Performance Monitoring and Analysis

KEY BENEFITS

- Go beyond traditional network metrics and implement Quality of Experience (QoE) scoring
- Monitor Application Health – Record accurate subscriber count, QoE score, average throughput, packet loss, latency per application, per subscriber and many other metrics
- Location-based network overview with drill down capability
- Network trends – A long term network health view

Network Operation groups face the daunting task of tremendous network capacity growth along with an ever-growing list of applications. They need timely data analysis to diagnose problems quickly, in order to prioritize operational activities.

Service providers often have extensive metrics for monitoring network performance but lack visibility into the traffic carried on the network and their end customers' actual experience. With application complexities and encryption, it makes it almost impossible to understand what is on the network. This is important as many applications work differently on the network and have different requirements to perform well. In today's world, understanding application performance is indicative of understanding a consumer's overall network satisfaction.

The challenge is that the current metrics and testing methodologies are not indicative of the customer's experience, and only based on network performance. This of course means that any fixes to these issues with traditional methods may or may not fix a customer's overall Quality of Experience, meaning they are playing a very risky guessing game. Insights into the customer experience is required for efficient, industry competitive operations.

SOLUTION OVERVIEW

Sandvine's Performance Monitoring and Analysis Use Case is designed to give service providers near real-time visibility, and a historical view of how their network is delivering applications to users across the network.

The Use Case goes beyond traditional network metrics and applies Sandvine's QoE scoring capabilities, which looks at throughput, packet loss, and latency for each application and assigns a score based on individual application requirements. It leverages this QoE score and adds contextual data, such as location, device type and subscriber plan, to help service providers troubleshoot issues as they arise. Any abnormal traffic behavior is immediately visible, whether viral content, an attack in progress, or the start of a live event – and service providers can adjust their network configuration, resources, or policies to adapt to new conditions.

With Performance Monitoring and Analysis, you can go seamlessly from a network point of view to an application point of view to a device or to a subscriber. This flexibility gives you lightning quick problem isolation, and allows you to see if issues are trending in the wrong direction.

Figure 1

Easily navigate between pages within this Use Case, carrying same context to each page
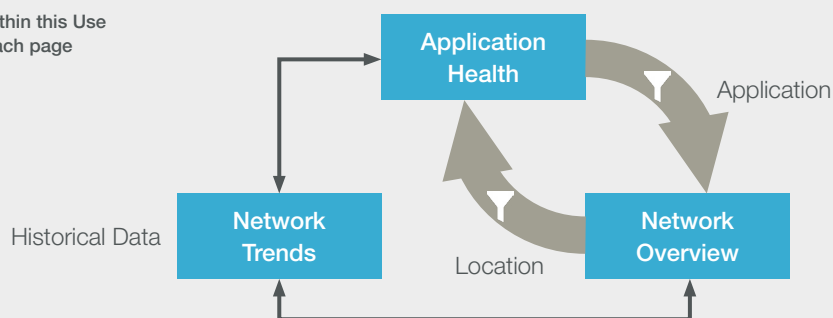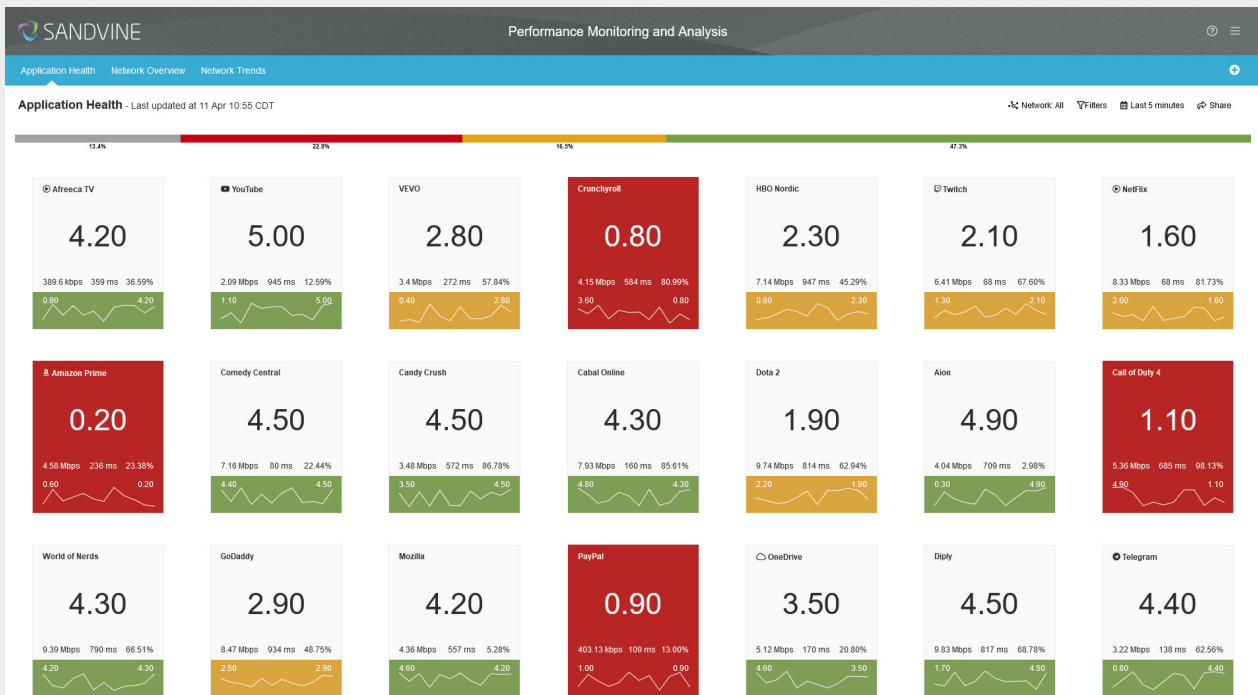

When to use Performance Monitoring and Analysis depends on where the problem is coming from:

- Issue from Customer Care - start with Application Health
- Issue from Tier 3 Troubleshooting - start with Network Trends

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Figure 2

Application Health

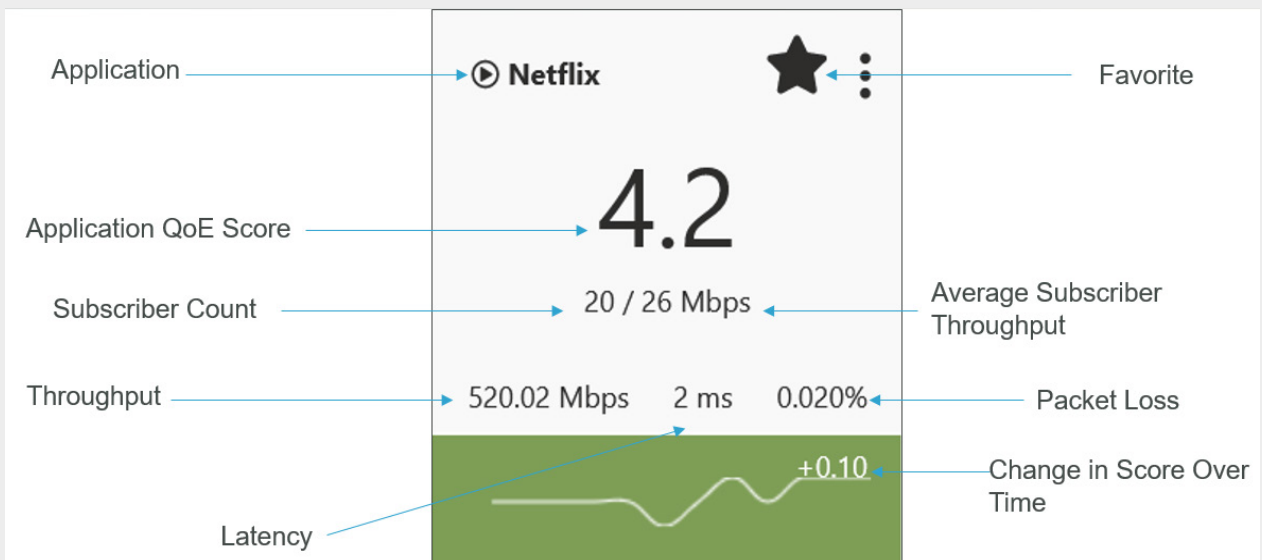Within an application you can understand many different stats:

Figure 3

Application Tile
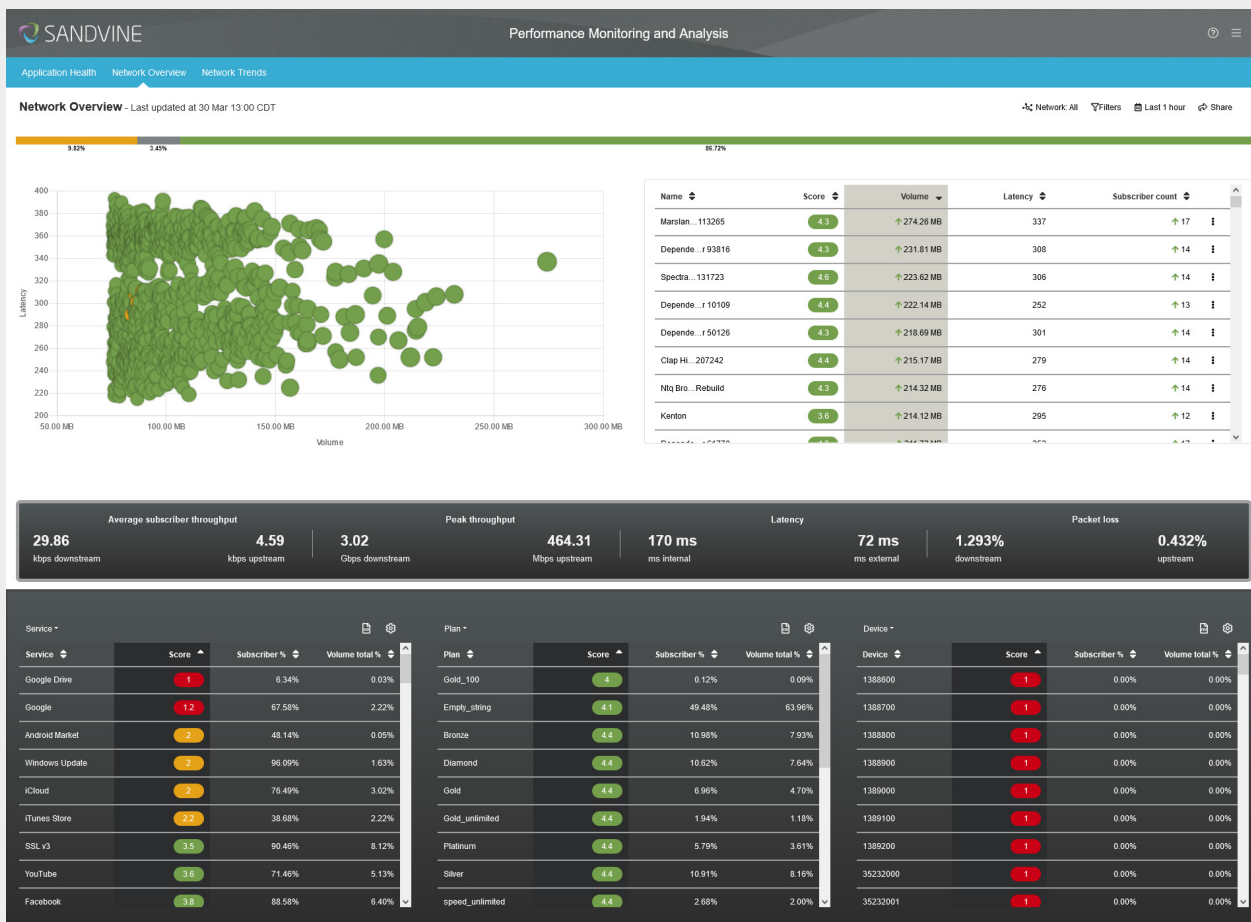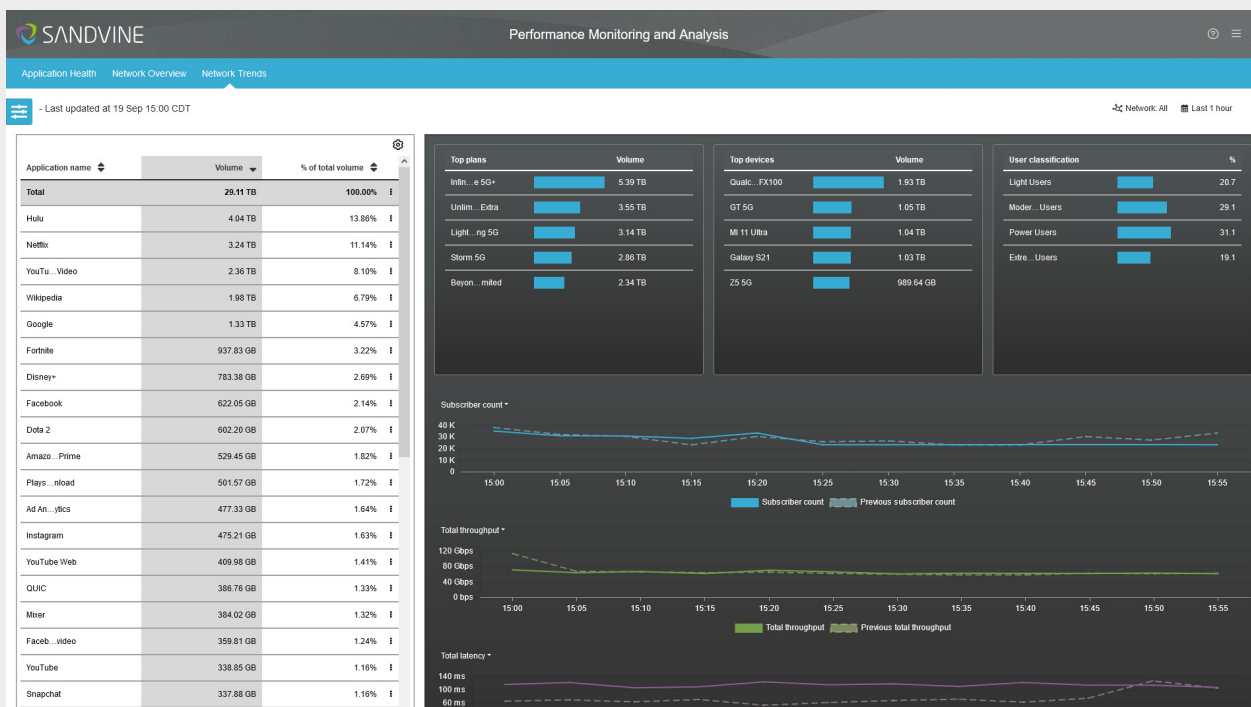
Figure 4

Network Overview

Figure 5

Network Trends

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Performance Monitoring and Analysis works in conjunction with Sandvine's Subscriber Service Analysis solution:

Figure 6
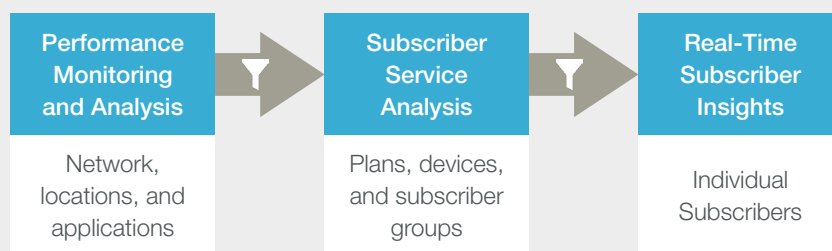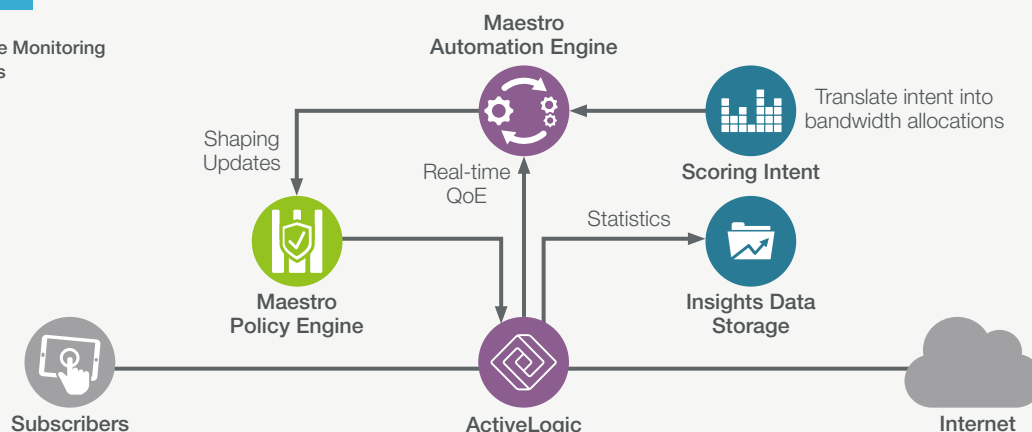
Sandvine's End-to-End Troubleshooting Workflows

Performance Monitoring and Analysis	Subscriber Service Analysis	Real-Time Subscriber Insights
Network, locations, and applications	Plans, devices, and subscriber groups	Individual Subscribers

Figure 7

Performance Monitoring and Analysis

Maestro Automation Engine

Shaping Updates

Real-time QoE

Scoring Intent

Translate intent into bandwidth allocations

Maestro Policy Engine

Statistics

Insights Data Storage

Subscribers

ActiveLogic

Internet

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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