

# Cisco Prime NAM 2400 Series Appliances with Software Version 6.2

Your network must perform for your business to thrive. But your IT department is tackling wired and wireless convergence. It also faces growing complexity in application deployment architectures. All while it's rapidly adopting virtualization and cloud. And experiencing accelerating network traffic rates.

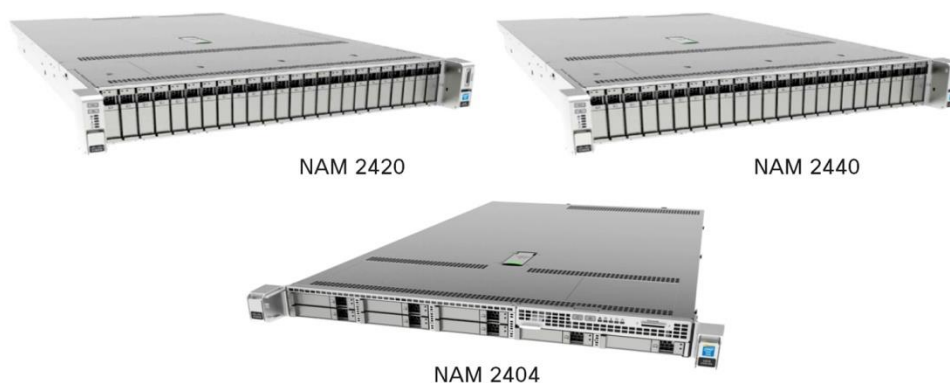
Cisco Prime NAM 2400 Appliances can help. They offer the performance and visibility to overcome these challenges. And you can scale the appliances to deliver resilient and consistent services.

## Product Overview

Cisco Prime™ NAM 2400 Series Appliances are powerful devices that deliver exceptional application and network visibility. They provide deep application awareness to identify the applications running on the network, insightful traffic usage statistics to learn who is using them, extensive performance analytics to understand how they are performing, and granular troubleshooting to rapidly solve performance problems. So, you can get control over the network. And stay ahead of the rapidly changing IT landscape.

Cisco Prime NAM 2400 Series Appliances take full advantage of leading-edge [Cisco Unified Computing System™ \(Cisco UCS®\) C220 and C240 M3](#) Rack-Mount Server platforms to deliver superior performance, reliability, and manageability. The series consists of three appliance models (Figure 1), the Cisco Prime NAM 2420 Appliance and the Cisco Prime NAM 2440 Appliance, and the Cisco Prime NAM 2404, designed to meet diverse performance analysis needs in scalable multigigabit switching and routing environments.

**Figure 1.** Cisco Prime NAM 2404, NAM 2420 and NAM 2440 Appliances



The Cisco Prime NAM 2404 Appliance includes **four** 1 Gigabit Ethernet monitoring interfaces and eight 1-TB enterprise-class SAS hard-disk drives (HDDs). The user has the option to choose either copper (RJ45) interfaces or the optical (SFP) interfaces at the time of ordering.

The Cisco Prime NAM 2420 Appliance includes **two** 10 Gigabit Ethernet monitoring interfaces and sixteen 1-TB enterprise-class SAS hard-disk drives (HDDs) with an option to upgrade to 24 drives at the time of ordering.

The Cisco Prime NAM 2440 includes **four** 10 Gigabit Ethernet monitoring interfaces and sixteen 1-TB enterprise-class SAS hard-disk drives with an option to upgrade to 24 drives at the time of ordering.

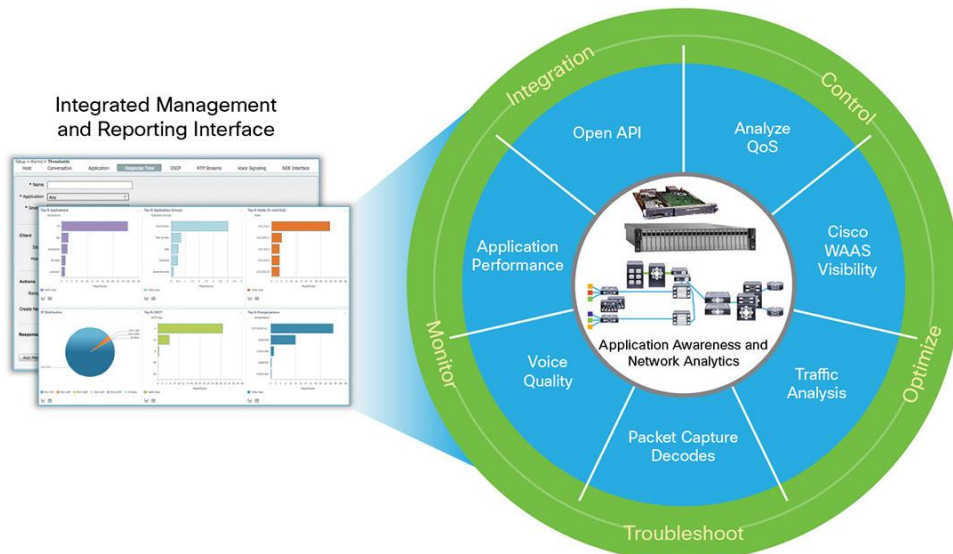
The NAM 2400 appliances are well-suited for deployments in the data center, enterprise campus core, and service provider networks. They can also cater to needs in the enterprise - unified access and campus, at the WAN edge, and at managed remote sites.

## Cisco Prime NAM Improves Operational Efficiency

Cisco Prime NAM 2400 Appliances exploit their high-performance packet acquisition capability, line-rate hardware filters, and advanced analytics to deliver Layer 7 application recognition, granular traffic statistics, application performance indicators, voice-quality metrics, and deep, insightful packet captures (Figure 2). Extensive storage allows you to go back in time to understand what happened in the past when an event that affected network performance occurred.

You can use the Cisco Prime NAM Appliances at critical observation points across your network to improve the operational effectiveness of [Cisco® Enterprise Networks](#) and [Cisco Data Center Fabric Path solution](#) architectures. For example, Cisco Prime NAM can help you get the most from your WAN optimization investment, assess the impact of virtual-machine (VM) mobility, or troubleshoot network bottlenecks in the data center.

**Figure 2.** Cisco Prime NAM 2400 Series Appliances Functional



Cisco Prime NAM Appliances come with Cisco Prime NAM Software, which includes integrated dashboards (Figure 3) that provide an at-a-glance view of network and application performance and intuitive workflows that help speed problem detection and resolution. They can be remotely accessed from anywhere so you can know how the network is performing at any time.

**Figure 3.** Cisco Prime NAM Traffic Summary Dashboard



## Extending Cisco AVC to the Campus Backbone and Data Center

With Cisco Prime NAM 6.2, the network analysis module (NAM) just got richer. Specifically, version 6.2(2) adds support for the new NAM 2404 and builds on the features and improvements done in version 6.2. Version 6.2 supports Remote Integrated Services Engine (RISE) technology, terminates Encapsulated Remote SPAN (ERSPAN) and extends video traffic monitoring capabilities. RISE technology makes the switch (Cisco Nexus<sup>®</sup> 7000 Switch and others) “see” the NAM appliance as a blade. By terminating the high-speed ERSPAN on the NAM data port, the NAM can now access the Type III ERSPAN header and process ERSPAN at higher speeds. The benefits are that the NAM can be an IP endpoint as well as a SPAN or ERSPAN destination, and can do centralized packet-level monitoring and troubleshooting.

With the new video monitoring capabilities, NAM can now monitor live video sessions and provide video quality and analytics, similar to that of voice and Real-Time Protocol (RTP) calls. All these features and functions are in addition to the Cisco Network-Based Application Recognition 2 (NBAR2). NBAR2 is a Cisco technology included in Cisco Application Visibility and Control (AVC) solutions; it performs deep packet inspection (DPI) to automatically recognize and classify applications to Layer 7. With it, NAM can provide visibility into the performance of your business-critical applications, no matter where they are hosted or how they are distributed. It can tell you whether transaction times are fast or slow. It can give you information about who is accessing the applications, which ones, how much, and when. And with these insights, it can help you prioritize those that the business depends on and throttle those that are business-irrelevant and simply hogging bandwidth. It enables more efficient and more economical operations. And all of that is natively in Cisco Prime NAM.

## Cisco Prime NAM 2400 Series Appliances Features and Benefits

The Cisco Prime NAMs offer an extensive set of features (Table 1), all in one solution, that provide a multilayer view of network performance to help you successfully navigate the labyrinth of application delivery challenges in today's hyperconnected world.

**Table 1.** Cisco Prime NAM 2400 Series Appliances Features and Benefits

Feature	Benefit
<b>High-performance solution</b>	Meet the rigorous demands of today's data center with high-performance monitoring and scalable traffic analysis.
<b>DPI with NBAR2</b>	Get rapid visibility into how your business-critical applications are performing. Cisco Prime NAM with NBAR2 allows classification of IPv4, IPv6, and IPv6 transition techniques; evasive applications such as Skype and Tor; business applications such as Microsoft Lync; cloud applications such as Microsoft Office 365; and even mobile applications such as FaceTime using advanced classification techniques. Protocol packs make updates timely and smooth.
<b>Application performance analytics</b>	Track up to 400,000 unique client-server transactions per minute to characterize the end-user experience and isolate application latency problems to the network, server, or application.
<b>Application traffic analysis</b>	View short-term and long-term network usage by application, host, conversation, differentiated-services-code-point (DSCP) group, and various overlay network technologies to improve how network resources are allocated.
<b>Insight into data center protocols</b>	Design data center overlay networks for optimal delivery of distributed applications. Supported protocols include Cisco NX-OS Overlay Transport Virtualization (OTV), Cisco Locator/ID Separation Protocol (LISP), Multiprotocol Label Switching (MPLS), Virtual Extensible LAN (VXLAN), and so on.
<b>Cisco TrustSec® policy validation</b>	Validate Cisco TrustSec policies by using security group tags (SGTs) and evaluate the endpoints and hosts, applications, and conversations participating in one or more security groups.
<b>Voice and video monitoring and troubleshooting</b>	Monitor up to 20,000 concurrent RTP streams to troubleshoot voice-quality problems in real time. Mean opinion score (MOS) is computed based on ITU-T Recommendation G.107, which offers accurate characterization of voice quality.
<b>Deep, insightful packet analysis</b>	Solve complex performance problems with trigger-based captures, scheduled captures, filters, decodes, and error-scan features. Packet captures can be triggered based on performance thresholds, allowing you to focus on specific performance concerns. In addition, use external storage to collect extensive packet captures for offline analysis.
<b>Combined flow and packet analytics</b>	Gain a multidimensional perspective by analysis of NetFlow and packet data in the same solution.
<b>Site-based monitoring</b>	View site-specific performance data for troubleshooting, optimization, or capacity decisions. A site can be used to represent geographic locations, departments, or even managed customer networks.
<b>Monitoring of Virtual Switching System (VSS) or Virtual Port Channel (vPC) deployments</b>	Monitor both virtual switches in VSS or vPC environments, reducing management overhead while improving operational efficiency.
<b>Open interface (Representational State Transfer/XML [REST/XML])</b>	Preserve investment in existing management assets through integration based on a standards-based (REST/XML) application programming interface (API).
<b>Cisco Prime Infrastructure integration</b>	Manage NAMs from a single, centralized console. Collect and view NAM statistics from across the network to get a big-picture view of network performance.

## Management

Cisco Integrated Management Controller (IMC) is a built-in management service with the Cisco Prime NAM 2400 Series Appliances. IMC innovatively differentiates the solution with simplified management through a web-based GUI to access, configure, administer, and monitor the appliance. Some of the IMC functions include:

- Power on, power off, power cycle, reset, and shut down the appliance.
- Toggle the locator LED to locate the NAM appliance with blinking blue LED in the lab.
- Manage remote presence with the keyboard, video, and mouse (KVM) console. Accessible from IMC, the console interface emulates a direct KVM connection to the appliance. It allows you to connect to the appliance from a remote location, and also provides the virtual media feature that is used for recovery and International Organization for Standardization (ISO) install.

## Cisco Prime Integration

The Cisco Prime Infrastructure supports integrated lifecycle management of networks, services, and endpoints for Cisco enterprise network, data center, and collaboration architectures with end-to-end assurance. Cisco Prime Infrastructure can centrally manage the Cisco Prime NAM Appliance with functions such as inventory, configuration, and image and fault management. It can also roll up the performance intelligence from NAMs deployed across the network into a consolidated dashboard.

## Product Specifications

Table 2 lists the product specifications.

**Table 2.** Product Specifications

NAM 2440 Feature	Description
<b>Chassis</b>	Two rack units (2RU)
<b>Processor</b>	Two Intel Xeon E5-2660 processors
<b>Memory</b>	64-GB (four 16-GB) double-data-rate 4 (DDR4)
<b>Hard-disk drive</b>	24-TB (24 x 1-TB) or 16-TB (16 x 1-TB), hot-swappable, enterprise-class SAS drives; Redundant Array of Independent Disks (RAID) 1 on two drives (hosting the operating system and embedded performance database) and RAID 5 on the rest of the drives used for packet-capture storage
<b>Monitoring ports</b>	Four 10-Gbps Small Form-Factor Pluggable plus (SFP+) or 1-Gbps SFP including multimode 850-nm short-reach (SR), single-mode 1310-nm long-reach (LR), single-mode 1550-nm ER, or passive direct-attach copper CR ports
<b>Management port</b>	10/100/1000 RJ-45
<b>Monitoring and capture performance (monitoring ports)</b>	Traffic monitoring throughput (sustained) <sup>*</sup> : 30+ Gbps (with DPI enabled) Full packet capture to disk (sustained) <sup>***</sup> : Up to 12 Gbps Number of monitored RTP streams (concurrent): 20,000 Number of monitored unique client-server transactions per minute: 400,000 <sup>*</sup> Characterized based on typical traffic conditions simulated on the test bed <sup>**</sup> Achieved with 24 x 1-TB HDD configuration
<b>Monitoring performance with ERSPAN</b>	Traffic-monitoring throughput (sustained) <sup>*</sup> : 30+ Gbps (similar to traffic-monitoring throughput for Switched Port Analyzer [SPAN] ports. Needs at least 4 ERSPAN sessions, one to each data port, to achieve the above performance number)
<b>Physical dimensions (H x W x D)</b>	Two rack units (2RU): 3.43 x 17.65 x 29.0 in. (8.7 x 44.8 x 73.8 cm) - excluding handles 3.43 x 18.96 x 30.18 in. (8.7 x 48.2 x 76.6 cm) - Including handles
<b>Temperature: Operating</b>	41 to 95°F (5 to 35°C) (operating, sea level, no fan fail, no CPU throttling, turbo mode)
<b>Temperature: Nonoperating</b>	-40 to 149°F (-40 to 65°C)
<b>Humidity: Operating</b>	10 to 90 percent noncondensing
<b>Humidity: Nonoperating</b>	5 to 93 percent noncondensing
<b>Altitude: Operating</b>	0 to 10,000 ft (0 to 3000m); maximum ambient temperature decreases by 1°C per 300m
<b>Altitude: Nonoperating</b>	40,000 ft (12,000m)
NAM 2420 Feature	Description
<b>Chassis</b>	Two rack units (2RU)
<b>Processor</b>	One Intel Xeon E5-2660 processor
<b>Memory</b>	64-GB (4 x 16-GB) DDR4 main memory
<b>Hard-disk drive</b>	16-TB (16 x 1-TB) hot-swappable, enterprise-class SAS drives; RAID 1 on two drives (hosting the operating system and embedded performance database) and RAID 5 on the rest of the drives used for packet-capture storage
<b>Monitoring ports</b>	Two 10-Gbps SFP+ including multimode 850-nm SR, single-mode 1310-nm LR, single-mode 1550-nm ER, or passive direct-attach copper CR
<b>Management port</b>	10/100/1000 RJ-45

NAM 2420 Feature	Description
<b>Monitoring and capture performance (monitoring ports)</b>	Traffic-monitoring throughput (sustained) <sup>*</sup> : 16+ Gbps (with DPI enabled) Full packet capture to disk (sustained) <sup>†</sup> : Up to 11.5 Gbps Number of monitored RTP streams (concurrent): 20,000 Number of monitored unique client-server transactions per minute: 400,000 <sup>*</sup> Characterized based on typical traffic conditions simulated on the test bed
<b>Monitoring performance with ERSPAN</b>	Traffic-monitoring throughput (sustained) <sup>*</sup> : 16+ Gbps (similar to traffic-monitoring throughput for SPAN ports. Needs at least 2 ERSPAN sessions, one to each data port, to achieve the above performance number)
<b>Physical dimensions (H x W x D)</b>	Two RUs (2RU): 3.43 x 17.65 x 29.0 in. (8.7 x 44.8 x 73.8 cm) - excluding handles 3.43 x 18.96 x 30.18 in. (8.7 x 48.2 x 76.6 cm) - Including handles
<b>Temperature: Operating</b>	41 to 95°F (5 to 35°C) (operating, sea level, no fan fail, no CPU throttling, turbo mode)
<b>Temperature: Nonoperating</b>	-40 to 149°F (-40 to 65°C)
<b>Humidity: Operating</b>	10 to 90 percent noncondensing
<b>Humidity: Nonoperating</b>	5 to 93 percent noncondensing
<b>Altitude: Operating</b>	0 to 10,000 ft (0 to 3000m); maximum ambient temperature decreases by 1°C per 300 m
<b>Altitude: Nonoperating</b>	0 to 40,000 ft (12,000m)
NAM 2404 Feature	Description
<b>Chassis</b>	One rack unit (1RU)
<b>Processor</b>	One Intel Xeon E5-2660 processor
<b>Memory</b>	64-GB (4 x 16-GB) DDR4 main memory
<b>Hard-disk drive</b>	8-TB (8 x 1-TB) hot-swappable, enterprise-class SAS drives; RAID 1 on first two drives (hosting the operating system and embedded performance database) and RAID 5 on the rest of the 6 drives used for packet-capture storage
<b>Monitoring ports</b>	Four 1 Gbps 1000BASE-T RJ-45 or four 1 Gbps Small Form-Factor Pluggable (SFP) including multimode 850 nm SR, single-mode 1310 nm LR, 1000BASE-T
<b>Management port</b>	10/100/1000 RJ-45
<b>Monitoring and capture performance (monitoring ports)</b>	Traffic-monitoring throughput (sustained) <sup>*</sup> : 3.5Gbps (with DPI enabled) Full packet capture to disk (sustained) <sup>†</sup> : Up to 1.9 Gbps Number of monitored RTP streams (concurrent): 20,000 Number of monitored unique client-server transactions per minute: 400,000 <sup>*</sup> Characterized based on typical traffic conditions simulated on the test bed
<b>Monitoring performance with ERSPAN</b>	Traffic-monitoring throughput (sustained) <sup>*</sup> : 3.5 Gbps (similar to traffic-monitoring throughput for SPAN ports. Needs at least 4 ERSPAN sessions, one to each data port, to achieve the above performance number)
<b>Physical dimensions (H x W x D)</b>	1RU, H x W x D: 1.7 x 16.9 x 29.8 in. (4.32 x 43 x 75.6 cm); depth is without bezel or mounting hardware
<b>Temperature: Operating</b>	41 to 95°F (5 to 35°C) (operating, sea level, no fan fail, no CPU throttling, turbo mode)
<b>Temperature: Nonoperating</b>	-40 to 149°F (-40 to 65°C)
<b>Humidity: Operating</b>	10 to 90 percent noncondensing
<b>Humidity: Nonoperating</b>	5 to 93 percent noncondensing
<b>Altitude: Operating</b>	0 to 10,000 ft (0 to 3000m); maximum ambient temperature decreases by 1°C per 300 m
<b>Altitude: Nonoperating</b>	0 to 40,000 ft (12,000m)

All NAM Appliances	Description
<b>Supported topologies and data sources</b>	<ul style="list-style-type: none"> <li>• LAN: SPAN, Remote SPAN (RSPAN), ERSPAN, VLAN access control list (VACL)-based captures and NetFlow (Versions 5 and 9)</li> <li>• WAN: NetFlow (Versions 5 and 9) from local and remote devices, VACL-based captures for FlexWAN/Optical Service Module (OSM) and shared-port-adaptor (SPA) interfaces</li> </ul>
<b>Managed device support</b>	Cisco Prime NAM 2400 Series Appliances can be deployed with any network device that can be configured with a standard data source (refer to previous entry) such as SPAN, RSPAN, ERSPAN, and NetFlow. The managed device feature allows Cisco Prime NAM to poll the device health and interface/port statistics using Simple Network Management Protocol (SNMP). The implementation of the managed device feature differs by the type of network device.
<b>Time synchronization</b>	Network Time Protocol (NTP)
<b>Supported interfaces</b>	<ul style="list-style-type: none"> <li>• HTTP and Secure HTTP (HTTPS) with embedded web-based Cisco Prime NAM Software</li> <li>• SNMPv1, v2c, and v3, with standards-based applications</li> </ul>
<b>Cisco Prime NAM Software</b>	<ul style="list-style-type: none"> <li>• Cisco Prime NAM Software 6.2</li> <li>• Web-based: Requires Microsoft Internet Explorer 10 or later or Mozilla Firefox ESR 24 or later</li> <li>• Support for Secure Sockets Layer (SSL) security with up to 256-bit encryption</li> <li>• Role-based user authorization and authentication locally or using TACACS+</li> </ul>
<b>MIBs</b>	<p>The Cisco Prime NAMs are standards-compliant and they support the following major MIB groups:</p> <ul style="list-style-type: none"> <li>• MIB-II (RFC 1213): All groups except Exterior Gateway Protocol (EGP) and transmission</li> <li>• RMON (RFC 2819): Alarm and Event groups only</li> <li>• RMON2 (RFC 2021): trapDestTable only</li> <li>• Cisco Discovery Protocol</li> <li>• EntityMIB (RFC 2737)</li> </ul>
<b>Applications and protocols</b>	<p>The Cisco Prime NAM supports two protocol classification modes, DPI (NBAR2) and Classic.</p> <p>A list of the NBAR2 protocols supported in NAM 6.2 is available at:  <a href="http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/qos_nbar/prot_lib/config_library/pp710/nbar-prot-pack710.pdf">http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/qos_nbar/prot_lib/config_library/pp710/nbar-prot-pack710.pdf</a>.</p> <p>NBAR2 Protocol Packs for NAM can be found, when available, on the Cisco Prime NAM Software support site at:  <a href="http://www.cisco.com/c/en/us/support/cloud-systems-management/prime-network-analysis-module-software/tsd-products-support-general-information.html">http://www.cisco.com/c/en/us/support/cloud-systems-management/prime-network-analysis-module-software/tsd-products-support-general-information.html</a>.</p> <p>The DPI mode is the default mode.</p> <p>Cisco Prime NAM in classic mode identifies hundreds of unique protocols (Layers 2 through 4) and automatically detects unknown protocols. It also supports Uniform Resource Locator (URL)-based application definition.</p> <p>Supported protocols include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• TCP and User Datagram Protocol (UDP) over IP, including IPv6</li> <li>• HTTP and HTTPS</li> <li>• Voice over IP (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)</li> <li>• Signaling Transport (SIGTRAN) protocols</li> <li>• Mobile IP protocols, including GPRS Tunneling Protocol (GTP)</li> <li>• SAN protocols</li> <li>• Database protocols</li> <li>• Peer-to-peer protocols</li> <li>• Switch and router protocols</li> <li>• Cisco proprietary protocols</li> <li>• Unknown protocols by TCP/UDP ports and remote-procedure call (RPC) program numbers</li> </ul>
<b>Custom applications</b>	Cisco Prime NAM supports custom applications. These applications can be defined on the basis of port, port range, server IP address, server IP address range, or HTTP URL.

## Regulatory Standards

Table 3 lists regulatory standards-compliance information.

**Table 3.** Regulatory Standards Compliance: Safety and EMC

Specification	Description
<b>Safety</b>	<ul style="list-style-type: none"><li>• UL 60950-1 No. 21CFR1040 Second Edition</li><li>• CAN/CSA-C22.2 No. 60950-1 Second Edition</li><li>• IEC 60950-1 Second Edition</li><li>• EN 60950-1 Second Edition</li><li>• IEC 60950-1 Second Edition</li><li>• AS/NZS 60950-1</li><li>• GB4943 2001</li></ul>
<b>EMC: Emissions</b>	<ul style="list-style-type: none"><li>• 47CFR Part 15 (CFR 47) Class A</li><li>• AS/NZS CISPR22 Class A</li><li>• CISPR2 2 Class A</li><li>• EN55022 Class A</li><li>• ICES003 Class A</li><li>• VCCI Class A</li><li>• EN61000-3-2</li><li>• EN61000-3-3</li><li>• KN22 Class A</li><li>• CNS13438 Class A</li></ul>
<b>EMC: Immunity</b>	<ul style="list-style-type: none"><li>• EN55024</li><li>• CISPR24</li><li>• EN300386</li><li>• KN24</li></ul>

## Warranty Information

Find warranty information on Cisco.com at the [Product Warranties](#) page.

## Ordering Information

To place an order, visit the [Cisco Ordering Homepage](#). Refer to Table 4 for part numbers. When ordering the Cisco Prime NAM 2420 or the Cisco Prime NAM 2440 Appliance, you have the option to upgrade the hard-disk drives to maximize the performance of full packet capture to disk. The default HDD configuration (16 x 1 TB) can be upgraded to 24 x 1-TB drives using the upgrade pack (8 x 1-TB) with part number NAM24-8PHDD-1TBSAS. When ordering the Cisco Prime NAM 2404, you have the option choose the monitoring interfaces to be either all optical (SFP) or all RJ-45.

Cisco Prime NAM Software Version 6.2 will be delivered preloaded with your NAM 2400 Series Appliance. To download software and software updates, visit the [Cisco Platform Suite](#).

**Table 4.** Ordering Information

Cisco Prime NAM 2440 Appliance	Part Number
Cisco Prime NAM 2440 Appliance (With 4 10Gb SFP+, 16 x 1 TB SAS Drives)	NAM2440-K9
Hard Disk Drive Upgrade Pack (8 x 1 TB SAS Drives) - Optional	NAM24-8PHDD-1TBSAS
Cisco Prime NAM Software 6.2	NAM-APP-SW-6.21-K9



Cisco Prime NAM 2420 Appliance	Part Number
Cisco Prime NAM 2420 Appliance (With 2 10Gb SFP+, 16 x 1 TB SAS Drives)	NAM2420-K9
Hard Disk Drive Upgrade Pack (8 x 1 TB SAS Drives) - Optional	NAM24-8PHDD-1TB SAS
Cisco Prime NAM Software 6.2	NAM-APP-SW-6.21-K9
Cisco Prime NAM 2404 Appliance	Part Number
Cisco Prime NAM 2404 Appliance (With 4x1Gb RJ45 or SFP, 8 x 1 TB SAS Drives)	NAM2404-K9
Cisco Prime NAM Software 6.2	NAM-APP-SW-6.22-K9

For ordering convenience, the SFP and SFP+ module part numbers (Table 5) are available on the Cisco Ordering Homepage when ordering Cisco Prime NAM 2400 Appliances.

**Table 5. SFP Ordering Information for Cisco Prime NAM 2440 and 2420 Appliances**

Product Name	Part Number	Ordering Information
10GBASE-SR SFP+ Module for MMF	SFP-10G-SR=	Refer to the <a href="#">Cisco 10GBASE SFP+ Modules data sheet</a> for ordering information related to these Cisco SFP+ modules and related cables.
10GBASE-LR SFP+ Module for SMF	SFP-10G-LR=	
10GBASE-ER SFP+ Module for SMF	SFP-10G-ER=	

#### For Cisco Prime NAM 2404 Appliance with SFP Modules

Product Name	Part Number	Ordering Information
1000BASE-T Standard	GLC-T=	Refer to the <a href="#">Cisco SFP Modules data sheet</a> for ordering information related to these Cisco SFP modules.
1000BASE-SX Short Wavelength; With DOM	GLC-SX-MMD=	
1000BASE-LX/LH Long-Wavelength; With DOM	GLC-LH-SMD=	

## Cisco Services

### 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 can help you 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 6 shows the technical support service recommended for NAM 2400 Series Appliances.

**Table 6. Cisco Technical Services**

Technical Services
<p>Cisco SMARTnet<sup>®</sup> provides:</p> <ul style="list-style-type: none"> <li>• Global 24-hour access to the Cisco Technical Assistance Center (TAC)</li> <li>• Access to online knowledge base, communities, and tools</li> <li>• Hardware replacement options, including 2-hour, 4-hour, and next business day (NBD)<sup>*</sup></li> <li>• Ongoing operating system software updates<sup>**</sup></li> <li>• Smart, proactive diagnostics and real-time alerts on devices enabled with Smart Call Home</li> </ul>

<sup>\*</sup> Advance hardware replacement is available in various service-level combinations. For example, 8 x 5 x NBD indicates that shipment will be initiated during the standard 8-hour business day, 5 days a week (the generally accepted business days within the relevant region), with next-business-day delivery. Where NBD is not available, same-day shipment is provided. Restrictions apply; please review the appropriate service descriptions for details.

<sup>\*\*</sup> Cisco operating system updates include maintenance releases, minor updates, and major updates within the licensed feature set.

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## Cisco Capital

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### For More Information

For more information about Cisco Prime NAM 2400 Series Appliances, visit <http://www.cisco.com/go/nam>, contact your local Cisco account representative, or send an email message to [nam-info@cisco.com](mailto:nam-info@cisco.com).



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