



Zero-Rating and Application-Based Plans



Sandvine's network intelligence and service innovation capabilities allow

operators to take part in the 5G service value chain, including partnering with content providers (e.g., cloud gaming), offering bundled services, or sponsored data.

BEST PRACTICES FOR ZERO-RATING AND APPLICATION-BASED PLANS

- To comply with various net neutrality regulations, offer unlimited use of categories of applications versus individual applications
- Operator-owned services should only be zero-rated if all other services in its class are also identically zero-rated
- Zero-rated traffic should not be prioritized in the network beyond reasonable network management
- Network operators should not be compensated by the content/application provider
- Offer three different packages: social networking, music, or video streaming, at various tiered prices based on bandwidth consumption

Create value, increase revenue, and enhance customer experience with unlimited usage of popular applications

MARKET OVERVIEW

Applications, specifically social networking, continue to be a dominant internet phenomenon as consumers' daily reliance increases. Staying connected is so important that social networking and messaging applications are in the top 10 of the Global Internet Phenomena Report – for every region.

For operators, the financial pressure to increase profitability and further monetize the network continues to build, even in the era where the average revenue per user (ARPU) continues to decline. To combat this need for additional revenue, some operators offered unlimited plans to justify a higher price point, without adding further value to their offerings.

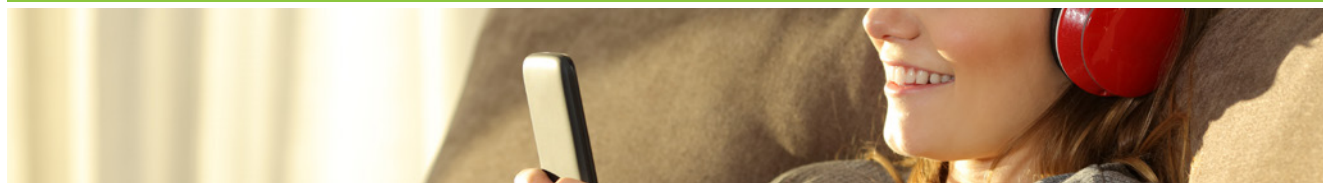
However, the challenges of unlimited plans have become evident. Firstly, ARPU is still declining for operators when the only way to stay competitive in an unlimited market is to lower the price. Secondly, usage tends to increase drastically with uncapped plans, meaning the cost of expanding the network capacity also increases for the operator. Finally, unlimited plans push all users into the same bucket without segmenting them, leaving no room for service creativity and personalization. Despite the fact that most consumers desire more data and the sense of being unlimited, operators around the world are starting to move away from uncapped models.

By segmenting consumers through their usage behavior and the applications they deem as important, operators can launch personalized plans with unlimited usage of those applications to add value and improve customer retention. This consumer mindset creates an ideal opportunity to create plans based on value and personalization, and not be reliant on price to achieve key business goals such as:

- Market differentiation
- Increased customer satisfaction and retention
- New and increased revenue streams

There is no need to wait for 5G as this value-based service differentiation strategy can also be employed today by those operators who are moving away from unlimited plans or who have a large, low-ARPU user base.

From a tactical perspective, zero-rating is one of the most powerful tools in the policy and charging belts of network operators. Zero-rated services are a game changer in a volume-based market, where it sits on top of the base quota of a plan to add more value for users.



Zero-Rating and Application-Based Plans offer operators market differentiation while increasing the value offered to users

Zero-rating can be used in isolation or on top of the Usage-Based Services use case, with a base quota and several advanced options to bring more value to the end user and differentiate from competitors (see [Usage-Based Services solution brief](#) for more details).

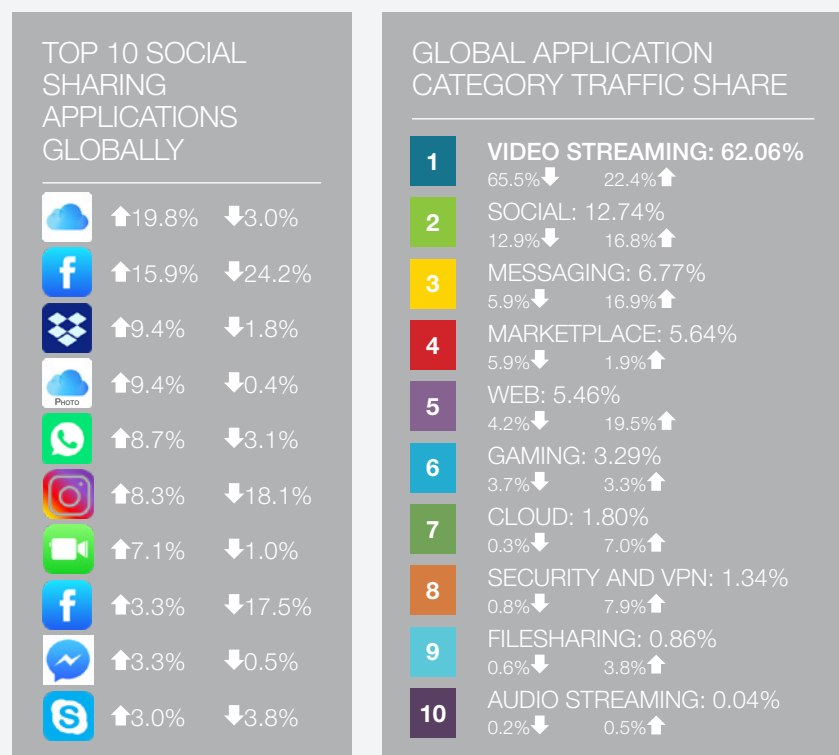
One of the most common and interesting uses of zero-rating is its role in delivering application-based plans. Typically, application-based plans have differentiated pricing for unlimited use of an application or a group of similar applications, and are usually a bolt-on or add-on to a base plan that has a separate bucket of quota.

Application-based plans can also be used to increase ARPU from low-end consumers, characterized by limited budget and data needs, as it gives them the ability to purchase plans that limit use to a specific application. Often, this initial plan acts as an introductory step to larger plans, because the cost and simplicity aren't barriers to initial data-based plans.

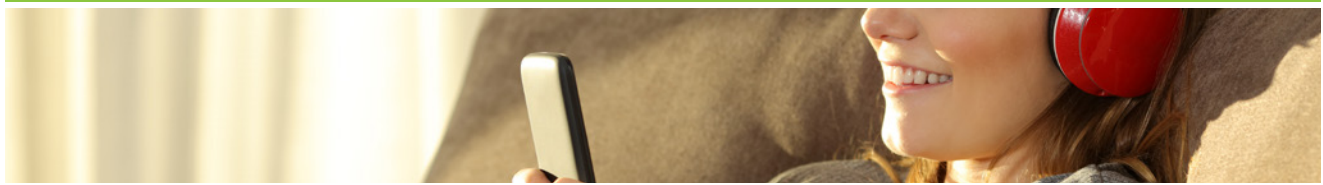
As shown in the Internet Phenomena Reports, the use of OTT-applications is still increasing year over year and, social sharing, video streaming, and gaming are on top of the list.

Figure 1

Both Social Media and Messaging are Social Sharing components. In the 2020 Mobile Internet Phenomena Report, they are at the top of the global traffic share – beaten only by video streaming



Social media has become incredibly important in everyday life and is therefore the most zero-rated application group in the world. Due to lower risk in terms of bandwidth and a high popularity by users worldwide, social media will continue to be a good starting point for operators who desire to offer more value for users through application-based plans. In this digital-age, an unanticipated application can go viral overnight, creating a profitable opportunity to offer unlimited usage for operators who can respond with agility and a fast time-to-market.



Identify the best applications for zero-rating – high-value, low bandwidth

SOLUTION OVERVIEW

Zero-Rating and Application-Based Plans leverages Sandvine's industry leading capability to identify traffic. Specifically, Sandvine offers an unparalleled level of accuracy and granularity when identifying applications or categories of applications; these are highly important factors for successful deployments of any policy requiring traffic identification.

From a signature perspective, Sandvine boasts a large, frequently updated library with significantly more signatures than competing solutions. More importantly, the applications used for zero-rating are tracked closely by Sandvine's ANI Classification Engine (ACE) to ensure accurate classification for billing purposes. The unique and leading traffic identification technique Sandvine uses includes leveraging OTT providers' APIs to enhance the identification and minimize billing errors.

Sandvine's Zero-Rating and Application-Based Plans Key Capabilities:

Prioritized Quality of Service

Where net neutrality allows, some service plans may offer to prioritize a specific type of application during times of congestion for a subscriber. With these plans, when a subscriber is given a "fair use" allowance during times of congestion, ActiveLogic can prioritize that specific application type (video, social networking, etc.) to enhance quality of experience even during peak usage times.

Powerful Insights into Usage Patterns

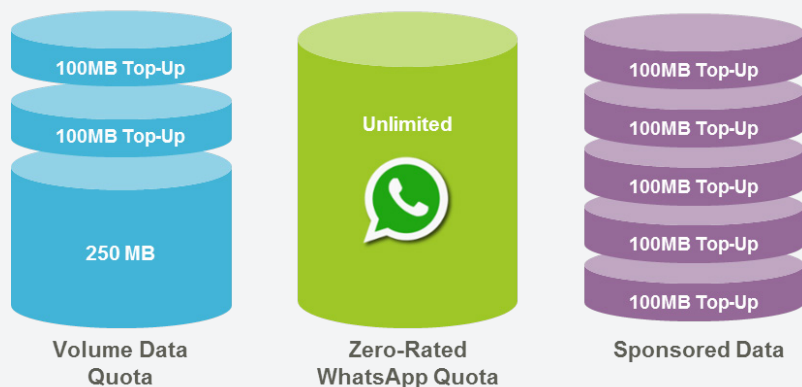
Sandvine's Analytics provides insightful and actionable data on user behavior and application usage to offer plans that balance demand with bandwidth. To ensure profitability, Sandvine helps find the "sweet spot" of applications to zero-rate; those that are widely used, but aren't bandwidth intensive are considered a low risk for the operator but still add value for the end user. In today's video-centric networks, some operators launch service plans that contain zero-rated video streaming (even if the bandwidth requirements are higher). With Sandvine's Video Streaming Management solution, operators can manage bandwidth-hungry services while offering a high-demand service to their users.

Roaming Opportunities

On top of application-specific offerings, operators can choose to zero-rate roaming traffic, either in association with a specific application category or all together. By monetizing the increase in international travel, operators can avoid unsatisfied users and break into new segments with global businesses and international workers.

Figure 2

Sandvine's Quota Manager can manage multiple quotas and the complexity of counting sponsored data traffic





The ANI Classification Engine ensures accurate classification of the zero-rated traffic for billing purposes



Sponsored Opportunities

An alternative strategy to maintain profitability and a positive market position is through sponsored opportunities. Sandvine's Quota Manager (**Figure 2**) manages concurrent quotas and the complexity of different billing entities inside the same network landscape. With the sponsored opportunities, accountability gets transferred to a third-party who pays for the data on behalf of the user.

With Sandvine, third-party sponsors, especially advertisers and businesses, gain access to a new promotional channel and a large, well-defined audience that can be micro-segmented to fit campaign needs. While users benefit from free data and promotional offerings, operators redeem the revenue from the third-party sponsor and enjoy beneficial co-branding opportunities.

Fast and Flexible Plan Creation

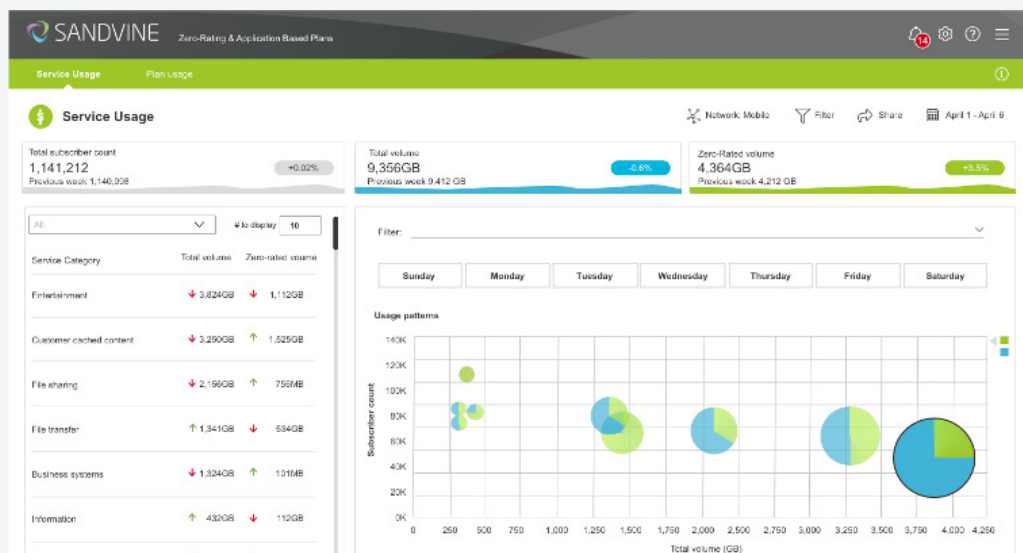
Sandvine's policy and charging capabilities allow for fast plan creation, where new plans can be rolled out for prepaid or postpaid customers in as little as a few weeks, which can be critical as new applications can take off and have short-lived time in the market. When it comes to policy and charging, Sandvine closes the loop by matching the same granularity of traffic identification with granularity of plans, without complexity or slow time to market. With the power of zero-rating, consumers get a personalized experience with the price-certainty they demand, and operators therefore increase revenue and customer retention.

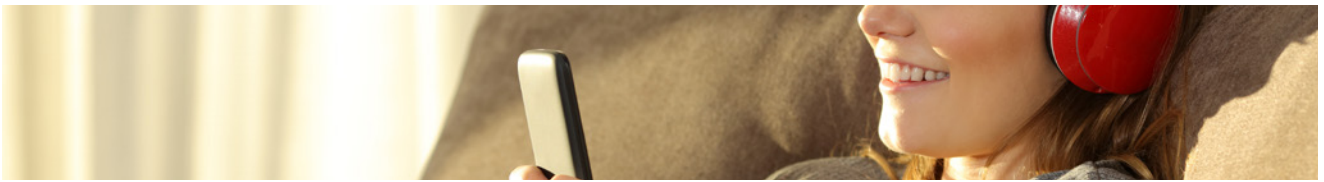
Visualization for Success

The starting block for any zero-rating activity is understanding and segmenting users based on their service and application usage. Once a service is launched, it is critical to track the adaptation and success rate as well as the impact on network resources. With Sandvine's Active Network Intelligence Portal, a dashboard shows the usage trends through every day of the week, including peak hours and the network capacity used. Operators can drill down to see the specific applications gaining the most traction and when, as well as what plans are most successful, what devices are being used, and how much data is consumed.

Figure 3

When implementing Zero-rating, keeping track of success-rate, such as service plan adoption and usage, is important to keep delivering high quality services.





Zero-Rating and Application-Based plans provides operators the visibility required to monetize the highly valuable phenomena areas through innovative service plans, and stay differentiated in a highly competitive market.

ABOUT SANDVINE

Sandvine's market-leading, cloudified Service Innovation and Intelligence portfolio helps customers deliver exceptional digital experiences and grow revenues. Our ability to classify over 95% of network traffic across mobile and fixed networks by user, application, device, location and other parameters creates uniquely rich, real-time network and service data. We then apply machine learning-based contextual insights to improve performance and enhance digital services. For more information, visit <http://www.sandvine.com> or follow Sandvine on Twitter @Sandvine.



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