Top Mobile Service Provider Uses Guavus to Enable New Offerings

Case Study

Industry:

Mobile Service Provider

Challenge:

The marketing team had a deadline to launch a new offer to advertising agencies.

The network team was unable to meet the marketing team's requirements due to the complexity of obtaining content analytics for such a large volume of subscribers.

Results with Guavus:

Time to Market: Leveraging Guavus' platform, the network team was able to aggregate and correlate behavioral and geographic data to meet the marketing team's deadline.

Monetization of Data: Analysis of subscriber's behaviors enabled the Service Provider to offer advertising agencies targeted customer segment information for effective ads.

90% Reduction in Data Transport and Storage: All important information is processed at the edge and then transported, while redundant information is stripped off.

4000 Terabytes of Data: Analyzed each day!

Big Data at Scale: Data from millions of subscribers is fed from regional centers to the central data lake on an hourly basis.

Malware Infiltration Identified: Erratic behavior is flagged and tracked.

With millions of subscribers nationwide, this popular Mobile Service Provider has earned its position as a market leader by providing its customers with quality service, relevant products and new offerings.

The Problem: Project Complexity Prevented Rollout of New Product

The marketing team developed a plan to offer advertising agencies target-market insights to optimize their advertising ROI. They planned to gather subscriber analytics including demographic, geographic and behavioral statistics in an anonymous format, and offer this information to current and prospective advertising customers.

However, due to the size of the network and volume of data that needed to be analyzed, the option of rolling out a deep packet inspection solution was extremely cost prohibitive and could not be done within the timeframe needed. The complexity of correlating content data with subscriber demographics and geographical location, put the marketing team's initiative beyond reach.

The Solution: Real-time Edge Analytics at a Fraction of the Cost and Time

Guavus worked with the network team to deploy a cost-effective advanced analytics solution that met the needs and timeframe of the marketing team. Millions of records per second of subscriber content data were collected in each regional site and analyzed in real-time. The redundant data was stripped off and only the pertinent information was transported to the central data center on an hourly basis, where it was enhanced with demographic information from the data lake. By analyzing the data up front rather than later, the Service Provider was able to avoid sending huge amounts of unnecessary traffic across their network and less storage was needed at the central data lake. With the aggregated data in hand, the marketing team could then create customer segments based on the needs of the advertising agencies who could in turn present their services and products to the right audience.

New Product Offering Delivered on Time and at a Fraction of the Cost

Why Guavus?

Time to Market reduction via pre-developed subscriber analytics

Unique Ability to Correlate huge data sets from millions of subscribers per day such as: traffic patterns, websites visited and standard subscriber data

Machine Learning successfully deployed at massive scale (4 petabytes per day) with the complexity of multiple site aggregation

Subscriber Analytics allow correlation of traffic patterns and subscriber details to enable previously unrevealed behavioral insights

Dramatic Reduction in Data Transport and Storage by eliminating redundant data

Real-time Analysis of streaming data enables quick decisions for network optimization

Data Lake Integration through open APIs provides comprehensive network overview and enriched profiling of subscribers' behaviors and actions

Most Flexible Architecture allows for distributed data processing without the constraints of rule-based analytics

New Marketing Offer Rolled Out on Time and Under Budget

Using state-of-the-art analytics, Guavus correlates traffic patterns, content preferences and demographic information for millions of subscribers on a daily basis. This enables the marketing team to provide advertising agencies current information on their target audience segments and continuously refine their strategic markets. The agencies can now focus their marketing efforts where the highest ROI will be generated. By forming audience segments, Guavus protects individual subscribers' information. A customer inclusion list is used to exclude subscribers that have opted out of participating in targeted marketing.

Malware Tracked through Machine Learning

Performing analytics on the subscribers' data yields an added benefit in the ability to track malware. Using Machine Learning, Guavus automatically forms baselines for typical cell phone behavior and when usage goes beyond the norm, an anomaly is detected and flagged. The security team is able to view a comprehensive dashboard allowing them to query, analyze and generate reports on subscriber activity. This has dramatically reduced the time needed to discover malware infections from days to hours.

Additionally, common problems across mobile devices are rapidly identified by correlating device and dropped call statistics, making it easy to recognize problems with particular cell phones models. Feedback is provided to the appropriate team or device manufacturer in order to correct the problems before they become widespread.

Traffic Allocated to Subscribers Accurately

Guavus also provides insights and statistics about the network usage of each subscriber. Data is collected, fused and aggregated by the compute nodes in the regional sites and is sent to the central data center. There the real-time streaming data is integrated with the data-at-rest from the data lake, providing enriched, detailed information down to the subscriber level. The network team is able to run queries and make optimizations based on traffic patterns.

New Opportunities Discovered Using the Same Analytics Platform

Although the initial scope of the project was focused on providing a new product for the marketing team, the benefits have extended well beyond that. With Guavus' Advanced Machine Learning and contextualization of data, new insights are constantly being discovered. Other departments are able to leverage the same analytics to meet their own distinct business needs and create unique opportunities in their groups.