

V-NID™ Product Suite



A Comprehensive Suite of Tools

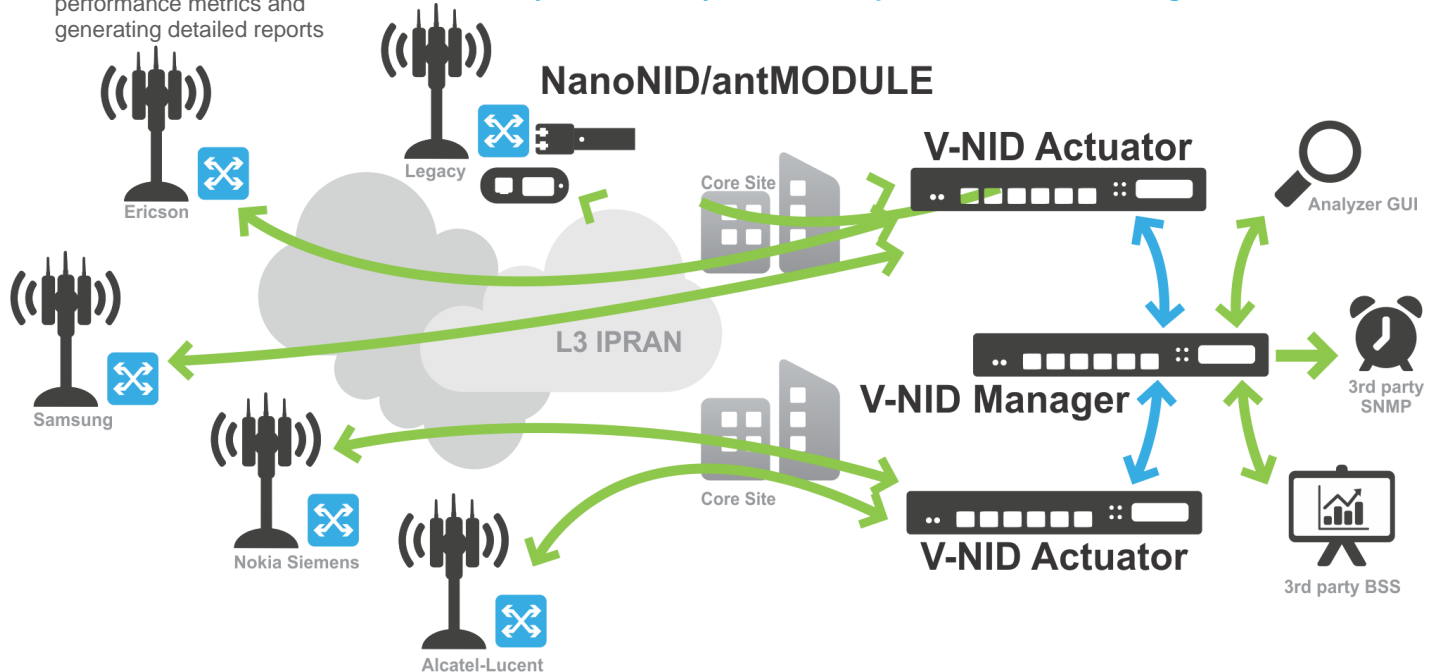
- **V-NID™ Actuator** – the active performance measurement component in the V-NID™ performance management architecture
- **Performance Monitoring (PM) Reflector** – an Accedian, or 3rd party, standards-based responder of the measurement frames sent from a V-NID™ Actuator
- **V-NID™ Manager** – the main controller unit in the V-NID™ application performance and SLA monitoring suite
- **V-NID™ Analyzer** – Stand-alone GUI application for visualizing performance metrics and generating detailed reports

Accedian Networks has leveraged its industry-leading Ethernet OAM-based performance assurance technology to introduce the V-NID™ product suite. By using and extending the existing standards for performance assurance, V-NID™ offers a unique solution to provide detailed one-way network KPI's and SLA monitoring without the need for external synchronization.

Verify, Validate, Visualize

The V-NID™ performance assurance suite provides a comprehensive solution for verifying networks on a granular and continuous basis, and validating SLA conformance. By utilizing standard reflectors such as ETH-OAM or TWAMP integrated into the network components, in combination with Accedian's patented measurement technique, the V-NID™ product suite enables one way monitoring of network performance with high accuracy without the need for external synchronization. Optionally, endpoints equipped with the V-NID™ Standards+ software reflector offers you an even larger set of high accuracy one-way metrics as well as the option to disguise your measurements to look like any other end-user frame on the network such as VoIP flows, SCTP signals or HTTP streams.

Layer-3 TWAMP-Lite and TWAMP-Control One-way and two-way continuous performance monitoring



A Comprehensive Suite

V-NID™ Actuator

V-NID™ Actuator is an end-to-end service performance management, network performance and SLA monitoring system that resides at the core of the network. This centralized approach enables the unit to send and receive active performance assurance messages to and from PM Reflectors at the edge. Using a patented, high-accuracy one way delay measurement technique, the V-NID™ Actuator is capable of measuring thousands of end-points to remotely assure the performance of specific classes of service without requiring synchronized hardware test points at each end of the connection. Ethernet OAM and performance data gathered by the V-NID™ Actuator is then summarized and displayed by Accedian's V-NID™ Analyzer in a visual performance monitoring dashboard.

Performance Monitoring Reflector

The Performance Monitoring (PM) Reflector is an Accedian or 3rd party standards-based responder of the measurement streams injected by the V-NID™ Actuator. Supported PM Reflectors include RFC 5357 TWAMP-Lite and TWAMP-Control, Y.1731 ETH-DM, IEEE 802.1ag, ETH-LB, UDP echo, ICMP.

V-NID™ Manager

As the main controller unit in the V-NID™ application performance and SLA monitoring suite, V-NID™ Manager supervises and monitors application performance in multiple networks. The V-NID™ Manager manages the V-NID™ Actuators, sessions and SLAs in the supervision domain, and conducts performance measurement analysis, alarm filtering as well as report generation.

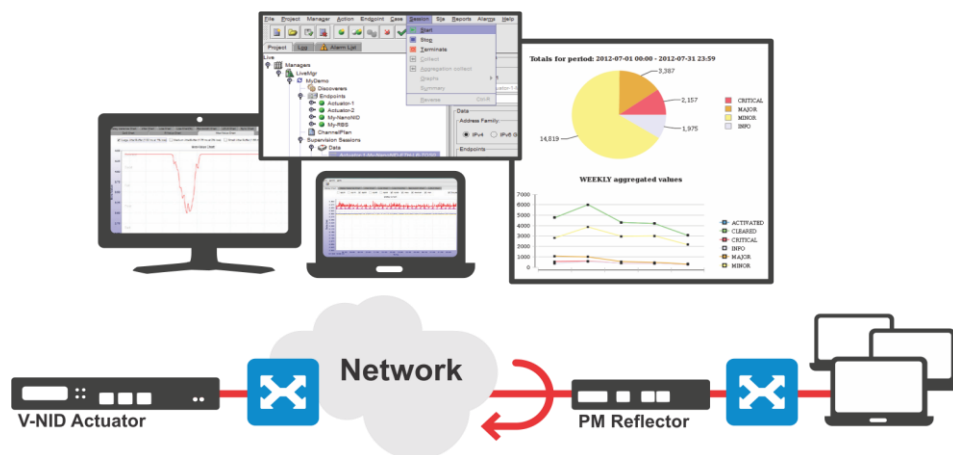
Open Northbound API

Performance statistics measured, collected, summarized and correlated by the V-NID™ Actuator are made available via the Accedian Analyzer GUI as well as through a M2M XML interface carried over HTTP(s). Over 100 unique Key Performance Indicators (KPIs), and application performance data are instantly available for reporting or troubleshooting. The V-NID™ product suite provides you with accurate network performance data and concrete proof that your SLAs are being met.

Product Highlights

Service Assurance Functionality

- Standards-based one-way network performance assurance solution using ETH-OAM, TWAMP and Accedian Standards+
- Standards+ supports extended measurement types for even greater performance visibility
- Patented, high-accuracy, one-way delay measurement technique without need for synchronized hardware test points at each end of the connection
- Performance Monitoring Reflector Agent software package supports OAM standards and Accedian Standards+ available for integration into virtually any Ethernet or IP device
- Centralized or distributed measurement injection using the V-NID™ Actuator
- Centralized provisioning, management, mediation and reporting via the V-NID™ Manager
- IPv4 and IPv6 dual stack for both management and TWAMP measurement
- IP, Ethernet and OAM end-user experience metrics available via XML/HTTP north-bound API



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