App QoE
Use Cases
for Fixed, Cable, Mobile, and
Satellite Network Operators

AppLogic
NETWORKS

Analyze

Sandvine's Analyze Use Cases encompass all that you do when it comes to saving or making money on your network serving as the foundation for all Optimize and Monetize Use Cases. Our Analyze solutions are built off of the industry's most accurate application data and machine learning-powered application classification of more than 95% of Internet traffic – per subscriber, per service – across 2500+ applications and a growing library of 5000+ signatures. We actively test more than 122 applications daily, and update classification logic every week.

Sandvine's Analyze Use Cases combine so you can tackle:

Capacity Planning
Data-driven decisions for right-time coverage, capacity and quality.

Operations and Customer Service
Troubleshoot faster with automated network diagnostics and network performance monitoring that will help you improve customer satisfaction, reduce churn, and reduce OPEX.

Performance and Optimization
Get ROI on your investments by grasping what's driving congestion and implementing and enforcing fair-usage so that the best App Quality of Experience (QoE) is delivered to the most customers. Also, improve fraud detection and security.

Service Creation
Finding new ways to monetize or create new revenue streams based on the insights that only an application-centric view can provide. Protecting your subscribers from any fraud while proactively identifying misuse in your network.

Optimize

Sandvine's Optimize Use Cases are all about bringing your investment power back into your pockets. This is based on an inline solution that provides a new approach to network optimization while maintain your customer's QoE and staying compliant to regulatory standards. Leveraging the industry's best classification and most granular App QoE scoring your ability to control what is on your network during times of congestion will allow you to save months if not years of CAPEX investments in the way of CAPEX deferrals, capacity management, and OPEX savings.

Sandvine's Optimize Use Cases combine so you can tackle:

Manage Heavy Users
Sandvine's App-QoE-centric solutions can help solve heavy usage issues. These users are carefully managed so their impact on the network and on other users is controlled, reasonable, and fair.

Ensure Fair Usage
Sandvine's App QoE centric solutions take the customer's point of view. As a result this offers the industry's most precise congestion management solution, and enables network operators to balance the traffic and distribute network capacity fairly between users to ensure maximum delivered QoE.

Tame Network Congestion
With Sandvine's App QoE-driven use cases, operators can achieve balance between two competing factors – reduced CAPEX/OPEX and good QoE – for the major cause of congestion: volume.

Ensure Optimal Video Delivery
Sandvine App QoE-centric enforcement intelligently rates limits on a per-stream basis, ensuring fairness and reducing the average bitrate per stream without compromising quality. More advanced approaches are possible as well, incorporating real-time congestion awareness, service plans, device types, and other factors for extremely precise optimization.

Monetize

Sandvine's Monetize Use Cases are all about creating new revenue streams, preventing fraud and strengthening your connection with your customers. This is based on an inline solution that provides a new approach to network billing, revenue protection, and personalization while ensuring that your customer's best interest is your top priority with premium quality of experience, and revenue assurance.

Leveraging the industry's best classification and most granular App QoE scoring your ability to truly understand your customer has never been this accurate or telling. This in turn will allow you to set controls in place, to secure how you charge your customers, protect your network from unwanted traffic, keeping your subscribers safe, and creating new services to align with their behaviors and preferences.

Sandvine's Monetize Use Cases combine so you can:

Accurately Charge for Usage
Launch plans with limitless service creativity, improve ARPU, and offer more value to users by deploying Usage-Based Services. With Sandvine's Quota Manager, operators can add advanced options to create further differentiated service offerings, with the industry's lowest TCO.

Enable Parental Controls
Sandvine's Parental Control is a highly personalized, differentiated network-based Use Case that can generate revenue and deliver "good citizen" branding for operators. As a network-based approach, it goes beyond basic URL filtering; it also delivers application and time-of-day control for a more effective offering.

Prevent Video and Bypass Fraud
Sandvine's leading traffic classification technology – backed by domain experts conducting active research – provides network operators with the insight needed to make informed strategic decisions relating to video, television, and voice fraud.

Manage and Charge for IOT Traffic
Operators that use Sandvine's Zero-Rating and Application-Based Plans use case benefit from highly differentiated service offerings that improve ARPU, enhance brand loyalty and Net Promoter Score advocacy, and deliver a personalized customer experience. With Sandvine, operators can quickly capitalize on popular services and internet phenomena by creating and launching with in-demand applications before the competition.

Use Case Index

Analyze Use Cases
Take the guesswork out of network and service management with QoE-centric application and network intelligence.

Optimize Use Cases
Run a more efficient network with inline intelligence-based traffic management that extends infrastructure lifetime, complies with regulations, and delivers high application QoE.

Monetize Use Cases:
Grow revenue by rapidly deploying innovative services and protecting against fraudulent activity with Sandvine's usage and application-based charging capabilities.

5G Adoption Analysis

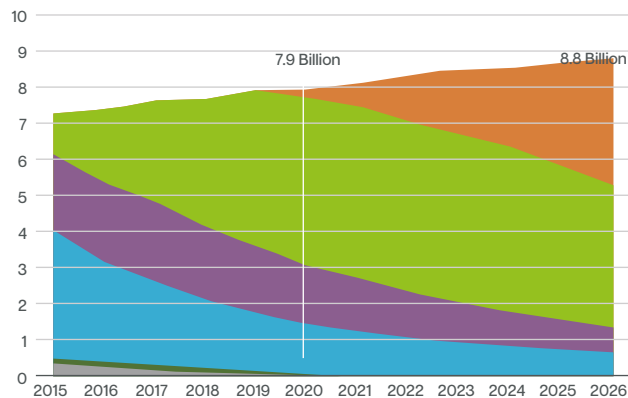## Track 5G uptake for seamless transition to 5G networks

BACKGROUND

Transitioning to a 5G standalone network, whether FWA or mobile, is a complex and expensive undertaking, one that needs to be handled with clarity to prevent poor customer experiences and recoup costs.

The complexity is largely driven by the multiple phases it takes to make the transition from 4G to a single core 5G network and the need to concurrently support previous and current technology generations.

From the perspective of profitability, the focus needs to be on meeting consumers' high expectations related to the performance and reliability of 5G networks to be able to monetize it. Performance can be largely compromised when investment is not made in a timely or impactful manner i.e., not building out heavily populated locations fast enough.

For operators to make sound decisions on how and when to take steps in their 5G journey, they need to be answer key questions, such as 5G-capable device adoption and subscriber penetration.

SOLUTION

Sandvine's 5G Adoption Analysis use case provides a quick but comprehensive snapshot and scorecard on the progress of 5G NSA and SA investments by looking at the overall network and each radio access type connecting to the core network. It offers a single dashboard to track the transition from older access technologies to the newer ones as they happen. It also gives insight into how well applications are performing based on QoE scoring, which is a good indicator on how customers are perceiving the network.

IMPACT AND RESULTS

5G Adoption Analysis takes away the guesswork for operators as they progress through the various stages in the 5G journey. They are armed with insights from Sandvine's intelligence to invest, build, and operate profitable and valuable 5G networks.

BENEFITS

- Differentiate and compare 5G-connected subscribers with subscribers connected via other access technologies like 4G
- Get a view into different stages of 5G transition to help facilitate the journey
- Ensure 4G/5G-NSA/5G-SA service continuity

3.5bn

Forecast 5G subscriptions

- 5G
- LTE (4G)
- WCDMA/HSPA (3G)
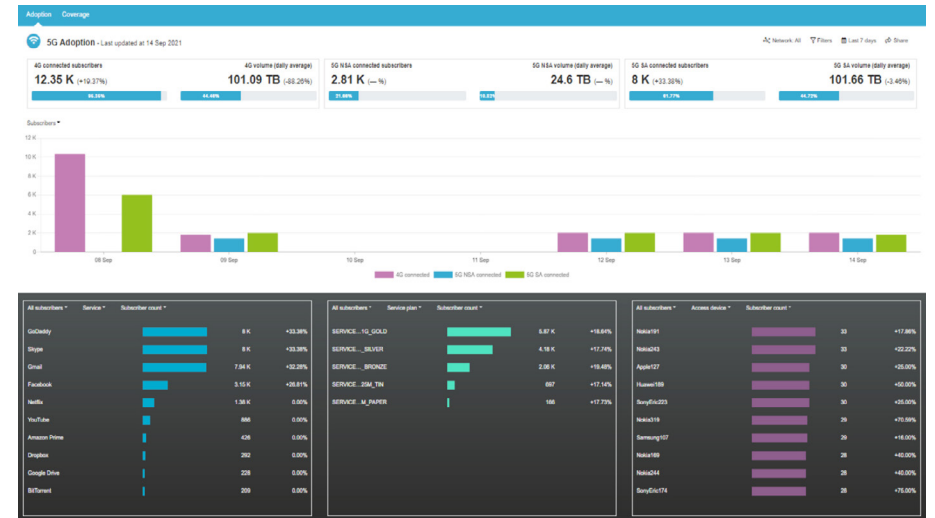- GSM/EDGE-only (2G)
- TD-SCDMA (3G)
- CDMA-only (2G/3G)

Note: IoT connections are not included in this graph. Fixed wireless access (FWA) connections are included.

Mobile Subscriptions by Technology

Click here

to learn more about our
5G Adoption Analysis use case

Capacity Planning Analysis

Plan capacity expansion, coverage extension, and CDN investments

BACKGROUND

Capital expenditure burdens on operators remain significant as customer demand for data and data-heavy services constantly increases, and network operators have to plan and expand capacity. But the solution is more than simply rolling out 'fatter' pipes; today's networks are a complex mix of traditional network elements, caches, and content delivery networks, making it difficult (and expensive) for operators to adapt existing infrastructure.

To make informed decisions about capacity planning and network engineering, today's network operators need more than basic volume projections – they need the deepest possible insight into usage trends.

BENEFITS
- Enhance quality to retain users
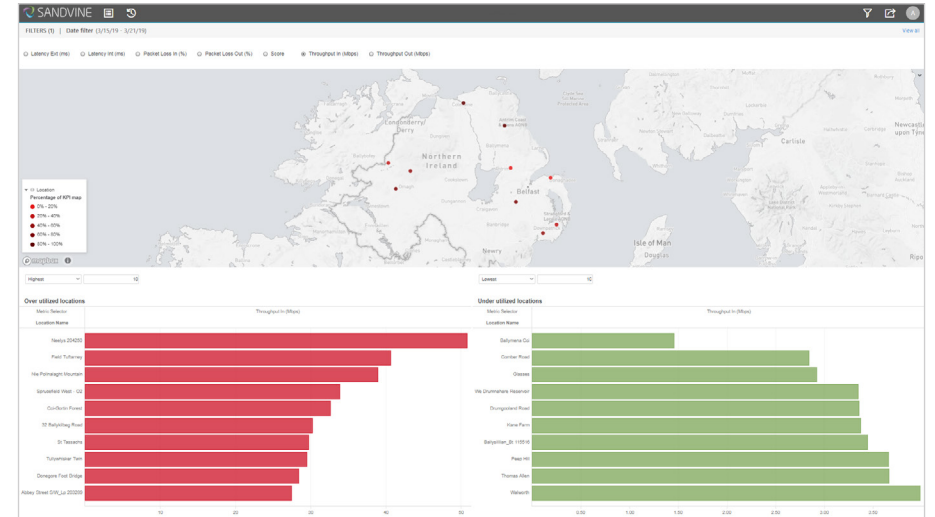- Maximize CAPEX ROI by identifying hotspots and root cause

Understand the impact of applications on each individual network asset/location

SOLUTION

Sandvine provides unmatched visibility into network traffic and trends, from comprehensive measurements to advanced QoE metrics, with granular application visibility, user visibility, and network topology/hierarchy awareness. This is driven by its industry leading App QoE-centric solutions that give operators planning insights based on their subscriber's point of view. This approach is seen as a breath of fresh air as most decision-making revolved around network metrics such as throughput.

By aggregating and analyzing this information – whether in Sandvine's Analytics interfaces or a big data system – operators can make truly informed network architecture and engineering decisions.

Sandvine's Capacity Planning Analysis overview provides a location-based view of network performance to identify performance and quality hotspots that need investigation and/or investment

IMPACT AND RESULTS

With the insight provided by Sandvine's App QoE-based solutions, network operators design and benefit from an optimized network, and know exactly how to spend every unit of capital to deliver a maximum positive impact and ROI.

Capacity Planning Analysis also provides more visibility into how subscribers are using the network, allowing operators to plan their network strategy for both short- and long-term needs.

Click here

to learn more about our Capacity Planning Analysis use case

Video QoE Analysis

Analyze user perception of video performance based on video-centric QoE metrics

BACKGROUND

After the sheer volume of video traffic, encryption is the second biggest challenge facing operators when it comes to video.

Thanks to encryption, operators are losing visibility on the once informative video metadata, which many solutions relied on to identify video provider, codec, and video type. Unlike other services, which are also plagued by the effects of encryption, video is held in higher regard in the eyes of consumers – one of the most important KPIs. As video quality of experience is closely correlated to churn and overall customer satisfaction, operators need true insight into how all types of video is performing on their network, in spite of the internet going dark.

To truly understand video performance, operators need a solution that accurately detects and analyzes video streams, monitors the network's capacity to deliver an ever-increasing amount of video, and understands end user video quality perception. It is also imperative to have a holistic view of network video trends: the top video applications/services, the content delivery network (CDNs) delivering video content, and end user QoE.

BENEFITS
- Improve CAPEX spend to meet the demand for video and understand subscriber churn
- Increase visibility into video consumption, delivery, and experience for competitive differentiation

Video-first economy for business and entertainment

SOLUTION

Sandvine's App QoE-centric approach has a dedicated scoring mechanism called Video QoE. Sandvine's Video QoE Analysis delivers powerful, actionable video insights, which includes encrypted video traffic.

At a per-flow level, this solution scores video QoE by combining existing KPIs (e.g., throughput, packet loss, latency, and jitter) with video-centric quality indicators: streaming health (likelihood of video stalls), video resolution, video application, and video engagement. This combination of KPIs give operators the perceived performance quality. Additionally, the ANI Portal also gives operators visibility to understand video usage and network locations, and the ability to dive deep to see video trends and outliers.

IMPACT AND RESULTS

Network operators who implement Sandvine's video-centric analytics use case benefit from visibility into: encrypted video QoE, the root causes of poor QoE, CDN/cache efficacy, and the impact poor video QoE has on churn rates.

Usage overview shows video traffic, reporting on subscriber count and volume, broken out by resolution, video service, location, and device

Click here

to learn more about our Video QoE Analysis use case

Fair Usage and
Congestion Management

Precisely manage congestion, extend infrastructure
lifecycle, and protect QoE

BACKGROUND
Congestion has always been a high-priority network issue, and congestion management continues to be very important for operators worldwide. Network congestion leads to frustrated users and, in the long-term, frequent congestion leads to churn. The underlying congestion problem is that all access network resources have a finite capacity, and demand can exceed that capacity, especially during peak times.

Congestion management achieves cost-savings by pulling more utility from the existing network, while preserving service quality. These dual objectives are often contradictory, and a careful balance must be struck. Achieving this balance requires a complete congestion management solution, which has a mechanism to recognize congestion and trigger the appropriate policy that only impacts the exact part of the network or traffic.

With an ever-changing regulatory environment, operators require a flexible solution that adapts and remains compliant with changes in policy.

BENEFITS
• Reduce CAPEX
• Improve subscriber QoE
• Offer differentiated, tiered service plans

SOLUTION
Sandvine's App QoE centric solutions take the customer's point of view. As a result this offers the industry's most precise congestion management solution, and enables network operators to balance the traffic and distribute network capacity fairly between users to ensure maximum delivered QoE.

A real-time feedback loop measures the QoE at each location in the network; if resource congestion threatens QoE, then precise management policies take action. The solution is also optimized for each type of network access technology, and operates in conjunction with network neutrality traffic management principles. More than that, it can be used for peering and wholesale links, making them more efficient and therefore conserving costs.

IMPACT AND RESULTS
With Sandvine's App QoE-driven Fair Usage and Congestion Management use case, operators can achieve balance between two competing factors – reduced CAPEX/OPEX and good QoE – for the major cause of congestion: volume.

Operators gain critical insight, highly granular data, and contextual awareness to take action in real-time with precision and control, regardless of access network. It also gives them the flexibility needed to adhere to changing regulations, which often call for a very specific set of actions to manage congestion, while maintaining fair access for all users.
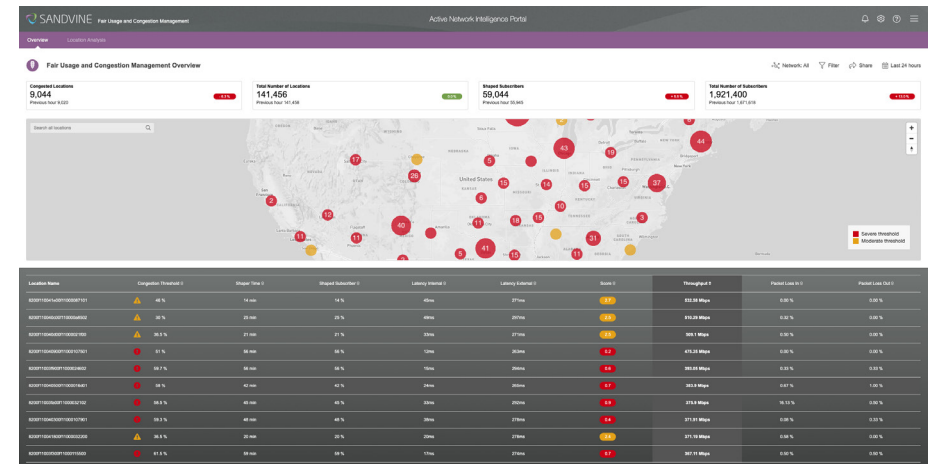
The Fair Usage and Congestion Management dashboard visualizes congested areas, including the number of suffering subscribers, and shows the change in bandwidth and QoE after the policy is enabled

Click here

to learn more about our Fair Usage and Congestion Management use case

Video Streaming Management

Manage video bandwidth resolutions and deliver consistent streaming experiences

BENEFITS
- Reduce CAPEX
- Improve QoE for video and other high-priority services, reducing customer support calls and churn
- Gain service differentiation through unique offerings that include self-optimization for users and premium or unlimited video plans

Deliver the best video QoE with the least amount of bandwidth

BACKGROUND

Video streaming continues to account for a large portion of total global internet traffic and shows no signs of slowing down in the coming years, with widely adopted 4K, 8K on the horizon, and the entry of more content providers to the market bringing more content and choice for viewers.

Aside from more content, the continued proliferation of unlimited mobile data plans is also making it even easier for users to consume more bandwidth. These two factors add to the already challenging task of running networks, where cost-savings and QoE compete for equal footing as bandwidth consumption continues to rise.

There are opportunities for operators to benefit from video streaming; however, they need a solution not only to accurately identify all streaming services, but also to manage the diverse behavior and bandwidth requirements for optimal QoE for video and other high-priority services, especially during congestion periods.

SOLUTION

Sandvine App QoE-centric enforcement intelligently rates limits on a per-stream basis, ensuring fairness and reducing the average bitrate per stream without compromising quality. More advanced approaches are possible as well, incorporating real-time congestion awareness, service plans, device types, and other factors for extremely precise optimization.

Most of the video shown below is adaptive in nature, with bitrates changing in response to factors including device capabilities and network capacity. The range of bitrates is immense: a 320p video can play smoothly at 850 Kbps, while a 1080p video needs 7.5 Mbps, and a 4K video needs around 15 Mbps.
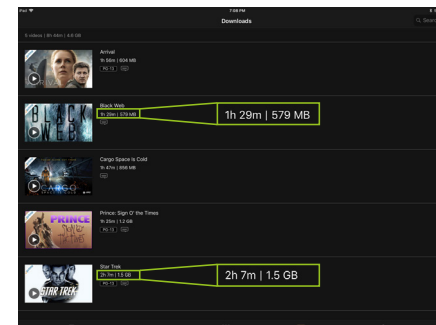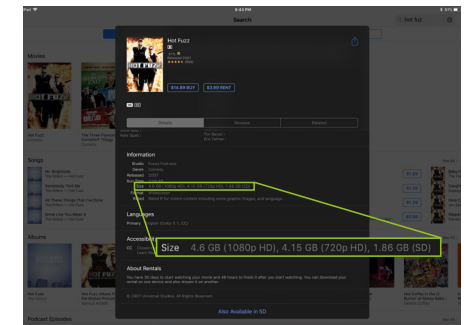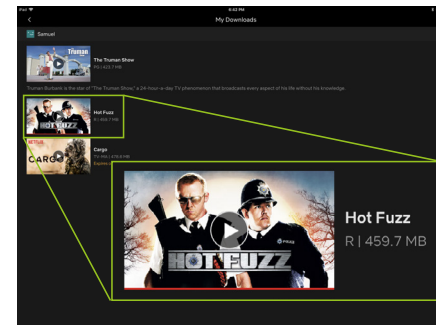
The top left image shows Netflix with Hot Fuzz at 459MB for a ~2 hour movie. The top right image shows iTunes download options – 4.6GB for 1080, 4.15GB for 720, and 1.86GB for SD. The bottom left image shows a few Amazon Prime videos, which range from 579MB for 1hr 29mins to 1.5GB for 2hr 7min

IMPACT AND RESULTS

By actively managing video streaming traffic, network operators can ensure the consistent delivery of high-quality video, protect other services from disruptive video traffic spikes, and extend the useful life of network infrastructure, thereby, improving ROI and deferring investment.

Click here

to learn more about our Video Streaming Management use case

Heavy User Management

Improve QoE by identifying and managing the network's heaviest users

BACKGROUND

While sheer volume and a constant capacity shortage are often the most common cause of congestion, there is also the impact of the network's heaviest users on QoE. The definition of a heavy user varies from network to network, but this typically small segment of users can account for a disproportionate amount of network bandwidth, essentially taking more than their fair share.

For instance, this uneven distribution of network resources can breakdown as follows:

- The top 1% of users account for 15% of monthly bandwidth utilization
- The top 2% of users account for more than 20%
- The top 5% of users account for more than 35%

Regardless of the specific breakdown, the imbalance of bandwidth can create complications and complexity for network planning, service business models, and profitability.

BENEFITS
- Reduce CAPEX
- Improve subscriber QoE
- Offer differentiated, high-bandwidth service plans

Due to the different behaviors of applications, network capacity is unable to be allocated fairly, causing service degradation

BitTorrent connections

Video streaming

User 1

User 2

**Differences in bandwidth usage caused by application behavior**

SOLUTION

Sandvine's App-QoE-centric solutions can help solve heavy usage issues. These users are carefully managed so their impact on the network and on other users is controlled, reasonable, and fair.

By measuring usage over a defined period (e.g., by day, by week, by month, by rolling window) and linking management policies to different factors (e.g., time of day, risk of congestion, number of users on a resource), network operators can ensure shared network resources remain available for all users.

IMPACT AND RESULTS

Through the precise management of heavy users, network operators can preserve QoE for the majority of users and increase the carrying capacity of the network overall, enabling operators to serve more customers without the need for additional infrastructure investment. In addition, heavy users can be offered more expensive, high-bandwidth service plans (depending on the regulatory environment), which can drive higher profitability for the operator.
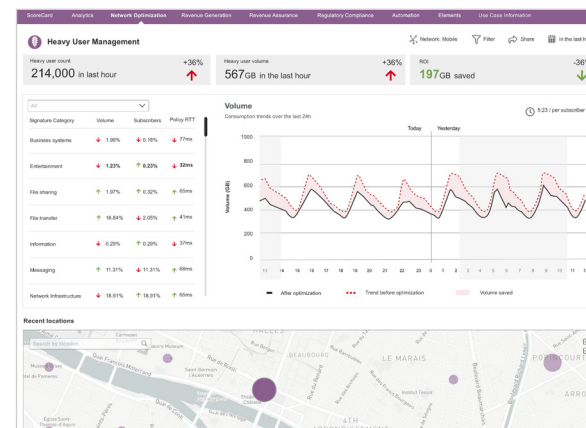
With the Heavy User Management dashboard, operators can drill down by different attributes (for example, by application or by the locations of heavy users) and view the bandwidth savings and QoE improvements from Sandvine's flexible policy management

Click here

to learn more about our Heavy User Management use case

Usage-Based Services

Increase revenue by launching innovative service plans based on perceived value and user behavior

BACKGROUND

Profitability in 5G and beyond, with severe network expansions, is a challenge for operators. Moving away from truly unlimited* service plans, operators are looking to differentiate themselves in the market with innovative and personalized plans.

Users only want to pay for data they actually use and want the cost-certainty associated with volume-based plans. There is no "one plan fits all" to accommodate all users, so the ability to personalize plans and offer compelling service offerings with flexibility is the winning strategy.

With IoT becoming commonplace, operators need to be able to offer plans with smaller data volume with guaranteed delivery times of the data across the network, ensuring high availability and the ultra-low latency required for good QoE.

BENEFITS
- Increase ARPU with innovative service offerings
- Tier services to ensure cost-sensitive users can afford a plan

SOLUTION

When deployed with Sandvine's App QoE driven platform and Quota Manager, a number of advanced options can be monetized to bring more value to users, increase ARPU for operators, and even improve network efficiency.

- **Speed Tiers:** By implementing plans with differentiated speeds, operators can offer unlimited bandwidth for part of the billing period or the whole quota allowance, even on unlimited plans.

- **Speed Pass:** In combination with speed tiers, operators can improve ARPU by offering users a speed pass, which is an add-on that improves their current plan speeds.

- **Data Rollover:** Operators can build loyalty with users by letting them transfer unused data from one billing cycle to the next or beyond.

*Most unlimited plans are actually limited, containing soft caps and/or speed tiers.

- **Data Pass:** Operators can offer limited, time-based access to data services that do not require a long-term subscription.

- **Time-of-Day and Calendar Promotions:** At certain times of the day or days of the month, operators can offer lower priced data (GB) or zero-rated application usage to give customers more value and utilize existing network capacity.

- **Bolt-Ons:** The solution allows operators to offer highly personalized bolt-ons, like application-based plans or roaming passes, to increase ARPU and offer more complex services.

- **Roaming Plans:** With compelling roaming offerings, operators can target travelers and businesses with valuable plans to increase ARPU.

Usage-Based Services is delivered via a standards-compliant solution that achieves real-time policy and charging with contextual awareness.
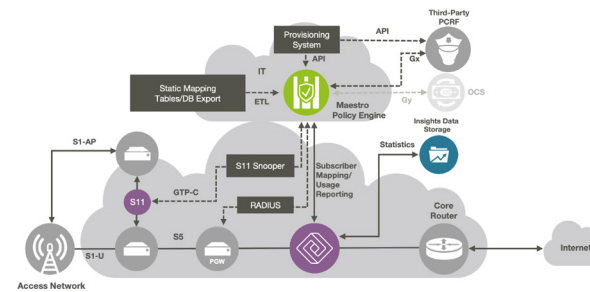
IMPACT AND RESULTS

By leveraging Sandvine's App QoE technology and applying Usage-Based Services as the foundation, operators can launch plans with limitless service creativity, improving ARPU, and offering more value to users. By deploying Usage-Based Services with Sandvine's Quota Manager, operators can add advanced options to create further differentiated service offerings, with the industry's lowest TCO.

Click here

to learn more about our Usage-Based Services use case

Zero-Rating and Application-Based Plans

Increase revenue by offering plans with unlimited application and service usage
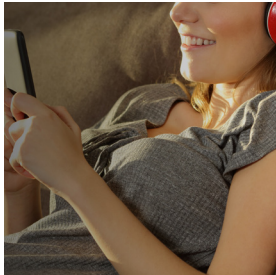
BACKGROUND

Zero-rating has proven to be a significant competitive differentiator for network operators — multiple operators around the world have combined the technical and business cases for zero-rating to deliver a powerful ROI. Zero-rating can create competitive differentiation, increase customer satisfaction and retention, and create new revenue streams.

Application-based plans have a similar appeal to network operators. Offering plans based on in-demand applications that have a prioritized quality of service (QoS) or larger quotas can create value and increase revenue for the operator. The key distinction between zero-rating and application-based plans is that application-based plans allow operators to offer specific applications versus entire service categories, which is critical when operating in highly regulated markets. By leveraging the extremely popular internet phenomenas like video, gaming, and social sharing, operators can stand out in the market and offer more value for end users.

BENEFITS
- Gain users by leveraging popular content providers
- Upsell to higher ARPU plans that enable zero-rating or application-based quotas

Top 10 Social Sharing Applications Globally

☁	↑19.8% ↓3.0%	↑8.3% ↓18.1%
f	↑15.9% ↓24.2%	↑7.1% ↓1.0%
▼	↑9.4% ↓1.8%	↑3.3% ↓17.5%
Photo	↑9.4% ↓0.4%	↑3.3% ↓0.5%
	↑8.7% ↓3.1%	↑3.0% ↓3.8%

SOLUTION

With industry-leading application identification, classification, and App QoE scoring, Sandvine provides an accuracy and granularity that is unmatched due to advanced machine learning of encrypted traffic. Zero-Rating and Application-Based Plans can be deployed regardless of the regulatory environment and net neutrality framework, depending on the approach to categories/ services or specific applications. This use case also includes the opportunity to have third-party data sponsorship.

IMPACT AND RESULTS

Operators that use Sandvine's Zero-Rating and Application-Based Plans use case benefit from highly differentiated service offerings that improve ARPU, enhance brand loyalty and Net Promoter Score advocacy, and deliver a personalized customer experience. With Sandvine, operators can quickly capitalize on popular services and internet phenomenas by creating and launching with in-demand applications before the competition.
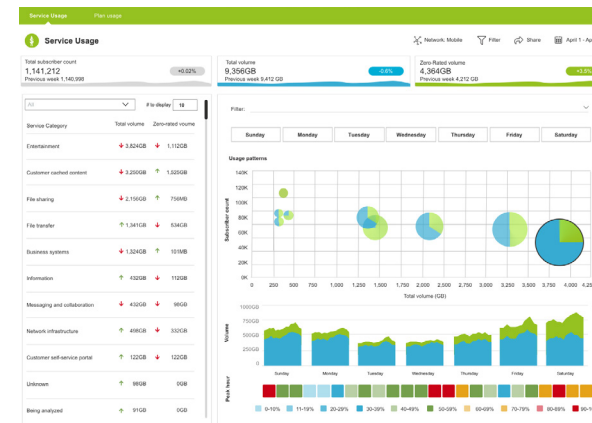
Sandvine can help operators plan their zero-rating offers with advanced analytics as well as enforce them

With contextual awareness, operators can be more successful with their service launches by:

- Selecting high demand and low-bandwidth applications for zero-rating
- Carefully planning with respect to time, utilization, and shaping policies to manage high-bandwidth application abuse
- Continuously monitoring bandwidth and volume usage trends during peak hours, before and after zero-rating
- Setting thresholds with alerts indicating heavy usage for popular applications.

Click here to learn more about our Zero-Rating and Application-Based Plans use case

Parental Control

Give peace of mind with content and application management for minors

BACKGROUND

The internet has a lot of content and not all of it is appropriate for children. Some content is also fraught with security risks; children do not always know the risks associated with clicking on links that can put their devices and accounts in threat of phishing or other malicious techniques. With the proliferation of devices available to children – mobile phones, tablets, gaming consoles, and PCs – device-based solutions aren't up to the task.

Aside from protection from web- and application-based content, parents often want to manage daily usage to minimize distractions from schoolwork and other activities. Application access and time-of-day policies can create a distraction-free time to complete schoolwork without constant notifications.

BENEFITS
- Gain users with high-margin family plans
- Upsell higher ARPU parental control-enabled offerings

There is a growing need for parental control as children are at more online risk than ever before
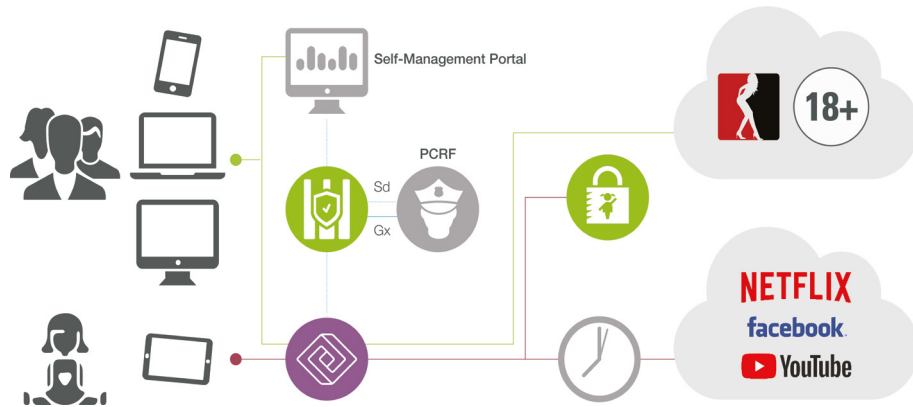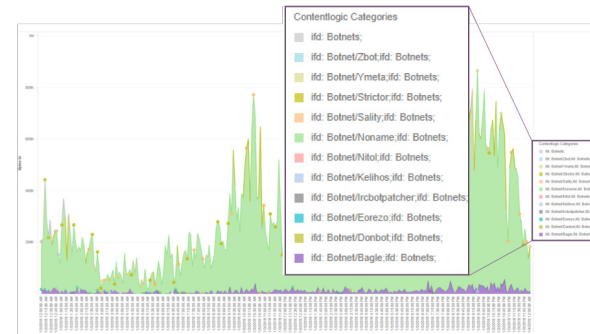

SOLUTION

Sandvine's Parental Control use case is a highly personalized, differentiated network-based use case that can generate revenue and deliver "good citizen" branding for operators. Leveraging its App QoE based approach, it goes beyond basic URL filtering; it also delivers application and time-of-day control for a more effective offering.

This use case is built on Sandvine's market-leading ability to identify users and traffic, with its frequently updated signature library, and its highly accurate and granular policy enforcement capabilities.

What really ties this use case together is Sandvine's set of APIs that can integrate all components to an operator's self-management portal. This empowers end-users to configure their own policies – from a category perspective as well as time-of-day policies.

IMPACT AND RESULTS

Parental Control enables network operators to offer a network-based solution as a VAS or service differentiator that drives revenue, as parents are willing to pay for peace of mind when it comes to their child's safety and well-being.

Sandvine's ContentLogic solution delivers standards-based, highly interoperable integration with any policy infrastructure
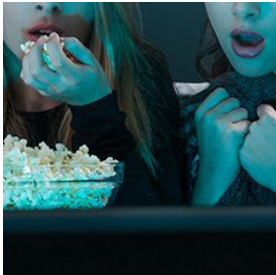
ContentLogic
ContentLogic enables flexible content categorization of internet sites, enabling sophisticated policy enforcement or content-based charging.

Click here

to learn more about our Parental Control use case

Video and Television Fraud Management

Discover, monitor, and take action on video and television piracy

BENEFITS
- Identify the revenue impact of piracy
- Mitigate piracy to comply with regulatory guidelines
- Recover customers lost due to piracy with targeted campaigns

BACKGROUND

Video and television piracy is on the rise; set-top boxes and streaming services are easy-to-use and the average consumer feels secure in purchasing them, as the reality that money changing hands creates an air of legitimacy around the piracy ecosystem.
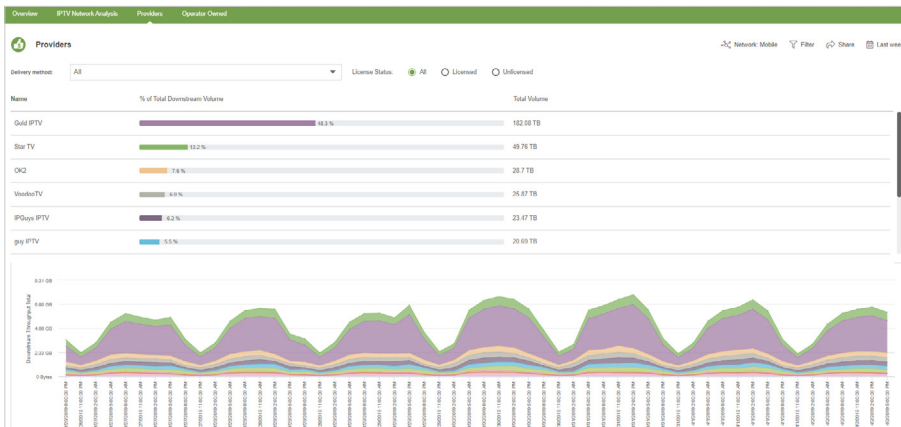
The continued adoption of unlicensed video and TV streaming services could lead to increased cord-cutting, significantly impacting top-line revenue and overall profitability, and, by extension, undermining the very business models that keep networks operating. As a result, network operators who license or produce video content stand to lose enormous amounts of revenue; in North America alone, Sandvine's Global Internet Phenomena Spotlight Report revealed that a significant number of households are accessing subscription television piracy services, with a potential revenue impact of billions per year.

Quickly quantify the number of users engaged in piracy and the amount of pirated content being delivered through the network
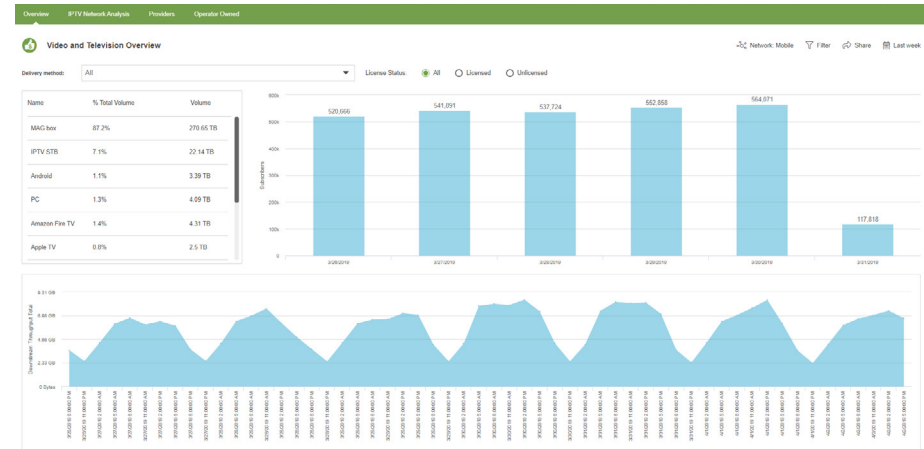

SOLUTION

Sandvine's App QoE approach and leading traffic classification technology – backed by domain experts conducting active research – provides network operators with the insight needed to make informed strategic decisions relating to video and television piracy. Sandvine arms network operators with historical reports and customizable dashboards that both present insights and give operators the opportunity to really explore the data to increase understanding.

Additionally, data can be easily exported to other systems (e.g., big data, fraud management) for further analysis and auditing.

Users	Identify (including in a privacy-sensitive manner) and count users who are consuming pirated video and television content
Usage	Measure how much of your network traffic consists of pirated video and television streaming, and identify trends over time
Device and Software	Learn which hardware devices and software applications your subscribers are using to access pirated video and television content
Services and Hosts	Monitor the video provider services and video hosts behind the pirated content being consumed on your network
Channels	Gain a more complete perspective on how your subscribers are viewing pirated content

Understand the content that is being delivered across the video and television piracy ecosystem and measure the business impact

IMPACT AND RESULTS

Aided by an accurate understanding, network operators can monitor the threat, support law enforcement and regulatory efforts aimed at preventing the proliferation of these services, incorporate insight into churn prediction models, and help to educate other stakeholders.

Click here

to learn more about our Video and Television Fraud Management use case

ABOUT APPLOGIC NETWORKS

AppLogic Networks' cloud-based App QoE portfolio helps customers deliver high quality, optimized experiences to consumers and enterprises. Customers use our solutions to analyze, optimize, and monetize application experiences using contextual machine learning-based insights and real-time actions. Market-leading classification of more than 95% of traffic across mobile and fixed networks by user, application, device, and location creates uniquely rich, real-time data that significantly enhances interactions between users and applications and drives revenues. For more information visit **https://www.applogicnetworks**.com or follow AppLogic Networks on X **@AppLogic Networks**.

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