Guavus Marketing Insight Datasheet

Today's consumers are accustomed to personalized services across multiple channels. In order to lead in an increasingly competitive communication marketplace, Comunication Service Providers (CSPs) must understand each subscriber and deliver services and content based on their preferences and intentions.

Personalized and contextualized subscriber engagement can increase revenue, improve customer retention, boost customer service and acquisition effectiveness, and grow customer advocacy. Strategic management of subscriber information is the key capability that enables CPS to go beyond behavior tracking. It empowers them to capitalize on the information required to maximize the value of each subscriber.

Guavus Marketing Insight, a key pillar of the Guavus analytics application suite, is the industry's fastest provider of subscriber-level analytics. It understands every subscriber's interest in real time to enable personalized engagement and interactions that increase customer loyalty and help grow the business. Guavus Marketing Insight incorporates behavioral, contextual and business data across data sources to form a complete view of each subscriber.

With Marketing Insight, carriers can monetize one of their most valuable assets - subscriber data.

Figure 1. Guavus Marketing Insight supports a rich set of dimension for subscriber profiling

Key benefits

- Increase conversions, click-through rates, lead generations and upsell/cross-sell by delivering personalized digital content and promotions on multiple channels
- Collect, classify, categorize and understand audience interests as well as their key use of applications, devices, networks and content
- Increase revenue by discovering new subscriber segments with shared interests
- Benefit from unrivalled scalability and performance – the fastest provider of subscriber- level analytics, with near real-time customer profiling
- Monetize data assets with third parties, turning network data into profitable Data-as-a-Service business model
- Easily integrate with existing systems through Guavus' API design, which enables operators to query data through third-party BI tools such as Tableau
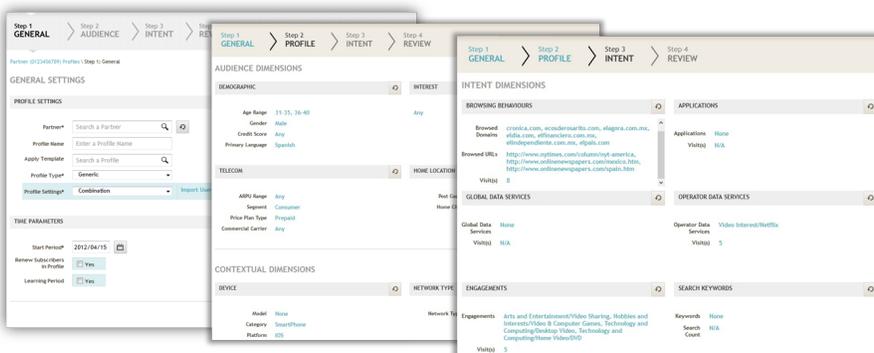
Deliver personalized digital experiences on different channels for revenue uplift

Customers interact with your brand on a variety of channels using numerous devices. In fact, the average enterprise now manages over 268 different customer-facing web and mobile experiences.[1] With so many avenues for brand exposure, the opportunity is ripe to significantly improve your bottom line with targeted promotions, offers, and content. However, most CSPs are unable to connect data from the customer journey to accurately understand user interests and intent. For instance, if a prospect sees an ad on Facebook and then visits the company's website two weeks later, they usually see content unrelated to the original ad. The experience is broken, and the opportunity lost, because the customer's past is buried in a data silo.

To provide the best digital experiences, you need to combine the art of marketing with the science of analytics.

Guavus Marketing Insight enables marketers to leverage the vast collection of data aggregated from multiple customer touchpoints to deliver personalized content and promotions that resonate with each individual customer. Guavus connects to your native and third-party systems to analyze customer data such as profile information from your CRM, geographic location, network data, clickstream data, referral URL, time of visit, transaction history, and response to content and messages. With Guavus, you can better understand the context of your customers' visits, and use that information to provide real-time personalized content.

Guavus uses advanced machine learning to create dynamic segments and tests virtually limitless combinations of copy, offers, layouts, and other factors to determine the best design in real time for each segment and context. If the user has demonstrated price sensitivity in the past, the offer will highlight a special discount. If the user showed interest in or saw an ad for a particular phone model, the website content will highlight the device. If the user visits from a mobile phone, the experience will differ from a desktop visit. This personalized, targeted marketing motion optimizes the customer experience and increases revenue.

Guavus takes the guesswork out of website and ad design. By using various digital touch points and the users to create a virtual focus group, you can significantly improve conversion rates, online sales, click-throughs, registrations, page views, and more.

Guavus Marketing Insight provides an omni-channel, omni-screen customer experience solution:

- Corporate website
- Social media
- Banner ads
- Video ads
- Search ads
- Mobile apps
- Call center

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[1] Forrester: State of Digital Experience Delivery, 2015

Provide personalized customer service

Guavus Marketing Insight gives access to services consumption patterns and leading activities/interests (350+ categories) of subscribers. This enables CSPs to understand their customers and to hold contextual and personalized communications with each individual. The tailored interactions can apply to inbound actions—for instance, during a call to customer service or while the customer is shopping on the CSP mobile portal—as well as to outbound actions such as a customer performing a certain set of acts which will trigger an SMS. The real-time personalization leads to far more effective cross-selling/upselling since the customer tends to be more receptive during a live conversation or in the immediate aftermath of an intent-filled act.

Guavus Marketing Insight profiles subscribers using carrier business data and network data, enabling the discovery of new customer segments based on customer interests and behaviors. These segments are fused with the CSP's traditional segmentation in order to better drive new business actions and upsell opportunities toward underserved audiences.

Connect Marketing and Sales for an integrated customer view

Marketing and Sales organizations typically operate in silos, and the lack of communication and information sharing between the groups often result in the loss of valuable customer intelligence. The absence of an integrated customer view means that offers are often being made to the wrong people or at the wrong time. Marketing and Sales definitely benefit from connecting their processes in order to effectively compete with OTT providers and other CSPs.

Guavus Marketing Insight enables the definition of subscriber profiles to target through a flexible, easy-to-use GUI. Customers are mapped to these profiles in real time. Web service APIs and Notification Managers are designed to integrate with the CSP's existing operational workflows.

Uncover new revenue opportunities with Data as a Service (DaaS)

In order to combat stagnating ARPU and increasing network costs, CSPs must explore new ways to generate revenue. Subscriber data represents a key asset that can be monetized through new channels, from advertising to content personalization and partners.

Guavus qualifies audience segments in near real-time through dynamic profiling. This helps marketers efficiently reach specific audiences and offer advertisers/partners one of the most accurate audience data sets available. When a

Guavus Marketing Insight collects network data to determine subscriber intent and context:

- Network location
- Device (model, manufacturer, OS, category)
- Network access type
- Browsing behavior (e.g. web domains & URLs) with number of visits
- Applications used, with number of visits
- Engagement
- Global Data Services (e.g. Usage categories like: browsing, download – music) with number of visits
- Operator Data Services (e.g. Content Interest such as CSP portal, social media apps) with number of visits
- Guavus Content Categorization following IAB taxonomy

CSP Partner has a specific profile in mind to target, Guavus Marketing Insight will monitor the entire mobile network traffic and look for selected triggers that indicate intent for specific goods and services, thus improving the conversion rates for both CSPs' and partners' marketing campaigns.

Here are a few options that illustrate how CSPs can generate new advertising revenues through partnerships:

- CSPs can bundle their existing offering to advertising and content partners for audience targeting in order to enable these partners to create profiles tailored to their personalization needs.
- Marketing Insight enables the CSP's Marketing organization to identify and sell targeted profiling data to partners looking for Audience Measurement information. Using this application, the CSP's Marketing unit can define a unique set of profiles that fits the Partner's requirements, execute the near real-time profiling process and enable the data flow within the overall operational workflow. CSPs can sell this capability as a premium to their existing offering.

Guavus Marketing Insight offers a flexible GUI that enables the CSP and its authorized partners to create ad hoc definition of subscriber profiles. It qualifies customers to the defined profiles in real time and gives partners real-time access to subscriber profiles within allowed privacy boundaries. CSPs control the profile approval workflow, the partner management and the billing settlement.

Guavus Marketing Insight DaaS framework provides a set of APIs that allows the consumer to retrieve profile information. The DaaS framework can be used internally by the CSP to integrate with OSS/BSS downstream systems. CSPs' partners can also access the profile information through the APIs.

Real world ROI examples

#1: Effective audience monetization with granular and dynamic targeting

A fast food chain turned to Guavus Marketing Insight to increase the download of their mobile app through smarter targeting. Marketing Insight created two sets of audiences to send SMS messages. The first audience was generated by the standard segmentation methodology based on static data such as age, gender, and device OS. The second audience combined this standard information with subscriber behavior information gathered dynamically by the Guavus Profiling Engine (e.g. interest for travel, online deals, local food) to achieve more precise targeting.

Four batches of messages were sent side-by-side to the two audiences. The results were striking. The audience who were targeted using Marketing Insight's dynamic profile engine downloaded 7x more apps than the audience who were targeted using the standard segmentation method. All in all, Guavus' segmentation yielded 8.0% click through rate (CTR) versus 2.3% for the standard segmentation, and a 53% CTR to download rate versus 27% for the standard audience.

Guavus Marketing Insight supports the following subscriber identity data:

- Age range
- Gender
- Credit score range
- Primary language
- ARPU range
- Segment type (e.g. Business or Consumer)
- Price plan type (e.g. Post-Paid, Prepaid)
- Commercial carrier (MVNO)
- Customer interest group (CSP's interest classification)
- Account location – postal code/ZIP
- Account location – city/state

#2: Segment and target anonymous prepaid subscribers

Like most CSPs, this provider did not have enough visibility into the demographic data of their prepaid subscriber population to segment and extend targeted offers. Marketing Insight processed DPI data to understand behavior characteristics of the prepaid base and enable subscriber-level segmentation by usage, interest, location, time of day, and more. It also integrated with the CSP's charging system for prepaid users in order to trigger targeted offers, advertising, and retention programs once customers matched key profile conditions.

#3: Leverage retail event data to monetize channels

Most CSPs' analysis of subscriber behavior is confined to a single channel. In today's multi-channel world, a lot of valuable insight is lost by this lack of integration. One CSP turned to Guavus to correlate their subscribers' retail habits with their network activity in order to identify their best commercial partners.

Guavus Marketing Insight created retail profiles during key commercial events in the country and used the resulting segments to find common characteristics. It determined the best retail partners to run targeted campaigns and advertising with, as well as the optimal social media channels to reach the audience. The CSP was able to monetize the data for these specific markets.
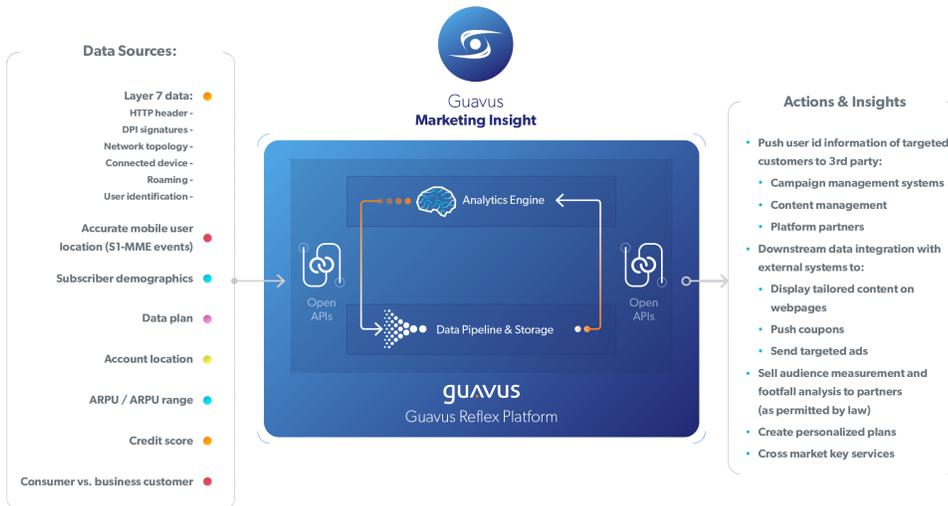
#4: Improve customer retention and increase adoption with targeted insights

In order to combat the increasing threat from OTT video providers, this CSP needed to better understand its subscribers and build effective customer retention and acquisition strategies. They sought to identify the top video OTT competitors and better grasp the performance of their own video services against the competition.

Guavus Marketing Insight used historical data to discover trends in video services adoption and profile users of each video service. It measured MoM subscriber usage trend per video service and segmented the CSP's proprietary video service subscribers as well as those of the competition. After Guavus Marketing Insight identified the key differentiating factors for each group, the CSP was able to retain more subscribers and convert their competitor's adopters.

The Guavus Marketing Insight Framework

Guavus Marketing Insight leverages the modular technology components of the Guavus Reflex big data platform which is designed to ingest, correlate and analyze high volumes of streaming and stored data in real time using a "compute-first / store-later" architecture. Guavus Marketing Insight can easily extend to more architectural components as the use cases evolve toward a true, end-to-end customer experience management solution.

Data Sources:

Layer 7 data:
HTTP header -
DPI signatures -
Network topology -
Connected device -
Roaming -
User identification -

Accurate mobile user location (S1-MME events)

Subscriber demographics

Data plan

Account location

ARPU / ARPU range

Credit score

Consumer vs. business customer

Guavus
Marketing Insight

Analytics Engine

Open APIs

Data Pipeline & Storage

Open APIs

GUAVUS
Guavus Reflex Platform

Actions & Insights

- Push user id information of targeted customers to 3rd party:
  - Campaign management systems
  - Content management
  - Platform partners
- Downstream data integration with external systems to:
  - Display tailored content on webpages
  - Push coupons
  - Send targeted ads
- Sell audience measurement and footfall analysis to partners (as permitted by law)
- Create personalized plans
- Cross market key services

The Guavus Marketing Insight module is built on top of the Guavus Reflex® platform, which powers analytics across a wide array of data domains and use cases. The modular design allows you to easily add different analytics modules as your needs evolve. For the first time, CSPs and MSOs have the ability to create holistic, cross-functional data-driven customer experience journeys. The framework's starting point is a set of common workflows, functions and data models that support the applications' use cases.

Today → **Guavus** → Tomorrow

Promote services/products to a wide segment, yielding low conversion	Increase upsell/cross-sell through customer profiling and next-best offer campaigns
Customer profiles are based on limited information	Build a 360-degree view of each subscriber by correlating network and business data
Customer segments are static and based on generic data	Increase revenue by discovering new subscriber segments with shared interests
Impersonal service and promotions annoy customers and leads to frustration	Deliver personalized subscriber engagement that improves customer retention and grows customer advocacy

Key features

- Correlation of customer experience markers with operational data
- Real-time events monitoring, behavioral classification, filtering, trending, chaining and baselining
- Geo-location mapping of events (heat map)
- Extensible batch and streaming data collection
- Behavioral analytics
- Machine learning-based anomaly detection engine
- Root issue analysis
- Prescriptive recommendations for issue resolution
- Threshold alerting for specific SLA management
- Automated feature selection for constant model tuning
- Individual entity scoring (KPI)
- Petabyte scalability
- Seamless integration with existing incident management systems
- Mediation of infrastructure, network and application layer ops events

Summary

As consumer choice has increased, CSPs must provide a superior customer experience to remain competitive both with peers and new entrants. As such, CSPs should strive to enhance their understanding of each subscriber in addition to forming the foundation for proactive and highly-focused marketing campaigns aimed at providing the right service to the right person at the right time.

Guavus Marketing Insight enables CSPs to gain a greater understanding of subscribers' interests to strengthen their competitive position against digital providers and find new revenue opportunities to overcome flat ARPU As the fastest provider of subscriber-level analytics, Guavus Marketing Insight extracts complete subscriber intelligence by linking usage, demographic, contextual and behavioral data at the individual level to increase conversion rate, drive subscriber engagement and improve adoption. Guavus Marketing Insight can help CSPs turn a negative customer experience into a positive one by proactively understanding the situation and delivering the right message or offer pre-emptively.

About Guavus

Proven at the world's most demanding customers, Guavus is at the forefront of streaming big data analytics, artificial intelligence and machine learning innovation. Guavus processes half a trillion records every day for over 450 million individuals, enabling enterprises to analyze data the instant it's captured, driving faster decision-making, lower costs and higher growth.

The Guavus Reflex® advanced analytics platform enables customers to gain a competitive edge by helping them put all their data to work to uncover new insights and make better quality and timely decisions. Guavus provides next-generation big data analytics applications for systems planning and operations, mobile traffic analytics, marketing, customer care, security and IoT.

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