

Big Data Analytics offers new tools to solve old problems

Catching money laundering activities just got more accurate with HPE Data Orchestration

BETTER INSIGHTS, faster decision making and improved operational efficiency are some of the chief promises that Big Data Analytics (BDA) offers.

A decade ago, these advantages were the exclusive domain of those with seemingly limitless budget. Data analytics tools were expensive, needed expensive talent and were expensive to run, with data storage and computational speeds road blocks to harnessing the technology.

This was the situation that a leading bank in Hong Kong faced when it wanted to combat money laundering—a huge concern for any financial institution – then and today.

Money laundering tarnishes reputation and impacts revenue. It is labor-intensive and expensive to identify—especially for banks with global operations. The bank poured significant investments into building a sophisticated system that sieved through large transactional data. But each query took hours to complete and increasing data sizes were becoming a huge concern.

It was also generating a huge number of false positives, meaning innocent transactions were being flagged as potential money laundering activities. That meant additional work for the staff to investigate and added inconvenience for clients.

Using data to combat crime

Enter BDA. “Big data analytics is nothing new. The difference now is that with technology advancements, it is now easier for organizations to turn big data into actionable insights,” said Jason Tan, Director, HPE Labs Singapore.



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Using HPE Data Orchestration (formerly called HPE Bamboo), the bank was able to speed up queries through parallel processing and clustered solutions by three times. With Hadoop, it was able to scale easily and was able to analyze large sets of transactional data to root out suspicious activities. False positives were reduced using Fuzzy-Bayesian hybrid algorithm, while alerts were heat mapped and integrated with the HP Vertica, HP Hive improved visualization.



**Patrick Pang,
Head of Solution Consulting,
JOS**

“Today with Hadoop and NoSQL technology, large amounts of data can now be parallel-processed across multiple nodes, speeding up calculations. There are also new computing languages for BDA, making parallel processing and queries easier,” said Patrick Pang, Head of Solution Consulting, JOS.

For the bank HPE Data Orchestration was also about simplicity.

One of the biggest challenges for BDA is how to begin. Many companies struggle with getting the right hypothesis and business model. Because not all data are created equal and the wrong data set can lead to wrong conclusions, it requires employing hard-to-find data scientists to develop the right model.

“You need to have the right hypothesis, right domain expertise and right data. If any one of these is missing, you will have a problem finding the answer even with BDA,” said Tan.

Engineered for data-driven success

HPE Data Orchestration is designed to help companies address these needs even if their data infrastructure may be lacking. Although not a replacement for a good data scientist, it does alleviate the pressures of starting the BDA journey unassisted.

JOS is helping with the talent gap by increasing its pool of BDA expertise. They help companies to begin their BDA journey by collecting real-time data and use tools like HPE Data Orchestration to extract insights.

“Every [BDA] journey is unique so we always begin with understanding what the customer wants. From there we provide the right advice, tools and solutions that meets their specific needs,” said Pang.

For the bank, BDA offered additional advantages: scalability and resilience. The distributed nature of Hadoop improved redundancy and allowed the bank to expand its operations without severely impacting current processes.

Additional protection comes with constantly backing all data. So even if a server fails or a node becomes unavailable, the money laundering activity will still be caught through the power of BDA.