

Gaming QoE Analysis

KEY BENEFITS

- True gaming categorization**
 Understand the different types of gaming requirements by different game-types, for example “Battle-Royale/MOBA” vs. Real-Time Strategy vs. First Person Shooter. Each of these have a different network requirement so don't broad brush your analysis with generic KPIs. Know their impact
- Rich, Network-Wide Visibility**
 Sandvine has the largest signature gaming protocol capability in the market. This Use Case enhances intelligence-based gaming protocols, grouping them by: online/interactive gaming; cloud gaming; and gaming downloads
- Advanced Metrics for QoE**
 Each gaming segment has different needs and requirements; individual QoE gaming scores will be calculated for each gaming segment. Specific metrics associated with gaming are required to understand an end user experience, while utilizing a gaming service across the network
- Effective data export**
 Ability to export metrics to big data systems using Kafka
 Flexible solution enables easier integration with big data systems
 Ability to export gaming stats in multiple formats

As gaming continues to rise in popularity, service provider customer care and planning teams need to know how gaming sessions are performing and are experienced by gamers.

As operators, you need a contextual view of gaming. Quality of experience including individual locations, service plans, device types, and other key attributes need to be measured. To truly measure gaming's quality of experience, a solution must be able to detect and measure user actions and the behavioral characteristics of the gaming. A new approach is required.

SOLUTION OVERVIEW

Sandvine's Gaming QoE Analysis enables service providers to measure the right gaming QoE metrics and KPIs for specific gaming applications, and closely monitor, report, and analyze gaming traffic to understand performance trends.

Gaming QoE Analysis metrics include:

- Throughput (bandwidth):** measured every 250 milliseconds to capture spikes and sudden bursts needed to download games or render game view.
- Latency/RTT:** both internet and user side, calculated every 5 seconds
- Packet Loss:** both internet and user side, calculated every 5 seconds
- Jitter:** both internet and user side, calculated every 5 seconds

Gaming metrics and scores are calculated per user, per application, per location, and per device in real time. With these key performance indicators, Sandvine provides service providers a comprehensive picture of the quality experienced, which is necessary for conducting root cause analysis within customer care and planning systems.

Figure 1

Gaming overview. This overview highlights key metrics: Volume, gamers, and gameplay time

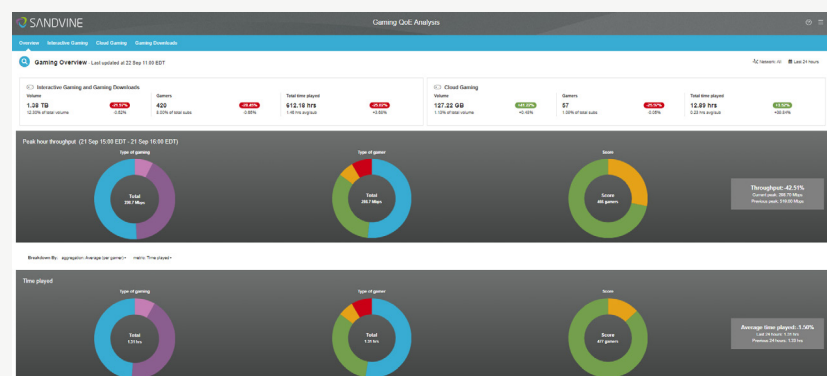
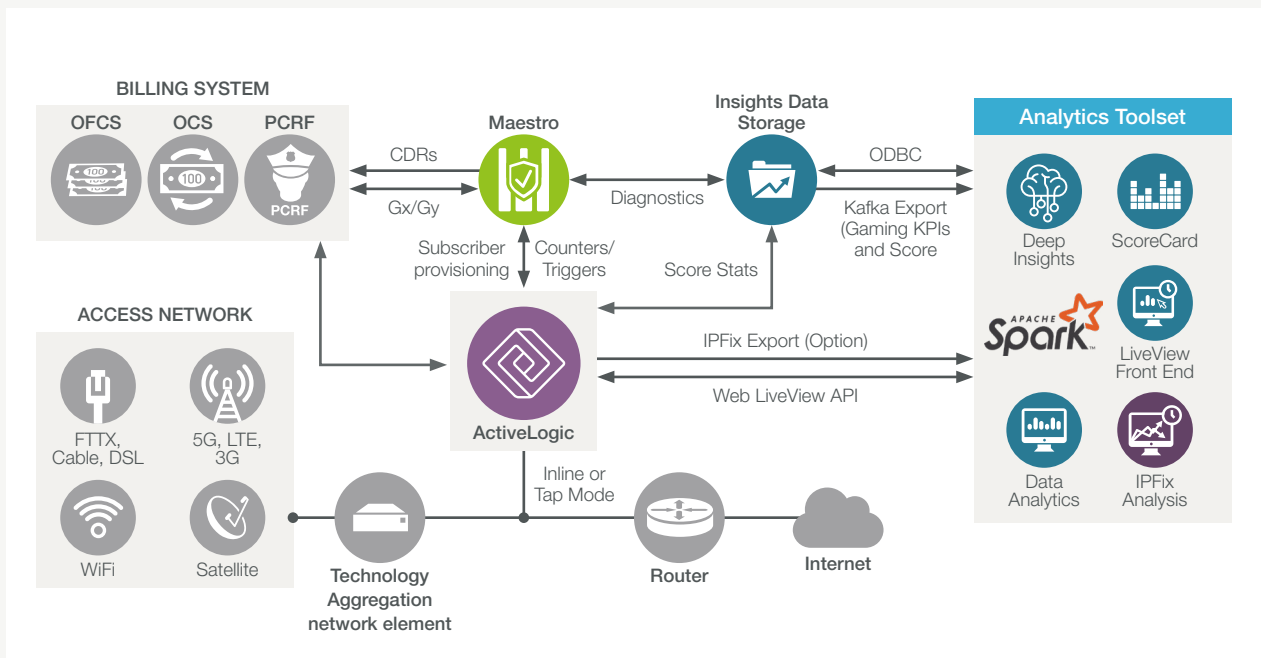


Figure 2

Between IDS and AL Score Stats – Traffic and Score Stats OR KPI Stats



REQUIRED SOLUTION COMPONENTS

- ActiveLogic
- Maestro Policy Engine
- Insights data Storage
- Deep Insights
- Elements

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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