Fortune 50 Company Cuts Data Quality Issues by 70 Percent and Storage Costs by 80 Percent

Case Study

Overview
Becoming a data-driven organization

A Fortune 50 multinational digital communications technology conglomerate, with 77,500 employees and an annual revenue of $50 billion, was looking to optimize logistics for service lifecycle management and drive strategies to maximize efficiency at an enterprise level.

Zensar's brief:

- Build an architecture to create a robust ingestion platform for product telemetry data.
- Enable automated data processing and an alert mechanism.
- Create a one-stop data constellation layer for the telemetry data of the client's product line.

Beyond the brief:

"Together, you all demonstrated energy and intelligence to drive business values and help our business partners achieve their business goals."
Quote from Manager - Software Development Engineering, Supply Chain

Challenges
Barriers to data optimization

The client's IT department needed a transformative solution to address the lack of an effective engagement model for telemetry asks between the business unit, customer experience vertical, and supply chain vertical. Furthermore, the client wanted to simplify the difficult process of threading the stage telemetry data with various enterprise data sets, such as SO, IB, services, and licensing.

Solution
Powering business efficiency with data analytics

We deployed a solution with a three-pronged approach:

Discovery and planning:
We assessed the current state to identify all the pain points and understand the complexities involved, before laying out a long-term data analytics roadmap to enable the client to become a data-driven organization.

Implementation:
We implemented the data analytics roadmap, focused on these actions:

- Build a robust data ingestion tool using AWS Elastic MapReduce (EMR) for telemetry data for key products.
- Map out threading with SO, IB, and customer and PF data sets for the DNAC product set.
- Create a final DNAC data set with PF and customer enterprise hierarchies.
- Set up DNAC, ACI, and 7+ products' successful ingestion.

Optimization:
We executed the required process flows and improvements to the end-user experience, focusing on presenting only relevant data to the user and ensuring optimal utilization of the cloud infrastructure.

Solution enablers

Amazon EMR made it easy and cost-effective for the data engineers and analysts to run applications built using open-source big data frameworks, such as Apache Spark, Hive, or Presto — without having to tune, operate, optimize, secure, or manage clusters.

Impact
Optimized data and costs

- ~1TB of batch files processed weekly
- 40 Mn+ rows of data processed per day
- 30-40K net new records processed per day
- 4-5 Mn updates processed per day

Business outcomes:
The solution enabled the client to cut data quality issues by 70 percent and storage costs by 80 percent, while eliminating redundant data.

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For more information, please contact: **info@zensar.com | www.zensar.com**