT budget with more than 88% of the spend going on just maintaining these behemoths. When we start looking at key indicators like TCO and value from data, these so-called Big Data ecosystems fail miserably. Data Lakes on traditional Hadoop based technologies have long been a drain on the IT budget. After all, HDFS was built for massive data transfers and never for analytical processing. Every IT services company worth its salt jumped on the bandwagon of Hadoop based Data Lake implementations and advised their clients along the way to go for this potential data suicide. Today, most of those organization which are looking at data on cloud are also looking at pushing such past mistakes under the carpet and moving ahead.

What does migration to cloud involve? To begin with, it involves migration to a new storage ecosystem. Could be S3 for AWS; Data Bricks or Blob storage for Azure or Big Query for GCP. In one shot, we are getting rid of the disastrous HDFS based storage and moving to a more robust and analytics friendly ecosystem. Second, as with any migration exercise, we get an opportunity to prioritize and move only those data assets that are deemed useful. Close to 50 to 60% of storage is taken up by data assets that have never been used in the past but have been accumulated over the last 3 to 4 years under the guise of big data. In other words, a fantastic opportunity to get rid of deadwood. Third, businesses (not IT) are defining to-be data ecosystems more than ever before. Availability of the right data set and at the right time is still an elusive target. Moving to cloud, gives us the flexibility to empower business users with not just datasets that they may require today but to give them the ability to build their own data sets as and when required. In short, moving to a true self-service ecosystem.

Enablement of new frontiers could come in the form of new business functionalities that have been hitherto not possible due to lack of scalable ecosystems or inability to provide high availability. Availability of real-time information and the ability to intervene earlier in a customer's decision process have now been made possible. We are seeing massive improvements in TCO, better leveraging of data across different LOBs; re-engineered business processes: Better understanding of the customer; Interventions on the edge; Outlier detection improvement rates like never before and so on.

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Challenges to Cloud migrations still remain. The biggest threat is in the form of industry regulations and skepticism amongst a community of Users from certain regions or industries on cloud implementations that could lead to a potential compromise on the integrity of their key assets. When data moves to the cloud, physical boundaries are non-existent. This brings in its wake challenges regarding data security, integrity and policy enforcement. Today, some of those problems are sorted out by novel mechanisms like hybrid implementations where data resides where they need to reside. Clinical trial data or Patient EMR are not to be taken to the cloud and they remain On-Premise as they had always been.

The choices available to organizations are aplenty when it comes to Cloud. In addition to the hyper-scalers like the Amazon, the Microsoft and the Googles of the world, we are seeing a crowded market with organizations spoilt for choice. The likes of snowflake have come to rule the roost by providing a wrapper over the actual cloud with compute on the center-stage and storage behind the scenes. New lines of business have come up with advisories on the right cloud solution to adopt, de-mystifying hybrid cloud ecosystems and coming up with data-driven and value driven ecosystems that suit different customer palates and wallets. Looking at storage and compute separately will continue for some time to come as it gives the organizations the flexibility to design where the spend should go. Being once bitten, they are notably twice shy when it comes to investments in the areas of data plumbing as they don't want to see a repeat of what happened to their data lake and Hadoop misadventures of the past.

It still remains to be seen where data migrations to Cloud will lead to. Would it turn out to be a damp squib like the Big Data wave? Can it meet the stringent SLAs of the day when it comes to accessibility, performance and cost? Will it live up to the promises and expectations? Let's revisit this 2 years from now.

Authors

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