



Cisco NAM 4.2(1n) on Nexus 1010 Virtual Services Appliance Release Notes

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Introduction

The NAM 4.2(1n) software enhances performance of the NAM Traffic Analyzer on the Nexus 1010 Virtual Services Appliance by increasing throughput for ERSPAN and NetFlow over the management interface.

The Cisco Nexus 1010 Virtual Services Appliance has an integrated Cisco NAM VSB solution to monitor and troubleshoot the Cisco Nexus 1010 Virtual Services Appliance environment. As an integrated solution, the Cisco NAM VSB is ideal for customers who are deploying the Cisco Nexus 1010 Virtual Services Appliance, thereby providing greater investment protection, ease of deployment, and reduced network footprint.

The software enables network administrators to extend operational visibility into the VM network, including interactions across virtual machines. The feature can be used with the Nexus 1010 Virtual Services Appliance, deployed in the Data Center in conjunction with Nexus 1000V switch deployments. NAM supports the use of embedded management features, namely Encapsulated Remote Switched Port Analyzer (ERSPAN) and NetFlow, on the Cisco Nexus 1000V switch. ERSPAN can be configured on



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the Cisco Nexus 1000v switch to allow NAM to obtain visibility into specific ports or VLANs. NetFlow Data Export can also be configured on select virtual and physical interfaces to provide insight into traffic behavior in the virtual machine network.

Key benefits include:

- Analyze network usage behavior by application, host/VM, and conversation to identify bottlenecks that may affect performance and availability
- Troubleshoot performance issues with extended visibility into VM-to-VM traffic, virtual interface statistics, and transaction response times
- Assess impact on network behavior due to changes such as VM migration, new application deployment, and port profile update
- Improve the efficiency of your virtual infrastructure and distributed application components with comprehensive traffic analysis

As a distinctive advantage, NAM allows monitoring of virtual machines live while they migrate with VMotion.

System Requirements

NAM 4.2(1n) supports the Nexus 1010 (N1K-C1010) Virtual Services Appliance. [Table 1](#) provides a description of the Cisco Nexus 1010 Virtual Services Appliance, its components, and deployment scenarios.



Note

You will need a configured Nexus 1010 Virtual Services Appliance to install the Network Analysis Module.

Table 1 *Cisco Nexus 1010 Virtual Services Appliance*

Platform	Requirements
Cisco N1K-C1010	<ul style="list-style-type: none"> • 2 GB RAM available • 2 virtual CPUs available • 53 GB hard disk drive space available • Cisco NAM 4.2(1n) software image

The memory, CPU, and disk drive requirements for the Nexus 1010 Virtual Services Appliance are built into the NAM image.

Hardware Supported

- Cisco Nexus 1010 Virtual Services Appliance

Browser Requirements

Table 2 describes the browser requirements for all platforms. We recommend you use the Internet Explorer browser, but Firefox is also supported.

Table 2 Browser Requirements

Browser	Versions	Client Platform	JVM Support ¹
Internet Explorer	6.0 (with Service Pack 2)	<ul style="list-style-type: none"> Windows Windows XP Professional 	<ul style="list-style-type: none"> Java Plug-In 1.5.0_11
Internet Explorer	7.0	<ul style="list-style-type: none"> Windows Vista 	
Firefox	2.0 3.0	<ul style="list-style-type: none"> Windows Windows XP Professional Solaris Linux (RHEL) 	

1. A Java plug-in might be required to use the Java Virtual Machine (JVM).



Note

Although Traffic Analyzer does not require a Java plug-in, you might be required to use the Java Virtual Machine (JVM). The Java plug-in versions listed have been tested for browsers that require a plug-in for the JVM. Cisco recommends JRE Version 5.0 Update 6.

NAM Virtual Blade Licensing Requirements

The NAM 4.2(1n) software for the Nexus 1010 Virtual Services Appliance requires you to install a product license in the form of a text file. An evaluation license allows you to use the software for up to 60 days, but you will be unable to log in to the NAM GUI after the evaluation license expires. When using an evaluation license, the NAM login window indicates how many days remain before the evaluation license expires.

You can provide licensing information, also known as node-locking information, during software installation or after software installation using the NAM CLI. During the NAM software installation, you will be prompted to enter a product identifier (PID) and serial number (SN).

To obtain a NAM Virtual Blade license, go to the following URL:

<http://www.cisco.com/go/license>

Follow the instructions on this page to obtain a NAM VB license file. You will need the appliance PID and SN to obtain the license file. After you enter the PID and SN or the Product Authorization Key, a license file will be sent to you by Email. Store this license file on an available FTP server. Use the license install command to install the license after the NAM software installation completes.

Installing NAM Software on a Nexus 1010 Appliance

You will need to remove the existing NAM image, and install Cisco NAM 4.2(1n) from the Nexus 1010 CLI.


Note

The NAM does not support High Availability (HA) mode.


Note

If you ordered a Cisco Nexus 1010 with NAM, the NAM installation media will already be loaded on the appliance. The installation media consists of an ISO file in `bootflash:/repository`.

If you have a Cisco Nexus 1010 without NAM software, and you want to add it, you will need to download it from Cisco.com to a local ftp or http server, and then install it using the command `copy ftp://path/to/nam/nam.iso bootflash:/repository`.

Step 1 Log in to the Nexus 1010 and enter virtual blade configuration mode:

```
vsm-nam1# conf t
```

Step 2 List the contents of the repository.

```
vsm-nam1(config)# dir bootflash:/repository
...
153135104      Jan 24 09:37:17 2011      nam-4-2-1n.iso
...

Usage for bootflash://sup-local
305664000 bytes used
3685715968 bytes free
3991379968 bytes total
vsm-nam1(config)#
```

Use the directory listing to enter the correct ISO file that contains the NAM media.

In the example above, "nam-4-2-1n.iso" is the filename, and the user is using this command to find the nam install media (an iso file found in `bootflash:/repository`).

Step 3 If an existing NAM image is installed, you will need to remove it (if there is no NAM virtual service blade installed, skip this step and go to [Step 4](#)).

```
vsm-nam1(config)# virtual-service-blade NAM
vsm-nam1(config-vb-config)# no enable
vsm-nam1(config-vb-config)# no virtual-service-blade NAM
vsm-nam1(config)#
```

Step 4 To install the new NAM image, enter the virtual service blade creation mode.

```
vsm-nam1(config)# virtual-service-blade NAM
vsm-nam1(config-vb-config)#
```

Step 5 Enter the NAM configuration information.


Note

The data VLAN is used for both management and data (packet) collection for the virtual NAM. Unlike the VSM, the virtual NAM does not inherit the management VLAN from the VSB. The IP address assigned to the NAM must be in the data VLAN.

```
vsm-nam1(config-vb-config)# virtual-service-blade-type new
nam-4-2-1n.iso
vsm-nam1(config-vb-config)# interface data vlan 3
vsm-nam1(config-vb-config)# enable
Enter vsb image:[nam-4-2-1n.iso]
Enter Management IPV4 address: 172.20.122.107
Enter Management subnet mask: 255.255.255.128
IPv4 address of the default gateway: 172.20.122.1
Enter Hostname: nam-vsml
Setting Web user/passwd will enable port 80. Press Enter[y/n]:y
Web User name: [admin]
Web User password: admin
vsm-nam1(config-vb-config)#
```

- Step 6** The NAM VSB installation will begin. You can use the **show virtual-service-blade summary** command to see the installation in progress.

```
vsm-nam1(config-vb-config)# show virtual-service-blade summary
```

- Step 7** When the status says “POWER ON,” you can log into the NAM console.



Note The default password is “root.”

```
vsm-nam1# login virtual-service-blade nam
Telnet escape character is '$'.
Trying 127.1.0.18...
Connected to 127.1.0.18.
Escape character is '$'.

Cisco Network Analysis Module

nam.cisco.com login: root
Password:
Last login: Mon Jan 24 15:18:47 2011 from dhcp-171-69-69-187.cisco.com on pts/2

Cisco Virtual Blade on Nexus Appliance (Nexus VB) (R200-1120402) Console, 4.2(1n)
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root@nam.cisco.com#
```

Limitations and Restrictions

This release for NAM is supported only on Cisco Nexus 1000V Release 4.2(1)SV1(4) releases.

NetFlow Records from the NAM (Nexus 1000V NAM Virtual Service Blade)

On the Nexus 1000V NAM Virtual Service Blade, NetFlow record-related CLIs will send NetFlow record types below, which can be decoded properly by NAM. If you define your own record, it may not be decoded by NAM. This pre-defined collection of records offered by this CLI will work for most customers. Under "flow monitor" section as below

```
flow monitor YourMonitorName
```

```
record netflow-original
```

record netflow-original" will send NetFlow records that can be decoded properly by NAM.

MIB Limitation

Due to a Nexus 1010 Virtual Services Appliance MIB limitation, NAM Release 4.2 can't display the following information when "Managed Device" is VSM:

- Port Stat (at **Monitor** > **Managed Device** > **Port Stats**)
- Managed device health (at **Monitor** > **Managed Device** > **Health**)

ACS Version Supported

The only ACS server version supported is 4.2.

Related Documentation

This section provides a list of the NAM 4.2 software documentation. You can find links to all NAM software documentation at the following URL:

http://www.cisco.com/en/US/products/sw/cscowork/ps5401/tsd_products_support_series_home.html

The following is a list of the documentation for Cisco Network Analysis Module 4.2 (in the order in which you should address it).

- [User Guide for the Cisco Network Analysis Module Virtual Service Blades, 4.2, page 6](#)
- [Cisco Nexus 1000V NAM Virtual Service Blade Installation and Configuration Guide, page 7](#)
- [Cisco NAM Command Reference, Release 4.2, page 7](#)
- [Copyright Notices for the Cisco Network Analysis Module, Release 4.2, page 7](#)

You can access the URLs listed for each document on the World Wide Web.

User Guide for the Cisco Network Analysis Module Virtual Service Blades, 4.2

OL-21551-01

The *User Guide for the Cisco Network Analysis Module Virtual Service Blades, 4.2* describes how to use the Network Analysis Module Traffic Analyzer and NAM 4.2 software with the WAAS appliance and the Nexus 1000V Virtual Service Blade.

http://www.cisco.com/en/US/docs/net_mgmt/network_analysis_module_virtual_blade/4.2/user/guide/vbuser42.html

Cisco Nexus 1000V NAM Virtual Service Blade Installation and Configuration Guide

OL-21578-01

The *Cisco Nexus 1000V NAM Virtual Service Blade Installation and Configuration Guide* provides detailed steps to install the NAM VSB on a Cisco Nexus 1010 Virtual Services Appliance and configure the NAM.

http://www.cisco.com/en/US/docs/net_mgmt/network_analysis_module_virtual_blade/4.2/install/guide/nexus/nx42_install.html

Cisco NAM Command Reference, Release 4.2

OL-21728-01

The *Cisco NAM Command Reference, Release 4.2* provides information about how to use the NAM command-line interface to manage the NAM devices supported by NAM 4.2 software including:

- NAM2220
- NAM2204-RJ45
- NAM2204-SFP
- WS-SVC-NAM-1
- WS-SVC-NAM-1-250S
- WS-SVC-NAM-2
- WS-SVC-NAM-2-250S
- NME-NAM-80S
- NME-NAM-120S

The *Cisco NAM Command Reference, Release 4.2* also supports the following WAAS appliances:

- WAVE-574
- WAE-674

and the Nexus 1010 Virtual Services Appliance:

- N1K-C1010

http://www.cisco.com/en/US/docs/net_mgmt/network_analysis_module_software/4.2/command/reference/guide/nam42_cmdref.html

Copyright Notices for the Cisco Network Analysis Module, Release 4.2

OL-21732-01

The *Copyright Notices for the Cisco Network Analysis Module, 4.2* provides a listing of all copyright notices for the open source third-party software used in NAM 4.2.

http://www.cisco.com/en/US/docs/net_mgmt/network_analysis_module_software/4.2/copyright/notice/copyrgh.html

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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