

Home Network Diagnostics

KEY BENEFITS

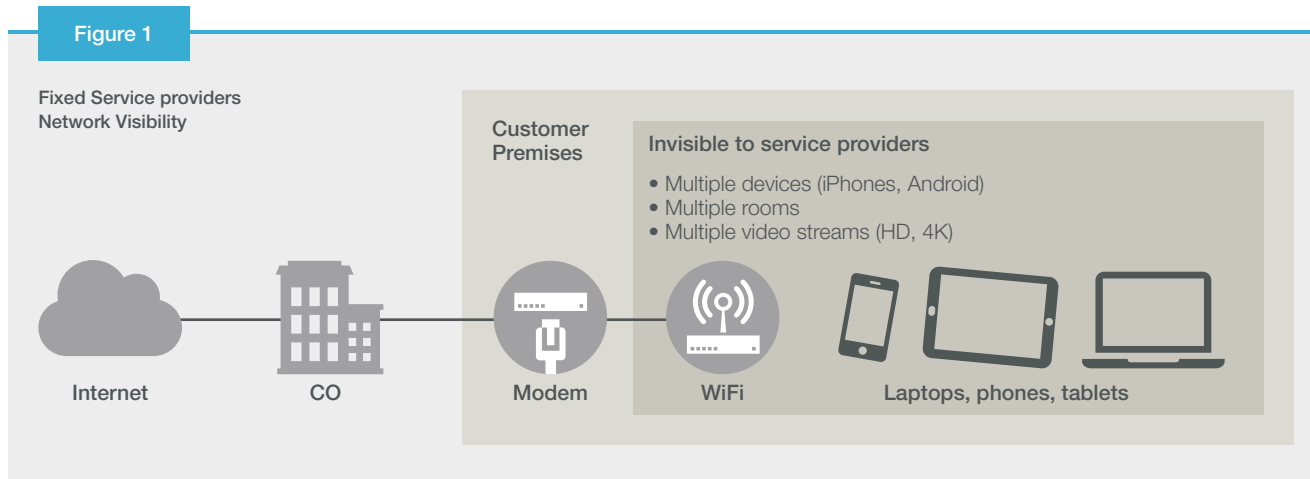
- Easily conduct Root Cause Analysis that allows for a reduction in truck rolls/enable proactive truck rolls to customer
- Upsell of WiFi range extenders
- Reduction in customer care calls

Customer care groups are often called by consumers complaining about their internet service. Consumers lack the ability to troubleshoot their own network issues as home networks have become more complex, with different spectrum bands and coverage available (e.g., 2.4GHz and 5GHz), multiple devices, multiple rooms, and multiple simultaneous screens.

Traditionally, fixed service providers have had very good visibility into network performance to the CPE (Customer-Premises Equipment), but very limited visibility into the home and potential issues. This often leads to:

- **Truck rolls:** A very expensive resolution option for the service provider, not only in terms of labor cost, vehicle fleet maintenance, but also in poor customer experience through delayed problem resolution.
- **Missed upsell opportunities:** Poor WiFi placement in the home is a missed opportunity when engaging with a customer who has a WiFi strength issue.
- **Load on call centers:** Unnecessary support calls consuming call center resources.

Figure 1



SOLUTION OVERVIEW

Similar to how a doctor uses an EKG to interpret and diagnose various heart conditions based on unique patterns, Sandvine uses network performance characteristics, measured at the core of the network, to interpret and diagnose various conditions associated with poor Wi-Fi performance (e.g., poor WiFi placement, WiFi congestion, and access congestion). Each type of WiFi issue has a distinct "traffic signature", which is used to indicate the root cause of the problem. These traffic signatures are tracked over days to indicate the persistency and therefore the likelihood customers will call in.

Home Network Diagnostics provides:

1. Visibility into the various issues being experienced by the customer with the Sandvine-developed diagnostic application
2. Proactive detection, allowing customer care teams to take actions before customers call to complain
3. Confident customer care management via customer issue history and root cause analysis
4. Accurate diagnosis of:
 - Poor WiFi placement
 - Upstream and downstream WiFi congestion
 - Upstream and downstream access congestion
 - Clear determination of whether it's an access network issue or home WiFi issue before rolling out field force resources

Figure 2

Home Network Diagnostics Overview Dashboard

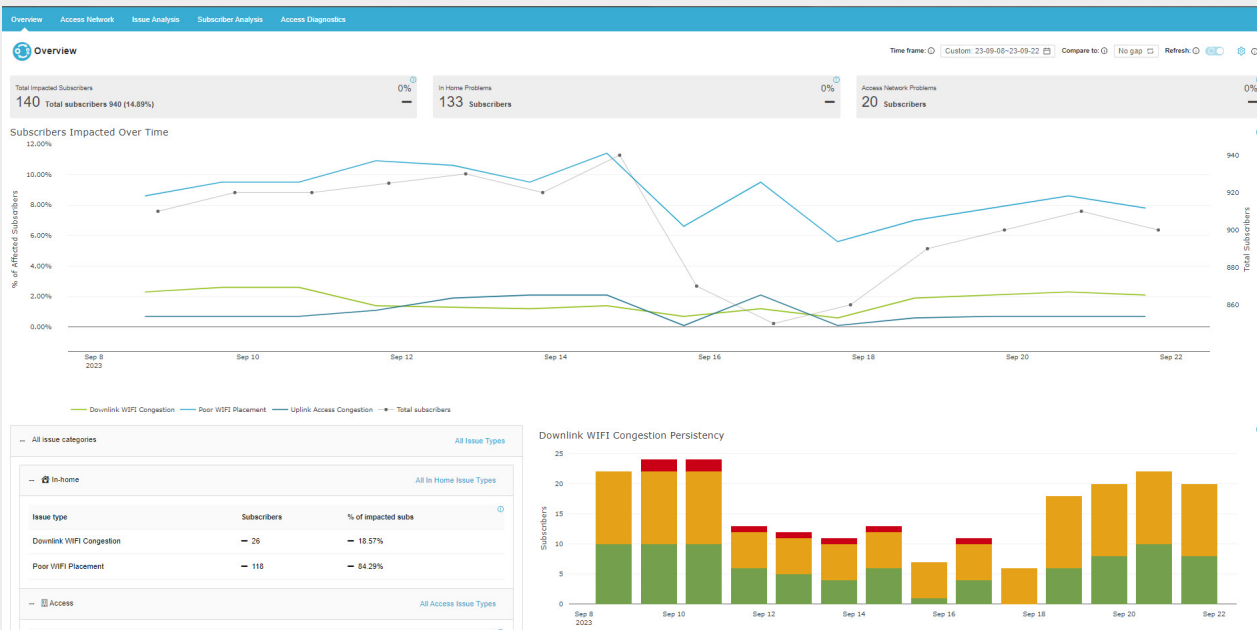
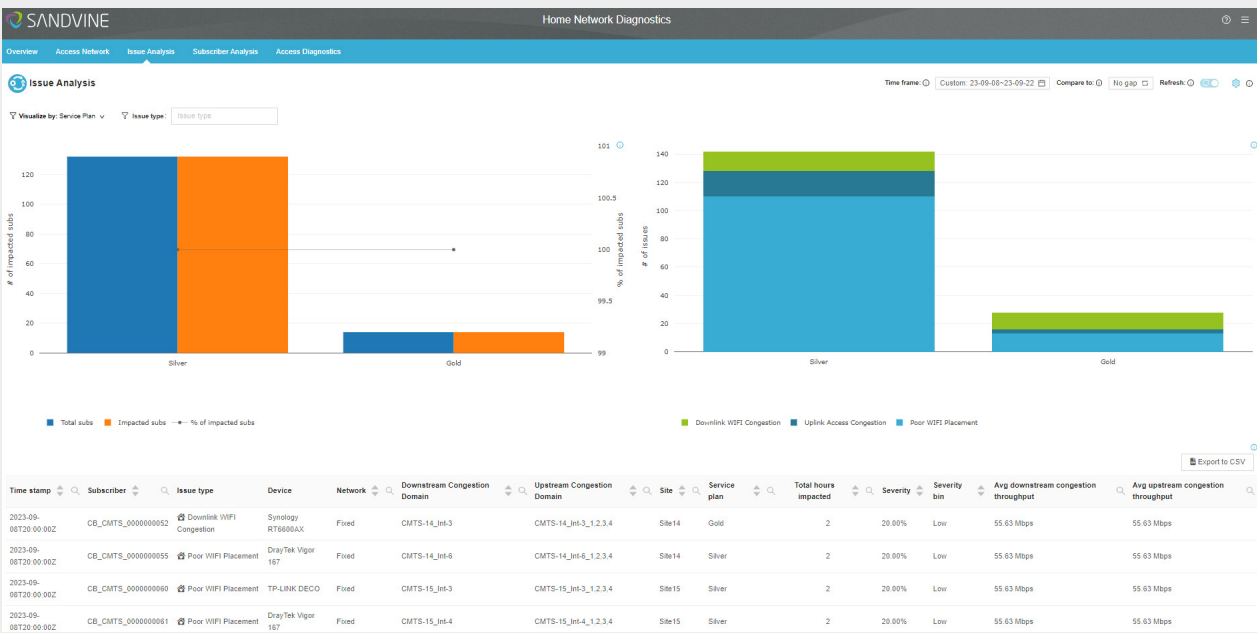


Figure 3

Home Network Diagnostics – Issue Analysis



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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