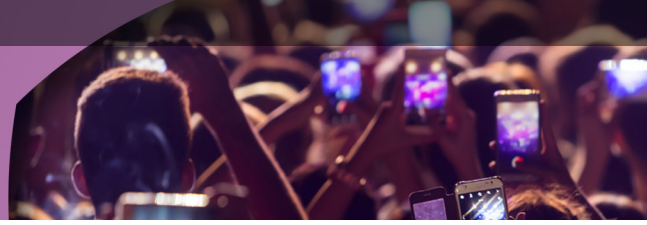
Fair Usage and Congestion Management



KEY BENEFITS

- Helps defer capital expenses for access network equipment by extending lifetime
- Lowers operating costs with fewer equipment installations
- Reduce customer churn and support costs
- Topology-aware congestion detection using real-time subscriber QoE
- Enables confidence in planning capacity expansion, and adopting quality-based network provisioning

Network planning teams understand that congestion is an ongoing network problem, regardless of the size or access technology. Concerns about how to manage it show no signs of abating in the foreseeable future. Network congestion occurs when demands for resources exceed resource capacity and that capacity is bounded by two overriding factors: the investment required to expand capacity and the quality of experience (QoE) delivered to customers.

Networks are designed to be responsive to customer and user-traffic requirements, to handle peak loads, and to provide reasonable returns on investments. However, the reality is that networks cannot be economically built to deliver against all potential future requirements because customers can present rapidly changing needs; peak loads can vary wildly, return on investment (ROI) and budget projections can falter in the face of competitive pricing pressures, and other business-related issues.

Another layer of complexity is that service providers are also subject to the regulations imposed on them by regulatory bodies on what is deemed “reasonable” traffic management. Insights into the customer ecxperience is required for efficient, industry competitive operations.

SOLUTION OVERVIEW

Congestion management may take many forms. Service providers can analyze historical trends for planning purposes, but this approach is not helpful as a method for responding to real-time network congestion issues, which require dynamic and automated actions rather than static rules and manual actions.

Sandvine takes a more dynamic approach to managing congestion, combining traffic management with policies that are triggered when and where needed. The Use Case provides precise and effective congestion management based on a much broader set of conditions, which include:

- Priority by application or application type, by source or destination, and by network type.
- Personalized subscriber-related attributes such as recent usage, service plan, and type of device
- Real-time monitoring of QoE metrics at locations throughout the network, which can then inform actions to maintain specified quality levels

Figure 1

Fair usage and congestion management Overview

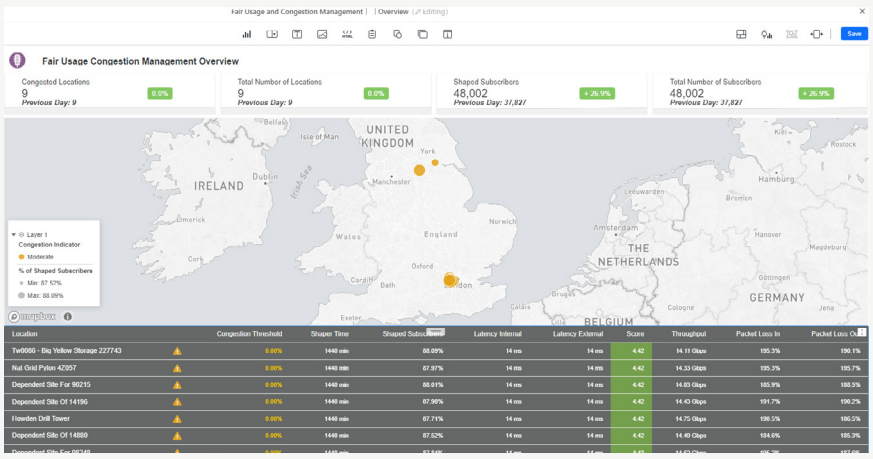
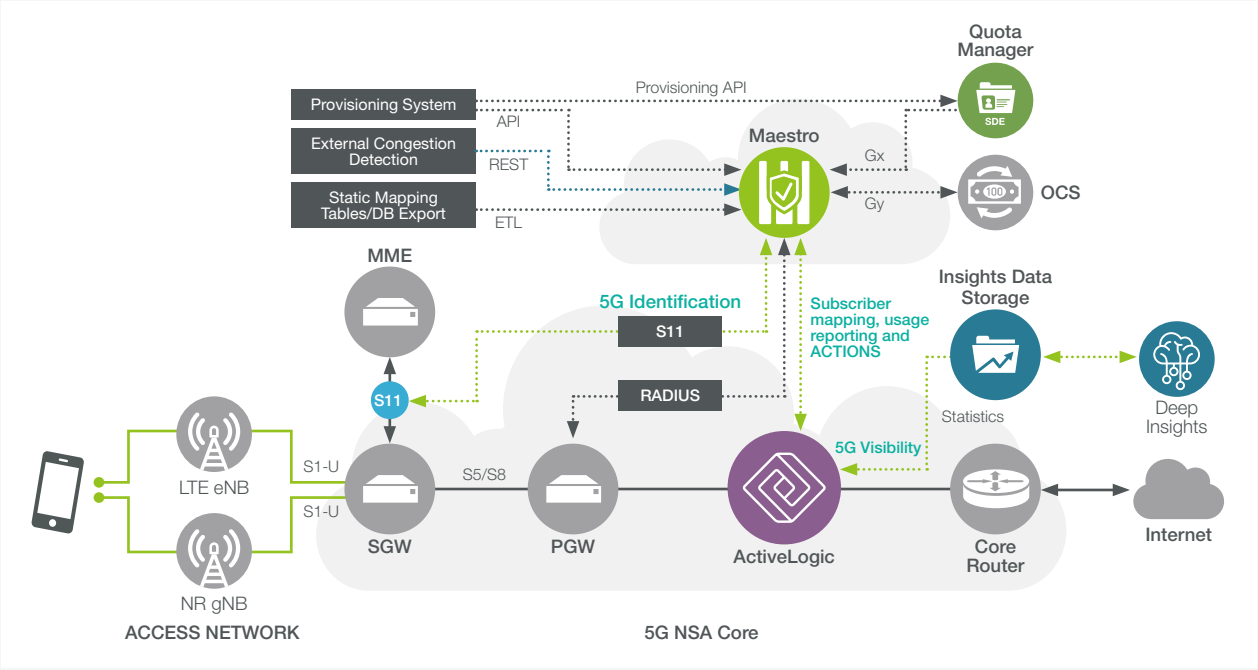


Figure 3

Mobile network architecture



REQUIRED SOLUTION COMPONENTS

- ActiveLogic
- Maestro Policy Engine
- Video Score Engine
- 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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