

**Objective**

Use near real-time data analytics to delight customers

Approach

Focus on customer loyalty and retention, which required IT to provide high-performance analytics that is easily accessible by marketing to enable the rapid roll out of competitive incentive campaigns

IT Matters

- Campaign data loads at 2 gigabits per second, with processing done every 30 minutes
- HPE Vertica implemented in less than 48 hours, running 24/7 on a standard HPE ProLiant DL380 cluster, providing the required resilience and performance
- SAS Market Automation GUI used by MTS marketing for campaign management

Business Matters

- Acceptance of U&R (usage and retention) promotions increased from an industry average 3% to 6.5%
- Marketing teams are now able to run MBonus U&R campaigns independently, without involving IT support

MTS India relies on HPE Vertica in a highly competitive telecom market

How analytics keeps customers from moving to the competition



Based in New Delhi, India, MTS is the brand name for a division of the Russian-based telecommunications company Sistema Shyam TeleServices Ltd, serving approximately 10 million mobile phone customers on the Indian subcontinent. In 2012, it decided to invest in a competitive data analytics solution to help retain existing customers and encourage increased usage of its mobile and broadband services. “We architected a solution, which included HPE Vertica, to help us quickly identify customers who reach certain levels of usage and present them with marketing promotions within a short duration of usage,” explains Rajeev Batra, CIO for MTS India.

The telco industry in India is strictly regulated; between 2010 and 2013, the Indian Supreme Court mandated a series of nationwide auctions for frequency bands

along the mobile phone spectrum. As a result, MTS experienced a reduced business footprint, from 15 to 9 circles (state-centered geographies). This mandate reduced its client base from 15 million to 10.5 million subscribers at the beginning of 2014.

MTS is now back onto a growth path, with further increases in its customer base. But competition remains fierce, with high churn and churn potential in the most affluent regions of the country. Wealthy circles like metro cities (Delhi NCR, Mumbai), states of Karnataka, Gujarat, and Tamil Nadu fall into category A circles; category B and C circles correspond to less affluent regions. In the circles where MTS operates, there are 8-10 mobile providers, all competing for a customer base with growing interest in smart phones and data services.



MTS India operates its services on Code Division Multiple Access (CDMA) EVDO Rev B Phase 2 Network—which is one of the two basic types of radio systems used by mobile phones operators—and it owns almost 40% of India's CDMA High Speed Mobile Broadband Data market. The company is focused primarily on the mobile voice and data market in its regions of operations, including some instances of wire-line service. In nine of these circles of operation, MTS offers wireless broadband services and data services. With its broadband offerings, MTS provides 120 TV channels via mobile smart phone, data cards, and MiFi dongle subscription-based download services.

Heavy competition drives the need for analytics

Five years ago, there were 12-14 providers per circle in India. After the Supreme Court order that led to a series of bandwidth auctions, many smaller players were eliminated, yet eight to ten providers still operate in each circle. Consumers today frequently subscribe to more than one provider. In cities like Delhi, penetration is over 150%, meaning that many subscribers have more than one cell phone. In cities like Mumbai, penetration is nearly 200%.

Unlike other markets, customers in India are not required to change their numbers as they move from one provider to the next, and unlike many service plans in the U.S. or elsewhere, most mobile phone contracts only require a 3-month commitment, so customer

turnover rates in India are high. As a result, customer loyalty programs are prevalent and key to customer retention.

“One of our essential strategies centers on usage and retention, or ‘U&R’ as we call it” explains Rajeev Batra, CIO, MTS India Telecom. “The more a customer uses our services, the more we will incentivize that customer’s increased usage. If a customer doesn’t see attractive options available, we have plenty of competitors offering reasons for them to leave us.”

To keep tabs on customer activity, MTS primarily gathers usage data from its prepaid service customers from several core IT and Network elements, all collected by HPE Vertica for marketing campaigns. This data staging / loading solution provides a business-critical platform for the development of online, close to real-time MTS marketing campaigns for direct 1 to 1 customer outreach. The MTS system allows the telco company to capture what a customer is doing at any given point in time, and provide an instant customer gratification offer around that usage.

“Our marketing team was looking for an instant solution for reaching out to customers based on their real-time activity,” Batra explains. MTS architected its solution using HPE Vertica, which met its marketing requirements and has been up and running for more than two years as of March 2014. In the telco space in India, MTS was the first company to implement HPE Vertica.

“By rewarding new or recently upgraded customers with surprise bonuses in the form of extra minutes or additional data, we have more than doubled our conversion rate, from an industry average of 3% to an unprecedented 6.5%. No one else in our marketplace is achieving these numbers.”

— Rajeev Batra, CIO, MTS India Telecom

“In this environment, most providers are trying to entice customers with the best plans they can offer. All of them offer U&R programs to retain and increase customer usage because they need to provide something unique to their customers. They want to ensure they stay with their own network services offerings.”

Data services on the rise

Data plan and smartphone services are where the heaviest competition now lies in India. MTS is the first operator to have made data strategies its mainstay, in 2009. Since then, the competition has followed the same path.

Vendors are also competing to offer optimum support for Mi-Fi, a mobile Wi-Fi within India. Because speed is the most important criterion in customer satisfaction, MTS is offering “3GPlus” services, providing 9.8 Mbps wireless broadband services, whereas most of the 3G operators in India provide services for 7.2 Mbps.

HPE Vertica as a competitive differentiator

Before MTS began running analytics against its data, the company used what Batra described as “a rudimentary system for batch processing of data related to marketing campaigns, which limited us to a 24 hour gap between receiving the critical data and

making new offers to the customer. Back then, we were collecting data from IT and network elements, then sending it to a standard database implementation for our back-end, where we stored campaign-related tables and customer segmentation data.”

When MTS decided to implement an Advanced Campaign Management solution using customer analytics, it considered a number of vendors and its IT team helped vendors set up a proof-of-concept for each one, allowing one week for each solution under consideration.

“We wanted to see how fast we could deliver the marketing campaigns based on usage,” Batra says. “How fast could we determine the best campaign for a particular customer? It was about breaking down all the information into a relevant format that marketing teams could use to reach out to the customer, almost online, in real-time.

“We set up Vertica quickly, in less than 48 hours. It was capable of working within our complex process, rendering information from various sources into a format to be understood by the analytical tools, and providing an appropriate action as the result. Not only did it exceed our needs for rapid data analysis, but it also gave us a good balance of price and performance. HPE Vertica is our first data loading platform—and it has made our critical, near real-time analytics possible.”

Customer at a glance

Hardware

- HPE ProLiant DL 380s

Software

- HPE Vertica Analytics Platform software
- SAS Market Automation

“We specialize in ‘customer delight.’ For loyal customers, Vertica is a pivotal solution component that helps us determine the type of gratifications we offer, and these are not things we advertise. In this highly competitive market, we know our customers like pleasant surprises.”

— Rajeev Batra, CIO, MTS India Telecom

Batra also cites HPE Vertica’s ease of use, resiliency, and robust run-time environment as strong suits that led to MTS’s choice of an HPE Big Data analytics engine. “It runs on HPE ProLiant DL 380s on a 24/7 basis in our data center; it’s a strong system without problems, no hiccups, which is exactly what a telco needs. Anything lacking in performance or resiliency would be unacceptable.”

Team empowerment, business success

The Big Data implementation at MTS India has already helped reduce overhead in business operations. As Batra describes it, “the solution has empowered the marketing teams to run their own campaigns. Now, there’s no need for them to come back to the IT team to ask for specific development support. We’ve given them a GUI that allows them to choose the right MBonus campaign for a particular customer segment.”

“But our most critical achievement has been for the business itself. We have realized a remarkable conversion rate for our marketing campaigns. The standard telco industry conversion rate in India is 3%. With HPE Vertica, we have been able to increase that to approximately 6.5%. This is a major breakthrough for us. The propensity for customers to accept the particular promotion that you are targeting for them – that’s risen from 3% to 6.5%. On average in this industry, let’s say that out of 1 million offers made, maybe 30,000 accept. But with HPE Vertica, our targeted campaigns have become so accurate that we have been able to more than double our conversion rate. No one else in our marketplace is achieving these numbers.”



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