Improve Customer Service & Satisfaction with Big Data and Machine Learning

THE PROBLEM
- Ranging from Call Detail Records (CDRs), Networking Equipment Logs, Customer Service Logs, Web Logs, Emails to Social Media, Geospatial and Weather Data, the volume and variety of data accessible to telecom operators is daunting. This poses unique challenges and opportunities for telecom operators to gather insights, improve service performance, reduce operational costs, improve customer service and increase revenues.
- These ever-larger datasets must be fully captured economically in a powerful and flexible repository, allowing for rapid advanced analysis, insights discovery, and actionable intelligence.

THE SOLUTION
- Deep analytics and insights, powered by Machine Learning running on Apache Hadoop, enable telecom operators to economically take full advantage of their growing datasets to improve service quality and customer experience, thereby reducing customer churn and overall operation costs.
- Adopting accurate and efficient strategies, based on a broad set of disparate data sources using Machine Learning, helps telecom operators to better serve their customers through pro-active customer service and improved network performance leading to reduced churn.

THE BENEFIT
- Predict, prevent and recover from operational disruptions using predictive maintenance.
- Dynamic bandwidth allocation to reduce congestion and outages.
- Improve customer experience by leveraging Social Media for better-informed customer support thereby reducing churn.
- Increase customer base with ad targeting and promotions.

Skytree Infinity is an enterprise-ready Machine Learning software platform designed from the ground up to work on massive and fast changing data sets with high efficiency. Skytree Infinity’s scalable architecture performs state-of-the-art Machine Learning methods that were previously not possible on large data sets. The fundamental design of Skytree Infinity incorporates advanced algorithms from Machine Learning research to achieve speeds that are tens of thousands of times faster than existing approaches. As a result, Skytree Infinity is well suited for complex, real time analytics on Big Data for Telecom Operators.

Hortonworks Data Platform (HDP) offers linear scale storage and compute across a wide range of access methods from batch to interactive, to real time, search and streaming. It includes a comprehensive set of capabilities across governance, integration, security and operations that are paramount for the Telecom industry. The solution based on Skytree’s Machine Learning platform is fully certified and runs natively on the latest version of HDP, providing greater integration between Machine Learning on YARN and Spark and enabling customers to implement powerful end-to-end analytic workflows from a single common platform.

TOP USE CASES FOR TELCOS
- Network Analytics
  - Network Equipment Failure Prediction
  - Network Capacity/Congestion Management
  - Usage Based Pricing Model
  - Repair and Service Optimization
- Customer Service
  - Proactive Customer Service
  - Churn Prediction and Prevention
  - Call Center Process Analytics
  - Product, Service & Offer Recommendation
  - Lead Scoring & Targeting
- Marketing
  - Multi-channel Ad Placement
  - Location Aware Insights – Ad Targeting, Loyalty Programs, Insurance Risk Scoring
- Security
  - Cyber Security – Threat Detection, Source of Attack Determination, Fraud Detection & Prevention
Improving Customer Experience While Reducing Costs
Advanced Analytics solutions leveraging Skytree Infinity and Hortonworks Data Platform can incorporate and analyze more data from a wide variety of source. Using Machine Learning to analyze data from internal data sources (CRM/ERP, CDRs, Network Equipment Logs, Customer Service Logs) and combining that with external data, (Geospatial, Social Media, Weather), enables telecom operators to predict network equipment failures and proactively address customers with high propensity to churn, thereby reducing operation costs while retaining and increasing customer base.

Deploying and Scaling Machine Learning Just Got Easier
Skytree Infinity is designed to allow you to build analytic solutions once and deploy everywhere. Whether your needs require on-premise or on-cloud deployment, Skytree Infinity allows you to leverage the latest in Machine Learning technology easily and quickly. Skytree Infinity provides an open data integration environment to connect to wide variety of structured and unstructured data sources and it is fully certified on the latest version of Hortonworks Data Platform.

For Additional Questions, Contact:

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About Skytree
Skytree™—The Machine Learning Company® is disrupting the Advanced Analytics market with a Machine Learning platform that gives organizations the power to discover deep analytic insights, predict future trends, make recommendations and reveal untapped markets and customers. Advanced Analytics is quickly becoming a strategic technology in the age of Big Data. Backed by investments from US Venture Partners, Javelin Venture Partners, Samsung, UPS and In-Q-Tel, Skytree is at the forefront with enterprise-grade Machine Learning. Skytree’s flagship product—Skytree Infinity™—is the only general purpose platform on the market, built for the highest accuracy, speed and scalability.

About Hortonworks
Hortonworks is the only 100-percent open source software provider to develop, distribute and support an Apache Hadoop platform explicitly architected, built and tested for enterprise-grade deployments. Developed by the original architects, builders and operators of Hadoop, Hortonworks stewards the core and delivers the critical services required by the enterprise to reliably and effectively run Hadoop at scale. Hortonworks’ distribution of the Hortonworks Data Platform, provides an open and stable foundation for enterprises and delivers a modern data architecture with the support of key technology partners. Hortonworks also provides unmatched technical support, training and certification programs.

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BUSINESS PROBLEMS SOLVED

Ability to Handle Very Large Volumes of Data at Machine Speed
Data can be accessed quickly through the Hortonworks Data Platform and Skytree’s scalable Machine Learning engine that gives instant access to large-scale data sets.

More Value Derived from the Big Data Infrastructure
Information is extracted quickly and accurate insights are provided without the need for complex queries by data scientists. There is no trade-off between data volume, speed / performance and accuracy.

Meaningful Insights into Data
Skytree Infinity supports several different algorithms for predictive analysis, what-if analysis, outlier detection and value prediction. The Solution of Skytree on the Hortonworks Data Platform provides higher quality insights that can help organizations drive their business to the next level.