HP OpenView Configuration Management Configuration Server

for the AIX; Enterprise Linux ES, AS; HP-UX; Solaris; SuSE Linux Enterprise Server; and Windows operating systems

Software Version: 5.00

Portal

for Windows operating systems

Software Version: 5.00

Getting Started Guide

Manufacturing Part Number: T3424-90124

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Documentation Updates

This guide's title page contains the following identifying information:

- Software Version number, which indicates the software version
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To check for recent updates or to verify that you are using the most recent edition, visit the following URL:

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Table 1 indicates the changes that were made to this document since the previous edition.

Table 1 Changes in this document

Chapter	Version	Changes
All	5.00	Deleted unneeded screenshots; revised associated text.
All	5.00	Changed all directory paths. The default directory paths for CM products have been changed to:
		 Program Files\Hewlett-Packard\CM (Windows)
		And
		HP/CM (UNIX)
Chapter 1	5.00	In this release, one version of the HP OpenView Configuration Management Distributed Configuration Server (CM Distributed Configuration Server) is offered; some references to this product's media have been removed.
Chapter 1	5.00	Page 14, Table 4, updated the directory structure of the HP OpenView media.

Chapter	Version	Changes	
Chapter 1	5.00	Page 14, Installation Media: removed references to the following products that are not supported in this release.	
		HP OpenView Configuration Management Adapter for SSL (CM Adapter for SSL)	
		HP OpenView Configuration Management Staging Server (CM Staging Server)	
		HP OpenView Configuration Management Adapter (CM OpenView Adapter)	
		HP OpenView Configuration Management Operations Adapter (CM Operations Adapter)	
		Also, this release does not offer support for HP OpenView Configuration Management products on Mac OS X.	
Chapter 1	5.00	Page 21, added information for a new CM product, CM Enterprise Manager.	
Chapter 2	5.00	Removed references to, and information about installing the HP OpenView Configuration Management Portal on UNIX operating systems; this installation is not available in this release.	
Chapter 2	5.00	Page 36, in the section, UNIX Pre-Installation Notes, added information regarding the UNIX arp utility.	

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1 Introduction

At the end of this chapter, you will:

- Be familiar with the Configuration Management (CM) product suite.
- Know which CM media contains the installation files for each CM component.
- Have a high-level understanding of the function of the various CM components.

About Configuration Management

Configuration Management (CM) manages the distribution of software packages via connections to the Internet or an intranet. CM administrators publish packages of software and assign users to the packages that they need.

Overview of this Guide

The HP OpenView Configuration Management Getting Started Guide (CM Getting Started Guide) gives CM administrators quick access to:

- The organization of the CM installation media, and
- The logical grouping and functionality of all the CM components.

This guide also documents the installation of the principal CM infrastructure products:

- HP OpenView Configuration Management Configuration Server (CM Configuration Server) and
- HP OpenView Configuration Management Portal (CM Portal).

These installations enable CM administrators to quickly set up and begin using a Configuration Management environment. You can also install the CM publications library to make it available for referencing during other CM installations—in accordance with product licensing.



For more information on other components of the CM product suite, refer to the guides that are referenced later in this chapter.

Document Map

This section provides an overview of this book to help you locate specific information about the CM Configuration Server and CM Portal.

Table 2 Document Map

Chapter	Contents
Chapter 1: Introduction	The contents of this guide, including: an overview of the CM installation media; and an overview of the various CM components.
Chapter 2: UNIX Installations	Installing the CM Configuration Server in a UNIX environment.
Chapter 3: Windows Installations	Installing the CM Configuration Server and CM Portal in a Windows environment, including: system requirements; logging on to the CM Portal; and viewing a CM publication via the CM Portal.
Appendix A: UNIX Kernel Tuning	UNIX Kernel resource allowances in relation to the CM Configuration Server, including: parameters on the different UNIX operating systems; and CM Configuration Server configuration based on concurrent tasks and cache management.

Configuration Management Supporting Documentation

This section presents a list of CM publications that are associated with the CM Configuration Server and CM Portal.

Table 3 CM supporting documentation

Product	Publication
CM Configuration	HP OpenView Configuration Management Configuration Server User Guide
Server HP OpenView Configuration Manag Server Messages Guide	HP OpenView Configuration Management Configuration Server Messages Guide
	HP OpenView Configuration Management Configuration Server Database Reference Guide
	HP OpenView Configuration Management REXX Programming Guide
CM Portal	HP OpenView Configuration Management Portal Installation and Configuration Guide

For a list of all manuals in the CM library, see Table 5 on page 15.

Installation Media

The CM installation media are organized by product type and contain all of the products that are needed to set up a CM infrastructure.

The CM product installations are in the following directories of the media.

Table 4 CM media directory contents

Directory	Contents
Agents	The installation materials for the HP OpenView Configuration Management agents. See CM Agents Media, starting on page 24.
Configuration Server	The installation materials for the HP OpenView Configuration Management Configuration Server, as well some of the extended infrastructure and management infrastructure products. See Configuration Management Configuration Server Media, starting on page 18.
Documentation	The HP OpenView CM library. See Configuration Management Documentation Media, starting on page 15.
Enterprise Manager	The installation materials for the HP OpenView Configuration Management Enterprise Manager. See CM Enterprise Manager Media, starting on page 21.
Infrastructure	The installation materials for the HP OpenView Configuration Management infrastructure, as well some of the extended infrastructure and management extensions products. See CM Infrastructure Media, starting on page 22.
OS Manager	The installation materials for the HP OpenView Configuration Management OS Manager. See CM OS Manager Media, starting on page 26. NOTE: The installation media for the CM OS Manager has been relocated to a stand-alone CD.

Directory	Contents
Patch Manager	The installation materials for the HP OpenView Configuration Management Patch Manager. See CM Patch Manager Media, starting on page 26.
Server Mgmt	The installation materials for the HP OpenView Configuration Management Server Management products. See CM Server Management Media, starting on page 27.
Usage Manager	The installation materials for the HP OpenView Configuration Management Application Usage Manager. See CM Usage Manager Media, starting on page 28.
AUTORUN.INF	The auto-run file for the CM library.
CM_5.00_RN.pdf	The Release Notes document for this release.



Before installing the CM products, check the HP web site for updated product release information.

Also, review any readme files, migration guides, and release notes that are included on the media—they might contain important product information.

The installation media might contain products for which you are not licensed. Install only those products for which you purchased a license.

Configuration Management Documentation Media

The CM media's Documentation directory contains a list of CM documentation in *Portable Document Format* (PDF).

Table 5 below offers an alphabetical list of the 37 publications that are in the CM Documentation directory for this release.

Table 5 Configuration Management library

HP OpenView Configuration Management Administrator Configuration Server Database Editor Guide

HP OpenView Configuration Management Administrator Publisher Guide HP OpenView Configuration Management Solutions for Servers Application Management Profiles Guide HP OpenView Configuration Management REXX Programming Guide HP OpenView Configuration Management Application Manager Installation and Configuration Guide for UNIX HP OpenView Configuration Management Application Manager Installation and Configuration Guide for Windows HP OpenView Configuration Management Application Self-service Manager Installation and Configuration Guide for UNIX HP OpenView Configuration Management Application Self-service Manager Installation and Configuration Guide for Windows HP OpenView Configuration Management Application Usage Manager User Guide HP OpenView Configuration Management Batch Publisher Installation and Configuration Guide HP OpenView Configuration Management Configuration Analyzer Installation and Configuration Guide HP OpenView Configuration Management Solutions for Servers Configuration Baseline Auditor Guide HP OpenView Configuration Management Configuration Server and Portal Getting Started Guide HP OpenView Configuration Management Configuration Server Database Reference Guide HP OpenView Configuration Management Configuration Server Messages Guide HP OpenView Configuration Management Configuration Server User Guide HP OpenView Configuration Management Distributed Configuration Server Installation and Configuration Guide HP OpenView Configuration Management Extensions for Windows Installer Getting Started Guide

16 Chapter 1

Installer User Guide

HP OpenView Configuration Management Extensions for Windows

HP OpenView Configuration Management OS Manager Hardware Configuration Management Guide

HP OpenView Configuration Management Inventory Manager Installation and Configuration Guide for UNIX

HP OpenView Configuration Management Inventory Manager Installation and Configuration Guide for Windows

HP OpenView Configuration Management Knowledge Base Server Installation and Configuration Guide

HP OpenView Configuration Management Management Applications Messages and Codes Guide

HP OpenView Configuration Management Messaging Server Installation and Configuration Guide

HP OpenView Configuration Management Multicast Server Installation and Configuration Guide

HP OpenView Configuration Management OS Manager Installation and Configuration Guide for UNIX

HP OpenView Configuration Management OS Manager Installation and Configuration Guide for Windows

HP OpenView Configuration Management Patch Manager Installation and Configuration Guide

HP OpenView Configuration Management Policy Server Installation and Configuration Guide

HP OpenView Configuration Management Portal Installation and Configuration Guide

HP OpenView Configuration Management Proxy Server Installation and Configuration Guide

HP OpenView Configuration Management Reporting Server Installation and Configuration Guide

HP OpenView Configuration Management Service Desk Integration Guide

HP OpenView Configuration Management Server Management Windows Terminal Server and Citrix Support Guide

HP OpenView Configuration Management SSL Implementation Guide

These publications will help a CM administrator prepare the data that are needed to manage all the computers in an enterprise.



Information about the HP OpenView Configuration Management Administrator Publisher (CM Admin Publisher) and publishing HP OpenView Configuration Management Extensions for Windows Installer (CM Extensions for WI) applications is included in the:

- HP OpenView Configuration Management Application Manager Installation and Configuration Guide (CM Application Manager Guide)
- HP OpenView Configuration Management Application Selfservice Manager Installation and Configuration Guide (CM Application Self-service Manager Guide).

Be sure to periodically check the HP documentation web site, http://ovweb.external.hp.com/lpe/doc_serv/, for new and updated publications; and for additional technical support articles, refer to the HP support web site, http://www.hp.com/managementsoftware/support.

Configuration Management Configuration Server Media

This media contains the installation files for the CM components that are listed in Table 6 below.

Table 6 Configuration Server media contents

Directory	CM Component
extended_infrastructure	CM Distributed Configuration Server
management_infrastructure	CM Administrator Workstation
	CM Configuration Server
	CM Extensions for Windows Installer

The sections that follow offer additional details on these components.

CM Configuration Server

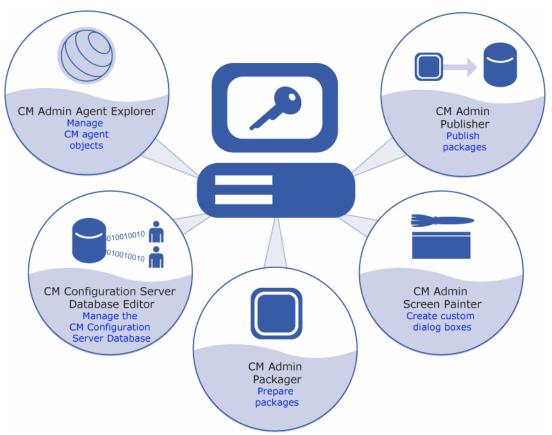
The HP OpenView Configuration Management Configuration Server (CM Configuration Server) resides on a single server, or several can be installed across a network of servers. Applications and information about the subscribers and CM agent computers are stored in the HP OpenView Configuration Management Configuration Server Database (CM Configuration Server Database) on the CM Configuration Server. The CM Configuration Server distributes application packages based on the policies that are established by a CM administrator. For more information, refer to

the HP OpenView Configuration Management Configuration Server User Guide.

CM Administrator

The HP OpenView Configuration Management Administrator (CM Administrator) contains a set of tools (shown in Figure 1 below) for basic administrative functions. Use these tools to manage the CM Configuration Server Database, prepare applications, view CM agent objects, and customize a computing environment.

Figure 1 Tools of the HP OpenView Configuration Management Administrator





For instructions on how to install the HP OpenView Configuration Management Administrator (CM Administrator), refer to any of the following guides.

- CM Inventory Manager Guide,
- CM Application Manager Guide,
- CM Application Self-service Manager Guide.

The CM Administrator includes the following tools.

CM Administrator Packager (CM Admin Packager)

Use to create component groups called **packages**. Refer to the *CM Application Manager Guide* or the *CM Application Self-service Manager Guide* for more information.

CM Administrator Publisher (CM Admin Publisher)

Use to publish packages to the CM Configuration Server. For more information, refer to the *HP Open View Configuration Management Administrator Publisher Guide*.

CM Administrator Configuration Server Database Editor (CM Admin Configuration Server Database Editor)

Use to create new users and groups of users, assign users to groups, and assign users and groups to application packages. Refer to the *HP OpenView Configuration Management Administrator Configuration Server Database Editor Guide.*

CM Administrator Agent Explorer (CM Admin Agent Explorer)

Use to manipulate local CM objects.

CM Administrator Screen Painter (CM Admin Screen Painter)

Use to create custom dialog boxes.

CM AMP Editor

Use to create and modify Application Profiles.

CM Extensions for Windows Installer

The HP OpenView Configuration Management Extensions for Windows Installer (CM Extensions for Windows Installer) is a management system

that automates and simplifies the enterprise application integration laboratory process. Use it to build, test, maintain, deploy, and troubleshoot Windows Installer applications and installation packages. For more information, refer to the HP Open View Configuration Management Extensions for Windows Installer User Guide and HP Open View Configuration Management Extensions for Windows Installer Getting Started Guide.

CM Distributed Configuration Server

The HP OpenView Configuration Management Distributed Configuration Server (CM Distributed Configuration Server) is a database replication tool with which a CM administrator can copy the contents (all or part) of one CM Configuration Server Database to another, and perform subsequent source-to-destination synchronizations in order to replicate database changes. For more information, refer to the HP OpenView Configuration Management Distributed Configuration Server Installation and Configuration Guide.

CM Enterprise Manager Media

This media contains the installation files for the CM components that are listed in Table 9 on page 25.

Table 7 Enterprise Manager media contents

Category	CM Component
N/A	CM Enterprise Manager

The section that follows provides a description of this component.

CM Enterprise Manager

The HP OpenView Configuration Management Enterprise Manager (CM Enterprise Manager) is a web-based, agent-management tool that allows a CM administrator to quickly and easily manage software, patches, and inventory for devices in a Configuration Management environment. For more information, refer to the HP OpenView Configuration Management Enterprise Manager User Guide.

CM Infrastructure Media

This media contains the installation files for the CM components that are listed in Table 8 below.

Table 8 Infrastructure media contents

Directory	CM Component
extended_infrastructure	CM Configuration Analyzer
	CM Knowledge Base Server
	CM Portal
	CM Messaging Server
	CM Multicast Server
	CM Proxy Server
	CM Reporting Server
management_extensions	CM Policy Server
	CM Publishing Adapter (CM Batch Publisher)
	CM Service Desk Adapter

These components are described in further detail in the sections that follow.

CM Policy Server

The HP OpenView Configuration Management Policy Server (CM Policy Server) is a plug-in to the CM Integration Server. It can be used for administrative tasks such as mapping services to users, and it can be used to leverage LDAP-based directory services, like Active Directory and SQL-based databases. Refer to the HP OpenView Configuration Management Policy Server Installation and Configuration Guide.

CM Batch Publisher

The HP OpenView Configuration Management Batch Publisher (CM Batch Publisher) is a command-line driven alternative to the CM Admin Publisher. It provides an automated, repeatable process, whereas the Publisher must be monitored from start to finish. Its focus is distributing updates rather than initial application packaging. The CM Batch Publisher can easily be

integrated with third-party configuration-management and packaging products. Refer to the *HP OpenView Configuration Management Batch Publisher Installation and Configuration Guide*.

CM Portal

The HP OpenView Configuration Management Portal (CM Portal is a web-based interface that can be used to manage a Configuration Management environment. One of the more useful features is the ability to create a graphical representation of the CM infrastructure. Refer to the HP OpenView Configuration Management Portal Installation and Configuration Guide.

CM Multicast Server

The HP OpenView Configuration Management Multicast Server (CM Multicast Server) enhances and simplifies data-transmission by reducing the number of transmissions and maximizing the use of network bandwidth. Multicasting enables a CM administrator to simultaneously transmit one stream of data to multiple recipients. Refer to the HP OpenView Configuration Management Multicast Server Installation and Configuration Guide.

CM Proxy Server

HP OpenView Configuration Management Proxy Servers (CM Proxy Server) are beneficial when numerous CM agents are requesting the same resources from the same location. Data can be cached on a CM Proxy Server, thereby decreasing the demand on the CM Configuration Server, which in turn allows it to allocate more resources to other tasks. By placing CM Proxy Servers at strategic points in a network, the rate at which data is transferred increases. Refer to the HP OpenView Configuration Management Proxy Server Installation and Configuration Guide.

CM Configuration Analyzer

The HP OpenView Configuration Management Configuration Analyzer (CM Configuration Analyzer) simplifies application management. It is backed by a database, wherein imported **state files** keep a detailed history of all of the resources that are needed by an application. It performs integration- and management-analysis functions, and with it, CM administrators can profile applications, initiate application comparisons, and analyze applications. For more information, refer to the *HP OpenView Configuration Management Configuration Analyzer Installation and Configuration Guide*.

CM Knowledge Base Server

The HP OpenView Configuration Management Knowledge Base Server (CM Knowledge Base Server) is used with the CM Configuration Analyzer. It populates the Knowledge Base with data in the form of state files, which consist of data that represent the current state of an application. For more information, refer to the HP OpenView Configuration Management Knowledge Base Manager Installation and Configuration Guide.

CM Reporting Server

The web-based HP OpenView Configuration Management Reporting Server (CM Reporting Server) allows the querying of data in the CM Inventory Manager, CM Patch Manager, and CM Usage Manager databases, and the creation of detailed reports. It also provides a way to use Configuration Management SQL data for reporting and overall environmental assessment. For more information, refer to the *HP OpenView Configuration Management Reporting Server Installation and Configuration Guide*.

CM Messaging Server

The HP OpenView Configuration Management Messaging Server (CM Messaging Server) is a generic messaging service that can be used with several of the CM infrastructure components. It continually monitors a predefined data queue, and dynamically routes data objects to external destinations. On a CM Configuration Server, the CM Messaging Server operates with the executable, QMSG, to transfer reporting data from CM agents to the appropriate external CM Integration Server, where it can then be mapped to the appropriate reporting database. For more information, refer to the HP OpenView Configuration Management Messaging Server Installation and Configuration Guide.

CM Agents Media

This media contains the installation files for the CM components that are listed in Table 9 on page 25.



The Management Applications products that are listed in Table 9—and detailed in this section—comprise the CM agents.

Table 9 Applications media contents

Category	CM Component
Management Applications	CM Application Manager Agent
	CM Inventory Manager Agent
	CM Application Self-service Manager Agent
	CM Patch Manager Agent
	CM OS Manager Agent
	CM Server Management Agent

The sections that follow provide descriptions of these components.

CM Application Manager

The HP OpenView Configuration Management Application Manager agent (CM Application Manager) allows a CM administrator to control the distribution and maintenance of mandatory applications throughout the enterprise. Refer to the HP OpenView Configuration Management Application Manager Installation and Configuration Guide.

CM Application Self-service Manager

The HP OpenView Configuration Management Application Self-service Manager Agent (CM Application Self-service Manager) allows end users to control the installation, removal, and updating of the optional applications that are available to them in a service list. Refer to the HP OpenView Configuration Management Application Self-service Manager Installation and Configuration Guide.



The CM Application Manager and CM Application Self-service Manager can be co-resident on a machine. In this situation, the CM administrator still determines:

- Whether an application is mandatory or optional, and
- By whom the installation will be controlled.

CM Inventory Manager

The HP OpenView Configuration Management Inventory Manager Agent (CM Inventory Manager) allows an administrator to collect hardware information and send it to the CM Inventory Manager database for inventory

reporting. Refer to the HP OpenView Configuration Management Inventory Manager Installation and Configuration Guide.

CM Patch Manager Media

This media contains the installation files for the CM components that are listed in Table 10 below.

Table 10 Patch Manager media contents

Category	CM Component
Extended Infrastructure	CM Patch Manager (Server component)

CM Patch Manager

HP OpenView Configuration Management Patch Manager (CM Patch Manager) provides server provisioning and repurposing, and the migration of operating systems and applications. With it an administrator can configure acquisition tools in order to automatically collect security patches from a vendor's web-based security-patch repository, as well as perform impact analysis and pilot testing in order to identify affected applications and devices. For more information, refer to the *HP OpenView Configuration Management Patch Manager Installation and Configuration Guide*.

CM OS Manager Media

This media contains the installation files for the CM components that are listed in Table 11 below.

Table 11 OS Manager media contents

Category	CM Component
Extended Infrastructure	CM OS Manager (CM OS Manager Server component)

CM OS Manager

The HP OpenView Configuration Management OS Manager (CM OS Manager) is comprised of agent and server components, which allow an administrator to provision operating systems on agent devices. The CM OS Manager can deploy operating systems based on policy assignments; and

prompt the user to choose an operating system based on a set of criteria. For more information, refer to the *HP OpenView Configuration Management Operating System Manager Installation and Configuration Guide*.

CM Server Management Media

This media contains the installation files for the CM components that are listed in Table 12 below.

Table 12 Server Management media contents

Category	CM Component
Server Management	CM Application Management Profiles
	CM Configuration Baseline Auditor
	CM Windows Terminal Server

CM Application Management Profiles

The HP OpenView Configuration Management Application Management Profiles (CM Application Management Profiles) is a set of tools that is built on top of CM Application Manager to enable the deployment and management of complex software products. CM Application Management Profiles provides tools to analyze configuration control data for targeted products, deploy and configure software to targeted devices, and report on the success of the deployment. Refer to the HP OpenView Configuration Management Server Management Application Management Profiles Guide.

CM Configuration Baseline Auditor

The HP OpenView Configuration Management Configuration Baseline Auditor (CM Configuration Baseline Auditor) is a component that allows an administrator to define a logical group of resources (known as **subsystems**) and to collect configuration information about them. Refer to the *HP OpenView Configuration Management Solutions for Servers Configuration Baseline Auditor Guide*.

CM Windows Terminal Server

HP OpenView Configuration Management Windows Terminal Server and Citrix Support (CM Windows Terminal Server) works with Windows

Terminal Services, a thin-client server that is available on some Windows operating systems, and which moves the processing of applications off a user's desktop onto a centralized server. For more information, refer to the HP OpenView Configuration Management Solutions for Servers Windows Terminal Server and Citrix Support Guide.

CM Usage Manager Media

This media contains the installation files for the CM components that are listed in Table 13.

Table 13 Application Usage Manager media contents

Category	CM Component
Extended Infrastructure	CM Usage Manager

CM Application Usage Manager

The HP OpenView Configuration Management Application Usage Manager (CM Application Usage Manager) can assess patterns of application usage in an environment. This ability allows an administrator to ensure adherence to license agreements, re-provision licenses if needed, and monitor user productivity. Additionally, it can be used to enforce corporate standards by identifying non-standard software, and to view the actual use of application resources. Refer to the HP OpenView Configuration Management Application Usage Manager Installation and Configuration Guide.

CM Implementation Overview

This guide describes the installations of the:

- HP OpenView Configuration Management Configuration Server (CM Configuration Server), and
- HP OpenView Configuration Management Portal (CM Portal)

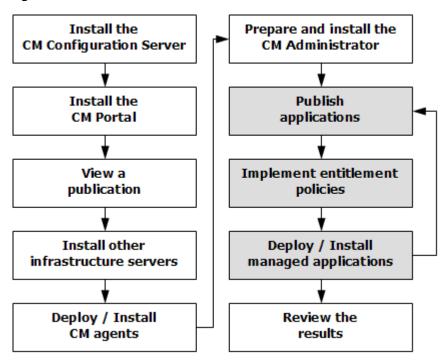
For a functional CM infrastructure, the CM Configuration Server and CM Portal *must* be installed.

After the CM Configuration Server and CM Portal are installed, additional CM components can be installed—in accordance with license agreements.

With the CM infrastructure in place, all of the digital assets in the enterprise can be managed by CM.

Figure 2 provides an overview of a functional CM implementation.

Figure 2 CM environment



Summary

- To install the CM components, the proper license file is required.
- All CM implementations must include the CM Configuration Server.
- The CM agents are CM Application Self-service Manager Agent, CM Application Manager Agent, and CM Inventory Manager Agent.
- The HP OpenView documentation web site,
 http://ovweb.external.hp.com/lpe/doc_serv/, should be periodically checked for the latest versions of manuals, Release Notes, and Migration Guides.

2 UNIX Installations

At the end of this chapter, you will have:

- An understanding of the CM Configuration Server system requirements for a UNIX environment.
- Installed the CM Configuration Server (either *silently* or via a *graphical user-interface* [GUI]) in a UNIX environment.

Chapter Overview

This chapter details the installation of the latest version of the HP OpenView Configuration Management Configuration Server (CM Configuration Server), starting below.

System Requirements

Platform Support

For information about the platforms that are supported in this release, refer to the accompanying release notes.

CM Configuration Server Installation

This section provides instructions for installing the CM Configuration Server, as well as reviewing the system requirements for the various UNIX platforms.

Installation Types

There are two installation types, Silent and User Interface.

Silent

A hands-off, command-line invoked installation that has pre-determined database-configuration parameters. It will install the CM Configuration Server Database and

- The TCP/IP communications protocol, configured on port 3464
- Three TCP/IP Notify Managers
- Default caching and SNMP configurations
- Default Internet settings for the CM Configuration Server

User Interface (GUI)

A graphical installation that requires an administrator of CM to specify a

variety of parameters in order to customize the CM environment. It has some pre-determined database configuration parameters, and will install the CM Configuration Server Database and the following configurable parameters:

- The TCP/IP communications protocol and port
- TCP/IP Notify Managers
- Caching and SNMP configurations
- Internet settings for the CM Configuration Server

CM Configuration Server Directories

Table 14 lists the directories that are automatically created during the CM Configuration Server installation.

Table 14 CM Configuration Server Directories

Directory	Contents
bin	The shell scripts that enable you to start, stop, clean up, and query the CM Configuration Server.
DB	The CM Configuration Server Database files.
exe	The CM Configuration Server methods and executable files.
internet	The Internet HTML and graphics files.
lib	The files for proper CM Configuration Server operation. Note: Do not modify or delete these files.
log	The CM Configuration Server log.
rexx	This directory is for storing customized REXX methods. Note: Its sub-folder, NOVADIGM, contains the default CM Configuration Server REXX methods. See the caution that follows.

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Altering the CM Configuration Server methods that are in the ConfigurationServer\rexx\NOVADIGM directory could adversely effect CM processing.

Therefore, it is recommended that a method be copied up one level, to the ConfigurationServer\rexx directory, before being modified.

System Recommendations for UNIX

Table 15 below lists the amount of space that is required on the UNIX platforms for the installation and operation of the CM Configuration Server and its associated elements. It is recommended that these limits be allocated on the system on which the CM Configuration Server is being installed.



These recommendations represent typical, minimum operating system estimates. Adjust them based on the environment in which the CM Configuration Server Database is being installed.

Table 15 Space Requirements for the CM Configuration Server

Component	All Platforms
Memory	512 MB
Swap	2 GB
CM Configuration Server Directory	75 MB
Important Note : This space recommendation does not include estimates for additional applications that will be managed by the CM Configuration Server.	
CM Configuration Server Database *	see note *
CM Configuration Server Logs	50 MB



* The size of the CM Configuration Server Database depends on the size and number of applications that the CM Configuration Server is going to manage. HP recommends this be estimated as roughly 50 percent of the size of the applications to be managed.

Adjust these recommendations based on the environment in which the CM Configuration Server Database is being installed.

UNIX Pre-Installation Checklist

Prior to beginning the installation, make sure that:

- The user that is performing the installation has:
 - Adequate rights on the UNIX workstation to create and update the target installation directory.
 - A home directory on the UNIX workstation, and is not logged in as root.
- This installation program is run from within UNIX.
- If the SNMP process is running, stop it.
- Prior to starting the CM Configuration Server installation:
 - Close all other applications, including anti-virus programs.
 - Stop all other tasks and operations that are executing.

UNIX Pre-Installation Tips

- Have the license file easily accessible for the installation.
- Click **Cancel** in any window to exit the installation. If **Cancel** is clicked accidentally, a confirmatory prompt enables the return to the installation program.
- Click **Back** at any time to return to previous windows. All the information entered thus far will remain unchanged.
- Most windows have associated error messages. If specifications are invalid, an error message will appear. Click **OK** and enter the correct information.
- This installation program displays default values when applicable. It is recommended that all defaults be accepted; however, they can be overridden by specifying the parameters for your environment.

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UNIX Pre-Installation Notes

All UNIX Platforms

arp Utility

The UNIX user who is installing the CM Configuration Server (CM-CS) should have access to the UNIX utility, arp, which is usually located in /usr/sbin.

To prevent the CM Configuration Server installation from failing, the UNIX user who is installing the CM Configuration Server must have either:

- /usr/sbin in his default PATH variable, or
- A UNIX administrator copy/move the arp utility to a path that is available to the UNIX user who is installing the CM-CS.

Directory Permissions

The user that is installing the CM Configuration Server must have:

- A /tmp directory under the root, and
- Write permissions for the directory.

HP-UX Notes

Sub-directories

There are two hprisc sub-directories in the /configuration_server directory of the CM Configuration Server media; be sure to navigate to the correct sub-directory.

- For PA-RISC 2.0 chipsets, the installation media is in /hprisc2.
- For PA-RISC 1.1 chipsets, the installation media is in /hprisc1.

Mounting the DVD

The CM media must be mounted using pfs_mount on HP-UX platforms because the DVD is created using the Rock Ridge format. The HP-UX standard mount procedure is incompatible with the Rock Ridge file system type, so HP has made available the *Portable File System* (PFS) package that allows their workstations to recognize this format. Specific instructions are:

- Insert the DVD and mount it by typing /usr/sbin/pfs_mount -v -x unix /dvd/mnt.
- To un-mount, type /usr/sbin/pfs umount /mnt.

When installing the CM Configuration Server on HP-UX platforms, the DVD drive must be mounted to display lowercase filenames, as in mount -o cdcase /dev/<dvd_device> /cdrom.

If the DVD drive is not mounted with the **cdcase** parameter, file names on the DVD will be displayed in uppercase and the installation will fail.



For more information, consult your local UNIX systems administrator and UNIX *man* pages.

After installing the CM Configuration Server, be sure to periodically check the HP product support web site for service packs, updates, and fixes associated with this version.

UNIX Environment Variables

The LIBRARY PATH environment variable must include the current working directory, represented by the period (.) in the following example, followed by the path to the operating system's shared library files.

```
LD LIBRARY PATH=/lib:.:/usr/lib
```

Also, ensure that the PATH environment variable includes the absolute path to the directory that contains the operating system's Bourne shell executable (the executable, sh, is located in /usr/bin on most UNIX systems), as well as the current working directory, represented by the period (.) in the example that follows

```
PATH=/bin:/usr/bin/:.:/usr/bin/X11
```

HP recommends that these environment variables be added to the log-on scripts of the UNIX user ID who installs, and will maintain, the CM Configuration Server.

Table 16 presents examples of these environment variables being specified for the four platforms on which the CM Configuration Server can be installed.



In Table 16, the *current working directory* is represented by **\$XXXXX** and **\$YYYYY**. Be sure to specify your current working directory, rather than these sample fillers.

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Table 16 Environment Variables

Platform	Example
AIX	LIBPATH = /lib: \$xxxxx: \$yyyyy: \$LIBPATH
	PATH = /bin:/usr/bin:\$XXXXX:\$YYYYY:\$PATH
HP-UX	SHLIB_PATH = /lib: \$xxxxx: \$yyyyy: \$shlib_path
	PATH = /bin:/usr/bin:\$XXXXX:\$YYYYY:\$PATH
Linux	LD_LIBRARY_PATH = /lib:\$XXXXX:\$YYYYY:\$LD_LIBRARY_PATH
	PATH = /bin:/usr/bin:\$XXXXX:\$YYYYY:\$PATH
Solaris	LD_LIBRARY_PATH = /lib:\$XXXXX:\$YYYYY:\$LD_LIBRARY_PATH
	PATH = /bin:/usr/bin:\$XXXXX:\$YYYYY:\$PATH



The CM Configuration Server should always be started with the startmgr script because it dynamically adds the real path of the CM Configuration Server binaries to the user-path environment variable.

The Setup-Configuration File

The default parameters for the CM Configuration Server installation are contained in the setup.cfg file. HP recommends viewing this file prior to beginning the silent installation.

The following example code is an excerpt from the CM Configuration Server setup.cfg file.

```
Variable
          PKGNAME "HP OVCM Configuration Server"
Windows {
Variable
          INSTDIR "$::env(PROGRAMFILES) \ Hewlett-
Packard\\CM\\ConfigurationServer"
Variable DESTDB "$::env(PROGRAMFILES)\\Hewlett-
Packard\\CM\\ConfigurationServer\\DB"
Variable LICENSEFILE "C:\\license.nvd"
}
UNIX {
Variable INSTDIR "/opt/HP/CM/ConfigurationServer"
Variable
          DESTDB "/opt/HP/CM/ConfigurationServer/DB"
Variable LICENSEFILE "~/.license.nvd"
Variable MGRPORT "3464"
Variable LICEMAIL ""
Variable MGRID "001"
Variable MGRNAME "CMCS"
Variable PORTALUID "romadmin"
Variable PORTALPASS "secret"
Variable global GUID 000
          enable debug 0
Variable
Variable uninstalldata numlines 0
Variable WinShortcuts 1
Variable DOBACKUP 1
Variable startrcs 1
```

Installing the CM Configuration Server

This section contains instructions for installing the CM Configuration Server. Before starting this installation, be sure to review the sections UNIX Pre-Installation Checklist and UNIX Pre-Installation Tips on the preceding pages.

Silent Installation



By default, this silent installation will back-up an existing CM Configuration Server Database.

To turn off this feature, open the setup.cfg file and change the value of DOBACKUP to 0.

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To run the CM Configuration Server Silent installation

- Open a UNIX shell window at the console, or through an X-Windows emulator, logged on as the UNIX user ID who will be running the installation program.
- 2 Insert the HP OpenView CM Configuration Server media into the optical drive.
- 3 Change the current directory to the directory on the media that contains the platform-specific installation program. For example, if installing the CM Configuration Server on a Solaris machine, navigate to: cd /cdrom/cdrom0/Configuration Server/management_infrastructure/configuration server/solaris.
 - If installing the CM Configuration Server on an HP-UX platform, navigate to cd /mnt/cdrom0/Configuration Server/management_infrastructure/configuration server/hprisc2.
- 4 Type ./setup -mode silent and press Enter.

The CM Configuration Server will be automatically installed to the locations, and with the pre-defined parameters, that are contained in the setup.cfg file.

GUI Installation

To run the CM Configuration Server GUI installation

- 1 Open a UNIX shell window at the console, or through an X-Windows emulator, logged on as the UNIX user ID who will be running the installation program.
- 2 Insert the HP OpenView CM Configuration Server media into the optical drive.
- 3 Change the current directory to the directory on the media in which the installation program is located. For example, if installing the CM Configuration Server on a Solaris machine, navigate to cd /cdrom/cdrom0/Configuration Server/management_infrastructure/configuration server/solaris.
- 4 Type ./setup and press Enter.
 - The GUI installation begins with the HP OpenView CM Configuration Server Installation Welcome window.

5 Click Next.

(At any time during the installation, click **Cancel** to exit the installation.)

The HP OpenView CM Configuration Server Installation End User Licensing Agreement window opens.

6 Click Accept.



If **Accept** is not selected, the CM Configuration Server installation program will terminate.

The HP OpenView CM Configuration Server Installation Directory Specifications window opens.

7 Accept the default *root* installation directory that is displayed, or click **Browse** to navigate to a different repository for the CM Configuration Server's *executable*, *log*, *Internet*, and *REXX* files.

Accept the default *database* installation directory that is displayed, or click **Browse** to navigate to a different repository for the CM Configuration Server Database files.



If previous versions of the CM Configuration Server and CM Configuration Server Database are in the default directories, a HP OpenView CM Configuration Server Installation Directory Update message will appear.

Click **OK** to continue with the update, or click **Cancel** to specify a different location.

8 Click **Next**.

The HP OpenView CM Configuration Server Installation Backup Directory window opens.

In this window:

 Accept the default (Yes) to have the installation program create a backup of the existing files, or

(This directory's name is determined by the default UNIX Shell command returning the date and time values of the machine's default time zone.)

— Select **No**, which will result in the existing files being deleted.

9 Click Next.

The HP OpenView CM Configuration Server Installation Select Components to Install window opens.

In this window:

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- The CM Configuration Server option is selected and disabled—it will be installed.
- Select CM Patch Manager, CM Usage Manager, and/or CM OS Manager to automatically include those product installations.



It is important to understand that if these additional products are selected, they do NOT get installed. The CM Configuration Server installation will install ONLY the database decks that are needed to support these products; the products will still have to be installed via their own installation programs.

Additionally, if **CM Patch Manager**, **CM Usage Manager**, and/or **CM OS Manager** are selected, the CM Configuration Server installation will not be affected, nor will there be additional dialog boxes.

10 Click Next.

The HP OpenView CM Configuration Server Installation Post-Installation Start window opens.

In this window:

- Accept the default (Yes) to have the CM Configuration Server automatically start when the installation completes, or
- Select **No** to avoid having the CM Configuration Server automatically start at the completion of the installation.



See Starting, Stopping, Identifying, and Cleaning up the CM Configuration Server on page 46.

11 Click Next.

The HP OpenView CM Configuration Server Installation Location of License File window opens.

In this window:

- If the location that is displayed in the Input location of license file window reflects the location of the license file, click **Next**. Otherwise,
- Specify the correct location, or click **Browse** to navigate to the license file.

12 Click Next.

The HP OpenView CM Configuration Server Installation E-mail Address window opens.

This window offers the option of specifying an e-mail address to which license-expiration notifications will be sent.

13 Click Next.

The HP OpenView CM Configuration Server Installation CM Configuration Server ID window opens.

In this window:

Specify a three-character ID for the CM Configuration Server.

Valid values are within the hexadecimal (0-9 and A-F) range of 001 to EFF. (This ID is used as a prefix in the CM Configuration Server's log file.)

This field is required.

14 Click Next.

The HP OpenView CM Configuration Server Installation CM Configuration Server Name window opens.

In this window:

 Specify a name (maximum of 32 characters) for the CM Configuration Server.

This field is required.

15 Click **Next**.

The HP OpenView CM Configuration Server Installation TCP/IP Port window opens.

This window displays the communications port that the CM Configuration Server will use.

- Accept the default port (3464) that is specified in this window. (*Recommended*)
- Or specify a different port for CM Configuration Server communications.

16 Click Next.

The HP OpenView CM Configuration Server Installation Zone Name for the Management Portal window opens.

In this window, adhere to the following guidelines to specify a Zone Name that is associated with an instance of the CM Portal.

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- Specify a maximum of 64 characters.
- Use only letters (a-z and A-Z), numerals (0-9), and the space character.
- Do not use special characters, such as an underscores, commas, and periods.



For information on CM Portal Zone Names, refer to the *CM Portal Guide*.

17 Click Next.

The HP OpenView CM Configuration Server Installation CM Portal Credentials window opens.

 In this window, specify valid user ID and password credentials for the CM Portal.

18 Click Next.

The HP OpenView CM Configuration Server Installation Summary of Installation Input window opens. It presents all the information that was specified during the CM Configuration Server installation. This is the final opportunity to review and modify the specified settings.

 If you discover any errors, or wish to modify any of the entries, click Back until you reach the appropriate windows, and make the necessary changes.

The information that was entered in the other windows will not be affected. After making the changes, click **Next** repeatedly, until you arrive back at the Summary of Input window.

19 Click Install.

The HP OpenView CM Configuration Server Installation Progress window opens.

When the installation is complete, the HP OpenView CM Configuration Server Installation Finish window opens.

20 Click Finish.

The CM Configuration Server for UNIX has been successfully installed.

UNIX Post-Installation Notes

See Appendix A, UNIX Kernel Tuning, for important information about tuning kernel parameters in order to accommodate the CM Configuration

Server's use of memory, communications, and $\it inter-process$ $\it communications$ (IPC).

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Starting, Stopping, Identifying, and Cleaning up the CM Configuration Server

Throughout the next four sets of instructions, the CM Configuration Server is referred to as "Manager." In order to execute these four tasks, a CM administrator must be logged on to the system as the UNIX user ID that installed the CM Configuration Server.

To start the CM Configuration Server

- 1 Change to the CM Configuration Server bin directory by typing cd /opt/HP/CM/ConfigurationServer/bin and pressing Enter.
- 2 Type ./startmgr and press Enter.

The CM Configuration Server will start, and a series of start-up messages will display.



An optional, numerical parameter can be added to the ./startmgr command.

This parameter specifies (in seconds) the length of time to wait before verifying that the CM Configuration Server has started. The default for this is 100 (seconds).

This parameter is useful when caching much of the database, if the processor is slow, or if there are many system tasks running. In the example below, 40 seconds would elapse before any verification is made.

./startmgr 40



If the CM Configuration Server is running and a 'start' is attempted, the following message will display:

Manager already started with USER-ID=[user id] and PID=[HP OVCM Configuration process id]

To stop the CM Configuration Server

- 1 To change to the CM Configuration Server bin directory, type cd /opt/HP/CM/ConfigurationServer/bin and press Enter.
- Type ./killmgr and press Enter.

The following shutdown message is displayed:

Killing Manager with USER-ID=[user id] in 30 seconds. Please wait.



Running ./killmgr explicitly calls the script ./clean_ipc.

Neither of these scripts should be run as root because all IPC resources used by root would be removed.

If the CM Configuration Server is not running, the following message will display:

Manager is not running with USERID=[user id]...do nothing

To identify the CM Configuration Server



The CM Configuration Server must be running.

- 1 To change to the CM Configuration Server bin directory, type cd /opt/HP/CM/ConfigurationServer/bin and press Enter.
- 2 Type ./whatmgr and press Enter.



The user ID and the respective TCP/IP port number, database path, log paths, and method path are displayed for currently active CM Configuration Servers running on this system. No response is returned if there are no active CM Configuration Servers.

To clean up the CM Configuration Server

- To change to the CM Configuration Server bin directory, type cd /ConfigurationServer/bin and press Enter.
- 2 Stop the CM Configuration Server.
- 3 Type ./clean ipc and press Enter.

Issuing this command will remove messages, shared memory, and semaphores from the last session of the CM Configuration Server.



HP strongly advises against running:

./clean ipc

- when the CM Configuration Server is running.
- when logged on as root.

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3 Windows Installations

At the end of this chapter, you will have:

- An understanding of the CM Configuration Server and CM Portal system requirements for a Windows environment.
- Installed the CM Configuration Server (either *silently* or via a *graphical user-interface* [GUI]) in a Windows environment.
- Installed the CM Portal in a Windows environment.
- Installed the Configuration Management publications on the CM Portal.
- Logged on to the CM Portal.
- Viewed a CM publication via the CM Portal.

Chapter Overview

This chapter details the installations of the latest versions of the

- HP OpenView Configuration Management Configuration Server (CM Configuration Server), starting below and
- HP OpenView Configuration Management Portal (CM Portal), starting on page 64.

System Requirements

Platform Support

For information about the platforms that are supported in this release, see the accompanying release notes.

CM Configuration Server Installation

This section provides instructions for installing the CM Configuration Server, as well as reviewing the system requirements for the various Windows platforms.

Installation Types

There are two installation types, Silent and User Interface.

Silent

A hands-off, command-line invoked installation that has pre-determined database-configuration parameters. It will install the CM Configuration Server Database and

- The TCP/IP communications protocol, configured on port 3464
- Three TCP/IP Notify Managers
- Default caching and SNMP configurations
- Default Internet settings for the CM Configuration Server

User Interface (GUI)

A graphical installation that requires an administrator of Configuration Management to specify a variety of parameters in order to customize the Configuration Management environment. It has some pre-determined database configuration parameters, and will install the CM Configuration Server Database and the following configurable parameters:

- The TCP/IP communications protocol and port
- TCP/IP Notify Managers
- Caching and SNMP configurations
- Internet settings for the CM Configuration Server

CM Configuration Server Directories

The following table presents a list of the directories that will be automatically created during the CM Configuration Server installation.

Table 17 CM Configuration Server Directories

Directory	Contents
bin	The CM Configuration Server binary and executable files; the database-utility executable, raddbutil.exe; two directories for SSL "certificates"; the edmprof file.
DB	The CM Configuration Server Database files.
internet	The ARGS.XML file.
lib	The CM infrastructure and CM Patch Manager Server .tcl scripts.
	Note: Do not modify or delete these files.
log	The CM Configuration Server log.
modules	The .tkd files for CM OS Manager.
rexx	This directory is for storing customized REXX methods.
	Note : Its sub-folder, NOVADIGM, contains the default CM Configuration Server REXX methods. See the Caution that follows.

Directory	Contents
shell	The batch and application files, such as the un-install and query scripts, and the files that coincide with the CM Configuration Server options that are available from the Start menu.



Altering the CM Configuration Server methods that are in the ConfigurationServer\rexx\NOVADIGM directory could adversely effect Configuration Management processing.

Therefore, it is recommended that a method be copied up one level, to the ConfigurationServer\rexx directory, before being modified.

System Recommendations for Windows

Table 18 lists the disk-space requirements for installing and operating the CM Configuration Server in a Windows environment.



These recommendations represent typical, minimum, operating system estimates. Adjust these recommendations based on the environment in which the CM Configuration Server Database is being installed.

Table 18 Space Requirements for the CM Configuration Server

Component	All Platforms
Memory	512 MB
Virtual Memory	2 GB
CM Configuration Server Directory Important Note: This space recommendation does not include estimates for additional applications that will be managed by the CM Configuration Server.	75 MB
CM Configuration Server Database *	see note *
CM Configuration Server Logs	50 MB



* The size of the CM Configuration Server Database depends on the size and number of applications that the CM Configuration Server is going to manage. HP recommends this be estimated as roughly 50 percent of the size of the applications to be managed.

Adjust these recommendations based on the environment in which the CM Configuration Server Database is being installed.

Windows Pre-Installation Checklist

Prior to beginning the installation, make sure that:

- The user that is performing the installation is included in the Administrator group. If not, the CM Configuration Server will not be installed properly.
- If a previous version of the CM Configuration Server is running, shut it down.
- If the SNMP process is running, stop it.
 - If the Startup Type for SNMP is AUTOMATIC, change it to MANUAL and reboot the machine before proceeding.
- Prior to starting the CM Configuration Server installation:
 - Close all other applications, including anti-virus programs.
 - Stop all other tasks and operations that are executing.
 - The installation media might contain products for which licenses have not been granted.

Install only those products for which you purchased a license.

Windows Pre-Installation Tips

- Have the license file easily accessible for the installation.
- Click Cancel in any window to exit the installation. If Cancel is clicked
 accidentally, a confirmatory prompt enables the return to the installation
 program.
- Click **Back** at any time to return to previous windows. All the information entered thus far will remain unchanged.
- Most windows have associated error messages. If specifications are invalid, an error message will appear. Click **OK** and enter the correct information.

• This installation program displays default values when applicable. It is recommended that all defaults be accepted; however, they can be overridden by specifying the parameters for your environment.

The Setup-Configuration File

The default parameters for the CM Configuration Server installation are contained in the setup.cfg file. HP recommends viewing this file prior to beginning the Silent installation.

The following example code is an excerpt from the CM Configuration Server setup.cfg file.

```
# $Revision: 1.3 $
source comprcsf.tcl
SelectComprcs patchmanager 1
SelectComprcs usagemanager 0
SelectComprcs osmanager
                              0
SelectComprcs mgr
                        1
Variable HP product name "HP OVCM Configuration Server"
Variable
          PACKAGE "CM-CS"
Variable PKGNAME "HP OVCM Configuration Server"
Windows {
Variable INSTDIR "$::env(PROGRAMFILES) \\Hewlett-
Packard\\CM\\ConfigurationServer"
Variable DESTDB "$::env(PROGRAMFILES) \\Hewlett-
Packard \ CM \ Configuration Server \ DB"
Variable LICENSEFILE "C:\\license.nvd"
}
# UNIX {
#Variable INSTDIR "/opt/HP/CM/ConfigurationServer"
#Variable DESTDB "/opt/HP/CM/ConfigurationServer/DB"
#Variable LICENSEFILE "~/.license.nvd"
Variable MGRPORT "3464"
Variable LICEMAIL ""
Variable MGRID "001"
Variable MGRNAME "CMCS"
Variable PORTALUID "romadmin"
Variable PORTALPASS "secret"
Variable global GUID 000
Variable
         enable debug 0
```

```
Variable uninstalldata_numlines 0
Variable WinShortcuts 1
Variable DOBACKUP 1
Variable startrcs 1
```

Installing the CM Configuration Server

This section contains instructions for installing the CM Configuration Server. Before starting this installation, be sure to review the sections Windows Pre-Installation Checklist and Windows Pre-Installation Tips on the preceding pages.

Silent Installation



By default, this Silent installation will back up an existing CM Configuration Server Database.

In order to turn off this feature, open the setup.cfg file (see previous section) and change DOBACKUP to 0.

The following steps detail the Silent installation of the CM Configuration Server.

To run the CM Configuration Server's Silent installation

- 1 Insert the HP OpenView Configuration Management installation media into the optical drive.
- 2 Navigate to the directory that contains the CM Configuration Server installation program for the Windows platforms.

```
SystemDrive:\Configuration Server\management_
infrastructure\configuration server\win32
```

3 Type setup.exe -mode silent and press Enter.

The CM Configuration Server will be automatically installed to the locations—and with the pre-defined parameters—that are contained in the setup.cfg file.

GUI Installation

The following steps detail the GUI installation of the CM Configuration Server.

To run the CM Configuration Server GUI installation

- Insert the HP OpenView Configuration Management installation media into the optical drive.
- 2 Navigate to the directory that contains the CM Configuration Server installation program for the Windows platforms.

System Drive:\Configuration Server\management_
infrastructure\configuration server\win32

3 Double-click setup.exe.

The GUI installation begins with the HP OpenView CM Configuration Server Installation Welcome window.

4 Click Next.

(At any time during the installation, click **Cancel** to exit the installation.)

The HP OpenView CM Configuration Server Installation End User Licensing Agreement window opens.

5 Click Accept.

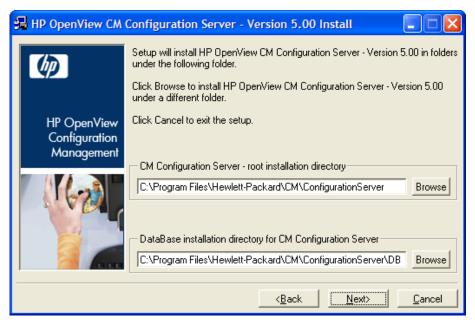


If **Accept** is not selected, the CM Configuration Server installation program will terminate.

The HP OpenView CM Configuration Server Installation Directory Specifications window opens.



In the Directory Specifications window, only ASCII characters are supported for the **root installation directory** setting.



In this window:

- Accept the default Root Installation and default Database Installation directories that are displayed, or...
- Specify the locations, or click **Browse** to navigate to different repositories for the CM Configuration Server and CM Configuration Server Database files.



If previous versions of the CM Configuration Server and CM Configuration Server Database are in the default directories, a Directory Update message will appear.

Click **OK** to continue with the update, or click **Cancel** to specify a different location.

6 Click Next.

If a previous version of the CM Configuration Server and CM Configuration Server Database are in the default directories, *and* **OK** (to continue with the update) was selected at the Directory Update message, the HP OpenView CM Configuration Server Installation Backup Directory window opens.

In this window:

 Select **Yes** (the default) to have the installation program create a backup of the existing files.

This directory's name is determined by the operating system returning the date and time values of the machine's default time zone.

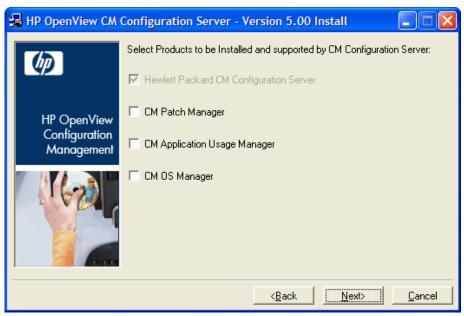
Selecting No will result in the existing files being deleted.

7 Click Next.

The HP OpenView CM Configuration Server Installation Select Components to Install window opens.

In this window:

- The CM Configuration Server option is selected and disabled—it will be installed.
 - See The CM Configuration Server as a Windows Service on page 61.
- Select CM Patch Manager, CM Application Usage Manager, and/or
 CM OS Manager to automatically include those product installations.





It is important to understand that if these additional products are selected, they do NOT get installed. The CM Configuration Server installation will install ONLY the database decks that are needed to support these products; *the products will still have to be installed via their own installation programs*.

Additionally, if **CM Patch Manager**, **CM Usage Manager**, and/or **CM OS Manager** are selected, the CM Configuration Server installation will not be affected, nor will there be additional dialog boxes.

8 Click Next.

The HP OpenView CM Configuration Server Installation Post-Installation Start window opens.

In this window:

- Accept the default (Yes) to have the CM Configuration Server automatically start at the conclusion of the installation.
- Select **No** to prevent the CM Configuration Server automatically starting after the installation.

9 Click Next.

The HP OpenView CM Configuration Server Installation License File window opens.

In this window:

- If the location and file name that are displayed in the Input location of the license file field are correct, click **Next**. Otherwise,
- Specify the correct location and file name, or click **Browse** to navigate to the license file.

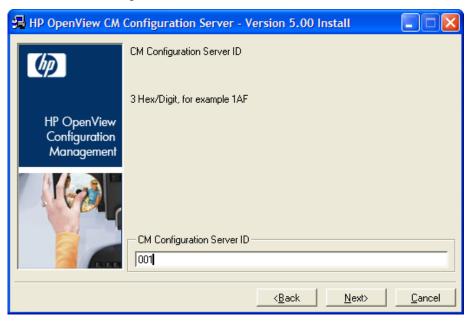
10 Click Next.

The HP OpenView CM Configuration Server Installation E-mail Address window opens.

This window offers the option of specifying an e-mail address to which license-expiration notifications will be sent.

11 Click **Next**.

The HP OpenView CM Configuration Server Installation Configuration Server ID window opens.



In this window, specify a three-character ID for the CM Configuration Server. Valid values are within the hexadecimal (0-9 and A-F) range of 001 to EFF. (This ID is used as a prefix in the CM Configuration Server log file.)

This field is required.

12 Click Next.

The HP OpenView CM Configuration Server Installation Configuration Server Name window opens.

In this window, specify a name (32-character maximum) for the CM Configuration Server.

This field is required.

13 Click Next.

The HP OpenView CM Configuration Server Installation TCP/IP Port window opens.

This window displays the communications port that the CM Configuration Server will use.

Accept the default port (3464) that is specified in this window.
 (Recommended)

 Or specify a different port for CM Configuration Server communications.

14 Click Next.

The HP OpenView CM Configuration Server Installation Management Portal Zone Name window opens.

In this window, adhere to the following guidelines to specify a Zone Name that is associated with an instance of the CM Portal.

- Specify a maximum of 64 characters.
- Use only letters (a-z and A-Z), numerals (0-9), and the space character.
- Do not use special characters, such as an underscores, commas, and periods.



For information on CM Portal zone names, refer to the *CM Portal Guide*.

15 Click Next.

The HP OpenView CM Configuration Server Installation CM Portal Credentials window opens.

 In this window, specify valid user ID and password credentials for the CM Portal.

16 Click **Next**.

The HP OpenView CM Configuration Server Installation Summary of Installation Input window opens. It presents all the information that was specified during the CM Configuration Server installation. This is the final opportunity to review and modify the specified settings.

 If you discover any errors, or wish to modify any of the entries, click Back until you reach the appropriate windows, and make the necessary changes.

The information that was entered in the other windows will not be affected. After making the changes, click **Next** repeatedly, until you arrive back at the Summary of Input window.

 If the CM Configuration Server installation settings are satisfactory, click Install.

17 Click Install.

The Installation in Progress window opens.

When the installation is complete, the HP OpenView CM Configuration Server Installation Finish window opens.

18 Click Finish.

The CM Configuration Server for Windows has been successfully installed.



Be sure to reset the SNMP startup type to its original setting (Automatic).

Re-boot the machine and verify that the SNMP and anti-virus services are restored.

Additionally, the CM Configuration Server *service* (**HP OVCM Configuration Server**) should now be present in the Windows Services list.

- The HP OVCM Configuration Server service will be running if **YES** was selected at step 8, on page 58 of this installation.
- If **NO** was selected, the service will be listed, but not running.

The CM Configuration Server as a Windows Service

During the installation, the CM Configuration Server was set up to run as a Windows Service. Confirm this by checking the Services area of the Windows machine. As a Windows Service, the CM Configuration Server can be started, stopped, and queried, as described in this section.

Windows Service Options

If the CM Configuration Server is set up to run as a Windows Service, it can be started, stopped, and queried, as described in this section.

To start the CM Configuration Server as a Windows Service

- 1 Click Start→Programs→HP OVCM Configuration Server.
- 2 Select Windows Services.
- 3 Select Start as Windows Service.

The CM Configuration Server will start. This can be verified by following the steps that are outlined in To query the CM Configuration Server as a Windows Service on page 62.

To stop the CM Configuration Server as a Windows Service

- 1 Click Start→Programs→HP OVCM Configuration Server.
- 2 Select Windows Services.
- **3** Select **Stop as Windows Service**.

It will take approximately two minutes for the CM Configuration Server to shut down. This can be verified by following the steps outlined in To query the CM Configuration Server as a Windows Service below.

To query the CM Configuration Server as a Windows Service

- 1 Click Start→Programs→HP OVCM Configuration Server.
- 2 Select Windows Services.
- 3 Select Query Windows Service.

A command-prompt window will appear. This window will display the various aspects of the CM Configuration Server service, such as:

- The name of the service (for the CM Configuration Server, this is HP OVCM Configuration Server),
- Whether it's running, and
- It's startup-type selection (automatic or manual).

Using the Windows Event Viewer with the CM Configuration Server

If the CM Configuration Server is running as a Windows Service, the Windows Event Viewer can be used to view key CM Configuration Server messages, such as start-ups and shutdowns.

The Event Viewer displays three types of messages: error, warning, and informational. There are five Event Viewer messages (two informational and three errors) that deal with CM Configuration Server processing. These are described in CM Configuration Server Messages in Event Viewer on page 63.

Accessing the Event Viewer

The Event Viewer is invoked in a variety of ways on the various Windows operating systems. For instructions on how to access the Event Viewer on your operating system, consult the documentation that was distributed with it.

Filtering for CM Configuration Server Messages

Once the Event Viewer is open, locating messages that are specific to the CM Configuration Server is easy.

To locate CM Configuration Server messages



The steps outlined below are applicable to most Windows operating systems, and are accurate as of this writing.

- 1 Select **Application**.
- 2 From the Menu bar, click **View** and select **Filter**.
- 3 From the Event Source drop-down list, select **ZTopTask**, and click **OK**.

Now, the right panel of the Event Viewer window displays only those messages that result from CM Configuration Server processing. Verify this by checking that **ZTopTask** is listed in all the rows of the Source column.

CM Configuration Server Messages in Event Viewer

Detailed below are the five Event Viewer messages that deal with CM Configuration Server processing.

Start-up Message

CM-CS:CM Configuration Server HAS STARTED

The CM Configuration Server for Windows is beginning its start-up processing by running the **HP OVCM Configuration Server** program.

• Error Message 1

START CM-CS:CM Configuration Server CONTROL DISPATCHER FAILED

The CM Configuration Server for Windows failed during service initialization. Start-up processing has stopped.

• Error Message 2

CM-CS:CM Configuration Server CONTROL HANDLER REGISTRATION FAILED IN SERVICE MAIN

During second stage initialization, the Windows service controller failed to update the registry keys. Start-up processing has stopped.

• Error Message 2

SET CM-CS:CM Configuration Server FAILED IN REPORT STATUS

An attempt was made to report the status of the CM Configuration Server for Windows start-up process to the CM Configuration Server service. However, the CM Configuration Server service did not receive the status report.

The CM Configuration Server service may actually be running, or the start-up service has stopped. The CM Configuration Server is unable to discern what the actual condition is.

Shut-down Message

CM-CS:CM Configuration Server STOPPED BY STOP REQUEST OR SHUTDOWN REQUEST

The CM Configuration Server has shut down.

CM Portal Installation

This section provides instructions for installing the CM Portal, as well as reviewing the system requirements for Windows platforms.



The CM Portal installation files can be downloaded from the HP OpenView Configuration Management release media, and the installation run from a directory.

However, HP recommends running the installation from the HP OpenView Configuration Management release media because the installation program needs to access other directories on the media in order to do a complete CM Portal installation.

See Windows Pre-Installation Checklist, starting on page 65.

System Recommendations for Windows

Table 19 lists the system requirements for the installation and operation of the CM Portal. It is recommended that these requirements be strictly considered before installing the CM Portal on a Windows system.



These recommendations represent typical, minimum operating system estimates.

Table 19 System Recommendations for the CM Portal

Component	Recommendation
Memory	1 GB
Virtual Memory	2 GB
Processor Speed	800 MHz

Windows Pre-Installation Checklist

Prior to beginning the installation, be sure to:

- Locate the license file that is associated with this product installation.
 If you need assistance, contact HP Technical Support.
- Locate the following on the HP OpenView Configuration Management media (these are used during a complete CM Portal installation):
 - CM Infrastructure media (installs additional CM Portal Zones and CM Proxy Servers from the CM Portal)
 - CM Agents media (installs CM agents from the CM Portal)
- Review the README file that was delivered with the product.

Windows Pre-Installation Tips

- Have the license file easily accessible for the installation.
- Click Cancel in any window to exit the installation. If Cancel is clicked
 accidentally, a confirmatory prompt enables the return to the installation
 program.
- Click **Back** at any time to return to previous windows. All the information entered thus far will remain unchanged.

- Most windows have associated error messages. If specifications are invalid, an error message will appear. Click **OK** and enter valid information.
- This installation program displays default values when applicable. It is recommended that all defaults be accepted; however, they can be overridden by specifying the parameters for your environment.

Windows Pre-Installation Notes

This release uses the **zone** architecture and features in order to support multiple CM Portal sites in an environment. Each CM Portal site that is being managed from the master CM Portal site must have version 5.00 of the CM Portal installed.

Server Notes

The CM Portal installation requires Administrator authority.

CM Agent Notes and Access Requirements

- Any platform that supports a web browser.
- In order to access the CM Portal, a machine must be on the same network as the CM Portal host machine and must be running Microsoft Internet Explorer, versions 4.0 and later, or Netscape Navigator, versions 4.0 and later, with cookies enabled.
- Microsoft Internet Explorer browser security set no higher than Medium.

Directory Size of a Single Zone

The **Portal Directory** includes all configuration and entitlement information for the CM Portal as well as devices, groups, managed infrastructure, job status, network and mounted services information.

For performance reasons, HP recommends limiting the number of devices that are managed by a single zone to:

• Recommended: 5,000 devices

Maximum: 10,000 devices

Multiple CM Portal zones can be installed in order to accommodate any enterprise. For more information on multiple zones, refer to the *CM Portal Guide*.

CM Portal and the CM Messaging Server

This release of the CM Portal has been optimized to work with the REXX method ZTASKEND and the CM Messaging Server. HP recommends using the CM Portal with the latest versions of ZTASKEND and the CM Messaging Server in order to improve the data-transfer performance between the CM Configuration Server and the CM Portal.

For information on installing and upgrading the CM Messaging Server, refer to the *CM Messaging Server Guide* and the product *Release Notes*.

Installing the CM Portal

This section contains instructions for installing the CM Portal. Before starting this installation, be sure to review:

- Windows Pre-Installation Checklist, starting on page 65
- Windows Pre-Installation Tips, starting on page 65
- Windows Pre-Installation Notes, starting on page 66



This version of the CM Portal must be installed to a clean (empty) directory.

For more information, refer to the CM Portal Migration Guide.

To install the CM Portal



Use the procedure in this section to install an enterprise's **first** CM Portal Zone.

To install additional CM Portal zones, refer to the CM Portal Guide.

- 1 Insert the HP OpenView Configuration Management installation media into the optical drive.
- 2 Navigate to the directory that contains the CM Portal installation program for Windows platforms.

System Drive:\Infrastructure\extended_infrastructure
\management portal\win32

3 Double-click setup.exe.

The installation begins with the HP OpenView CM Portal Installation Welcome window.

4 Click Next.

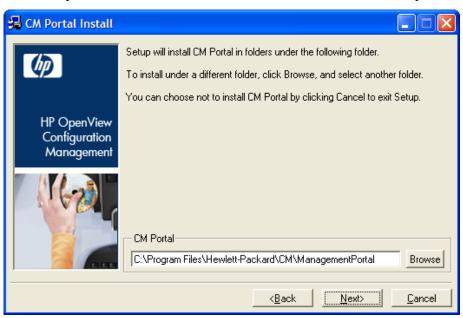
The HP OpenView CM Portal Installation Software License Agreement window opens.

5 Click Accept.



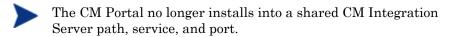
If **Accept** is not selected, the CM Portal installation program will terminate.

The HP OpenView CM Portal Installation Files Location window opens.



In this window:

- Accept the default installation directory that is displayed (*recommended*), or
- Click **Browse** to navigate to a different repository for the CM Portal's files.



6 Click Next.

The HP OpenView CM Portal Installation License File window opens.

In this window:

- Specify the location and name of the license file, or
- Click **Browse** to navigate to it.

7 Click Next.

The HP OpenView CM Portal Installation Enable Network Discovery window opens.

In this window:

Click **Yes** to enable network discovery. (*Recommended*)

The CM Portal will be able to automatically discover all the devices in the Windows environment that can be managed by Configuration Management.

Click **No** to not enable network discovery.

This is preferred if the CM Portal is being tested and the automatic discovery feature is not wanted.

8 Click Next.

The HP OpenView CM Portal Installation Network Discovery Interval window opens.

In this window, specify the length of time (in hours) to wait (the interval) for the Network-Discovery job to run:

- Accept the default discovery interval of 24 (hours), or
- Specify a different length of time (valid values are 1 through 24)

9 Click Next.

The HP OpenView CM Portal Installation Discovery Start Delay window opens.

In this window, specify the interval (in minutes) after the CM Portal has started before it starts network discovery:

- Accept the default discovery start delay of **15** (minutes), or
- Specify a different delay interval (valid values are 0 through 1440)

This delay applies each time the CM Portal is started.

10 Click **Next**.

The first HP OpenView CM Portal Installation Zone Information window opens.

In this window, specify a CM Portal zone name that will represent this instance of the CM Portal.

- Each instance of the CM Portal in an enterprise must have a unique zone name. Typically, the initial zone name identifies the infrastructure that is being managed; and later installations are names of subordinate zones.
- Be sure to adhere to the following guidelines.
 - Specify a maximum of 64 characters.
 - Use only letters (a-z and A-Z), numerals (0-9), and the space character.
 - Do not use special characters, such as an underscores, commas, and periods.

11 Click **Next**.

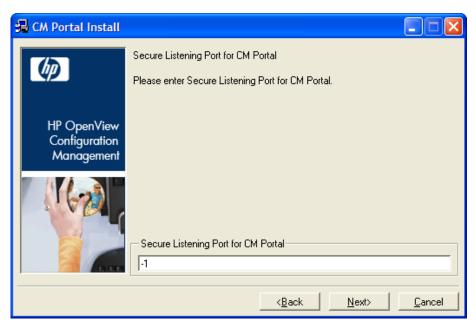
The second HP OpenView CM Portal Installation Zone information window opens.

In this window, specify a CM Portal zone friendly name for this instance of the CM Portal.

- This value is optional and, if omitted, will default to the zone name that was specified in the previous step.
- The friendly name is the zone's display name in the CM Portal user interface.

12 Click Next.

The HP OpenView CM Portal Installation Secure Listening Port window opens.



In this window:

- Accept the default value of -1 to have the CM Portal run on an unsecured port (the default is 3471), or
- Specify an SSL-secured listening port number for the CM Portal.

13 Click Next.

The HP OpenView CM Portal Installation Listening Port for OpenLDAP window opens.

In this window:

- Accept the default listening port of 3474 for the CM Portal zone to communicate with an OpenLDAP Database (*recommended*), or
- Specify a different listening port.

14 Click **Next**.

The HP OpenView CM Portal Installation Listening Port for OpenLDAP Backup window opens.

In this window:

- Accept the default listening port of **3475** for the CM Portal zone to communicate with a *backup* OpenLDAP Database (*recommended*), or
- Specify a different listening port number.

15 Click **Next**.

The HP OpenView CM Portal Installation Enable Backup window opens. In this window:

- Accept the default (Yes) in order to enable the backup-directory task (recommended), or
- Select **No** to disable this feature.



This option enables the CM Portal backup-directory task—and the resources that it needs—to create a backup of the OpenLDAP Database. The backup-directory task uses the listening port for OpenLDAP Backup (default: **3475**).

Selecting **No** is not recommended unless alternate database replication or backup processes are being used in your environment.

16 Click Next.

The HP OpenView CM Portal Installation Summary window opens. It presents all the information that was specified during the CM Portal installation. This is the final opportunity to review and modify the specified settings.

 If you discover any errors, or wish to modify any of the entries, click Back until you reach the appropriate windows, and make the necessary changes.

The information that was entered in the other windows will not be affected. After making the changes, click **Next** repeatedly, until you arrive back at the Summary of Input window.

17 Click **Install** to begin the installation.

There will be a prompt to copy the modules that can be used for remote installations of the Configuration Management infrastructure components.

18 Click Yes.

The HP OpenView CM Portal Installation Remotely Installable Components Location window opens.

 If necessary, click **Browse** to navigate to the Infrastructure directory on the HP OpenView Configuration Management media.

19 Click Next.

The modules are copied to the CM Portal's \media directory.

There will be a prompt to copy the HP OpenView CM client modules that can be used for remote installations.

20 Click Yes.

The HP OpenView CM Portal Installation Client Modules window opens.

 If necessary, click **Browse** to navigate to the Agents directory on the HP OpenView Configuration Management media.

The CM agent modules are copied to the CM Portal's \media directory.

21 Click **Finish** when the installation is complete.

The successful installation of the CM Portal results in:

- The CM Portal service (httpd-managementportal) automatically starting (the service is listed as **HP OVCM Portal**), and
- The CM Portal Welcome window automatically being displayed.



See Starting and Stopping the CM Portal below and Accessing and Logging on to the CM Portal below for information on performing these tasks manually.

Starting and Stopping the CM Portal

To start the CM Portal

- 1 Go to the Windows Services section.
- 2 In the Services panel, right-click **HP OVCM Portal** and select **Start**.

To stop the CM Portal

- 1 Go to the Windows Services section.
- 2 In the Services panel, right-click **HP OVCM Portal** and select **Stop**.

Accessing and Logging on to the CM Portal

To access and log on to the CM Portal

1 Open a web browser and in the Address bar, type

http://IP Address or host name:3471.

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 Values for IP_address and host name are those of the CM Portal's host computer.

2 Press Enter.

The CM Portal Login page opens.

3 In the **User Name** and **Password** fields, specify one of the following combinations.

— Admin

Use this ID to log on with complete access to the CM Portal. We recommend that you do not modify this ID.

The password is **secret**.

Guest

Use this ID to log on as an unauthenticated user without access to tasks.

No password is necessary.

— Operator

Use this ID to log on as a user with access to basic operations.

No password is necessary.

Test

Use this ID to experiment with entitlement options.

No password is necessary.

4 Click **Login** (or press **Enter** on the keyboard).

The logon-user ID appears in the banner area and the highest-level representation of the infrastructure appears in the workspace.

To learn more about the CM Portal, refer to the CM Portal Guide.

74 Chapter 3

Summary

- The CM Configuration Server and CM Portal can be easily installed and incorporated into a Windows environment.
- The CM Configuration Server and CM Portal can be started and stopped.
- The CM Portal can be accessed using varying levels of authority.

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A UNIX Kernel Tuning

The CM Configuration Server actively uses memory, communications, and *inter-process communications* (IPC), which require the UNIX system's Kernel configuration to make allowances for enough resources. The Kernel configuration parameters differ among UNIX operating systems. The values that are assigned can vary, depending on the CM Configuration Server configuration, considering elements such as the expected number of concurrent tasks and cache management.

Essential Kernel Variables

The tables in this section contain the most important parameters that might need to be adjusted.



These values apply to the CM Configuration Server only; they do not take into consideration the requirements of other applications running on the machine.

Most of the CM Configuration Server parameters are specified in the edmprof file, which was created during the CM Configuration Server installation, and which is located in the CM Configuration Server's home directory. For more information about CM Configuration Server parameters, refer to the *CM Configuration Server Guide*.

Table 20 below addresses the parameters that are associated with *semaphore management*.

Table 20 UNIX Kernel Settings for Semaphore Management

Kernel Parameter	CM Configuration Server-related Parameter or Recommendation	AIX, HP-UX, and Linux	Solaris
Maximum number of semaphores (system-wide)	TASKLIMIT * 3	semmni	seminfo_semmni
Maximum user-accessible semaphores (system-wide)	TASKLIMIT * 3	semmns	seminfo_semmns

Kernel Parameter	CM Configuration Server-related Parameter or Recommendation	AIX, HP-UX, and Linux	Solaris
Enable/Disable semaphores	Enable	sema = 1	N/A
Semaphore value change limit	N/A	semaem = 16384	N/A
Size of free semaphore resource map	semmni + 2	semmap	seminfo_semmap
Maximum un-dos per semaphore	Default	semmnu = 30	seminfo_semmnu
Maximum semaphore undos per process	Default	semume = 10	seminfo_semume
Maximum semaphore undos per ID	Default	N/A	seminfo_semmsl

Table 21 below addresses the parameters that are associated with process management.

Table 21 UNIX Kernel Settings for Process Management

Kernel Parameter	CM Configuration Server- Related Parameter or Recommendation	AIX and HP-UX	Solaris
Maximum process data segment size	N/A	maxdsiz = 0x7b03a000	N/A
Maximum number of processes per user	TASKLIM + 20	maxupre	N/A
Maximum number of processes (system-wide)	TASKLIM + 20 + 4	nproc = maxuprc + 4	max_nprocs



Use the administrative tool, **ulimit**, to configure the process-management parameters.

Table 22 on page 78 addresses the parameters that are associated with $\it shared\ memory.$

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Table 22 UNIX Kernel Settings for Shared Memory

Kernel Parameter	CM Configuration Server-Related Parameter or Recommendation	AIX, HP-UX, and Linux	Solaris
Enable/Disable shared memory	Enable	shmem	N/A
Maximum shared memory segment size	In the MGR_CACHE section of the edmprof file, operating system-dependent parameters should be set to allow for expected cache segment size.	shmmax recommended setting is: 0x40000000	shminfo_shmmax
Maximum segments on system	In combination with segment size, should allow enough memory for cache.	shmmni (The default size of 200 is adequate.)	shminfo_shmmni
Maximum segments per process	In combination with segment size, should allow enough memory for cache.	shmseg (The default size of 120 is adequate.)	shminfo_shmseg

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B Product Name Changes

If you have used Radia in the past, and are not yet familiar with the newly rebranded HP terms and product names, Table 23 below will help you identify naming changes that have been applied to the Radia brand.

Table 23 Product Name and Term Changes

New Name/Term	Old Name/Term
CM agents	Radia clients
HP OpenView Configuration Administrator	Radia Administrator Workstation
HP OpenView Configuration Management	Radia
HP OpenView Configuration Management Admin Agent Explorer	Radia Client Explorer
HP OpenView Configuration Management Admin CSDB Editor	Radia System Explorer
HP OpenView Configuration Management Admin Packager	Radia Packager
HP OpenView Configuration Management Admin Publisher	Radia Publisher
HP OpenView Configuration Management Admin Screen Painter	Radia Screen Painter
HP OpenView Configuration Management Application Manager	Radia Application Manager, RAM
HP OpenView Configuration Management Application Self-service Manager	Radia Software Manager, RSM
HP OpenView Configuration Management Application Usage Manager	Radia Usage Manager, RUM
HP OpenView Configuration Management Configuration Server	Radia Configuration Server, RCS
HP OpenView Configuration Management Distributed Configuration Server	Radia Distributed Configuration Server, Radia DCS, DMA
HP OpenView Configuration Management Configuration Server Database	Radia Configuration Server Database, Radia Database

New Name/Term	Old Name/Term
HP OpenView Configuration Management Inventory Manager	Radia Inventory Manager, RIM
HP OpenView Configuration Management OS Manager	Radia OS Manager, ROMS
HP OpenView Configuration Management Patch Manager	Radia Patch Manager, RPM
No longer a stand-alone product in the Configuration Management suite.	Radia Inventory Manager Server
HP OpenView Configuration Management Portal	Radia Management Portal, RMP
HP OpenView Configuration Management Policy Server	Radia Policy Manager, Radia Policy Server, RPS
HP OpenView Configuration Management Multicast Server	Radia Multicast Server, RMS
HP OpenView Configuration Management Configuration Analyzer	Radia Configuration Analyzer
HP OpenView Configuration Management Configuration Baseline Auditor	Radia Configuration Baseline Auditor, CBA
HP OpenView Configuration Management Extensions Windows Installer	Radia Extensions for Windows Installer, REfWI
HP OpenView Configuration Management Messaging Server	Radia Messaging Server
HP OpenView Configuration Management Reporting Server	Radia Reporting Server
HP OpenView Configuration Management Proxy Server	Radia Proxy Server
No longer a stand-alone product in the Configuration Management suite.	Radia Staging Server, Radia Adapter for HP OpenView, Radia Adapter for HP OpenView Operations,
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