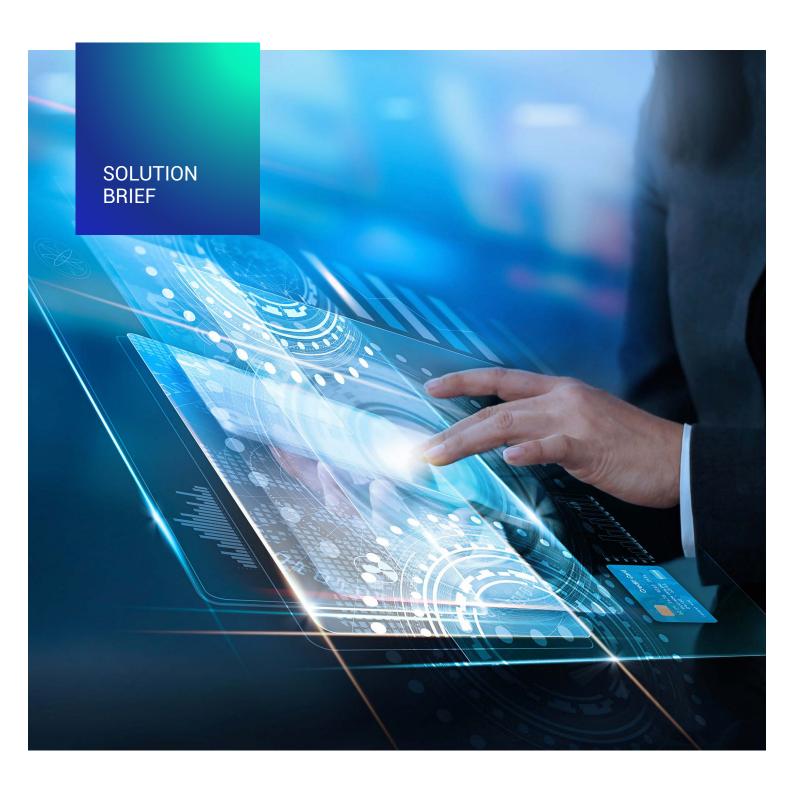
# InfoVista and Nuage Networks – Augmenting SD-WAN with Application Visibility and Troubleshooting







Nuage Network and InfoVista have partnered to provide a joint SD-WAN and Application Visibility and Troubleshooting solution to enterprises and managed service providers. The joint solution provides deep application visibility to enterprises that are already benefiting from the operational efficiencies of an SD-WAN solution that is powered by Nuage Networks' Virtualized Network Services (VNS).

- InfoVista Ipanema provides enterprises with premium visibility that is required to monitor and benchmark the performance of applications objectively.
- InfoVista's 5View suite further provides detailed application usage and performance, tracks individualized issues and remediates with end-to-end troubleshooting.
- The solution can be easily deployed on Nuage Networks
  Network Service Gateway (NSG), an x86 server platform, to
  provide enhanced application optimization to enterprises
  and managed service providers and is deployable as a virtual
  network function (VNF).
- The joint solution reduces operational complexities by integrating multiple VNFs on a common platform.
- The joint solution represents the best-of-breed combination for an application-focused SD-WAN solution in the marketplace.

## SD-WAN ROI is achieved with a Stealth and Healthy Application Ecosystem

The partnership between InfoVista and Nuage Networks brings to enterprises a solution that provides application visibility, performance, availability and troubleshooting capabilities across the corporate and branch networks. Application performance can be meaningful only if the qualities of deep packet inspection, remediation and troubleshooting are included, to ensure that the application can deliver optimum performance.

The bottom line of all enterprise technology endeavors is maximizing efficiency and profitability. Regardless of the size and location of the organization, enterprises are looking to drive end-to-end operational effectiveness, vertically and laterally between several business units and within organizations, to optimize customer satisfaction and revenue potential.

The CIO today is responsible for driving IT performance and ROI to result in a successful application portfolio investment. ERP, unified communications, cloud applications, virtual desktops, social media, videos, database transfers, mobility and BYOD are all critical applications that contribute to business efficiency.

An application's deep visibility and remediation solution, coupled with an SD-WAN solution, represent the needs of today's enterprises and deliver:

- Business efficiency
  - Monitors and reports application usage up to high levels of management granularity
  - Identifies and solves issues that drive application malfunctions in real time
  - Prioritizes the addressing of issues using troubleshooting tools
- IT efficiency
  - · Ensures adoption and end user satisfaction
  - Streamlines processes, projects load and reduces instances of help desk calls
- Cost savings
  - Protects application investments
  - Reduces costs related to help desk calls

## An Ecosystem that Empowers the Combination of SD-WAN and Deep Application Visibility

In order to guarantee the performance of business applications, an enterprise's IT organization needs an in-depth understanding of its applications ecosystem and the ability to communicate outcomes to internal stakeholders during all steps of implementation and running modes.

- During rollout, it needs to assess network readiness and the impact of a new application, track the deployment, confirm assumptions and adapt accordingly.
- In run mode, it should continuously monitor real application usage and performance from a high-level SLA dashboard view to obtain very detailed information. It should also communicate actual results against the expected internal SLA to business lines.
- In incident management, it needs to detect problems before end users have a chance to complain.
- During budget and capacity planning, it needs to justify network upgrades with documented facts and propose a scenario that aligns with business objectives.

Application Visibility is fully integrated with other Ipanema system features as the first step for enterprises to regain control over their networks. It enables IT to establish application performance baselines and verify the benefits of each Ipanema feature.

- Comprehensive set of reports: These go from CxO dashboards down to very detailed insights into real-time traffic flows.
- Highly granular to aggregated data views: These involve analyzing data based on the whole organization, business lines, geography, sites, applications or group of applications.
- Application Quality Score (AQS): A unique scoring method can be used as a common KPI that is applicable to all applications

to report end user experience and alignment with business objectives.

- Measurements of all IP packets: Measurements are made on the actual data packets, not on samples of packets or simulated flows.
- Cost-effectiveness: The Ipanema system does not require equipping all network sites to view application usage and performance over the network. Smaller sites can be "telemanaged" by central offices.
- Scale to all network sizes: Ipanema's central management platform and automatic on-boarding process allows enterprises to manage thousands of sites as one single platform.

In conjunction with Ipanema's Application Visibility, InfoVista's 5View Suite simplifies the management of the digital user experience by accelerating troubleshooting and streamlining the trends analysis of network and application performance.

## InfoVista Intelligent Integrated Application Visibility – Fully Integrated with Nokia Nuage SD-WAN Platform

The Nuage Networks Virtualized Services Directory (VSD) stages the InfoVista VNF and pushes the on-demand InfoVista VNF onto the Nuage Networks NSG on customer premises. The InfoVista VNF is then automatically started by the Nuage Networks platform on the NSG. Initial configuration of the VNF can be done through open-stack compliant mechanisms, such as Config Drive, or scripted configuration through its management interface. InfoVista's top-down licensing offers a centralized management of licenses by service providers through InfoVista's Central Management Platform (SALSA), ensuring ultimate flexibility in managing license pools across their managed customer base. Granular licensing is ensured through Ipanema software units (ISUs) that can be used to transfer or exchange licensing across services and sites of the same customer.

This joint solution has undergone stringent integration testing, and both InfoVista and Nuage Networks are currently engaged in several customer trials.

#### **Key Capabilities**

**Deep Packet Inspection:** Recognizes and classifies all business and recreational applications.

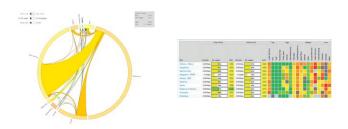
**Network Metrics:** Measures activity and performance metrics for each application.

**Application Quality Score:** Ipanema's unique scoring tool enables enterprises to see how application performance is perceived by end users and how it aligns with business.

**Usage and Service Level Metrics:** Measures volumes per application and quality evolution.

**Real-Time Dashboard:** Provides an instantaneous view of network and application conditions.

Troubleshooting Tools: Expedites incident resolution.



### About Nuage Networks from Nokia

Nu-âhj: From French, meaning "cloud." Nuage Networks from Nokia brings a combination of technologies and networking expertise to the enterprise and telecommunications industries. The Silicon Valley-based business has applied new thinking to the problem of delivering massively scalable and highly programmable SDN solutions within and across the data center and out to the wide area network with the security and availability required by business-critical environments. Nuage Networks, backed by Nokia's IP/Optical Networks business, has the pedigree to serve the needs of the world's biggest clouds. The cloud has made promises — the mission of Nuage Networks is to help you realize them (www.nuagenetworks.net).

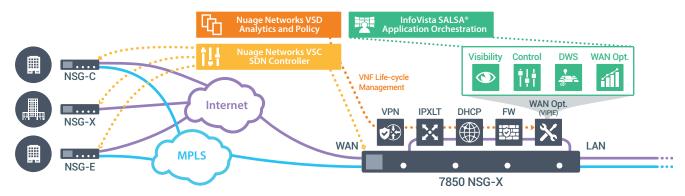


Figure 1. InfoVista - Nuage Networks Fully Integrated SD-WAN Solution Architecture



#### **ABOUT INFOVISTA**

InfoVista is the leading provider of cost-effective network performance orchestration solutions at the service of a better connected and collaborative world. Our award-winning solutions empower communications service providers and large enterprises to ensure a high-quality user experience by achieving optimal network performance and guaranteeing business-critical application performance. InfoVista's expertise and innovations provide a new level of actionable network, application and customer intelligence, visibility and control across all services, all technologies, and all domains of both the fixed and mobile networks. Using our solutions, eighty percent of the world's largest service providers and leading global enterprises deliver high-performing and differentiated services, plan and optimize networks to match application and service demands, and streamline network operations while keeping total cost of ownership as low as possible.

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