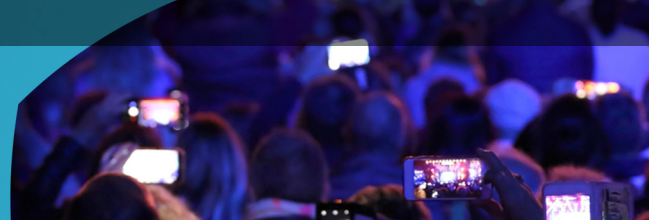# Capacity Planning Analysis

KEY BENEFITS

- **Single Solution for capacity management and optimization:** With powerful traffic management capabilities, service providers can optimize available capacity with very low additional investment and little to no changes for solution integration

- **Knowledge of customer needs and usage patterns:** Visibility on how subscribers are using the network in terms of specific applications and services is key for a winning network planning strategy for both short-term and long-term needs

- **Increased responsiveness to changes:** Increase service provider's capability to respond to changes in trends that affect network quality and capacity

- **Positive financial outcomes:** Potential CAPEX/OPEX reductions result from targeting the upgrade investments where they are needed

Operators face significant capital expenditure burdens, which is driven by an ever-increasing customer demand for data. Network operations and engineering teams must balance capacity expansion with coverage extension – while dealing with a complex mix of network elements.

Traditional capacity planning approaches such as volume-based projections, are not precise enough to plan for capacity before rolling out new infrastructure.

To be successful with Capacity planning, it is important to consider:

- Addressing the complex mix of traditional network elements, CDNs, peering and transit links, and third-party services.
- Better characterization of network bottlenecks, with application, device, subscriber, and location contexts all tying into Quality of Service.
- Better decision-making information to determine Infrastructure upgrades based on clearer insights into changing network usage patterns.

Insights into existing infrastructure is required for efficient, industry competitive operations.

SOLUTION OVERVIEW

Sandvine's Capacity Planning Analysis provides service providers with unmatched visibility into network traffic and trends, providing service providers with new insights and the industry's most granular set of data to make well-informed investment decisions. Sandvine's Capacity Planning solution can help save months and sometimes years of investments providing service providers with capex deferral strategies.
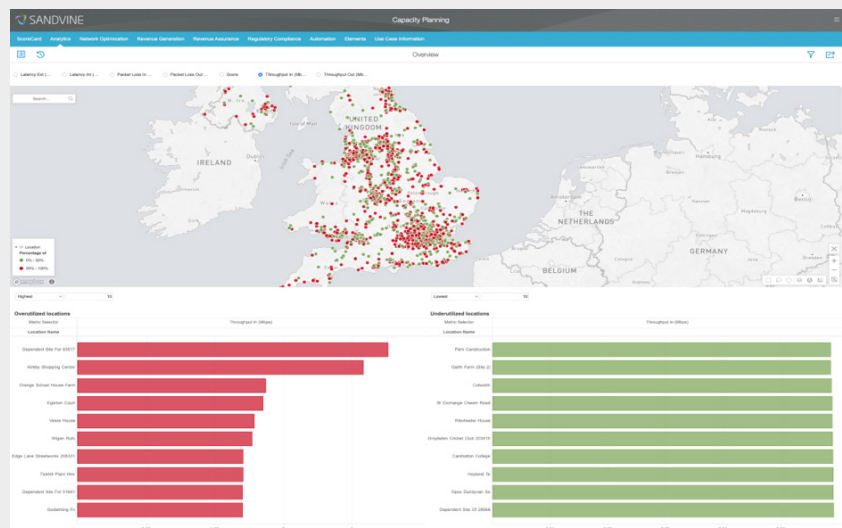
Service providers can access anything from comprehensive measurements to advanced Quality of Experience metrics, with granular application visibility, user visibility, and network topology/hierarchy awareness.

Three important dashboards give you all the information you need to analyze and plan for network capacity:

1. **Capacity Planning overview:** See the top 10 most overused and underused locations on your network – dive into QoE, enriched with granular network KPIs.
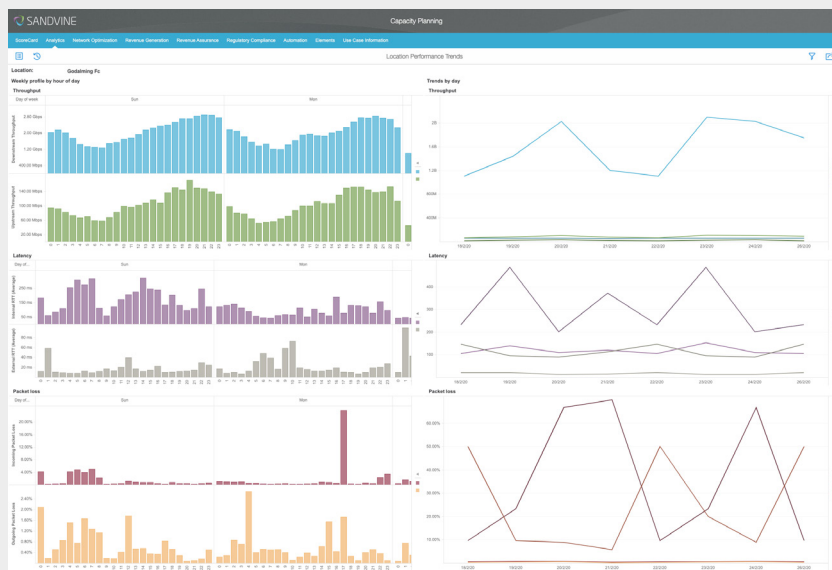
Figure 1

Capacity Planning Analysis Overview

2. Location performance: Understand historical network KPIs per location with granular QoE metrics to see the picture end to end on service delivery to end subscriber.
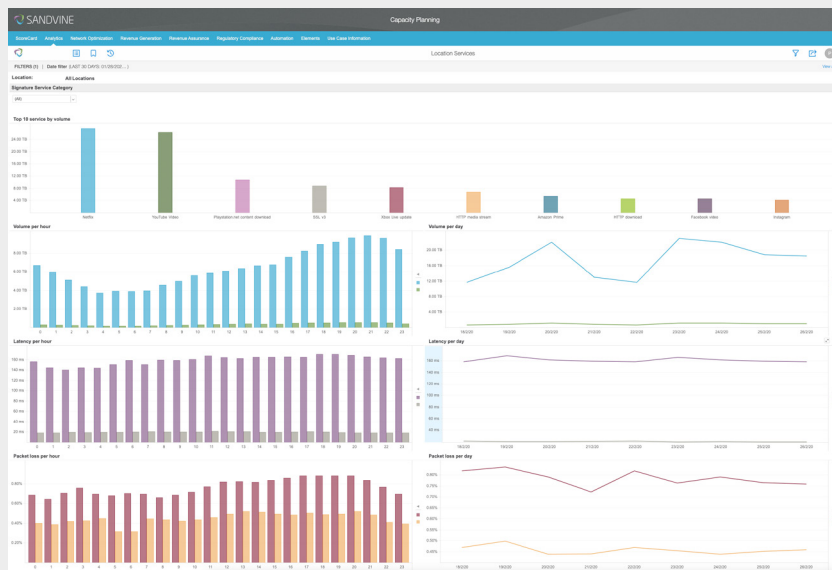
Figure 2

**Capacity Planning Analysis
Location Performance**

3. Location Services: Service providers benefit from an end-to-end view of services driving demand by location. This data can also be broken down by Sandvine's QoE metrics, giving a full understanding of application trends over time.

Figure 3

**Capacity Planning Analysis
Location Services**

REQUIRED SOLUTION COMPONENTS
- ActiveLogic
- Maestro Policy Engine
- Insights Data Storage
- Deep Insights
- Elements

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