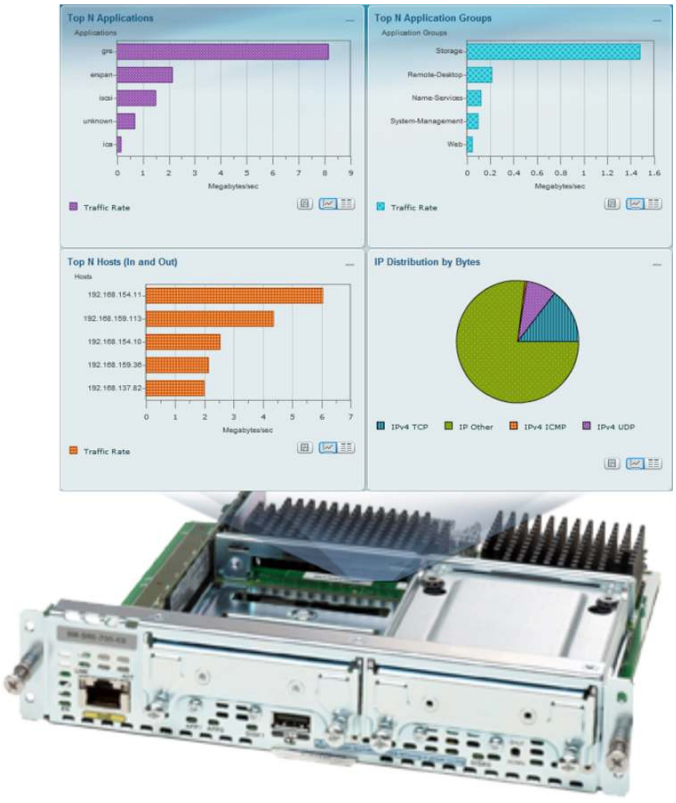
Cisco Prime Network Analysis Module Software 5.1 for ISR G2 Service Ready Engine

Delivering a consistent end-user experience is paramount in today's IT environment, which is dynamic and distributed. Understanding who is using the network, knowing what applications are running on the network, assessing how the applications are performing, characterizing how traffic over the network is being used are the foundation for managing and improving the delivery of your business-critical applications. They are the foundation for establishing and verifying quality of service (QoS) policies, undertaking WAN-optimization projects, troubleshooting application performance issues, and many other tasks to help ensure efficient business operations and meet committed service levels in an enterprise.

Product Overview

Cisco Prime™ Network Analysis Module (NAM) Software 5.1 for ISR G2 Service Ready Engine (SRE) offers unparalleled visibility for network administrators to help ensure optimal use of network resources, quickly troubleshoot performance issues, and deliver a consistent end-user experience. Integrated with the Cisco® ISR G2 SM-SRE-700 series and SM-SRE-900 series platforms, Cisco Prime NAM Software simplifies operational manageability at the remote sites and facilitates cost-effective delivery of services across your Cisco borderless network.

Figure 1. Cisco Prime NAM for ISR G2 Service Ready Engine



The Cisco Prime portfolio of enterprise and service provider management offerings supports integrated lifecycle management of Cisco architectures and technologies based on a service-centered framework. Built on an intuitive workflow-oriented user experience, Cisco Prime products help increase IT productivity and reduce operations costs through innovative management solutions for the network services, infrastructure, and endpoints.

Cisco Prime Network Analysis Module Software 5.1 for ISR G2 SRE (Figure 1) takes advantages of the SRE hardware innovations to deliver next-generation performance, higher scalability, and extended data retention. It offers the most comprehensive solution for assuring performance of applications and services delivered to the remote sites. It combines detailed traffic analysis, application performance intelligence, comprehensive voice quality monitoring, along with deep insightful packet captures to help you efficiently manage your committed service levels. Its unique strength is underpinned by the design, which includes embedded data collection and analysis capabilities with a remotely accessible, web-based management and reporting console, all of which runs on a Cisco Services Ready Engine Service Module (SM) that is installed into the Cisco Integrated Services Routers (ISR) Generation Two (G2) family of routers.

Cisco Prime Network Analysis Module for ISR G2 SRE allows you to:

- Lower total cost of ownership with reduced network footprint and savings in operational expenses
- Improve end-user service levels with accurate characterization of end-user experience, and facilitate effective use of control and optimization techniques such as QoS and Cisco Wide Area Application Services (WAAS)
- Enhance operational efficiency with a remotely accessible intuitive web-based interface that eliminates the need to travel to remote sites
- Accelerate problem resolution with intelligent packet captures, filters, decodes, error scan, and historical data trend analysis
- Preserve investments in your existing network switching infrastructure and management assets

Figure 2. Cisco NAM Traffic Summary Dashboard

Cisco Prime Network Analysis Module includes an interactive graphical user interface (GUI) with dashboards (Figure 2) to give you an immediate view of network and application performance delivered at the remote site. The dashboards implement prepackaged workflows to help you simplify problem detection, isolation, and root-cause analysis. In addition, when combined with site-based historical data it helps expedite your optimization and capacity planning decisions to be able to meet committed service levels.

The Cisco Prime Network Analysis Module for ISR G2 SRE is the glue binding your Cisco borderless network deployments, providing application visibility within the branch, between branches, and between the branch and data center. Cisco NAM deployed in the branch provides end-to-end visibility for branch-to-branch applications, such as voice, and for TCP-based applications hosted in the data center, driving the consistency and efficiency application delivery across the network.

Cisco Prime NAM for ISR G2 SRE Features and Benefits

Cisco Prime NAM Software means agility. Deployed at the remote site, it offers the agility that allows you quickly to understand what is happening on the network and preempt any performance issues before they affect the end users. Cisco Prime NAM Software offers an extensive set of features (Table 1) that provide a multilayer view of network performance to help you successfully navigate the labyrinth of application delivery challenges in today's hyperconnected world. Cisco Prime NAM Software provides the foundation of knowing, giving you the edge in managing and improving network and application performance. More extensive description of the software feature and benefits can be obtained from the Cisco Prime NAM Software data sheet.

Table 1. Cisco Prime Network Analysis Module for ISR G2 SRE Features and Benefits

Feature	Benefit
Infrastructure integration	Integrated with the Service Ready Engine on the Cisco ISR G2 SM-SRE-700 series and SM-SRE-900 series platforms, the Cisco Prime Network Analysis Module Software takes advantages of the latest hardware innovation to deliver next-generation performance, higher scalability, and extended data retention. The solution provides greater investment protection, lower total cost of ownership, and a reduced footprint, saving premium rack space.
Application performance intelligence	Characterize the end-user experience for TCP-based applications and isolate application response time problems to the network, server, or the application, minimizing any triage process.
Comprehensive voice quality monitoring and real-time troubleshooting	Gather real-time reports on Mean Opinion Score (MOS) and other key performance indicators (KPIs) such as jitter and packet loss to understand and improve how the end user experiences the delivery of voice services. MOS is computed based on ITU-T Recommendations G.107 offering accurate characterization of voice quality. Combine monitoring with real-time troubleshooting using prepackaged dashboards to improve the end-user service levels.
WAN-optimized network visibility	Obtain proof points demonstrating how WAAS has improved application delivery (for example, decreased application transaction times from client perspective or improved LAN data throughput).
Detailed traffic analytics	View short- and long-term performance data on hosts, conversations, and applications that use critical network resources.
Historical analysis	Look back to the past with the embedded Performance Database to understand what happened when an event that affects network performance occurred to accelerate root-cause analysis and prevent any reoccurrence. Use historical analysis for advancing optimization and capacity decisions.
Deep, insightful packet captures	Solve complex performance issues with trigger-based captures, filters, decodes, and Packet Capture Error Scan features. Packet captures can be triggered based on performance thresholds, allowing you to focus on specific performance issues. The captures can be initiated and analyzed remotely using the web-based user interface eliminating the need to travel to the remote site.
Site-based monitoring	View network and application performance by logical groups or sites that you can create to mirror your network topology. For example, you can create sites by geographic locations, departments, or even managed customer networks. The feature facilitates tracking site-specific service-level objectives, resolving performance issues, or enforcing optimization policies.
Pre- and postdeployment metrics	Glean valuable before and after traffic analytics to help plan for and verify changes in network resources, such as introducing new applications, establishing QoS policies, consolidating servers, and deploying voice over IP (VoIP).
Open interface	Ease Cisco Prime NAM configuration and export of computed performance data using standards-based APIs (XML/REST for configuration, NetFlow Version 9 for data export).
Anytime, anywhere access	Access the web interface from any desktop, eliminating the need to send personnel to remote sites or haul large amounts of data over WAN links to the central site.

Supported Cisco ISR G2 Services Ready Engine Platforms

Cisco Prime Network Analysis Module for ISR G2 SRE can be deployed on Cisco ISR G2 SM-SRE-700 series and SM-SRE-900 series platforms. For additional information on the Cisco Service Ready Engine, please refer to the SRE product pages on http://www.cisco.com/go/sre.

Table 2. Supported ISR G2 Platforms

Router Platform	Minimum Cisco IOS® Software Required
Cisco 3945 ISR	Cisco IOS Software 15.0(1)M
Cisco 3925 ISR	Cisco IOS Software 15.0(1)M
Cisco 2951 ISR	Cisco IOS Software 15.0(1)M
Cisco 2921 ISR	Cisco IOS Software 15.0(1)M
Cisco 2911 ISR	Cisco IOS Software 15.0(1)M

Summary Product Specifications

Table 3 lists product specifications for the Cisco Prime Network Analysis Module for ISR G2 SRE.

Table 3. Summary Product Specifications

Feature	Description
Monitoring interfaces	Two monitoring interfaces: One internal backplane interface for receiving a copy of WAN traffic through the Cisco Express Forwarding copy packet monitoring feature in the router's Cisco IOS Software and one external Gigabit Ethernet interface for receiving traffic directly from local or remote LAN ports. Either can be used for management of traffic, for receiving NetFlow data exports from local or remote network devices, flow agent data from Cisco WAAS, or NetFlow data from Cisco Performance Agent (PA).
Supported topologies and data sources	• WAN: Packets on WAN interfaces are copied by a special packet monitoring feature using Cisco Express Forwarding and sent to Cisco Prime NAM through the internal backplane interface for analysis at the IP layer and up. NetFlow (versions 1, 5, 6, 7, 8, and 9) data from local and remote devices is sent through the internal or external interface. • LAN: An external Gigabit Ethernet interface receives packets directly from local and remote LAN ports. NetFlow (versions 1, 5, 6, 7, 8, and 9) data from local and remote devices is sent through the internal or external interface. Cisco Performance Agent (PA) data exports.
Supported interfaces	• HTTP/HTTPS with embedded web-based Cisco NAM Traffic Analyzer • Simple Network Management Protocol Version 1 (SNMPv1) and Version 2c, with standards-based applications
Cisco Prime Network Analysis Module Software	• Web-based: Requires Microsoft Internet Explorer 8.0+ or Firefox 3.6+; supports both English and Japanese versions • Supports Secure Sockets Layer (SSL) security with up to 256-bit encryption • Role-based user authorization and authentication locally or using TACACS+
MIBS	The Cisco NAMs are standards compliant and support the following major MIB groups: • MIB-II (RFC 1213) - All groups except Exterior Gateway Protocol (EGP) and transmission • Cisco Discovery Protocol • EntityMIB (RFC 2737)
Protocols	Cisco Prime NAM identifies hundreds of unique protocols and automatically detects unknown protocols. Cisco Prime NAM also allows customization of the protocol engine by defining protocols on a single port or on a range of ports. Protocols supported include (this list is not all-inclusive): • TCP and User Datagram Protocol (UDP) over IP including IPv6 • HTTP and HTTPS • VoIP including Skinny Client Control Protocol (SCCP), Real-Time Protocol/Real-Time Control Protocol (RTP/RTCP), Media Gateway Control Protocol (MGCP), and Session Initiation Protocol (SIP) • SigTran protocols • Mobile IP protocols including General Packet Radio Service (GPRS) Tunneling Protocol (GTP) • Storage area network protocols • Database protocols • Peer-to-peer protocols • Switch and router protocols • Cisco proprietary protocols • Unknown protocols by TCP/UDP ports, Remote procedure Call (RPC) program numbers, and so on

Warranty Information

Find warranty information on Cisco.com at the Product Warranties page.

Ordering Information

To place an order, visit the Cisco Ordering Homepage. See Table 4 for part numbers. To download software, visit the Cisco Software Center.

For new SRE SM customers purchasing Cisco Prime Network Analysis Module for ISR G2 customers, please select part number SM-NAM-SW-5.1 as the software option when ordering your Cisco SRE SM, and it will be delivered to you preloaded on your SRE hardware. Existing SRE SM customers that would like to purchase Cisco Prime Network Analysis Module for ISR G2, please order part number SM-NAM-SW-5.1=. Software updates can be downloaded from the Cisco.com Software Center at no charge using your Cisco Software Application Support contract access privileges.

Table 4. Ordering Information

Cisco Part Number	Description
SM-NAM-SW-5.1-K9	Cisco Prime NAM Software 5.1 for ISR G2 SRE
SM-NAM-SW-5.1-K9=	Cisco Prime NAM Software 5.1 for ISR G2 SRE Spare
L-SM-NAM-SW-51-K9=	Cisco Prime NAM Software 5.1 for ISR G2 SRE (eDelivery)

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Table 5 shows the technical support services available for Cisco Network Analysis Module. Cisco Application Support plus Upgrades provides technical support services, including updates and upgrades for any Cisco software application running on the SRE module.

Table 5. Cisco Technical Services for Cisco Network Analysis Module

Technical Services
Cisco Software Application Support plus Upgrades (SASU) • Access to application software maintenance and minor updates, and major software application upgrades • Around-the-clock, global access to Cisco TAC engineers with specialized application software expertise • Unrestricted access to the extensive Cisco.com resources, communities, and tools

For More Information

For more information about Cisco Prime Network Analysis Module for ISR G2 SRE, visit http://www.cisco.com/go/nam, contact your local account representative, or email the Cisco NAM product marketing group at nam-info@cisco.com.

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