Centralized HADOOP Secure Data Store with Data Integration & BI Solution Enabled Efficient Data Processing & Enhanced Information Security

SITUATION

The customer wanted to centralize existing disperse data sources and create a unified master data store. Multiple data sources being consumed manually using error-prone steps prevented the customer from obtaining true insights on demand in near real time. The customer also wanted to go beyond transactional data and combine it with social media information to facilitate sentiment analysis. Data sensitivity around PII and governance was further complicating the situation

IMPACT

The existing data warehousing systems were not able to handle huge data growth and were also unable to integrate unstructured data to extract business insights. Cost of licenses for storing and processing huge data with existing BI tools was comparatively high

RESOLUTION

ITC Infotech helped the customer create a centralized Hadoop data store for different varieties of data (structured, unstructured and semi structured). Data security was achieved in the Hadoop environment using a security key provided by the customer

The Customer

The customer is a mobile security provider headquartered in Sunnyvale, California, United States. The company serves more than 5,000 organizations worldwide in industries such as financial services, healthcare, manufacturing, energy and utilities, legal, government, and technology. The company makes products for managing and securing mobile devices in a business environment and focuses on securing apps and data on mobile devices. With revenue of 25 million USD, the customer has a strong operational base in many countries across the world.

The Need

The customer wanted to empower internal business teams with the right kind of information at near real time and wanted to eliminate manual intervention of Business Intelligence analysis to help achieve the strategic business goal. There was a need for enhanced data security in the new solution for sensitive enterprise data both at rest as well as in motion. Considering the high license costs of traditional data warehousing and business intelligence tools the customer wanted to implement a cost-effective and scalable solution considering the future growth of data. Besides TCO, a critical requirement of the new BI solution was a capability for Analytical Cube Modeling, visualization features, Time to Value and vendor support. After identifying new tools, the customer also required a road map to migrate existing dashboards to the new system.

The Solution

ITC Infotech evaluated some of the major Hadoop distributions such as Cloudera, Horton Works, MAPR and AWS EMR as they support most of the business requirements while containing TCO at the same time based on usage. The customer preferred AWS EMR as it provides multiple solutions towards Key management and we implemented AWS EMR in conjunction with S3 storage. The primary objective of this project was to deliver analytical dashboards to business users using the centralized BIGDATA store.

ITC INFOTECH adopted a detailed test strategy defining the overall approach and covering various aspects of testing relevant to the engagement. We further implemented test plans and test cases with Requirement Traceability Matrix and generated test completion reports along with results analysis. The following are some of the business cases targeted by the customer:

- Tracking customer contract

  - Tracking existing contract type, license type, license cost and duration to provide actionable insights to the customer on how to cross-sell and upsell licenses

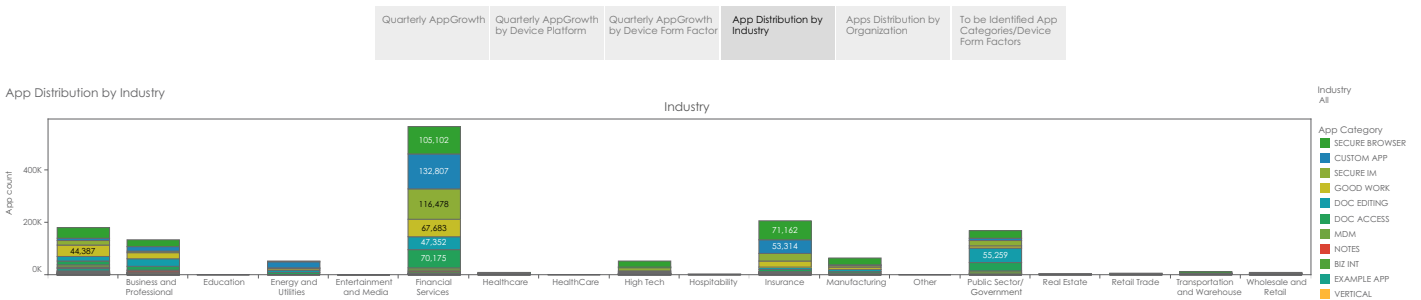 - This would also enable them to promptly and effectively engage with customers

MRR Graph
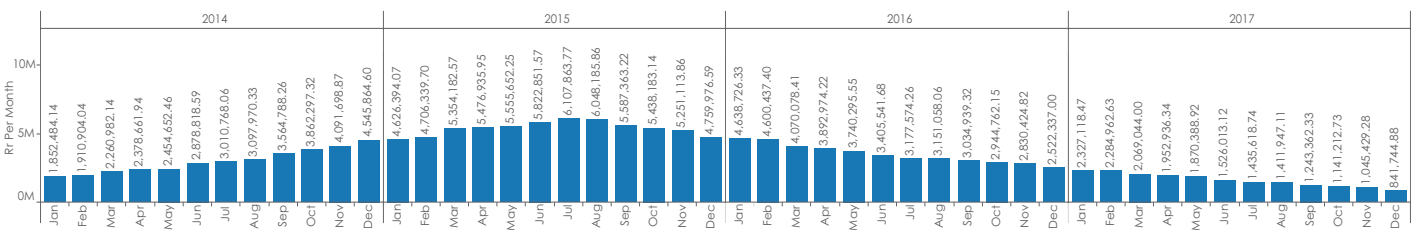
- Tracking application usage to understand existing distribution patterns
  - Based on device form factor (Smartphone or Tablet or Ipad)
  - Based on mobile platform (IOS or Android or Windows)

- Verify if the current development aligns with the trend and accordingly come up with action plans to maximize revenue by focusing on the factor of highest growth and reducing cost of investment on diminishing platforms / systems

Mobility Index Report

| Quarterly AppGrowth | Quarterly AppGrowth by Device Platform | Quarterly AppGrowth by Device Form Factor | App Distribution by Industry | Apps Distribution by Organization | To be Identified App Categories/Device Form Factors |

App Distribution by Industry

Industry All

App Category
- SECURE BROWSER
- CUSTOM APP
- SECURE IM
- GOOD WORK
- DOC EDITING
- DOC ACCESS
- MDM
- NOTES
- BIZ INT
- EXAMPLE APP
- VERTICAL

- Creating a single view of the customer
  - Unifying transaction data from various sources with social media data to enable the customer to have a single view that will help them identify customer retention and renewal (churn), application segmentation, risk profile, etc.

Business Benefits

- Centralized data warehousing system integrated with various source systems and subject areas
- Business outbound dashboards and feeds to business users to assist in customer sentimental analysis and statistical analysis
- Enhanced business decision making with increased visibility into the single status of all applications and products
- Data security at rest and in motion and masking of customer's Personal Identification Information (PII)
- Enhanced data quality and data standardization
- Increased accuracy and efficiency through solution automation
- Near real-time/on demand report generation through automated data pipeline implementation
- Performance improvement of end-to-end BI solution from days to minutes
- Reduced license costs for infrastructure and tools
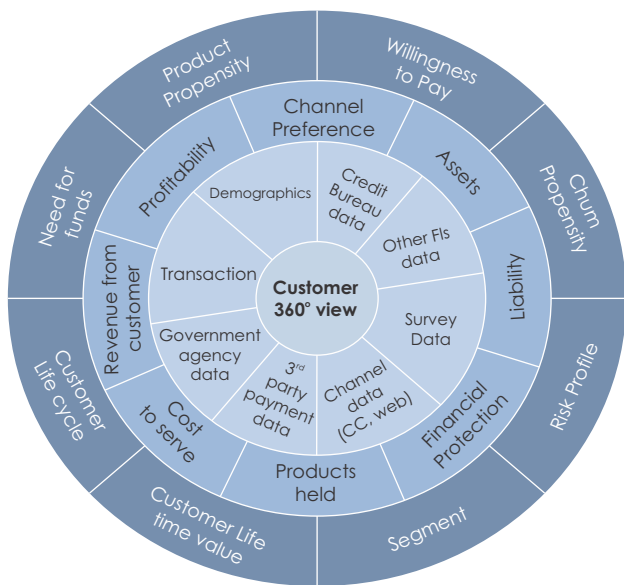
ITC Infotech's Big Data Practice

The goal of the Big Data practice in ITC Infotech is to provide consulting and implementation services to enterprises and help them transform their data architecture to use modern data technologies. Using these technologies, enterprises are able to use greater variety, larger volume and higher velocity of unstructured and structured data together to generate deeper business insights. The benefits of big data technologies include not better insights, but a lower cost and more scalable, future ready data infrastructure.

ITC Infotech's Big Data practice has developed deep implementation capabilities; end-to-end management consulting and system integration expertise, coupled with a robust global delivery model and standard quality management processes.

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