



Enhancing the Customer Experience with Network Visibility and Tailored Offers

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— Laurent Mignet, IT Global Head of Data and Analytics, Airtel

Overview

Operating in 18 countries across Southeast Asia and Africa, **Bharti Airtel** is India’s largest telecommunications company and the third largest in the world. In India, where Airtel serves 270 million subscribers, offerings include wireless and fixed services, mobile commerce, high speed DSL broadband, IPTV, DTH, and long distance services to carriers.

Airtel is improving its customers’ experience with a **Cloudera** platform that delivers unprecedented network transparency and a 360-degree customer view, combining real-time network data with detailed customer information to execute successful omni-channel campaigns in a highly competitive market.

Impact

Leveraging the power of Airtel’s modern data platform led the company to pioneer its **Open Network** initiative. It has been hugely successful, delivering complete transparency and real-time information about tower maps, weak spots, strong signal zones, high-speed internet areas, and more to customers, improving the customer experience.

“Anyone in India can see, based on their location, the reception of the network they’re experiencing,” said Laurent Mignet, Airtel IT’s global head of data and analytics. “This entire use case was made possible because we’re collecting data across our network, with customers’ consent, and processing it such that we can overlay the entire base of 270 million subscribers across a map of India to understand the quality of the network within specific regions.”

Additionally, the 360-degree customer view built on Cloudera that combines network data with information from customer handsets allows Airtel to understand each customer’s experience via network behavior, call center interactions, billing experiences, and more. Rather than send the same offers to customers repeatedly based on their activity 30 days ago, Airtel can send more relevant offers based on usage patterns from up to 10 minutes ago.

“Now, we are able to gain an even greater technical edge, empowering our marketers with intelligent data and analytics to make better decisions and improve the entire customer lifecycle with customized offerings.” said Harmeen Mehta, Group CIO for Airtel.

Business Drivers

Communications service providers (CSPs) are amongst the world’s biggest aggregators of consumer information and have to keep pace in order to gain insights into their customers’ preferences and networks.

Airtel faces the immense task of making sense of the huge volumes of customer and network data it collects on a daily basis, which were previously stored in multiple traditional systems built over a period of time.



Key Highlights

Industries

- Telecommunications

Location

- Headquarters: New Delhi, India

Business Applications Supported

- Open Network initiative providing real-time network transparency
- Omni-channel customer view empowering personalized marketing communications

Impact

- Better customer experience
- Higher customer satisfaction
- Increased conversions from marketing campaigns

Data Sources

- Data from network spanning Southeast Asia and Africa
- Billing systems for clients across Southeast Asia
- Client interactions with call centers
- More than 150 source systems total

Solution

- Modern Data Platform: Cloudera Enterprise
- Workloads: Analytic database, Operational database
- Components: Apache Sentry

Big Data Scale

- More than 2 PB
- Ingesting 26 billion records per day, growing by 35% in four months and 100% in one year

When Airtel saw a rise in complaints about its network quality, Airtel embarked on a journey to improve the customer experience by delivering complete visibility and transparency into its network and improving the quality and context of its communications with customers. Success would hinge on its ability to efficiently capture, process, store, and deliver real-time data.

Solution

Airtel's modern data platform from Cloudera powers several use cases including:

- The esteemed Open Network initiative, which aims to understand the customer experience at the individual customer level vs. at the network level.
- An analytics platform delivering a 360-degree customer view for personalized communications and marketing efforts.

Data sources include:

- Its expansive network across Southeast Asia and Africa which supports 29 billion daily calls.
- Billing systems for clients across Southeast Asia.
- Client interactions with call centers.

Upon setting out to modernize its data platform, Airtel established five objectives for the platform:

- Stability, scalability, and integration to provide a central data hub.
- Near-real-time data ingest, transformation, and load capabilities to empower contextual offers.
- Reduced data redundancy and latency to facilitate more accurate, high quality offers.
- Simple, automated reporting for ease of use.
- Better operational flexibility and efficiency.

Airtel decided to build its platform on [Apache Hadoop](#), and selected Cloudera as its Hadoop provider primarily due to two reasons:

- The maturity of its security features, [Apache Sentry](#) being a key differentiator, and clear product roadmap reflecting a steadfast focus on security.
- Cloudera's established presence and focus on the Southeast Asian and African markets.

With [Cloudera Enterprise](#) at the core of Airtel's information architecture, the massive volumes of data are in a centralized location, across formats, and available to all business users and groups, with full fidelity and security, but at a lower capital expenditure per terabyte compared to traditional data management mechanisms.

About Cloudera

Cloudera delivers the modern platform for data management and analytics. The world's leading organizations trust Cloudera to help solve their most challenging business problems with Cloudera Enterprise, the fastest, easiest, and most secure data platform built on Apache Hadoop. Our customers can efficiently capture, store, process, and analyze vast amounts of data, empowering them to use advanced analytics to drive business decisions quickly, flexibly, and at lower cost than has been possible before. To ensure our customers are successful, we offer comprehensive support, training, and professional services. Learn more at [cloudera.com](#).

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