InfoCepts

Transforming a Leading Messaging Service Provider's Rigid Reporting Platform into a Dynamic Report Builder

Summary

We transformed a leading cloud based mobile and online business messaging solution provider's rigid reporting platform into a dynamic report builder that users across roles and hierarchies can effortlessly use. Our demonstrated expertise in using MicroStrategy Intelligent Cubes played an instrumental role in making it scalable and efficient.

Industry

Mass-Consumer Businesses

Users

Social Listening and Web Analytics

Technologies

MicroStrategy 10.2
Vertica 7.x
MySQL 5.x
Oracle 11g
Puppet
Maven

Team Size

14 InfoCeptians
6 Client Associates

→ The Challenge

A leading provider of cloud-based mobile and online business messaging solutions sought our expertise to mend issues with their technology platform. The client uses it to deploy customized solutions for global brands seeking to connect with millions of consumers.

The platform's BI capabilities depended on an older version of MicroStrategy and upgrading it to the latest version was difficult. It lacked a single data store that could cater to all reporting and analytics needs. As a result, it put a heavy strain on the solution's Vertica data warehouse, leading to impaired performance.

The solution's pre-canned environment rendered it inflexible and unfavourable for customization with several issues –

- Unacceptable time-to-market delays
- Too many dashboards complicated the maintenance process
- Every data refresh instance led to downtime
- High dependency on IT
- Lengthy development cycle for new reports
- High turnaround time for smallest of enhancements
- Operational overheads

The client identified Ease of Deployment and Self-Service BI as critical requirements for improving business operations.

→ The Solution

To transform the solution into a flexible and efficient one, three key objectives had to be achieved -

- Establish a unified reporting solution to accommodate all reporting and analytics needs
- Enable self-service capabilities through IT governed building blocks for power users
- Impart role based privileges for hierarchical access to create, use and view reports

We upgraded the solution's BI layer to MicroStrategy 10 and utilized its Visual Insights feature to transform it into a governed Self-Service Reporting Solution. The solution's 'governed' aspect is instrumental for ensuring data quality.

We utilized MicroStrategy's Intelligent Cubes (I-Cubes) feature to improve performance. These cubes act as a layer between data warehouse and MicroStrategy to enable faster retrieval of data and reduce load on Vertica. Divided into fact cubes and dimension cubes, they are refreshed daily as part of an optimal automated cube loading strategy.

The Intelligent Cubes layer serves as a 'Single Data Store' to efficiently handle reporting needs of multiple users with minimum impact on performance.

The solution's infrastructure is divided into multiple shards (partitions) and each shard has its own Metadata Database. I-Cube on each shard holds data pertaining to only a specific set of accounts. Management tables hold logical information for automatically loading each shard with data in a controlled manner. This partitioned infrastructure imparts scalability to the solution, allowing it to accommodate any number of customers.

→ The Results

The transformation has enabled different user groups and roles in accessing reports without depending on IT. It has put brands in full control of reports they need. They can utilize the solution's out-of-the-box predefined dashboards for customization. The drag and drop interface eliminates the need for extensive user training, thereby leading to improved user adoption.
Our governed route to Self-Service Reporting has dramatically reduced the dependency on IT while ensuring data quality. Here are some statistical benefits –

- Process automation brought down deployment time by as much as 60%
- Productivity improved by 40% with zero downtime
- Labor costs reduced by 40%
- The time to market came down to just a single sprint which earlier required at least two sprints
- The average dashboard execution time dropped to 15 seconds from an earlier high of 30 seconds
- The solution can effortlessly handle 100+ users concurrently as opposed to an earlier maximum of 30