



Advanced Data Services

Lead the market with innovative, intelligent, feature-rich data services

BENEFITS OF SANDVINE'S ADVANCED DATA SERVICES:

By choosing Sandvine to power your advanced data service offerings, operators have access to a comprehensive policy and charging solution portfolio, and can reap the following market benefits:

- Attract new customers with services that stand out in the market and retain these customers with value added service offerings.
- Launch new services faster than the competition to take advantage of short-term opportunities and to respond to competitive threats
- Launch market-leading services that differentiate with value and not price
- Micro-target specific user demographics with lower cost of entry for new services that may have a small audience, but create valuable stickiness and increased ARPU.

MARKET OVERVIEW

Acquiring users and retaining them can be the toughest part of running and monetizing a network. In this new consumer landscape, it is critical for network operators to understand how user application usage behaviors are changing. With user and device counts skyrocketing, increasingly diverse usage profiles, and longer usage sessions consuming greater bandwidth, network planning will only become more challenging. Current engineering models used by network operators to forecast network capacity will quickly become obsolete, negatively impacting the user's quality of experience (QoE) leading to an increase in churn, and making price differentiation the sole deciding factor for subscribers.

Service differentiation, regardless of market or access technology, is key to tackling user acquisition and retention. Network operators must respond to these changes in behavior by creating service plans that are consistent with a subscriber's application usage profile. This can be accomplished by creating user policies that go beyond one-dimensional data volume- or bandwidth-limited service plans that simply assume all users have the same application usage needs and/or desires. Implementing a granular policy creation and enforcement solution that can determine in real time the applications in use, the location of the user, the day and time, and the device is a key differentiation opportunity for operators. These policies then directly map to personalized services offered by network operators to cost-effectively optimize the user's experience, shifting current network services from inefficient, user-blind services to intelligent, user-aware plans.

But service differentiation is only the first step; to truly dominate the market, services need to be launched with speed and agility in response to – or in anticipation of – competitive threats and market opportunities. By launching services that address real needs in the market and providing personalized plans for users, there is no longer a need to rely on price to stay relevant and competitive in the market. Instead it creates a real value proposition, which can justify premium pricing, opportunities to up sell, and ultimately, the ability to offer more for more.

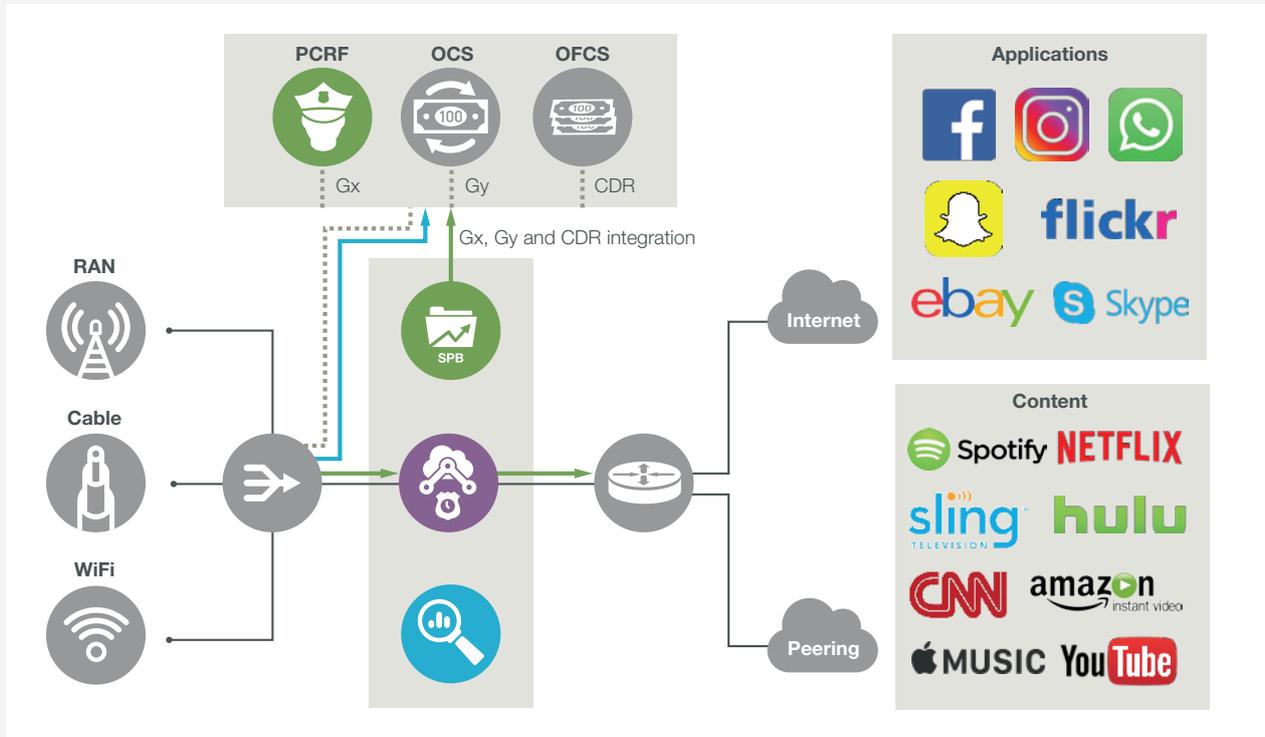
SOLUTION OVERVIEW

Sandvine's Advanced Data Services solution is built on a standards-compliant, access-agnostic, complete 3GPP PCC platform, with integrated PCRF and PCEF/TDF functions. Sandvine's solution is built on our best-in-breed application identification combined with subscriber enrichment to power PCC use cases.



Figure 1

Sandvine's policy and charging architecture



Sandvine's products have been deployed in some of the largest networks in the world to monitor, manage, and monetize traffic while delivering industry-leading scalability

Operators implementing advanced data services are looking to differentiate their offerings from their competitors, and meet their users' needs and desires to maximize capture. When defining their service offerings, they want to understand:

- How can advanced data services be implemented to offer a wide range of personalized services?
- What is the right approach to transitioning from simple usage-based service pricing to value-based pricing?
- How do personalized services increase Average Revenue Per User (ARPU)?

Sandvine's Advanced Data Services provides the flexibility needed to deploy attractive and innovative plans in as little as weeks. Use the following building blocks, individually or in combination, to create highly differentiated offerings:

Prepaid or Postpaid Plans

For prepaid customers, plans that offer choice, flexibility, and cost certainty are the ones that have a higher adoption and retention rate in the market. Users in emerging markets are often deterred from using data because of confusing terms like megabytes and gigabytes, and often only use their device on Wi-Fi. When catering to postpaid users, the same approach applies, as they are also concerned with consumption and bill shock, and are seeking cost certainty.

Sandvine's solutions enable you to take the guesswork out of pay-as-you-go and postpaid plans for your users. Service plans are built by discrete events, volume, time, application, device, or any combination of these to make it simple for customers to consume and manage their data.



Subscriber-centric policies can also be used in combination, enabling hundreds of personalized service plans and features

Shared Data Plans

With Sandvine, go beyond the typical family plans with multi-device or multi-radio plans that are attractive to high-ARPU families with multiple devices. The addition of data usage management is extremely attractive for parents with children who are heavy users and eliminates bill shock-related churn with shared data plans. Through the use of Sandvine's APIs, operators can give account owners the ability to manage consumption for individual devices and users within their shared data plan through a self-service web portal, giving control to the account owner and ensuring cost certainty for each billing period.

Tiered Plans

One size does not fit all when it comes to plans. Consumers have different needs, different user behavior, and – ultimately – different budgets. Instead of offering universal plans, create value and a feeling of personalization with tiered plans that group data and other services together in incremental levels. Those network operators who have successfully introduced tiered plans leveraged Sandvine's insights to understand subscriber behavior and based plans on major groups of users. For consumers, tiered plans gives them the choice and freedom to select a plan that fits their financial and usage needs; plus, it gives them the price certainty that they require in order to remain satisfied with their service.

Data Rollover

Data rollover allows users to “bank” unused data within a quota period and carry it forward until needed. When users have the option to bank data indefinitely, it creates stickiness as users fear losing their “saved” data, and therefore a great way to create loyalty and increase retention for long term users. Sandvine enables operators to be creative with data rollover features, especially when combining it with application-specific buckets - i.e. video, social networking, streaming audio - where users value a specific application within their plan.

Location-Based Services

Offer value-added services to users based on popular locations, such as stadiums, airports, and other modes of transportation, or home zone-based plans for fixed-mobile substitution where your network has excess capacity.

Time-of-Day Charging

Create plans and special promotions at different times of the day. An effective strategy to reach those in developing markets is to offer differentiated pricing, lower than the usual rate, for off-peak network periods to encourage time-shifted usage for downloads.

When network operators choose Sandvine to deliver their Advanced Data Services, they receive the following:

- Industry-leading application identification for thousands of applications and protocols, including encrypted applications that cannot be accurately identified by fixed and mobile gateway systems with the assurance required for zero-rated services
- Combined PCRF and PCEF capabilities within the solution portfolio that can dramatically speed up service launches and simplify the integration required for new service creation
- Sandvine's Analytics portfolio drives closed-loop service creation by identifying potential revenue generation opportunities, enabling the creation of service plans to capitalize on the insights and enforcement of the service plans in the network.
- Service creation flexibility for a large menu of micro-targeted services that can be launched from the same platform to reduce the cost of incremental service offerings and increase the target addressable market.



v20180705

ABOUT SANDVINE

Sandvine helps organizations run world-class networks with Active Network Intelligence, leveraging machine learning analytics and closed-loop automation to identify and adapt to network behavior in real-time. With Sandvine, organizations have the power of a highly automated platform from a single vendor that delivers a deep understanding of their network data to drive faster, better decisions. For more information, visit sandvine.com or follow Sandvine on Twitter at [@Sandvine](https://twitter.com/Sandvine).



USA
47448 Fremont Blvd,
Fremont,
CA 94538,
USA
T. +1 510.230.2777

EUROPE
Birger Svenssons
Väg 28D
432 40 Varberg,
Sweden
T. +46 340.48 38 00

CANADA
408 Albert Street,
Waterloo,
Ontario N2L 3V3,
Canada
T. +1 519.880.2600

ASIA
RMZ Ecoworld,
Building-1, Ground Floor,
East Wing Devarabeesanahalli,
Bellandur, Outer Ring Road,
Bangalore 560103, India
T. +91 80677.43333