Modernizing the Data Platform for a
Fortune 500 Insurer for Improved Performance and Scalability

VISIONET

The Client

The client is a leading US-based, Fortune 500 annuities and life insurance provider delivering its services via independent distributors. The company provides services to over 2 million customers and its aim is to deliver financial security to customers worldwide.
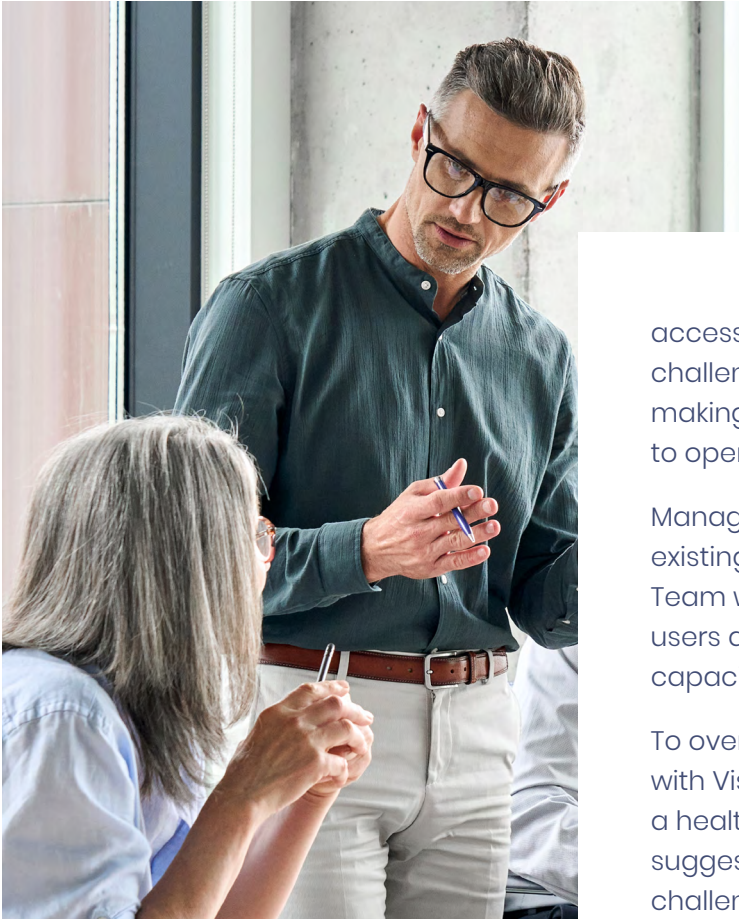
The Challenge

Our client, being a leading insurer, had a multitude of data sources that were being managed in silos. The organization did not have a proper system to integrate this data and efficiently make the most of it. In addition, the organization was running its daily state of affairs on an outdated data platform with older versions of clusters and nodes. Moreover, to meet the ever-increasing data management needs, the client had migrated its data from the previous system to a new one. However, this transition was not seamless, and it was causing system clogging and was utilizing massive storage areas – thereby decreasing the functionality and performance of the system to a point where it was negatively impacting the business.

While the organization's data infrastructure was based on a data platform powered by Azure, there were a lot of inefficiencies in the system that were holding the company back from reaping the full benefits of the Microsoft Azure Cloud Platform - making it difficult to achieve the desired business results.

For instance, scalability was one of the client's major concerns. It was getting challenging to scale the system up or down – making it rather expensive for them to run the operations. The main system users, such as the Data Engineers and Data Scientists, were facing difficulties in running and managing queries - causing several data storage issues. The legacy infrastructure was holding the organization back from building modern data strategies. Moreover, there was no release management in place to facilitate admins and users in querying,

accessing, and using the data. Overall, these challenges were causing system inefficiencies making it difficult to manage and were adding to operational costs.

Managing and mitigating these issues with the existing skillset of the Big Data Platform Support Team was rather challenging – slowing down users and tying up database managers due to capacity constraints.

To overcome these issues, the client partnered with Visionet with a goal to assess and perform a health check of its data infrastructure and suggest solutions and help them mitigate the challenges.

Health Check Assessment – The Approach

In order to gather valuable insights into the existing system's performance, efficiency, stability, and scalability aspects, Visionet took the following actions:

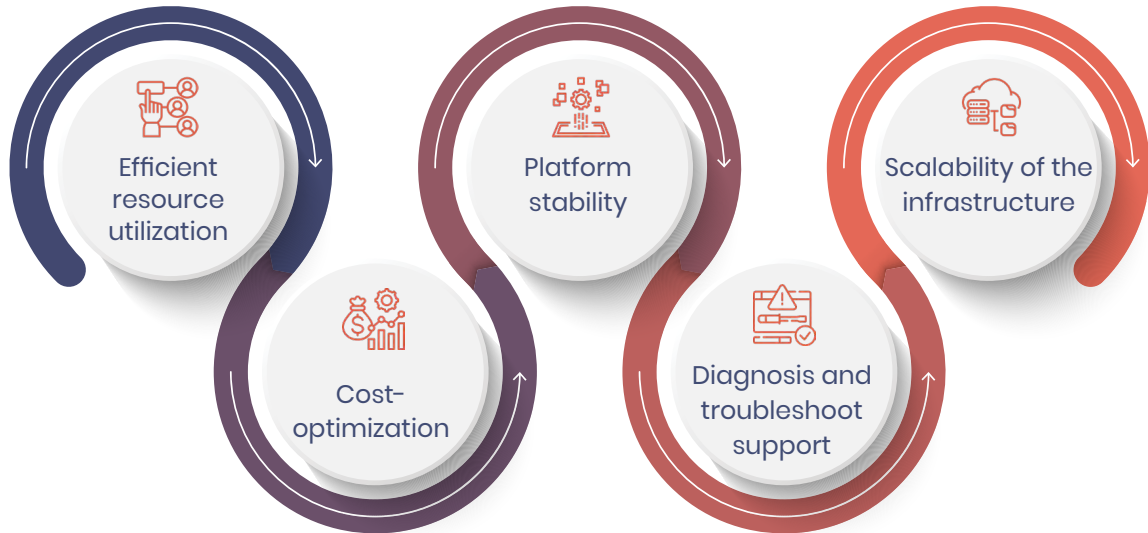| Analyze the data platform to understand its current state | Formalize health check parameters for the activities to be performed | Perform assessment activities as per the checklist | Document improvements and opportunities | Provide recommendations for platform maturity along with a future roadmap |

Our Findings and Solution

To comprehend the gravity of the challenges, Team Visionet performed a Health Check Assessment and Gap Analysis on the client's existing Big Data Platform. The following parameters were set around which the entire assessment was performed:

The Health Check Assessment exposed Team Visionet and the client to some insightful findings about the existing issues and state of the data platform. We proposed guidelines with respect to the infrastructure and configurations for performance and cost optimization. Our findings highlighted the following issues:

Problem	Problem	Problem	Problem	Problem
Inefficient utilization of resources	Outdated infrastructure	Lack of visibility across the infrastructure	Release management	Compromised data protection and security
Solution	**Solution**	**Solution**	**Solution**	**Solution**
Decommissioning of extra clusters in the current platform	Updated some Azure-based technologies such as the HDI Cluster	Identified inefficiencies and suggested the solution	Provided solutions regarding appropriate admin authorization	Implemented ranger policies

This paved the way for a truly Modern Data Platform with no capacity issues that would perform as desired, irrespective of the size of the queries and the data use case. This made the system high-performing, scalable, and compatible with the latest technologies.

Additionally, we proposed enhancements for better observability e.g., an improved monitoring mechanism along with insights for statistical reporting, and suggested data protection & security improvements.

Technology Stack

Benefits Delivered

- Significant cost savings due to modern data management - as much as 30% per year were recognized by reducing nodes from 10 to 7.

- Enhanced data security.

- High scalability of the system.

- Improved system efficiency and performance.

- End-to-end visibility of all the information.

About Visionet

Visionet is an engineering-led company driven by innovation. In our journey of 27+ years, we've helped over 350 clients across various industries to innovate faster, remain relevant, and build better products and services. With more than 8,000 people worldwide, across our 14 locations, Visionet provides transformational consulting, technology, and outsourcing services and solutions for a broad range of industries

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