SANDVINE

ScoreCard for Telecom Regulators

Broadband performance metrics for all network operator types

KEY SYSTEM BENEFITS

- Measures three key performance indicators for consumer broadband: Throughput, latency, and packet loss.
- Measurements take place for ALL traffic, ALL the time, with no sampling bias and displayed scoring representing performance during peak hour.
- Solution is subscriber, service plan, location, device, and many other service attributes “aware” to facilitate Root Cause Analysis for QoE issues.
- ScoreCard also applies KPIs to an application transformation matrix to display how subscriber performance will translate to QoE for web traffic, video streaming, social networking, gaming, up/download, and voice applications.

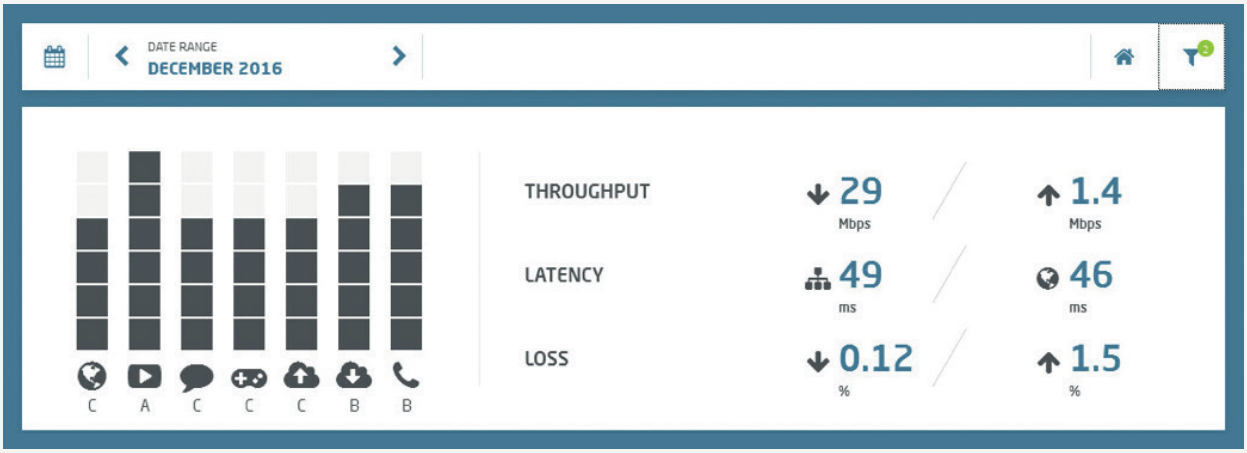
Telecommunications regulators are struggling to define quality metrics for broadband performance that can be measured consistently across multiple access types (i.e. DSL, Cable, Mobile, and WiFi) and captures the actual quality of performance delivered to subscribers during peak usage times.

Consumers are seeking to ensure that they are getting the service that they are being sold and want their regulators to enforce “Truth in Advertising” standards for broadband plans. Broadband providers are also struggling to find a “single version of the truth” for broadband metrics that can be deployed cost effectively across their footprint for monitoring the subscriber experience.

Since the broadband subscriber experience is driven primarily by data performance and not voice, being able to measure the experience regardless of application type or content is the foundation of being able to report on performance. Many existing monitoring solutions focus on just one application type (like Voice Mean Opinion Scores) or are active probes that estimate the user experience by sampling network performance. These other solutions do not capture how an individual user experiences the network through direct measurements.

Figure 1

SCORECARD NETWORK OVERVIEW



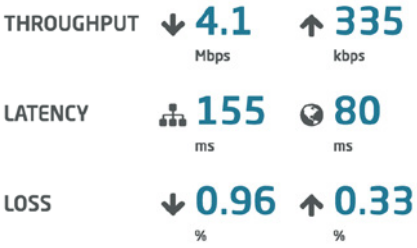
QUALITY

SCORECARD FOR TELECOMMUNICATIONS REGULATORS SOLUTION OVERVIEW

Sandvine's ScoreCard solution provides an extremely effective solution for all the problems mentioned above. ScoreCard focuses exclusively on measuring the actual performance delivered to subscribers, regardless of access technology. It is also application agnostic, with the KPIs being measured across all subscriber traffic, ensuring that even as traffic becomes encrypted and more difficult to classify, the subscriber experience can be measured. ScoreCard can also be deployed on virtual systems, drastically reducing cost of deployment.

SCORECARD METRICS

ScoreCard measures three key metrics that can be used to determine the experience for each subscriber:



Throughput: Every 250ms, ScoreCard measures the upload and download performance of subscriber traffic. Sub-second, frequent measurements provide a better view of application performance than one or five minute averages that most systems collect.

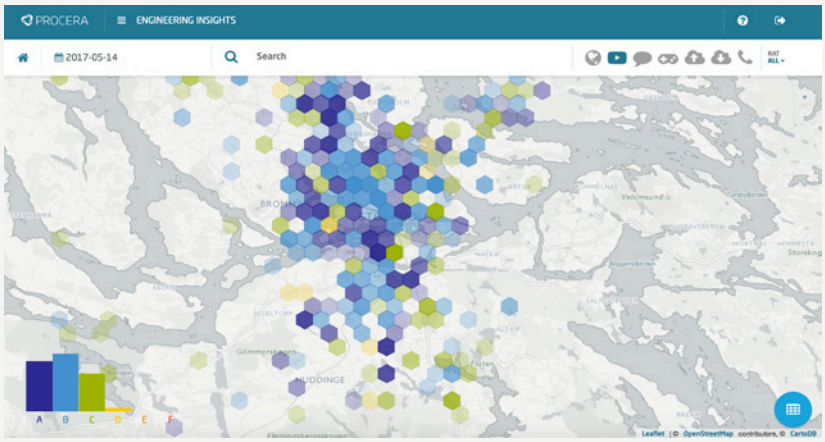
Latency: Each session/connection's latency on the access and Internet side is measured to determine if latency issues are related to the service provider's access network or the content provider's network.

Packet Loss: Each session/connection's packet loss on the access and Internet side is measured to determine if packet loss is on the service provider's network or the content provider's network.

These three metrics have been called out by the United States Federal Communications Commission (FCC) as well as the European Union's Body of European Regulators for Electronic Communications (BEREC) as KPIs for measuring subscriber experience.

Figure 2

SCORECARD METRICS WITH LOCATION AWARENESS FOR VIDEO STREAMING



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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.**

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