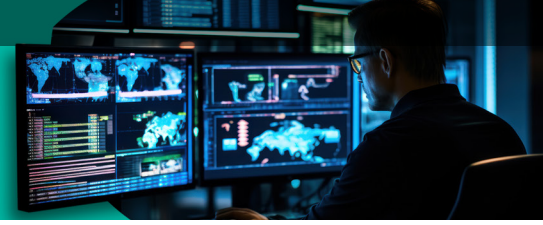


# Operations Insights



## KEY BENEFITS

### Operations Insights is key to:

- Improving your Customer Satisfaction by 10-14%
- Reducing your Inbound calls by 10-22%
- Reducing your Truck Rolls by 7-10%
- Reducing your Churn rate for customers with network related issues by 4-5%

**Network Service Providers** are continually expanding their networks, introducing new technologies, and are required to deliver stricter KPIs (e.g., low latency) but often with limited ability to add new resources due to slowed down top-line growth.

Operations, performance, and customer care teams are under constant pressure to handle more with less, including helping drive financial performance. Operations teams frequently rely on monitoring what is happening on their network, from a Quality of Service perspective, rather than focusing on what their customers care about most – their application performance, or application Quality of Experience.

This mismatch in approach does not allow service providers to truly put themselves in their customer's shoes and results in arduous wasted efforts, operational inefficiencies, lost revenue opportunities and more importantly, dissatisfied subscribers.

Operations Insights is a software visualization and workflow solution that bridges the gap of raw network KPIs with a near real-time, accurate subscriber sentiment score which is a depiction of how they feel about the service provider's network at any given time based on how their individual apps are performing.

Leveraging Sandvine's flagship AppLogic classification technology, service provider's data becomes usable once again. With its industry's best classification, granular and unique KPIs, and the industry's first true App QoE scoring, service providers can quickly determine issues, or predict them in virtually any context they please, such as understanding App QoE for a set of:

- Subscribers
- Devices
- Locations
- Nodes
- Plan Types
- 5G network slice

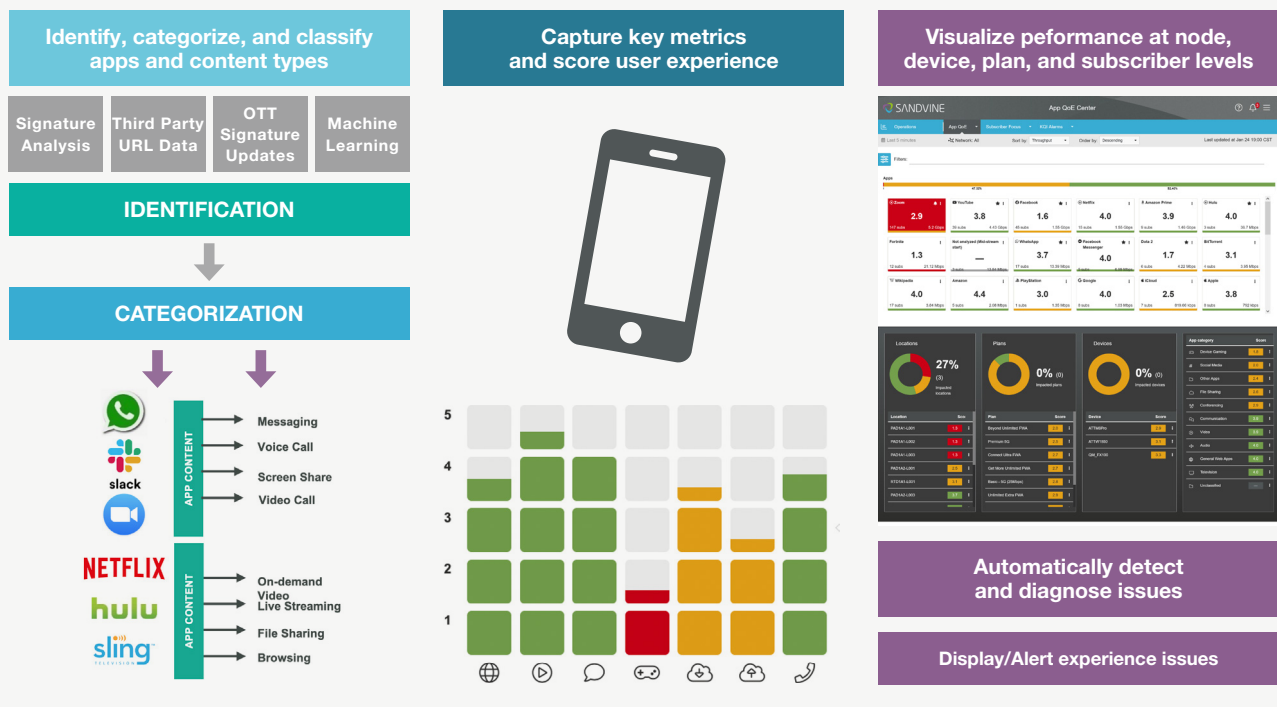
Operations and Customer Care groups can say with confidence that they know exactly what is happening on the network and can truly make proper informed decisions or accurately prioritize within seconds.

Operations Insights automatically detects network anomalies, identifies areas where the subscriber experience is suffering, and answers the key questions of who, what, when, where, and why. It allows network operators to see what their customers are experiencing overlaid across network elements, devices, plans, applications, 5G network slice, and more.

Sandvine identifies traffic flowing across the network, classifying apps, content types, and devices based on a mix of AI/ML, heuristic, and deterministic mechanisms. Key metrics are also captured per application content type to score the user experience. The metrics and score are made visible in a series of dashboards that guide the customer through the 5 Ws (who, what, when, where, and why), enable automatic issue detection & diagnosis, enable configurable alarms, and identify suffering subscribers based on a number of comprehensive factors.

Figure 1

## Operations Insights Process

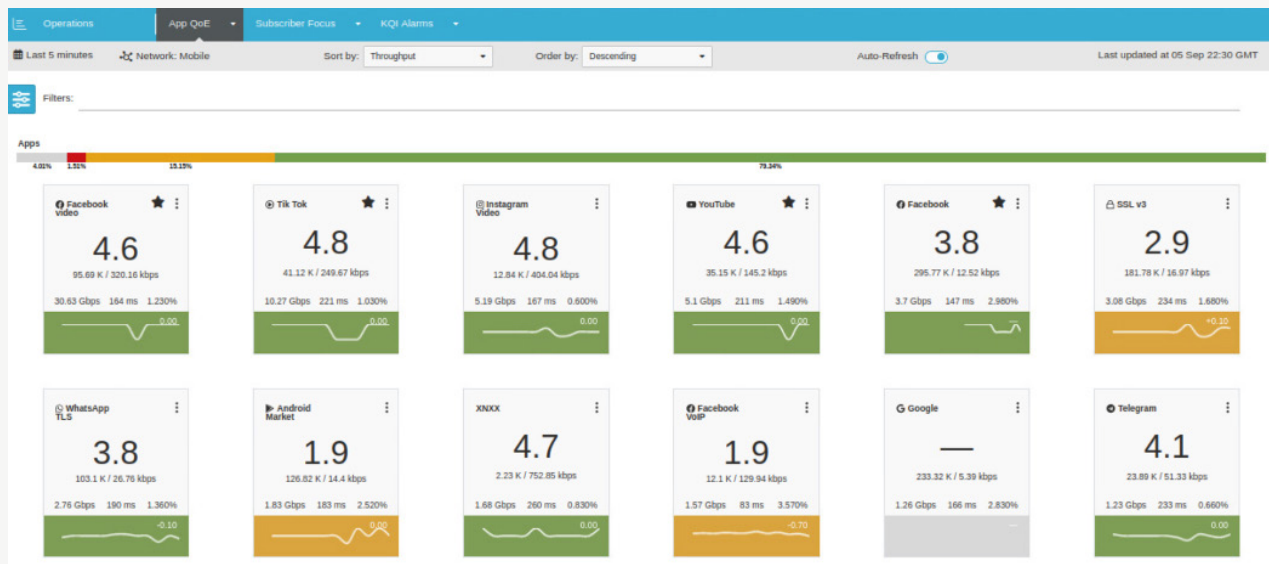


## UNDERSTANDING THE WHAT

For Operation teams that need to monitor the application performance, the “What” page auto-refreshes every five minutes to show which applications are suffering (Figure 2).

Figure 2

Quickly see which popular applications are experiencing issues



## UNDERSTANDING THE WHO

Similarly, knowing “who” is affected is key for any Operations, Customer Care and Advanced Troubleshooting group. This also allow these groups to determine which subscribers are light, moderate, heavy, or ‘extreme’ (abusive) users. This gives service providers different ideas to monetize or to take action (Figure 3).

Figure 3

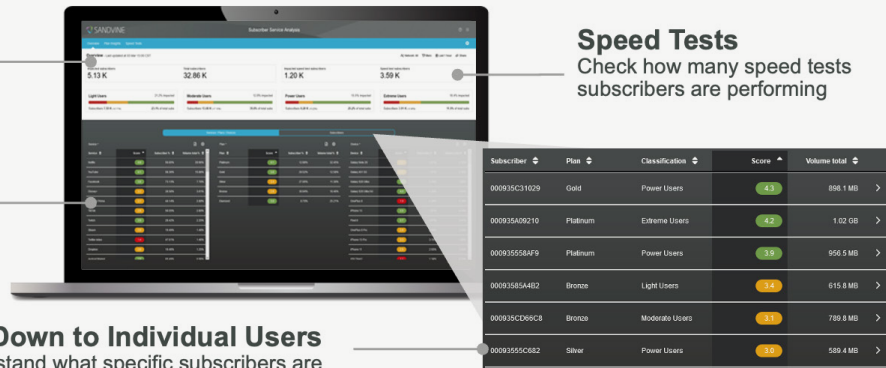
### App QoE Center

**QoE Breakdown**  
See how many subscribers are affected per group

**Flexible Data Grid**  
Select and sort key KPIs by multiple dimension

**Drill Down to Individual Users**  
Understand what specific subscribers are experiencing to address their concerns

**Speed Tests**  
Check how many speed tests subscribers are performing

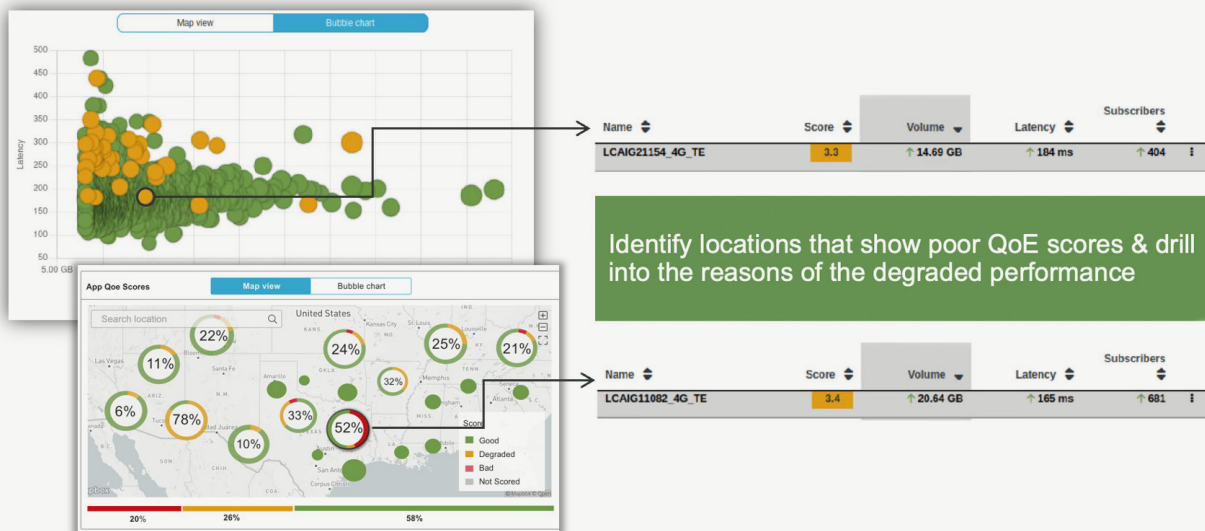


## UNDERSTANDING THE WHERE

Knowing where issues or anomalies occur (Figure 4) is important for the Operations team. With Operations Insights, a user can quickly spot an issue at a high-level and then drill-down to an individual or group of individuals, devices, apps, etc., who may be experiencing a similar issue.

Figure 4

### App QoE by location



## UNDERSTANDING THE WHEN

Special event happening? Look out for anomalies or trends (**Figure 5**). Knowing when events occur allow service providers to see how the network is performing under congested periods and allows them to spot trends they otherwise would not be able to see without application, and content level visibility.

Figure 5

### Network Performance Impact Graph.

See the impact of sporting events (such as Amazon Prime Thursday Night Football) have on the network and whether subscribers have a good experience during the event



By providing operators enhanced visibility into what their customers care about, Operations Insights helps reduce issue handling effort (including truck rolls), facilitates automation, reduces churn, and enables upsell opportunities.

## ABOUT SANDVINE

Sandvine's cloud-based Application and Network Intelligence 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 <http://www.sandvine.com> or follow Sandvine on Twitter @Sandvine.



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