

nGenius Voice | Video Engine Appliance

High-performance intelligent data source architected for the real-time measurement of telepresence, video and voice traffic performance

Highlights

- High performance nGenius Intelligent Data Source optimized to collect real-time Unified Communication (UC) call and session metrics
- Supports cost-effective deployment along UC call paths where combined data and UC measurements are not required
- Recognizes and analyzes all telepresence, video and voice session traffic providing network and application performance measurements
- Enterprise-class performance supporting up to 10,000 active UC session streams per appliance
- A compact rack mountable formfactor enables deployment in constrained environments
- Software-based architecture enables in-place field updates

Product Overview

nGenius® Voice | Video Engine appliance is specifically architected for the measurement of telepresence, video and voice service quality for nGenius Voice | Video Manager console. The high-performance appliance performs real-time packet-flow based analysis of all Unified Communication (UC) traffic, regardless of UC vendor equipment, enabling nGenius Voice | Video Manager to gather performance metrics from across a highly distributed network environment. The appliance can be strategically deployed along UC call and session paths to enable visibility into real-time media streams and supporting complex multi-vendor environments.

nGenius Voice | Video Engine appliance offers a compact footprint and only requires 1RU of rack space enabling deployment in even the most space-constrained locations. Low power consumption and minimal cooling requirements enable greater deployment flexibility. Built on the same hardware technology as the next generation nGenius InfiniStream® 2900 series appliance, nGenius Voice | Video Engine appliance hosts the nGenius IP Engine Agent software which performs the real-time analysis of UC streams and generates detailed performance metrics for both video and voice sessions.

Complementing nGenius InfiniStream appliance, which collects data traffic metrics for nGenius Service Assurance Solution, nGenius Voice | Video Engine appliance is specifically dedicated to the measurement and creation of UC-specific session metrics. This enables the IT organization to cost-effectively deploy appropriate instrumentation to meet the tasks of measuring UC session traffic paths that do not require data service monitoring.

The appliance leverages packet-flow analysis capabilities to assess both packet headers and the application payload to reveal the performance characteristics of UC services including telepresence, video and voice sessions. All measurements are performed in real time and reported to nGenius Voice | Video Manager console in user definable intervals. As a part of nGenius Voice | Video Manager solution, performance metrics can be calibrated according to a wide range of UC vendor endpoints to dynamically adjust performance measurements to the characteristics and expected behavior of specific endpoints. nGenius Voice | Video Manager console collects, correlates and stores all metrics from appliances distributed across the network.



Figure 1: nGenius Voice | Video Engine appliance enables scalable and focused collection of Unified Communications service performance metrics from across a distributed enterprise service delivery environment.

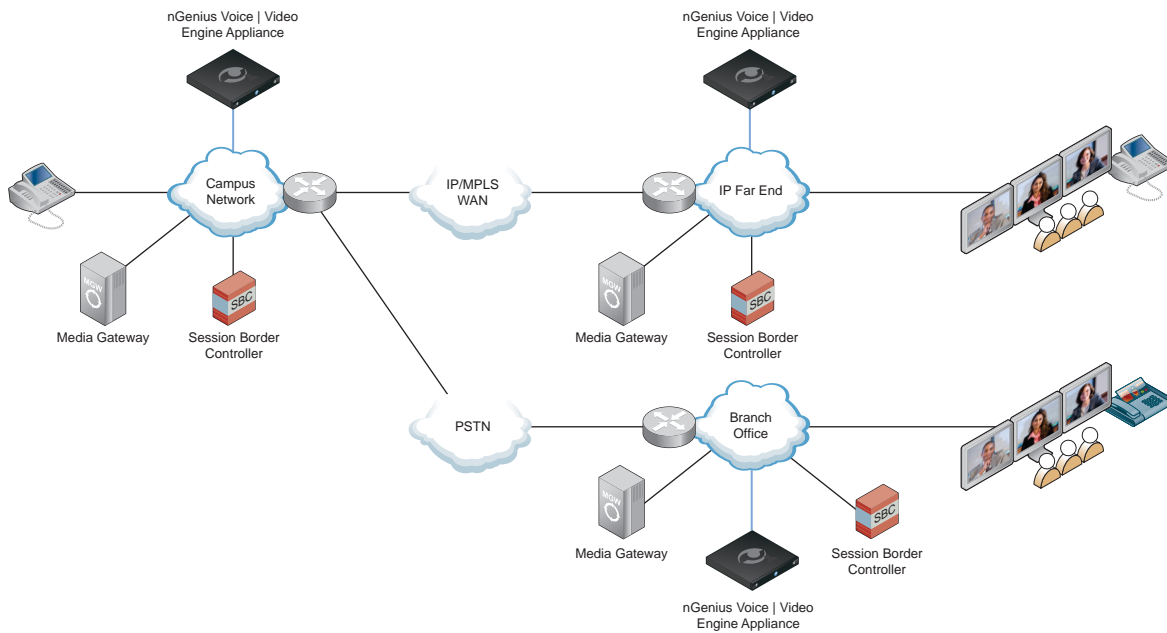


Figure 2: Combining collocation of the nGenius Voice | Video Engine Appliance with regional distribution provides end-to-end perspective of user experience.

Product Capabilities

- Always on, high performance analysis of telepresence, video and voice traffic
- Utilizes full packet data to provide comprehensive view of critical telepresence, video and voice services
- Support for up to four physical Gigabit Ethernet ports from a single appliance
- Flexible support for fiber and copper connections
- Small form factor addresses space constraints with lower power and cooling requirements
- Single connection provides bi-directional UC session stream visibility
- High performance, flexible hardware platform provides years of headroom for incremental capabilities through in-place software updates

Interfaces and Speeds

nGenius Voice | Video Engine appliance is available in three different configurations to enable flexibility for a wide range of deployments. Ranging from two ports to four ports per appliance and all copper 10/100/1000 interfaces, to a highly flexible model that supports up to four SFP-based interface ports ranging from SX, SL or TX interfaces.

Remote Management

nGenius Voice | Video Engine appliance offers two 10/100/1000BaseT management ports. These ports allow the separation of management traffic between nGenius Voice | Video Manager console and the appliance to be isolated from the active network. This helps to ease management traffic burden on production networks, ensures accessibility during traffic storms that can affect performance and improves the level of security for measurement data.

Secure Operating Environment

nGenius Voice | Video Engine is an enterprise-class appliance that runs on a hardened Linux® operating system which is optimized for secured operation. Access to stored data is controlled, password protected and privileges can be tiered to control access to sensitive communications.

Deployment Strategies

nGenius Voice | Video Engine appliance is ideally deployed across key network points supporting the traffic path for UC sessions. Greater comprehensive instrumentation will yield more detailed metrics and visibility into service performance. Mid-point metrics collected along call paths complement end-point metrics.

To understand critical video and voice user sessions end-to-end key instrumentation points should include call path ingress/egress points, media gateways, SIP trunk demarcation, and WAN links if using internet-based transport for UC sessions.

Since video conferencing and telepresence are typically strategic assets with a representative high value of investments, and requiring a high degree of bandwidth, it is a best practice to deploy dedicated instrumentation at each video conference room to achieve end-to-end visibility of video conference sessions. More details can be found in the NetScout Intelligent Data Sources –Deployment Strategies and Best Practices technical brief.

Upgradeability

nGenius Voice | Video Engine appliance utilizes a highly flexible software-based architecture enabling flexible future upgradeability. In-place software updates can be applied to deployed appliances to facilitate additional support for new measurement functionality, new protocols and new codec support.

Model	1906/GS-VVE	2916/LS-VVE	2910/LS-VVE
Physical Dimensions	42.4 x 434.0 x 610 (mm) (w/o bezel) 1.69" H x 17" W x 24.00" D (in)		
Rack requirements	1 Server Rack Unit (1RU) – 2 Post Mounts		
Weight	33.02lbs. (15kg)		
Analysis Ports	Two (2) Port 10/100/1000Base-T	Four (4) Port 10/100/1000Base-T	Four (4) Port SFP-based GbE SFPs sold separately Supported Interfaces: SX, SL or TX
Number of Concurrent Streams	Up to 4,000	Up to 4,000	Up to 10,000
Operating System	Customized and Secured Linux		
Management Ports	(2) RJ-45 10/100/1000Base-T	(2) RJ-45 10/100/1000Base-T	(2) RJ-45 10/100/1000Base-T
Storage	2 TB drive array provides headroom for future expansion SSD Flash drive reserved for future use		
Power Supply	100-240VAC, 50/60Hz non-redundant 350W Supply		
Max Power Consumption	350W: 1.87A, 210W, 717BTU/Hr		
Power Rating	100-240VAC, 50/60Hz, 400W Supply (6A @ 100VAC, 3A @ 240VAC)		
Environmental Specifications	Operating Temperature: 50° to 95°F (10° to 35°C) Operating Humidity 8% - 85% (non-condensing)		
Regulatory Agency Approvals	Regulatory Model Number: AQU, FCC Class A, CE Mark (EN 55022 Class A, EN 55024, EN 6100-3-2, EN 61000-3-2), VCCI (Japan) Class A, UL 60950-1 CAN/CSA C22.2 No. 60950, EN 60950, CB Report UL-GS (DEMK0)		



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