



## Statistics Collection Manager Configuration

The Statistics Collection Manager (SCM) software is comprised of three major modules, namely an SCM Control Server, an SCM Collection Server, and an SCM Parser Server. All three modules can be installed and run in the same workstation as the CWM server, however the SCM Collection Server and the SCM Parser Server can also be installed as stand alone packages and distributed across several hardware workstations. The effect if this distribution is to spread the processing capability and storage capacity across several hardware systems thereby increasing the number of network nodes and statistics that can be supported by SCM.

Further an additional software module called scmProxy is used as an alternative user interface to aid in the configuration of the SCM servers

This appendix describes

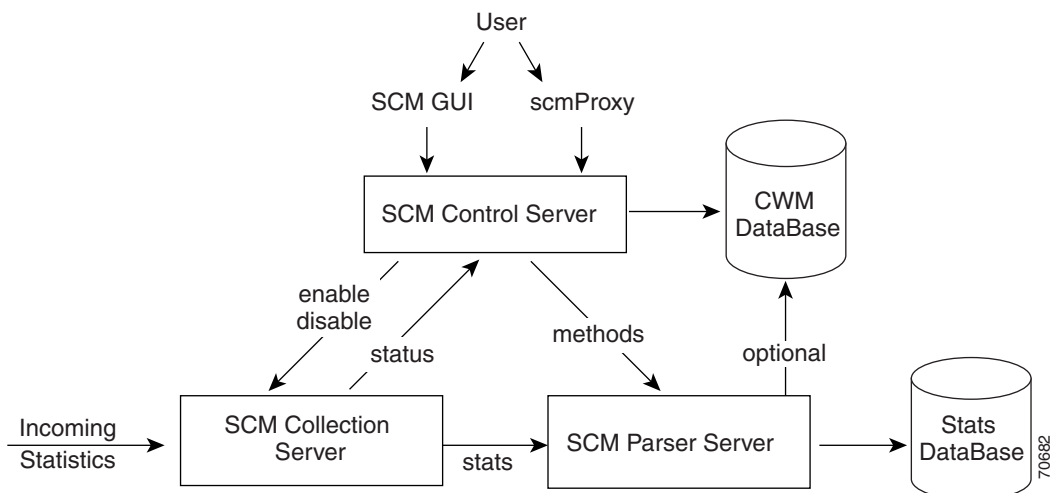
- Each of these servers and the scmProxy module.
- The variety of ways in which these modules can be installed to suit different network needs.

## Description of Modules

This section provides a description of each of the SCM modules.

Figure A-1 shows a conceptual representation of how the three SCM modules are related.

**Figure A-1** SCM Modules



## SCM Control Server

The SCM Control Server manages the whole statistics collection operation and controls both the SCM Collection Server(s) and the SCM Parser Server(s). For example, it enables and disables the collection process and instructs the other two modules as to which modes and methods to use.

In turn, the SCM Control Server responded to user requests issued through the SCM GUI interface or through the contents of the scmProxy file.

The SCM Control Server is always installed with CWM in the CWM host server.

## SCM Collection Server

Under the control of the SCM Control Server, the SCM Collection Server uses FTP (or TFTP) to collect statistics from the network nodes and place them in directories for parsing by the SCM Parser Servers.

The SCM Collection Server is installed in the CWM host workstation as part of the CWM installation process. It can also be installed as a module in one or more standalone workstations.

## SCM Parser Server

When started, the SCM Parser Server continuously parses statistics from the SCM Collection Server and places them in a statistics database. The parsing method is specified by the SCM Control Server.

The SCM Parser Server is installed in the CWM host workstation as part of the CWM installation process.

It can also be installed as a module in one or more standalone workstations. In the standalone situation, the Parser Server stores the statistics in its stats database.

The Wingz and Summary reporting features in CWM cannot be used to report statistics in the stats database (in a standalone parser server). Extracting records from stats database in a standalone parser is performed by using the Informix **dbaccess** command.

## SCM Installation Options

The CWM and SCM standalone installation processes permit the user to distribute the SCM modules across multiple hardware platforms in a variety of ways.

The SCM Control Server is always installed in the CWM host workstation. In fact, all three CWM modules are installed in the CWM host automatically as part of the CWM installation procedure.

The simplest SCM installation, therefore, is to have CWM and all SCM modules in a single workstation. However, to improve the performance of SCM, the SCM Collection Server and SCM Parser Server can also be installed in standalone workstations. To do this, the user must install the optional Statistics Collection Manager Standalone (SCMSA) on each SCM standalone workstation. During the installation of SCMSA, the user specifies which servers are to be installed on each workstation.

The user can choose to install both the SCM Collection Server and the SCM Parser Server, install only the SCM Collection Server, or install only the SCM Parser Server.

The possible configurations of a workstation performing all or part of the SCM process are as follows.

- CWM host workstation with the SCM Control, SCM Collection, and SCM Parser servers.

- CWM host workstation with the SCM Control and SCM Collection servers only.
- CWM host workstation with the SCM Control and SCM Parser servers only.
- Standalone workstation with SCM Connection and SCM Parser servers.
- Standalone workstation with SCM Connection server only.
- Standalone workstation with SCM Parser server only.

Figure A-2, Figure A-3, and Figure A-4 show three SCM configuration examples.

**Figure A-2 Single Workstation Configuration**

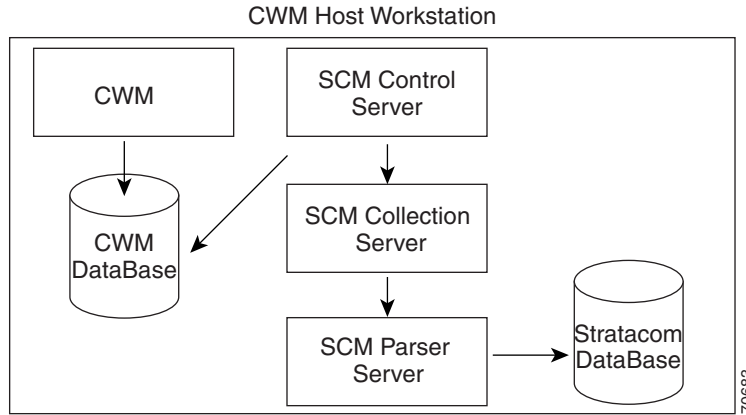


Figure A-2 shows a single workstation configuration in which CWM and all three SCM modules are installed in the same hardware. In this case, only CWM needs to be installed because SCM is installed automatically as part of the CWM installation.

**Figure A-3 Parser Servers Configured as Standalone**

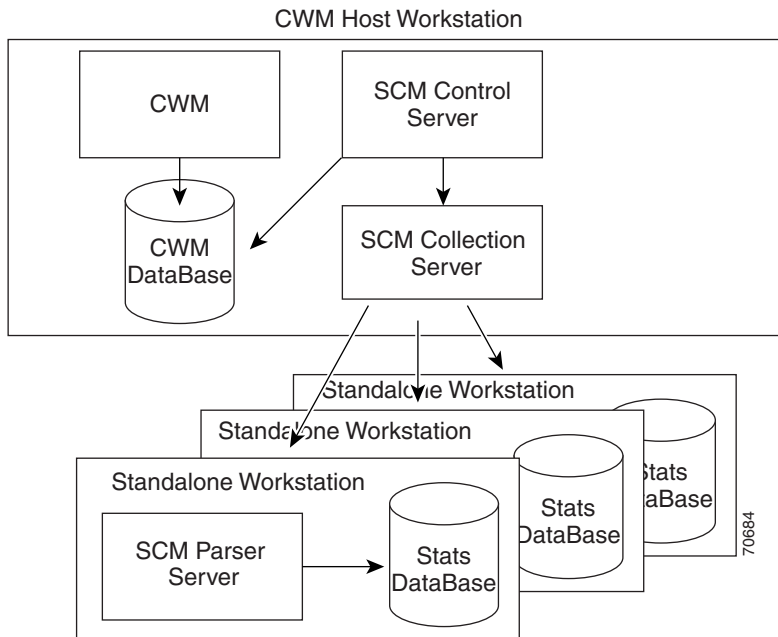


Figure A-3 shows a configuration in which a number of SCM Parser Servers have been installed on standalone workstations. The effect of this configuration is to distribute the statistics database across several hardware platforms. The capacity for collecting statistics is not affected because the number of Collection Servers remains at one.

**Figure A-4 Standalone Collection and Parser Servers**

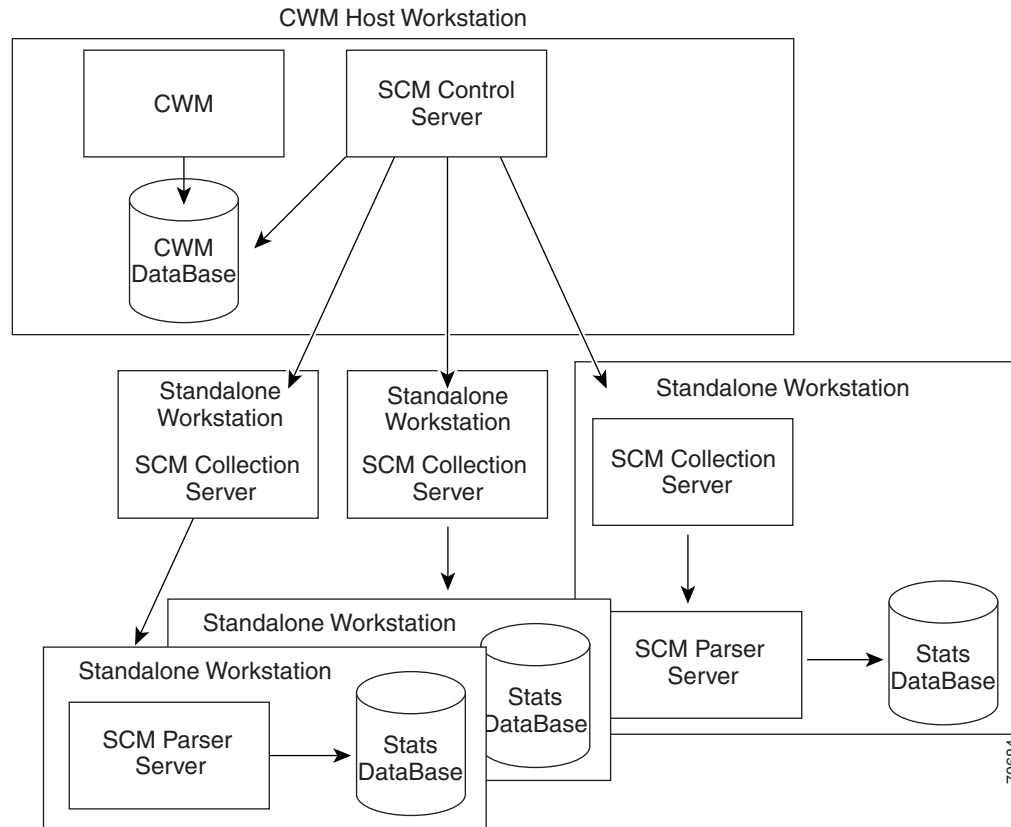


Figure A-4 shows a configuration in which there are three Collection Servers and three Parser Servers. Two of the Collection Servers are installed in their own standalone workstations whereas one Collection Server is installed in a standalone workstation along with its Parser Server.

In this type of configuration one of the Collection Servers could remain in the CWM host.

This configuration not only distributes the statistics database across several hardware platforms but it also increases the capacity to collect statistics by sharing the task between the three Collection Servers.

## ScmProxy

ScmProxy is a software module that resides in the CWM host and provides an alternative user interface to the GUI. It also uses a nodelist file to discover the SCM server topology. The file describes the SCM server configurations (which Collection Servers are connected to which Parser Servers) and lists the network nodes that each Collection Server supports.

To launch `scmproxy`, the user is first required to create a `nodelist` file with the following format.

```
<Collparm:<template_name><collectionhostname><parserhostname><routinginfo>
node_name1
node_name2
..
..
<Collparm:<template_name><collectionhostname><parserhostname><routinginfo>
node_name1
node_name2
..
..
```

The file consists of a number of records where each record specifies the stats template to be used, a collection server/parser server pair, and a list of nodes in the network for which the servers are collecting statistics.

**template\_name:** This is the name of the applicable template. Stats templates can be created from the SCM GUI and saved in StrataCom database.

**collectionhostname:** This is the name of the collection server host. The collection server can be on a CWM host or in a standalone SCM machine.

**parserhostname:** This is the name of the parser server host. Stats parser can be on a CWM host or in a standalone SCM machine.

**routinginfo:** This field can be “in-band” or “outband.” The field depends on the routing method to the nodes.

**node\_name1, node\_name2, etc.** are node names in the network that the servers are collecting statistics.

`ScmProxy` must be started from the CWM host machine by typing:

`scmproxy<nodelist_filename>` where “`nodelist_filename`” is the name the user has given to node list file.

`ScmProxy` then displays a menu from which the user can select from the following options.

```
Enable Statistics
Disable Statistics
Start Collection
Stop Collection
Exit the program
```

A error message is displayed if the node list file contains incorrect data (for example, a template that does not exist). Otherwise, the selected option is invoked.

## Setting Up the SCM Configurations

Setting up SCM configurations with standalone servers consists of the following steps.

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- Step 1** Plan the number of workstations to be used for statistics collection. Determine the number for statistics collection and the number for parsing.
  - Step 2** List the network nodes to be associated with each SCM collection server.
  - Step 3** For each workstation install SCM.  
For the CWM host machine this is performed automatically as part of the CWM installation. For each standalone machine choose the appropriate server options according to the plan developed in step 1.
  - Step 4** In the CWM host machine, create a `nodelist` file listing the SCM server relationships.  
This file should indicate which servers support which network nodes.

**Step 5** For each parser server installed in a CWM host machine, specify which database is to be used for statistics storage. The options are the Stratacom database (DB) or the stats database (DB).

The option is set in the /usr/users/svplus/config/parseconfig.stats file.

The parserconfig.stats file is a list of parameters as follows:

- f config file name
- v verbose mode (0 = low, 1 = high)
- t FlushCount(not used)
- p Enable Perf (0 or 1)
- d database (1 = statsDB, 0 = StratacomDB)
- s StandAlone (1 = standalone, 0 = not standalone)

Enter **vi** to set the -d = 1 for the statsDB or -d = 0 (default value) for the StratacomDB.



**Note** For parser servers in standalone machines there are no database options. Statistics are always stored locally in the stats database. The -d parameter in the parserconfig.stats file is set to the default of 1 and must not be changed.

Further, the Wingz and Summary reporting features in CWM cannot be used to report statistics in the stats database (in a standalone parser server). Extracting records from stats database in a standalone parser is performed by using the Informix **dbaccess** command on the local machine.

**Step 6** Start CWM.

**Step 7** Start scmproxy specifying the nodelist file created in Step 3.

**Step 8** At the scmproxy menu, select **Enable Statistics**.

**Step 9** At the scmproxy menu, select **Start Collection**.

## SCM Redundancy

In addition to being able to distribute the collection and parsing functions across several hardware platforms in order to improve performance, the user can also configure redundant servers that can take over in the event of a failure.

The user should install SCMSA on the intended redundant systems. When SCMSA is started in the primary hardware, the secondary and tertiary servers can be specified in the **Start Collection Dialog** box.

Refer to the *Cisco WAN Manager User's Guide Release 11* for more details.