

Installing Cisco Access Registrar

This chapter provides information about installing Cisco Access Registrar 3.5 software. The software is available in CD-ROM form and can also be downloaded from the Cisco.com Web site. The installation instructions differ slightly depending on whether you install the software from the Cisco Access Registrar 3.5 CD-ROM or from downloaded software.

Note

This version of Cisco Access Registrar 3.5 can be used with Solaris 8, Solaris 9, or the Red Hat 7.3 Linux operating system using kernel version 2.4.20-24.7, glibc version 2.2.5-42.

Installing the Cisco AR License File

You must have a license file in a directory on the Cisco AR machine before you attempt to install Cisco Access Registrar 3.5 software. After purchasing Cisco Access Registrar 3.5, you will receive a license file in an EMail attachment. Save or copy this license file to a directory on the Cisco AR workstation. If you have not installed the Cisco AR license file before beginning the software installation, the installation process will fail.

You can store the Cisco AR license file in any directory on the Cisco AR machine. During the installation process, you will be asked the location of the license file, and the installation process will copy the license file to the **/opt/CSCOar/license** directory or to the base installation directory you specify when you install the software if you are not using the default installation location.

The license file might have the name **ciscoar.lic**, but it can be any filename with the suffix **.lic**. To install the Cisco AR license file, you can copy and paste the text into a file, or you can simply save the file you receive in EMail to an accessible directory.

Installing Cisco Access Registrar 3.5 Software on Solaris

This section describes the software installation process when installing Cisco Access Registrar 3.5 software on a Solaris workstation for the first time. This section includes the following subsections:

- Deciding Where to Install
- Installing Cisco AR Software from CD-ROM
- Installing Downloaded Software

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Common Installation Steps

<u>P</u> Tips

Before you begin to install the software, check your workstation's **/etc/group** file and make sure that group *staff* exists. The software installation will fail if group staff does not exist before you begin.

Deciding Where to Install

Before you begin the software installation, you should decide where you want to install the new software. The default installation directory for Cisco AR 3.5 software is **/opt/CSCOar**. You can use the default installation directory, or you can choose to install the Cisco AR software in a different directory.

Installing Cisco AR Software from CD-ROM

The following steps describe how to begin the software installation process when installing software from the Cisco Access Registrar 3.5 CD-ROM. If you are installing downloaded software, proceed to Installing Downloaded Software.



Installing Downloaded Software

This section describes how to uncompress and extract downloadedCisco Access Registrar 3.5 software and begin the software installation.



These instructions are for the Solaris 8 package. There is no difference in download or installation procedures for Solaris 8 or Solaris 9 other than the package name.

Step 4 Enter the following command to begin the installation:

Processing package instance <CSCOar> from </tmp>

pkgadd -d /tmp CSCOar

where */tmp* is the temporary directory where you stored and uncompressed the installation files.

```
Step 5 Proceed to Common Installation Steps.
```

Common Installation Steps

This section describes the installation process immediately after you have issued the **pkgadd** command installing from CD-ROM or from downloaded software.

Cisco Access Registrar 3.5.3 [SunOS-5.8, official] (sparc) 3.5.3 Copyright (C) 1998-2004 by Cisco Systems, Inc. This program contains proprietary and confidential information. All rights reserved except as may be permitted by prior written consent.

This package contains the Access Registrar Server and the Access Registrar Configuration Utility. All the Client, Server, and Configuration utilities will be installed.

Step 6 For a full install, press **Enter**.

Where do you want to install <CSCOar>? [/opt/CSCOar] [?,q]

Step 7 Press **Enter** to accept the default location of **/opt/CSCOar**, or enter a different directory to be used as the base installation directory.

Access Registrar requires FLEXIm license file to operate. A list of space delimited license files or directories can be supplied as input; license files must have the extension ".lic".

Existing license files found. To use the existing license files, just press ENTER to the prompt below.

Note: To enable other features within this package, additional FLEX1m license files can be specified below.

Note

The preceding lines display only when Cisco AR license files are detected in the **/opt/CSCOar/license** directory.

Where are the FLEX1m license files located? [/opt/CSCOar/license] [?,q]

Step 8 Enter the directory where you have stored the Cisco Access Registrar 3.5 license file.

Access Registrar provides extensions that can be written in Java. If you intend to write Java extensions, the Java Runtime Environment (JRE) is required.

If you are not using Java, press Enter/Return to skip this step.

```
If you already have a JRE installed, please enter the directory
where it is installed. If you do not, the JRE can be downloaded
from:
    http://java.sun.com/products/archive
You may specify or modify the location of the JRE, later on, by
entering the following command then restart the AR server.
# ln -s <java-root> /opt/CSCOar/j2re1.4
Where is the JRE installed? [?,q]
```

Step 9 If you plan to use Java, enter the directory location where the JRE is installed, otherwise press Enter.

(If you decide to use Java extensions after you have installed Cisco AR, you can specify the JRE location by entering the following at the Unix prompt:

In -s <java-root>/cisco-ar/j2rel.4

After entering the **link** command, restart the Cisco AR server.)

If you are not using ORACLE, press Enter/Return to skip this step. ORACLE installation directory is required for ODBC configuration. ORACLE_HOME variable will be set in /etc/init.d/arserver script

Where is ORACLE installed? [] [?,q]

Step 10 Enter the location where you have installed Oracle, otherwise press **Enter**.

If you want to learn about Access Registrar by following the examples in the Installation and Configuration Guide, you need to populate the database with the example configuration.

Do you want to install the example configuration now [n] [y,n,?,q]

You can add the example configuration at any time by running the command:

/opt/CSCOar/bin/aregcmd -f /opt/CSCOar/examples/cli/add-example-configuration.rc

Step 11 When prompted whether to install the example configuration now, reply **Yes** to continue.



You can delete the example configuration at any time by running the command /opt/CSCOar/usrbin/aregcmd -f /opt/CSCOar/examples/cli/delete-example-configuration.rc.

The selected base directory </opt/CSCOar> must exist before installation is attempted.

Do you want this directory created now [y,n,?,q] y

Step 12 Enter **Y** to enable the installation process to create the **/opt/CSCOar** directory.

Executing checkinstall script. Using </opt/CSCOar> as the package base directory. ## Processing package information. ## Processing system information. 8 package pathnames are already properly installed. ## Verifying package dependencies. ## Verifying disk space requirements. ## Checking for conflicts with packages already installed. ## Checking for setuid/setgid programs. The following files are being installed with setuid and/or setgid permissions: /opt/CSCOar/.system/screen <setuid root> /opt/CSCOar/bin/aregcmd <setgid staff>

/opt/CSCOar/bin/radclient <setgid staff>
/opt/CSCOar/bin/xmlclient <setgid staff>

This package contains scripts which will be executed with super-user permission during the process of installing this package.

Do you want to install these as setuid/setgid files [y,n,?,q] y

Step 13 Enter **Y** to install the **setuid/setgid** files.

This package contains scripts which will be executed with super-user permission during the process of installing this package.

Do you want to continue with the installation of <CSCOar> [y,n,?]

Step 14 Enter **Y** to continue with the software installation.

No further interaction is required; the installation process should complete successfully and the **arservagt** is automatically started.

Installing part 1 of 1. /opt/CSCOar/.system/screen /opt/CSCOar/README /opt/CSCOar/bin/arbug /opt/CSCOar/bin/nasmonitor /opt/CSCOar/bin/share-access /opt/CSCOar/bin/xtail /opt/CSCOar/java/javadoc.tar.gz /opt/CSCOar/lib/getopts.tcl /opt/CSCOar/ucd-snmp/share/snmp/snmpconf-data/snmptrapd-data/traphandle /opt/CSCOar/ucd-snmp/share/snmp/snmpd.conf [verifying class <snmp>] ## Executing postinstall script. # setting up product configuration file /opt/CSCOar/conf/car.conf # linking /etc/init.d/arserver to /etc/rc.d files # setting ORACLE_HOME variable in arserver # removing old session information # flushing old replication archive # creating initial configuration database Rollforward recovery using "/opt/CSCOar/data/db/vista.tjf" started Fri May 14 13:23:32 2004 Rollforward recovery using "/opt/CSCOar/data/db/vista.tjf" finished Fri May 14 13:23:32 2004 # installing example configuration

```
Starting Access Registrar Server Agent..completed.
The Radius server is now running.
If SNMP needs to be reconfigured please follow the following
procedure:
(1) stop AR: /opt/CSCOar/bin/arserver stop
(2) edit: /cisco-ar/ucd-snmp/share/snmp/snmpd.conf
(3) restart AR: /opt/CSCOar/bin/arserver start
# done with postinstall.
Installation of <CSCOar> was successful.
hostname root /tmp##
```

RPC Bind Services

The Cisco AR server and the **aregend** CLI requires RPC services to be running before the server is started. If the RPC services are stopped, you must restart rpc services, then restart the Cisco AR server. Use the following commands to restart RPC services:

arserver stop

/etc/init.d/rpc start

arserver start

If RPC services are not running, the following message is displayed when you attempt to start aregcmd:

```
Login to aregemd fails with the message: 400 Login failed
```

Installing Cisco Access Registrar 3.5 Software on Linux

This section describes the software installation process when installing Cisco Access Registrar 3.5 software on a Linux workstation for the first time. This section includes the following subsections:

Deciding Where to Install

Before you begin the software installation, you should decide where you want to install the new software. The default installation directory for Cisco AR 3.5 software is **/opt/CSCOar**. You can use the default installation directory, or you can choose to install the Cisco AR software in a different directory.

Installing Downloaded Software

This section describes how to install the downloadedCisco Access Registrar 3.5 software for Linux and begin the software installation.

Note The Cisco AR Linux installation automatically installs **aregcmd** and **radclient** as setgid programs in group **adm**.

- **Step 1** Log in to the Cisco AR workstation as a root user.
- Step 2 Change directory to the location where you have stored the CSCOar-3.5.3-linux2420-install-k9.sh file.

cd /tmp

Step 3 Enter the name of the script file to begin the installation:

CSCOar-3.5.3-linux2420-install-k9.sh

CSCOar-3.5.3-linux2420-install-k9.sh Name : CSCOar Relocations: /opt/CSCOar Version : 3.5.3 Vendor: Cisco Systems, Inc. Release : 1089750252 Build Date: Tue Jul 13 14:17:55 2004 Install date: (not installed) Build Host: muggle.cisco.com Summary : Access Registrar, a carrier-class RADIUS server build_tag: [Linux-2.4.20, official]

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This package contains the Access Registrar Server and the Access Registrar Configuration Utility. All the Client, Server, and Configuration utilities will be installed.

Where do you want to install <CSCOar>? [/opt/CSCOar] [?,q]

Step 4 Press **Enter** to accept the default location of **/opt/CSCOar**, or enter a different directory to be used as the base installation directory.

Access Registrar requires FLEXIm license file to operate. A list of space delimited license files or directories can be supplied as input; license files must have the extension ".lic".

Where are the FLEX1m license files located? [/opt/CSCOar/license] [?,q]

Step 5 Enter the directory where you have stored the Cisco Access Registrar 3.5 license file.

Access Registrar provides extensions that can be written in Java. If you intend to write Java extensions, the Java Runtime Environment (JRE) is required.

If you are not using Java, press Enter/Return to skip this step.

If you already have a JRE installed, please enter the directory where it is installed. If you do not, the JRE can be downloaded from:

http://java.sun.com/products/archive

You may specify or modify the location of the JRE, later on, by entering the following command then restart the AR server.

ln -s <java-root> /opt/CSCOar/j2re1.4

Where is the JRE installed? [] [?,q]

Step 6 If you plan to use Java, enter the directory location where the JRE is installed, otherwise press **Enter**.

(If you decide to use Java extensions after you have installed Cisco AR, you can specify the JRE location by entering the following at the Unix prompt:

In -s <java-root>/cisco-ar/j2rel.4

After entering the **link** command, restart the Cisco AR server.)

If you are not using ORACLE, press Enter/Return to skip this step. ORACLE installation directory is required for ODBC configuration. ORACLE_HOME variable will be set in /etc/init.d/arserver script

Where is ORACLE installed? [] [?,q]

Step 7 Enter the location where you have installed Oracle, otherwise press **Enter**.

If you want to learn about Access Registrar by following the examples in the Installation and Configuration Guide, you need to populate the database with the example configuration.

Do you want to install the example configuration now? [n]: [y,n,?,q] y

Step 8 When prompted whether to install the example configuration now, reply **Yes** to continue.

Note

You can delete the example configuration at any time by running the command /opt/CSCOar/usrbin/aregcmd -f /opt/CSCOar/examples/cli/delete-example-configuration.rc.

hostname root /tmp###

Configuring SNMP

If you choose not to use the SNMP features of Cisco Access Registrar, the installation process is completed. To use SNMP features, complete the configuration procedure described in Configuring SNMP, page 4-14.

Configuring SNMP