

Oracle® Enterprise Manager Ops Center
Installation Guide for Oracle Solaris Operating System,
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Preface

The Oracle® Enterprise Manager Ops Center Installation Guide for Oracle Solaris Operating System describes how to install and configure Ops Center software on Oracle Solaris systems.

Audience

This document is intended for senior system administrators.

Documentation Accessibility

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Related Documents

For more information, see the following documents in the Oracle Enterprise Manager Ops Center 11g documentation set:

- *Oracle Enterprise Manager Ops Center Release Notes*
- *Oracle Enterprise Manager Ops Center Concepts Guide*
- *Oracle Enterprise Manager Ops Center Site Preparation Guide*
- *Oracle Enterprise Manager Ops Center Installation Guide for Linux Operating Systems*
- *Oracle Enterprise Manager Ops Center User's Guide*
- *Oracle Enterprise Manager Ops Center Advanced User's Guide*
- *Oracle Enterprise Manager Ops Center Provision and Update Guide*
- *Oracle Enterprise Manager Ops Center Administration Guide*
- *Oracle Enterprise Manager System Monitoring Plug-in for Oracle Enterprise Manager Ops Center Guide*

- *Oracle Enterprise Manager Ops Center Reference Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands, file names, and directories within a paragraph, and code in examples.

About Installation

This documentation describes the procedures required to install and configure Enterprise Manager Ops Center.

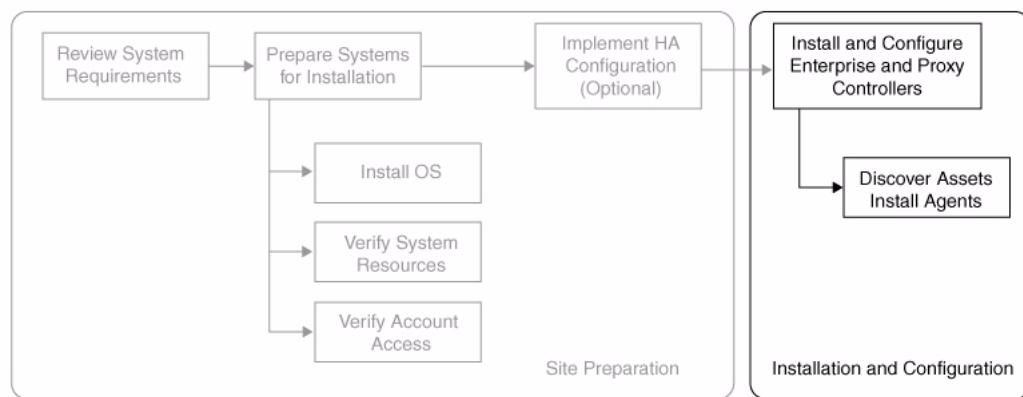
About Installation

The following is a typical sequences of tasks when installing Enterprise Manager Ops Center:

1. Review the system requirements to determine what equipment you need
2. Prepare a set of systems for software installation, including installing operating systems and verifying that adequate system resources are available
3. (Optional) Implement a high availability configuration
4. Install and configure an Enterprise Controller
5. Install and configure at least one Proxy Controller

The first three tasks are described in the Oracle Enterprise Manager Ops Center Site Preparation Guide. The final two tasks are described in this section.

Figure 1–1 Site Preparation, Installation and Configuration



Enterprise Controllers and Proxy Controllers can be installed on at least Solaris 10 11/06 (x64 or SPARC) or Oracle Linux 5.3 or 5.5.

Installing and Configuring Ops Center

Once systems are fully prepared, you can install and configure Ops Center. There are three components to an Ops Center installation:

- An Enterprise Controller – The Enterprise Controller directs Ops Center actions and generates the Browser User Interface.
- One or more Proxy Controllers – Proxy Controllers store Ops Center data and route jobs to managed systems.
- Agents for managed systems – Agents communicate monitoring data and help run jobs on managed systems. Agents are installed when a system is discovered and managed.

There are three ways to install and configure Proxy Controllers:

- Remotely deploy one or more Proxy Controllers as part of the Enterprise Controller configuration
- Remotely deploy one or more Proxy Controllers using the Deploy Proxy Controller wizard
- Manually install and configure one or more Proxy Controllers

Once the Enterprise Controller and Proxy Controllers are installed and configured, Ops Center is functional.

Installation and Configuration

These procedures describe how to install and configure an Enterprise Controller and one or more Proxy Controllers on Oracle Solaris systems. Enterprise Manager Ops Center requires an Enterprise Controller and at least one Proxy Controller.

You can deploy a Proxy Controller in one of three ways:

- Deploy it during the Enterprise Controller Configuration
- Deploy it at any time using the Proxy Deployment Wizard
- Install and configure it manually at any time

Before you begin, prepare your data center, Enterprise Controller system, and Proxy Controller system according to the instructions in the Oracle Enterprise Manager Ops Center Site Preparation Guide.

Installing an Enterprise Controller

In a typical initial installation, you install and configure an Enterprise Controller first, and install and configure Proxy Controllers as part of the configuration process. A Proxy Controller is automatically installed on the system where you install the Enterprise Controller, but you choose whether or not to enable it.

This installation will install, or upgrade to, Java Runtime Environment (JRE) 1.6.0_21. Later versions of JRE are not affected.

Note: If you are configuring for high availability, follow this procedure on both the primary and secondary Enterprise Controllers.

To Install an Enterprise Controller

This procedure describes the steps required to install Enterprise Controller software on a system that is running the Oracle Solaris 10 OS. The install script that installs the Enterprise Controller also automatically installs a Proxy Controller on the same system, but it does not enable the Proxy Controller. In the configuration steps that follow this software installation procedure, you can choose to enable this Proxy Controller.

Note: You can run an Enterprise Controller in a whole root zone. In this way, you do not need to have a dedicated system for the Enterprise Controller.

1. Create a temporary directory on your system, then copy or move the appropriate Enterprise Manager Ops Center archive for your system from delivery media to the temporary directory that you created. For example:

```
# mkdir /var/tmp/OC  
# cp enterprise-controller.SunOS.i386.11.1.0.1512.tar.gz /var/tmp/OC
```

The installation archive consumes about 2.4 GBytes of disk space.

2. Change to the directory where the installation archive is located on your system.

```
# cd /var/tmp/OC  
#
```

3. Expand the installation archive, then list the contents of the expanded directory.

- If your installation archive has the .tar.gz extension, use the `gzcat` and `tar` commands to uncompress and un-tar the archive, then list the contents of the temporary directory. Note that the following command example retains the original compressed archive file. The data extracted from the archive consumes about 1 GB of additional space. For example:

```
# gzcat enterprise-controller.SunOS.i386.11.1.0.1512.tar.gz | tar xf -  
# ls  
enterprise-controller.SunOS.i386.11.1.0.1512.tar.gz  
xvmoc_full_bundle  
#
```

- If your installation archive has the .zip extension, use the `unzip` command to unzip the archive. For example:

```
# unzip enterprise-controller.SunOS.i386.11.1.0.1512.zip  
# ls  
enterprise-controller.SunOS.i386.11.1.0.1512.zip  
xvmoc_full_bundle  
#
```

4. Change directory to `xvmoc_full_bundle`, and run the `install` script. Each installation archive only contains an `install` script that is appropriate for its intended OS and platform. For example:

```
# cd xvmoc_full_bundle  
# ./install
```

5. The Oracle Configuration Manager installation text is displayed. Enter the My Oracle Support user name or email address that you want to associate with Enterprise Manager Ops Center.

Provide your email address to be informed of security issues, install and initiate Oracle Configuration Manager. Easier for you if you use your My Oracle Support Email address/User Name.

Visit <http://www.oracle.com/support/policies.html> for details.

Email address/User Name:

6. If you want security updates to appear on your My Oracle Support page, enter your My Oracle Support password.

Provide your My Oracle Support password to receive security updates via your My Oracle Support account.

Password (optional):

The screen clears, then the install script displays a list of installation tasks that automatically updates as the installation proceeds. For example:

```
Ops Center Enterprise Controller Installer
(version 11.1.0.1512 on SunOS)

1. Check for installation prerequisites. [Completed]
2. Configure file systems. [Completed]
3. Install Agent components. [Not Completed]
4. Create Deployable Proxy Bundles. [Not Completed]
5. Add users. [Not Completed]
6. Install prerequisite packages. [Not Completed]
7. Install application packages. [Not Completed]
8. Run postinstall tasks. [Not Completed]
9. Install Expect. [Not Completed]
10. Install IPMI tool. [Not Completed]
11. Initialize database. [Not Completed]
12. Install Service container components. [Not Completed]
13. Install Core Channel components. [Not Completed]
14. Install Proxy Core components. [Not Completed]
.....
19. Initialize and start services. [Not Completed]
(2 of 19 Completed)
```

Executing current step: Install Agent components...

7. Review and correct any problems when the `install` script checks for installation prerequisites that are not met. For example, this `install` script detected insufficient disk space:

Warning for Step: Check for installation prerequisites.

The following is a portion of the installer log which may indicate the cause of the warning.
If this does not indicate the cause of the warning, you will need to view the full log file. More information on how to do that is available below.

You may choose to ignore this warning by selecting to continue.

* * * * *

Ignoring job: 01checkRPMs.pl

Ignoring job: 03removeEmptyDirs.pl

Executing job: jobs/00checkPrereqs.pl --install

WARNING: Installation prerequisites not met:

Disk: / 72G needed, 24G available.

* * * * *

Please fix the problem and then try this step again.

For a full log of the failed install see the file: /var/tmp/installer.log.9361.

- t. Try this step again (correct the failure before proceeding)
- c. Continue (ignore the warning)

x. Exit

Enter selection: (t/c/x)

You can enter `t` to try again, `c` to continue and ignore the warning, or `x` to exit the `install` script. Typically you would exit the `install` script, correct the problem, and then run the `install` script again, which resumes from where it stopped. Choose to

continue and ignore the warning only if you accept the impact that the error condition will have on your installation. Entering `t` typically produces the same error, unless you are able to correct the problem before trying the step again. If the install script finds that all prerequisites have been satisfied, or if you choose to continue despite the warning, the install script continues and installs all Enterprise Controller and Proxy Controller components.

When complete, the install script displays a confirmation that all components have been installed. The `/var/tmp/installer.log.latest` file contains the installation log.

8. Use the `/opt/SUNWxvmoc/bin/satadm` command to check the status of the Enterprise Controller services. For example:

```
# /opt/SUNWxvmoc/bin/satadm status
online
#
```

9. If the Enterprise Controller services are offline, use the `/opt/SUNWxvmoc/bin/satadm` command to start them.

```
# /opt/SUNWxvmoc/bin/satadm status
online
#
```

Enterprise Controller Configuration

After you install the Enterprise Controller, you must configure it. During the configuration process, you specify how Ops Center will operate.

The following tasks are part of the configuration process:

- Supplying Enterprise Controller information
- Deploying one or more Proxy Controllers (optional in this wizard, but must be performed before using Ops Center)
- Discovering and managing assets (optional)
- Registering Ops Center (optional)
- Choosing a connection mode and configuring services (optional in this wizard, but must be performed before using Ops Center)

This procedure describes the complete Enterprise Controller configuration process, including Proxy Controller deployment, asset discovery, connection mode selection, and registration. For a streamlined version of this procedure that skips all optional steps, see [Limited Configuration](#).

Note: If you installed the Enterprise Controller in a zone, the co-located Proxy Controller cannot be enabled. This is because the Proxy Controller requires an NFS server that is required for OS provisioning. You must install or deploy one or more separate Proxy Controllers.

Note: You should not install a Proxy Controller in an environment where there is a web proxy which requires authentication between the Enterprise Controller and the Proxy Controller. Many OS update functions will not be usable for systems managed by such a Proxy Controller.

To Begin Enterprise Controller Configuration

1. In a browser, navigate to `https://<Enterprise Controller>:9443`. The Login page is displayed.
2. Enter the system's root user name and password, then click Next. The Introduction page of the Configuration wizard is displayed.
3. Read the introduction information, then click Next. The Terminology page is displayed.
4. Read the terminology information, then click Next. If the configuration detects any prerequisites that are not met, the Prerequisite Checklist page is displayed.
5. View the Prerequisite Checklist. If necessary, cancel the configuration and make changes to the system as suggested by the checklist. Click Next. The Configuration page is displayed.
6. Enter configuration information, then click Next. Configuration information includes:
 - **Name** – A name for the Enterprise Controller. The Enterprise Controller will be displayed under this name in the UI.
 - **Description** – (Optional) A description of the Enterprise Controller. This description will be visible in the UI.
 - **Host Name** – The host name of the Enterprise Controller.
 - **Alternate User** – (Optional) Select the Use an Alternative User as Administrative User check box, then enter an alternate administrative user name and password. The Administrative User is given the Enterprise Controller Admin and All Assets Admin roles. Until other users are added, the Administrative User is the only user recognized by Enterprise Manager Ops Center.
 - **HTTP Proxy** – (Optional) If the Enterprise Controller requires an HTTP Proxy to reach the Internet, enter the HTTP Proxy information:
 - Server
 - Port
 - (Optional) Authorized user name – The authorized user name is required if the HTTP Proxy can only be accessed by an authorized user.
 - (Optional) Password
7. Read the deployment scenario information, then click Next. The Deployment Scenarios (Cont.) page is displayed.
8. Read the deployment scenario information, then click Next. The Choose Deployment page is displayed.

9. Choose one of the following deployment options, then click Next:
 - **Simple Deployment** – This option configures the colocated Proxy Controller.
 - **Advanced Deployment** – This option lets you remotely or manually install and configure one or more Proxy Controllers.
 - **Outside of Wizard** – This option does not deploy or enable any Proxy Controllers. You must install and configure one or more Proxy Controllers outside of this wizard.
- If you select a Simple Deployment, go to the [Simple Deployment](#) procedure.
- If you select an Advanced Deployment, go to the [Advanced Deployment](#) procedure.
- If you decide to deploy Proxy Controllers outside of the wizard, go to the [Registering the Enterprise Controller and Configuring Services](#) procedure.

Simple Deployment

A popup is displayed indicating that the local Proxy Controller is being configured.

1. If the Enterprise Controller system has multiple network cards with different IP addresses, the Local Proxy Controller Network page is displayed. Select the network interface you want the Proxy Controller to use, then click Next. The Proxy Controller Status page is displayed.
2. View the status of the configured Proxy Controllers and verify that the local Proxy Controller is online. (Optional) Click Refresh to refresh the list of Proxy Controllers. (Optional) Click Check, then enter a host name or IP address. The connectivity and status of the specified host is checked. Click Next. The Discover/Manage page is displayed.
3. Choose a discovery option, then click Next.
 - **Discover/Manage Systems Now** – Run an automatic discovery, then manage assets.
 - **Discover/Manage Systems Later** – Skip the discovery and management steps.
- If you select Discover/Manage Systems Now, go to the [Discovery and Management](#) procedure.
- If you select Discover/Manage Systems Later, go to the [Registering the Enterprise Controller and Configuring Services](#) procedure.

Advanced Deployment

The Proxy Controllers page is displayed.

1. Select a deployment method, then click Next. The methods are:
 - **Deploy Automatically** – This method lets you remotely install and configure one or more Proxy Controllers.
 - **Deploy Manually** – This method lets you manually install one or more Proxy Controllers before continuing.
2. If you selected Deploy Automatically, the Remote Proxy Controllers page is displayed. Enter credentials for one or more remote systems, then click Next. Proxy Controllers will be installed and configured on these systems.
 - **Hostname or IP address** – The host names or IP addresses of the Proxy Controller systems.

- **SSH User name** – The SSH user name to be used to log into the systems. If root SSH access is allowed on the target system, enter the root user name and password in the SSH User and SSH Password fields.
- **SSH Password** – The password associated with the SSH user name.
- **Privileged User name** – The privileged user name to be used to log in. If root SSH access is not allowed on the target system, enter the login user name and password in the SSH User and SSH Password fields, then enter the root user name and password in the Privileged Role and Role Password fields.
- **Privileged Password** – The password associated with the Privileged user name. (Optional) Click Add to add fields for another Proxy Controller, then enter credentials for it.

The Proxy Controller Status page is displayed.

3. View the status of the configured Proxy Controllers and verify that the Proxy Controllers you installed are online. (Optional) Click Refresh to refresh the list of Proxy Controllers. (Optional) Click Check, then enter a host name or IP address. The connectivity and status of the specified host is checked. Click Next.

The Discover/Manage page is displayed.

4. Choose a discovery option, then click Next.
 - **Discover/Manage Systems Now** – Run an automatic discovery, then manage assets.
 - **Discover/Manage Systems Later** – Skip the discovery and management steps.
- If you select Discover/Manage Systems Now, go to the [Discovery and Management](#) procedure.
- If you select Discover/Manage Systems Later, go to the [Registering the Enterprise Controller and Configuring Services](#) procedure.

Discovery and Management

An Automatic Discovery popup is displayed.

1. When the discovery is complete, click Close.
2. If the Automatic Discovery discovers hardware, the Discovered Hardware page is displayed. Select the hardware that you want to manage and click Next.
3. If you selected hardware to manage, the Manage Hardware page is displayed. Enter management information for the selected hardware, then click Next:
 - **Target Proxy** – Select which Proxy Controller will manage the assets.
 - Credentials for accessing the selected hardware. Three options are available:
 - Use factory-set credentials** – Use factory standard credentials to access the hardware.
 - Use the same credentials for all systems** – Use the credentials that you provide for all hardware that you want to manage.
 - Use individual credentials for all systems** – Use separate credentials for each piece of hardware.
4. If the Automatic Discovery discovers operating systems, the Discovered Operating Systems page is displayed. Select the operating systems that you want to manage and click Next.

5. If you selected operating systems to manage, the Manage Operating Systems page is displayed. Enter management information for the selected assets, then click Next:
 - **Target Proxy** – Select which Proxy Controller will manage the assets.
 - Credentials for accessing the selected operating systems. Two options are available:
 - Use the same SSH credentials for all systems** – Uses the credentials that you provide for all operating systems that you want to manage.
 - Use individual SSH credentials for all systems** – Lets you enter separate criteria for each operating system.

Proceed to the [Registering the Enterprise Controller and Configuring Services](#) procedure.

Registering the Enterprise Controller and Configuring Services

The Registration page is displayed.

1. The Register with Oracle Datacenter check box allows you to choose to register the Enterprise Controller. Your selection in this pane determines what panels are displayed next by the Enterprise Controller Configuration wizard.
 - If you want to register your Enterprise Controller, select Register with Oracle Datacenter, and enter an Online Account user name and password.
 - If you do not want to register your Enterprise Controller, do not select Register with Oracle Datacenter. This is consistent with configuring the Enterprise Manager Ops Center instance to run in disconnected mode, depending on your choices in the Services pages. Click Next.

The Services page is displayed.

2. Select when to configure the services that make up Enterprise Manager Ops Center:
 - **Configure Services Now** – Configure the connection mode and provisioning services as part of this wizard. Proceed to the next step of this procedure.
 - **Configure Services Later** – Configure services later using the Administration section of the UI. Proceed to the final step of this procedure. Click Next.
3. The Software Update Services page is displayed. Select a connection mode option:
 - **Connected Mode** – Enterprise Manager Ops Center downloads patches from Oracle and other vendors. The Enterprise Controller must be able to access the Internet, either directly or through an HTTP Proxy, to use connected mode.
 - **Disconnected Mode** – Enterprise Manager Ops Center operates autonomously, and patches must be manually downloaded and supplied to the Enterprise Controller. Click Next.
4. If you selected connected mode, the Connected Mode Software Update page is displayed. Enter your Online Account user name and password. You must have a valid Online Account. Click Next.
5. If you selected disconnected mode, the Disconnected Mode Software Update page is displayed. An update bundle is required. Download and supply the bundle:
 - Copy opt/sun/smsfacade/bin/harvester_bundle.tar.gz from this Enterprise Manager Ops Center installation to an Internet-facing Solaris system.

- Unzip and untar the bundle.
- Run the harvester script. It will connect to the Oracle Data Center and create an update bundle.
- Copy the resulting bundle back to the Enterprise Manager Ops Center installation.
- Enter the file path to the bundle. Click Next.

6. The Create Storage Library page is displayed. A storage library can be created on the Enterprise Controller or on NFS storage. If you create a storage library, it will be used as the default for library for firmware image downloads. Select an option:

- **Configure Library Now** – Configure a storage library as part of this wizard. Proceed to the next step of this procedure.
- **Configure Library Later** – Configure the storage library later. Proceed to the Provisioning Service step. Click Next.

7. The Create Storage Library (cont.) page is displayed. Enter the library information.

- **Name** – This is the name under which the library will be displayed in the UI.
- **Description** – This is a description of the library which will be displayed in the UI. This field is optional.
- **Type** – Specify local library or NFS library.
- **Location** – Specify the path to the library. Click Next.

8. The Provisioning Service page is displayed. To perform OS provisioning, you must configure DHCP and subnets on your Proxy Controllers. Select when to configure DHCP and subnets, then click Next.

- **Perform Configuration Now** – Configure DHCP and subnets as part of this wizard. Proceed to the next step of this procedure.
- **Perform Configuration Later** – Configure DHCP and subnets later using the Administration section of the UI. Proceed to the final step of this procedure.

9. If you selected Perform Configuration Now, the Configure DHCP on Proxy page is displayed. Enter DHCP configuration information, then click Next.

- **Proxy Controller** – Select a Proxy Controller from the dropdown list.
- **DHCP Type**
- **Network Interfaces** – Add one or more Network Interfaces to the Selected list by selecting them and clicking Add, or by clicking Add All. (Optional) If you have additional Proxy Controllers, select them from the dropdown list and repeat the process. The Summary page is displayed.

10. Click Finish. Enterprise Manager Ops Center is configured, and you are logged in to the UI.

Limited Configuration

This procedure describes the Enterprise Controller configuration process. It skips optional steps including Proxy Controller deployment, service configuration, asset discovery, connection mode selection, and registration. Proxy Controller deployment must be completed separately before Enterprise Manager Ops Center can be used. Service configuration must be completed before OS updates can take place.

To Configure the Enterprise Controller

Once Enterprise Manager Ops Center is installed, it must be configured. This procedure explains every necessary step, but skips optional steps.

1. In a browser, navigate to `https://<Enterprise-Controller>:9443`. The Login page is displayed.
2. Enter the system's root user name and password, then click Next. The Introduction page of the Configuration wizard is displayed.
3. Read the introduction information, then click Next. The Terminology page is displayed.
4. Read the terminology information, then click Next. The Prerequisite Checklist page is displayed. This page displays any Enterprise Manager Ops Center prerequisites that are not met.
5. View the Prerequisite Checklist. If necessary, cancel the configuration and make changes to the system as suggested by the checklist. Click Next. The Configuration page is displayed.
6. Enter configuration information. Configuration information includes:
 - **Name** – A name for the Enterprise Controller that will be used in the UI.
 - **Description** – (Optional) A description of the Enterprise Controller that will be visible in the UI.
 - **Host Name** – The host name of the Enterprise Controller.
 - **Alternate User** – (Optional) Check the Use an Alternative User as Administrative User check box, then enter an alternate administrative user name and password. The Administrative User is given the Enterprise Controller Admin and All Assets Admin roles. Until other users are added, the Administrative User is the only user recognized by Enterprise Manager Ops Center.
 - **HTTP Proxy** – (Optional) If the Enterprise Controller requires an HTTP Proxy to reach the Internet, enter the HTTP Proxy information:
Server
Port
(Optional) Authorized user name – The authorized user name is required if the HTTP Proxy can only be accessed by an authorized user.
(Optional) Password
- Click Next. The Deployment Scenarios page is displayed.
7. Read the deployment scenario information, then click Next. The Deployment Scenarios (Cont.) page is displayed.
8. Read the deployment scenario information, then click Next. The Choose Deployment page is displayed.
9. Choose the Outside of Wizard deployment option. You must configure at least one Proxy Controller before using Enterprise Manager Ops Center. You can provision a Proxy Controller through the UI, or install and configure a Proxy Controller manually. The Registration page is displayed.
10. Click Next without selecting Register Enterprise Controller with Sun Datacenter. You can register the Enterprise Controller through the Browser User Interface once configuration is complete. Click Next. The Services page is displayed.

11. Select Configure Services Later, then click Next. The Summary page is displayed.
12. Click Finish. Enterprise Manager Ops Center is configured.

Proxy Deployment Wizard

The Proxy Deployment Wizard can be used to deploy and configure one or more remote Proxy Controllers, and to configure the co-located Proxy Controller. Proxy Controllers can be deployed at any time; however, Enterprise Manager Ops Center requires at least one Proxy Controller.

This installation will install, or upgrade to, Java Runtime Environment (JRE) 1.6.0_21. Later versions of JRE are not affected.

You must not install a Proxy Controller in an environment where there is a web proxy which requires authentication between the Enterprise Controller and the Proxy Controller. Many OS update functions will not be usable for systems managed by such a Proxy Controller.

To install a Proxy Controller through the UI, the Enterprise Controller must be able to reach the Proxy Controller with an SSH connection using port 22 during the update process. This connection is used to transfer Proxy Controller bundles and execute commands on the Proxy Controller system. If your security restrictions do not allow this connection, install the Proxy Controller from the command line.

Note: You cannot install a Proxy Controller in a zone. This is because Proxy Controllers require an NFS server that is used for OS provisioning.

Note: To provision an Oracle VM Server for SPARC, the Proxy Controller that performs the provisioning must be installed on Oracle Solaris.

To Deploy a Proxy Controller

You can use the Proxy Deployment Wizard to deploy and configure one or more Proxy Controllers.

1. Click the Enterprise Controller in the Administration section of the Navigation Panel.
2. Click Proxy Deployment Wizard in the Actions panel. The Deployment Scenarios page is displayed.
3. Read the deployment scenario information, then click Next. The Deployment Scenarios (Cont.) page is displayed.
4. Read the deployment scenario information, then click Next. The Choose Deployment page is displayed.
5. Choose a deployment option:
 - **Simple Deployment** – Configures the colocated Proxy Controller.
 - **Advanced Deployment** – Lets you remotely install and configure one or more Proxy Controllers. Click Next.

- If you select a Simple Deployment, a popup is displayed indicating that the local Proxy Controller is being configured. Skip the Remote Proxy Controllers page and proceed to the Proxy Controller Status page.
- If you select an Advanced Deployment, Proxy Controller deployment steps are displayed. Proceed to the next step.

6. The Remote Proxy Controllers page is displayed. Enter credentials for one or more remote systems. Proxy Controllers will be installed and configured on these systems.

- **Hostname or IP address**
- **SSH User name** – If root SSH access is allowed on the target system, enter the root user name and password in the SSH User and SSH Password fields.
- **SSH Password**
- **Privileged User name** – If root SSH access is not allowed on the target system, enter the login user name and password in the SSH User and SSH Password fields, then enter the root user name and password in the Privileged Role and Role Password fields.
- **Privileged Password (Optional)** – Click Add to add fields for another Proxy Controller, then enter credentials for it.

Click Next. The Proxy Controller Status page is displayed.

7. View the status of the configured Proxy Controllers. Each Proxy Controller that you enabled or provisioned should be online. (Optional) Click Refresh to refresh the list of Proxy Controllers. (Optional) Click Check, then enter a host name or IP address. The connectivity and status of the specified host is checked. Click Next.

The Summary page is displayed.

8. Click Finish.

Manually Installing a Proxy Controller

This procedure describes the steps required to install Proxy Controller software on an Oracle Solaris system that meets the recommended specifications for this installation. Proxy Controllers can be installed at any time; however, Enterprise Manager Ops Center requires at least one Proxy Controller. Use this procedure only to install a Proxy Controller on a system *other than* the system on which the Enterprise Controller is installed.

This installation will install, or upgrade to, Java Runtime Environment (JRE) 1.6.0_21. Later versions of JRE are not affected.

You can use the OC Doctor to verify that the system is prepared for the installation. See <http://java.net/projects/oc-doctor> for more information about the OC Doctor.

You must not install a Proxy Controller in an environment where there is a web proxy which requires authentication between the Enterprise Controller and the Proxy Controller. Many OS update functions will not be usable for systems managed by such a Proxy Controller.

Note: You cannot install a Proxy Controller in a zone.

Note: To provision an Oracle VM Server for SPARC, the Proxy Controller that performs the provisioning must be installed on Oracle Solaris.

Before You Begin

Before proceeding with the Proxy Controller installation, check that your system's resources meet the system requirements using the manual procedure or using the OC Doctor.

Oracle Support might have tools available that automate verifying many of the system requirements and resources. Check Oracle Support for the following items:

- Pre-installation checklist
- Pre-installation check script

To Install a Proxy Controller

1. Create a temporary directory on your system, then copy or move the appropriate Enterprise Manager Ops Center archive for your system from delivery media to the temporary directory that you created. The installation archive consumes about 700 MBytes of disk space. You must use the same Enterprise Manager Ops Center archive version as the one used to install the Enterprise Controller with which you will register this Proxy Controller. For example:

```
# mkdir /var/tmp/OC
# cp opscenter-echelon-11-i26-sol-i386-2010-06-30-13-08.tar.gz /var/tmp/OC
```

2. Change to the directory where the archive is located on your system. For example:

```
# cd /var/tmp/OC
#
```

3. Use the `gzcat` and `tar` commands to uncompress and un-tar the archive, then list the contents of the temporary directory. Note that the following command example retains the original compressed archive file. The data extracted from the archive consumes about 1 GB of additional space. For example:

```
# gzcat opscenter-echelon-11-i26-sol-i386-2010-06-30-13-08.tar.gz | tar xf -
# ls
xvmoc_full_bundle
opscenter-echelon-11-i26-sol-i386-2010-06-30-13-08.tar.gz
#
```

4. Change to the `xvmoc_full_bundle` directory, and run the `install` script with the `-p` option. Each installation archive only contains an `install` script that is appropriate for its intended OS and platform. The `-p` option causes the `install` script to only install the Proxy Controller-related components. You must accept the license agreement to continue with the installation. For example:

```
# cd xvmoc_full_bundle
# ./install -p
Sun Microsystems, Inc. Binary Code License Agreement

(output omitted)
```

Do you accept the license agreement? [y/n]: y

The screen clears, then the install script displays a list of installation tasks that automatically updates as the installation proceeds. For example:

```
Ops Center Proxy Server Installer (version 11.1.0.1512 on SunOS)
```

1. Check that required RPM packages are present. [Completed]
2. Install IPMI tool. [Completed]
3. Install Agent components. [Not Completed]
4. Install application packages. [Not Completed]
5. Install Core Channel components. [Not Completed]
6. Install Proxy Server components. [Not Completed]
7. Install UCE Http proxy. [Not Completed]
8. Install OS provisioning components. [Not Completed]
9. Initialize (but do not start) services. [Not Completed]

```
Executing current step: Install Agent components...
```

When complete, the install script indicates that all components have been installed, and indicates that the Proxy Controller is ready to be configured.

5. Use the `/opt/SUNWxvmoc/bin/proxyadm` command to check the status of the Proxy Controller services. For example:

```
# /opt/SUNWxvmoc/bin/proxyadm status
online
#
```

To Install Enterprise Manager Ops Center Updates

Oracle Support might have access to updates that are specific to Enterprise Manager Ops Center, and that must be installed before you proceed with configuring the software. Contact Oracle Support for more information about the updates that Enterprise Manager Ops Center requires. You must install any required Enterprise Manager Ops Center updates before you configure the software.

Manually Configuring a Proxy Controller

Once a Proxy Controller has been installed, it must be configured to connect it with the Enterprise Controller. Use this procedure to configure a Proxy Controller with an Enterprise Controller.

Consult with Oracle Support to determine what Enterprise Manager Ops Center updates are required. Install all required updates before you register the Proxy Controller with the Enterprise Controller.

Note: If you designated an alternative Administrative User for the Enterprise Controller, use the same user name to register your Proxy Controller with the Enterprise Controller. Otherwise, use the root user to register your Proxy Controller with the Enterprise Controller.

To Register a Proxy Controller With an Enterprise Controller

1. Create a temporary directory, for example, `/var/tmp/OC`, to hold the password file that you will create in this procedure.

```
# mkdir -p /var/tmp/OC
```

2. Create an empty file named `/var/tmp/OC/mypasswd`, and set its permission mode to 400.

```
# touch /var/tmp/OC/mypasswd
# chmod 400 /var/tmp/OC/mypasswd
```

3. Edit the `/var/tmp/OC/mypasswd` file so that it contains the password of the user that you designated the administrator of your Enterprise Controller. The following echo command appends the password to the `/var/tmp/OC/mypasswd` file. Replace *password* with the correct password. For example:

```
# echo 'password' > /var/tmp/OC/mypasswd
```

4. Use the `/opt/SUNWxvmoc/bin/proxyadm` command to associate the Proxy Controller with the Enterprise Controller. The example commands below use the following options:

- **-s** – Specify the host name or IP address of the Enterprise Controller with which to register the Proxy Controller.
- **-u** – Specify the user that you designated the administrator of your Enterprise Controller.
- **-p** – Specify the absolute path name of the file that contains the password for the user you specified with the **-u** option.
- **-a** – Specify the IP address that the Proxy Controller should use. Accept any certificates that are presented. The co-located Proxy Controller configuration does not display certificate information. For example:

```
# /opt/SUNWxvmoc/bin/proxyadm configure -s enterprise-controller.company -u
drroot -p /var/tmp/OC/mypasswd
```

```
Certificate:
Serial Number: 270256981
Version: 3
Issuer: CN=enterprise-controller_ca
Subject: CN=enterprise-controller_agent
Not valid before: Wed Jul 02 19:32:56 MDT 1969
Not valid after: Mon Apr 02 19:32:56 MDT 2029
```

```
Certificate:
Serial Number: 1062961758
Version: 3
Issuer: CN=enterprise-controller_ca
Subject: CN=enterprise-controller_ca
Not valid before: Wed Jul 02 19:32:54 MDT 1969
Not valid after: Mon Apr 02 19:32:54 MDT 2029
```

```
Accept server's certificate? (y|n)
```

```
y
```

```
Connection registered successfully.
```

```
#
```

If you are manually configuring the co-located Proxy Controller because your Enterprise Controller has more than one active network interface, use the **-a** option to identify the particular interface that you want the Proxy Controller to use. Specify the IP address that is assigned to the interface that you want to use. For example:

```
# /opt/SUNWxvmoc/bin/proxyadm configure -s enterprise-controller.company -u
drroot -p /var/tmp/OC/mypasswd -a 172.20.25.18
```

(output omitted)

5. Use the /opt/SUNWxvmoc/bin/proxyadm command to start the Proxy Controller services. For example:

```
# /opt/SUNWxvmoc/bin/proxyadm start -w
proxyadm: Starting proxy with SMF...
proxyadm: Proxy services have started
#
```

6. To verify the connection that has been established for this Proxy Controller configuration, run the sc-console list-connections command. For example:

```
# sc-console list-connections
scn-proxy https://enterprise-controller.company:443
urn:scn:clregid:18a0206a-a5c4-4c8c-90f2-d4eb1d2b623b:20090419213707452
#
```

The sc-console list-connections command lists the connection that is established with the Enterprise Controller. If you are enabling a co-located Proxy Controller, the command also lists a connection for localhost. For example:

```
# sc-console list-connections
scn-proxy https://enterprise-controller.company:443
urn:scn:clregid:6d0ec2ab-b868-46ab-8475-4a5d726dee69:20090419214450735
localhost https://localhost:443
urn:scn:clregid:a9f5243e-f46e-4b32-85ca-76e2c12c0707:20090403015601612
#
```

For more information about the proxyadm command, see the Oracle Enterprise Manager Ops Center Reference Guide.