

# Analytics Reduce Customer Churn in Telecommunications

## Introduction

Customer Churn Analytics is proactively and predictably figuring out when a customer has a high probability of churning.

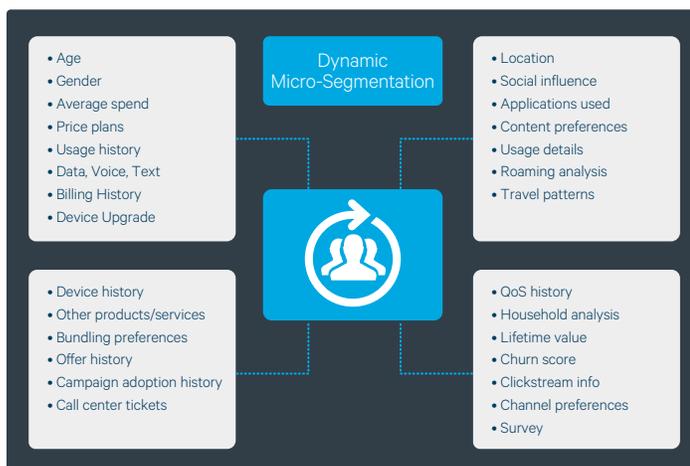
According to a Telecommunications survey by McKinsey, multi-channel interactions are materially worse in customer satisfaction than single-channel, whether digital or not. Through Customer 360 analytics, Telcos can build a highly enriched customer profile beyond the traditional segmentation attributes, to enable precision profiling of the customer base for highly targeted marketing and for improving the customer experience.

## Approaches to Customer Churn Analytics

Most Telcos employ a reactive type of analysis to customer churn, looking for answers to questions like “What happened?” and “Why it happened?”. This kind of reporting uses data stored in departmental silos: billing, call center, network traffic, which is very difficult to correlate.

What if an operator can predict when a customer is most likely to leave and has time to implement measures to prevent it? Telcos can use a variety of data sources to model future behavior, based on patterns from the past. Machine learning algorithms become better at predicting when the dataset is bigger and contains the right features.

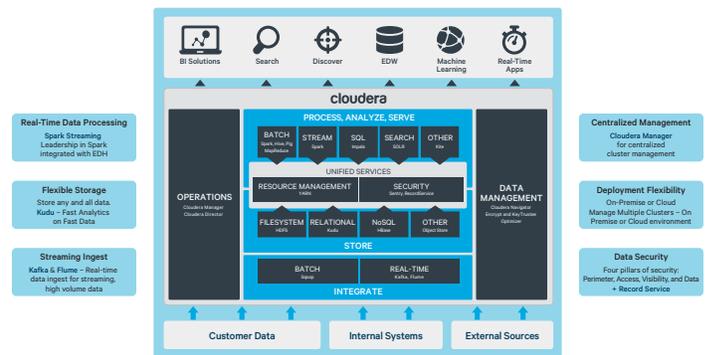
Data can be used to create a dynamic micro-segmentation, for highly targeted marketing and customer care activities. The resulting customer profile is consistent across all channels, brands and devices. It is also contextualized, to present location and circumstances; it reflects customer’s preferences and aspirations and is relevant in the moment, to meet customer’s needs and expectations.



## A Data Platform for Customer 360

Today, leading organizations worldwide are adopting Cloudera Enterprise Data Hub as the data management and analytics platform for storing, managing, processing, and, more importantly, driving analytic insights from all of their customer data.

With Cloudera Enterprise, organizations can easily ingest data from multiple sources onto a single, unified, secure platform—combining and correlating demographic data with device data, transaction data, network data, social media, and much more. Any type of data (whether structured, unstructured, or semi-structured) can be loaded into Cloudera Enterprise without altering its format—preserving data integrity and delivering complete analytic flexibility.



## French Telco SFR Optimizes Customer Experience

With 14.875 million customers as of 2016, SFR is the second biggest mobile phone operator in France. With today’s tidal wave of mobile device activity—for work, play, financial, social, and many other interactions—SFR was challenged to create a mechanism capable of collecting and storing the huge magnitude of data generated by subscribers; volumes in excess of a billion events a day are not uncommon.

SFR wanted to create a shared, detailed view into the customer journey that would be available to employees across the company for real-time search, reporting, and analysis. SFR’s data warehouse has served the company well for ten years, containing data on products, device usage, invoices, contracts, price plans, and call detail records (CDR). But to truly understand the customer journey, SFR recognized it needed to bring in multi-structured data from new sources, such as customer behavior across SFR’s many channels.

By complementing its data warehouse infrastructure with **Cloudera Enterprise, Data Hub Edition**, SFR is delivering the 360-degree view that will help the company optimize the customer journey. Many of SFR’s employees now have a self-service discovery environment enabling query and exploration of a single, centralized data store.

SFR's enterprise data hub is helping the company promote a better customer experience, while making its IT infrastructure more efficient. Employees across the country can operate based on a centralized, real-time customer view that spans many devices and data sources.

For the first time, SFR has the capacity to ingest, store, and analyze log data, that can be combined with other data sets to reveal previously hidden customer insights

SFR's integration of its Cloudera EDH with the existing data warehouse has resulted in a best-of-breed, efficient big data ecosystem. By offloading large-scale data ingest, processing, and exploration of multi-structured data sets from the data warehouse to Cloudera, the data warehouse now has more capacity to focus on what it was built for: high-performance analytics and access to the company's "first-class data." Instead of upgrading the data warehouse environment every 3 years, the system will deliver optimal performance for 8 or 9 years now.

## Indonesian Telco Telkomsel Gains Valuable Customer Insights

Recognized as the biggest mobile operator in Indonesia with over 140 million subscribers, Telkomsel has seen increasing data volumes in its legacy data warehouse, particularly as a result of the telecommunications industry's technological convergence which is driving consumers to perform a wider range of tasks using their mobile devices. This data deluge promises valuable customer and network insights if it can effectively be captured and managed.

Telkomsel turned to Hadoop to deliver on this promise, initially implementing Cloudera Enterprise to offload extract, transform, and load (ETL) operations from the data warehouse for more cost-effective data processing and faster time to realize insights across its business. Once that capability was in place, a series of other use cases were possible, one of which is reducing customer churn.

## About Cloudera

Cloudera delivers the modern platform for machine learning and advanced analytics built on the latest open source technologies. The world's leading organizations trust Cloudera to help solve their most challenging business problems by efficiently capturing, storing, processing and analyzing vast amounts of data. Learn more at [cloudera.com](http://cloudera.com).