

# Subscriber Engagement Engine

As the cost to deliver mobile broadband increases, operators are migrating from simple flat rate pricing strategies toward more sophisticated, personalized service offerings that rebalance pricing with consumption. Personalization by definition requires engagement with subscribers, who need a tool to view, activate, and control the specific services relevant to their needs.

As operators develop new services, they need a means to communicate their availability, to provide a means of purchase, and to provide subscribers with real-time monitoring and control. Operators must also be able to quickly determine whether a new offering is successful, and to rapidly change the offering if necessary. A platform for service innovation requires subscribers and operators to engage directly.

Openet Subscriber Engagement Engine enables operators to interact directly with mobile devices leveraging data from existing policy control and charging (PCC) infrastructure and from other network elements. The Engagement Engine enables real-time subscriber access to display customer account data (usage, spend, and remaining balances), as well as the dynamic purchase of services. Acting as a central gateway, Openet Subscriber Engagement Engine extends the integration of Policy and Charging elements to include the mobile device.

## CENTRAL GATEWAY FOR SMART DEVICE INTERACTION

Openet Subscriber Engagement Engine acts as a central gateway through which mobile devices can access information that might be scattered across many network elements. Subscriber activation and authentication is managed by the Engagement Engine by integrating with an operator's existing single sign-on server for customer selfcare. Security is maintained through a secure zone deployed behind a reverse proxy in the demilitarized zone (DMZ) with a separate zone receiving requests from the smart device.

## SIMPLE ADMINISTRATION OF PERSONALIZED SERVICE OFFERINGS

To simplify administration and configuration, the Engagement Engine incorporates a service creation layer for provisioning use cases that leverage the PCC layer. This allows the Engagement Engine to co-ordinate data provisioning across the Engagement Engine, and between the policy, charging, and subscriber profile systems. The Engagement Engine enables creation of individual tailored alerts that are delivered via an integrated notification engine. This notification engine enables subscribers to configure personalized settings for their notifications within the context of the specific notification push mechanism supported by their mobile device.

## INTELLIGENT CACHING

Openet Subscriber Engagement Engine features an intelligent high-performance, low-latency cache to cater for high throughput and to protect back-end systems. This mechanism

enables the caching of various sources of data with managed updates to enable aggregation and normalization of data from various heterogeneous sources, as well as to ensure the cache data is always up to date. This enables the Engagement Engine to provide real time data back to the subscriber front end while reducing the throughput on back end network systems.

## INTEGRATION AND ABSTRACTION LAYER

Openet Subscriber Engagement Engine features a robust integration and abstraction layer to enable the system to interact with multiple back end systems through a common internal API. This approach ensures that, as the network environment evolves, logical functions within the Engagement Engine remain constant. Standard functions include retrieval of account information, retrieval of real-time usage & account spend, creation of personal usage alerts & spend limits, purchase of add-on, and service plan updates.

The translation layer allows the Engagement Engine to interoperate seamlessly with existing Openet PCC products (Policy Manager, Convergent Charging, Network Edge Rating, Profile Manager, Balance Manager) and also allows for integration to 3rd party products. The translation layer enables PCC capabilities to be exposed directly to the user device, providing the subscriber with immediacy and control to access promotions, loyalty offers, switch tariff plans, and to set personal spend limits. The Engagement Engine is optimized for mobile device interaction to minimize the amount of transactions served to the PCC backend. This ensures that information reaches the subscriber in an efficient and performant manner without undue bandwidth or signaling requirements.

## OPENET PRODUCT SUITE

Across the globe, the world's largest and most innovative service providers rely on Openet to enable new business models, decrease operating costs, and consolidate infrastructure in converged environments.

Openet's comprehensive, integrated product portfolio delivers the highest levels of performance and scale, along with optimal configuration flexibility to support new data, content, and multimedia services. Openet integrates seamlessly on any network, ensuring high reliability and low latency while processing billions of daily transactions for the world's largest communications service providers.

## THE OPENET FRAMEWORK

### Industry Leading Flexibility and Performance

All Openet products are built upon the Openet Framework, delivering unsurpassed event and transaction processing performance at tier one carrier-grade scale combined with unlimited flexibility over system and service configuration. By leveraging a common transactional platform, Openet ensures that all products maintain industry-leading performance and scale, and allows customers that deploy multiple Openet solutions to benefit from operational efficiencies realized through a common set of administration and configuration capabilities.

## SERVICE OPTIMIZATION SOFTWARE

Openet's Service Optimization Software solutions—built upon the Openet Framework—extract maximum business value from the activity on service provider networks, activity that is continually increasing in both quantity and complexity. Our solutions accomplish this by allowing service providers to personalize and monetize services, and gain both visibility into, and control over service usage and network resources.

## Make the Most of Every Network and Customer

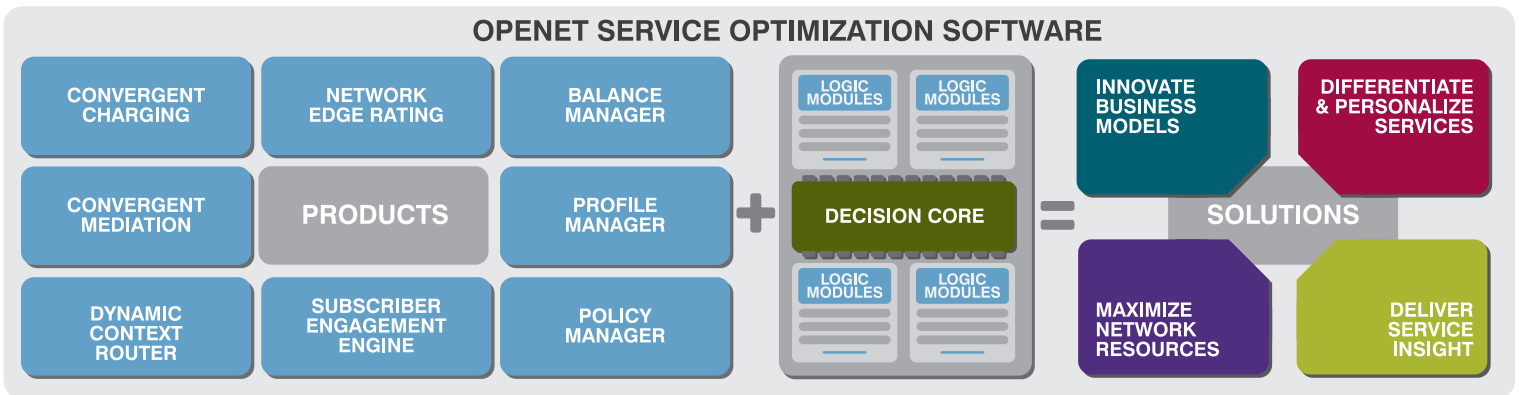
With Service Optimization Software, your organization can deploy new business models to increase revenue, streamline operations to lower costs, and gain greater customer insight—all by managing the activity and transactions produced by your network. As a result, you can introduce new services, pricing models, and promotions with greater customer focus to better improve adoption and grow average revenue per user (ARPU). What's more, you can do so more cost-effectively, more quickly, and more profitably than ever before.

## A PROVEN FOCUS ON THE NETWORK EDGE.

Unlike many providers that support broad, bundled software suites, Openet remains strongly focused on network-edge solutions that extract increased business value from network activity. Combining highly specialized Solution Delivery engagements with our industry-leading event-processing and transaction management software platform, Openet enables today's service providers to rapidly introduce new services, while cost-effectively managing services already in market.

## A PARTNER TO LEADING SERVICE PROVIDERS WORLDWIDE.

Openet implementations include long-running engagements with the world's leading service providers, including Verizon, AT&T, BT, and Orange.



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