

How To Upgrade the NAM to Version 3.x

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Introduction

This document provides a step-by-step procedure on how to upgrade Network Analysis Module (NAM) software to release 3.x.

Prerequisites

Requirements

Ensure that you meet these requirements before you attempt this configuration:

- Familiarity with File Transfer Protocol (FTP)
- Familiarity with Catalyst switch administration from the command line

Components Used

The information in this document is based on these software and hardware versions:

- WS-X6380 (original NAM)
- NAM version 3.0 software
- NAM-1 and NAM-2 hardware devices
- Catalyst 6505 that runs CatOS 7.3.1

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

Upgrade the NAM Software to Version 3.x

Task

This section presents the information to upgrade the NAM software to version 3.x.

Step-by-Step Instructions

Complete these steps in order to upgrade your software:

1. Download the file:

- ◆ Original NAM Refer to Software Download–NAM for Cat 6500 (Prod. Code: WS–X6380–NAM) (registered customers only) and obtain the **c6nam.3–1–1.bin.gz** file.
- ◆ NAM1/NAM2 Refer to Software Download–NAM for Cat 6500 (Prod. Code: WS–SVC–NAMx) (registered customers only) and obtain the **c6svc–nam.3–1–1.bin.gz** file.

2. Place the file in the root directory of the account on the FTP server you intend to use.

Note: This illustration uses WS–X6380–NAM, but it applies to both WS–SVC–NAM–1 and WS–SVC–NAM–2.

This example uses this information:

◆ FTP server is:

◇ Name: **rtp–sycamore.cisco.com**

◇ Address: 172.18.123.68

- ◆ Account ID is cse.
- ◆ Account password is csecse.
- ◆ Root directory for cse is : ~ rtp–sycamore cse %4> **pwd /local/home/cse.**
- ◆ The file is listed there, thus it is: **/local/home/cse/c6nam.3–1–1.bin.gz.**

```
~ rtp–sycamore cse %4>ls –al c6nam.3–1–1.bin.gz –rw–r–r– 1 cse other 75671244 May
28 11:17 c6nam.3–1–1.bin.gz
```

3. In order to verify that the FTP server functions, test to see if this FTP server is accessible from ANOTHER workstation:

Note: The rtp–cse–205 is used as an example here.

```
rtp–cse–205_oansari-> ftp rtp–sycamore
Connected to rtp–sycamore.cisco.com.
220 rtp–sycamore FTP server (SunOS 5.7) ready.
Name (rtp–sycamore:oansari): cse
331 Password required for cse.
Password: csecse
230 User cse logged in.
Remote system type is UNIX.
Using binary mode to transfer files.
```

4. When you access the FTP server, make sure the file is available:

```
ftp> ls c6nam.3–1–1.bin.gz
227 Entering Passive Mode (172,18,123,68,222,205)
150 ASCII data connection for /bin/ls (64.102.51.64,35372) (0 bytes).
–rw–r–r– 1 cse other 75671244 May 28 11:17 c6nam.3–1–1.bin.gz
226 ASCII Transfer complete.
```

When you verify that the file is present and available, you increase confidence that the file transfer to the NAM will be successful. This confirms that the FTP service runs and the necessary file is

available for download to an FTP client.

5. Start the steps to upgrade the NAM. This is an example:

a. Check the module:

```
nms-6506a> (enable) sh mod
...

```

Mod	Slot	Ports	Module-Type	Model	Sub	Status
1	1	2	1000BaseX Supervisor	WS-X6K-SUP1A-2GE	yes	ok
15	1	1	Multilayer Switch Feature	WS-F6K-MSFC	no	ok
2	2	0	FlexWAN Module	WS-X6182-2PA	no	power-down
4	4	2	Network Analysis Module	WS-X6380-NAM	no	ok
5	5	8	1000BaseX Ethernet	WS-X6408-GBIC	no	ok
6	6	48	10/100BaseTX Ethernet	WS-X6348-RJ-45	yes	ok

The output shows that the NAM of interest is located in slot 4, and the status is ok.

b. Check the version of the CatOS switch:

```
nms-6506a> (enable) sh ver
WS-C6506 Software, Version NmpSW: 7.3(1)
```

Note: The version must be 7.3(1) or later. If your switch is not to this version, DO NOT PROCEED TO UPGRADE THE NAM. FIRST UPGRADE THE SWITCH SOFTWARE.

c. If the version indicated is 7.3(1) or later, then reset the NAM:

```
nms-6506a> (enable) reset 4 hdd:2
This command will reset module 4.
Unsaved configuration on module 4 will be lost
Do you want to continue (y/n) [n]? y
Module 4 shut down in progress, do not remove module until shutdown completed
nms-6506a> (enable)
```

Note: For NAM1/NAM2 you must use these commands: **reset <module> cf:1.**

You see this output on the terminal:

```
2003 May 28 11:28:36 %SNMP-5-ENTITYMODTRAP:Module 4 status
changed to "unknown(1)"
2003 May 28 11:28:36 %SNMP-5-MODULETRAP:Module 4 [Down] Trap
2003 May 28 11:28:36 %SNMP-5-ENTITYMODTRAP:Module 4 status
changed to "failed(7)"

003 May 28 11:28:50 %SNMP-5-FRUREMOVEDTRAP:module 4 removed
2003 May 28 11:28:50 %SNMP-5-ENTITYTRAP:Entity Mib last change time
483090709 ticks
2003 May 28 11:28:50 %SNMP-5-ENTITYMODTRAP:Module 4 status
changed to "unknown(1)"
2003 May 28 11:29:07 %SNMP-5-ENTITYTRAP:Entity Mib last change time
483092362 ticks
2003 May 28 11:29:07 %SNMP-5-FRUINSERTEDTRAP:module 4 inserted

2003 May 28 11:30:26 %SNMP-5-ENTITYMODTRAP:Module 4 status
changed to "ok(2)"
2003 May 28 11:30:26 %SNMP-5-MODULETRAP:Module 4 [Up] Trap
2003 May 28 11:30:27 %SNMP-5-FRUREMOVEDTRAP:module 4 removed
2003 May 28 11:30:27 %SNMP-5-ENTITYTRAP:Entity Mib last change time
483100353 ticks
2003 May 28 11:30:27 %SNMP-5-FRUINSERTEDTRAP:module 4 inserted
2003 May 28 11:30:27 %SYS-3-MOD_PORTINTFINSYNC:Port Interface in sync
```

for Module 4

d. Make sure the NAM reboots successfully:

```
nms-6506a> (enable) sh mod 4
Mod Slot Ports Module-Type Model Sub Status
-----
4 4 2 Network Analysis Module WS-X6380-NAM no ok
```

!--- Yes, it is up again.

e. Session into the NAM and issue the **upgrade** command:

```
nms-6506a> (enable) sess 4
Trying NAM-4...
Connected to NAM-4.
Escape character is '^]'.

Cisco Network Analysis Module (WS-X6380-NAM)
```

Maintenance Partition

!--- Notice how this states Maint Partition now.

```
login: root
Password:
```

!--- Enter the password (the default password here is 'cisco').

```
Network Analysis Module (WS-X6380-NAM) Console, 1.2(1a)m
Copyright (c) 1999, 2000, 2001 by cisco Systems, Inc.
```

```
root@nms-6506a-nam.123.cisco.com#upgrade ftp://cse:csecse@172.18.123.68/
local/home/cse/c6nam.3-1-1.bin.gz
```

*!--- Notice that the complete path was specified after the IP address,
!--- the same path that was retrieved from the "pwd" command on the server.
!--- For this reason, it is encouraged to use your UNIX server as your
!--- FTP server. If necessary, get your sysadmin to enable FTP on it
!--- temporarily to upgrade this NAM.*

!--- This step takes the longest time to upgrade.

```
root@nms-6506a-nam.123.cisco.com#upgrade ftp://cse:csecse@172.18.123.68/
local/home/cse/c6nam.3-1-1.bin.gz500 'SIZE c6nam.3-1-1.bin.gz':
command not understood.
ftp://cse:csecse@172.18.123.68/local/home/cse/c6nam.3-1-1.bin.gz
(unknown size) - [ ] 41362K
```

!--- This goes on for a long time.

!--- You have to be patient through this.

!--- Then, after a lot of time, (can run for hours):

```
75671250 bytes transferred in 3010.21 sec (24.55k/sec)
downloaded image version 3.1(1)
```

```
Upgrade file ftp://cse:csecse@172.18.123.68/local/home/cse/c6nam.3-1-1.bin.gz
is downloaded. Upgrading will wipe out the
contents of the application partition on the hard disk.
```

```
Do you want to proceed installing it [y|N]: y
```

```
Proceeding with installation. Please do not interrupt.
If installation is interrupted or fails, boot this
partition again and restart upgrade.
```

```
!--- After a few minutes, you should see this:
```

```
Upgrade complete. You can boot the new application partition.
root@nms-6506a-nam.123.cisco.com#
```

f. Go back and reset the switch:

```
root@nms-6506a-nam.123.cisco.com#exit
```

```
nms-6506a> (enable) reset 4
This command will reset module 4.
Unsaved configuration on module 4 will be lost
Do you want to continue (y/n) [n]? y
Module 4 shut down in progress, do not remove module until shutdown completed
```

you might see these log messages as well:

```
2003 May 28 12:47:45 %SNMP-5-ENTITYMODTRAP:Module 4 status
changed to "unknown(1)"
2003 May 28 12:47:45 %SNMP-5-MODULETRAP:Module 4 [Down] Trap
2003 May 28 12:47:45 %SNMP-5-ENTITYMODTRAP:Module 4 status
changed to "failed(7)"

2003 May 28 12:48:00 %SNMP-5-FRUREMOVEDTRAP:module 4 removed
2003 May 28 12:48:00 %SNMP-5-ENTITYTRAP:Entity Mib last change time
483565551 ticks
2003 May 28 12:48:00 %SNMP-5-ENTITYMODTRAP:Module 4 status
changed to "unknown(1)"
2003 May 28 12:48:16 %SNMP-5-ENTITYTRAP:Entity Mib last change time
483567205 ticks
2003 May 28 12:48:16 %SNMP-5-FRUINSERTEDTRAP:module 4 inserted

2003 May 28 12:48:00 %SNMP-5-FRUREMOVEDTRAP:module 4 removed
2003 May 28 12:48:00 %SNMP-5-ENTITYTRAP:Entity Mib last change time
483565551 ticks
2003 May 28 12:48:00 %SNMP-5-ENTITYMODTRAP:Module 4 status
changed to "unknown(1)"
2003 May 28 12:48:16 %SNMP-5-ENTITYTRAP:Entity Mib last change time
483567205 ticks
2003 May 28 12:48:16 %SNMP-5-FRUINSERTEDTRAP:module 4 inserted
2003 May 28 12:50:22 %SNMP-5-ENTITYMODTRAP:Module 4 status
changed to "ok(2)"
2003 May 28 12:50:22 %SNMP-5-MODULETRAP:Module 4 [Up] Trap
2003 May 28 12:50:22 %SNMP-5-FRUREMOVEDTRAP:module 4 removed
2003 May 28 12:50:22 %SNMP-5-ENTITYTRAP:Entity Mib last change time
483579792 ticks
2003 May 28 12:50:22 %SNMP-5-FRUINSERTEDTRAP:module 4 inserted
2003 May 28 12:50:23 %SYS-3-MOD_PORTINTFINSYNC:Port Interface in sync
for Module 4
```

g. Finally, log in to the NAM again:

```
nms-6506a> (enable) sess 4
Trying NAM-4...
```

```
Connected to NAM-4.  
Escape character is '^]'.  
  
Cisco Network Analysis Module (WS-X6380-NAM)
```

```
!--- NOTE #1: The 3.1 application image upgrade requires a special  
!--- one-time extra reboot for optimal NAM 3.1 operation.  
!--- Reboot the NAM immediately after logging in.
```

```
!--- NOTE #2: Although it is NOT recommended, if for some reason you either  
!--- want to downgrade the application image later on this NAM or reinstall  
!--- the maintenance image, it is necessary to first install the NAM  
!--- downgrade patch.
```

```
login: root  
Password:  
Terminal type: vt100
```

```
Cisco Network Analysis Module (WS-X6380-NAM) Console, 3.1(1)  
Copyright (c) 1999-2003 by cisco Systems, Inc.
```

```
root@nms-6506a-nam.123.cisco.com#  
root@nms-6506a-nam.123.cisco.com# reboot
```

```
!--- Reboot the NAM one last time.
```

```
Reboot the NAM? (Y/N) [N]: y
```

6. Wait until the NAM is rebooted

```
!--- Note: NAM 3.1 takes a little longer to reboot (7-10 minutes).
```

Look for these logs:

```
2003 May 28 12:55:08 %SNMP-5-ENTITYMODTRAP:Module 4 status changed to "unknown(1)"  
2003 May 28 12:55:08 %SNMP-5-MODULETRAP:Module 4 [Down] Trap  
2003 May 28 12:55:08 %SNMP-5-ENTITYMODTRAP:Module 4 status changed to "failed(7)"  
2003 May 28 12:55:23 %SNMP-5-FRUREMOVEDTRAP:module 4 removed  
2003 May 28 12:55:23 %SNMP-5-ENTITYTRAP:Entity Mib last change time 483609821 ticks  
2003 May 28 12:55:23 %SNMP-5-ENTITYMODTRAP:Module 4 status changed to "unknown(1)"  
  
2003 May 28 12:55:39 %SNMP-5-ENTITYTRAP:Entity Mib last change time 483611474 ticks  
2003 May 28 12:55:39 %SNMP-5-FRUINSERTEDTRAP:module 4 inserted
```

and finally:

```
2003 May 28 12:57:17 %SNMP-5-ENTITYMODTRAP:Module 4 status changed to "ok(2)"  
2003 May 28 12:57:17 %SNMP-5-MODULETRAP:Module 4 [Up] Trap  
2003 May 28 12:57:18 %SNMP-5-FRUREMOVEDTRAP:module 4 removed  
2003 May 28 12:57:18 %SNMP-5-ENTITYTRAP:Entity Mib last change time 483621409 ticks  
2003 May 28 12:57:18 %SNMP-5-FRUINSERTEDTRAP:module 4 inserted  
2003 May 28 12:57:18 %SYS-3-MOD_PORTINTFINSYNC:Port Interface in sync for Module 4
```

Verify

Use this section to confirm that your configuration works properly.

The Output Interpreter Tool (registered customers only) (OIT) supports certain **show** commands. Use the OIT to view an analysis of **show** command output.

- **show mod**

```
nms-6506a> (enable) sh mod 4
Mod Slot Ports Module-Type Model Sub Status
-----
4 4 2 Network Analysis Module WS-X6380-NAM no ok
```

(i) login again to see the version:

```
nms-6506a> (enable) sess 4
Trying NAM-4...
Connected to NAM-4.
Escape character is '^]'.
```

Cisco Network Analysis Module (WS-X6380-NAM)

```
login: root
Password:
Terminal type: vt100
```

```
Cisco Network Analysis Module (WS-X6380-NAM) Console, 3.1(1)
Copyright (c) 1999-2003 by cisco Systems, Inc.
```

```
root@nms-6506a-nam.123.cisco.com#
```

Troubleshoot

There is currently no specific troubleshooting information available for this configuration.

Related Information

- [User Guide for Cisco Network Analysis Module Traffic Analyzer, 3.6](#)
 - [Technical Support & Documentation – Cisco Systems](#)
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