DATA SHEET

VistaInsight® Service Assurance for CSPs

Infovista's automated, programmable, NFV/SDN-ready service assurance platform for customer reporting and agile performance management of fixed, broadband and mobile services.

VistaInsight assures the delivery of IP, Mobility and Carrier-Ethernet based services for Communications Service Providers (CSPs), Mobile Network Operators (MNOs), and shared IT organizations. The solution monitors all layers and domains of fixed, broadband and mobile networks in real-time, providing powerful visualization tools for operations teams to accelerate detection and diagnosis of service quality problems; usage and forecasting tools for engineering teams to predict and optimize network capacity investments; and advanced multi-tier customer reporting to demonstrate SLA compliance and deliver high-value performance intelligence to the business services customer.
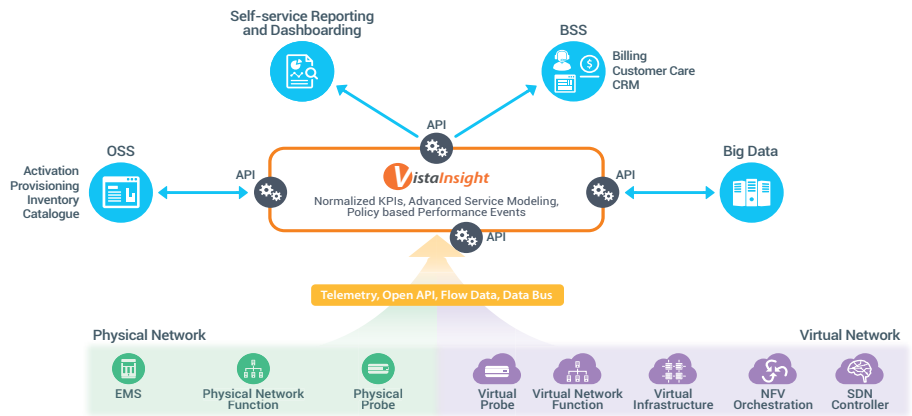

Figure 1. VistaInsight for Hybrid NFV Networks.

MAXIMIZING THE VALUE OF TODAY'S FIXED AND MOBILE NETWORKS AND ENABLING TRANSITION TO NFV- AND SDN- BASED SERVICES

Providing customers with actionable visibility of their services communicates the service value to the customer, proves that SLAs are being met and empowers them to improve their own problem detection/resolution times. Infovista's NFV- / SDN-ready solution delivers this visibility using a web-based, multi-tenant interface to best retain existing customers and acquire new ones.

ASSURING NETWORK SERVICE PERFORMANCE ACROSS FIXED, BROADBAND AND MOBILE NETWORK DOMAINS AND LAYERS

VistaInsight monitors all fixed, broadband and mobile network technologies in real-time including 2G, 3G, LTE, WiMAX, Optical, Microwave, TDM/SDH, ATM, DOCSIS, DSL, Carrier Ethernet and IP/MPLS physical and logical instances (such as EVCs and pseudo wires). Service quality, operations and engineering teams can see the performance of all network domains and layers (RAN, Backhaul and Core) in a single pane of glass, accelerating the detection and diagnosis of network service outages and degradations.

Figure 2. Optical and Radio network monitoring.

LEADING CARRIER ETHERNET 2.0 PERFORMANCE ASSURANCE BASED ON MEF BEST PRACTICES

VistaInsight is the first solution of its kind to incorporate the MEF Service OAM SNMP MIB for Performance Monitoring (MEF 36), which uses the ubiquity of SNMP to satisfy the service OAM requirements for Carrier Ethernet 2.0 services including the performance monitoring best practices of MEF 35, the Service OAM Performance Monitoring Implementation Agreement.

The VistaInsight solution has been tested against leading vendor implementations of MEF 36 such as ADVA, Overture, RAD, Nokia and Accedian. As equipment vendor adoption of these standards continue, VistaInsight will natively support new vendors adhering to the same standard.

As a result, CSPs are now able to begin incorporating MEF best practices into their service assurance frameworks, SLAs and customer reporting, to capitalize on widespread adoption of Carrier Ethernet 2.0 services.

DELIVERING INDUSTRY-LEADING SCALE AND FLEXIBILITY FOR LARGE ENTERPRISE INFRASTRUCTURE PERFORMANCE ASSURANCE

Enterprise IT application delivery teams that are equipped with Infovista's network and application performance solutions have the end-to-end troubleshooting knowledge required to quickly determine the cause of any application slowdowns or availability problems and resolve them.

With heavy dependence on reliable delivery of business-critical applications, Infovista performance solutions enable proactive application troubleshooting to prevent or minimize any impairments, ensuring that service quality expectations are exceeded and SLA objectives are achieved.

Solution Overview

VistaInsight is a pre-built service assurance solution that provides the benefits of off-the-shelf software, while enabling rapid configuration and customizable to meet the unique needs of communications service providers (CSPs), mobile network operators (MNOs) and large enterprises. Built upon Infovista's scale-as- you-grow, distributed acquisition and reporting, VistaInsight is a comprehensive solution offering:

- SLA reporting:
  - Premium: reporting with application visibility
  - Advanced: IP VPN reporting and dashboards
  - Basic: reporting based on standard performance KPIs.
- Capacity reporting, trending, base-lining and forecasting with proactive/predictive alerting
- Troubleshooting with real-time, adhoc-reporting, user-specific, configurable thresholds and on-demand polling
- Complete network and data center infrastructure monitoring

- Monitor hybrid (physical and virtualized) infrastructure
- Open RESTful APIs for NFV/SDN orchestrator integration and other ecosystem elements

VistaInsight can be easily extended to deliver differentiated service offerings such as Application Visibility Services by adding the pre-integrated application performance capabilities from Infovista's 5View products.

Benefits

Proactive performance assurance ensures the successful deployment of competitive 2G, 3G, 4G, VxLTE mobility; IP-MPLS/ Carrier Ethernet VPNs; wholesale services (e.g. mobile backhaul), managed services and cloud-based services (e.g. IaaS); and broadband services.

- Up-sell opportunity identification and alerting
- Navigate using simple and organized workflows within a web-based portal
- Detect problematic performance conditions and avoid SLA violations
- Optimize resource utilization (e.g. bandwidth) based on long-term trends
- Prevent outages and efficiently diagnose transient conditions, typical in a packet-switched environments

Use Cases

BUSINESS SERVICES SLA AND CUSTOMER REPORTING

Equipped with Infovista's service assurance platform, CSP's can provide their customers sophisticated, self-service dashboards, full end-to-end SLA and performance visibility, self- configured thresholding and application performance visibility.

- Get advanced, actionable network intelligence
- Triage, troubleshoot, plan and communicate service performance
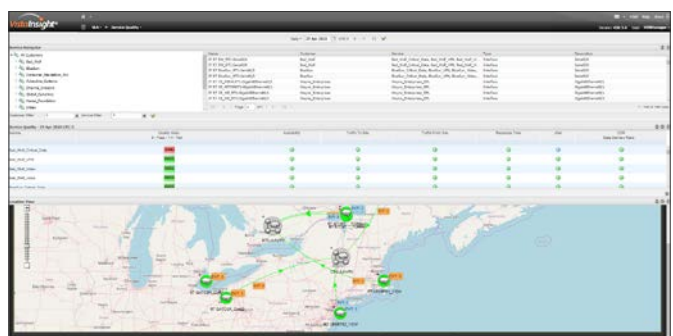- Maximize network service's value

Figure 3. Customers KQI reporting for SLAs.

END TO END MOBILE NETWORK PERFORMANCE MANAGEMENT /SERVICE ASSURANCE

Infovista's E2E Unified Service Assurance allows mobile operators to consolidate all performance systems into a unified tool that acts as an umbrella for performance management. This encompasses the entire 2G, 3G, 4G, and VxLTE infrastructure, including Core, RAN, C-RAN, Fronthaul and Backhaul (xHaul) networks.

- Automate acquisition, processing and reporting

- Access network and service-centric KPIs

- Accelerate detection/diagnosis of service degradation

Figure 4. Unified network performance management from the RAN to the xHaul to the IP core network.
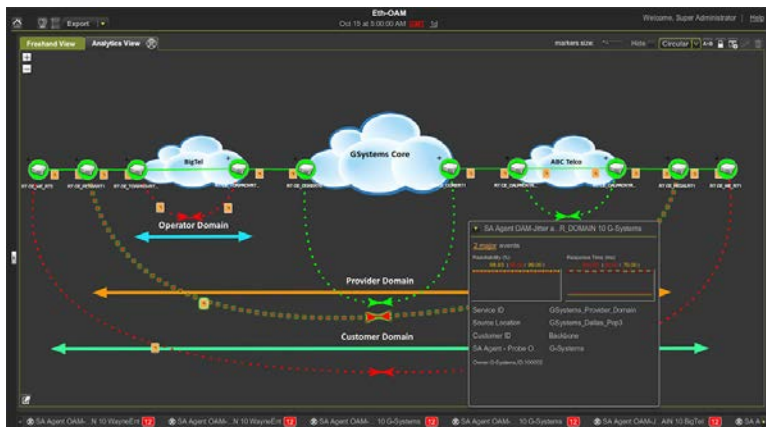

Figure 5. Carrier Ethernet 2.0 performance assurance.

MULTI-LAYER MOBILE XHAUL PERFORMANCE ASSURANCE

Efficiently monitor complex network topologies with our multi-layer technology support, including optical, microwave, TDM/SDH, ATM, Carrier Ethernet and IP/MPLS physical and logical instances (such as EVCs and pseudowires), accelerating the detection and diagnosis of service quality problems across all mobile fronthaul and backhaul layers.
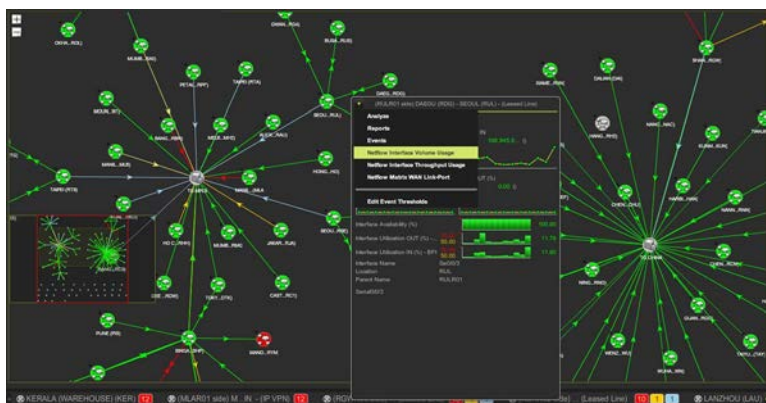

Figure 6. Multi-layer troubleshooting, and near real-time monitoring of all xHaul domains and layers.

WHOLESALE E-ACCESS

Carrier Ethernet services have been dominating service revenues for carrier-to-carrier services. Whether providing off-net access, mobile backhaul or even transit services, the SLA requirements are often complex and varied.

- Use embedded industry best practices (MEF SOAM PM)

- Normalize non-standard KPIs

- Adapt reporting and KPIs to unique needs of customer SLA contracts

CE 2.0 PERFORMANCE LEADERSHIP

MEF
member

- MEF member since 2006

- First to support MEF performance monitoring best practices (MEF 35/36)

- Multi-vendor support (Accedian, ADVA (Overture), Ciena, Cisco, Huawei, Juniper, Nokia(ALU), RAD, Telco Systems, Tellabs +)

- Leader in CE 2.0 service assurance

VistaInsight seamlessly integrates with CSPs' NFV/SDN and legacy OSS frameworks to ensure high-value, high-quality network and IT service delivery.

MANAGE YOUR NFV/SDN-BASED NETWORK INFRASTRUCTURE

In order to improve business services and differentiate their offering, CSPs are adopting virtualization and service orchestration so as to increase agility and enable network-as-a-service products. The result is added management complexity introduced by SDN controllers, NFVI, VNF service chaining and a far more dynamic service infrastructure.

- Use embedded industry best practices (MEF SOAM PM)
- Normalize non-standard KPIs
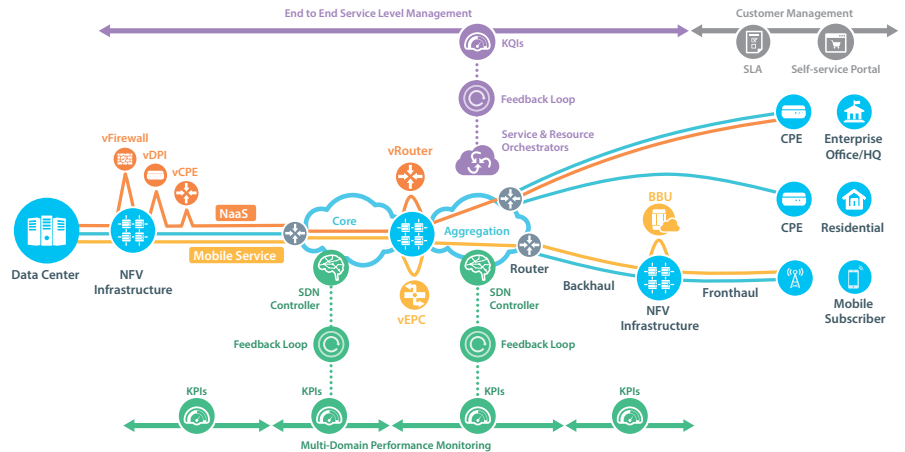- Adapt reporting and KPIs to unique needs of customer SLA contracts

Figure 7. A dynamic service chain in a virtualized world.

VistaInsight delivers the maximum capacity, automation, multi-tenancy and cross-domain performance intelligence in real-time that CSPs need to be successful.

VistaInsight Real-Time Capabilities

The VistaInsight platform offers real-time data acquisition and publishing using advanced data flow routing and data transformation, mediation data bus, telemetry and open APIs to integrate with the CSP ecosystem.

- **Open APIs**
  Infovista RESTful open APIs enable automation, integration and interoperability. Compatible with TMF open APIs, TMF-628 Performance Management, the open APIs use the Security protocol oAuth2 to obtain the security token for authentication and authorization.

With open APIs, VistaInsight manages inventory read/write, activates KPI data collection and publication, lists KPIs per vendor/granularity/protocol/NF class, queries or inserts data for KPIs and topology instances, and queries events.

- **Data Flow Management:**
  Allows for high flexibility and rapid integration.
- **Telemetry:**
  Offers higher data granularity for generating real-time KPIs and events to as low as 1 second.

Solution Pre-requisites and Compatibility

Prerequisites

VistaFoundation Kit v4.3 or later

Included Components

Infovista Products	Description
Vista360	Web 2.0, self-service, reporting dashboard technology

Optional Components

Infovista Products	Description
VistaBridge	Adapter for loading batch-oriented data at regular intervals
VistaLink for Huawei iManager U2000	Pre-built integration with Huawei iManager U2000
VistaLink for Huawei M2000	Pre-built integration with Huawei M2000 V200R006C01 through V17
VistaLink for Ericsson OSS-RC	Pre-built integration with Ericsson OSS-RC 5.3 through 18
VistaLink for Ericsson SOEM	Pre-built integration with Ericsson SOEM R13
VistaLink for Nokia NetAct	Pre-built integration with Nokia Net-Act 5.1 to 17
VistaLink for ZTE NetNumen	Pre-built integration with ZTE NetNumen R2 –R3
VistaLink for NFMP	Pre-built integration with the Alcatel-Lucent (Nokia) 5620 Service

About Infovista

Infovista, the leader in modern network performance, provides complete visibility and unprecedented control to deliver brilliant experiences and maximum value with your network and applications. At the core of our approach are data and analytics, to give you real-time insights and make critical business decisions. Infovista offers a comprehensive line of solutions from radio network to enterprise to device throughout the lifecycle of your network. No other provider has this completeness of vision. Network operators worldwide depend on Infovista to deliver on the potential of their networks and applications to exceed user expectations every day. Know your network with Infovista.

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KNOW YOUR NETWORK™