

North American Cable Operator Assures Carrier WiFi Services with NetScout

Overview

Customer

Major Cable Operator in North America

Region

Americas, United States

Business Challenge

- Provide a seamless, high quality user experience over new WiFi infrastructure
- Understand the availability, usage and quality of service
- Cost effectively deploy WiFi infrastructure with no prior knowledge of demand or usage patterns

Business Value of the nGenius Solution

- Provided greater visibility to hotspot demand, performance and usage
- Enabled customer to optimize WiFi bandwidth, saving the company millions of dollars within the first six months
- Allowed the operator to quickly address degradation and downtime to assure a positive user experience
- Provided a single monitoring platform capable of scaling to national footprint and supporting voice, data, and video services



Introduction

A major cable network operator in the United States with operations that span over half of the United States serving more than 10 million residential and business customers with video, high-speed data and voice offerings. More than 60% of the company's customers subscribe to two or more of these services, with nearly one-third receiving all three.

Challenge

With the nationwide rollout of a new WiFi hotspot service, they needed to assure the performance and availability of service as well as provide meaningful data to understand usage patterns across 2000+ hub sites located across multiple strategic locations. Because all existing users would have access to the WiFi infrastructure as part of their service bundle, maintaining satisfaction levels through this additional service was an essential consideration to keeping existing users happy, building brand loyalty, and reducing customer churn.

Solution

To monitor the WiFi services, the cable operator purchased the nGenius® solution comprised of InfiniStream® appliances and nGenius analytics modules. The solution gives them visibility into the health and performance of their WiFi services, assures service availability and customer experience. Additionally, the nGenius solution gives the cable operator visibility into subscriber usage patterns of the WiFi service which is critical for capacity planning. The cable operator is also using the solution to monitor their Video-on-Demand (VoD) service to assure application performance, service levels, and to help with network troubleshooting.

Benefits

The nGenius solution gives the cable operator visibility into its aggregation core where WiFi traffic authenticates, providing them with visibility into the health and usage of the service. The solution monitors their Domain Name Services (DNS) servers, HTML, and other service enablers and proactively alerts the IT team when traffic patterns deviate from a baseline norm, providing detailed and meaningful data about imminent issues and where they reside.

According to the Director of Network Operations, "Prior to NetScout, it was like being a plumber looking at the outside of the pipes and saying I don't see a block."

Carrier Grade Platform Allows for Advanced Service Monitoring

The cable operator's IT team started with the internal, corporate WiFi network and organically built alarms and thresholds as needed. As they became acclimated with the nGenius solution, they began looking more at how the depth and detail in the solution could be utilized to quantify the customer experience. "It's hard to quantify customer experience," said the Director of Network Operations. "So what we did is look at the interior of the network, where we used NetScout to monitor tunnel protocols." In fact, the cable operator looks at all key ports, which are optically tapped at the core. These "big pipes" utilize InfiniStream appliances to monitor the payload of each port providing visibility into response times and enabling the operations team to set alarms when response times deviate from their predetermined thresholds.

Usage Visibility Reduces CapEx and Improves Capacity Planning

Leveraging the nGenius solution, the cable operator creates custom reports that help it understand the health of the network as well as usage patterns. These reports have enabled them to discover that its users were undersubscribing to its WiFi hotspot service. Using key statistical information on the type of the usage its users were engaging in across WiFi hotspots, the reports helped the operator identify and understand that users

have different surfing patterns on the road than at home. As it turned out, a majority of the traffic generated from the hotspots was quick and mostly text-based rather than the vast amounts of streaming video and audio found with home users. "We found that customers were more inclined to utilize WiFi hotspots for quick access to email, news, and social media rather than streaming video, gaming, or other bandwidth intensive tasks. Finding and identifying this allowed us to see our capacity utilization and model our services to fit the customer usage patterns – this alone has saved us several million dollars already."

This use of capacity planning helps the operator stay on top of service performance levels and enables the network and operations teams to proactively identify both overprovisioned and under provisioned situations. "We might see an upsurge in streaming video or may see use of a VoIP application that allows customers to make phone calls. We want them to be able to do everything on [our] WiFi [infrastructure] that they do at home."

nGenius Solution Enables Visualization and Monitoring into the Delivery of Services to Efficiently Manage Availability, Quality and the User Experience

The cable operator has created what the Director of Network Operations referred to as a "sticky service" and as a result, they need to keep customers happy. This includes assuring service performance and availability across its bundled services. "Each bad customer experience leads to potential customer churn. We need to get ahead of service performance issues by being proactive and making sure our customers have a good, consistent experience."

To assure service performance across their production network, the cable operator deployed NetScout Intelligent Data Sources across multiple strategic locations in major US cities. These data sources collect packet data and send it to nGenius analytics modules, which aggregate the information into meaningful dashboards. Leveraging the information provided in the dashboards,

they are effectively monitoring performance across its locations and throughout 2100 hub sites to provide real-time, actionable information on the performance of each to ensure services are delivered and customer expectations are met.

With the success of their WiFi project, the cable operator is now leveraging the nGenius solution to provide visibility into their Video-on-Demand (VoD) service. "Video is especially important and NetScout helps us stay on top of our commitment to our customers."

The cable operator leverages the nGenius solution to ensure that their VoD offering delivers the consistent performance that their users have come to expect. This includes ensuring that VoD services are available across various screens and platforms; thumbnails are visible, content loads within a predetermined time, and that content plays through without degradation.

It was concluded that, "We have had NetScout running for about six months and it has been great. Because of its success, we now have a number of folks that are interested in its capabilities including marketing for key statistical metrics, and security for denial of service (DoS) attacks."

About NetScout

NetScout is the market leader in enabling comprehensive network, application and service assurance for wireless, cable and fixed network operators. For over 30 years, NetScout has delivered breakthrough packet-flow technology. The nGeniusONE™ Service Assurance platform helps dramatically shorten the time required to solve network and application performance issues by providing one common set of metadata for service visibility across application tiers, network components, and diverse user devices. Our next generation Deep Packet Inspection (DPI) engine, powered by NetScout's patented Adaptive Service Intelligence™ (ASI) technology, leverages packet-flow data to provide real-time, contextual analysis of service, network, and application performance. The nGenius solution is deployed at more than 165 service providers in over 48 countries.

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NetScout offers sales, support, and services in over 32 countries.

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