HP OpenView Configuration Server and Management Portal Using Radia

Radia Getting Started Guide

Version: 4.0i

for the Radia Configuration Server and the Radia Management Portal

Note: Information in this guide can be used for all platforms except where indicated for a specific platform only.

Manufacturer Part Number: T3420-90006

July 2005

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There you will find contact information and details about the products, services, and support that HP OpenView offers.

The support site includes:

Downloadable documentation

Troubleshooting information

Patches and updates

Problem reporting

Training information

Support program information

Preface

About this Guide

Who this Guide is for

The *Radia Getting Started Guide* is for authorized Radia systems administrators who will be installing and using the *Radia Configuration Server* (RCS) and *Radia Management Portal* (RMP) to manage a Radia enterprise.

What this Guide is about

This book will guide Radia administrators through the installations of the Radia Configuration Server and Radia Management Portal, educate Radia administrators on the system requirements for these components, and show them how to log on to the RMP to browse the Radia infrastructure and view Radia publications.

Within this Guide

Documentation Map

Table P.1 ~ Documentation Map provides an overview of this book so that specific information about the Radia Configuration Server and Radia Management Portal can be easily located.

Table P.1 ~ Documentation Map

To learn more about:	Go to:
The contents of this guide, including: *an overview of the Radia installation media*; *and an overview of the various Radia components*…	*Chapter 1: Introduction*
Installing the RCS and RMP in a UNIX environment, including: *system requirements*; *logging on to the RMP*; and *viewing a Radia publication via the RMP*…	*Chapter 2: UNIX Installations*

Table P.1 ~ Documentation Map

To learn more about:	Go to:
Installing the RCS and RMP in a Windows environment, including: *system requirements*; *logging on to the RMP*; and *viewing a Radia publication via the RMP*…	*Chapter 3: Windows Installations*
Installing the RCS in an MVS environment, including: *preparing the RCS installation files on a Windows machine*; and *transferring the files to the MVS mainframe*…	*Chapter 4: MVS Installation*
UNIX Kernel resource allowances in relation to the RCS, including: *parameters on the different UNIX operating systems*; and *RCS configuration based on concurrent tasks and cache management*…	*Appendix A: UNIX Kernel Tuning*

Summary of Changes

This version of the *Radia Getting Started Guide* details the installations of the **Radia Configuration Server** for MVS, UNIX, and Windows; and the installations of the **Radia Management Portal** for UNIX and Windows.

Product Changes

Radia Configuration Server

AIX, HP-UX (PA-RISC 1.1 and 2.0), Solaris, and Windows

- Multiple updates were made to the ZEDMAMS utility in order to improve the functionality of the verbs. Two of the more notable updates are:
  - The CHANGE_OBJECTID verb was updated to correctly handle blank object IDs.
  - EXPORT_CLASS and EXPORT_INSTANCE have been modified so that they no longer export the _NULL_INSTANCE_.
- When inaccurate and unsuccessful object resolutions occur, the client task will be terminated.
- The database verification has been updated to recognize lowercase international characters in the resource header.
- The license utility, ZLICUTIL, has been modified to correctly delete licenses that do not meet template-size criteria.

AIX, HP-UX (PA-RISC 1.1 and 2.0), and Solaris

- The **version.nvd** file has been implemented on UNIX platforms to aid in determining the version of the RCS.
- Support has been added for the ZLOGSWCH and ZLOGWRAP REXX methods to include RCS log information when run asynchronously via the REXX Manager.
- Support has been added for the execution of UNIX shell commands from a REXX method.

Windows

- The Intel Pentium 4 processor is now correctly recognized. (It is no longer incorrectly read as Xeon Processor, Model 1, Stepping 2.)
- The EDMSIGNR method has been updated to include Microsoft Windows security code changes.

For more information on the Radia Configuration Server, refer to the *Radia Configuration Server Guide*.

Radia Management Portal

Windows (version 2.0)

This release introduces several new features, including.

- This version of the Radia Management Portal introduces RMP **zones**—and zone-related features. Zones accommodate large enterprises that require multiple Radia Management Portal sites.
- Accessibility to existing directory structures within an enterprise has been added.
- Self-managed, cross-referenced groups can be used to perform an operation on all devices that have the similar properties, such as hardware and operating system level.
- Administrative tasks can be scheduled and managed on any RMP Zone from a central **master** RMP.
- Non-RMP directories (such as Microsoft Active Directory and the Radia Database) in an enterprise can be defined and connected to.

HP-UX and Solaris (version 1.3)

This release does not introduce new features.

For more information on the Radia Management Portal, refer to the *Radia Management Portal Guide*.

Documentation Changes

This printing of the *Radia Getting Started Guide* contains the following changes to information and procedures as detailed in this section.

Chapter 1: Introduction

- This section has been revised.

Chapter 2: UNIX Installations

- This section has been revised; it now includes the installations of the Radia Configuration Server and Radia Management Portal.

Chapter 3: Windows Installations

- This section has been revised; it now includes the installations of the Radia Configuration Server and Radia Management Portal.

Chapter 4: MVS Installation

This is a new chapter. It details the installation of the Radia Configuration Server on an MVS mainframe, and includes preparing the RCS files on a Windows PC before transferring them to the mainframe.

Appendix A: UNIX Kernel Tuning

This is a new section that provides information about the Kernel configuration parameters of the various UNIX systems; it serves as an appendix to the Radia Configuration Server installation that is documented in *Chapter 2: UNIX Installations*.

Editorial Improvements

In addition to the changes listed, this version might contain editorial and style updates to the chapters, sections, and indices.

Conventions

Table P.2 lists the documentation *styles* that are used in this book to reference various elements, such as other documents and window buttons.

Table P.2 ~ Styles

Element	Style	Example
References	*Italic*	See the *Publishing Applications and Content* chapter in this book.
Dialog boxes and windows	**Bold**	The **Radia System Explorer Security Information** dialog box opens.
Code	`Andale Mono`	`radia_am.exe`
↵	Arial Unicode MS	When displaying lines of code that extend beyond the defined margins of the manuscript, this symbol indicates that the code continues uninterrupted and indented on the next line. Radskman ip=<*RadiaConfigurationServerIPAddress*>,↵ port=<*RadiaConfigurationServerPort*>
Selections	**Bold**	Open the **\Admin** directory on the installation CD-ROM.

Table P.3 lists the editorial *style conventions* that are used in this book to reference Radia Database elements, and directory paths.

Table P.3 ~ Usage

Element	Style	Example
Drives (system, mapped, CD)	Italicized placeholder	*SystemDrive*:\Program Files\Radia might refer to C:\Program Files\Radia on your computer. *CDDrive*:\client\radia_am.exe might refer to D:\client\radia_am.exe on your computer.
Files (in the Radia Database)	All uppercase	PRIMARY May also be referred to as the PRIMARY file.
Domains (in the Radia Database)	All uppercase	PRIMARY.SOFTWARE May also be referred to as the SOFTWARE domain in the PRIMARY file.
Classes (in the Radia Database)	All uppercase	PRIMARY.SOFTWARE.ZSERVICE May also be referred to as the ZSERVICE class in the SOFTWARE domain in the PRIMARY file.

Table P.3 ~ Terminology describes terms that might be used interchangeably throughout this book.

Table P.3 ~ Terminology*

* Depends on the context. May not always be able to substitute.

Term	Term
Application	software, service
Client	Radia Application Manager and/or Radia Software Manager
Computer	workstation, server
NOVADIGM domain	PRDMAINT domain **Note**: As of the 4.0 release of the database, the NOVADIGM domain is being renamed the PRDMAINT domain. Therefore, if you are using an earlier version, you will see the NOVADIGM domain in the database.
Radia Configuration Server	Manager, Active Component Server
Radia Database	Radia Configuration Server Database

Radia Documentation

Table P.4 presents a list of Radia publications that are associated with the various Radia products, and which might be referenced in this manual.

Table P.4 ~ Radia Documentation

Radia Component	Radia Manual
Radia Configuration Server	*Radia Configuration Server Guide*
	Radia Configuration Server Messages Guide
	Radia Getting Started Guide
Radia Integration Server	*Radia Inventory Manager Guide*
Radia Client	*Radia Software Manager Guide*
	Radia Inventory Manager Guide
	Radia Application Manager Guide
Additional Titles	*Radia Management Portal Guide*
	Radia REXX Programming Guide
	Radia System Explorer Guide

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Introduction

At the end of this chapter, you will:

- Be familiar with the components of the Radia product suite.
- Know which hp OpenView Radia v4 CD-ROM contains the installation files for each Radia component.
- Have a high-level understanding of the function of the various Radia components.

About Radia

Radia manages the distribution of software packages via connections to the Internet or an intranet. Radia systems administrators publish packages of software and assign users to the packages that they need.

Overview of this Guide

This version of the *Radia Getting Started Guide* is designed in such a way that a Radia administrator can use it to quickly become familiar with:

- The organization of the Radia installation media (see *Installation Media*, starting below), and
- The logical grouping and functionality of all the Radia components.

This guide also documents the installation of the principal Radia infrastructure components—Radia Configuration Server and Radia Management Portal—thereby enabling Radia users to quickly set up and begin using a Radia environment. Additionally, the library of Radia publications can be installed so that it is available to assist in the installations of additional Radia components—in accordance with product licensing.

Note

For detailed information on other components of the Radia product suite, see the guides referenced in this chapter.

Installation Media

The installation media for the Radia components are located on four CD-ROMs, which are organized by Radia product type, and contain all of the products that are needed to set up a Radia-managed infrastructure. The CD-ROM designations are:

- hp OpenView Radia v4 configuration server
- hp OpenView Radia v4 infrastructure
- hp OpenView Radia v4 applications
- hp OpenView Radia v4 documentation

Notes

Before installing Radia, check the HP Web site for updated product release information.

Also, review any **readme** files that are included on the CD-ROMs—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.

hp OpenView Radia v4 configuration server CD

This CD-ROM contains the installation files for the Radia components listed in Table 1.1.

Table 1.1 ~ hp OpenView Radia v4 configuration server CD Components

Management Infrastructure	Radia Administrator Workstation
	Radia Configuration Server
	Radia Extensions for Windows Installer
Extended Infrastructure	Radia Distributed Configuration Server (DMA), version 4.6.10

For a description of the components that are on this CD, see *hp OpenView Radia v4 configuration server CD Components* on page 21.

hp OpenView Radia v4 infrastructure CD

This CD-ROM contains the installation files for the Radia components listed in Table 1.2.

Table 1.2 ~ hp OpenView Radia v4 infrastructure CD Components

Management Extensions	Radia Adapter for SSL
	Radia Policy Server
	Radia Publishing Adapter
Extended Infrastructure	Radia Distributed Configuration Server (DMA), version 4.7
	Radia Inventory Manager Server
	Radia Management Portal
	Radia Multicast Server
	Radia Proxy Server
	Radia Staging Server
	Radia Configuration Analyzer

Table 1.2 ~ hp OpenView Radia v4 infrastructure CD Components	
	Radia Knowledge Base Manager
	Radia Reporting Server
	Radia Messaging Server
Adapters	Radia Adapter for HP OVO
	Radia Adapter for HP OpenView

For a description of the components that are on this CD, see *hp OpenView Radia v4 infrastructure CD Components* on page 24.

hp OpenView Radia v4 applications CD

This CD-ROM contains the installation files for the Radia components listed in Table 1.3.

Table 1.3 ~ hp OpenView Radia v4 applications CD Components	
Management Applications	Radia Application Manager
	Radia Inventory Manager
	Radia Software Manager

For a description of the components that are on this CD, see *hp OpenView Radia v4 applications CD Components* on page 27.

hp OpenView Radia v4 publications CD

The Radia Publications CD-ROM contains an extensive list of Radia documentation in *Portable Document Format* (pdf). This library can be installed into the Radia Management Portal, and then viewed with the Adobe Acrobat Reader.

Table 1.4 lists the Radia publications that are on the **hp OpenView Radia v4 publications** CD.

Table 1.4 ~ List of Radia Publications		
Radia Adapter for HP OpenView	Radia Adapter for HP OpenView Operations (OVO)	Radia Application Manager Guide (Macintosh OS/X)
Radia Application Manager Guide (UNIX)	Radia Application Manager Guide (Windows)	Radia Configuration Analyzer Guide
Radia Configuration Server Guide	Radia Configuration Server Messages Guide	Radia Database Reference Manual

Table 1.4 ~ List of Radia Publications

Radia Distributed Configuration Server Guide	Radia Essentials Guide	Radia Extensions for Windows Installer Getting Started Guide
Radia Extensions for Windows Installer Guide	Radia Getting Started Guide	Radia Inventory Manager Guide (Macintosh OS/X)
Radia Inventory Manager Guide (UNIX)	Radia Inventory Manager Guide (Windows)	Radia Knowledge Base Manager Guide
Radia Management Applications Messages and Codes Guide	Radia Management Portal Guide (UNIX)	Radia Management Portal Guide (Windows)
Radia Messaging Server Guide	Radia Mobile Management Guide	Radia Multicast Server Guide
Radia OS Manager Guide	Radia Patch Manager Guide	Radia Policy Server Guide
Radia Proxy Server Guide	Radia Publisher Guide	Radia Publishing Adapter Guide
Radia Reporting Server Guide	Radia REXX Programming Guide	Radia Software Manager Guide (UNIX)
Radia Software Manager Guide (Windows)	Radia SSL Adapter Guide	Radia Staging Server Guide
Radia System Explorer Guide	Radia Usage Manager Guide	

Note

The *Radia Application Manager Guide* and the *Radia Software Manager Guide* include information about the Radia Publisher and publishing Windows Installer applications.

These publications will help a Radia administrator prepare the digital assets that are needed to manage all of the computers in an enterprise. Be sure to periodically check the HP Web site for additional technical-support articles and new or updated publications.

hp OpenView Radia v4 configuration server CD Components

Radia Configuration Server

The Radia Configuration Server resides on a single server or several can be installed across a network of servers. Applications and information about the subscribers and client computers are stored in the Radia Database on the Radia Configuration Server. The Radia Configuration Server distributes application packages based on the policies that are established by a Radia administrator. For more information, see the *Radia Configuration Server Guide*.

Radia Administrator Workstation

The Radia Administrator Workstation contains a set of tools (shown in Figure 1.1) for basic administrative functions. Use these tools to manage the Radia Database, prepare applications, view Radia Client objects, and customize a computing environment.

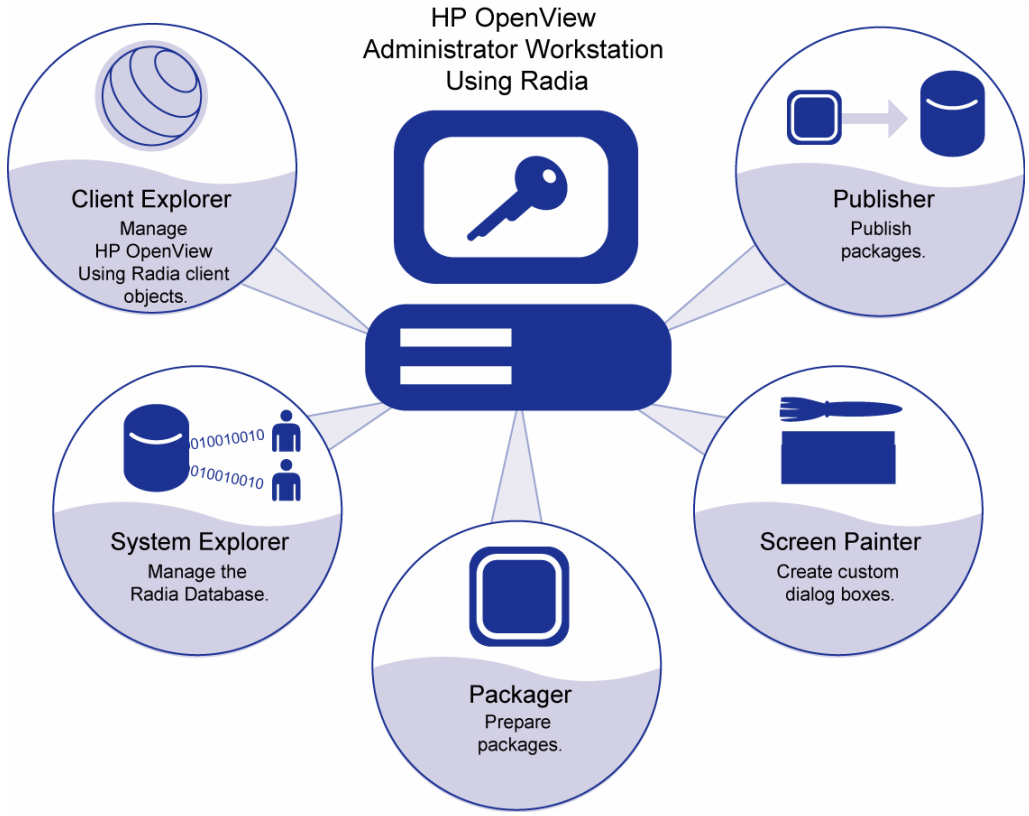

Figure 1.1 ~ The Radia Administrator Workstation tools.

Note

For instructions on installing the Radia Administrator Workstation, see the *Radia Application Manager Guide*, the *Radia Software Manager Guide*, or the *Radia Inventory Manager Guide.*

The Radia Administrator Workstation includes the following tools.

Radia Packager

Use to create component groups called *packages*. See the *Radia Application Manager Guide* or the *Radia Software Manager Guide* for more information.

Radia Publisher

Use to publish packages to the Radia Configuration Server. For more information, see the *Radia Publisher Guide*.

Radia System Explorer

Use to create new users and groups of users, assign users to groups, and assign users and groups to application packages. See the *Radia System Explorer Guide*.

Radia Client Explorer

Use to manipulate local Radia objects.

Radia Screen Painter

Use to create custom dialog boxes.

Radia Extensions for Windows Installer

The *Radia Extensions for Windows Installer* (REfWI) is a management system that is designed to automate and simplify the enterprise application integration laboratory process. Use it to build, test, maintain, deploy, and troubleshoot Windows Installer applications and installation packages. For more information, see the *Radia Extensions for Windows Installer Guide*.

Radia Distributed Configuration Server

The *Radia Distributed Configuration Server* (Radia DCS) is the new name of the former *Distributed Manager Adapter* (DMA). It allows multiple Radia Configuration Servers to share information about policies and managed applications, and the enhanced functionality provides improved scalability, flexibility, and extensibility. For more information, see the *Radia Distributed Configuration Server Guide*.

hp OpenView Radia v4 infrastructure CD Components

Note

The Radia Management Portal, Radia Proxy Server, Radia Policy Server, and Radia Inventory Manager are each composed of modules that reside in `IntegrationServer/modules`.

Prior to the level 3.0 release of Radia, each of these components installed its own service in this directory. Starting with the common infrastructure-installation format of Radia version 3.0, these components use the same core *Radia Integration Server* (RIS) files, `nvdkit` and `httpd.tkd`, and run under the same process.

Now, if more than one of these version-3.0 Radia products is installed, the most recent version of the RIS service will prevail. (This pertains only to RIS services running on port 3466, the default port of the RIS service.)

Radia Adapter for SSL

The Radia Adapter for SSL generates the requests for the server certificates and private keys that are needed by each Radia Configuration Server to support SSL communications. For more information, see the *Radia Adapter for SSL Guide*.

Radia Policy Server

The *Radia Policy Server* (also known as the Radia Policy Manager) is a plug-in to the *Radia Integration Server* (RIS). 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. For more information, see the *Radia Policy Server Guide*.

Radia Publishing Adapter

The *Radia Publishing Adapter* is a command-line driven alternative to the Radia Publisher. It provides an automated, repeatable process, whereas the Radia Publisher must be monitored from start to finish. Its focus is distributing updates rather than initial application packaging. The Radia Publishing Adapter can easily be integrated with third-party configuration-management and packaging products. See the *Radia Publishing Adapter Guide* for more information.

Note

For more information about each Radia product, see the *Radia Essentials Guide* and the individual product guides.

Radia Distributed Configuration Server

The *Radia Distributed Configuration Server* (Radia DCS) is the new name of the former *Distributed Manager Adapter* (DMA). It allows multiple Radia Configuration Servers to share information about policies and managed applications, and the enhanced functionality provides improved scalability, flexibility, and extensibility. For more information, see the *Radia Distributed Configuration Server Guide*.

Radia Inventory Manager

The *Radia Inventory Manager* (RIM) has two parts, *Server* and *Client*. The RIM Server enables centralized reporting and administration based upon the results of discovery. The RIM Client discovers configuration information on remote computers, and reports the results to the RIM Server. For more information, see the *Radia Inventory Manager Guide*.

Radia Management Portal

The *Radia Management Portal* (RMP) is a Web-based interface that can be used to manage a Radia environment. One of the more useful features is the ability to create a graphical representation of the Radia infrastructure. See the *Radia Management Portal Guide* for more information.

Radia Multicast Server

The Radia Multicast Server enhances and simplifies data-transmission by reducing the number of transmissions and maximizing the use of network bandwidth. Multicasting enables a Radia administrator to simultaneously transmit one stream of data to multiple recipients. See the *Radia Multicast Server Guide* for more information.

Radia Proxy Server

Radia Proxy Servers (RPS) are beneficial when numerous client computers are requesting the same resources from the same location. Data can be cached on the RPS, thereby decreasing the demand on the Radia Configuration Server, which in turn allows it to allocate more resources to other tasks. By placing Radia Proxy Servers at strategic points in a network, the rate at which data is transferred increases. See the *Radia Proxy Server Guide* for more information.

Radia Staging Server

The Radia Staging Server also helps decrease the demand on the Radia Configuration Server by allowing a Radia administrator to off-load a portion of the work that is required to deliver application software. Typically, a Radia Staging Server is "closer" to client computers—that is, the connection between them is more efficient than the connection between the Radia Client and RCS. For more information, see the *Radia Staging Server Guide*.

Radia Configuration Analyzer

The Radia 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, Radia administrators can profile applications, initiate application comparisons, and analyze applications. For more information, see the *Radia Essentials Guide*.

Radia Knowledge Base Manager

The Radia Knowledge Base Manager is used with the Radia Configuration Analyzer. It populates the Radia 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, see the *Radia Essentials Guide*.

Radia Reporting Server

The web-based Radia Reporting Server allows the querying of data in the Radia Inventory Manager, Radia Patch Manager, and Radia Usage Manager databases and the creation of detailed reports. It also provides a way to use Radia SQL data for reporting and overall environmental assessment. For more information, see the *Radia Essentials Guide*.

Radia Messaging Server

The Radia Messaging Server is a generic messaging service that can be used with several of the Radia Infrastructure components. It continually monitors a predefined data queue, and dynamically routes data objects to external destinations. On a Radia Configuration Server, the Radia Messaging Server operates with the QMSG executable to transfer reporting data from clients to the appropriate external Radia Integration Server, where it can then be mapped to the appropriate reporting database. For more information, see the *Radia Essentials Guide*.

Radia Adapter for HP OVO

Radia Adapter for HP OVO (OpenView Operations) is a *Smart Plug-In* (SPI) for an OVO infrastructure. It provides pre-configured applications, monitors, and actions for immediate use in managing the operational and administrative environment of Radia servers and clients.

Radia Adapter for HP OpenView

The Radia Adapter for HP OpenView integrates with *Network Node Manager* (NNM) for Radia Inventory Manager access and *Simple Network Management Protocol* (SNMP) events. This integration uses SNMP in NNM, as well as the Radia Inventory Manager database.

hp OpenView Radia v4 applications CD Components

Note

These three OpenView Radia *applications* products comprise the line of **Radia Clients**.

Radia Application Manager

A Radia administrator controls the distribution and maintenance of mandatory applications throughout the enterprise. For more information, see the *Radia Application Manager Guide.*

Radia Software Manager

End users control the installation, removal, and updating of the optional applications that are available to them in a service list. For more information, see the *Radia Software Manager Guide.*

Note

The Radia Application Manager and Radia Software Manager can be co-resident on an end-user's machine. In this situation, the Radia administrator still determines:

- Whether an application is mandatory or optional, and
- Who will control the installation.

Radia Inventory Manager

This client product allows a Radia administrator to collect hardware information and send it to the Radia Inventory Manager server component for inventory reporting. See the *Radia Inventory Manager Guide* for details.

on uses SNMP in NNM, as well as the Radia Inventory Manager database.

Radia Implementation Overview

This guide describes the installation of the Radia Configuration Server, the Radia Management Portal, and the Radia library. For a functional Radia infrastructure, the RCS and RMP *must* be installed. (Installing the Radia library will facilitate a Radia administrator's search for information about other Radia components.)

Once the RCS and RMP are installed, additional Radia components can be installed, in accordance with license agreements. With the Radia infrastructure in place, all of the digital assets in the enterprise can now be managed by Radia.

Figure 1.2 provides an overview of a functional Radia implementation.

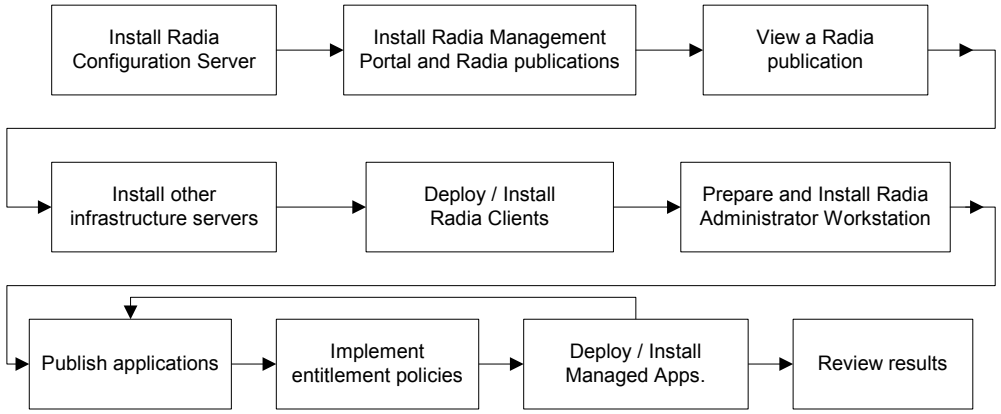

Figure 1.2 ~ Creating and maintaining a functioning Radia environment.

Summary

- In order to install the Radia components, the proper license file is required.
- All Radia implementations must include the Radia Configuration Server and the Radia Management Portal.
- The three Radia Clients are Radia Software Manager, Radia Application Manager, and Radia Inventory Manager.
- The Radia library can be installed directly into the Radia Management Portal; it should be reviewed for each Radia component installation.

2

UNIX Installations

At the end of this chapter, you will have:

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

Chapter Overview

This chapter details the installations of the Radia Configuration Server (version 4.5.4) and Radia Management Portal (version 1.3) for the following UNIX platforms.

Table 2.1 ~ RCS and RMP Supported UNIX Platforms

Platform	RCS	RMP
AIX, version 4.3 and greater	√	
HP-UX (PA-RISC 1.1 and 2.0), version 10.20 and greater, 800 MHz	√	√
Linux, Enterprise Server, version 2.0 and greater	√	
Solaris, SPARC Server, version 2.7 and greater, 128 MB	√	√

In addition to the installations, sections in this chapter show how to log on to the RMP and, once there, how to view Radia publications.

Radia Configuration Server Installation

This section provides instructions for installing the Radia 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 Radia 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 RCS
- **User Interface (GUI)**
  A graphical installation that requires a Radia administrator to specify a variety of parameters in order to customize the Radia environment. It has some pre-determined database configuration parameters, and will install the Radia 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 RCS

Radia Configuration Server Directories

Table 2.2 lists the directories that are automatically created during the Radia Configuration Server installation.

Table 2.2 ~ Radia Configuration Server Directories

Directory	Contents
bin	Shell scripts that enable you to start, stop, clean up, and query the Radia Configuration Server
DB	Radia Configuration Server database files
exe	Executables and methods for the Radia Configuration Server
internet	Internet HTML and graphics files
log	Radia Configuration Server log
rexx	REXX methods
shell	Batch and application files, such as the un-install and query scripts

System Recommendations for UNIX

Table 2.3 lists the amount of space that is required on the UNIX platforms for the installation and operation of the Radia Configuration Server and the various elements that are associated with it. It is recommended that these limits be allocated on the system on which the RCS is being installed.

Important Note

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

Table 2.3 ~ Space Requirements for UNIX Installations of RCS

Component	All Platforms
Memory	512 MB
Swap	2 GB

Table 2.3 ~ Space Requirements for UNIX Installations of RCS

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

Note

* The size of the database depends on the size and number of applications that the Radia 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 Radia 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 Radia Configuration Server installation:
  - All other applications, including anti-virus programs are closed.
  - All other tasks and operations that are executing are stopped.

UNIX Pre-Installation Tips

Table 2.4 ~ Radia Configuration Server 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 recommend that all defaults be accepted; however, they can be overridden by specifying the parameters for your environment.

UNIX Pre-Installation Notes

All UNIX Platforms

Directory Permissions

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

- a **/tmp** directory under the **root**, and
- *write* permissions for the directory.

HP-UX Notes

Sub-Directories

There are two HP sub-directories in the **/configuration_server** directory of the **hp OpenView Radia v4 configuration server** CD-ROM; 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 CD

The **hp OpenView Radia v4 configuration server** CD-ROM must be mounted using **pfs_mount** on HP-UX platforms because the CD-ROM 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 CD-ROM and mount by typing:
  /usr/sbin/pfs_mount -v -x unix /*cdrom*/mnt
  (replace ***cdrom*** with the physical CD-ROM device)
- To un-mount, type:
  /usr/sbin/pfs_umount /mnt

When installing the Radia Configuration Server on HP-UX platforms, the CD-ROM drive must be mounted to display lowercase filenames, as shown in the following sample mount command:

```
mount -o cdcase /dev/<cdrom_device>  /cdrom
```

If the CD-ROM drive is not mounted with the **cdcase** parameter, filenames on the CD-ROM will be displayed in uppercase and the installation will fail.

Notes

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

After installing the Radia 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 Radia Configuration Server.

Table 2.5, on page 37, presents examples of these environment variables being specified for the four platforms on which the Radia Configuration Server can be installed.

Notes

In the Table 2.5, the *current working directory* is represented by $XXXXX and $YYYYY. Be sure to specify your current working directory, rather than these sample fillers.

Table 2.5 ~ 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`

Note

The Radia Configuration Server service (**ztoptask**) should always be started with the help of the **startmgr** script because it dynamically adds the real path of the RCS binaries to the user-path environment variable.

The Setup-Configuration File

The default parameters for the Radia Configuration Server installation are contained in the **setup.cfg** file (shown in Figure 2.1). HP recommends viewing this file prior to beginning the Silent installation.

```
# $Revision:   1.3  $
#
source comprcsf.tcl
SelectComprcs patchmanager 1
SelectComprcs usagemanager 0
SelectComprcs osmanager          0
SelectComprcs mgr          1

############################################################
Variable      HP_product_name "HP Radia Configuration Server"

# Windows Set
#Variable    MGRROOT       "C:\\HP\\ConfigurationServer"
#Variable    DESTDB        "C:\\HP\\ConfigurationServer\\DB"
#Variable    LICENSEFILE   "C:\\license.nvd"

# UNIX Set
Variable      MGRROOT      "/opt/HP/ConfigurationServer"
Variable      DESTDB       "/opt/HP/ConfigurationServer/DB"
Variable      LICENSEFILE  "~/.license.nvd"

Variable      MGRPORT      "3464"
Variable      LICEMAIL     ""
Variable      MGRID        "001"
Variable      MGRNAME      "RCS"

Variable      global_GUID  000
Variable      enable_debug 0

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

Figure 2.1 ~ The RCS Installation's Setup Configuration file for UNIX.

Installing the RCS

This section contains instructions for installing the Radia Configuration Server. Before starting this installation, be sure to review the section, *UNIX Pre-Installation Notes*, starting on page 35.

To start the installation of the RCS on a UNIX machine, type

```
./install
```

and on the command line, specify the full path of the target installation directory.

Silent Installation

Notes

By default, this Silent installation will back up an existing Radia Database.

In order to turn off this feature, open the **setup.cfg** file (see *Figure 2.1* on page 38) and change **DOBACKUP** to **0**.

To run the Radia Configuration Server's Silent 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 Radia v4 configuration server** CD-ROM into the CD-ROM drive.
3. Change the current directory to the CD-ROM directory that contains the platform-specific installation program. For example:

   If installing the Radia Configuration Server on a Solaris machine, navigate to:

   ```
   cd /cdrom/cdrom0/management_infrastructure/configuration_server/solaris
   ```

   If installing the Radia Configuration Server on an HP-UX platform, navigate to:

   ```
   cd /mnt/cdrom/management_infrastructure/configuration_server/hprisc2
   ```

4. Type:

   ```
   ./nvdkit setup.exe -mode silent
   ```

   and press ENTER.

The Radia 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 Radia Configuration Server's 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 Radia v4 configuration server** CD-ROM into the CD-ROM drive.
3. Change the current directory to the CD-ROM directory in which the installation program is located. For example:

   If installing the Radia Configuration Server on a Solaris machine, navigate to:

   ```
   cd /cdrom/cdrom0/management_infrastructure/configuration_server/solaris
   ```

4. Type:

   ```
   ./nvdkit setup.exe
   ```

   and press ENTER.

   The GUI installation begins with the **Hewlett-Packard Radia Configuration Server Installation Welcome** window.

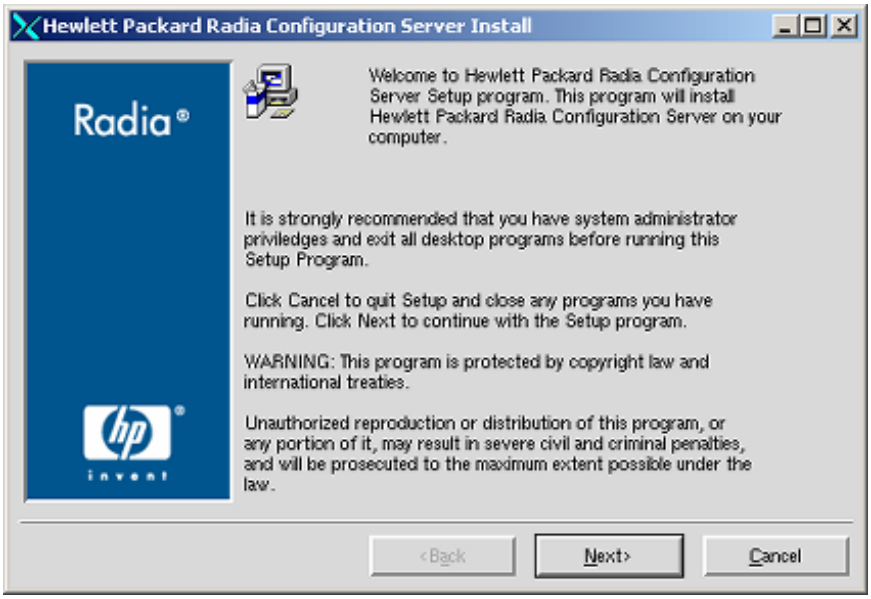

Figure 2.2 ~ The Radia Configuration Server Installation Welcome window.

5. Click **Next**.

(At any time during the installation, click **Cancel** to exit the installation.)
The **HP Software License Agreement** window opens.

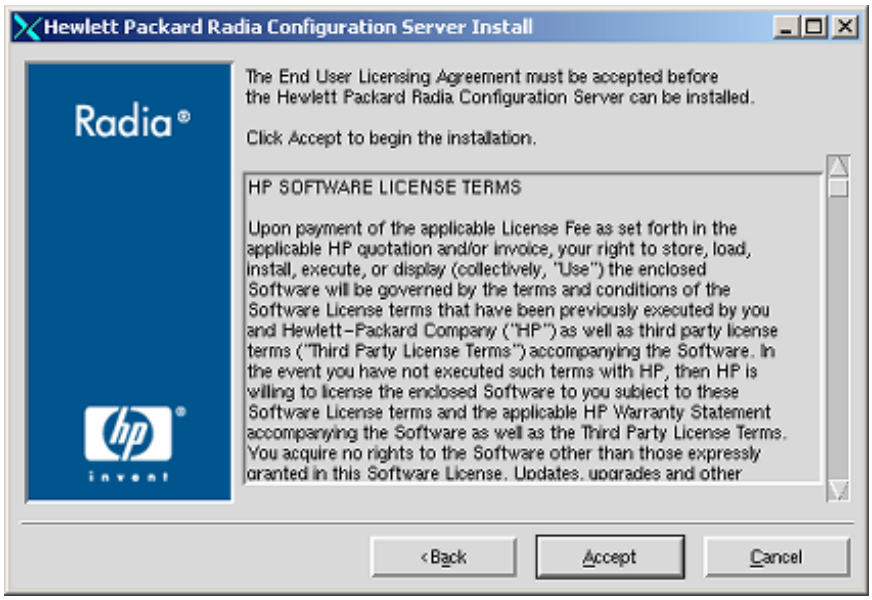

Figure 2.3 ~ The HP Software License Agreement window.

6. Click **Accept**.

Note

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

The **Directory Specifications** window opens.

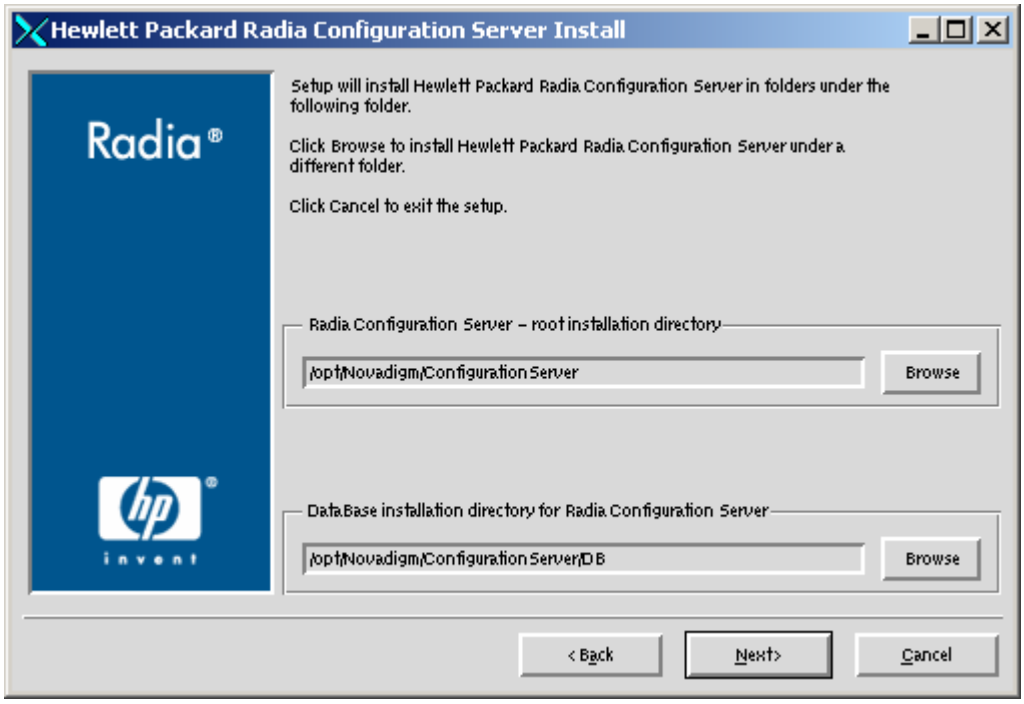

Figure 2.4 ~ The Radia Configuration Server Directory Specifications window.

7. Accept the default **root installation directory** that is displayed, or click **Browse** to navigate to a different repository for the Radia 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 Radia Database files.

> **Note**
>
> If a previous version of the Radia Configuration Server and Radia 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.

8. Click **Next**.

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

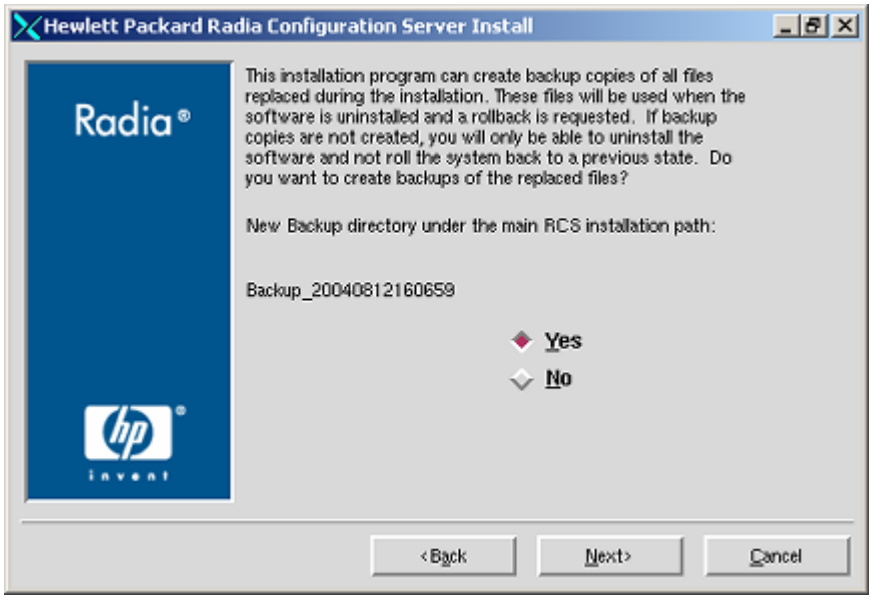

Figure 2.5 ~ The Radia Configuration Server Backup Directory window.

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 **Select Components to Install** window opens.

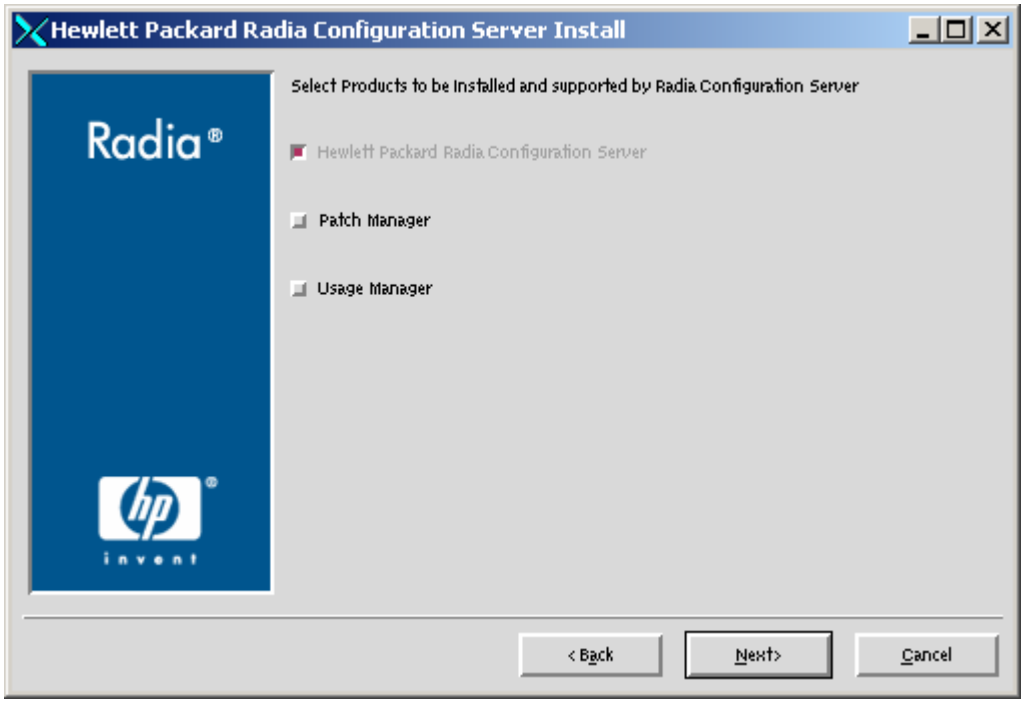

Figure 2.6 ~ The Radia Configuration Server Select Components to Install window.

In this window:

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

> **Note**
>
> If **Patch Manager**, **Usage Manager**, and/or **OS Manager** are selected, the **Radia Configuration Server** installation will not be affected, nor will there be additional dialog boxes.

10. Click **Next**.

The **RCS post-Installation Start** window opens.

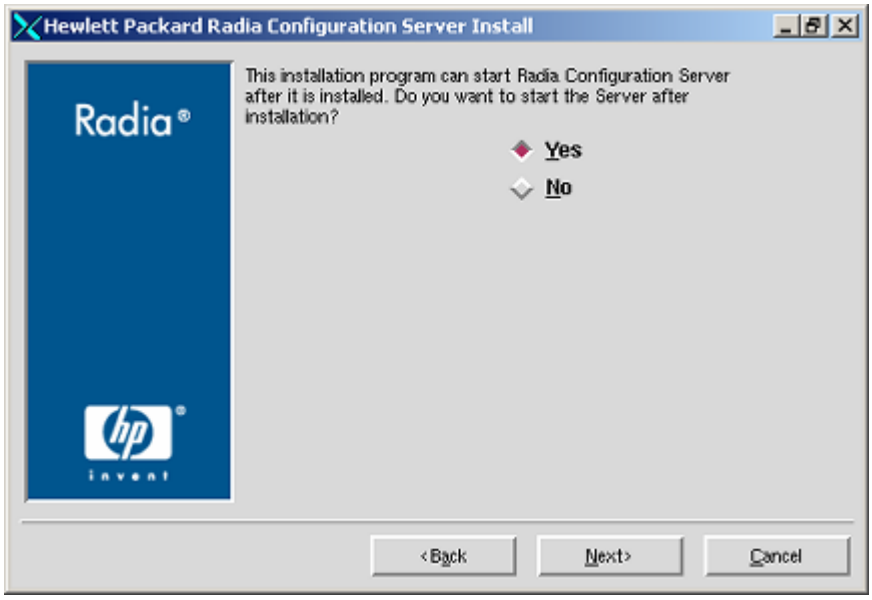

Figure 2.7 ~ The Radia Configuration Server post-Installation Start window.

In this window:

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

Note

See *Starting, Stopping, Identifying, and Cleaning up the Radia Configuration Server*, starting on page 54.

11. Click **Next**.

The **Location of License File** window opens.

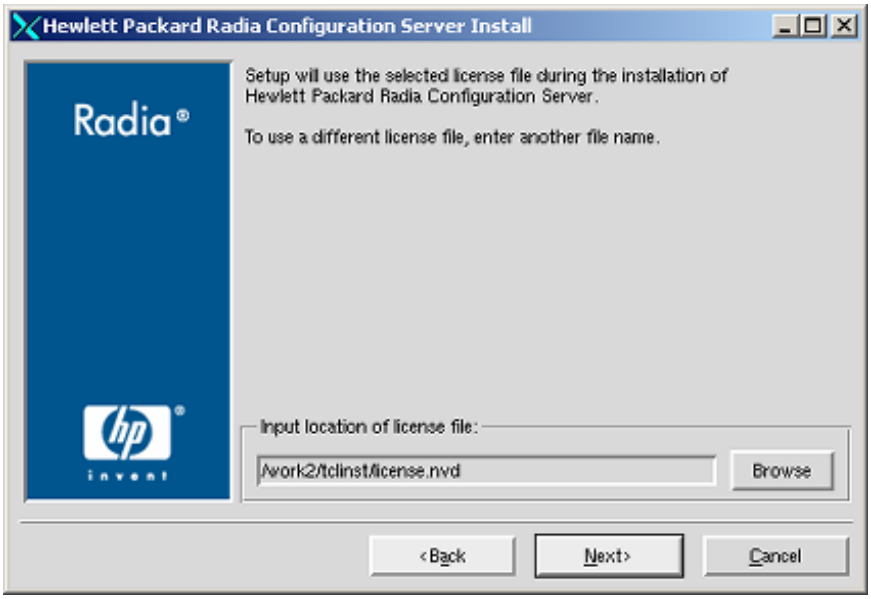

Figure 2.8 ~ The Radia Configuration Server Location of License File window.

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 **E-mail Address** window opens.

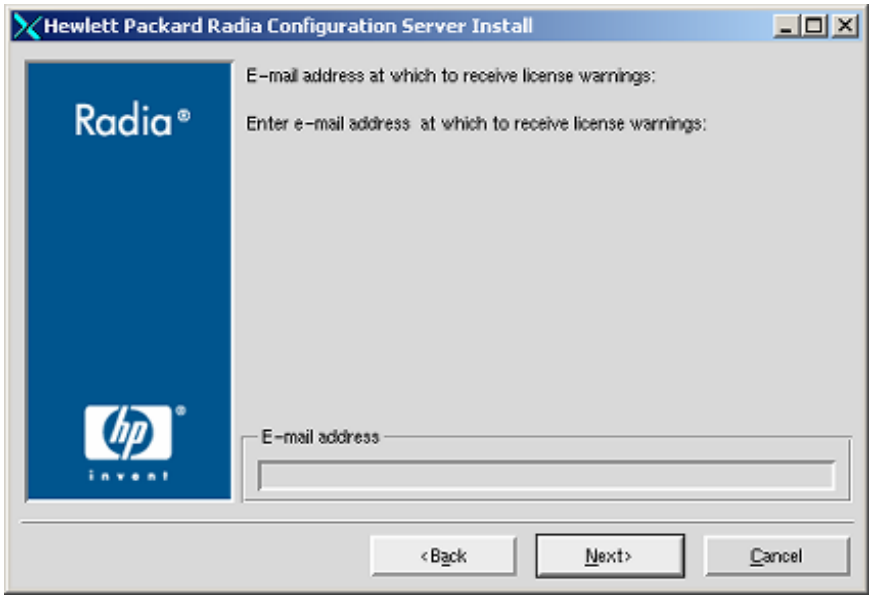

Figure 2.9 ~ The Radia Configuration Server E-mail Address window.

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

13. Click **Next**.

The **Radia Configuration Server ID** window opens.

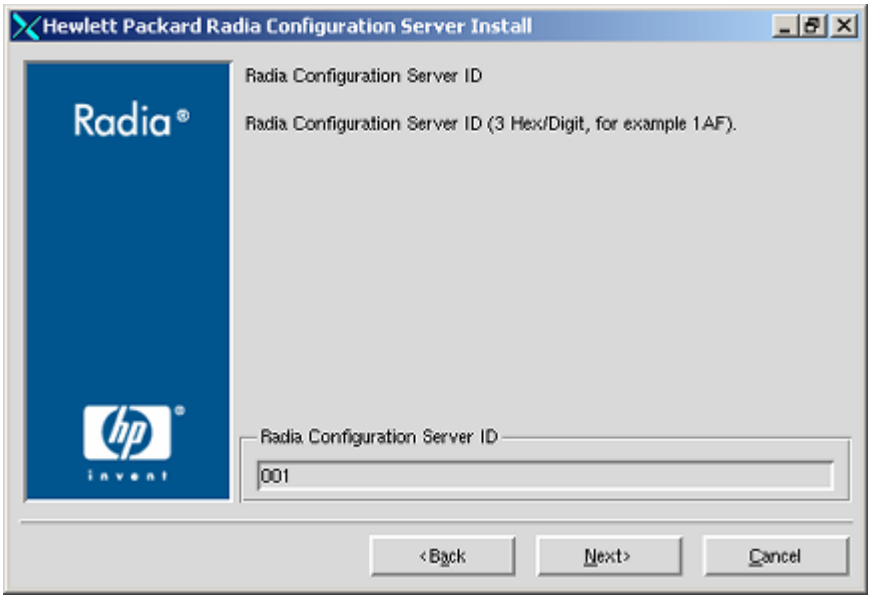

Figure 2.10 ~ The Radia Configuration Server ID window.

In this window, specify a three-character ID for the Radia 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 Radia Configuration Server's log file.)

This field is required.

14. Click **Next**.

The **Radia Configuration Server Name** window opens.

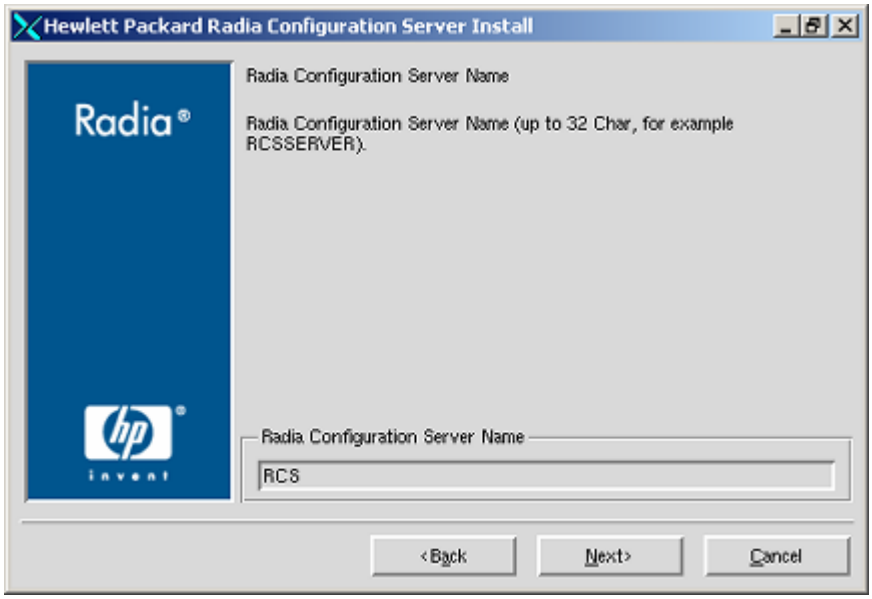

Figure 2.11 ~ The Radia Configuration Server Name window.

In this window, specify a name (maximum of 32 characters) for the Radia Configuration Server.

This field is required.

15. Click **Next**.

The **TCP/IP Port** window opens.

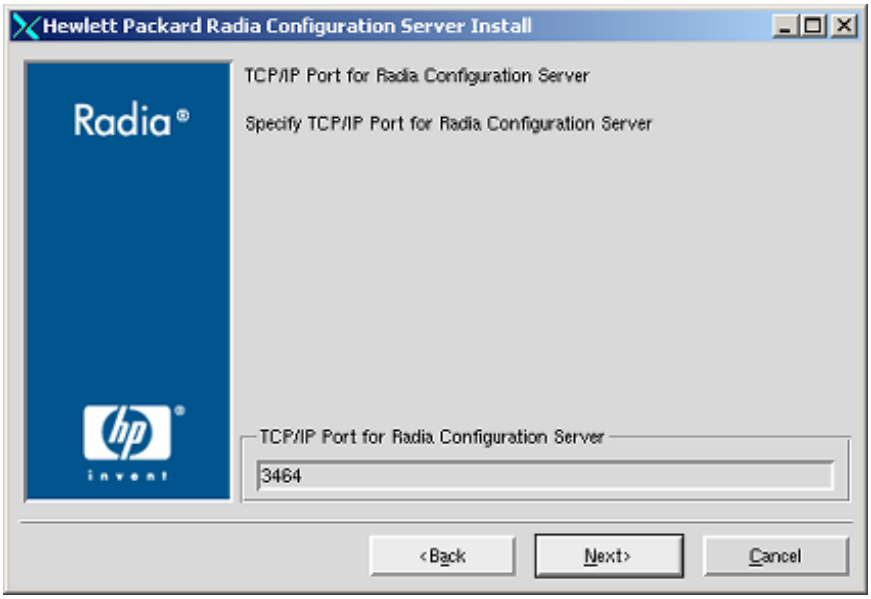

Figure 2.12 ~ The Radia Configuration Server TCP/IP Port window.

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

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

16. Click **Next**.

The **Zone Name for Radia Management Portal** window opens.

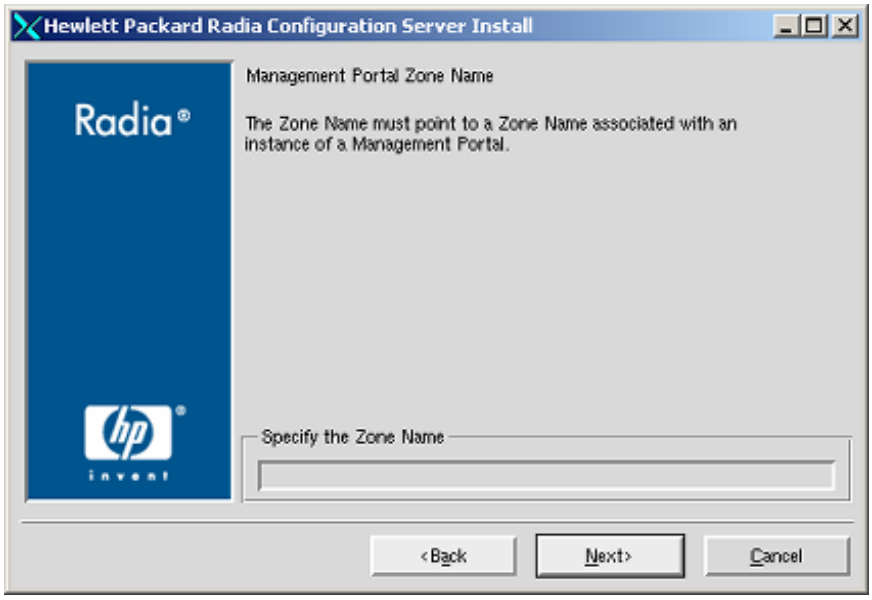

Figure 2.13 ~ The Radia Configuration Server Zone Name for RMP window.

In this window, specify a Zone Name that is associated with an instance of the Radia Management Portal.

This field is optional.

17. Click **Next**.

The **Summary of Installation Input** window opens.

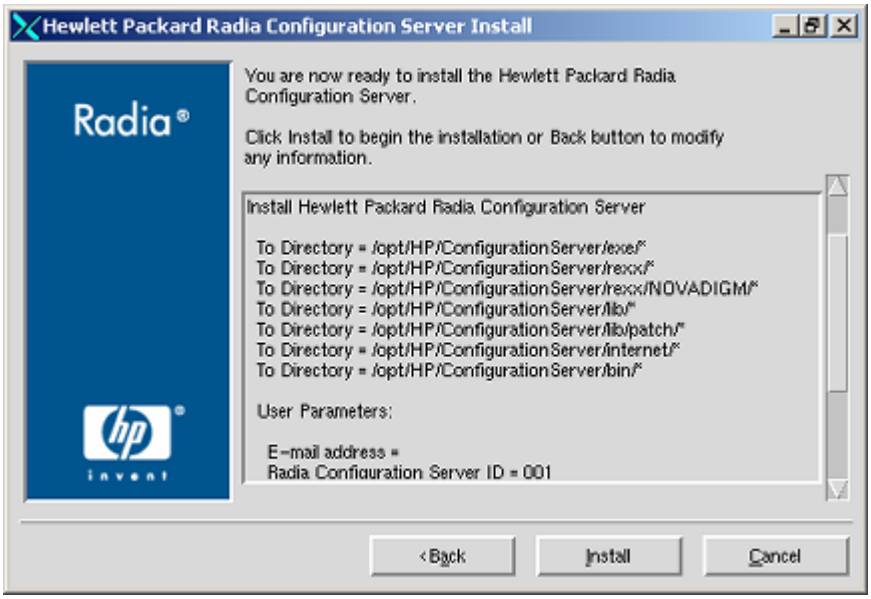

Figure 2.14 ~ The Radia Configuration Server Summary of Installation Input window.

This window presents all the information that was specified during the Radia 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.

18. Click **Install**.

The **Installation in Progress** window opens.

When the installation is complete, the **Radia Configuration Server Installation Finish** window opens.

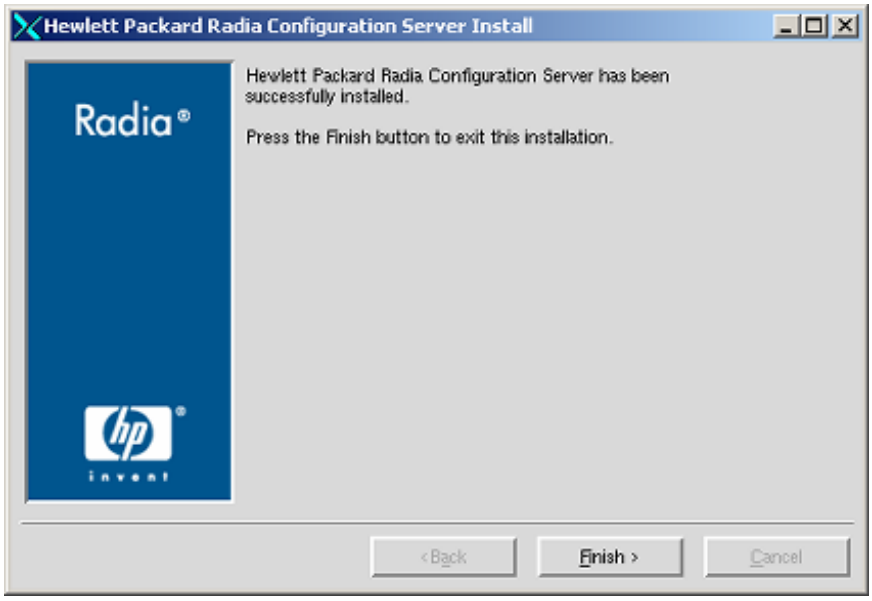

Figure 2.15 ~ The Radia Configuration Server Installation Finish window.

The Radia Configuration Server for UNIX has been successfully installed.

UNIX Post-Installation Notes

- Refer to *Appendix A*: *UNIX Kernel Tuning*, starting on page 145, for important information about tuning kernel parameters in order to accommodate the Radia Configuration Server's use of memory, communications, and *inter-process communications* (IPC).

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

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

To start the Radia Configuration Server

1. Change to the Radia Configuration Server **bin** directory by typing:
   `cd /opt/HP/ConfigurationServer/bin`
   and press ENTER.
2. Type:
   `./startmgr`
   and press ENTER.
   The Radia Configuration Server will start, and a series of start-up messages will display.

> **Note**
>
> 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 Radia 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
```

> **Note**
>
> If the RCS is running and a 'start' is attempted, the following message will display:
>
> `Manager already started with USER-ID=[user id] and PID=[ztoptask process id]`

To stop the Radia Configuration Server

1. To change to the Radia Configuration Server **bin** directory, type:
   `cd /opt/HP/ConfigurationServer/bin`
   and press ENTER.
2. Type:

./killmgr

and press ENTER.

The following shutdown message is displayed:

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

> **Caution**
>
> Running `./killmgr` explicitly calls the script `./clean_ipc`. Neither of these scripts should be run as *root*, since all ipc resources utilized by root would be removed.

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

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

To identify the Radia Configuration Server

> **Note**
>
> The Radia Configuration Server must be running.

1. To change to the Radia Configuration Server **bin** directory, type:
   cd /opt/HP/ConfigurationServer/bin
   and press ENTER.
2. Type:
   ./whatmgr
   and press ENTER.

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

To clean up the Radia Configuration Server

1. To change to the Radia Configuration Server **bin** directory, type:
   cd /opt/HP/ConfigurationServer/bin
   and press ENTER.
2. Stop the Radia 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 Radia Configuration Server.

> **Caution**
>
> We strongly recommend that you do not run the `./clean_ipc` command when the Radia Configuration Server is running. Furthermore, Novadigm recommends that you do not run the `./clean_ipc` command when logged on as root.

Radia Management Portal Installation

This section provides instructions for installing the Radia Management Portal, as well as reviewing the system requirements for the various UNIX platforms.

System Recommendations for UNIX

Table 2.6 lists the system requirements for the installation and operation of the Radia Management Portal. It is recommended that these requirements be strictly considered before installing the RMP on a UNIX system.

Note

These recommendations represent typical, minimum operating system estimates.

Table 2.6 ~ System Recommendations for UNIX Installations of RMP

Component	Recommendation	
Operating System and CPU	*Required*: *Recommended*:	HP-UX Version 10.20 or above, PA RISC CPU PA-RISC 1.1
	Required: *Recommended*:	Solaris Version 2.5.1 or above, SPARC CPU Solaris Version 2.7 or greater, SPARC Server
Memory	1 GB	
Virtual Memory	2 GB	
Processor Speed	800 MHz	
UNIX Kernel Tuning	*Minimum*: *Recommended*: **Note**: See *Network Discovery Requirements*, on page 58.	500 MB 1 GB

Important Note

It is strongly recommended that the RMP be installed and run as **root**. Root authority is required to apply owner and group designators to managed resources.

UNIX Pre-Installation Checklist

Prior to beginning the installation, make sure that:

- ❑ Locate the license file that is associated with this product installation.
- ❑ Assemble the following CD-ROMs (these are used during a complete Radia Management Portal installation):
  - hp OpenView Radia v4 infrastructure
  - hp OpenView Radia v4 applications
  - hp OpenView Radia v4 documentation
- ❑ Review the README file that was delivered with the product.
- ❑ After installing the Radia Management Portal, visit the HP Technical Support Web site to check for a Service Pack.

UNIX Pre-Installation Tips

Table 2.7 ~ Radia Management Portal 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 that has been 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 recommend that all defaults be accepted; however, they can be overridden by specifying the parameters for your environment.

UNIX Pre-Installation Notes

Network Discovery Requirements

The number of nodes discovered by the Radia Management Portal for UNIX has an upper limit that is based on the kernel's tuning for process size (see *Appendix A*: *UNIX Kernel Tuning*,

starting on page 145). For optimum RMP performance, HP recommends that the maximum per-process space of the UNIX kernel be set to at least 500 MB—although 1 GB is best.

- If using a *Domain Name System* (DNS) for network discovery, the device must have:
  - DNS
  - Connectivity to a DNS server
- If using a *Network Information Service* (NIS) or a *Network Information Service Plus* (NIS+) for network discovery, the device must have:
  - A NIS or NIS+ client installed
  - Connectivity to a NIS or NIS+ server

Trusted Host Environment

- *Remote File Copy* (RCP) or *Secure Copy* (SCP)
- *Remote Execution* (REXEC) or *Remote Shell* (RSH) or *Secure Shell* (SSH)

Access Requirements

In order to access the Radia Management Portal, a machine must be on the same network as the RMP host machine and must be running Microsoft Internet Explorer, version 4.0 or later, or Netscape Navigator, version 4.0 or later, *with cookies enabled*.

Installing the RMP

This section contains instructions for installing the Radia Management Portal. Before starting this installation, be sure to review the section, *UNIX Pre-Installation Notes*, starting on page 58.

To start the installation of the RMP on a UNIX machine, type **`./install`**, and specify on the command line, the full path of the target installation directory.

Note

Depending on how the UNIX operating system mounts the CD-ROM, the installation program might have to be specified in UPPERCASE letters, as in:

```
./INSTALL.SH
```

To install the Radia Management Portal

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 Radia v4 infrastructure** CD-ROM into the CD-ROM drive.

3. Change the current directory to the CD-ROM directory that contains the installation program for the platform on which the RMP is being installed. For example:

   If installing the Radia Management Portal on a Solaris machine, navigate to:

   ```
   cd /cdrom/cdrom0/extended_infrastructure/management_portal/solaris
   ```

4. Type **`./install`** and press **Enter**.

> **Note**
>
> The installation program uses the following temporary directory **/tmp/rmp_install**.
>
> If the directory cannot be created or if there is insufficient disk space, an error appears and the installation will be cancelled.

The **Radia Management Portal Install Welcome** window opens.

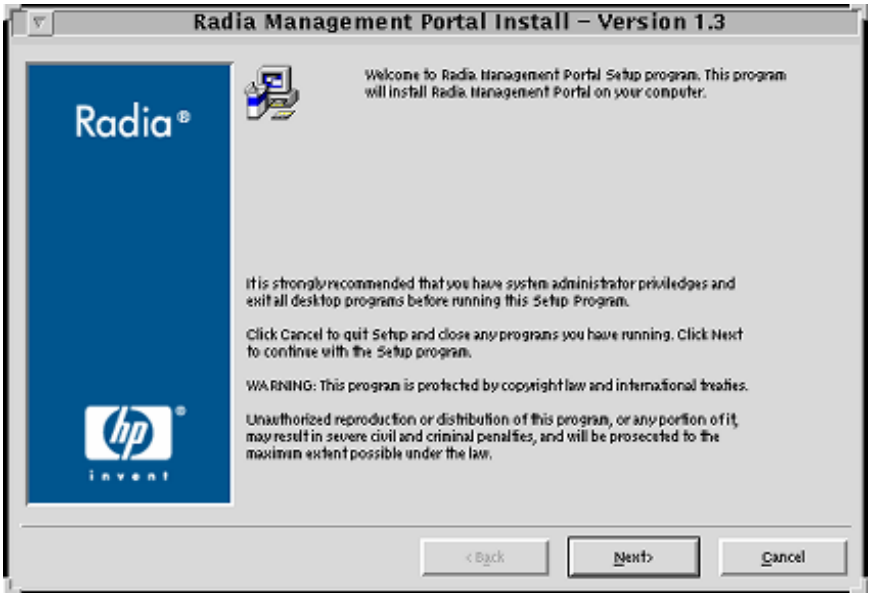

Figure 2.16 ~ The Radia Management Portal Installation Welcome window.

5. Click **Next**.

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

The **License Agreement** window opens.

Figure 2.17 ~ The HP Software License Agreement window.

6. Click **Accept**.

Note

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

The **Radia Management Portal Location** window opens.

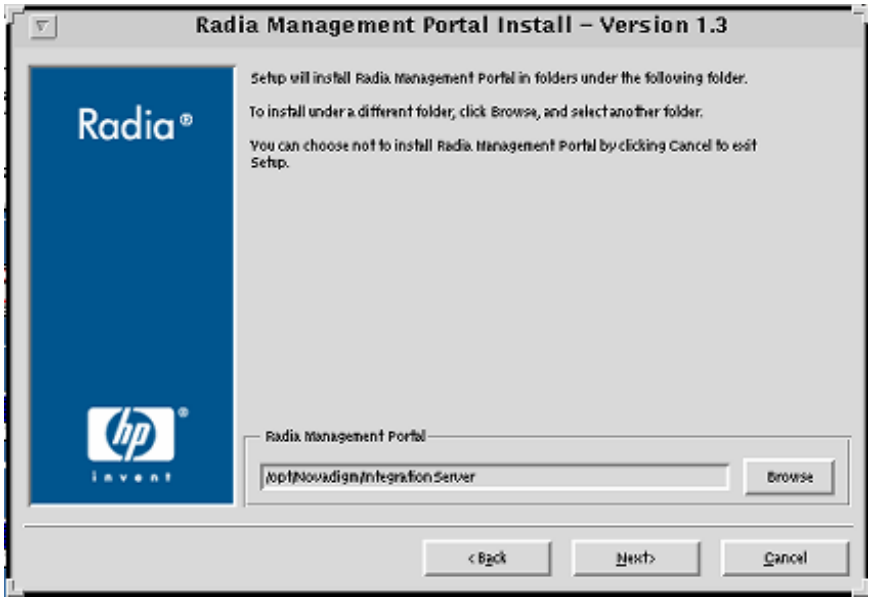

Figure 2.18 ~ The Radia Management Portal Location window.

In this window:

- Accept the default **Radia Management Portal** installation directory that is displayed, or
- Click **Browse** to navigate to a different repository for the Radia Management Portal's files

7. Click **Next**.

The **License File** window opens.

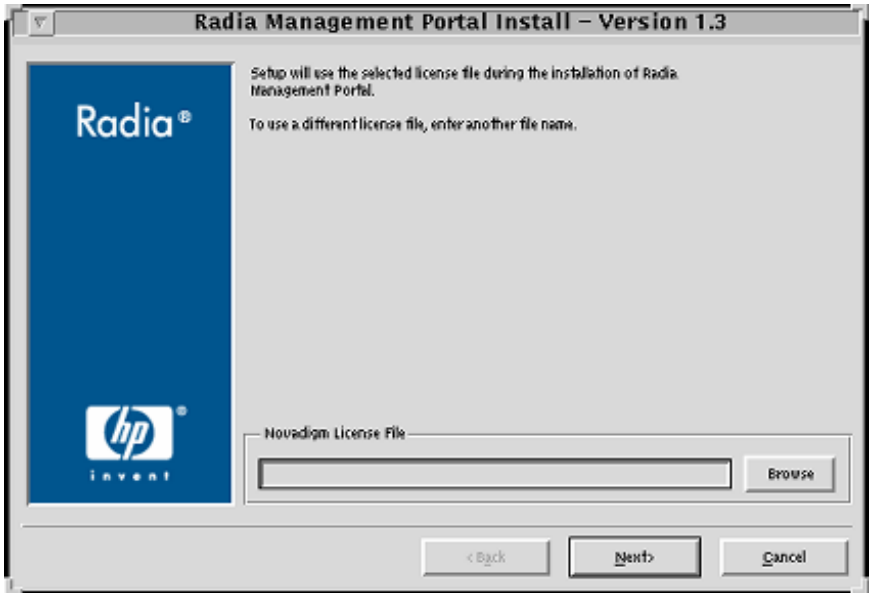

Figure 2.19 ~ The Radia Management Portal License File window.

In this window:

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

  If necessary, the installation will rename the license file to **license.nvd**. It will then copy the license file into the Radia Integration Server's **/modules** directory

> **Note**
>
> If a valid license file is not specified, the installation will cancel.

8. Click **Next**.

The **Enable Network Discovery** window opens.

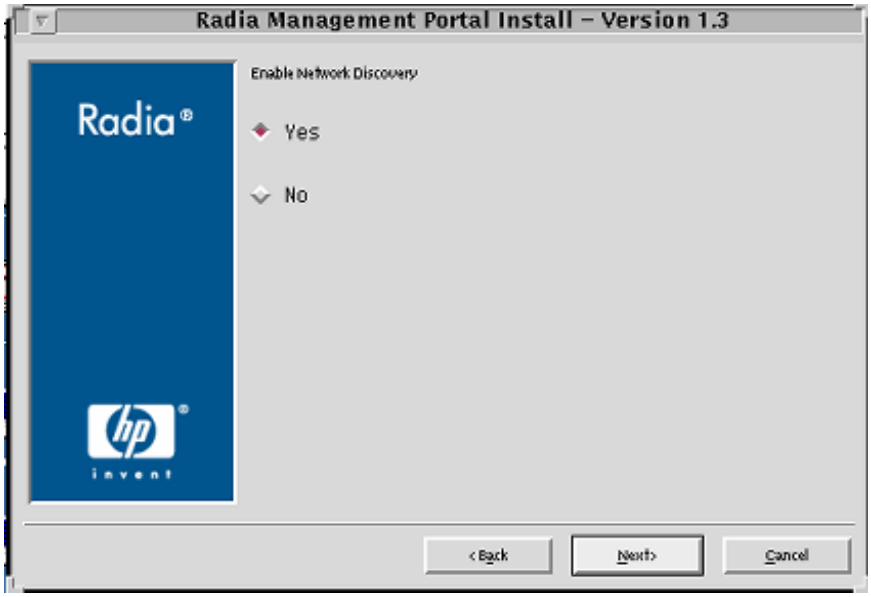

Figure 2.20 ~ The Radia Management Portal Enable Network Discovery window.

In this window:

- Click **Yes** to enable Network Discovery. (*Recommended*)

  The Radia Management Portal will be able to automatically discover all the devices in the UNIX environment that can be managed by Radia.

- Click **No** to not enable Network Discovery.

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

9. Click **Next**.

The **Network Discovery Method** window opens.

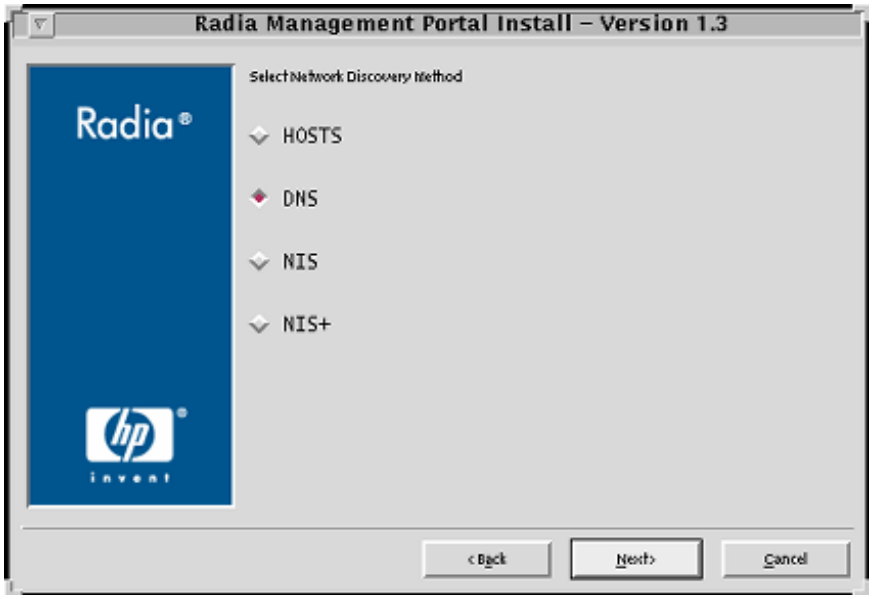

Figure 2.21 ~ The Radia Management Portal Network Discovery Method window.

In this window:

- Accept the default Network Discovery Method, **DNS**, or
- Select a different network discovery method that more accurately represents your environment

Notes

If the default (**DNS**) is selected, there will be two additional windows (**DNS Server IP Address** and **Domain Zone**) after the **Discovery Start Delay** window (see page 68).

10. Click **Next**.

The **Network Discovery Interval** window opens.

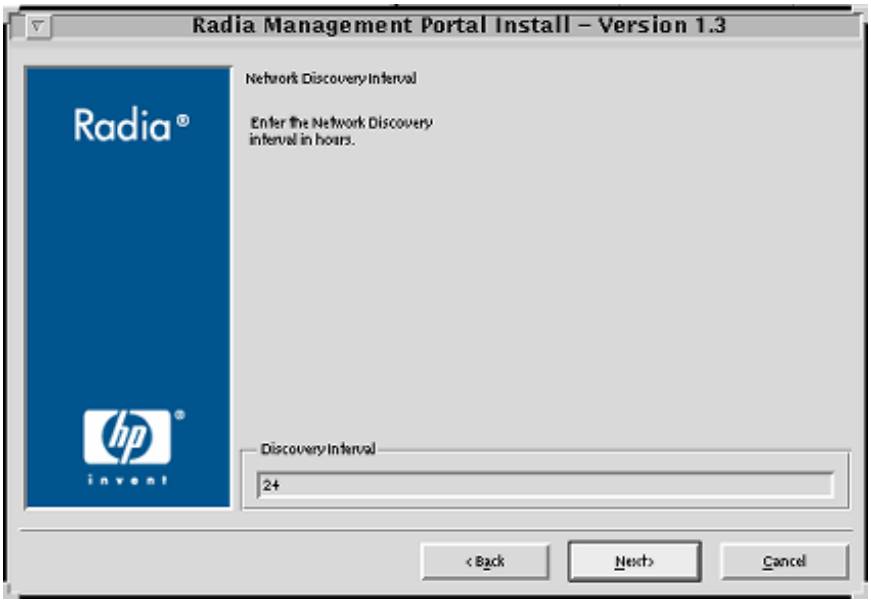

Figure 2.22 ~ The Radia Management Portal Network Discovery Interval window.

In this window, specify the length of time (in hours) 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**)

11. Click **Next**.

The **Discovery Delay between Nodes** window opens.

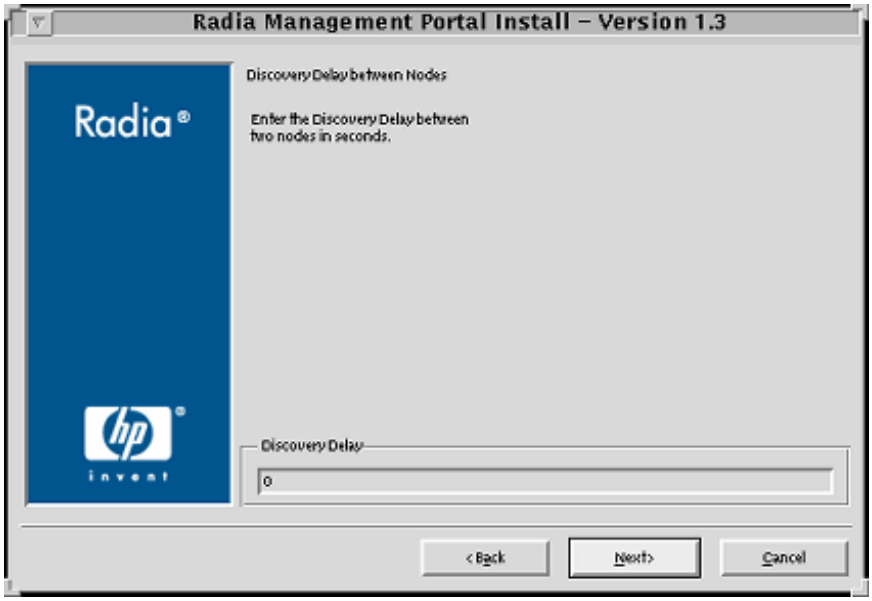

Figure 2.23 ~ The Radia Management Portal Discovery Delay between Nodes window.

In this window, specify the delay (in seconds) between the discoveries of two nodes:

- Accept the default **Discovery Delay** of **0** seconds, or
- Specify a different delay interval

12. Click **Next**.

The **Discovery Start Delay** window opens.

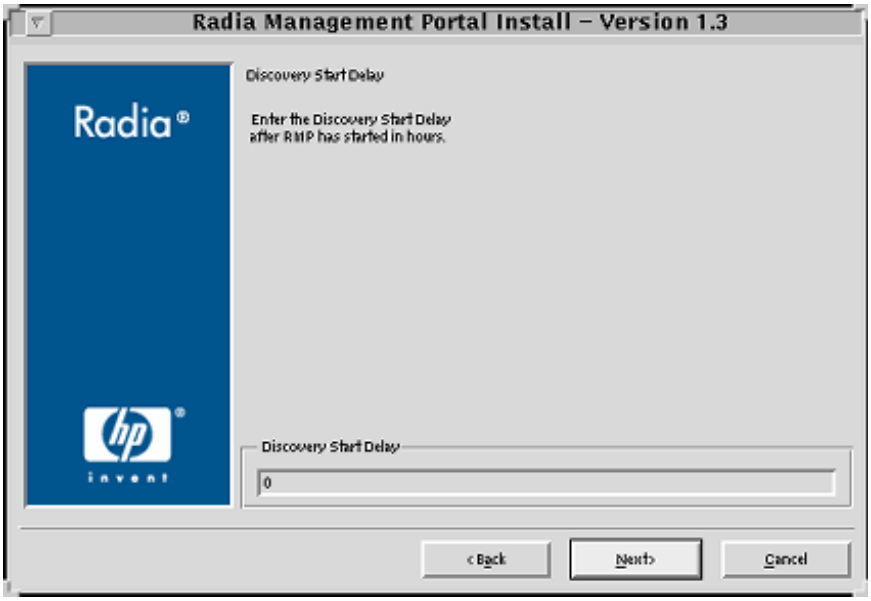

Figure 2.24 ~ The Radia Management Portal Discovery Start Delay window.

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

- Accept the default **Discovery Start Delay** of **0** seconds, or
- Specify a different delay interval (valid values are **0** through **24**)

This delay applies each time the Radia Management Portal is started.

13. Click **Next**.

If **DNS** was selected as the discovery method:

- In the **DNS Server IP Address** window, specify the appropriate IP address and click **Next**. (See Figure 2.25)

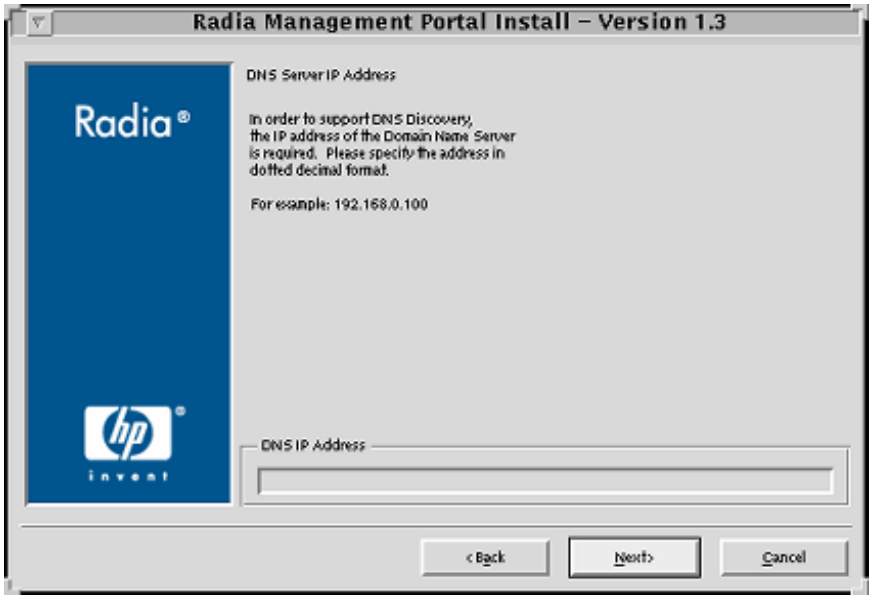

Figure 2.25 ~ The Radia Management Portal DNS Server IP Address window.

- In the **DNS Domain Zone** window, specify the appropriate domain and click **Next**. (See Figure 2.26)

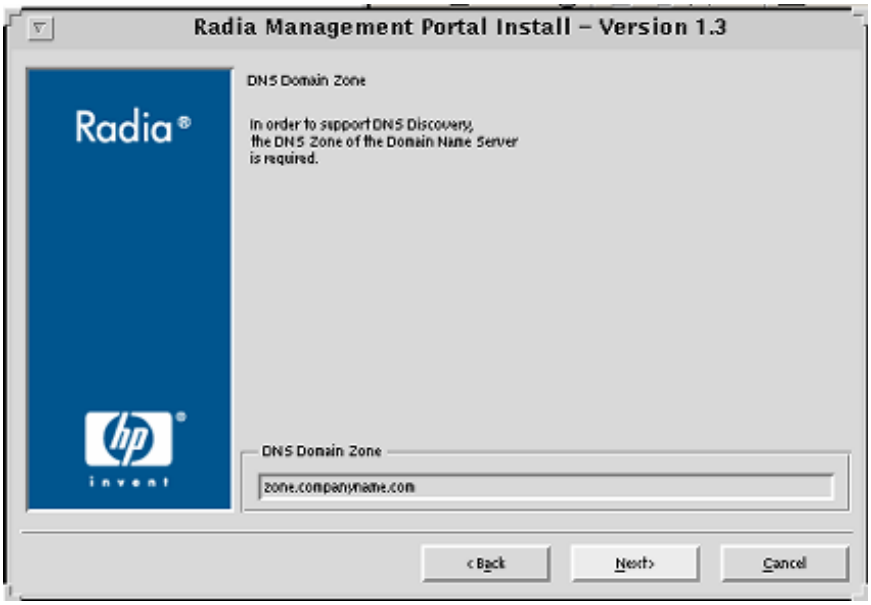

Figure 2.26 ~ The Radia Management Portal DNS Domain Zone window.

The **Summary of Installation Input** window opens.

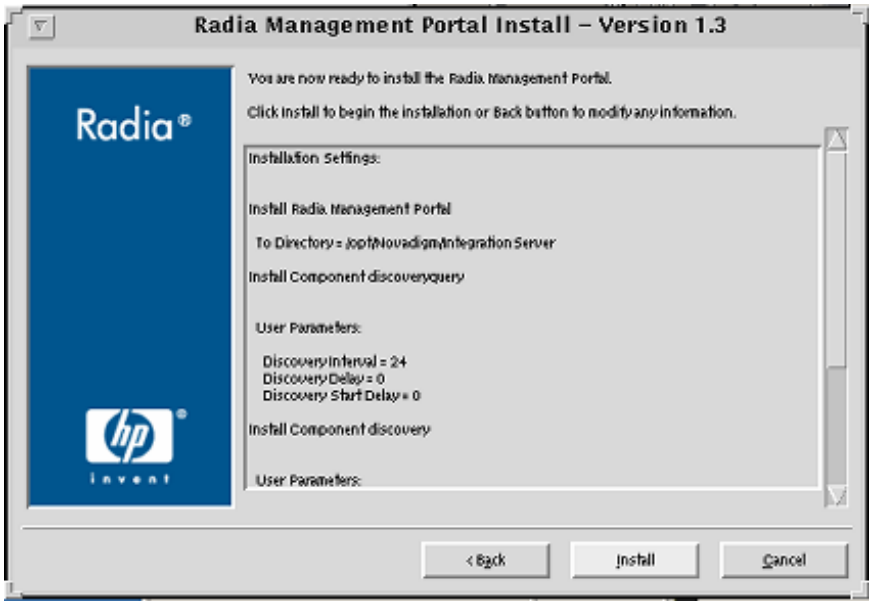

Figure 2.27 ~ The Radia Management Portal Summary of Installation Input window.

This window presents all the information that was specified during the Radia Management 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.

14. Click **Install**.

The **Installation in Progress** window opens.

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

15. Click **Yes**.

The **Installable Components** window opens.

Figure 2.28 ~ The Radia Management Portal Installable Components location window.

In this window, click **Browse** to navigate to the location on the **hp OpenView Radia v4 infrastructure** CD-ROM in which the Remotely Installable Infrastructure Components are located.

These files will be copied to the Radia Integration Server's **/media** directory.

16. Click **Next**.

There will be a prompt to copy the modules that will be used for remote Radia Client installations.

17. Click **Yes**.

If necessary, remove the current CD-ROM and insert the **hp OpenView Radia v4 applications** CD-ROM.

The **Client Modules** window opens.

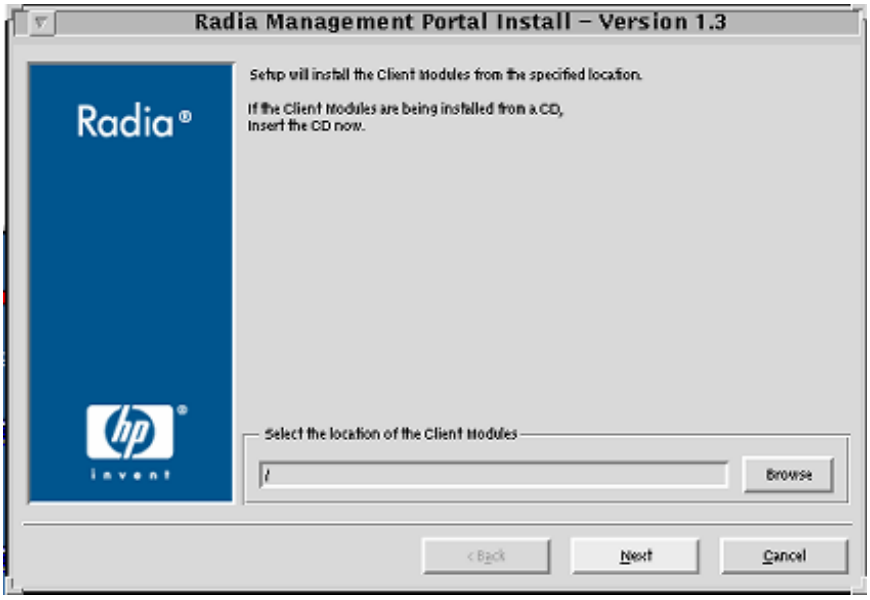

Figure 2.29 ~ The Radia Management Portal Radia Client modules location window.

In this window, click **Browse** to navigate to the location on the **hp OpenView Radia v4 applications** CD-ROM in which the Client Modules are located.

These files will be copied to the Radia Integration Server's **/media** directory.

18. Click **Next**.

The Radia Client modules are copied to the Radia Integration Server's **/media** directory.

There will be a prompt to install the Radia documentation.

19. Click **Yes**.

If necessary, remove the current CD-ROM and insert the **hp OpenView Radia v4 documentation** CD-ROM.

The **Radia Publications** window opens.

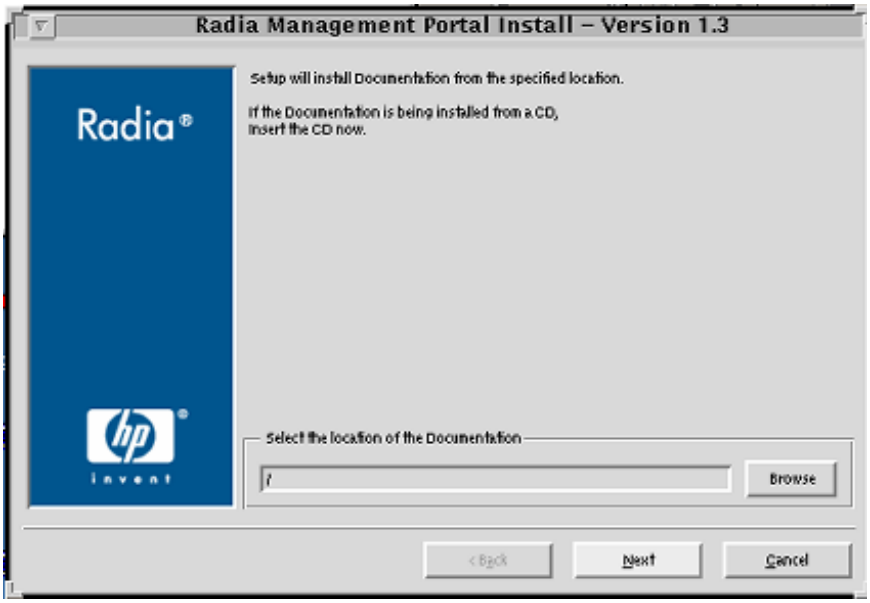

Figure 2.30 ~ The Radia Management Portal Radia Publications location window.

In this window, click **Browse** to navigate to the location on the **hp OpenView Radia v4 documentation** CD-ROM in which the Client Modules are located.

20. Click **Next**.

The Radia library of publications is installed to the Radia Management Portal.

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

IP Address for a Remote Radia Management Portal

If the Radia Management Portal was installed on a machine other than that which houses a Radia Configuration Server, the RCS REXX method, ZTASKEND must be checked to ensure that it contains the lines that are needed for the RMP. Additionally, the RCS edmprof file must be modified to contain the IP address and port of the RMP.

The following sections detail how to complete these tasks.

Verifying the Contents of ZTASKEND

To verify ZTASKEND contains Radia Management Portal-required lines

1. On the Radia Configuration Server host machine, locate ZTASKEND in the **/rexx/Novadigm** folder of the directory in which the RCS is installed.

   The default is **/opt/HP/ConfigurationServer/rexx/Novadigm**.

2. Copy ZTASKEND and paste it into the /rexx directory.

> **Caution**
>
> *Do not* edit the ZTASKEND REXX script in **/rexx/Novadigm**.
>
> If the Radia Database is updated, all customizations will be overwritten.

3. Open **ZTASKEND** (in the /**rexx** directory) with a text editor, such as WordPad.
4. Verify that the following lines are in ZTASKEND.

```
/* Object post to Radia Management Portal */
IF ZCVT.RMP = "ENABLED" THEN DO;
   SAY "**<>** RADIA MANAGEMENT PORTAL ENABLED CALLING RADISH POST:
ROUTINE"
   SESSION.REASON = SUBWORD(MYPARM,2,1)
   ADDRESS EDMLINK "radish post: -section MGR_RMP /proc/rcs SESSION ZCONFIG
      ZMASTER APPEVENT ZSTATUS";
END;
```

5. Save the changes and close the file.

> **Note**
>
> Do not save the ZTASKEND as a text file. Be sure to save this file without an extension.

Configuring the EDMPROF File

In addition to the ZTASKEND REXX method being modified, the RCS edmprof file must be modified. By default, the edmprof file is configured to have the Radia Management Portal co-resident with the Radia Configuration Server. Therefore, if the RMP is running on a computer other than that which is hosting the RCS, it is necessary to revise the MGR_RMP section of the edmprof.

Table 2.8 lists the default settings of the MGR_RMP section, as well as the values that can be specified in order for the RCS to use the remotely installed RMP.

Table 2.8 ~ MGR_RMP Settings

Settings	Default	Alternative #1	Alternative #2
HTTP_HOST	localhost	<*host_name*> of the RMP's host	<*IP_address*> of the RMP's host
HTTP_PORT	3466	3466	3466

To edit the edmprof file

The edmprof file is located in the **home** directory of the UNIX user ID that installed and maintains the Radia Configuration Server.

1. Make a backup copy of edmprof file before editing it.
2. Using a text editor, open the edmprof file and locate the MGR_RMP section.
3. Replace the HTTP_HOST value with either of the alternatives that are shown in Table 2.8.
4. Save the changes and close the edmprof file.

The Radia Configuration Server is now configured to use the remotely installed Radia Management Portal.

Note

To verify that the Radia Configuration Server is using the specified Radia Management Portal, you can either monitor the posts in the RCS log or check the clients in the Radia Management Portal (since each client will show the services that you deployed under the Radia Subscribers section).

Starting and Stopping the Radia Management Portal

To start the Radia Management Portal

1. Go to the directory in which the Radia Management Portal was installed and type: **`./nvdkit httpd.tkd`**.
2. Verify that the RMP started.

To stop the Radia Management Portal

> **Note**
>
> The following are general guidelines and the commands are examples that might vary depending on the UNIX operating system.

1. Obtain the process ID for the Radia Management Portal server by listing all the UNIX processes and extracting the process ID for nvdkit.

   ```
   ps -f | grep nvdkit | sed /grep/d | awk '{ print $2 }'
   ```

2. Run the following command.

   ```
   kill <PID>
   ```

3. Verify that the RMP stopped.

Accessing and Logging on to the Radia Management Portal

To access and log on to the Radia Management Portal

1. Open a Web browser and in the **Address** bar, type:

   `http://<`*`IP_address`*`>:3466`.

   <IP_address> is that of the Radia Management Portal's host computer.

   The **Radia Management Portal Login** page (Figure 2.31) opens.

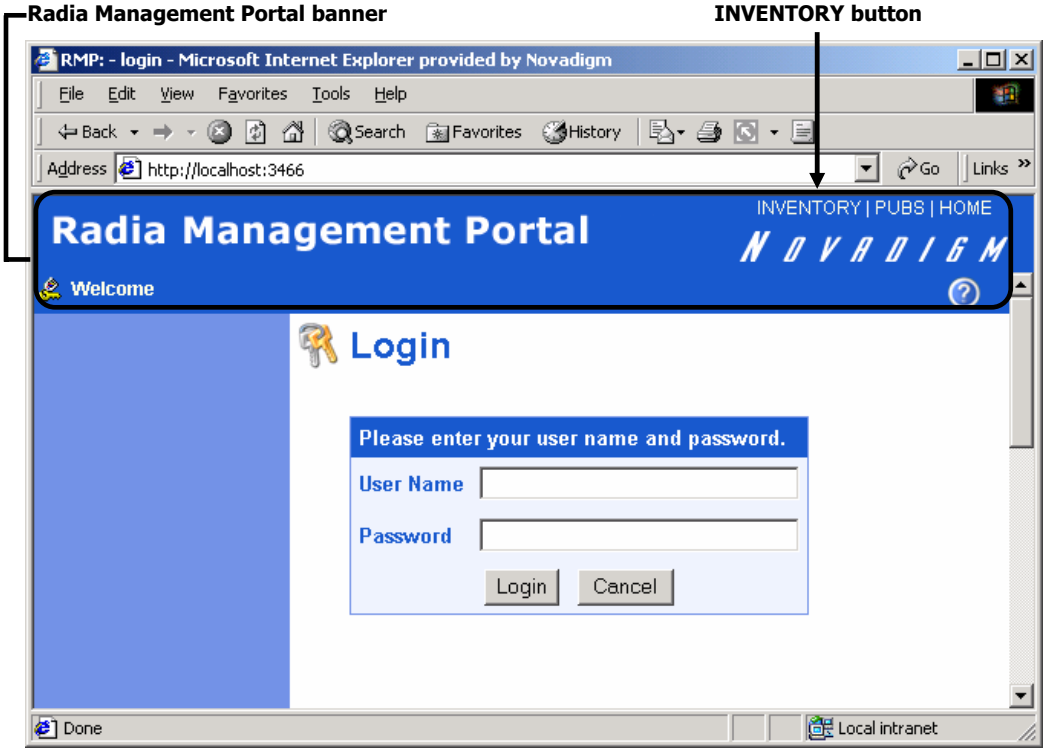

Figure 2.31 ~ Login page for the Radia Management Portal.

2. 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 Radia Management 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.

3. 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 Radia Management Portal and the Radia Management Agent, refer to the *Radia Management Portal Guide*.

Accessing the Radia Publications

The Radia Management Portal provides access to the Radia library—a comprehensive list of Radia documentation in *Portable Document Format* (pdf).

To access the Radia publications via the Radia Management Portal

1. Access the Radia Management Portal as instructed in the section, *Accessing and Logging on to the Radia Management Portal*, on page 77.
2. In the upper right corner of the **Login** page, click **PUBS**.

   The **Radia Publications** home page opens.
3. Select a publication to view and double-click on it.

   The publication will open in its own window.

Summary

- The Radia Configuration Server and Radia Management Portal can easily be installed and incorporated into a UNIX environment.
- The Radia Configuration Server and Radia Management Portal can be started and stopped.
- The Radia Management Portal can be accessed using varying levels of authority.
- The Radia Publications can be installed on, and viewed via, the Radia Management Portal.

3

Windows Installations

At the end of this chapter, you will have:

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

Chapter Overview

This chapter details the installations of the Radia Configuration Server (version 4.5.4) and Radia Management Portal (version 2.0) for the following Windows platforms.

Table 3.1 ~ RCS and RMP Supported Windows Platforms

Platform	RCS	RMP
NT 4.0 Server, with Service Pack 6	√	√
2000 Server, with Service Pack 1	√	√
XP Professional	√	√
2003 Server	√	√

In addition to the installations, sections in this chapter show how to log on to the RMP and, once there, how to view Radia publications.

Radia Configuration Server Installation

This section provides instructions for installing the Radia 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 Radia 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 RCS
- **User Interface (GUI)**
  A graphical installation that requires a Radia administrator to specify a variety of parameters in order to customize the Radia environment. It has some pre-determined database configuration parameters, and will install the Radia 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 RCS

Radia Configuration Server Directories

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

Table 3.2 ~ Radia Configuration Server Directories

Directory	Contents
bin	Radia Configuration Server binary files, and the edmprof.dat
DB	Radia Database files
internet	Internet HTML and graphics files
log	Radia Configuration Server log
Radia Configuration Server	Batch and application files that coincide with the Radia Configuration Server options available from the **Start** menu
rexx	Radia Configuration Server REXX methods
rexx\Novadigm	Novadigm REXX methods **Note**: See the *Caution* that follows.
shell	Batch and application files, such as the uninstall and query scripts

Caution

Altering the RCS methods that are in the **ConfigurationServer\rexx\Novadigm** directory could adversely effect Radia 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 3.3 lists the system recommendations for installing and operating the Radia Configuration Server in a Windows environment.

Important Note

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

Table 3.3 ~ Space Requirements for Windows Installations of RCS

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

Note

* The size of the database depends on the size and number of applications that the Radia 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 Radia 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 Radia Configuration Server will not be installed properly.
- ❑ If a previous version of the Radia Configuration Server is running, shut it down.
- ❑ If the SNMP process is running, stop it.

  Note: If the Startup Type for SNMP is AUTOMATIC, change it to MANUAL and reboot the machine before proceeding.
- ❑ Prior to starting the Radia Configuration Server installation:
  - All other applications, including anti-virus programs are closed.
  - All other tasks and operations that are executing are stopped.

Note

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

Table 3.4 ~ Radia Configuration Server 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 recommend 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 Radia Configuration Server installation are contained in the **setup.cfg** file. HP recommends viewing this file prior to beginning the Silent installation.

```
# $Revision:   1.3  $
#
source comprcsf.tcl
SelectComprcs patchmanager 1
SelectComprcs usagemanager 0
SelectComprcs osmanager          0
SelectComprcs mgr          1

#############################################################
Variable      HP_product_name "HP Radia Configuration Server"

# Windows Set
Variable      MGRROOT      "C:\\HP\\ConfigurationServer"
Variable      DESTDB       "C:\\HP\\ConfigurationServer\\DB"
Variable      LICENSEFILE  "C:\\license.nvd"

# UNIX Set
#Variable    MGRROOT       "/opt/HP/ConfigurationServer"
#Variable    DESTDB "/opt/HP/ConfigurationServer/DB"
#Variable    LICENSEFILE   "~/.license.nvd"

Variable      MGRPORT      "3464"
Variable      LICEMAIL     ""
Variable      MGRID        "001"
Variable      MGRNAME      "RCS"

Variable      global_GUID  000
Variable      enable_debug 0

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

Figure 3.1 ~ The RCS Installation's Setup Configuration file for Windows.

Installing the RCS

This section contains instructions for installing the Radia Configuration Server. Before starting this installation, be sure to review the *Checklist* and *Tips* sections on the preceding pages.

Silent Installation

Notes

By default, this Silent installation will back up an existing Radia Database.

In order to turn off this feature, open the **setup.cfg** file (see *Figure 3.1* on page 86) and change **DOBACKUP** to **0**.

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

To run the Radia Configuration Server's Silent installation

1. Insert the **hp OpenView Radia v4 configuration server** CD-ROM into the CD-ROM drive.
2. Navigate to the directory that contains the RCS installation program for the Windows platforms.

   cd *SystemDrive*:\management_infrastructure\configuration_server\win32
3. Type:

   nvdkit setup.exe -mode silent

   and press ENTER.

The Radia 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 Radia Configuration Server.

To run the Radia Configuration Server's GUI installation

1. Insert the **hp OpenView Radia v4 configuration server** CD-ROM into the CD-ROM drive.

   The installation program should start automatically. If it doesn't:

   a. Use **Windows Explorer** to navigate to:

      ***CD_Drive*:\management_infrastructure\configuration_server\win32**

   b. Double-click **install.cmd**.

The GUI installation begins with the **Hewlett-Packard Radia Configuration Server Installation Welcome** window.

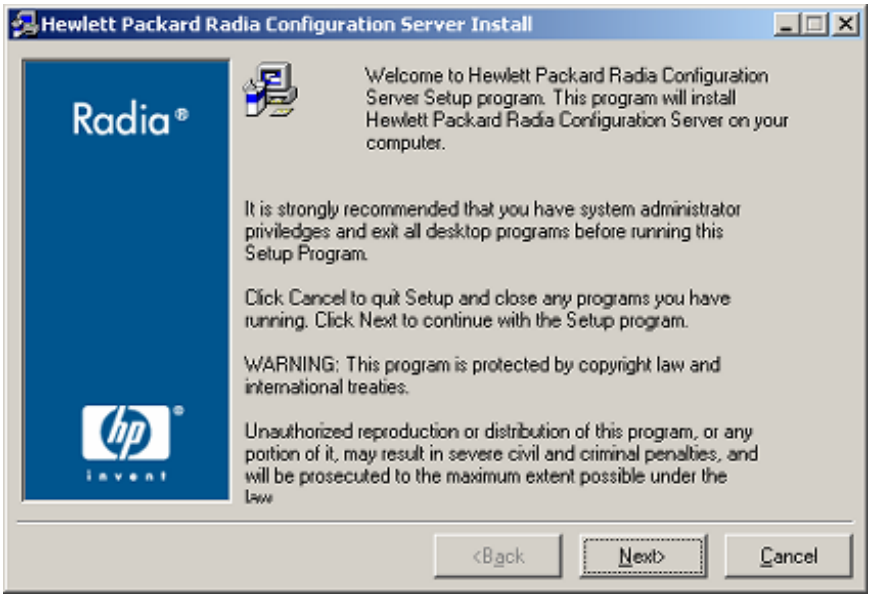

Figure 3.2 ~ The Radia Configuration Server Install Welcome window.

2. Click **Next**.

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

The **HP Software License Agreement** window opens.

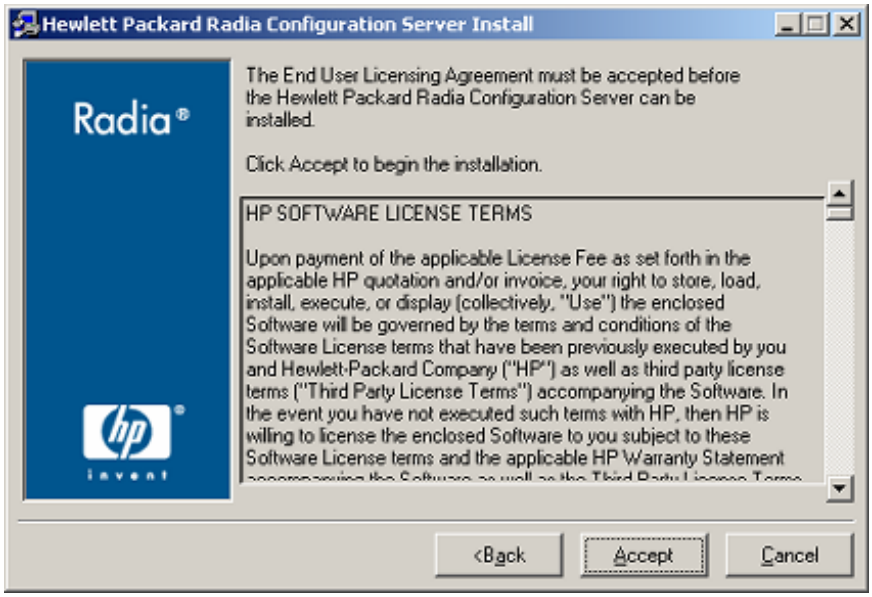

Figure 3.3 ~ The HP Software License Agreement window.

3. Click **Accept**.

Note

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

The **Directory Specifications** window opens.

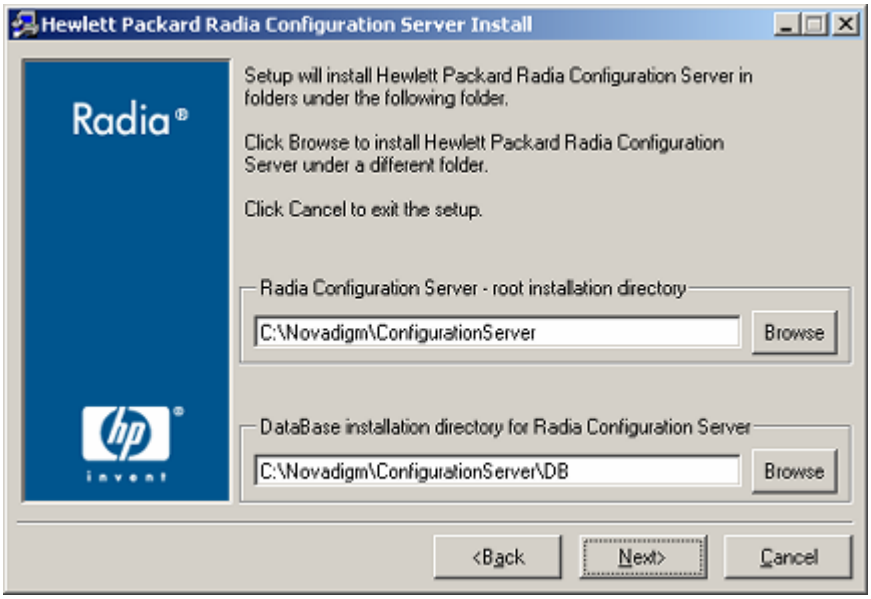

Figure 3.4 ~ The Radia Configuration Server Directory Specifications window.

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 Radia Configuration Server *executable*, *log*, *Internet*, and *REXX* files, and the Radia Database files.

Note

If a previous version of the Radia Configuration Server and Radia 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.

4. Click **Next**.

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

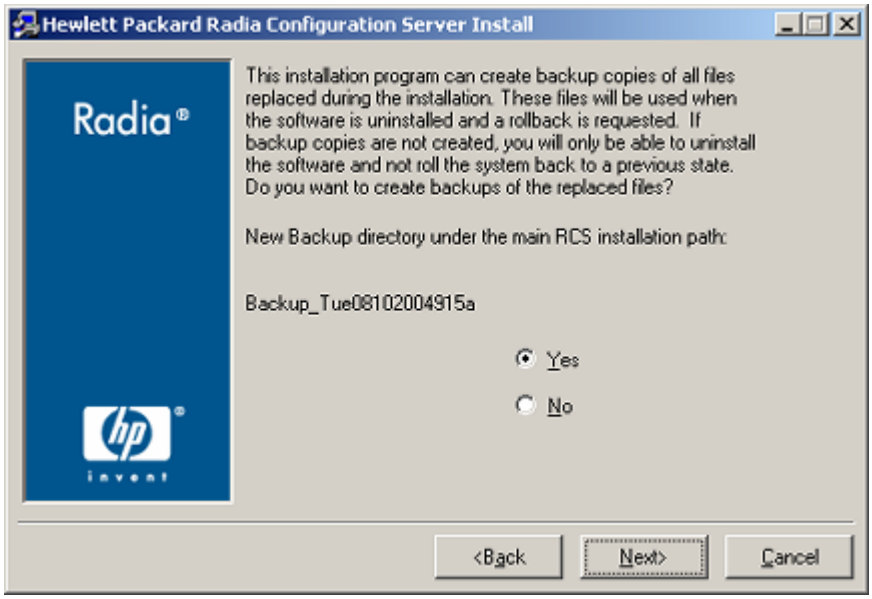

Figure 3.5 ~ The Radia Configuration Server Backup Directory window.

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.

5. Click **Next**.

The **Select Components to Install** window opens.

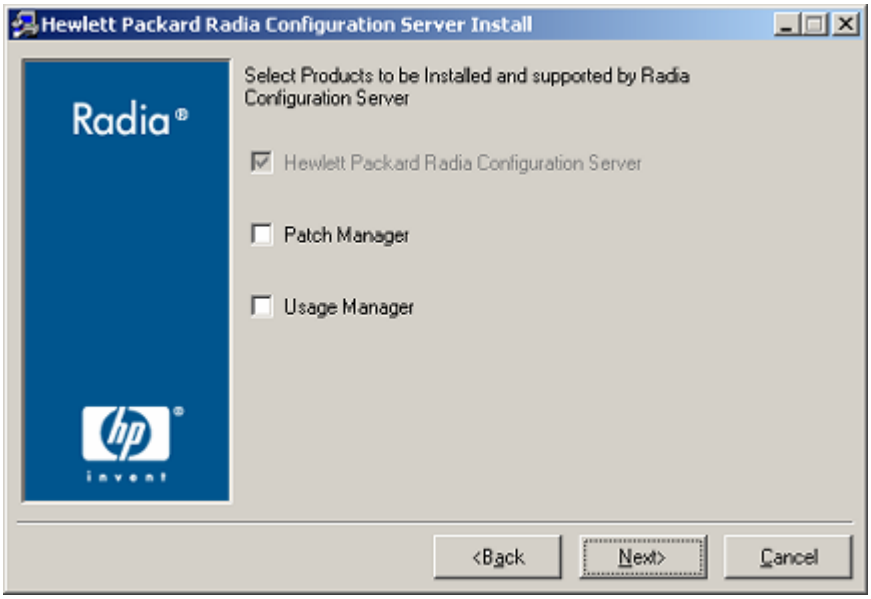

Figure 3.6 ~ The Radia Configuration Server Select Components to Install window.

In this window:

- The **Radia Configuration Server** option is selected and disabled—it will be installed.

> **Note**
>
> See the section *The Radia Configuration Server as an NT Service*, starting on page 54.

- Select **Patch Manager**, **Usage Manager**, and/or **OS Manager** to automatically include those product installations.

> **Note**
>
> If **Patch Manager**, **Usage Manager**, and/or **OS Manager** are selected, the **Radia Configuration Server** installation will not be affected, nor will there be additional dialog boxes.

6. Click **Next**.

The **Post-Installation Start** window opens.

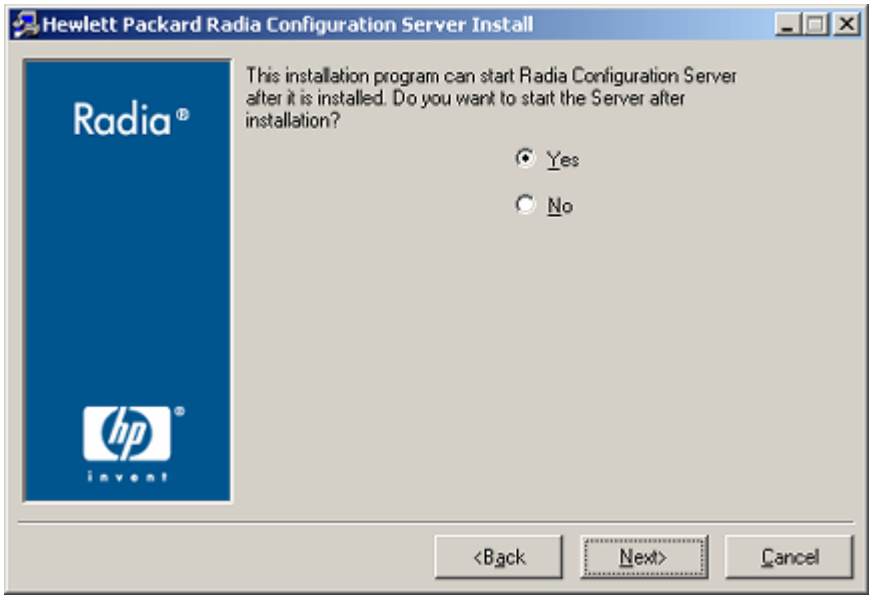

Figure 3.7 ~ The Radia Configuration Server Post-Installation Start window.

In this window:

- Accept the default (**Yes**) to have the RCS automatically start at the conclusion of the installation.
- Select **No** to avoid the RCS automatically starting after the installation.

7. Click **Next**.

The **Location of License File** window opens.

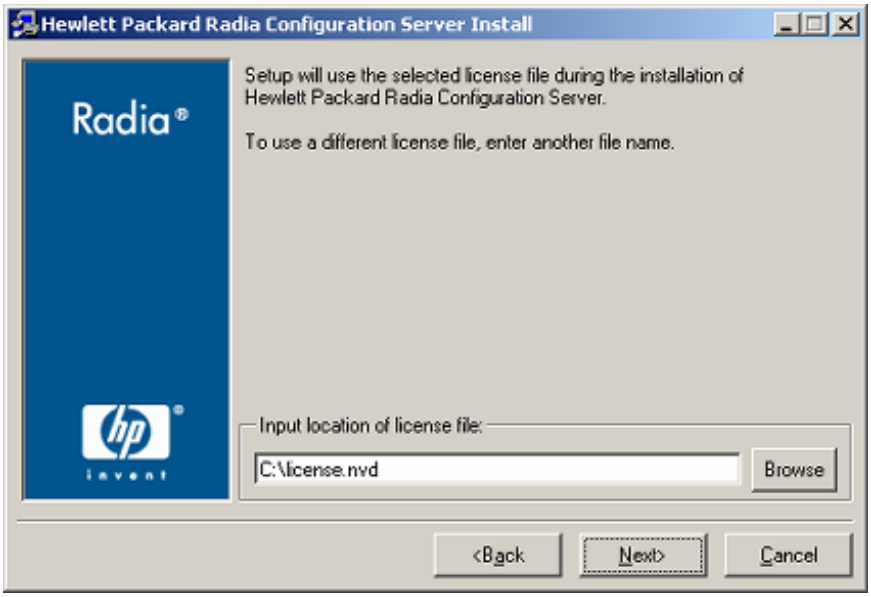

Figure 3.8 ~ The Radia Configuration Server Location of License File window.

In this window:

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

8. Click **Next**.

The **E-mail Address** window opens.

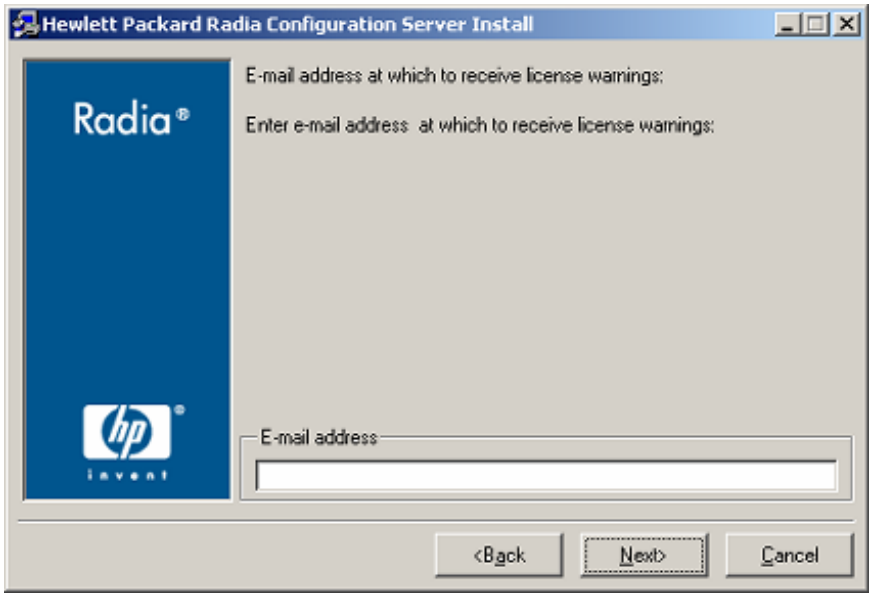

Figure 3.9 ~ The Radia Configuration Server E-mail Address window.

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

9. Click **Next**.

The **Radia Configuration Server ID** window opens.

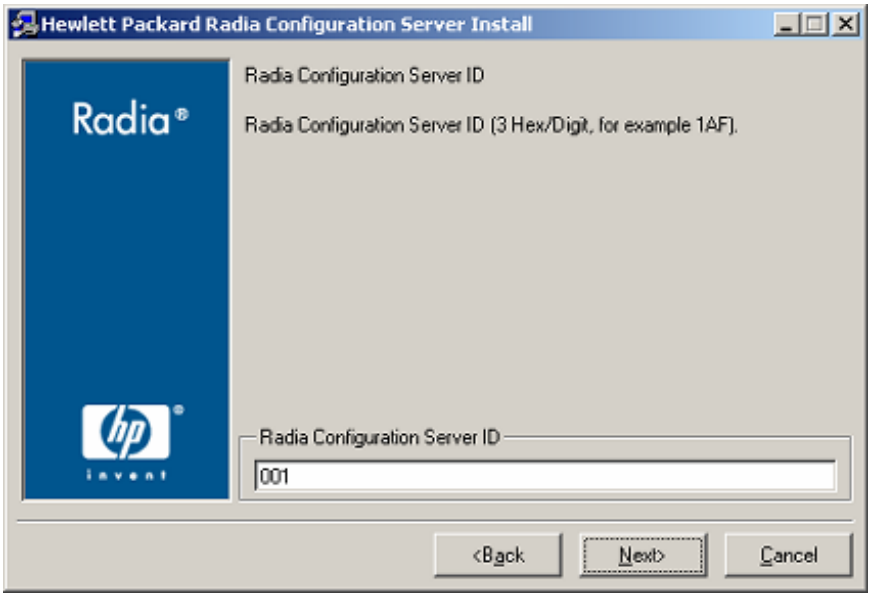

Figure 3.10 ~ The Radia Configuration Server ID window.

In this window, specify a three-character ID for the Radia 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 Radia Configuration Server log file.)

This field is required.

10. Click **Next**.

The **Radia Configuration Server Name** window opens.

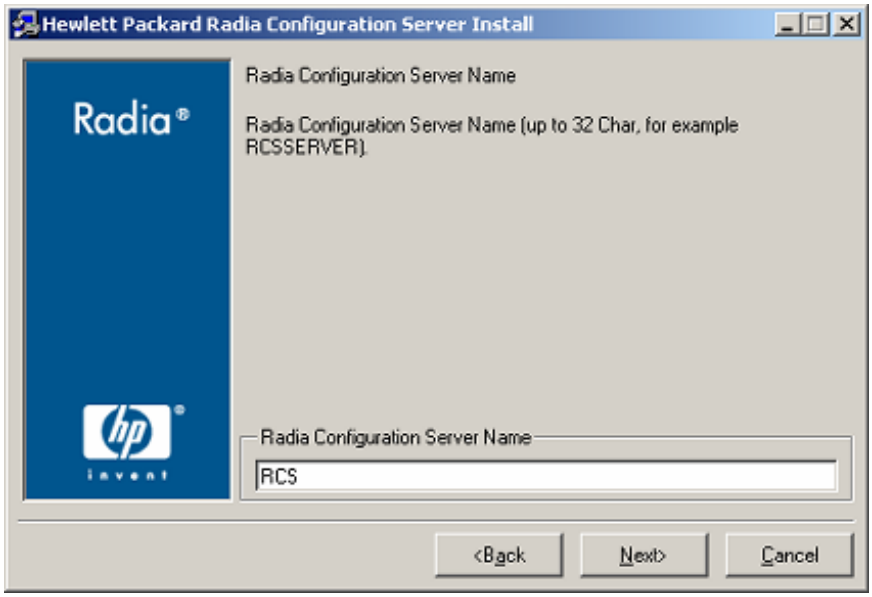

Figure 3.11 ~ The Radia Configuration Server Name window.

In this window, specify a name (32-character maximum) for the Radia Configuration Server. This field is required.

11. Click **Next**.

The **TCP/IP Port** window opens.

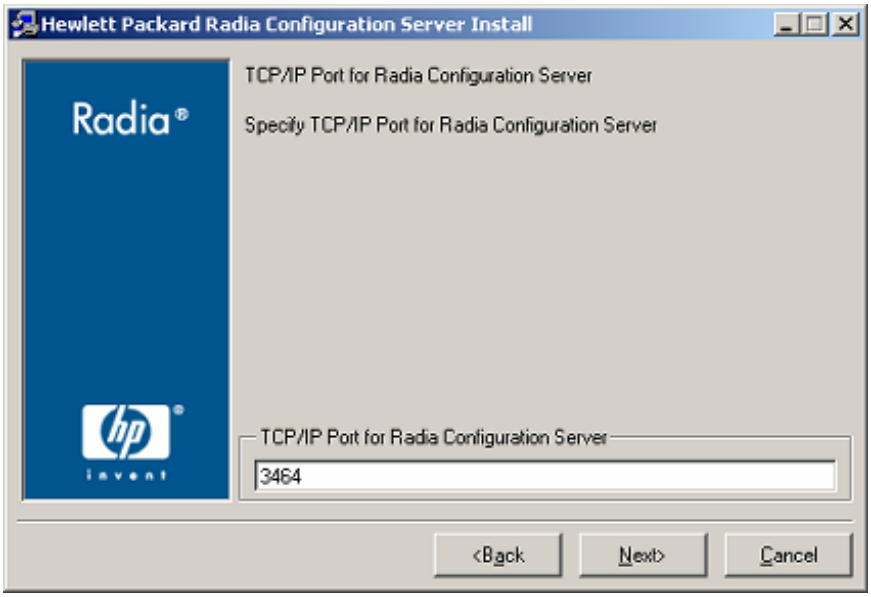

Figure 3.12 ~ The Radia Configuration Server TCP/IP Port window.

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

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

12. Click **Next**.

The **Zone Name for Radia Management Portal** window opens.

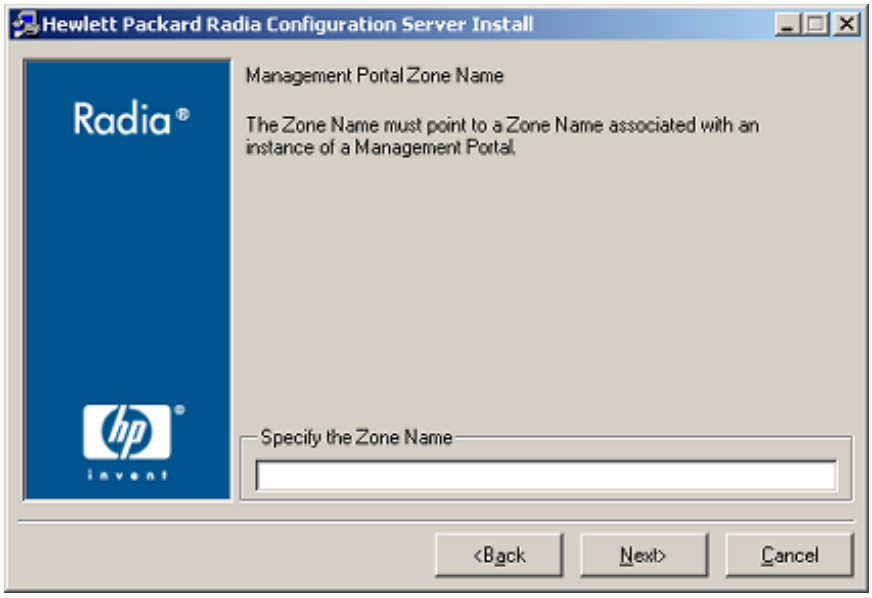

Figure 3.13 ~ The Radia Configuration Server Zone Name for RMP window.

In this window, specify a Zone Name that is associated with an instance of the Radia Management Portal.

(For information on RMP Zone Names, refer to the *Radia Management Portal Guide*.)

This field is optional.

13. Click **Next**.

The **Summary of Installation Input** window opens.

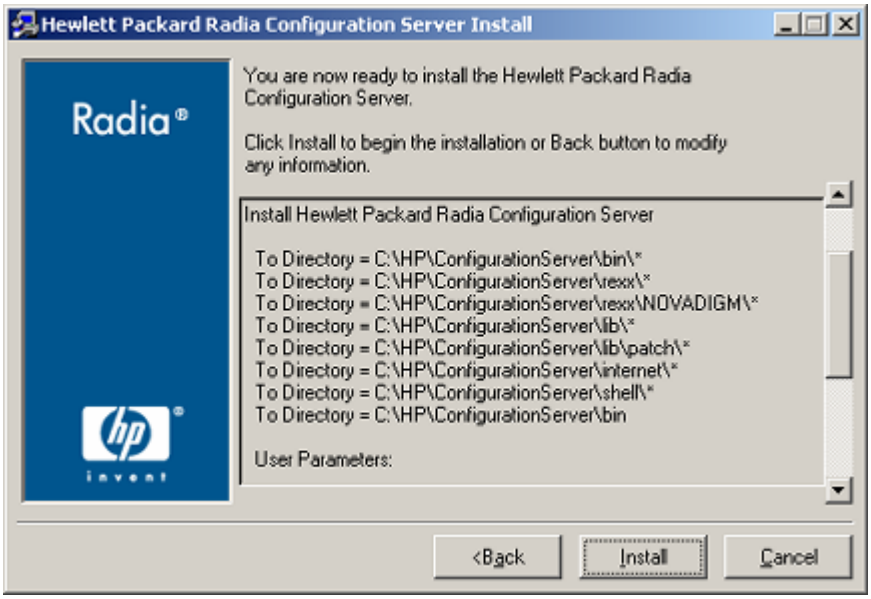

Figure 3.14 ~ The Radia Configuration Server Summary of Installation Input window.

This window presents all the information that was specified during the Radia 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 Radia Configuration Server installation settings are satisfactory, click **Install**.

14. Click **Install**.

The **Installation in Progress** window opens.

When the installation is complete, the **Radia Configuration Server Installation Finish** window opens.

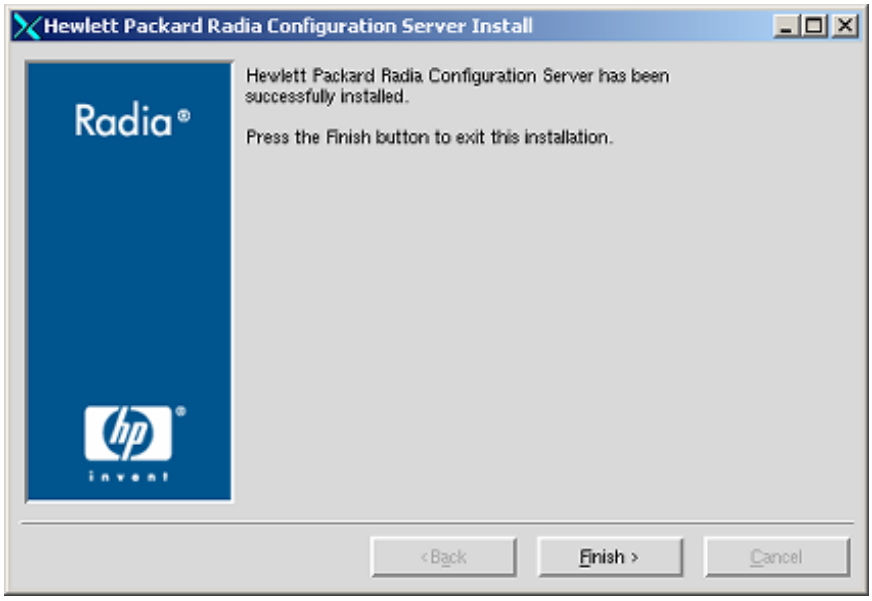

Figure 3.15 ~ The Radia Configuration Server Installation Finish window.

The Radia Configuration Server for Windows has been successfully installed.

Important Notes

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 Radia Configuration Server should now be present as a *service* (**ZTopTask**) in the Windows **Services** list.

The Radia Configuration Server as an NT Service

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

NT Service Options

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

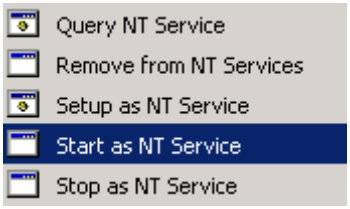

Figure 3.16 ~ The Radia Configuration Server's NT Service options.

To start the Radia Configuration Server as an NT Service

1. Click **Start**, **Programs**, and **Radia Configuration Server**.
2. Select **NT Services**.
3. Select **Start as NT Service**.

   The Radia Configuration Server will start. This can be verified by following the steps outlined in the query section.

To stop the Radia Configuration Server as an NT Service

1. Click **Start**, **Programs**, and **Radia Configuration Server**.
2. Select **NT Services**.
3. Click **Stop as NT Service**.

   It will take approximately two minutes for the Radia Configuration Server to shut down. This can be verified by following the steps outlined in the following procedure.

To query the Radia Configuration Server as an NT Service

1. Click **Start**, **Programs**, and **Radia Configuration Server**.
2. Select **NT Services**.

3. Select **Query NT Service**.

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

   - The name of the service (for the RCS, this is **ZTopTask**),
   - Whether it's running, and
   - It's startup-type selection (*automatic* or *manual*).

Using the Windows Event Viewer with the Radia Configuration Server

If the Radia Configuration Server is running as an NT Service, the Windows **Event Viewer** can be used to view key Radia 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 Radia Configuration Server processing. These are described in the section, *Radia Configuration Server Messages in Event Viewer*, on page 104.

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, refer to the documentation that was distributed with it.

Filtering for Radia Configuration Server Messages

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

To locate Radia Configuration Server messages

> **Note**
>
> 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 Radia Configuration Server processing. Verify this by checking that **ZTopTask** is listed in all the rows of the **Source** column.

Radia Configuration Server Messages in Event Viewer

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

- **Start-up Message**

  `SERVICE HAS STARTED`

  The Radia Configuration Server for Windows is beginning its start-up processing by running the ZTOPTASK program.

- **Error Message 1**

  `START SERVICE CONTROL DISPATCHER FAILED`

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

- **Error Message 2**

  `SERVICE 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 3**

  `SET SERVICE FAILED IN REPORT STATUS`

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

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

- **Shut-down Message**

  `SERVICE STOPPED BY STOP REQUEST OR SHUT-DOWN REQUEST`

  The Radia Configuration Server has shut down.

Radia Management Portal Installation

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

System Recommendations for Windows

Table 3.5 lists the system requirements for the installation and operation of the Radia Management Portal. It is recommended that these requirements be strictly considered before installing the RMP on a Windows system.

> **Note**
>
> These recommendations represent typical, minimum operating system estimates.

Table 3.5 ~ System Recommendations for Windows Installations of RMP

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

Windows Pre-Installation Checklist

Prior to beginning the installation, make sure that:

- ❑ Locate the license file that is associated with this product installation.
- ❑ Assemble the following CD-ROMs (these are used during a complete Radia Management Portal installation):
  - hp OpenView Radia v4 infrastructure
  - hp OpenView Radia v4 applications
  - hp OpenView Radia v4 documentation
- ❑ Review the README file that was delivered with the product.
- ❑ After installing the Radia Management Portal, visit the HP Technical Support Web site to check for a Service Pack.
- ❑ If the *Radia Integration Server* (RIS) service (**httpd**) is running on the machine on which the Radia Management Portal is being installed, stop it.

Windows Pre-Installation Tips

Table 3.6 ~ Radia Management Portal 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 that has been 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 recommend 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 new *zone* architecture and features to support multiple Radia Management Portal sites in an environment. Each RMP site that is being managed from the master RMP site must be at version 2.0.

Server Notes

- The Radia Management Portal installation requires Administrator authority.

Client Notes

- Any platform that supports a Web browser.
- Any network machine running Microsoft Internet Explorer, version 4.0 or later, or Netscape Navigator, version 4.0 or later *with cookies enabled*.

Directory Size of a Single Zone

The **Portal Directory**, zone.mk (in the Radia Integration Servers **\etc** directory), loads the following information for the Radia Management Portal:

- Configuration
- Entitlement
- Devices
- Groups
- Managed Infrastructure
- Job Status
- Network and Mounted Services Information

A single Radia Management Portal zone has an absolute limit of 10,000 devices. However, HP recommends limiting the number of devices that are managed by a single zone to:

- Recommended: **1,000** to **2,000**

- Maximum: **5000**

Multiple Radia Management Portal zones can be installed in order to accommodate any enterprise.

Co-Resident Radia Integration Server Services

The Radia Management Portal installs the *Radia Integration Server* (RIS) service, **httpd**. It's possible that a different Radia component (such as Radia Distributed Configuration Server), on the same machine, is running its own RIS service.

Use the following set of instructions to configure the machine to run both services.

To establish co-resident RIS services

1. In the Windows **Services** area, stop the existing RIS service.
2. Remove the RIS service from the Windows **Services** by opening a command-prompt window and typing:

   ```
   nvdkit httpd.tkd remove
   ```

3. Follow the steps in this guide and install the RMP.

   When the directory prompt appears, specify a clean directory, such as **C:/RMP_20/IntegrationServer**.

   This will install the RMP's httpd to a path other than the existing one.

4. Re-install the first RIS service by opening a command-prompt window and typing:

   ```
   nvdkit httpd.tkd install
   ```

Two RIS services are running in separate directories.

Access Requirements

In order to access the Radia Management Portal, a machine must be on the same network as the RMP host machine and must be running Microsoft Internet Explorer, version 4.0 or later, or Netscape Navigator, version 4.0 or later, *with cookies enabled*.

Installing the RMP

This section contains instructions for installing the Radia Management Portal. Before starting this installation, be sure to review the section, *Windows Pre-Installation Notes*, starting on page 106.

Important Notes

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

Do not install it on a machine that is running an earlier version of the Radia Management Portal.

Use the following procedure to install an enterprise's first Radia Management Portal Zone.

To install the Radia Management Portal

1. On the **hp OpenView Radia v4 infrastructure** CD-ROM, navigate to:
   extended_infrastructure\management_portal\win32
   and double-click **setup.exe**.
   The **Radia Management Portal Install Welcome** window opens.

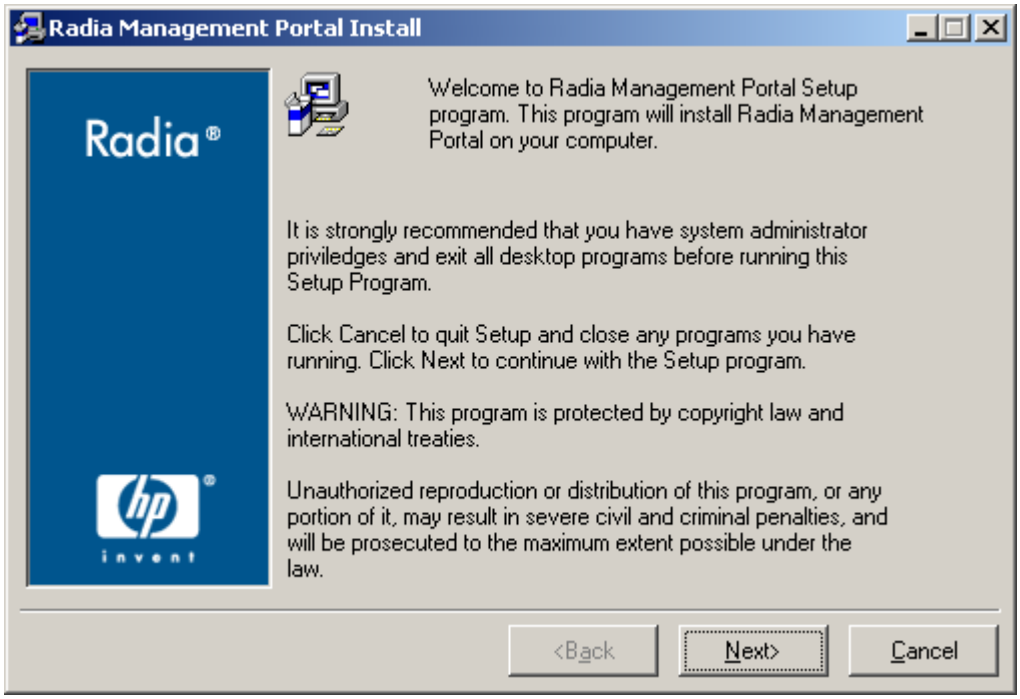

Figure 3.17 ~ Radia Management Portal Welcome window.

2. Click **Next**.

The **HP Software License Agreement** window opens.

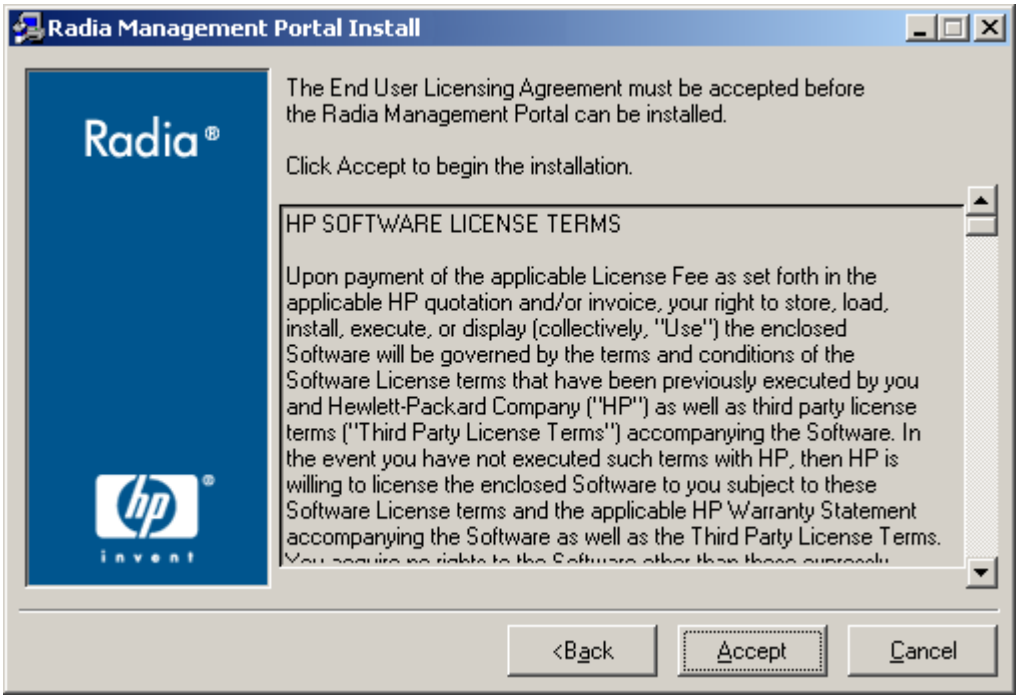

Figure 3.18 ~ End User Licensing Agreement.

3. Click **Accept**.

Note
If **Accept** is not selected, the Radia Management Portal installation program will terminate.

The **Radia Management Portal Location** window opens.

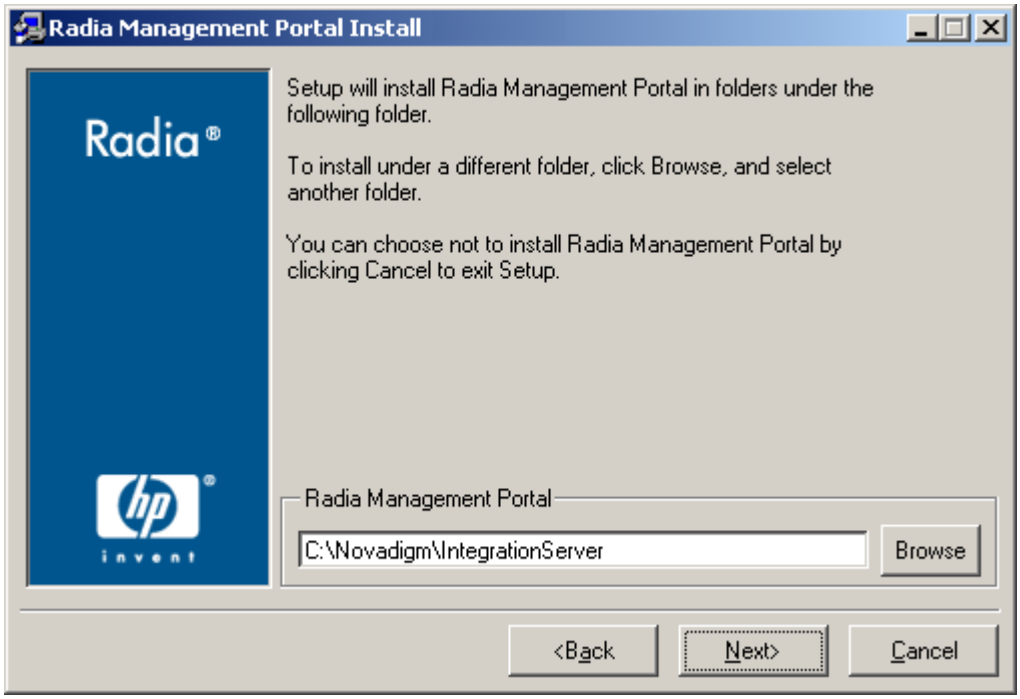

Figure 3.19 ~ Radia Management Portal location window.

In this window:

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

4. Click **Next**.

The **License File** window opens.

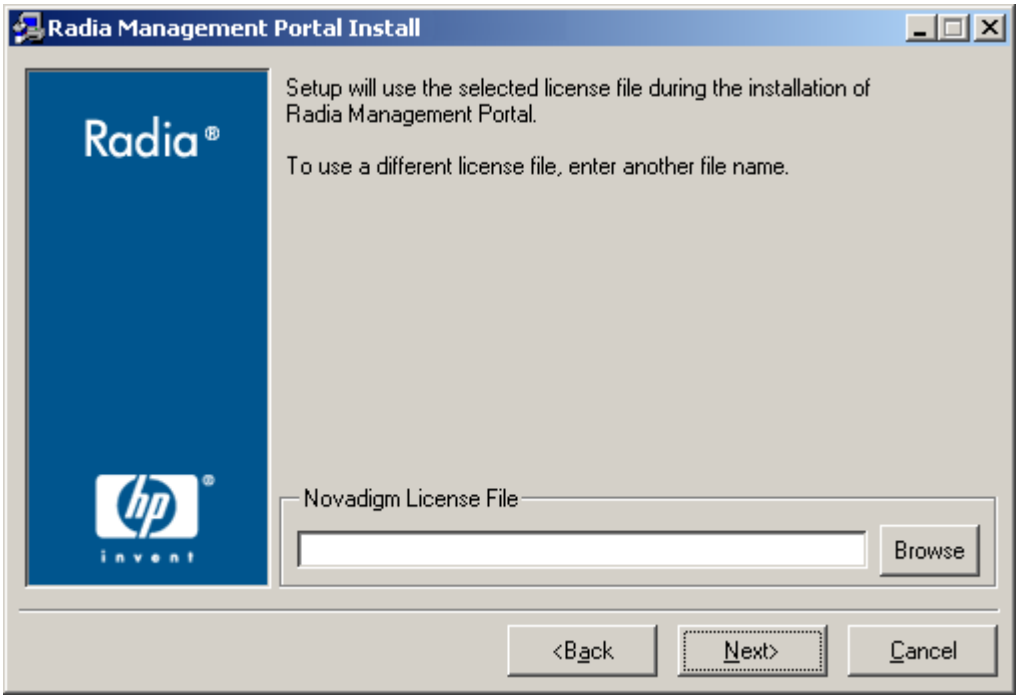

Figure 3.20 ~ License File window.

In this window:

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

5. Click **Next**.

The **Enable Network Discovery** window opens.

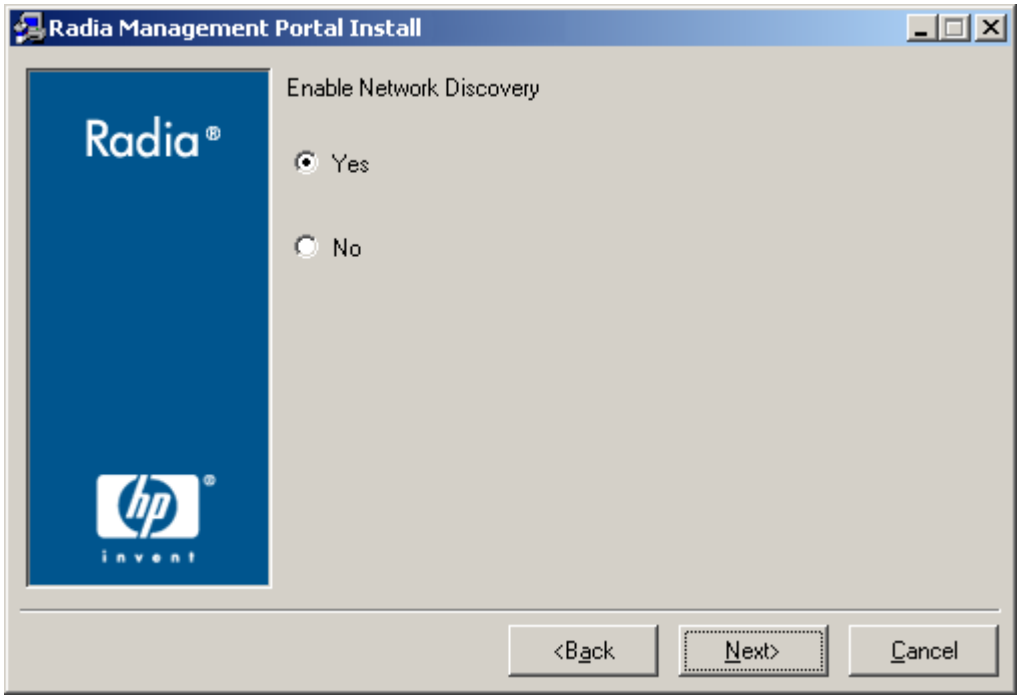

Figure 3.21 ~ Enable Network Discovery window.

In this window:

- Click **Yes** to enable Network Discovery. (*Recommended*)

  The Radia Management Portal will be able to automatically discover all the devices in the UNIX environment that can be managed by Radia.
- Click **No** to not enable Network Discovery.

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

6. Click **Next**.

The **Network Discovery Interval** window opens.

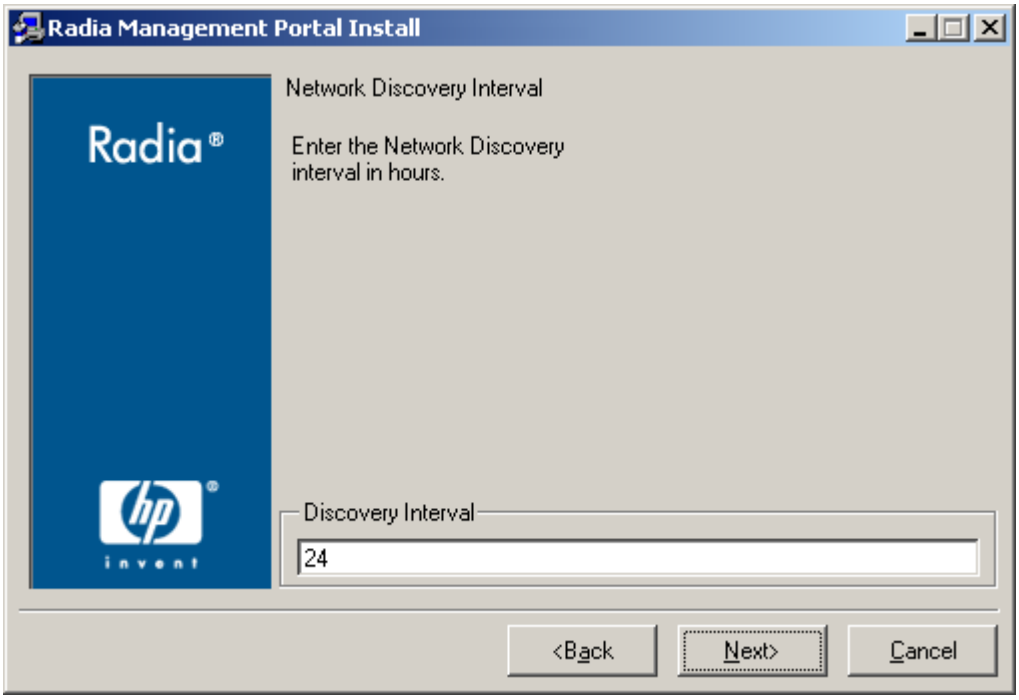

Figure 3.22 ~ Network Discovery Interval window.

In this window, specify the length of time (in hours) 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**)

7. Click **Next**.

The **Discovery Start Delay** window opens.

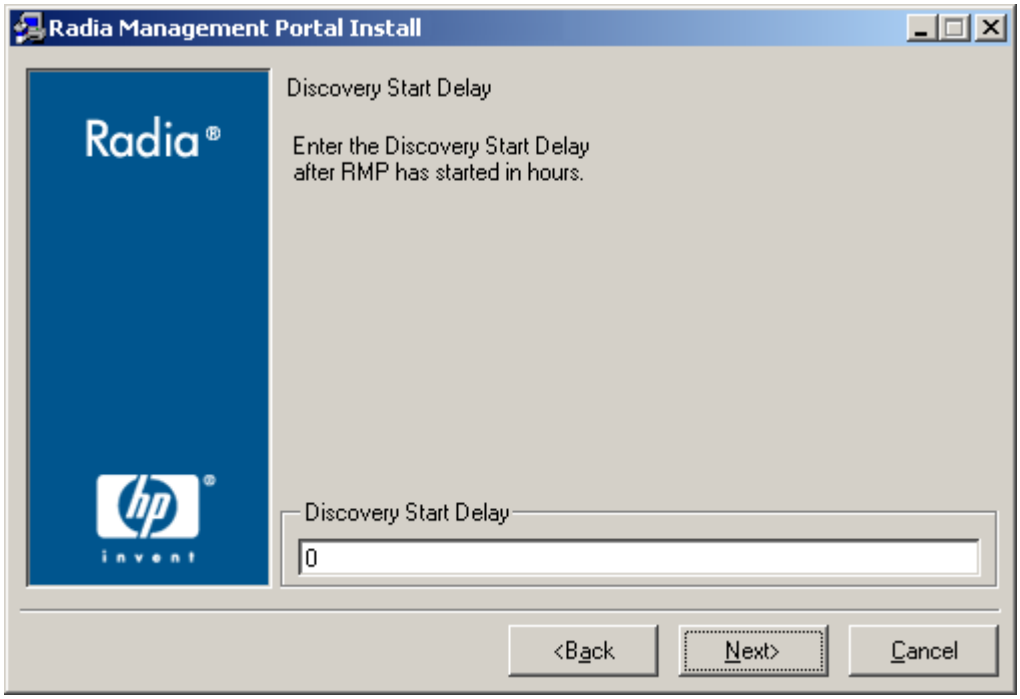

Figure 3.23 ~ Discovery Start Delay window.

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

- Accept the default **Discovery Start Delay** of **0** seconds, or
- Specify a different delay interval (valid values are **0** through **24**)

This delay applies each time the Radia Management Portal is started.

8. Click **Next**.

The first **Zone Information** window opens.

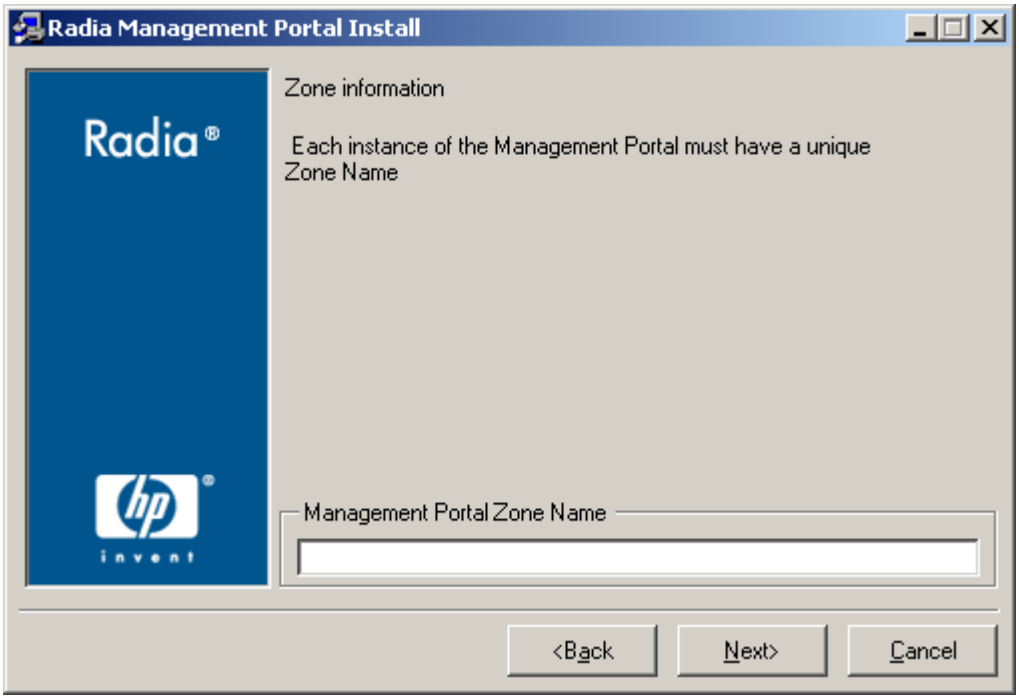

Figure 3.24 ~ Management Portal Zone Name information window.

In this window, specify a **Management Portal Zone Name** that will represent this instance of the Radia Management Portal.

- Each instance of the Radia Management 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.
- The **Zone Name** must adhere to the following guidelines:
  - A maximum of 64 alphanumeric characters.
  - Spaces are acceptable.
  - Special characters (such as commas, periods, and asterisks) are not acceptable.

9. Click **Next**.

The second **Zone information** window opens.

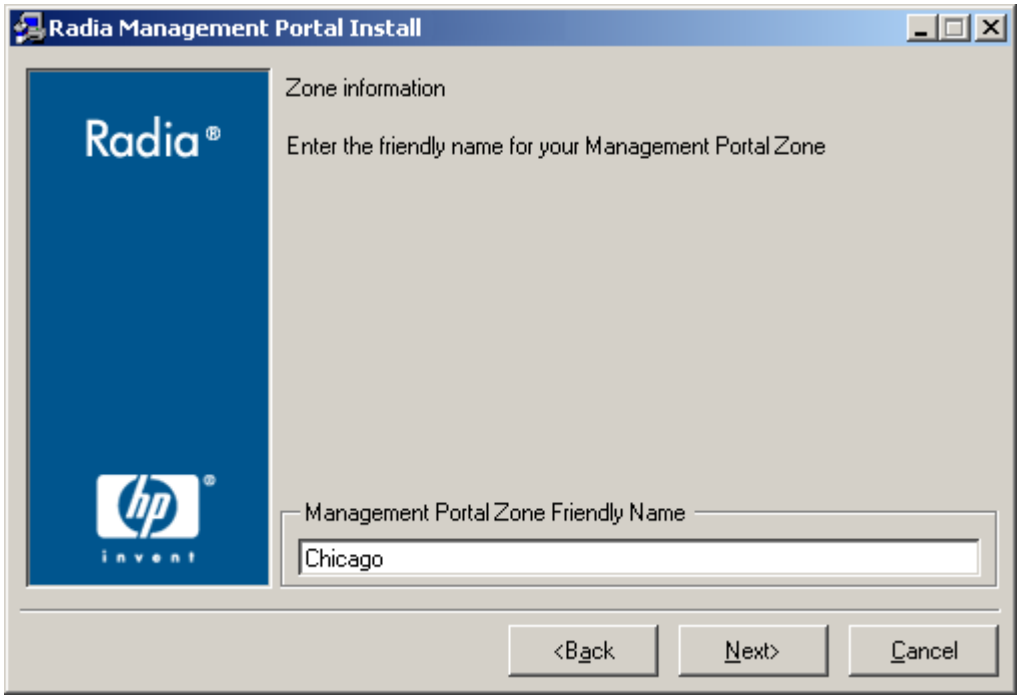

Figure 3.25 ~ Friendly Zone Name information window.

In this window, specify a **Management Portal Zone Friendly Name** for this instance of the Radia Management 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 RMP user interface.

10. Click **Next**.

The **Summary of Installation Input** window opens.

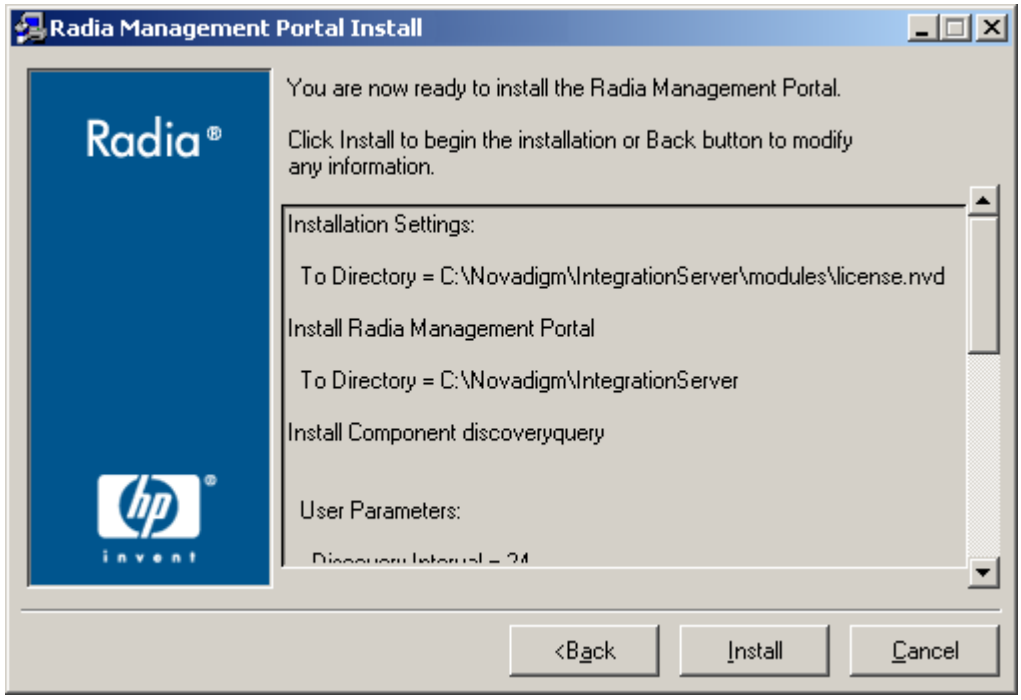

Figure 3.26 ~ The Summary of Installation Input window.

This window presents all the information that was specified during the Radia Management 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.

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

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

12. Click **Yes**.

The **Infrastructure Components** window opens.

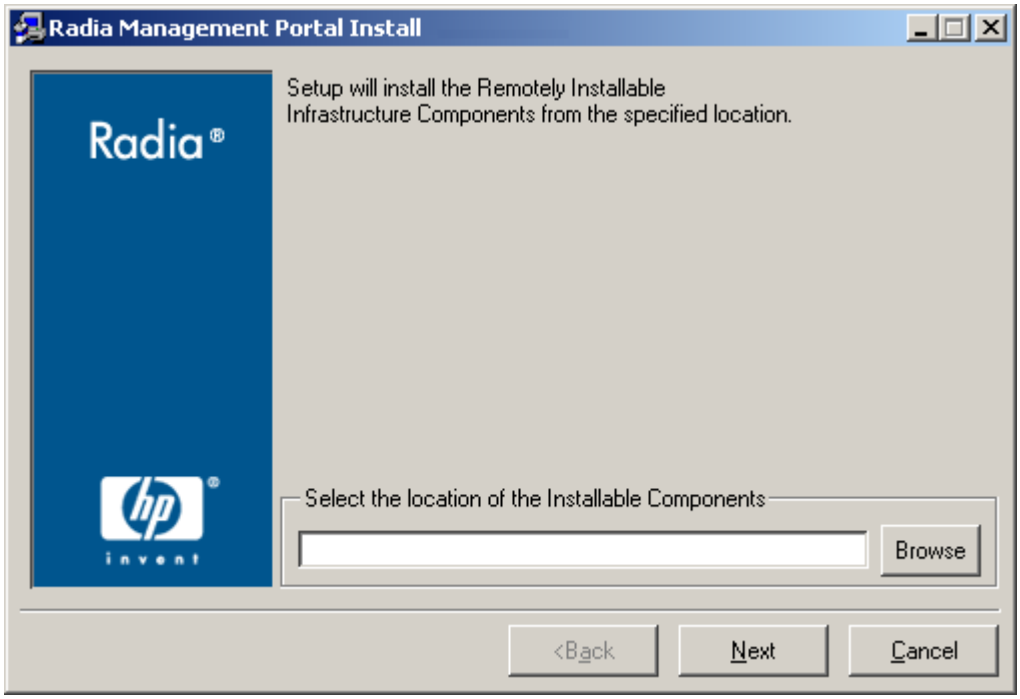

Figure 3.27 ~ The Installable Components window.

In this window, specify a location in which to install those Radia infrastructure components that can be remotely installed.

13. Click **Next**.

The modules are copied to the Radia Integration Server's **\media** directory.

There will be a prompt to copy the Radia Client modules to be used for remote installations.

14. Click **Yes**.

The **Client Components** window opens.

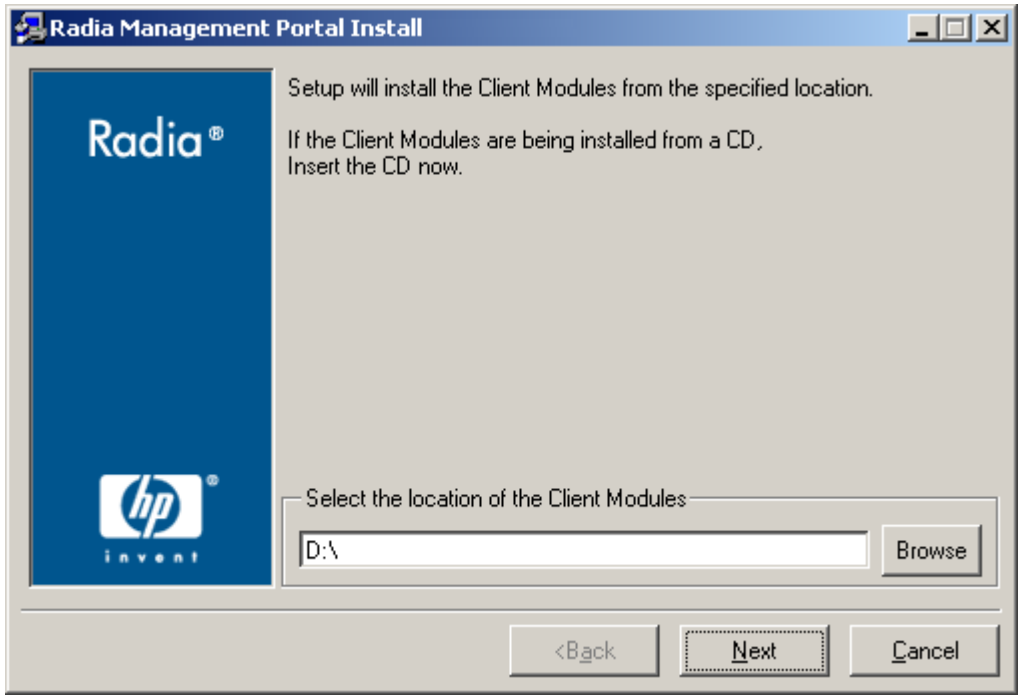

Figure 3.28 ~ Client Modules Location window.

In this window, specify the location of the **Client Modules**.

- If necessary, remove the current CD-ROM and insert the **hp OpenView Radia v4 applications** CD-ROM.

15. Click **Next**.

The Radia Client modules are copied to the Radia Integration Server's **\media** directory.

There will be a prompt to install the Radia documentation.

16. Click **Yes**.

The **Documentation Location** window opens.

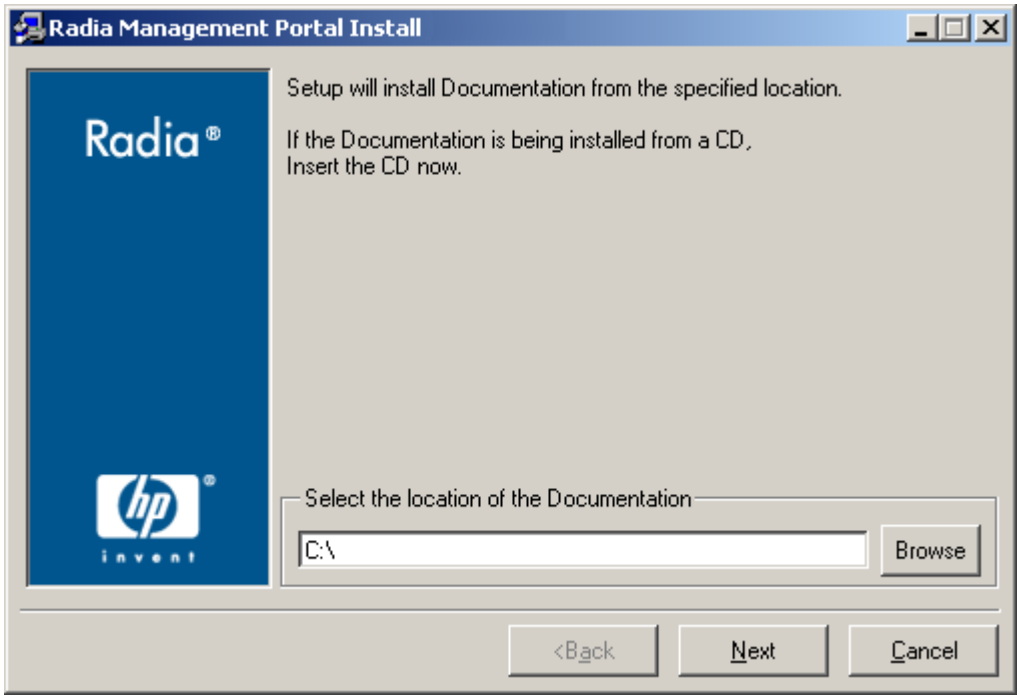

Figure 3.29 ~ Documentation Location window.

In this window, specify the location of the **Documentation Files**.

- If necessary, remove the current CD-ROM and insert the **hp OpenView Radia v4 documentation** CD-ROM.

17. Click **Next**.

The Radia publications library is installed to the Radia Management Portal.

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

IP Address for a Remote Radia Management Portal

If the Radia Management Portal was installed on a machine other than that which houses a Radia Configuration Server, the RCS REXX method, ZTASKEND must be checked to ensure that it contains the lines that are needed for the RMP. Additionally, the RCS edmprof file must be modified to contain the IP address and port of the RMP.

The following sections detail how to complete these tasks.

Verifying the Contents of ZTASKEND

To verify ZTASKEND contains Radia Management Portal-required lines

1. On the Radia Configuration Server host machine, locate **ZTASKEND** in the **/rexx/Novadigm** folder of the directory in which the RCS is installed.

   The default is **/opt/HP/RCS/rexx/Novadigm**.

2. Copy **ZTASKEND** and paste it into the **/rexx** directory.

> **Caution**
>
> *Do not* edit the ZTASKEND REXX script in **/rexx/Novadigm**.
>
> If the Radia Database is updated, all customizations will be overwritten.

3. Open **ZTASKEND** (in the **/rexx** directory) with a text editor, such as WordPad.
4. Verify that the following lines are in ZTASKEND.

```
/* Object post to Radia Management Portal */
IF ZCVT.RMP = "ENABLED" THEN DO;
   SAY "**<>** RADIA MANAGEMENT PORTAL ENABLED CALLING RADISH POST:
ROUTINE"
   SESSION.REASON = SUBWORD(MYPARM,2,1)
   ADDRESS EDMLINK "radish post: -section MGR_RMP /proc/rcs SESSION ZCONFIG
      ZMASTER APPEVENT ZSTATUS";
END;
```

5. Save the changes and close the file.

> **Note**
>
> Do not save the ZTASKEND as a text file. Be sure to save this file without an extension.

Configuring the EDMPROF File

In addition to the ZTASKEND REXX method being modified, the RCS's edmprof file must be modified. By default, the edmprof file is configured to have the Radia Management Portal co-resident with the Radia Configuration Server. Therefore, if the RMP is running on a computer other than that which is hosting the RCS, it is necessary to revise the MGR_RMP section of the edmprof.

Table 3.7 lists the default settings of the MGR_RMP section, as well as the values that can be specified in order for the RCS to use the remotely installed RMP.

Table 3.7 ~ MGR_RMP Settings

Settings	Default	Alternative #1	Alternative #2
HTTP_HOST	localhost	<*host_name*> of the RMP's host	<*IP_address*> of the RMP's host
HTTP_PORT	3466	3466	3466

To edit the edmprof file

The edmprof file is located in the **home** directory of the UNIX user ID that installed and maintains the Radia Configuration Server.

1. Make a backup copy of edmprof file before editing it.
2. Using a text editor, open the edmprof file and locate the MGR_RMP section.
3. Replace the HTTP_HOST value with either of the *alternatives* that are shown in Table 3.7.
4. Save the changes and close the edmprof file.

The Radia Configuration Server is now configured to use the remotely installed RMP.

Note

To verify that the Radia Configuration Server is using the specified Radia Management Portal, you can either monitor the posts in the RCS log or check the clients in the Radia Management Portal (since each client will show the services that you deployed under the Radia Subscribers section).

Starting and Stopping the Radia Management Portal

To start the Radia Management Portal

1. Go to the directory in which the Radia Management Portal was installed and type: **`./nvdkit httpd.tkd`**.

2. Verify that the RMP started.

To stop the Radia Management Portal

> **Note**
>
> The following are general guidelines and the commands are examples that might vary depending on the UNIX operating system.

1. Obtain the process ID for the Radia Management Portal server by listing all the UNIX processes and extracting the process ID for nvdkit.

   ```
   ps -f | grep nvdkit | sed /grep/d | awk '{ print $2 }'
   ```

2. Run the following command.

   ```
   kill <PID>
   ```

3. Verify that the RMP stopped.

Accessing and Logging on to the Radia Management Portal

To access and log on to the Radia Management Portal

1. Open a Web browser and in the **Address** bar, type:

   http://<*IP_address*>:3466.

   <IP_address> is that of the Radia Management Portal's host computer.

   The **Radia Management Portal Login** page (Figure 3.30) opens.

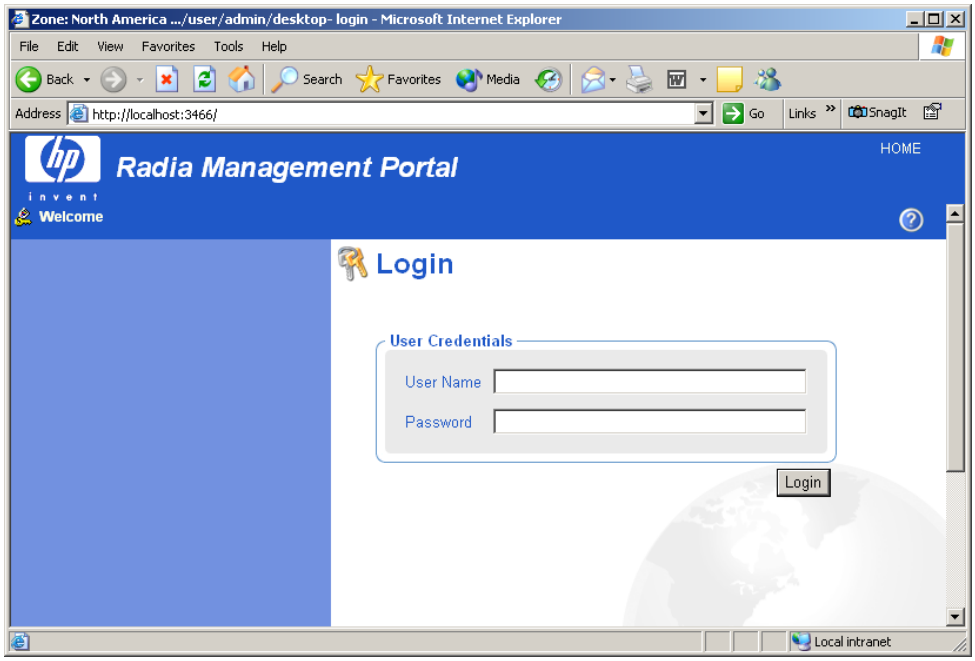

Figure 3.30 ~ Login page for the Radia Management Portal.

2. 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 Radia Management 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.

3. 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 Radia Management Portal and the Radia Management Agent, refer to the *Radia Management Portal Guide*.

Accessing the Radia Publications

The Radia Management Portal provides access to the Radia library—a comprehensive list of Radia documentation in *Portable Document Format* (pdf).

To access the Radia publications via the Radia Management Portal

1. Access the Radia Management Portal as instructed in the section, *Accessing and Logging on to the Radia Management Portal*, on page 77.
2. In the upper right corner of the **Login** page, click **PUBS**.

   The **Radia Publications** home page opens.
3. Select a publication to view and double-click on it.

   The publication will open in its own window.

Summary

- The Radia Configuration Server and Radia Management Portal can easily be installed and incorporated into a Windows environment.
- The Radia Configuration Server and Radia Management Portal can be started and stopped.
- The Radia Management Portal can be accessed using varying levels of authority.
- The Radia Publications can be installed on, and viewed via, the Radia Management Portal.

4

MVS Installation

At the end of this chapter, you will have:

- Prepared the Radia Configuration Server installation files on a Windows machine (prior to transferring them to an MVS machine)
- Transferred the installation parameters from the Windows machine to the MVS environment

Chapter Overview

This chapter details the preparation of the Radia Configuration Server installation files on a Windows machine before their eventual transfer to an MVS mainframe. After the RCS installation files have been prepped, they can be transferred to an MVS machine, which must be at the following minimum level:

- **OS/390, level 2.5**

Radia Configuration Server Installation

This section provides instructions for preparing the Radia Configuration Server files on a Windows machine, and then transferring them to an MVS mainframe.

System Recommendations for MVS

Table 4.1 lists the system recommendations for installing and operating the Radia Configuration Server in an MVS environment.

Important Note

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

Table 4.1 ~ Space Requirements for MVS Installations of RCS

Component	Space Requirement
Recommended Space	450 cylinders
Memory	Maximum allowed
Virtual Memory	Maximum allowed
Radia Configuration Server Directory **Important Note**: This space recommendation does not include estimates for additional applications that will be managed by the RCS.	200 cylinders
Radia Database *	170 cylinders
Radia Configuration Server Logs	N/A

Note

* The size of the database depends on the size and number of applications that the Radia 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 Radia Database is being installed.

Windows Platforms for MVS File Preparation

HP recommends using one of the following Windows platforms for the pre-transfer preparation of the Radia Configuration Server's installation files.

- '95,
- '98,
- NT 4.0 Server,
- 2000 Server,
- XP Professional,
- 2003 Server

Windows PC Pre-Installation Checklist

Prior to beginning the installation, make sure that:

- ❑ If a previous version of the Radia Configuration Server is running, shut it down.
- ❑ Prior to starting the Radia Configuration Server installation:
  - All other applications, including anti-virus programs are closed.
  - All other tasks and operations that are executing are stopped.

Transferring the License File

The license file that is used on the Windows PC for the pre-transfer preparation of the RCS must be re-named and transferred from the PC to the MVS mainframe. The easiest way to do this is using the "put" command, as in:

```
Put license.nvd 'RCS.451.parmlib(licnvd)'
```

Note

The installation media might contain products for which licenses have not been granted.

Install only those products for which you purchased a license.

MVS Pre-Installation Tips

Table 4.2 ~ Radia Configuration Server 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 recommend that all defaults be accepted; however, they can be overridden by specifying the parameters for your environment.

Preparing and Installing the RCS

This section contains instructions for preparing the Radia Configuration Server on a Windows machine before transferring the files to the MVS mainframe to complete the installation.

1. Insert the **Radia RCS Installation CD-ROM** into the CD-ROM drive of the Windows PC on which the RCS files are going to be prepped for the file transfer.
2. Navigate through the **management_infrastructure\configuration_server** directory to the sub-directory **mvs**.
3. Double-click **setup.exe**.

The Radia Configuration Server installation preparation begins with the **Hewlett-Packard RCS: Manager MVS Setup Welcome** window.

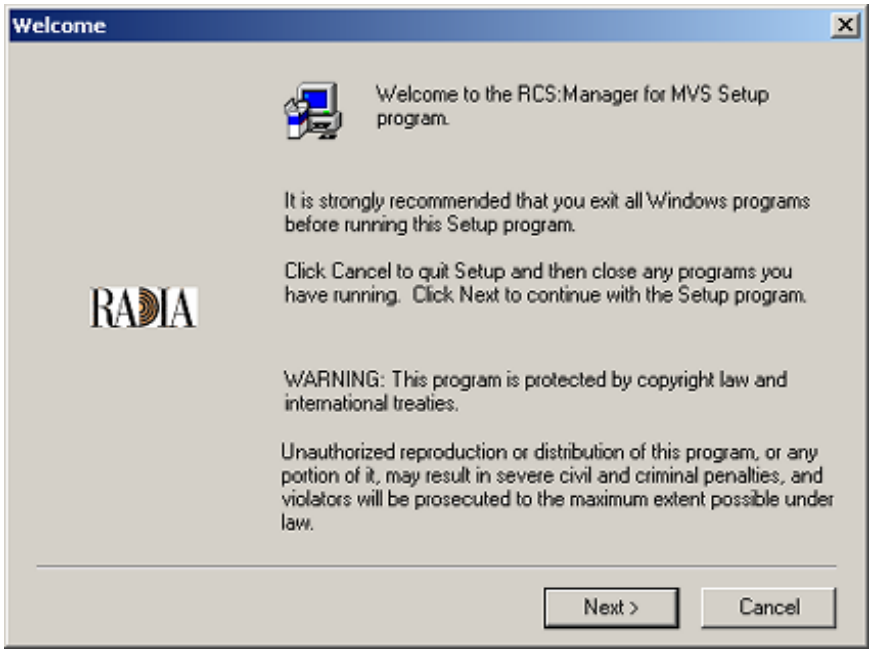

Figure 4.1 ~ The RCS: Manager MVS Setup Welcome window.

4. Click **Next**.

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

The **License Information** window opens.

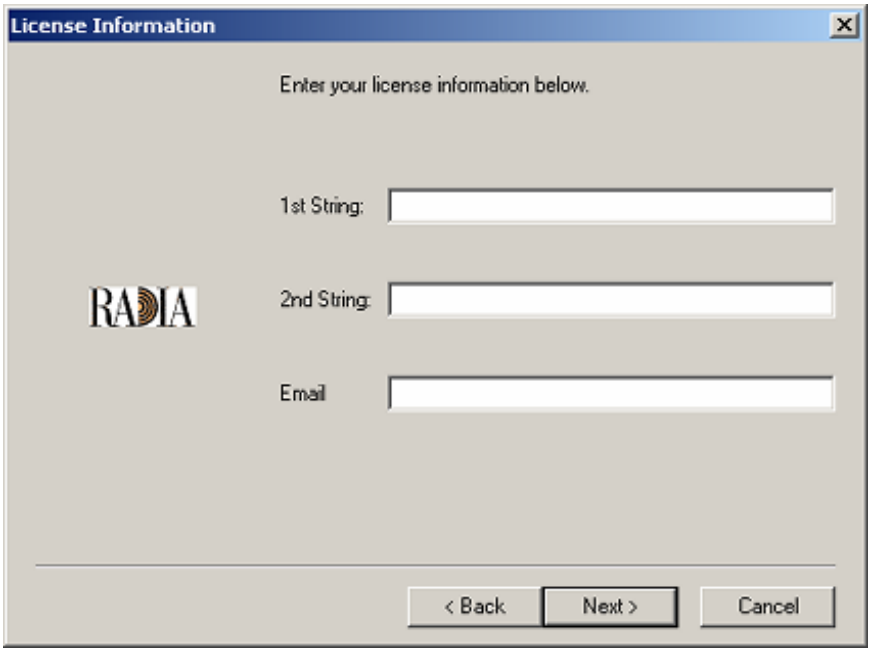

Figure 4.2 ~ The License Information window.

In this window, enter the license string that was issued with the purchase of the Radia Configuration Server.

Notes

Each license string is a 64-character, alphanumeric sequence with four 16-character segments that are separated by spaces.

The license strings use the numeral **0**, never the letter **O**.

Additionally, there is an option to specify an e-mail address to which license-expiration notifications will be sent.

5. Click **Next**.

The **Destination Directory** window opens.

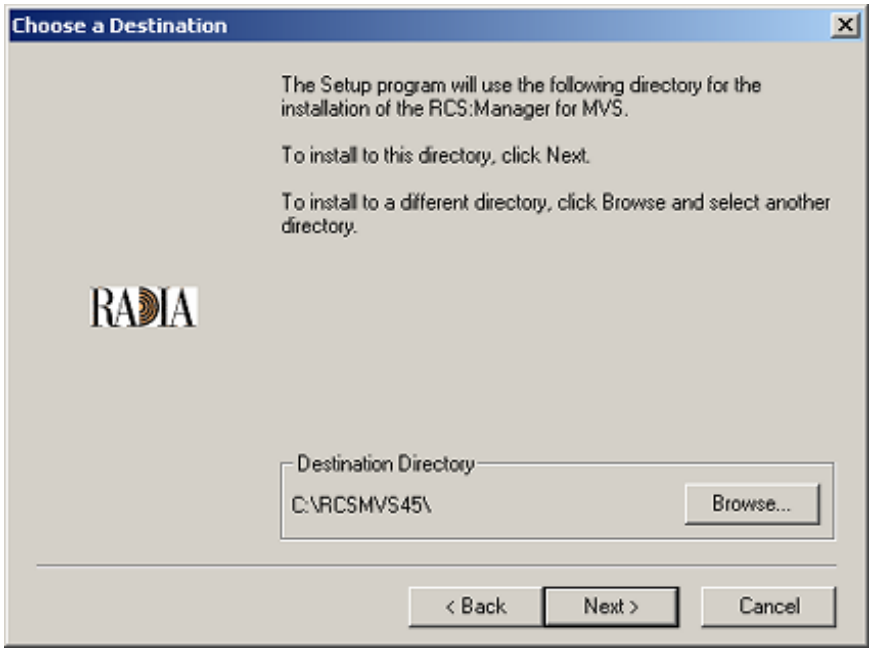

Figure 4.3 ~ The Destination Directory window.

In this window, accept the default **Destination Directory** that is displayed, or click **Browse** to navigate to a different temporary repository for the Radia Configuration Server's files.

6. Click **Next**.

The **RCS: Manager Parameters** window opens.

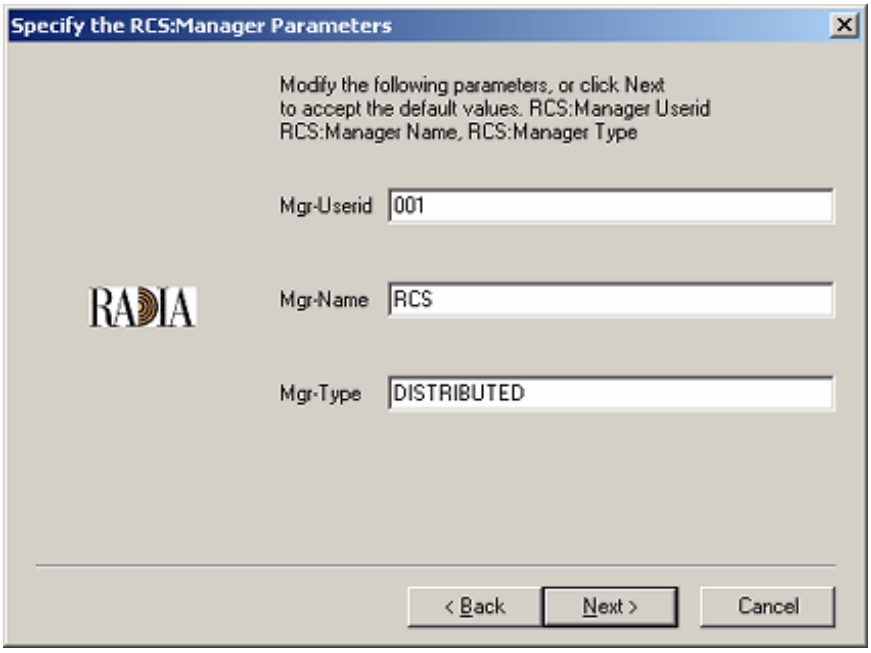

Figure 4.4 ~ The RCS: Manager Parameters window.

In this window, accept the default **RCS: Manager Parameters** that are displayed, or:

- Specify a different 3-character RCS (Manager) ID
- Specify a different RCS (Manager) Name (32-character maximum)
- Specify an RCS type (Distributed, Stand-alone, or Server)

7. Click **Next**.

The **Prefixes for MVS Datasets** window opens.

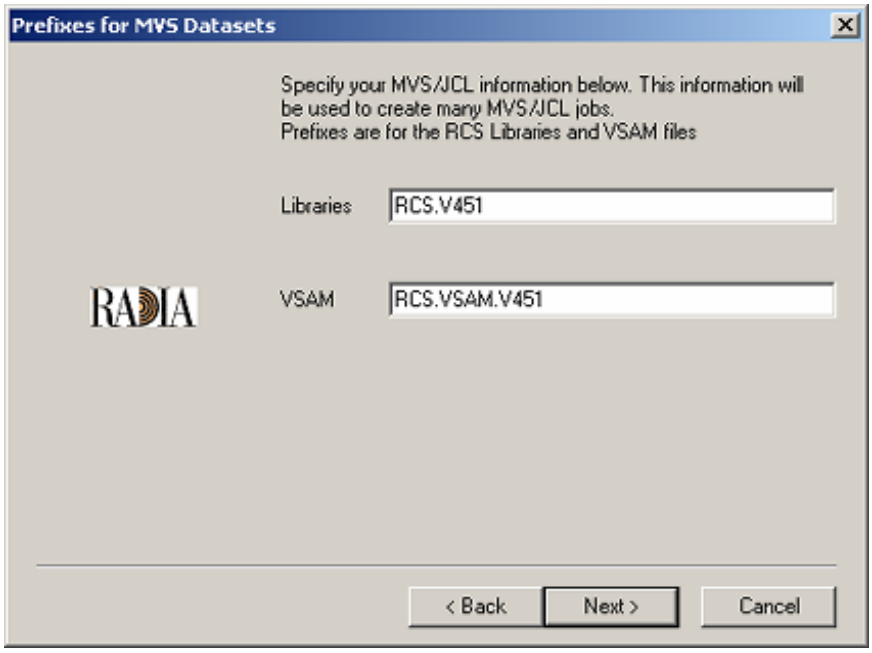

Figure 4.5 ~ The Prefixes for MVS Datasets window.

In this window, accept the default **MVS Datasets** parameters that are displayed, or:

- Specify a different prefix for the MVS **Library files**.
- Specify a different prefix for MVS **VSAM files**.

8. Click **Next**.

The MVS **Job Information** window opens.

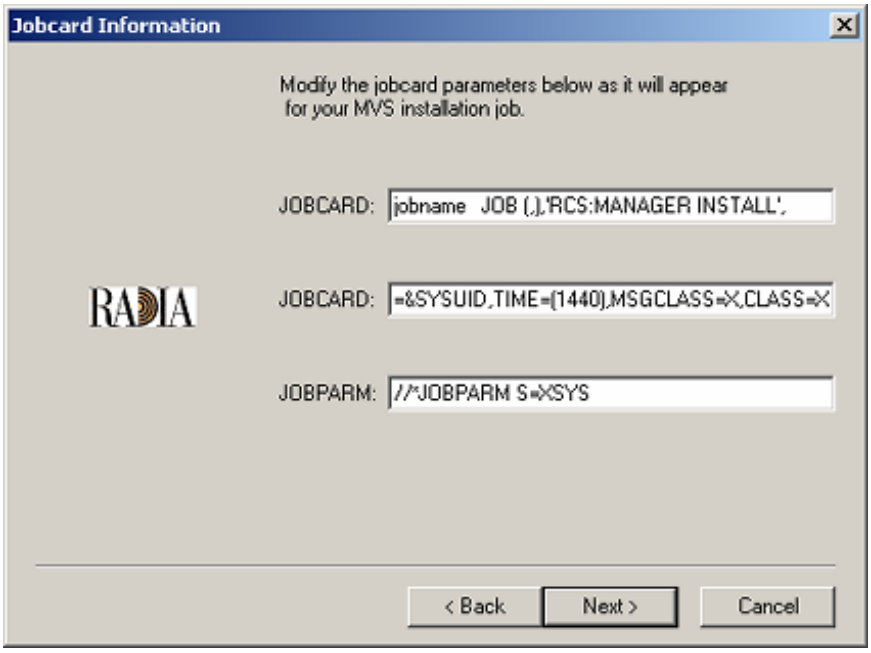

Figure 4.6 ~ The Job Information window.

In this window, accept the default MVS **Job Information** parameters that are displayed, or:

- Specify different **JOBCARD** parameters.
- Specify different **JOBPARM** parameters.

9. Click **Next**.

The **Management Storage** option window opens.

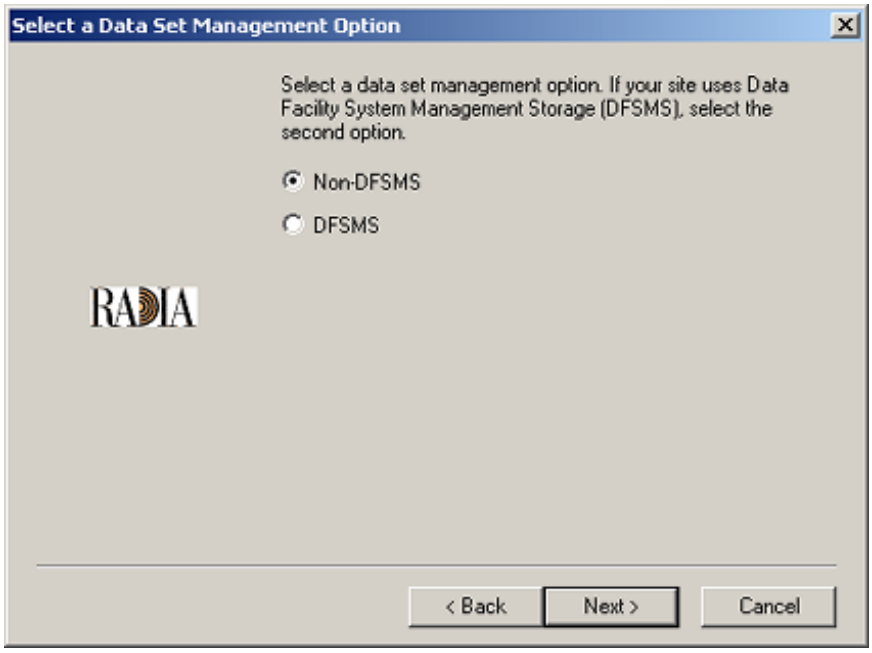

Figure 4.7 ~ The Dataset Management Option window.

In this window, accept the default **Management Storage** option of:

- **non-DFSMS**, if this is applicable to the target MVS environment.

  OR

- select **DFSMS** (Data Facility System Management Storage), if this is applicable to the target MVS environment

> **Note**
>
> Selecting **DFSMS** will spawn a series of windows that solicit configuration information.

10. Click **Next**.

The **Dataset Parameters** window opens.

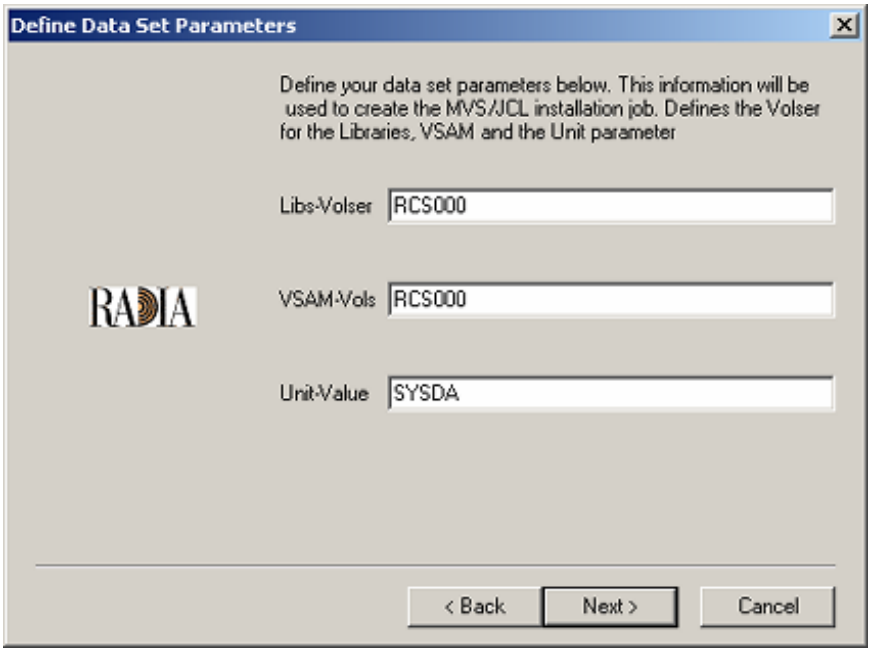

Figure 4.8 ~ The Dataset Parameters window.

In this window, accept the default **Dataset Parameters** that are displayed, or:

- Define a different **Volume Serial** for the **Library files**.
- Define a different **Volume Serial** for the **VSAM files**.
- Define a different **Unit Value**.

11. Click **Next**.

The **Communications Protocol** window opens.

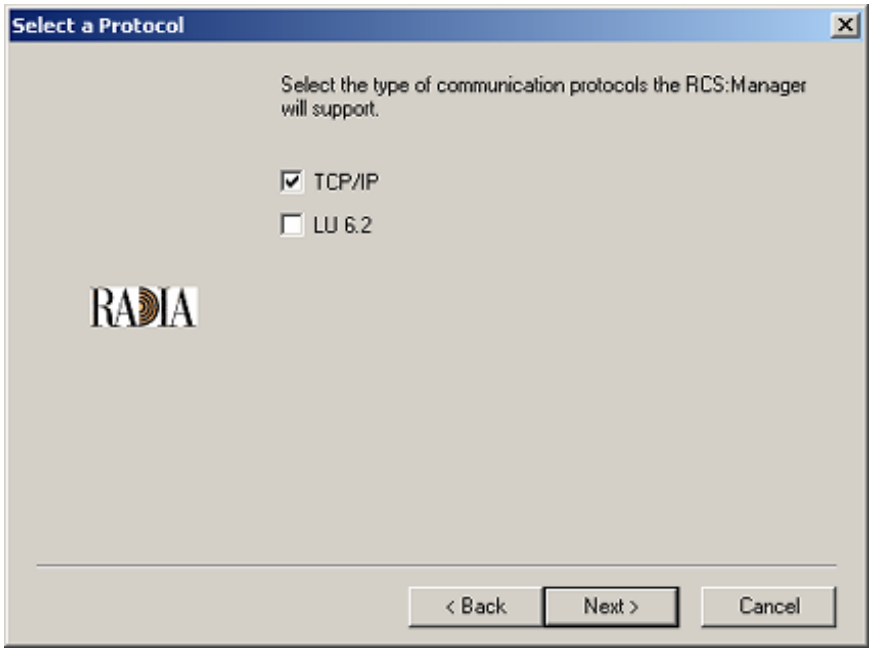

Figure 4.9 ~ The Communications Protocol window.

In this window, select the **Communications Protocol** for the RCS: Manager:

- **TCP/IP** or
- **LU6.2** or
- both.

12. Click **Next**.

The **TCP/IP Information** window opens.

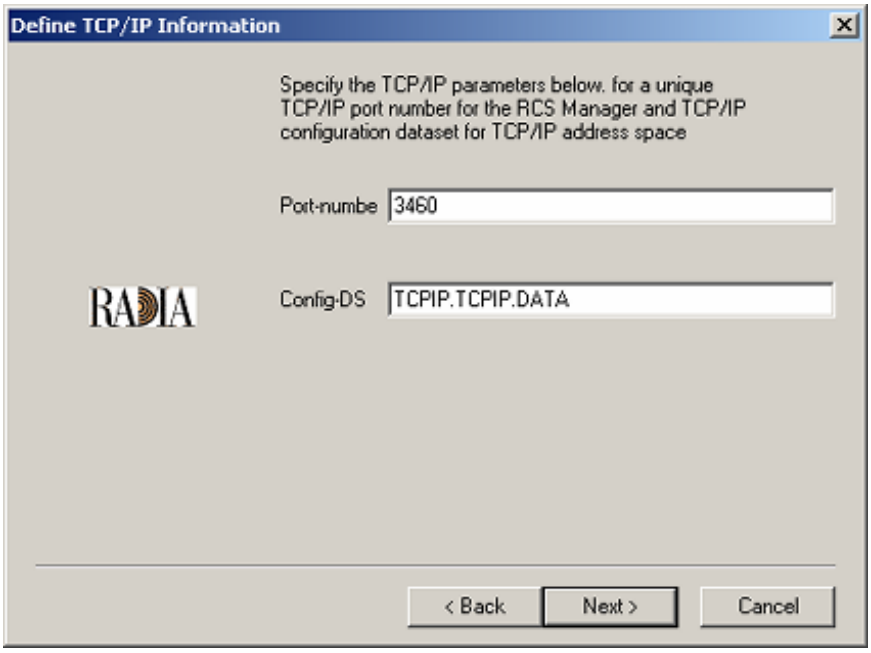

Figure 4.10 ~ The TCP/IP Information window.

In this window, accept the default **TCP/IP** parameters that are displayed, or:

- Specify a different **Port Number** for the RCS: Manager TCP/IP communications.
- Specify a different **Configuration Dataset** for the TCP/IP address space.

Note

In the **Communications Protocol** window, if **LU 6.2** had been selected in addition to (or instead of) TCP/IP, the **LU 6.2 Information** window would appear following (or instead of) the **TCP/IP Information** window.

13. Click **Next**.

The **File Allocation** window opens.

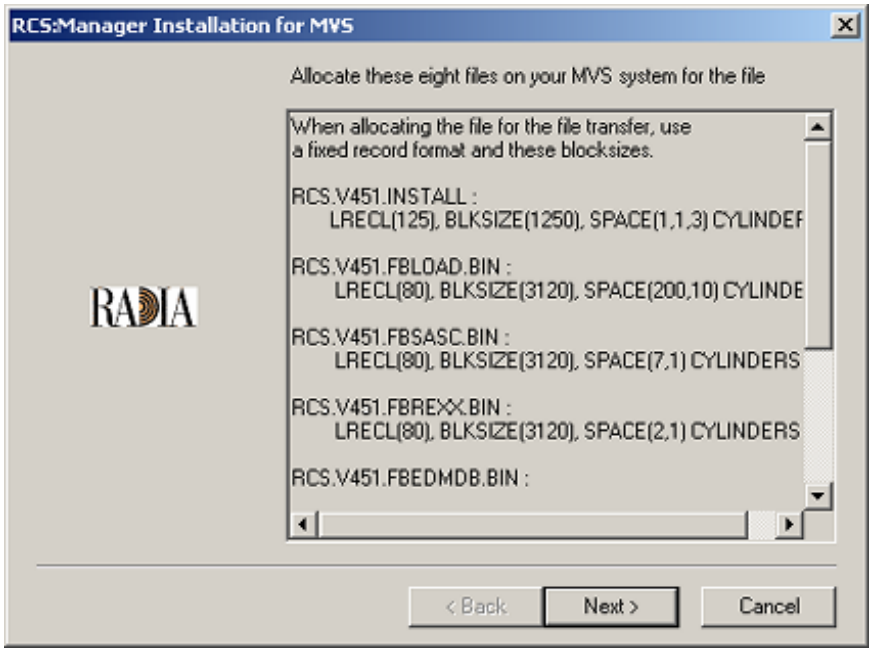

Figure 4.11 ~ The File Allocation window.

This window presents a list of the files (including the format and block-sizes) that must be allocated on the MVS system.

Note

HP recommends reviewing this list now, but not performing the file allocation until the file preparation is complete.

14. Click **Next**.

The **File Transfer** window opens.

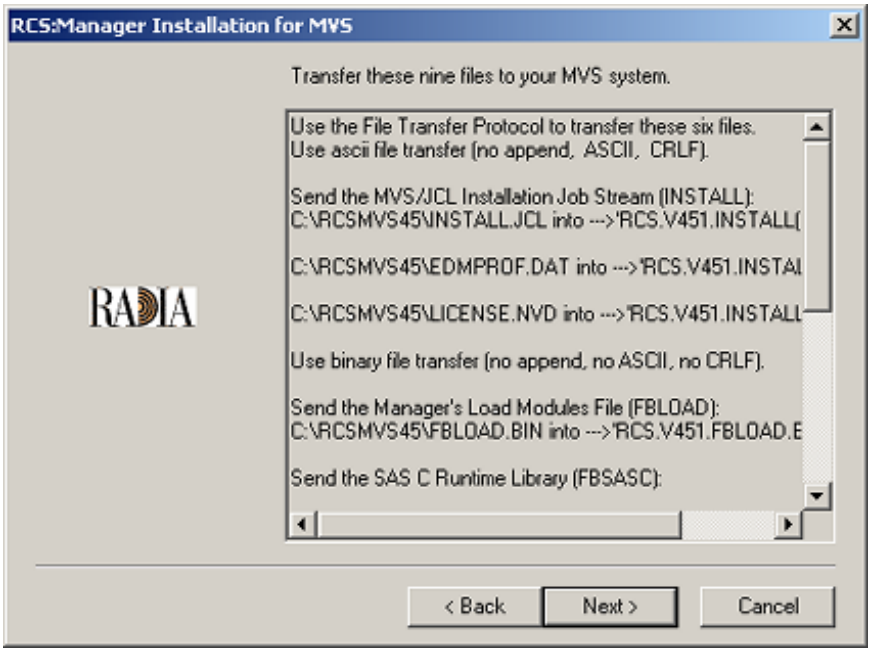

Figure 4.12 ~ The File Transfer window.

This window presents a list of the files that must be transferred to the MVS system.

Note

HP recommends reviewing this list now, but not performing the file transfer until the file preparation is complete.

15. Click **Next**.

The **post-File Transfer** window opens.

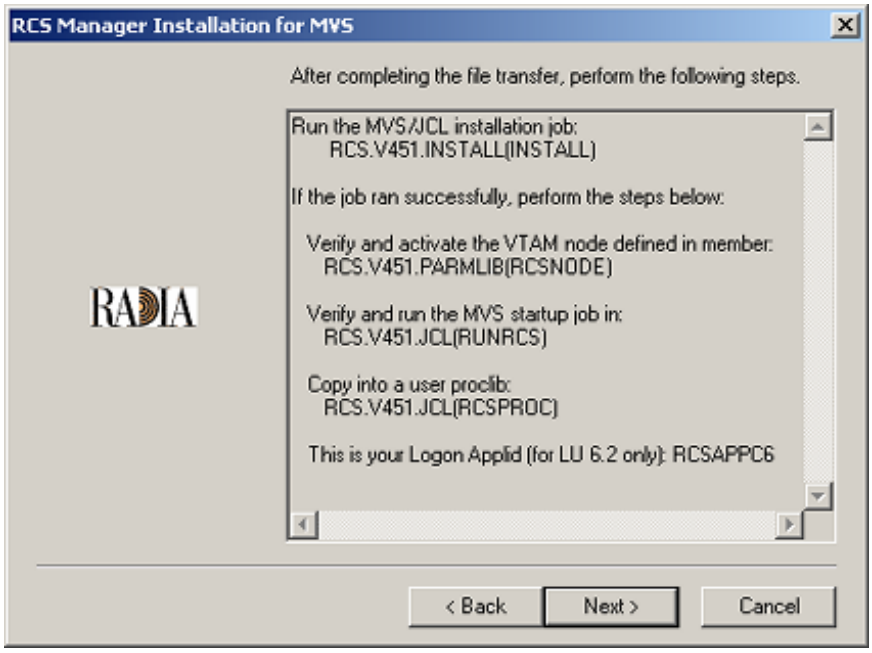

Figure 4.13 ~ The post-File Transfer window.

This window presents a list of the steps that must be performed following the file transfer.

Note

HP recommends reviewing this list now.

16. Click **Next**.

The **README File** message appears.

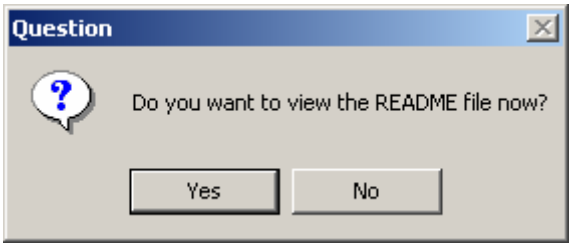

Figure 4.14 ~ The View the README File message.

To view the README file, click **Yes**. (*Recommended*)

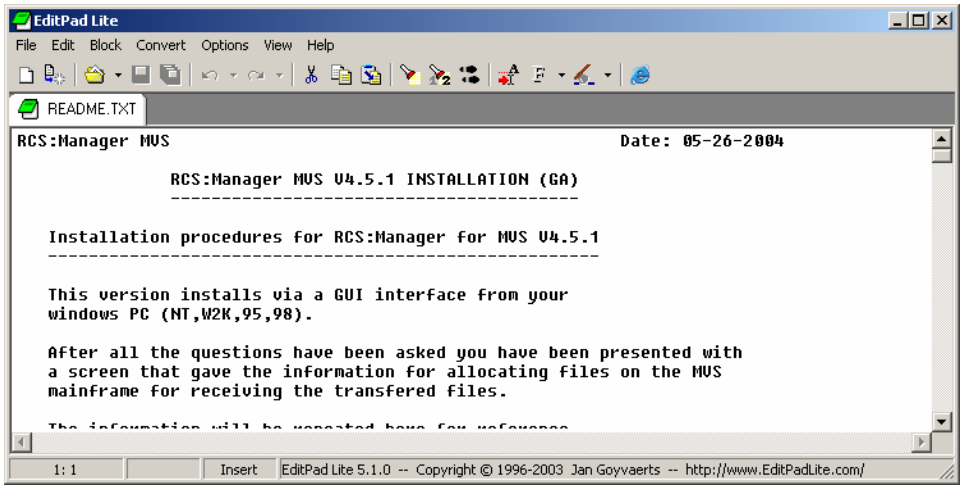

Figure 4.15 ~ The README File.

HP recommends printing the README file and then completing the following steps.

1.) On the MVS mainframe, allocate the files as instructed in the README file.

2.) Transfer the files using *File Transfer Protocol* (FTP), as instructed in the README file.

3.) On the MVS mainframe, run the jobs as instructed in the README file.

The Radia Configuration Server for MVS has been successfully installed.

UNIX Kernel Tuning

The Radia 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 RCS configuration, considering elements such as the expected number of concurrent tasks and cache management.

Essential Kernel Variables

Tables A.1 through A.3 contain the most important parameters that might need to be adjusted.

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

Most of the Radia Configuration Server parameters are specified in the edmprof file, which was created during the RCS installation, and which is located in the RCS's home directory (see Figure 2.4 on page 42 of the RCS installation). For more information about RCS parameters, see the *Radia Configuration Server Guide*, *Chapter 1: Configuration Server Settings*.

Table A.1 addresses the parameters that are associated with *semaphore management*.

Table A.1 ~ UNIX Platform's Kernel Settings for Semaphore Management

Kernel Parameter	RCS-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
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 un-dos per process	Default	semume = 10	seminfo_semume
Maximum semaphore un-dos per ID	Default	N/A	seminfo_semmsl

Table A.2 addresses the parameters that are associated with *process management*.

Table A.2 ~ UNIX Platform's Kernel Settings for Process Management

Kernel Parameter	RCS-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	maxuprc	N/A
Maximum number of processes (system-wide)	TASKLIM + 20 + 4	nproc = maxuprc + 4	max_nprocs

Linux Note

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

Table A.3 addresses the parameters that are associated with *shared memory*.

Table A.3 ~ UNIX Platform's Kernel Settings for Shared Memory

Kernel Parameter	RCS-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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