QUICK START GUIDE

Cisco Service Control Management Suite Collection Manager

Quick Start Guide, Release 3.6.5

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Note This document supports all 3.6.x releases.

1 Getting the Collection Manager Software

To download the Collection Manager (CM) software:

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

Enter your Cisco CCO password when prompted.

Step 2 Download the relevant package.

Note Each package consists of multiple parts.

- scms-cm-v36X-bXYZ-bundle-solaris-tar.partX
- scms-cm-v36X-bXYZ-bundle-linux-tar.partX
- scms-cm-v36X-bXYZ-unbundled-solaris-linux.tar

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

Step 3 Ensure the names of the files reflect their order (for example. cm_part1, cm_part2, and so on).

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 To upgrade from a previous version, go to the "Upgrading the Collection Manager (Omit if Full Install)" section on page 4.

2 Checking System Prerequisites (Clean Install Only)

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, 32-bit versions of Red Hat Enterprise Linux 4 or 5 or 64-bit versions of Red Hat Enterprise Linux 5, 32-bit or 64-bit versions of CentOS Linux 5.x.
- Required or additional packages.
- Free space for CM and Sybase home directories—One hard disk with at least 18 GB for the CM, and a second hard disk with at least 18 GB for the bundled Sybase database.
- Names for all NICs.
- Sybase kernel parameters.

- Locale and time zone formats.

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

If the maximum shared memory check of the **check_prerequisites.sh** script fails, an auxiliary script, **set_shmmax.sh**, runs to set the maximum shared memory.

For Solaris, the script updates */etc/system with shmsys:shminfo_shmmax* = 512000000.

For Linux, the script updates */etc/sysctl.conf with kernel.shmmax* = 512000000.

If you have problems running this script, see the System Requirements section in the Installing the Collection Manager chapter of *Cisco SCMS Collection Manager User Guide*.

The Cisco Unified Computing System (UCS) server requirements include (UCS model R210-2121605):

- CPU—Intel(R) Xeon(R) X5570 at 2.93GHz and 8 Cores
- RAM—Minimum 4 GB

ESX version requires VMware-VMvisor-Installer-4.0.0-164009.x86_64.iso.

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.

Note The maximum database size supported by the bundled Sybase database is 50GB. For database support larger than 50GB, use an external database.

Note Installing the Sybase database can take up to three hours.

If you do not want to install the Sybase database, proceed directly to the "Installing the Collection Manager (Clean Install Only)" section on page 4.

installsyb.sh Script Usage

The script usage is as follows:

`installsyb.sh --sybhome=SYBHOME --datadir=DATADIR [ --y | --n ]`

- ***SYBHOME*** is the home directory of the Sybase user (and should have 1 GB of free space). This directory must not exist before the script execution.
- Select the following data location option:
  - 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 of free space and must exist before the execution.
- `[ --y | --n ]` is the optional installation input parameter filed and respective script usage contents.
  - Use **--y** to automatically answer YES to all error questions during installation (Halt on No errors)
  - Use **--n** to automatically answer NO to all error questions during installation (Halt on All errors)

If you have problems installing Sybase, see the Installing the Sybase Database section in the Installing the Collection Manager chapter of *Cisco SCMS Collection Manager User Guide*.

Installing the Bundled Sybase Database

To install the bundled Sybase database:

Step 1 Change the 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
```

4 Installing the Collection Manager (Clean Install Only)

This section describes the how to install the CM.

If you have problems installing the CM, see the Installing the Collection Manager Software section in the Installing the Collection Manager chapter of *Cisco SCMS Collection Manager User Guide*.

To install the CM:

Step 1 Change the 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 The script will ask the user whether to enable the RAG adapter during installation of the CM:

```
Do you want to enable the RAGAdapter? (yes/no):
```

Step 4 After the script finishes, set a password for the **scmscm** user.

Use the **passwd** command as follows:

```
# passwd scmscm
```

Be sure to record the password that you set for future reference.

5 Upgrading the Collection Manager (Omit if Full Install)

This module describes the how to upgrade the CM.

If you have problems upgrading the CM, see the Installing the Collection Manager Software section in the Installing the Collection Manager chapter of *Cisco SCMS Collection Manager User Guide*.

To upgrade the CM:

Step 1 Get the CM software as described in the "Getting the Collection Manager Software" section on page 2.

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

Step 3 Loin as **scmscm** user, stop the CM server.

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

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

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

Step 5 As the **scmscm** user, start the CM server.

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

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

6 Getting the Collection Manager Working

This section describes how to get the CM software working.

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, 10g, and 11g
- MySQL—Version 4.1 and higher

To configure the database, use the **~scmscm/scripts/dbconf.sh** script. For further information see *Cisco Service Control Management Suite Collection Manager User Guide*, the Managing the Collection Manager chapter, the Configuring Databases section.

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 the bundled Sybase database, see the How to Monitor the Collection Manager section in the Managing the Collection Manager chapter of *Cisco SCMS Collection Manager User Guide*.

To start the database:

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

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

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

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

Make sure that 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/** directory.

For further information, see the Configuring the Collection Manager section in the Managing the Collection Manager chapter of *Cisco SCMS Collection Manager User Guide*.

To configure the adapters to use:

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

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

Step 3 Set the 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
```

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 the "Configuring the Categorizer" section on page 6.

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/** directory.

To configure the categorizer:

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 and 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 the "Configuring the Adapters to Use" section on page 5.

Step 3 Save your changes.

Starting the Collection Manager

To start the CM:

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

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

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

You can check that all the data tables were created by running the following command:

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

For further information, see the Listing the Database Tables section in the Managing Databases and the Comma Separated Value Repository chapter of *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 where the Cisco Service Control Engine (SCE) is located.

To set the time zone:

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 from becoming full. It is supported for both the bundled Sybase database and external databases.

For further information, see the "Installing the Collection Manager Software" section in the "Installing the Collection Manager" chapter of the *Cisco SCMS Collection Manager User Guide*.

To activate periodic delete:

Step 1 After starting the CM (see the "Starting the Collection Manager" section on page 7), 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.sh --load
```

This loads the default data retention settings defined in ~scmscm/db_maint/dbperiodic.conf script.

For advanced information, see the Managing the Periodic Deletion of Old Records section in the Managing Databases and the Comma Separated Value Repository chapter of *Cisco SCMS Collection Manager User Guide*.

Activating Partitioning

A *partition* is a division of a logical database or its constituting elements into distinct, independent parts. Database partitioning is normally done for manageability, performance, or availability reasons. It is supported only for a MySQL database.

For further information, see the "Installing the Collection Manager Software" section in the "Installing the Collection Manager" chapter of the *Cisco SCMS Collection Manager User Guide*.

To activate the partitioning process:

Step 1 After starting the CM (see the "Starting the Collection Manager" section on page 7) as the **scmscm** user, modify the default partition configuration file ~scmscm/cm/config/dbpacks/mysql/4.0.20/partitions/partitions.conf (if needed).

Step 2 Activate the automatic invocation of the partition daily process.

Run the following command:

```
$ ~scmscm/scripts/partitions.sh --create
```

This creates the table partition and enables the daily partitioning process for the tables defined in the ~scmscm/cm/config/dbpacks/mysql/4.0.20/partitions/partitions.conf file.

For advanced information, see the partitioning section in the *Cisco SCMS Collection Manager User Guide*.

Activating Aggregation

Aggregation is the process of keeping raw data and aggregated data in the table. It is supported for both the bundled Sybase database and external databases.

For further information, see the *Cisco SCMS Collection Manager User Guide*.

To activate the aggregation process:

Step 1 After starting the CM (see the "Starting the Collection Manager" section on page 7), as the **scmscm** user, modify the default aggregation configuration file ~scmscm/cm/config/aggregation.conf (if needed).

Step 2 Activate the automatic invocation of the aggregation daily process.

Run the following command:

```
$ ~scmscm/scripts/loadsqlprocedures.sh -l -agg
```

This loads the required aggregation procedures defined in the ~scmscm/cm/config/aggregation.conf file and schedules the daily process.

For advanced information, see the aggregation section in the *Cisco SCMS Collection Manager User Guide*.

Activating Health Monitoring

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

To activate health monitoring:

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

The following example runs all available tests every 12 hours and sends the test results to the OS system log subsystem:

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

For further information, see the Monitoring System Health section in the Managing the Collection Manager chapter of *Cisco SCMS Collection Manager User Guide*.

Defining PRPC Users

PRPC is used to perform actions on the CM from the Cisco Service Control Application for Broadband (SCA BB) Console by the users; for example, checking the online status of the CM.

To add PRPC users:

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

```
$ ~scmscm/cm/bin/p3rpc --set-user --username=cisco --password=password
```

7 Post Installation Actions

This section describes the actions you must take after installing the CM.

Apply Service Configuration

To generate reports from the CM database, it is necessary to apply the service configuration on the SCE where the RDR formatter is configured to send raw data records 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 database.

8 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

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