



HPE LEVERAGES ELASTIC DATA ANALYTICS SOLUTION TO BRING ADVANCED SERVICE TO GLOBAL USERS

Improves speed and agility for data-driven business decision-making

Industry
Technology

Objective
Improve the speed, agility, and economics of delivering advanced analytics to diverse global business teams

Approach
Build an enterprise data lake and advanced analytics platform using the HPE Elastic Platform for Analytics

- IT matters**
- Scales storage and compute independently for more agile response to new workloads
 - Enables near real-time ingestion and processing of data from any source
 - Facilitates users to spin up micro-clusters for analytics projects in minutes

- Business matters**
- Empowers global teams to make data-driven business decisions
 - Provides one version of the truth from edge to core for more consistent reporting
 - Reduces the cost and complexity of delivering global analytics services



Technology leader Hewlett Packard Enterprise needed an agile data analytics architecture to support an enterprise data lake and as-a-service analytics platform. Using the HPE Elastic Platform for Analytics and HPE Ezmeral Container Platform to deliver analytics as a service, HPE IT empowers global business users to spin up customized analytics projects in minutes, enabling timely data-driven business decisions.

When you're one of the world's largest information technology companies, data is simply part of your DNA. That's certainly true for HPE. There's never been a shortage of data at HPE; the problem was, data was everywhere.

As a multinational enterprise, HPE had thousands of scattered point solutions and data silos used for analytics and reporting, with limited end-to-end visibility. Consequently, data scientists and team leaders faced a tedious, manual process to pull together all the data necessary to drive the business.

Ravi Achukola, associate vice president of global IT enterprise data analytics for HPE IT, says, "We had a lot of data silos,

which made it quite difficult for business users to get data insights. It was expensive for the business to bring data in from multiple sources, and analytic results could look different depending on the data source. Our vision was to build a true data lake, a single source on which to build an analytics as a service platform that every group in the enterprise can draw information from to make informed business decisions."

Gary Burton, HPE IT's business relationship manager, underscores this point. "From a business perspective, we want to provide one version of the truth. A key driving force from day one has been how to get to a point where we have validated, quality-stamped data that anyone can slice their own way, but still be based on the same fundamental data source."

“The capabilities we’re able to deliver on this analytics platform are also about empowerment for our business customers. Data scientists are distributed all across the enterprise. We can empower them with access to analytics as a service wherever they are, and do that in a manner that’s fast, cost-effective, and architecturally sound—that all matters.”

– Dave Carlisle, Chief Technology Officer, HPE IT

ELASTIC PLATFORM PROVES GAME CHANGER FOR ANALYTICS

Fortunately, HPE is also a technology innovator. The company had been developing a new architecture for data analytics—HPE Elastic Platform for Analytics—and as the HPE IT team evaluated solutions for its enterprise data lake platform, it was only natural to consider HPE technologies.

Nearly every business group across the enterprise requires access to data, but demand can vary widely from group to group. Some may have compute-intensive workloads while others need to store massive volumes of data. As the HPE IT team planned the design for a new platform, they defined a clear set of requirements to assure dynamic agility and sustainable performance for a global user community.

Key among those requirements was the ability to scale compute and datastore independently. The platform also required near-real-time ingestion and processing of data, and the ability to handle greater than 10 million orders per day through the close of each month. Moreover, it had to include disaster recovery capabilities and allow for easy integration of future technologies in compute, datastore, and networking.

The HPE Elastic Platform for Analytics answered every requirement and more, offering an architecture comprised of compute and datastore building blocks that can easily scale independently. In fact, even within the compute nodes, the team can define more granular profiles optimized for specific demands such as memory-intensive

or CPU-intensive workloads. It was the ideal blueprint for HPE IT’s new enterprise analytics platform—an enterprise data lake providing analytics as a service across the enterprise.

Kimberly Read, Big Data enterprise architect for HPE IT, remarks, “We were very excited to see what the HPE Elastic Platform for Analytics could do for us. With our legacy environment, getting the right balance of compute and storage was always very difficult. We inevitably had too much storage and not enough compute, or vice versa. Now we can scale compute and storage independently, with workload and density optimized. It’s a game changer.”

ANALYTICS PLATFORM BUILT FOR SPEED AND AGILITY

HPE IT’s enterprise analytics platform—based on the HPE Elastic Platform for Analytics architecture—is built using HPE Apollo 2000 Gen10 systems for the compute nodes and HPE Apollo 4200 systems for the datastore nodes. In addition, HPE ProLiant DL360 Gen10 servers provide edge/management nodes.

The architecture allows data to be ingested from any source across the enterprise, all fed into a Hadoop enterprise data lake where it is consumable by business groups using tools for everything from business intelligence and reporting, to data marts and analytics. The analytics processing core includes Hadoop clusters for general purpose projects, machine learning, and streaming. HPE IT can also easily add technologies such as GPU nodes, memory-centric nodes, and tiered storage nodes in the future.



In addition, the open HPE Elastic Platform for Analytics architecture used with the HPE Ezmeral Container Platform (formerly BlueData EPIC), enables IT and business users to spin up micro-clusters in minutes for a variety of special projects and short-term workload requirements. For example, by leveraging the HPE Ezmeral Container Platform, a business team with a short-term data science project can easily build a micro-cluster, load their database and visualization tool of choice, and tap into the data lake in a matter of minutes. There is no need to move data into a separate environment as in the past and at the same time the micro-cluster isolates the workload to avoid any performance impact on the production analytics platform.

Burton notes, “People no longer have to spend resources to manually pull data out of the production environment for their own analysis. The platform makes it easier for them to consume data from one central source, knowing it’s the most up-to-date data available, and do that quickly, reliably, and with high quality. We’ve been able to greatly improve the service on offer and enhance the end-user experience.”

Dave Carlisle, chief technology officer with HPE IT, points out, “The capabilities we’re able to deliver on this analytics platform are also about empowerment for our business customers. Data scientists are distributed all across the enterprise. We can empower them with access to analytics as a service wherever they are, and do that in a manner that’s fast, cost-effective, and architecturally sound—that all matters.”

FULFILLS THE VISION OF A DATA-DRIVEN BUSINESS

For HPE IT, the HPE Elastic Platform for Analytics has been a real game-changer, accelerating responsiveness to the business, enabling as-a-service agility to handle dynamic workload demands, simplifying scaling, and reducing hardware costs with its unique modular design. Read sums up her impression: “With the HPE Elastic Platform for Analytics, you can scale up, scale out, use HPE Ezmeral containerization to spin up micro-clusters, isolate workloads, augment disaster recovery—you get exactly what you need, when you need it.”

Business consumers of data and analytics services across HPE are also gaining new capabilities and value. With access to a unified data lake and tools provided on the analytics platform, business users can join data in any number of ways to understand trends, answer strategic questions, explore what-if scenarios, project future outcomes, and much more.

Achukola notes, “With the HPE Elastic Platform for Analytics as the foundation, we are fulfilling our vision of a data-driven business. The key value is providing users access to the complete range of data HPE generates and empowering them with the tools to visualize the data in new, insightful ways that lead to better informed business decisions.”



Customer at a glance

Solution

Enterprise analytics platform for delivering analytics as a service to global business teams

Hardware

- HPE Apollo 2000 Gen10 systems
- HPE Apollo 4200 systems
- HPE ProLiant DL360 Gen10 servers

Software

- HPE Ezmeral Container Platform
- Cloudera Data Platform

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– Ravi Achukola, Associate Vice President of Global IT Enterprise Data Analytics, HPE IT

One example is a business use case for building metrics on the lead-to-conversion ratio for the HPE sales organization. The data and analytics now instantly available as a service enable a sales leader to quickly determine, which customers and prospects have the highest probability of placing an order. This allows sales teams to focus time and effort where they are most likely to win business.

SIMPLIFYING CUSTOMIZED ANALYTICS FOR TEAMS ACROSS THE GLOBE

The analytics platform also provides business users with tools to customize their own dashboards. One of the objectives of Achukola and the analytics team has been to provide business customers with standardized data flows and visualization tools to bring more consistency across the enterprise, and reduce the cost and complexity associated with individual teams acquiring their own products. Instead, they can use any of the standard dashboard templates provided by the analytics team and easily tailor them to just include the data fields they want.

With the HPE Elastic Platform for Analytics as the foundation for HPE IT’s data lake and enterprise analytics platform, the analytics team can continually add new features and capabilities to increase value for business teams. Achukola says, “The data is available in near-real time, which is helping business users now build predictive models not just historical reports.”

Burton adds in conclusion, “As people realize what they can get from our analytics platform, they naturally want more. The fast, agile scalability that the HPE Elastic Platform for Analytics provides is immensely important. We must deliver quickly on business demands, or people will lose trust and confidence in our service. We now have the platform to do that and can grow our capabilities as the business requires.”

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