Troubleshooting Problems with Application Networking Manager Installation

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This chapter describes how to troubleshoot problems with Cisco Application Networking Manager (ANM) and includes the following sections:

Difficulties with Product Installation

Installation difficulties can result from ANM back-end installation interactions with preexisting Linux Red Hat Package Manager components (RPMs). RPM libtool is a well-known example as shown in the following error message:

```
Installing libcurl7112-7.11.2-8.cf.rhel4.i386.rpm, heartbeat-2.0.2-1.i386.rpm,
libtool-libs-1.5.6-4.EL4.1.i386.rpm, heartbeat-pils-2.0.2-1.i386.rpm,
net-snmp-libs-5.1.2-11.EL4.6.i386.rpm, heartbeat-stonith-2.0.2-1.i386.rpm


error: Failed dependencies:


libtool-libs = 1.5.6-4.EL4.1.c4.4 is needed by (installed)
libtool-1.5.6-4.EL4.1.c4.4.i386


Error: rpm install failed (1536)


Done


Finished
```

To work around this problem, enter the **rpm -e** *RPM1 RPM2* command where *RPM1, 2*, and so on to denote the name of each RPM that you want removed. Once you have verified that all unwanted RPMs are removed, retry the installation.

Login Problems After Installation

If you experience problems logging in to ANM after installing the product, there may be several reasons:

- After installation, you attempt to log in and receive an error message that there is no ANM server license installed on the machine. See the "Acquiring and Uploading a Cisco Application Networking Manager License" section on page 4-1 for more information on using your PAK to get a license file.

- ANM can take some time to fully initialize. As a worst (but unlikely) case, you might need to wait up to 5 minutes for initialization to complete. Choose the case that most likely resembles the problem you are having:

  - If, after waiting, you cannot log into the ANM login window, you might need to restart ANM. See the "Restarting ANM" section on page 5-4.

  - If the login window will not display, you can collect installation data by running the standalone Lifeline package. You can then send that package to your technical support representative. See the "Checking Why ANM Will Not Start" section on page 5-6.

  - If you have lost or cannot remember your password, you can reset the ANM admin password by following the steps in the "Resetting the ANM Admin Password" section on page 5-2.

Resetting the ANM Admin Password

This section describes how to reset the ANM admin password and includes these topics:

- Resetting the ANM admin Password in Non-HA Mode, page 5-2
- Resetting the ANM admin Password in HA Mode, page 5-3

✎ **Note**   Resetting the ANM admin password also resets the default organization authentication type to use local ANM authentication. For more information and a detailed procedure, see the "Administering the Cisco Application Networking Manager" chapter in the *User Guide for the Cisco Application Networking Manager 2.2*.

Resetting the ANM admin Password in Non-HA Mode

You can reset the admin password in non-HA mode.

To reset the admin password in non-HA mode, follow these following steps:

Step 1   From the Linux command line, log in as the root user on the ANM host, as described in the "Becoming the Root User" section on page 1-5.

Step 2   Change your directory to /opt/CSCOanm/etc from the command line by entering **cd /opt/CSCOanm/etc**.

Step 3   To reset the password, from the command line, enter the following:

echo '*admin-password*' **> .resetPassword**

The '*admin-password*' is your new admin password.

✎

Note   Make sure that you insert a period before resetPassword as shown in Step 3.

Step 4   Restart ANM. For more information, see the "Restarting ANM" section on page 5-4.

Step 5   After ANM displays the login window, log in using the admin user and whatever password you specified in Step 3.

Resetting the ANM admin Password in HA Mode

You can reset the admin password in HA mode. You cannot log in to ANM and perform a failover from the Admin page on the user interface. You must be on the standby host and want it to become the active host.

To reset the admin password in HA mode, follow these steps:

Step 1   Log in as the root user on the ANM standby host, as described in the "Becoming the Root User" section on page 1-5.

Step 2   To change your directory to /opt/CSCOanm/etc, from the command line, enter the **cd /opt/CSCOanm/etc** command.

Step 3   To reset the password, from the command line, enter the **echo '*admin-password*' > .resetPassword** command.

The '*admin-password*' is the new admin password.

✎

Note   Be sure to insert a period before **resetPassword** as shown in Step 3.

Step 4   To switch your HA hosts, from the command line enter the **/opt/CSCOanm/bin/anm-ha active** command.

Step 5   Restart ANM. For more information, see the "Restarting ANM" section on page 5-4.

Step 6   After ANM displays the login window, log in using the admin user and whatever password you specified in Step 3.

Restarting ANM

You can restart ANM. To restart ANM, follow these steps:

Step 1 From the Linux command line, change to the **root** by entering the **% su root** command.

Step 2 To restart ANM, from the command line, enter the **/opt/CSCOanm/bin/anm-tool restart-services** command.

Step 3 To check the ANM process status, from the command line, enter the **/opt/CSCOanm/bin/anm-tool info-services** command.

Step 4 Check that the status that appears next to the following list for the six processes all display as running or changed:

- dcm—Data Center Manager, which holds GUI back-end, remote managed objects (RMO), and logging services.
- ip-disc—IP Discovery, which handles IP address discovery.
- dal—Device Access Layer, which handles communication and generates CLI commands to the network element.
- licman—License Manager, which handles network element and server licensing.
- anm-fw-mon—Firewall Monitor, which handles the firewall status.
- MySQL— ANM database process, which manages the configuration and event management databases.

> **Note**   In HA mode, the processes dcm, dal, and ip-disc will not be running on the standby node.

> **Note**   You might need to repeat Step 3 and Step 4 a few times while the processes go from initializing to running or changed. It might take up to 5 minutes to complete the initialization.

Step 5 Log into ANM after all five processes have a status of running or changed.

If all five processes do not eventually have a status of running or changed, or if it is still not possible to log in even though the processes have the desired status, try reinstalling ANM.

To reinstall ANM, follow the procedure in the "Information About Installing Application Networking Manager" section on page 2-2.

If you still cannot log in to ANM, contact the Technical Assistance Center. Before doing so, you need the following information:

- /var/log/messages log file.
- Lifeline file, which is created by entering the **/opt/CSCOanm/bin/anm-sysinfo -a** command as root, and is found at /tmp/anm-lifeline.tar.gz.
- Log of the install session. See the "Obtaining the Install Session Log" section on page 5-5 for the procedure.

Obtaining the Install Session Log

To obtain the install session log, copy the **/var/lib/anm/console/anm-install.txt** file and forward it to your Cisco technical support representative.

This file is created during the installation and contains useful information.

Note   In the unlikely event that you cannot create the /var/lib/anm directory, then you can find the anm-install.txt in /tmp with the name *anm-install.txt.xxxx* where *xxxx* represents a 4-digit number.

Obtaining the Upgrade Session Log

To obtain the upgrade session log, copy the **/var/lib/anm/console/anm-upgrade.txt** file and forward it to your Cisco Technical Support team.

This file is created during the upgrade and contains useful information.

Note   In the unlikely event that you cannot create the /var/lib/anm directory, then you can find the anm-upgrade.txt in /tmp with the name *anm-upgrade.txt.xxxx* where *xxxx* represents a 4-digit number.

Starting Cisco Application Networking Manager

You can start ANM after it has been stopped. To start ANM after it has been stopped, follow these steps:

Step 1   From the Linux command line, log in as the root user as described in the "Becoming the Root User" section on page 1-5. You will be presented with a prompt.

Step 2   To start ANM, from the command line, enter the **/opt/CSCOanm/bin/anm-tool start-services** command.

Step 3   After ANM has started, you can check the status of ANM processes by entering the **/opt/CSCOanm/bin/anm-tool info-services** command.

Stopping Cisco Application Networking Manager

You can stop ANM. To stop from the command line, follow these steps:

Step 1 From the Linux command line, log in as the root user as described in the "Becoming the Root User" section on page 1-5.

Step 2 Enter the**/opt/CSCOanm/bin/anm-tool stop-services** command at the prompt to stop ANM.

Checking Why ANM Will Not Start

If ANM will not start after an installation or upgrade, use the standalone Lifeline package to collect data to forward to your support team.

Make sure that you have an ANM server license installed on your machine. See the "Acquiring and Uploading a Cisco Application Networking Manager License" section on page 4-1 for more information on using your PAK to get a license file.

To check why ANM will not start, follow these steps:

Step 1 From the Linux command line, log in as the root user as follows:

⚠ **Caution** As the root user, you can adversely affect your operating environment if you are unaware of the effects of the commands that you use. If you are an inexperienced Linux user, you should limit your activities as the root user to the tasks described in this procedure.

- If you are not logged in, log in as the root user by entering the following:

  >login: root

  >Password: *root-password*

- If you are already logged in, but not as the root user, use the **su** command to change your login to root by entering the following:

  # su

  # Password: *root-password*

Step 2 If this is an ANM HA system, enter the **/opt/CSCOanm/bin/anm-ha check** command on both hosts to check for common configuration errors.

An example of output that finds no errors is as follows:

```
# /opt/CSCOanm/bin/anm-ha check

ANM config: local = (1 rh23.cisco.com 192.168.65.23 12.12.12.2)

ANM config: peer = (2 rh25.cisco.com 192.168.65.25 12.12.12.1)

ANM config: VIP = 192.168.65.88

Info: Interface: eth0 192.168.65.23/255.255.255.128
```

```
Info: Interface: eth1 12.12.12.2/255.255.255.0


Verifying ...


Detected 0 warning(s)

Detected 0 error(s)

ANM configuration seems reasonable

Done.
```

Although this command may not find a problem, it is not a comprehensive check and errors may still exist. If after entering the command an error is detected, you will need to fix the problem. Also, if the output of this command includes a warning, you will need to determine whether the warning is explainable and can be fixed. For example, the reason you cannot perform a **ping** command on the peer host may be because the peer host is down.

Step 3   Collect critical data that can be forwarded to your support representative by entering the **/opt/CSCOanm/bin/anm-sysinfo -a** command.

This command creates the /tmp/anm-lifeline.tar.gz file.

Step 4   Forward this file to your support representative.

Changing the Web Timeout

You can change the web timeout setting.

To change the web timeout, follow these steps:

Step 1   From the Linux command line, log in as the root user as described in the "Becoming the Root User" section on page 1-5.

Step 2   Using any text editor, edit the **/opt/CSCOanm/etc/cs-config.properties** file.

Step 3   Add the **anm.web.idleSessionTimeout=***time out value* using a text editor such as Notepad.

The *time out value* is the desired length of the timeout in milliseconds. For example, entering 1800000 sets the web timeout to 30 minutes. Entering 3600000 sets the web timeout to 60 minutes.

Reconfiguring After Installation

If you receive errors when attempting to change the HA properties configuration values after installing ANM, check the node ID to be sure the active and standby values are not reversed.

Backing Up and Restoring Data

These procedures enable you to back up the ANM configuration and restore it if necessary. This section includes the following topics:

> **Note**   If you restore the ANM database from a backup repository and a virtual context that is in the repository has been removed from the network element, ANM removes that context from the database and the context does not appear in the ANM user interface.

Backing Up Data

You can back up your ANM data. MySQL must be running to perform the backup.

To back up ANM data, follow these steps:

Step 1   From the Linux command line, log in as the root user as follows:

> **Caution**   As the root user, you can adversely affect your operating environment if you are unaware of the effects of the commands that you use. If you are an inexperienced Linux user, you should limit your activities as the root user to the tasks described in this procedure.

- If you are not logged in, log in as the root user:

  >login: root

  >Password: *root-password*

- If you are already logged in, but not as the root user, use the su command to change your login to root:

  # su

  # Password: *root-password*

Step 2   From the command line, verify the ANM servers are running by entering the **/opt/CSCOanm/bin/anm-tool info-services** command.

Step 3   From the command line, back up the ANM configuration by entering the **/opt/CSCOanm/bin/anm-tool backup** *backup-file* command.

The *backup-file* is the name of the file that you want to back up.

Restoring Data

You can restore ANM configuration data.

Note   You must restore the data on the same version of ANM on which you performed the backup. Restoring data to a different version of ANM is not supported.

To restore data, follow these steps:

Step 1   From the Linux command line, log in as the root user as follows:

Caution   As the root user, you can adversely affect your operating environment if you are unaware of the effects of the commands that you use. If you are an inexperienced Linux user, you should limit your activities as the root user to the tasks described in this procedure.

- If you are not logged in, log in as the root user:

  >login: root

  >Password: *root-password*

- If you are already logged in, but not as the root user, use the su command to change your login to root:

  # su

  # Password: *root-password*

Step 2   From the command line, verify ANM servers are running by entering the **/opt/CSCOanm/bin/anm-tool info-services** command.

Step 3   From the command line, restore the data by entering the **/opt/CSCOanm/bin/anm-tool restore backup-file** command. *backup-file* is the name of the file you want to restore.

ANM automatically restarts.