



Cisco Active Network Abstraction Network Service Activation Network Service Activation 1.0 Installation Guide

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Preface

This guide describes the typical installation of Cisco Active Network Abstraction Network Service Activation (Cisco ANA NSA).

This preface includes the following chapters:

- [Document Organization, page v](#)
- [Conventions, page vi](#)
- [Obtaining Documentation and Submitting a Service Request, page vii](#)

Document Organization

This guide includes the following sections:

[Installing Cisco ANA Network Service Activation 1.0](#)—Provides the Cisco ANA NSA installation steps.

Related Documentation

For more detailed information, see the following publications.

The following documentation is available for Cisco Active Network Abstraction Network Service Activation 1.0:

Cisco Active Network Abstraction Network Service Activation 1.0 User Guide

Cisco Active Network Abstraction Network Service Activation 1.0 Customization Guide

Cisco Active Network Abstraction Network Service Activation 1.0 Release Notes

The following documentation is available for Cisco Active Network Abstraction 3.7:

Cisco Active Network Abstraction 3.7 Theory of Operations

Cisco Active Network Abstraction 3.7 User Guide

Cisco Active Network Abstraction 3.7 Administrator Guide

Cisco Active Network Abstraction 3.7 Documentation Guide

Cisco Active Network Abstraction 3.7 Installation Guide

Cisco Active Network Abstraction 3.7 Release Notes

Cisco Active Network Abstraction 3.7 Customization User Guide

Cisco Active Network Abstraction 3.7 Reference Guide

Cisco Active Network Abstraction Integration Developer Guide is available on the Cisco ANA Technology Center website. This guide describes how to use Cisco ANA integration interfaces.

The Cisco ANA Technology Center is an online resource for additional downloadable ANA support content, including help for integration developers who use Cisco ANA application programming interfaces (APIs). It provides information, guidance, and examples to help you integrate your applications with Cisco ANA. It also provides a platform for you to interact with subject matter experts. To view the information on the Cisco ANA Technology Center website, you must have a Cisco.com account with partner level access, or you must be a Cisco ANA licensee. You can access the Cisco ANA Technology Center at <http://developer.cisco.com/web/ana/home>.



Note

Cisco documentation is sometimes updated. Always check Cisco.com for the latest documentation versions.

Conventions

This document uses the following conventions:

Convention	Indication
bold font	Commands and keywords and user-entered text appear in bold font .
<i>italic font</i>	Document titles, new or emphasized terms, and arguments for which you supply values are in <i>italic font</i> .
[]	Elements in square brackets are optional.
{ x y z }	Required alternative keywords are grouped in braces and separated by vertical bars.
[x y z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
<code>courier font</code>	Terminal sessions and information the system displays appear in <code>courier font</code> .
< >	Nonprinting characters such as passwords are in angle brackets.
[]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.



Note

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the publication.



Caution

Means *reader be careful*. In this situation, you might perform an action that could result in equipment damage or loss of data.

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>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.



CHAPTER 1

Installing Cisco ANA Network Service Activation 1.0

The following topics provide the prerequisites and installation procedures for Cisco Active Network Abstraction Network Service Activation 1.0 (Cisco ANA NSA):

- [Overview](#)
- [Installation Prerequisites](#)
- [Installing Cisco ANA NSA](#)
- [Uninstalling Cisco ANA NSA](#)

Overview

Cisco ANA NSA is installed as an add-on module to Cisco Active Network Abstraction 3.7 (Cisco ANA) on the Cisco ANA gateway. Cisco ANA NSA includes the following components:

1. Service activation scripts —A set of Carrier Ethernet and Mobile Transport over Packet (MToP) service activation scripts that support Carrier Ethernet and MToP service activation.
2. Service activation workflows—A set of workflows to capture the Carrier Ethernet and MToP service deployment scenarios and allow for customization to address specific service activation needs. These workflows can be viewed and edited with the Cisco ANA Workflow Editor. See the *Cisco Active Network Abstraction 3.7 Customization Guide* for information.
3. Service activation metadata-driven wizard framework—An extension of the Cisco ANA NetworkVision application that allows service activation wizards to be implemented to collect activation input from network operators.
4. Service activation wizards—A predefined set of service activation wizards to provision many common Carrier Ethernet and MToP services. The wizards are built using the metadata framework and associated with the service activation workflows to collect the required inputs and invoke the workflows.
5. Service Metadata Modification Utility—A utility that allows you to download service activation wizard XML files for editing, and then allows you to upload edited files to Cisco ANA NetworkVision.
6. Service Deployment List—Extensions to Cisco ANA NetworkVision that will allow it to display the Carrier Ethernet and MToP service activations.

Installation Prerequisites

- All Cisco ANA 3.7 hardware and software prerequisites apply to Cisco ANA NSA. For information, see the *Cisco Active Network Abstraction 3.7 Installation Guide*.
- Cisco ANA 3.7 must be installed and running on the Cisco ANA gateway server.
- AVM 66 must be running on the gateway server. (AVM 66 is the Cisco ANA Java process responsible for Cisco ANA workflows.)


Note

Cisco ANA NSA requires the ana37 Unix user to be configured with a password. Absence of a password will result in the loss of some Cisco ANA NSA functionality. This is covered in the Cisco ANA 3.7 installation procedures, but can sometimes be overlooked.

Installing Cisco ANA NSA

To install Cisco ANA NSA:

- Step 1** Download the Cisco ANA NSA installation file, **ana_nsa_installer.pl**, from the Cisco ANA NSA installation URL or DVD to the Cisco ANA gateway server.

The file can be placed in any available temporary gateway directory.


Note

The directory where you download the ana_nsa_installer.pl file must be writable for user ana37.

- Step 2** Change the permission to user ana37, then navigate to the directory where you downloaded the Cisco ANA NSA installation file:

```
cd <location of ana_nsa_installer.pl>
chmod 777 ana_nsa_installer.pl
su - ana37
cd <location of ana_nsa_installer.pl>
```

For example:

```
cd /download/
```


Note

The ana37 user is the Unix user that owns the Cisco ANA NSA installation.

- Step 3** Verify the gateway server status:

```
<ana user>@<gateway server>{~}% status
```

For example,

```
ana37@ana-vne-fw6 [-~]% status
```

The status should be similar to the following:

```
-----
.-= Welcome to ana-vne-fw6, running Cisco ANA gateway (v0.0.0 (build 12)) =-.
-----
+ Checking for services integrity:
  - Checking if host's time server is up and running          [DOWN]
```

```

- Checking if webserver daemon is up and running           [OK]
- Checking if anauser_secured daemon is up and running    [OK]
- Checking if license_server is up and running            [OK]
- Checking if the ssh process is up and running            [OK]
- Checking if mvm.pl is up and running                    [OK]
+ Detected AVM99 is up, checking AVMs
- Checking for AVM0's status                               [OK 0/411]
- Checking for AVM100's status                            [DISABLED]
- Checking for AVM66's status                             [OK 0/116]
- Checking for AVM11's status                             [OK 5/236]

```

If any problems are identified, do not continue. Resolve the server problems, then begin the Cisco ANA NSA installation again.

Step 4 Verify that the status shows AVM 66 is up (OK), for example:

```
- Checking for AVM66's status [OK 0/116]
```

If the AVM 66 status is up, continue with Step 5. If the AVM status is not up or missing, complete the following steps:

- a. Log into Cisco ANA Manage.
- b. Expand the ANA Servers and ANA Gateway trees to display the AVMs.
- c. Right-click **AVM 66** and choose **Actions > Start**.

Step 5 Run the Cisco ANA NSA installation:

```
./ana_nsa_installer.pl -install
ANA User:
ANA Password
```

Step 6 At the prompts, enter the ANA User and ANA password.



Note <ANA User> and <ANA Password> are the credentials specified when installing the Cisco ANA base.

Step 7 If the [Cisco Active Network Abstraction Network Service Activation 1.0 Release Notes](#) indicate that you must install Cisco ANA NSA patches, install them following procedures provided in the Release Notes document.

Step 8 Restart the Cisco ANA gateway:

```
mvm.csh
```

Step 9 If Cisco ANA units are set up, log in and restart each unit:

```
mvm.csh
```

Verifying the Installation

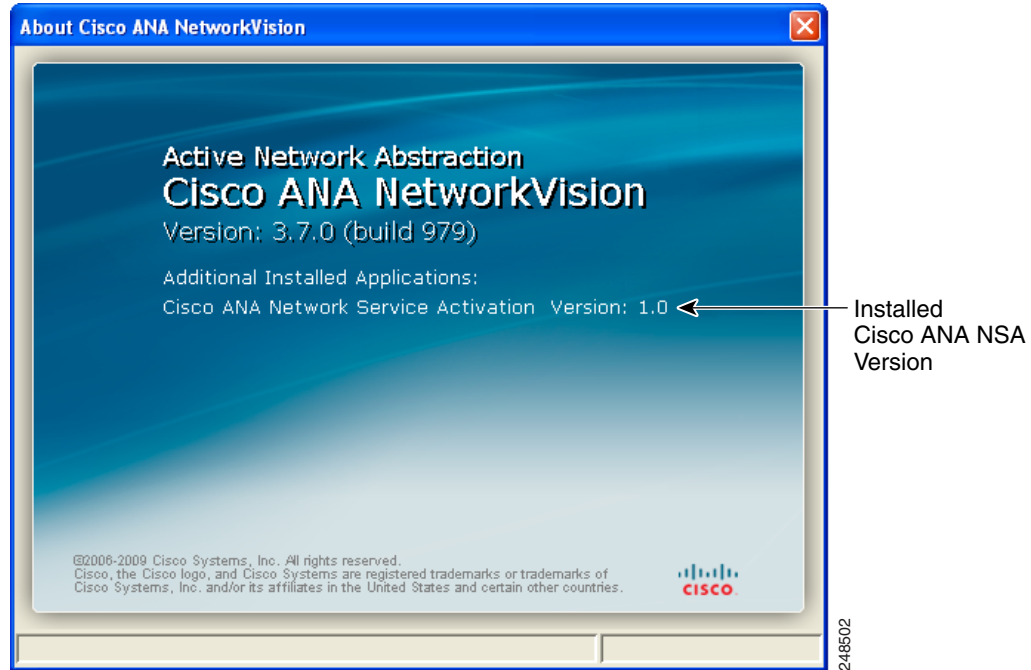
To verify Cisco ANA NSA installation:

Step 1 Open Cisco ANA NetworkVision.

Step 2 From the Help menu, choose **About**.

The installed Cisco ANA NSA version is shown in the About Cisco ANA NetworkVision window under Additional Installed Applications, shown in [Figure 1-1](#).

Figure 1-1 About Cisco ANA NetworkVision Window With Cisco ANA NSA Installed



Installation Errors

[Table 1-1](#) lists common installation errors.

Table 1-1 Common Installation Errors

Error	Cause	Steps
<pre>./ana_nsa_installer.pl -install ANA User: root ANA Password: Unpacking the data stream to ana_nsa.tar... sh: ana_nsa.tar: cannot create *** ERROR: Failed to unpack the data stream. ABORTING. ***</pre>	The directory to run the installer is not writable for the <i>ana37</i> user.	Open write access to the install directory to the <i>ana37</i> .
<pre>./ana_nsa_installer.pl -install Can't locate Term/Prompt.pm in @INC (@INC contains: /usr/perl5/5.8.4/lib/sun4-solaris-64int /usr/perl5/5.8.4/lib /usr/perl5/site_perl/5.8.4/sun4-solaris-64int /usr/perl5/site_perl/5.8.4 /usr/perl5/site_perl /usr/perl5/vendor_perl/5.8.4/sun4-solaris-64int /usr/perl5/vendor_perl/5.8.4 /usr/perl5/vendor_perl .) at ./ana_nsa_installer.pl line 6. BEGIN failed--compilation aborted at ./ana_nsa_installer.pl line 6.</pre>	Cisco ANA NSA fails to run the installer as <i>ana37</i> . Therefore, the Perl lib path is not properly set. The Perl program cannot proceed because the module is missing.	Verify that the installation is being performed by the <i>ana37</i> user. See Step 2 in the installation procedure.
<pre>./ana_nsa_installer.pl -install ANA User: ro ANA Password: Unpacking the data stream to ana_nsa.tar... Extracting tar file ana_nsa.tar... Install ANA NSA... ANA Version: v3.7.0 (build 1250) Cisco ANA Network Service Activation 1.0 AVM 66 is \ up and running. BQL Connection Failed. Exit...</pre>	Wrong username/ password	Enter the correct username and password.
<pre>./ana_nsa_installer.pl -install ANA User: ro ANA Password: Unpacking the data stream to ana_nsa.tar... Extracting tar file ana_nsa.tar... Install ANA NSA... ANA Version: v3.7.0 (build 1250) Cisco ANA Network Service Activation 1.0 AVM 66 is \ not running. Exit...</pre>	AVM 66 is down.	Complete Step 4 of the installation procedure.

Uninstalling Cisco ANA NSA

- Step 1** If the Cisco ANA NSA installation file, *ana_nsa_installer.pl*, is downloaded on the Cisco ANA gateway server, continue with [Step b](#).
- If the installation file is not downloaded to the gateway, complete the following steps:
- a. Download ***ana_nsa_installer.pl*** from the Cisco ANA NSA installation URL or DVD to the Cisco ANA gateway server.

The file can be placed in any available temporary gateway directory.



Note The directory where you download the ana_nsa_installer.pl file must be writable for user ana37.

- b. Change the permission to user ana37, then navigate to the directory where you downloaded the Cisco ANA NSA installation file:

```
chmod 777 ana_nsa_installer.pl
su - ana37
cd <location of ana_nsa_installer.pl>
```

For example,

```
cd /download/
```

Step 2 Verify the gateway server status:

```
<ana user>@<gateway server>{~}% status
```

For example,

```
ana37@ana-vne-fw6 [~]% status
```

The status should be similar to the following:

```
-----
.-= Welcome to ana-vne-fw6, running Cisco ANA gateway (v0.0.0 (build 12)) =-.
-----
+ Checking for services integrity:
- Checking if host's time server is up and running           [DOWN]
- Checking if webserver daemon is up and running            [OK]
- Checking if anauser_secured daemon is up and running      [OK]
- Checking if license server is up and running               [OK]
- Checking if the ssh process is up and running              [OK]
- Checking if mvm.pl is up and running                       [OK]
+ Detected AVM99 is up, checking AVMS
- Checking for AVM0's status                                  [OK 0/411]
- Checking for AVM100's status                               [DISABLED]
- Checking for AVM66's status                                [OK 0/116]
- Checking for AVM11's status                                [OK 5/236]
```

If any problems are identified, do not continue. Resolve the server problems, then begin the Cisco ANA NSA uninstall again.

Step 3 Verify that the status output shows AVM 66 is up (OK), for example:

```
- Checking for AVM66's status                                [OK 0/116]
```

If the AVM 66 status is up, continue with Step 4. If the AVM status is not up or missing, complete the following steps:

- Log into Cisco ANA Manage.
- Expand the ANA Servers and ANA Gateway trees to display the AVMS.
- Right-click **AVM 66** and choose **Actions > Start**.

Step 4 Run the Cisco ANA NSA uninstallation program:

```
./ana_nsa_installer.pl -uninstall
Do you really want to un-install ANA NSA? (y/n) y
ANA User:
ANA Password:
```

- Step 5** At the prompts, enter the ANA User and ANA password.
- Step 6** Restart the Cisco ANA gateway:
`mvm.csh`
- Step 7** If Cisco ANA units are set up, login and restart each unit:
`mvm.csh`
- Step 8** To verify Cisco ANA NSA has been uninstalled:
- Log into Cisco ANA NetworkVision.
 - From the Help menu, click **About**.
 - In the About Cisco ANA NetworkVision window, verify that Cisco ANA NSA is not shown under Additional Installed Applications, as shown in [Figure 1-2](#)

Figure 1-2 *About Cisco ANA NetworkVision Window After Cisco ANA NSA is Uninstalled*

