

## Cisco Prime Network Analysis Module Software 5.1 for WAAS VB

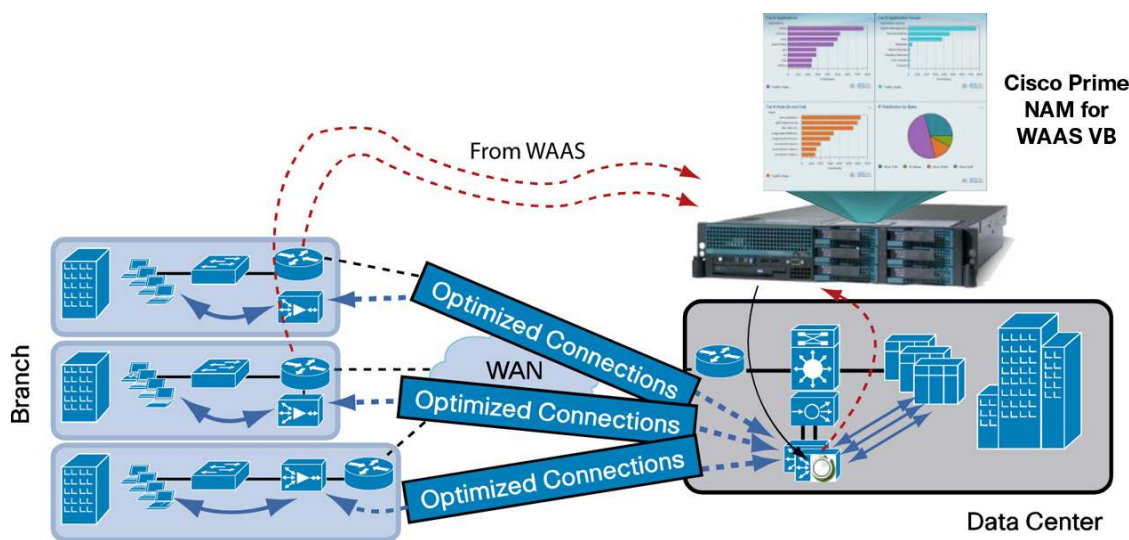
Network administrators need multifaceted visibility into the network and application to help ensure consistent and cost-effective delivery of service to end users. Knowing how traffic over the network is being used and how it is performing is the foundation for managing and improving the delivery of your business-critical applications. It is the foundation for establishing and verifying quality of service (QoS) policies, undertaking WAN optimization projects, and rolling out voice over IP (VoIP).

### Product Overview

Cisco Prime Network Analysis Module (NAM) for WAAS VB allows network administrators to gain end-to-end application and network performance visibility in Cisco WAAS deployments. Cisco Wide Area Application Services (WAAS) is a comprehensive WAN optimization solution that accelerates applications over the WAN, delivers video to the branch office, and provides local hosting of branch-office IT services.

The Cisco Prime portfolio of enterprise and service provider management offerings supports integrated lifecycle management of Cisco architectures and technologies based on a service-centric 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.

**Figure 1.** Cisco Prime NAM for WAAS VB Typical Deployment



Using the existing Cisco WAAS footprint, Cisco Prime NAM for WAAS VB provides an integrated solution for application and network performance visibility in WAN optimized deployments. Cisco Prime NAM for WAAS VB utilizes the built-in instrumentation on WAAS devices as a data source for visibility into optimized and pass-through application traffic flows. WAAS devices provide information about packet streams of interest traversing through both their LAN and WAN interfaces. Traffic of interest includes specific servers and types of transactions to be monitored. NAM uses the information received from the WAAS devices in the data center as well as the remote sites (Figure 1) to compute performance metrics, such as application response time, WAN bandwidth usage, and LAN and WAN data throughput that are essential for assessing the performance improvements as a result of optimization (Figure 2).

**Figure 2.** Impact of WAN Optimization on Application Transaction Time Improving the End-User Experience



Cisco Prime NAM monitors performance metrics across the client, WAN, and the server segments to present a detailed multisegment view for end-to-end application performance analysis (Figure 3). The view further helps to quickly assess the impact of optimization on each of the three segments and isolate any latency issue due to a specific segment.

**Figure 3.** Conversation Multi-Segment WAN Optimization View

Multi-Segment														
Filter														
Client	Client Site	Server	Server Site	Application	Average Client Network Time (ms)	Average WAN Network Time (ms)	Average Server Network Time (ms)	Average Server Response Time (ms)	Average Transaction Time (ms)	Max Transaction Time (ms)	Client Traffic Volume (bytes/sec)	WAN Traffic Volume (bytes/sec)	Server Traffic Volume (bytes/sec)	
20.1.10.36	WAAS Client	21.1.10.1	WAAS Server	http	20	0	20	15	90,670	151,791	595.45	15.45	575.68	
20.1.10.54	WAAS Client	21.1.10.2	WAAS Server	http	20	0	20	13	90,834	157,847	595.39	15.33	575.43	
20.1.10.36	WAAS Client	21.1.10.4	WAAS Server	http	20	0	20	27	89,746	156,781	595.30	15.40	575.40	
20.1.10.54	WAAS Client	21.1.10.1	WAAS Server	http	20	0	20	13	90,259	153,776	595.12	15.43	575.27	
20.1.10.36	WAAS Client	21.1.10.2	WAAS Server	http	20	0	20	34	90,331	166,971	595.10	15.53	575.53	
20.1.10.36	WAAS Client	21.1.10.3	WAAS Server	http	20	0	20	17	90,985	152,785	595.01	15.38	575.40	
20.1.10.17	WAAS Client	21.1.10.1	WAAS Server	http	20	0	20	13	90,383	147,790	594.99	15.42	575.17	
20.1.10.36	WAAS Client	21.1.10.5	WAAS Server	http	20	0	20	27	90,585	162,888	594.84	15.52	575.17	
20.1.10.54	WAAS Client	21.1.10.4	WAAS Server	http	20	0	20	20	89,017	145,597	594.82	15.46	574.58	
20.1.10.66	WAAS Client	21.1.10.3	WAAS Server	http	20	0	20	20	89,993	154,838	594.69	15.42	574.59	
20.1.10.64	WAAS Client	21.1.10.2	WAAS Server	http	20	0	20	17	90,429	175,056	594.60	15.36	574.79	
20.1.10.54	WAAS Client	21.1.10.3	WAAS Server	http	20	0	20	10	90,811	154,786	594.58	15.34	574.81	
20.1.10.54	WAAS Client	21.1.10.5	WAAS Server	http	20	0	20	15	90,199	150,966	594.52	15.47	574.58	

Cisco Prime NAM for WAAS VB is installed using the Cisco WAAS Central Manager (CM) software. The WAAS CM copies the Cisco Prime NAM Software ISO image from an FTP server to a physical disk on the host WAAS Appliance and installs the Cisco Prime NAM Software.

### Cisco Prime NAM for WAAS VB Features and Benefits

Cisco Prime NAM for WAAS VB offers an extensive set of features that provide in-depth insight into Cisco WAAS deployments to effectively use WAN optimization to improve end-user experience. It offers a multilayer view of network performance to help you successfully navigate the labyrinth of application delivery challenges. Cisco Prime NAM provides you access to critical network information to advance optimization decisions, monitor performance improvements, and troubleshoot any latency issues.

**Table 1.** Key Features and Benefits

Feature	Benefit
<b>Deployment flexibility</b>	As a software solution integrated with WAAS devices, Cisco Prime NAM for WAAS VB offers ease of installation and reduces hardware footprint. It extends the NAM portfolio, offering deployment flexibility to meet specific network traffic loads and deployment requirements. As examples, Cisco Prime NAM for WAAS VB is ideal for small data center deployments (fewer than 4000 optimized connections) or for proof-of-concept/pilot phases of WAAS deployments. In the latter case, it helps to accelerate the WAN optimization rollouts.
<b>Visibility into WAN optimized networks</b>	Provides end-to-end proof points demonstrating how WAAS has improved application delivery (Figure 2), for example, decreased application transaction times, improved WAN utilization. In the predeployment phase, Cisco Prime NAM helps you to assess which applications and sites are good candidates for optimization. In addition, it provides real-time visibility for ongoing optimization improvements and to troubleshoot any performance-degradation issues.
<b>Granular traffic analytics</b>	Identifies what applications are running over the network, how much network resources are consumed, who is using these applications. Provides real-time and historical reports offering traffic statistics related to applications, hosts, conversations, differentiated services code point (DSCP), and VLANs.
<b>Historical analysis with embedded Performance Database</b>	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.
<b>Deep, insightful packet captures</b>	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. In addition, utilize external storage to collect extensive packet captures for offline analysis. Cisco Prime NAM for WAAS VB supports packet captures on ERSPAN traffic source.
<b>Site-based Monitoring</b>	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.
<b>Open interface</b>	Ease NAM configuration and export of computed NAM data using standards-based APIs (XML/REST for configuration, NetFlow Version 9 for data export).
<b>Anytime, anywhere access</b>	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.



### Cisco Prime NAM for WAAS VB Licensing

Cisco Prime NAM for WAAS VB licensing is based on Cisco Software Licensing. Additional details can be obtained at <http://www.cisco.com/go/clm>. The Cisco Prime NAM for WAAS VB provides for a 60-day evaluation license. Existing customers of supported WAAS platforms can download the Cisco Prime NAM for WAAS VB at [Cisco Software Center](#).

## System Requirements

Table 2 lists the appliances that support Cisco Prime NAM Software. Note that Cisco Prime NAM for WAAS VB is positioned for deployments in data centers only even when the supported WAAS appliances can be deployed in both data center and branch offices.

**Table 2.** Virtualization-Capable Cisco WAAS Appliances

Platform	Software	Deployment Scenarios	Images
<b>Cisco WAVE-574</b>	Cisco WAAS Software 4.1.3 and later	<ul style="list-style-type: none"> <li>Edge deployments at enterprise branch offices</li> <li>Core deployments at small data centers</li> </ul>	
<b>Cisco WAE-674</b>	WAAS Software 4.1.3 and later	<ul style="list-style-type: none"> <li>Edge deployments at large enterprise branch offices</li> <li>Core deployments at medium-sized data centers</li> </ul>	

### Notes:

- More information on the Cisco WAE-674 appliance can be found at [http://www.cisco.com/en/US/prod/collateral/contnetw/ps5680/ps6474/product\\_data\\_sheet0900aecd80329e39.html](http://www.cisco.com/en/US/prod/collateral/contnetw/ps5680/ps6474/product_data_sheet0900aecd80329e39.html).
- More information on the Cisco WAVE-574 appliance can be found at [http://www.cisco.com/en/US/prod/collateral/contnetw/ps5680/ps6474/data\\_sheet\\_c78-495801.html](http://www.cisco.com/en/US/prod/collateral/contnetw/ps5680/ps6474/data_sheet_c78-495801.html).

## Ordering and Upgrade Information

Cisco Prime NAM Software on the WAAS appliances is available for purchase through regular Cisco sales and distribution channels worldwide. To place an order, visit the [Cisco Ordering Homepage](#). To download software, visit the [Cisco Software Center](#).

Table 3 provides ordering and upgrade information for Cisco Prime NAM for WAAS VB.

**Table 3.** Ordering and Upgrade Information

Product	Part Number
<b>Cisco Prime NAM for WAAS VB on WAAS appliances (Top Level)</b>	NAM-WAAS-VB
<b>Cisco Prime NAM Software 5.1 for WAAS 574/674</b>	WAAS-VB-NAM5.1-K9
<b>Cisco Prime NAM for WAAS VB on WAAS appliances (eDelivery Top Level)</b>	L-NAM-WAAS-VB
<b>Cisco Prime NAM Software 5.1 for WAAS 574/674 (eDelivery License Only)</b>	L-WAAS-VBNAM5.1-K9
<b>Cisco Prime NAM Software Upgrade from 4.x to 5.x for WAAS 574/674</b>	WAAS-VB-NAM-50UP=
<b>Cisco Prime NAM Software Upgrade from 4.x to 5.x for WAAS 574/674 (eDelivery License Only)</b>	L-WAAS-VB-NAM-50UP

## Services from Cisco and Our Partners

Realize the full business value of your technology investments with smart, personalized services from Cisco and our partners. Backed by deep networking expertise and a broad ecosystem of partners, Cisco Services enable you to successfully plan, build, and run your network as a powerful business platform. Whether you are looking to quickly seize new opportunities to meet rising customer expectations, improve operational efficiency to lower costs, mitigate risk, or accelerate growth, we have a service that can help you. For information about Cisco Services, go to <http://www.cisco.com/go/services>. Table 4 shows the technical support services available for NAM for WAAS VB.

**Table 4.** Cisco Technical Services

Technical Services
<p><b>Cisco Software Application Support Service</b></p> <ul style="list-style-type: none"> <li>• Access to application software maintenance and minor updates</li> <li>• Around-the-clock, global access to Cisco TAC engineers with specialized application software expertise</li> <li>• Unrestricted access to the extensive Cisco.com resources, communities, and tools</li> </ul>

### For More Information

For more information about Cisco Prime NAM for WAAS VB, visit <http://www.cisco.com/go/nam>, contact your local account representative, or email the Cisco Prime NAM product marketing group at [nam-info@cisco.com](mailto:nam-info@cisco.com).



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