Cisco Service Control Management Suite Collection Manager Quick Start Guide

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CONTENTS

Audience v

Document Organization v

Document Conventions v

Related Documentation vi

Obtaining Documentation, Obtaining Support, and Security Guidelines vi

CHAPTER 1 **Getting the Collection Manager Software** 1-1

Getting the Collection Manager Software 1-1

CHAPTER 2 **Checking System Prerequisites (Clean Install Only)** 2-1

Checking System Prerquisites 2-1

CHAPTER 3 **Installing Bundled Sybase Database (Clean Install Only)** 3-1

installsyb.sh Script Usage 3-1

Installing the Bundled Sybase Database 3-1

CHAPTER 4 **Installing the CM (Clean Install Only)** 4-1

Installing the CM 4-1

CHAPTER 5 **Upgrading the CM (Omit if Full Install)** 5-1

Upgrading the CM 5-1

CHAPTER 6 **Getting the CM Working** 6-3

Configuring the Database (External DB Only) 6-3

Configuring the Adapter to Use the Database 6-3

Configuring the Connection Parameters 6-4

Starting the Database 6-5

Configuring the Adapters to Use 6-5

Configuring the Categorizer 6-6

Starting the Collection Manager 6-6

Setting the Time Zone 6-7

Activating Periodic Delete 6-7
Activating Health Monitoring (Bundled Sybase Database Only) 6-8
Defining PRPS Users 6-8

CHAPTER 7 **Post Installation Actions** 7-1
Apply Service Configuration 7-1

About This Guide

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This document describes how to install and configure the Collection Manager (CM) component of the Cisco Service Control solution. It covers only the basic and most typical installation and configuration steps. For more detailed instructions on the installation and configuration of the CM, refer to the *Cisco SCMS Collection Manager User Guide.*

Audience

This guide is intended for the networking or computer technician responsible for the onsite installation and configuration of the Cisco Service Control Management Suite (SCMS) Collection Manager (CM). It is also intended for the operator responsible for the daily operations of the CM, allowing the Service Provider operator to make enhancements in a subscriber-oriented environment.

Document Organization

This guide contains the following chapters:

- "Getting the Collection Manager Software"
- "Checking System Prerequisites (Clean Install Only)"
- "Installing Bundled Sybase Database (Clean Install Only)"
- "Installing the CM (Clean Install Only)"
- "Upgrading the CM (Omit if Full Install)"
- "Getting the CM Working"
- "Post Installation Actions"

Document Conventions

This guide uses the following conventions:

- **Bold** is used for commands, keywords, and buttons.
- *Italics* are used for command input for which you supply values.
- `Screen` font is used for examples of information that are displayed on the screen.

- **`Bold screen`** font is used for examples of information that you enter.
- Vertical bars (|) indicate separate alternative, mutually exclusive elements.
- Square brackets ([ ]) indicate optional elements.
- Braces ({}) indicate a required choice.
- Braces within square brackets ([{}]) indicate a required choice within an optional element.

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

Timesaver Means the *described action saves time*. You can save time by performing the action described in the paragraph.

Caution Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Warning **Means *danger*. You are in a situation that could cause bodily injury. Before you work on any equipment, you must be aware of the hazards involved with electrical circuitry and familiar with standard practices for preventing accidents. To see translated versions of warnings, refer to the *Regulatory Compliance and Safety Information* document that accompanied the device.**

Related Documentation

Use this *Cisco SCMS Collection Manager Quick Start Guide* in conjunction with the following Cisco documentation:

- *Cisco SCMS Collection Manager User Guide*

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, 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

CHAPTER 1

Getting the Collection Manager Software

This module describes how to get the Collection Manager software.

Getting the Collection Manager Software

Step 1 Logon to Cisco CCO http://www.cisco.com/cgi-bin/tablebuild.pl/sccm

Step 2 Download the relevant package

- SCMSCM_CD_Linux_3.1.0 for Red Hat Linux EL platform version 3 or 4 using the bundled Sybase database.
- SCMSCM_CD_Solaris_3.1.0 for Solaris platform version 9 or 10 using the bundled Sybase database.
- SCMSCM_CD_3.1.0 if you are not using the bundled Sybase database on either of the above platforms.

If there is a single file package go to Step 4.

Step 3 Ensure the names of the files reflect their order (e.g. cm_part1, cm_part2, etc.).

Step 4 Place the downloaded files on the target machine and join them into a single .tar file

For example:

```
# cat cm_part1 cm_part2 >/usr/tmp/cm_full_package.tar
```

Step 5 Extract the complete package into a temporary directory

For example:

```
# mkdir /usr/tmp/cm_install_temp # cd /usr/tmp/cm_install_temp # tar xvf
../cm_full_package.tar
```

Step 6 If you are upgrading from a previous version, go to Upgrading the CM.

CHAPTER 2

Checking System Prerequisites (Clean Install Only)

This module describes the system prerequisites for installing the Collection Manager.

Checking System Prerquisites

The CM distribution contains a script, **check_prerequisites.sh** , to determine whether a system meets the requirements for installing a CM and the bundled Sybase database.

The main prerequisites checked are:

- CPU speed—Minimum 500 MHz CPU (Solaris), minimum 800 MHz CPU (Linux)
- Amount of RAM—Minimum 1 GB RAM per CPU
- Operating System version—Solaris 9 or 10, Red Hat Enterprise Linux 3.0 or 4.0
- Free space for CM and Sybase home directories—One hard disk, at least 18 GB, for the CM. A second hard disk, at least 18 GB, for the bundled Sybase database.

```
# check_prerequisites.sh[ --sybhome=SYBHOME] [ --cmhome=CMHOME] [ --datadir=DATADIR]
```

If you have problems running this script, see the “System Requirements” section in the Cisco SCSM Collection Manager User Guide.

CHAPTER 3

Installing Bundled Sybase Database (Clean Install Only)

This module describes how to install the bundled Sybase database.

The CM distribution packages with a Linux or Solaris suffix contain a bundled Sybase database suitable for that platform. This database can be easily installed by running the **installsyb.sh** script.

If you do not want to install the Sybase database, go to Installing the CM.

- installsyb.sh Script Usage
- Installing the Bundled Sybase Database

installsyb.sh Script Usage

The script usage is as follows:

installsyb.sh--sybhome=*SYBHOME***--datadir**=*DATADIR*

- **SYBHOME** is the home directory of the Sybase user (and should have 1 GB free). This directory must not exist prior to script execution.
- Select one of the following data location options:
  - Specify **--datadir=DATADIR** , where **DATADIR** is a directory in which all Sybase data is stored.

  This location should be in a partition with at least 15 GB free and must exist prior to script execution.

If you have problems installing Sybase, see the “Phase 1: Installing Sybase” section in the Cisco SCMS Collection Manager User Guide.

Installing the Bundled Sybase Database

Step 1 Change directory to **sybase** in the distribution kit root.

Step 2 Run the **installsyb.sh** script

```
# installsyb.sh
```

Step 3 After the script completes, set a password for the sybase user

Use the **passwd**command as follows:

```
# passwd sybase
```

CHAPTER 4

Installing the CM (Clean Install Only)

This module describes the procedure to install the Collection Manager.

If you have problems installing the CM, see the "Phase 2: Installing Collection Manager Software" section in the Cisco SCMS Collection Manager User Guide.

- Installing the CM

Installing the CM

SUMMARY STEPS

1. Change directory to **install-scripts** under the distribution kit root
2. Run the **install-cm.sh** script
3. After the script completes, set a password for the scmscm user

DETAILED STEPS

Step 1 Change directory to **install-scripts** under the distribution kit root

Step 2 Run the **install-cm.sh** script

```
# install-cm.sh -d <CM home dir>
```

Step 3 After the script completes, set a password for the scmscm user

Use the **passwd**command as follows:

```
# passwd scmscm
```

Be sure to record the password that you choose.

CHAPTER 5

Upgrading the CM (Omit if Full Install)

This module describes the procedure to upgrade the Collection Manager.

If you have problems installing the CM, see the “Phase 2: Installing Collection Manager Software” section in the Cisco SCMS Collection Manager User Guide.

- Upgrading the CM

Upgrading the CM

SUMMARY STEPS

1. Get the CM software as described in Getting the Collection Manager Software
2. Change directory to **install-scripts** under the distribution kit root.
3. As the scmscm user, stop the CM server
4. As the root user, run the **install-cm.sh** script
5. As the scmscm user, start the CM server

DETAILED STEPS

Step 1 Get the CM software as described in Getting the Collection Manager Software

Step 2 Change directory to **install-scripts** under the distribution kit root.

Step 3 As the scmscm user, stop the CM server

Use the following command to stop the CM server:

```
$ ~scmscm/cm/bin/cm stop
```

Step 4 As the root user, run the **install-cm.sh** script

```
# ./install-cm.sh -o
```

Step 5 As the scmscm user, start the CM server

Run the following command to start the CM server:

```
$ ~scmscm/cm/bin/cm start
```

Note If you upgrade from version 3.0.5 or 3.0.6, the PRPC users file is deleted. You must log in to the CM and redefine the PRPC users.

CHAPTER 6

Getting the CM Working

This module describes how to get the CM software working.

- Configuring the Database (External DB Only)
- Starting the Database
- Configuring the Adapters to Use
- Configuring the Categorizer
- Starting the Collection Manager
- Setting the Time Zone
- Activating Periodic Delete
- Activating Health Monitoring (Bundled Sybase Database Only)
- Defining PRPS Users

Configuring the Database (External DB Only)

The following is a list of supported external databases:

- Sybase—Version 12.5.1 and higher
- Oracle—Versions 9.2 and 10g
- MySQL—Version 4.1 and higher

It is necessary to configure the JDBC and the Topper/Aggregator (TA) adapters, and the RAG adapter if it is used. The JDBC adapter is configured with the **JDBCadapter.conf** configuration file. The TA adapter is configured with the **TAadapter.conf** configuration file. The configuration files are located in the **~scmscm/cm/config/** directory.

All the adapters use the Sybase database on localhost by default. If you are not using the bundled Sybase database, edit the configuration files to configure the correct database and connection properties.

- Configuring the Adapter to Use the Database
- Configuring the Connection Parameters

Configuring the Adapter to Use the Database

SUMMARY STEPS

1. Open the configuration file in a text editor
2. In the **[db]** section, comment out the databases that are not required
3. Save your changes

DETAILED STEPS

Step 1 Open the configuration file in a text editor

Step 2 In the **[db]** section, comment out the databases that are not required

To comment out a database, type '#' at the start of the line:

```
db_template_dir = dbpacks/sybase/ase12.5.1
#db_template_dir = dbpacks/oracle/9204e
#db_template_dir = dbpacks/mysql/4.0.20
```

Step 3 Save your changes

Configuring the Connection Parameters

It is also necessary to set the connection properties to the database in the dbinfo.vm file. The dbinfo.vm file is located in the " **~scmscm/cm/config/dbpacks/<db type>/<db version>/** " directory.

SUMMARY STEPS

1. Open the **dbinfo.vm** file in a text editor
2. Set the parameters according to your setup
3. Save your changes

DETAILED STEPS

Step 1 Open the **dbinfo.vm** file in a text editor

Step 2 Set the parameters according to your setup

```
#set ($dbinfo.options.host = "<hostname>")
#set ($dbinfo.options.port = "<port number>")
#set ($dbinfo.options.user = "<user name>")
#set ($dbinfo.options.password = "<user password>")
#set ($dbinfo.options.sid = "<sid>")
```

Note The **dbinfo.vm** file is not a shell script; each pound sign (#) is part of the declaration and not a comment sign.

Step 3 Save your changes

Starting the Database

If you are using an external database, start it according to the instructions supplied by the database vendor.

For further information about starting teh bundled Sybase database, see the “Monitoring the CM” section in the Cisco SCMS Collection Manager User Guide.

SUMMARY STEPS

1. As the root user, run the **sybase start**command
2. Wait several minutes and run the **alive.sh** script

DETAILED STEPS

Step 1 As the root user, run the **sybase start**command

```
# ~scmscm/setup/sybase start
```

Step 2 Wait several minutes and run the **alive.sh** script

```
# ~scmscm/setup/alive.sh
```

Make sure the output does not contain the phrase "Sybase not functioning".

Configuring the Adapters to Use

An adapter can be defined to turn on when the CM starts by removing the comment character at the start of the appropriate line in the cm.conf file. This configuration file is located in **~scmscm/cm/config/**.

For further information, see the “Configuring the CM” section in the Cisco SCMS Collection Manager User Guide.

SUMMARY STEPS

1. Open the **cm.conf** configuration file
2. Locate the **[adapter]** section of the configuration file
3. Set which adapters to use
4. Save your changes

DETAILED STEPS

Step 1 Open the **cm.conf** configuration file

Step 2 Locate the **[adapter]** section of the configuration file

Step 3 Set which adapters to use

```
adapter.1 = com.cisco.scmscm.adapters.jdbc.JDBCAdapter
adapter.2 = com.cisco.scmscm.adapters.topper.TAAdapter
#adapter.3 = com.cisco.scmscm.adapters.CSVAdapter
#adapter.4 = com.cisco.scmscm.adapters.rag.RAGAdapter
#adapter.5 = com.cisco.scmscm.adapters.httpc.HTTPCAdapter
```

Note The value of the **adapter.<number>**must match the **adapter_id** parameter value defined in the **queue.conf file** for the corresponding adapter. See Configuring the Categorizer.

Step 4 Save your changes

Configuring the Categorizer

A Raw Data Record (RDR) can be routed to a specific adapter by adding its RDR tag to the **tags** parameter (a comma-separated list of RDR tags) of the adapter. This configuration is contained in the **queue.conf** file, which is located in **~scmscm/cm/config/**.

SUMMARY STEPS

1. Open the **queue.conf** file
2. Configure the RDR tags to be sent to the adapter
3. Save your changes

DETAILED STEPS

Step 1 Open the **queue.conf** file

Step 2 Configure the RDR tags to be sent to the adapter

The following example configures the RDR tags **4042321920** and **4042321922** to be sent to the Topper/Aggregator Adapter.

```
# Topper/Aggregator Adapter
[topper-hi]
adapter_id=3
priority=3
warning_size=40000
maximum_size=50000
tags=4042321920,4042321922
```

Note The value of the **adapter_id** parameter must match the **adapter.<number>**defined in the **cm.conf** file for the corresponding adapter. See Configuring the Adapters to Use.

Step 3 Save your changes

Starting the Collection Manager

SUMMARY STEPS

1. As the scmscm user run the **cm start**command
2. Wait 1-2 minutes to ensure that all the database tables have been created

DETAILED STEPS

Step 1 As the scmscm user run the **cm start**command

```
$ ~scmscm/cm/bin/cm start
```

Step 2 Wait 1-2 minutes to ensure that all the database tables have been created

You can check they have all been created by running the following command:

```
$ ~scmscm/scripts/dbtables.sh
```

For further information, see the “Listing the Database Tables” section in the Cisco SCMS Collection Manager User Guide.

Setting the Time Zone

It is necessary to set the time zone for the CM to be the same as the time zone in which the SCE is located.

SUMMARY STEPS

1. Use the **jselect-sce-tz.sh** script to set the CM time zone

DETAILED STEPS

Step 1 Use the **jselect-sce-tz.sh** script to set the CM time zone

For example, if the SCE device is located in GMT+2, run the following command as the scmscm user:

```
$ ~scmscm/cm/bin/jselect-sce-tz.sh --offset=120
```

Activating Periodic Delete

Periodic delete is a data reduction mechanism that is used to prevent the database becoming full. It is supported for both the bundled Sybase database and external databases.

For further information, see the “Phase 2: Installing the Collection Manager Software” section in the Cisco SCMS Collection Manager User Guide.

SUMMARY STEPS

1. After starting the CM (see Starting the Collection Manager), as the scmscm user run the **create_periodic_del_procs.sh** script:
2. Activate the automatic invocation of the periodic delete procedures

DETAILED STEPS

Step 1 After starting the CM (see Starting the Collection Manager), as the scmscm user run the **create_periodic_del_procs.sh** script:

```
$~scmscm/db_maint/create_periodic_del_procs.sh
```

Step 2 Activate the automatic invocation of the periodic delete procedures

Run the following command:

```
$~scmscm/scripts/dbperiodic.py --load
```

This will load the default data retention settings defined in **~scmscm/db_maint/dbperiodic.conf**.

For advanced information, see the "Managing the Periodic Deletion of Old Records" section in the Cisco SCMS Collection Manager User Guide.

Activating Health Monitoring (Bundled Sybase Database Only)

The CM contains a script to monitor the system and to issue alerts for predefined, potentially problematic conditions (**~scmscm/setup/monitor/setup-monitor.sh**).

SUMMARY STEPS

1. As the scmscm user, run the **setup-monitor.sh** script

DETAILED STEPS

Step 1 As the scmscm user, run the **setup-monitor.sh** script

The following example will run all available tests every 12 hours and send the test results to the **syslog** subsystem:

```
$ ~scmscm/setup/monitor/setup-monitor.sh -a install -i 12h
```

For further information, see the "Monitoring System Health" section in the Cisco SCMS Collection Manager User Guide.

Defining PRPS Users

PRPC users are used to perform the actions on the CM from the SCA BB Console; for example, checking the online status of the CM.

SUMMARY STEPS

1. Use the **p3rpc**CLU to add a PRPC user:

DETAILED STEPS

Step 1 Use the **p3rpc**CLU to add a PRPC user:

```
$ p3rpc --set-user --username=cisco --password=password
```

CHAPTER 7

Post Installation Actions

This module describes the actions necessary after installing the Collection Manager

- Apply Service Configuration

Apply Service Configuration

In order to generate reports from the CM DB, it is necessary to apply the service configuration on the SCE whose RDR Formatter is configured to send RDRs to the CM.

Note If you do not apply the service configuration, you will not be able to run reports based on the data in the CM DB.