

# Planning Insights



## KEY BENEFITS

Planning Insights is key to discovering between 10-20% extra bandwidth in your network to optimize and save on CAPEX deferrals

**The world has changed. Our lifestyles have changed. And we're connected to the Internet 24/7 with greater demands than ever before. There has been an unprecedented amount of traffic growth as it is not uncommon to have user consuming over 1TB of data in any given month.**

Over the last few years, Telecom Service Providers have barely been able to keep up, and it's now becoming difficult. The overall traffic demands are outweighing a service provider's ability to keep up with their capital spending.

While carving out a portion of their operating cash flow to keep up with growth demands and to maintain a strong quality of experience, service providers are simply feeling stuck.

For example, Capacity Planning teams struggle with understanding how to prioritize their investments for a few reasons. One of these main reasons is to pinpoint how changes to their investments truly affect their subscriber's overall quality of experience. They also struggle in times of congestion because they are unsure of what applications are causing this and whether they can take action on the network, without affecting the overall experience.

**This is primarily because they lack the visibility of what's happening on the network.**

Big Data teams also struggle with their ability to provide relevant data when it comes to building strong prediction models on trends and traffic growth based on their business objectives. They too lack granular information of what exactly is happening on the network, hindering their ability to provide prediction models they can trust.

Both teams are limited with the quality of their data as decisions for network planners today are based on throughput (tonnage) and capacity, while Big Data teams struggle to build solid AI/ML models due to the lack of having the right data.

Planning Insights is a software visualization and workflow solution that removes any doubt about how customers feel about their service provider's network. Having this information makes it easy for service providers to make well informed decisions on their investment and opens new doors to help Big Data teams realize new predictive AI/ML based models.

To make the most informed decisions, workflows need to consider the Who, What, Where, When, and Why. That is easier said than done. In the past, understanding these attributes became very difficult with encrypted networks so most of the information required to help an operator become successful did not exist. Thankfully, leveraging AppLogic's disruptive technology, service provider's data becomes usable again.

Simply by classifying the data and applying Sandvine's unique and extensive KPIs, building upon its latest App QoE scoring and contextualizing this with device, subscriber, node, location, and other key info, planning groups can say with confidence that they know what is happening on the network and can truly make informed decisions.

## UNDERSTANDING THE WHAT

Planning insights (**Figure 1** on the following page) helps Network Planners to:

- Identify congest domain, links, and nodes that need an upgrade at any particular point in time
- Provide both Historical and Predictive Analytics
- Provide flexible model frameworks to calculate network capacity planning

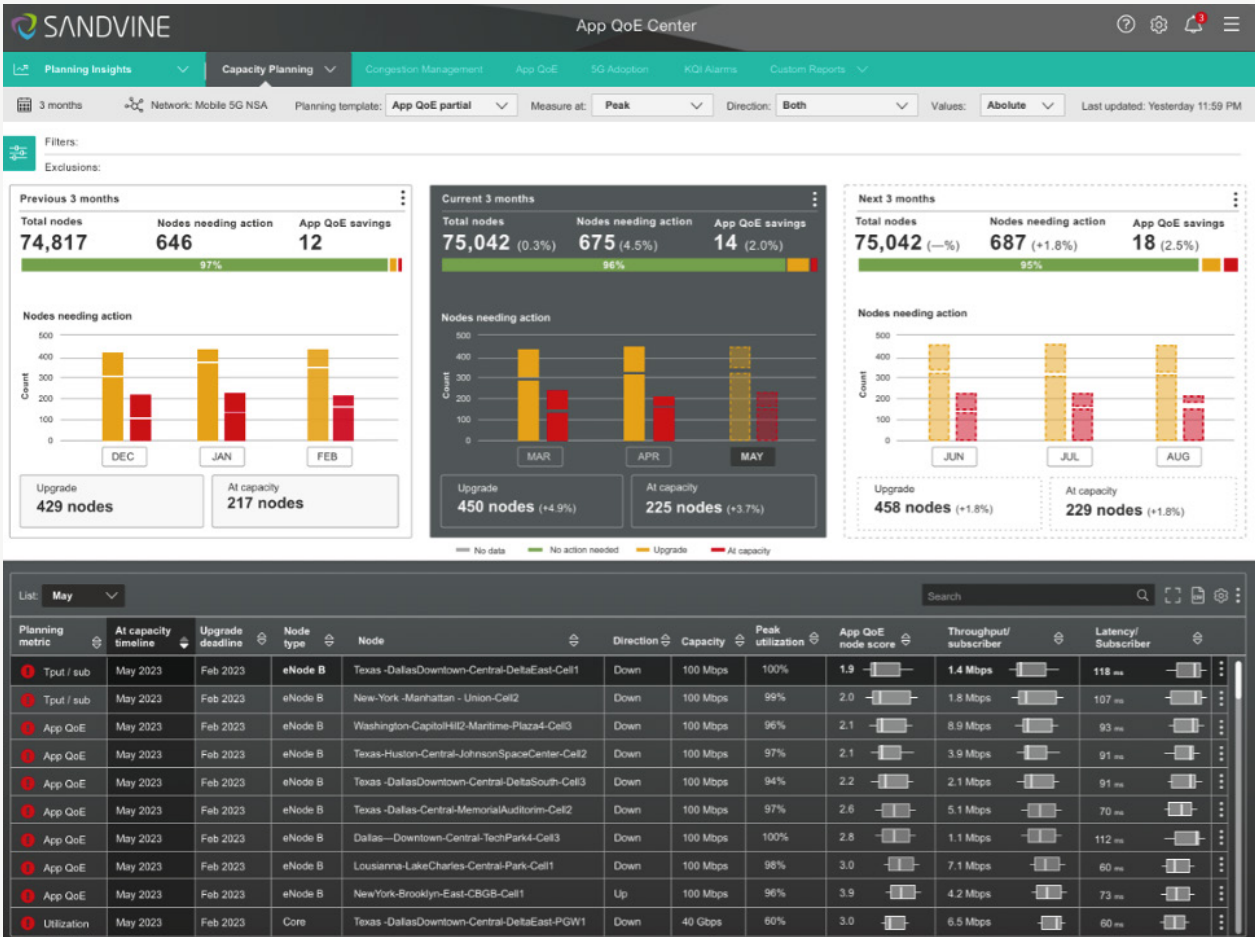
Node types can be modeled based on:

- The App QoE Node Score
- The Utilization
- The Throughput per Subscriber

Mixing this information with the current data that service providers already have places planning groups at an advantage to gain significant CapEx savings.

Figure 1

Overview Dashboard



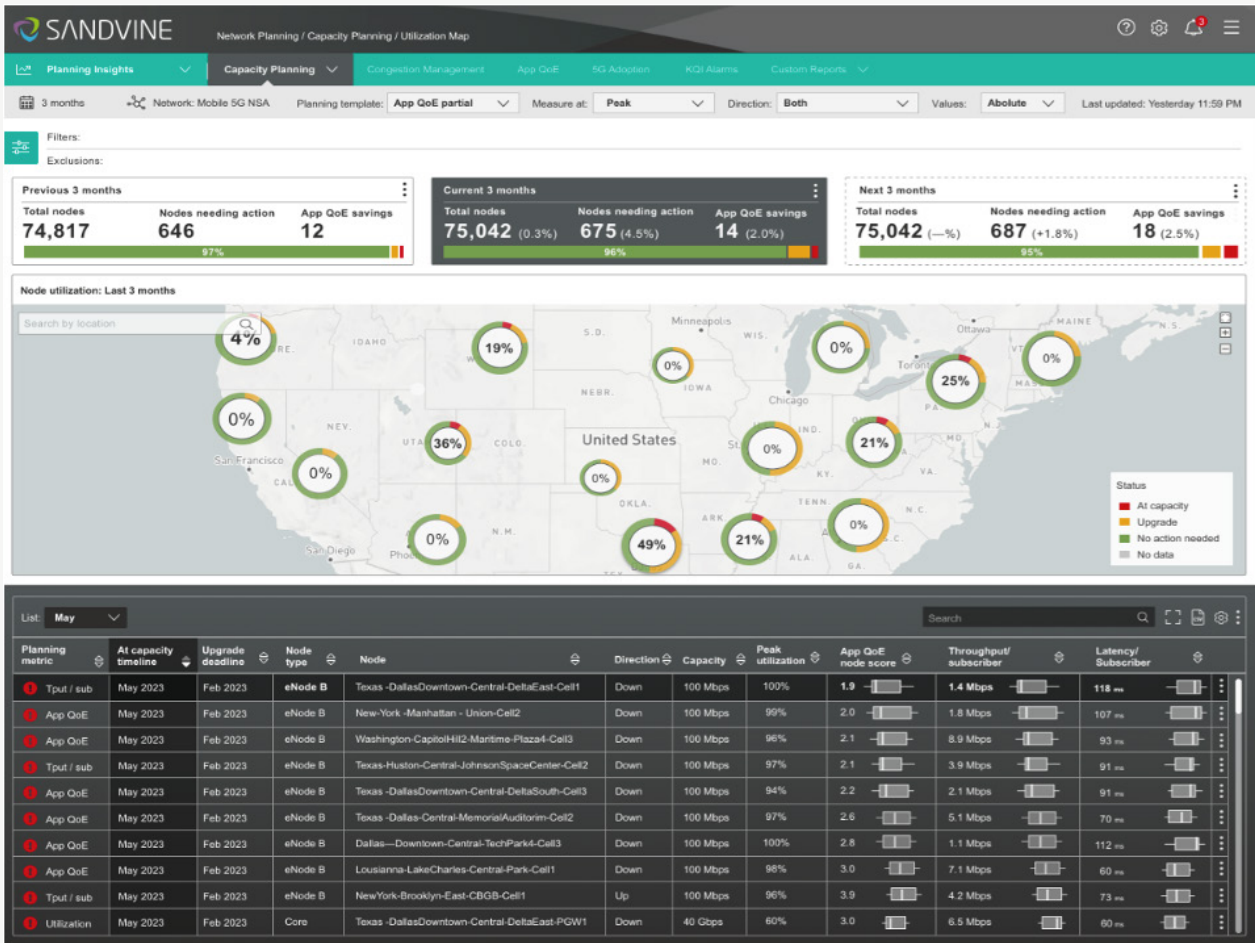
UNDERSTANDING THE WHERE

The Planning Based Node Utilization View (Figure 2 on the following page) is key to pinpoint issues based on location. In this dashboard users can have a:

- Location view of congested nodes
- Cluster aggregation of nodes for easy visualization
- Historical and Prediction location view
- Detailed analysis per node with easy to export functionality

Figure 2

Location-based node utilization



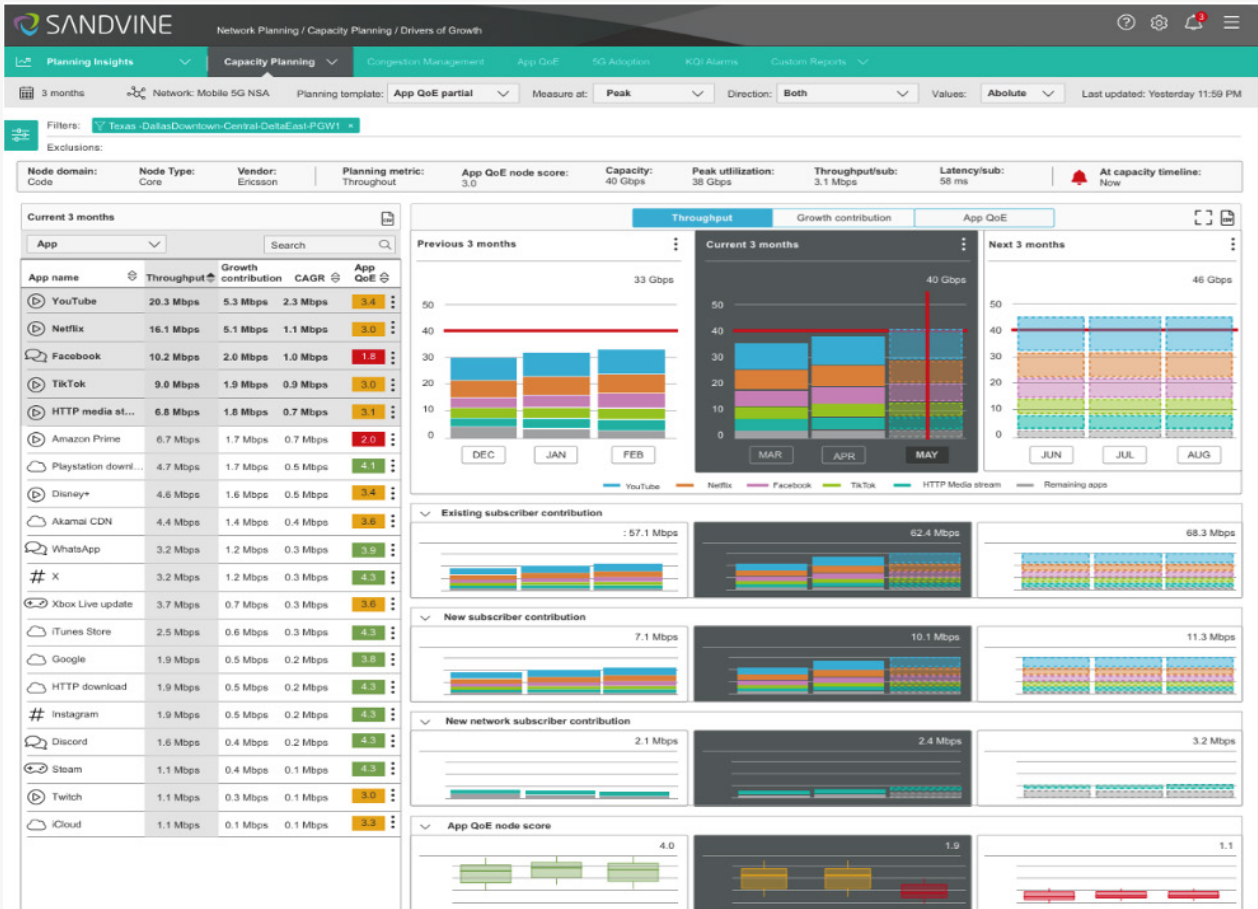
### UNDERSTANDING THE WHY

Being able to understand why certain issues or congestion is occurring is key. This can only be done if the right visibility is available. Today, Sandvine is the leader in providing the world's most comprehensive classification. This coupled with our innovative App QoE scoring makes this extremely valuable to our customers. With our Application-based Node Utilization view (Figure 3 on the following page), planners can:

- Understand the Why: Do a deep dive into why a node is congested and what applications are driving existing and future congestion.
- Unlock App Complexity: Having a detailed summary of the capacity utilization per application, application category and content category.
- Understand Growth Drivers: Having a deeper dive into drivers of growth per application, application category and content category, for example:
  - Applications using more throughput per subscriber
  - Application that are becoming popular (Next Best App)
  - New Network Subscriber using the applications
- Obtain an App QoE Score: Having a true understanding of customer sentiment depicted through Application, Application Category, and Content Categories.

Figure 3

Application-based node utilization



WHAT ABOUT THE BIG DATA FOLKS?

Having this new information at their fingertips opens many doors for the Big Data and Data Science teams within a service provider. Simply understanding the type of traffic with Sandvine's industry leading classification and AppLogic allows Big Data teams to build the following AI/ML-based models, such as:

- Heavy User Predictions
- Node Profiling
- Node Prioritization
- Node Optimization Identification & Possible Reasons
- Monetization Opportunities Identification
- Node Identification with similar characteristics
- Backhaul Design Optimization
- Pattern & Anomaly Detections
- Node Energy Savings

Whether you are planning the next few months or the next few years, Planning Insights can help your team gain confidence in putting the right investment strategy in place.

## 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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