hoonar TEKWURKS

CASE STUDY

Subscriber Data Management Solution for **A Large Integrated Telecom Service Provider**

www.hoonartek.com
info@hoonartek.com

ABOUT THE

THE ORGANIZATION

A leading global telecommunications company with operations in 18 countries. Headquartered in New Delhi, India, the company ranks among the top 3 mobile service providers globally in terms of subscribers.

THE

CASE STUDY

THE PROBLEM

One of the largest mobile operators in the world. As is the case with enterprises this large, there are a variety of products and services offered to customers. Services include mobility, TV, broadband, music and Digital Banking – and it's all under one roof. The amount of data generated by 400 million subscribers is eye-popping. In fact, the organization processes as many records in a single day as most companies do in an entire month. Underlying the enterprise are myriad systems – most of which didn't communicate with each other. For instance, there are Business Support Systems (BSS) for customer data, Collate Business & Data science patterns, define Homes patterns, sociographic device and type-related data. Additionally, there's the Operations Support System (OSS) that contains an extraordinary amount of network data. In order for the company to achieve a comprehensive understanding of consumer behavior and provide a unified experience for customers, they needed to tear down the walls separating systems.

THE SOLUTION

To propel its digital transformation, the telco made new investments in modern infrastructure and applications. In order to manage, leverage and analyze data, silos were eliminated. This Transformation project provides an unprecedented level of real-time service to over 400 million customers. Instead of siloed data from different business units, the system now uses a holistic set of historical data and real-time triggers to develop a geographic, demographic footprint for each customer. The company is often able to figure out how to predict customer interest and frustrations – and be prepared with Next Best Action (NBA) recommendations. The company is building one of the largest active-active cloud infrastructures in the world. Resilience, redundancy and low latency are critical success factors.

THE RESULTS

Changing the operating culture in a large organization is always a daunting task. Changing the operating culture and overhauling the technology infrastructure at the same time while helping the company achieve aggressive growth targets is extraordinarily difficult. Yet, that is precisely what this Telco has accomplished. The business impact of the Data Transformation project is impressive. The Telco has grown to become the third largest provider of mobile services globally. Customer satisfaction is at an all-time high, thanks in part to the predictive technology that enables the organization to anticipate opportunities to assist customers during a purchase and resolve issues as they occur. For instance, the client can often resolve a customer's complaint before it has been reported. Additionally, the data transformation project has resulted in a robust and extensible architecture that yields extraordinary flexibility. A growing consumer base, thriving enterprise customers, real-time service performance, a network that is always available, and a global position as one of the top three telecoms in the world – all at greatly reduced hardware costs. These are impressive results for the Data Transformation project.

DISRUPTIVE FACTOR

The disruptive factor is the unprecedented understanding of customer behavior that has resulted from the Digital transformation. Understanding customer behavior involves far more than looking at obvious trends. It requires painstaking and meticulous examination of every piece of data. Often, it's the smallest clues that yield the biggest new developments. The client has deployed cutting-edge big data capabilities to process hundreds of billions of records every day. This allows the company to provide exceptional real-time service for today's customers, as well as sift for the data nuggets that will result in tomorrow's new products and services. Deep learning is essential to this process. Consequently, AI and ML are fundamental to everything the client does in 2021.

THE TECHNOLOGY

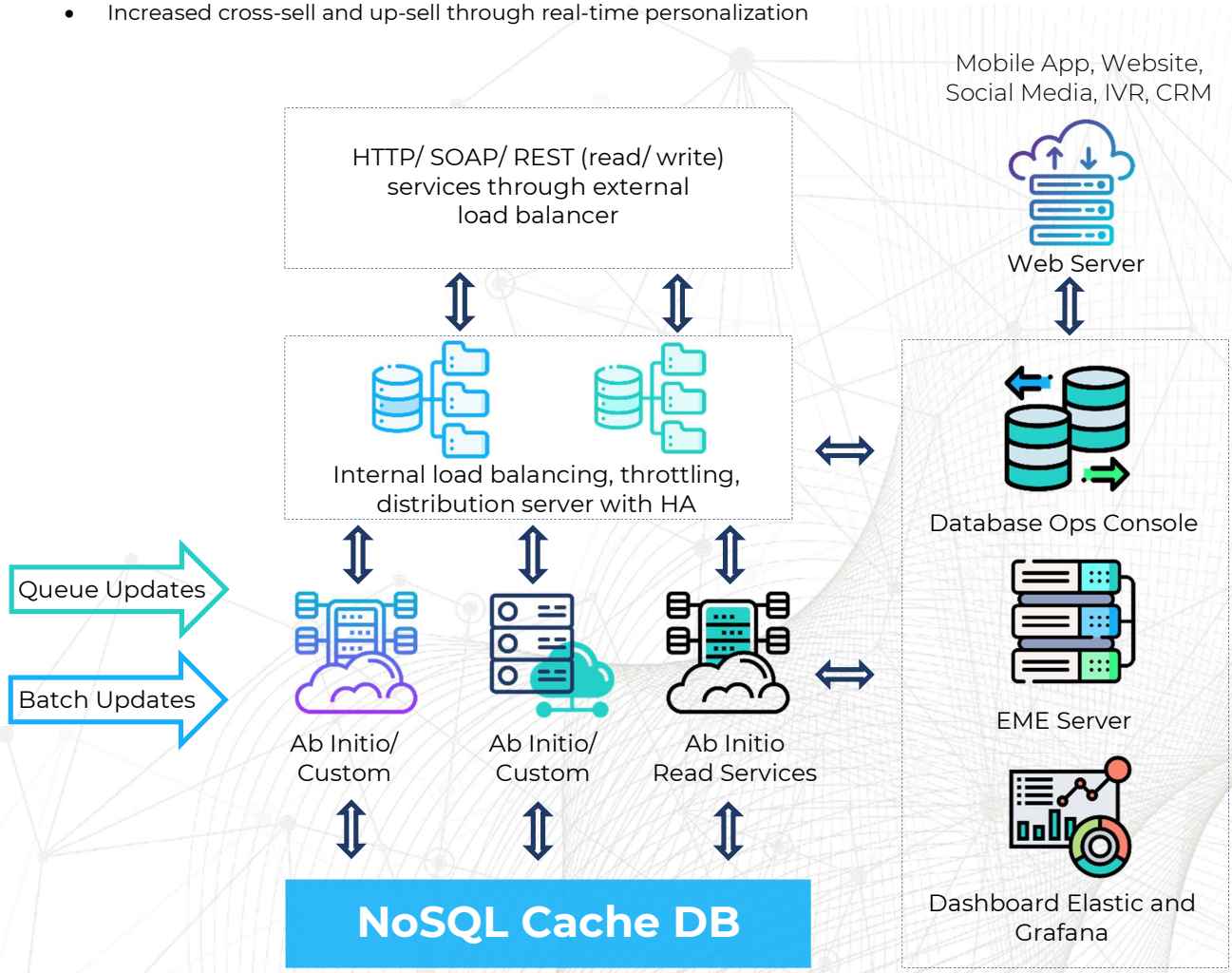
Among the technologies supporting this project, the Client utilized the Ab Initio real-time data platform and NoSQL cache database. This enabled the user to act instantly across billions of transactions while reducing server footprint by up to 80 percent. NoSQL Cache DB* powers real-time applications with predictable sub-millisecond performance up to petabyte scale with five-nines uptime with globally distributed, strongly consistent data.

80% reduced server footprint

METRICS

The innovative new data architecture has led to the following results;

- Reduced data-centric hardware costs by 40-90%
- Handled 300% application traffic growth with ease
- Achieved an industry-leading sub-millisecond latency responsiveness and performance
- Greater than 99.999% uptime for business applications
- Applications can rapidly scale from 10's to 100's of millions of subscribers
- Combined previously siloed data from 400 million users
- Process more than 100 billion records in one day
- Experience resilient persistence of 30,000 - 40,000 transactions per second and capable to handle up to 50,000 TPS
- Combined petabytes of phone/web/mobile device edge data into unified customer profiles that are accessible in milliseconds
- Reduced customer churn through real-time usage analysis
- Increased cross-sell and up-sell through real-time personalization



- HA (High Availability) /DR (Disaster Recovery) Enabled
- State of the art Instrumentation stack (TIG - Telegraf- Influx DB-Grafana & EFK - Elasticsearch-FluentD-Kibana) Stack
- Data Governance with Ab Initio MetaData Hub
- High End Infra with Global and Local Load Balancers
- Automation harness utility J-Meter utilized performance benchmarking
- DQE Enabled for Batch Processes
- CI/CD Implemented with Jenkins

www.hoonartek.com
info@hoonartek.com