



INTEGRATION
& MIDDLEWARE



SIMPLIFY **INTERACTIONS** ACROSS DIGITAL DEVICES



Real-time Operational Analytics and Reporting Implementation for a Leading US Telecom Provider

CUSTOMER DESCRIPTION

A national provider of wireless voice, messaging, and data services.

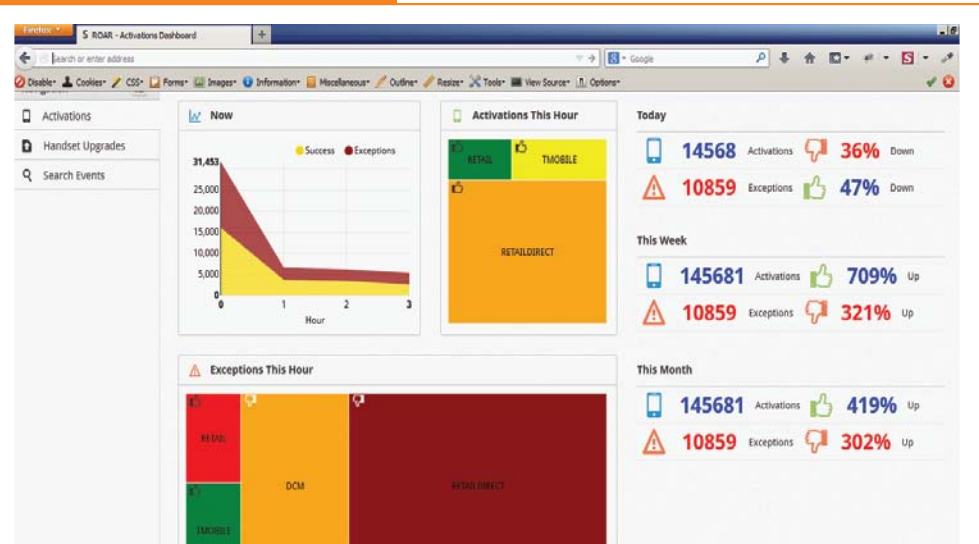
BUSINESS NEED

- Real-time visibility of service platform health
- Reporting based on identified business Key Performance Areas (KPA)
- Real-time visibility of individual service performance

SOLUTION CHALLENGES

- Managing the large amount of log/audit data generated by the service platforms
- Deriving real-time business KPA information out of a large data set
- Obtaining real-time IT KPA values from a large data set
- Scaling up the platform architecture

Business View - Activations Dashboard



HCL's APPROACH

Architecture for handling a large data set:

- ▶ Adopt a Hadoop based Big-Data solution
- ▶ Process and persist with real-time event data in NoSQL database

Map-Reduce processing for business and IT KPA:

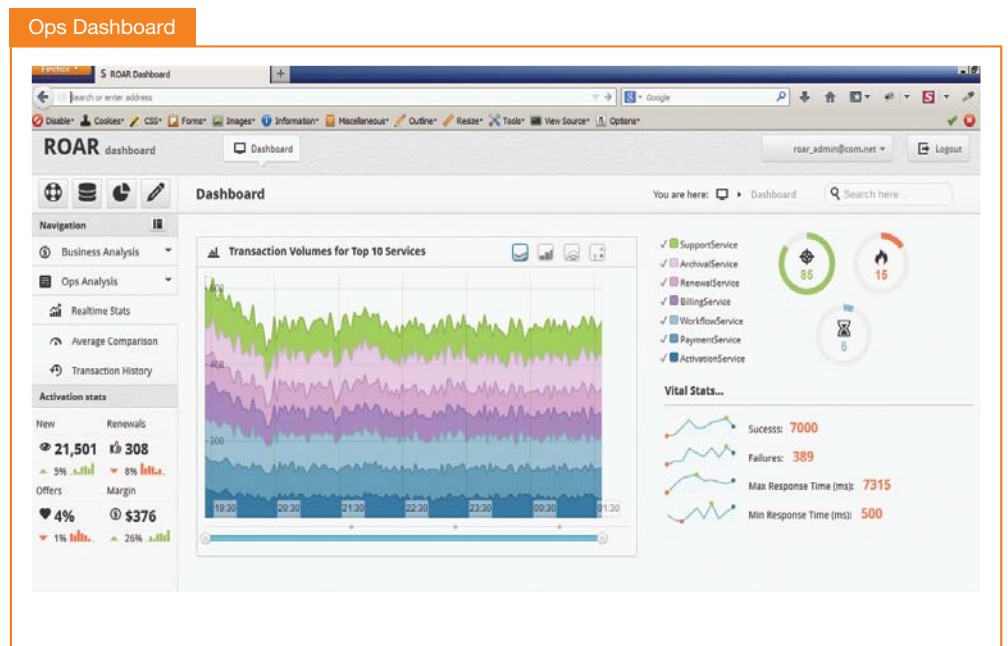
- ▶ Use scalable Map-Reduce for processing event data
- ▶ Derive business and IT KPAs from event data and persist in NoSQL structures

Data Service Platform:

- ▶ Create a data service platform on top of NoSQL
- ▶ Enable Representational State Transfer (REST) based data service platform to return as needed through a visualization layer

Visualization Dashboard:

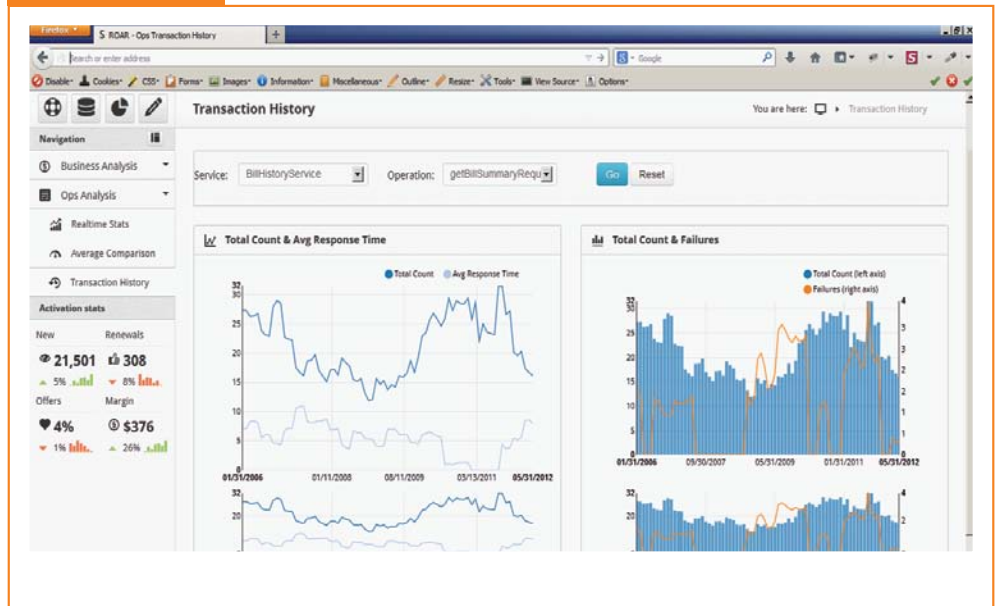
- ▶ Create a visualization dashboard for business KPAs
- ▶ Develop an IT operational dashboard for service platform health
- ▶ Use Data-Driven Documents (D3.js) and other JavaScript (JS) based open-source libraries



BUSINESS BENEFITS

- ▶ Enabled trending of business transactions
- ▶ Delivered a re-usable framework that reduced design and development cost
- ▶ Enabled pro-active monitoring, which led to the resolution of previously unidentified defects
- ▶ Created better end-user and operations customer experience
- ▶ Provided on-demand visibility into key business transactions and operational health
- ▶ Simplified partner on-boarding, monitoring and support
- ▶ Facilitated consumer trend analysis and the delivery of right products/services across a geography or a group

Transaction History



TOOLS AND TECHNOLOGIES

HTML5

Modern Design

Angular.js

jQuery

Ruby On Rails

CSS3

Twitter Bootstrap

Node.js



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