



# Capacity Planning Analysis

Plan capacity expansion, coverage extension, and CDN investments



## AppLogic Networks' network intelligence and service innovation

**capabilities** can be leveraged in 5G core and edge environments, delivering critical contextual and slice awareness to feed new service creation and strengthening a service provider's position in the 5G value chain for consumer and enterprise markets.

## CAPACITY PLANNING ANALYSIS BENEFITS

- Reducing CAPEX and OPEX, since service providers will be investing in areas where upgrades are actually needed
- Increasing the ability to respond to changes in trends that will affect network quality and capacity
- Providing more visibility into how subscribers are using the network, specifically in terms of applications and services; this information helps service providers plan network strategy for both short and long-term needs
- Improving the ability to optimize available capacity with powerful traffic management capabilities at low additional investment

## MARKET OVERVIEW

**Customer demand for data and data-heavy services is constantly increasing. Service providers need to make informed decisions to improve capacity and customer experience; however, capacity planning and expansion is complicated. Today's networks are a complex mix of traditional network elements, caches, and content delivery networks, making it extremely difficult – and incredibly expensive – for service providers to adapt their existing infrastructure.**

**Service providers often determine how they'll add additional capacity to the network based on three metrics:**

- An estimation of peak bandwidth demands or a measure of the number of subscribers at peak, without consideration for the percentage of time a resource spends in a congested state
- The level of quality that a resource is delivering
- The potential savings that exist on the network from deferring an upgrade decision that doesn't impact the quality of service the network delivers to the subscriber

However, these metrics are not very useful as effective capacity planning requires visibility and granular detail into what is happening in the network. Multiple layers of data are needed to produce the most accurate picture and inform the best deployment of new resources and infrastructure. While understanding traffic growth per sub-section and layer of the network is challenging, it is critical in order to plan capacity upgrades accordingly.

Understanding the most over-utilized and under-utilized network nodes requires monitoring key quality of experience (QoE) indicators: latency, packet loss, and throughput. Armed with this information, service providers know exactly where they are underperforming and can make key decisions to improve capacity and customer experience.

## USE CASE OVERVIEW

**AppLogic Networks' Capacity Planning Analysis provides service providers with unmatched visibility into network traffic and trends, measuring all traffic, all the time, across all subscribers with the highest degree of granularity. Service providers can access anything from comprehensive measurements to advanced QoE metrics, with granular application visibility, user visibility, and network topology/hierarchy awareness.**

This data, when aggregated and analyzed, whether visualized within AppLogic Networks' Active Network Intelligence Portal or exported to a big data system, empowers service providers to make informed decisions.

More importantly, service providers can effectively plan investments regarding capacity expansions, coverage extensions, CDNs, cache locations, and peering relationships.

# Capacity Planning Analysis

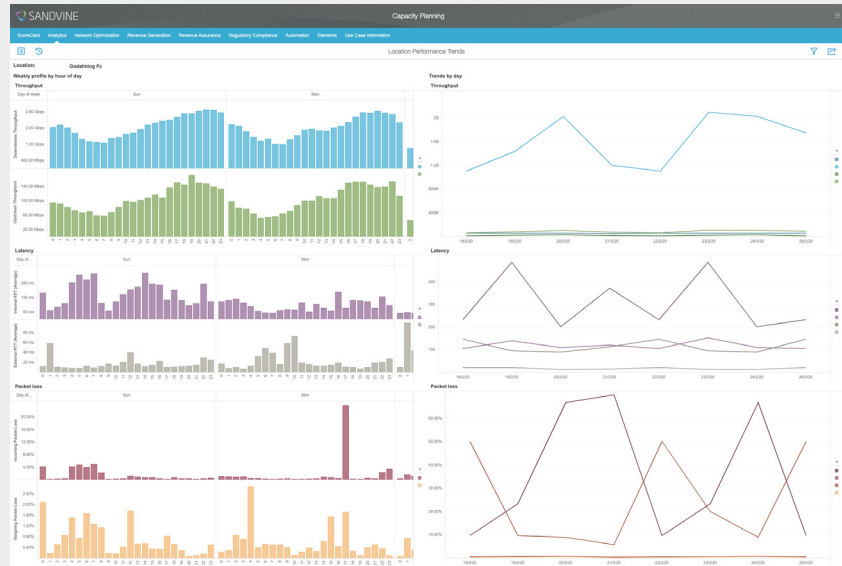


## Location Performance

Service providers gain a detailed understanding of location-based GoE metrics: latency, packet loss, and throughput. This data allows them to complete what-if analysis with a high degree of accuracy.

Figure 1

Capacity Planning Analysis  
Location Performance

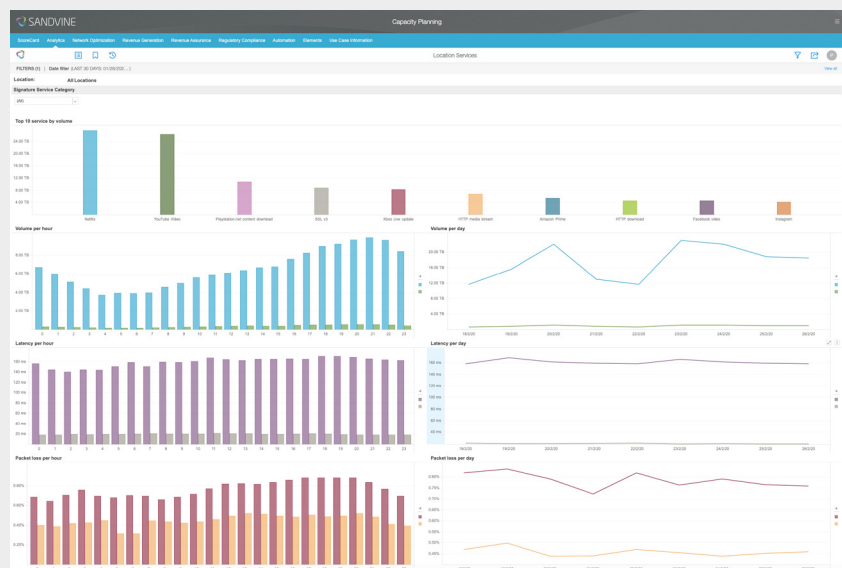


## Location Services

Service providers benefit from an end-to-end view of the services that are driving demand by location. This data can also be broken down by AppLogic Networks' GoE metrics, giving a full understanding of application trends over time.

Figure 2

Capacity Planning Analysis  
Location Services



# Capacity Planning Analysis



By using AppLogic Networks' Capacity Planning Analysis use case, service providers can optimize their investments, ensuring that capital is spent where the maximum benefit is achieved on QoE.

## ABOUT APPLIC NETWORKS

AppLogic Networks' cloud-based App QoE 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 <https://www.applogicnetworks.com> or follow AppLogic Networks on X @AppLogic Networks.



**USA**  
5800 Granite Parkway  
Suite 170  
Plano, TX 75024  
USA

**EUROPE**  
Neptunigatan 1  
211 20, Malmö  
Skåne  
Sweden  
T. +46 340.48 38 00

**CANADA**  
410 Albert Street,  
Suite 201, Waterloo,  
Ontario N2L 3V3,  
Canada  
T. +1 519.880.2600

**ASIA**  
Arliga Ecoworld,  
Building-1, Ground Floor,  
East Wing Devarabeesanahalli,  
Bellandur, Outer Ring Road,  
Bangalore 560103, India  
T. +91 80677.43333

Copyright ©2025 AppLogic Networks Corporation. All rights reserved. Any unauthorized reproduction prohibited. All other trademarks are the property of their respective owners.

This documentation, including all documentation incorporated by reference herein such as documentation provided or made available on the AppLogic Networks website, are provided or made accessible "AS IS" and "AS AVAILABLE" and without condition, endorsement, guarantee, representation, or warranty of any kind by AppLogic Networks Corporation and its affiliated companies ("AppLogic Networks"), and AppLogic Networks assumes no responsibility for any typographical, technical, or other inaccuracies, errors, or omissions in this documentation. In order to protect AppLogic Networks proprietary and confidential information and/or trade secrets, this documentation may describe some aspects of AppLogic Networks technology in generalized terms. AppLogic Networks reserves the right to periodically change information that is contained in this documentation; however, AppLogic Networks makes no commitment to provide any such changes, updates, enhancements, or other additions to this documentation to you in a timely manner or at all.