Oracle® Enterprise Service Bus

Installation Guide

10*g* (10.1.3.1.0) for UNIX and Microsoft Windows

B28213-01

October 2006

ORACLE®

Oracle Enterprise Service Bus Installation Guide, 10*g* (10.1.3.1.0) for UNIX and Microsoft Windows

B28213-01

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Contents

Preface vii

Audience vii
Documentation Accessibility vii
Related Documents viii
Conventions viii

1 Overview of Oracle Enterprise Service Bus Installation

Oracle Enterprise Service Bus Components Overview 1-1
Installation Scenarios for Oracle Enterprise Service Bus 1-2
Scenario 1: Oracle Enterprise Service Bus with Oracle SOA Suite 1-2
Scenario 2: Oracle Enterprise Service Bus for OracleAS Middle Tier Installation 1-3
Installing on an Upgraded OracleAS Middle Tier 1-3
System Requirements for Oracle Enterprise Service Bus 1-3
Operating System and Computer Requirements 1-4
Supported Databases 1-5
Java Development Kit Support 1-5
Supported Web Browsers for Use with the Oracle Enterprise Service Bus Console 1-5
Globalization Support 1-6
Oracle Enterprise Service Bus Console and Server Locales 1-6
XSLT Mapper Parsing 1-6

2 Oracle Enterprise Service Bus Installation

Installation Overview for Oracle Enterprise Service Bus 2-1
Exploring the Oracle Enterprise Service Bus CD-ROM 2-1
Installation Tasks Summary and Where to Find Procedures 2-1
Preinstallation Tasks for Oracle Enterprise Service Bus 2-2
Step 1: Install the Oracle Database - If Not Already Installed 2-3
Step 2: Run the Integration Repository Creation Assistant on the Database 2-3
Step 3: Install or Upgrade Oracle Application Server 2-3
Installation Tasks for Oracle Enterprise Service Bus 2-4
Postinstallation Tasks for Oracle Enterprise Service Bus 2-7
Step 1: Recommended - Change Default Passwords 2-8
Step 2: Recommended - Update the Path on UNIX/Linux 2-8
Understanding the Directory Structure for Oracle Enterprise Service Bus 2-8
Silent and Non-Interactive Installation and Deinstallation 2-9

Silent Installation 2-9
Non-Interactive Installation 2-9
Preinstallation 2-10
Create the Response File 2-10
Creating Response Files from Templates 2-11
Creating Response Files by Using the Record Mode in the Installer 2-11
Variables to Modify in the Response Files 2-11
Example Response File 2-11
Start the Installation 2-12
Postinstallation 2-13
Security Tips for Silent and Non-Interactive Installations 2-13
Silent Deinstallation 2-13
Deinstalling Oracle Enterprise Service Bus 2-14

A Integration Repository Creation Assistant

About the Integration Repository Creation Assistant A-1
System Requirements A-1
Running the Integration Repository Creation Assistant A-1

Index

List of Tables

1–1 System Requirements for Installing Oracle Enterprise Service Bus 1-4
2–1 Oracle Enterprise Service Bus for OracleAS Middle Tier 2-2
2–2 Outgoing HTTP Proxy Information 2-5
2–3 Directory Structure for Oracle Enterprise Service Bus Installed Components 2-8

Preface

This guide is the primary source for information on installing Oracle Enterprise Service Bus.

Audience

This document is intended for all users who want to install Oracle Enterprise Service Bus.

Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible, with good usability, to the disabled community. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Accessibility standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For more information, visit the Oracle Accessibility Program Web site at

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Related Documents

For more information, see the following documents:

- *Oracle Application Server Installation Guide* for your operating system
- *Oracle Database Installation Guide*
- *Oracle Application Server Administrator's Guide*
- *Oracle Application Server Enterprise Deployment Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Overview of Oracle Enterprise Service Bus Installation

This chapter provides an overview of Oracle Enterprise Service Bus components, installation scenarios, and a list of the system requirements. It contains the following sections:

- Oracle Enterprise Service Bus Components Overview on page 1-1
- Installation Scenarios for Oracle Enterprise Service Bus on page 1-2
- System Requirements for Oracle Enterprise Service Bus on page 1-3

Oracle Enterprise Service Bus Components Overview

An enterprise service bus moves data among multiple endpoints, both within and outside of an enterprise. It uses open standards to connect, transform, and route business documents (as Extensible Markup Language (XML) messages), among disparate applications. It enables monitoring and management of business data, with minimal impact on existing applications. An enterprise service bus is the underlying infrastructure for delivering a service-oriented architecture (SOA) and event-driven architecture (EDA).

As shown in Figure 1–1, Oracle Enterprise Service Bus consists of following components:

- ESB Server

  The ESB Server is the server to which you register the ESB services that you have designed using Oracle JDeveloper and configured using the ESB Console. The ESB Server supports multiple protocol bindings including HTTP/SOAP, JMS, JCA, WSIF, and Java that ensure guaranteed, reliable message delivery using synchronous/asynchronous, request/reply or publish/subscribe models. However, ESB Server does not support Remote Method Invocation (RMI).

- ESB Console

  The ESB Console provides a Web-based interface for managing, administering, and debugging services that you have registered with the ESB Server.

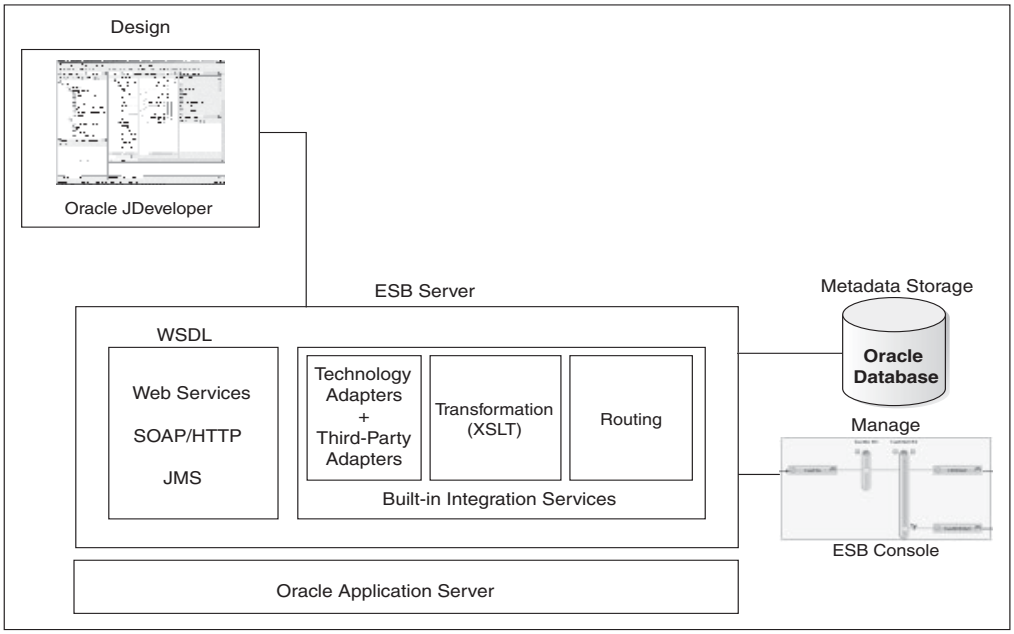
- ESB Metadata Server

  The database that holds your ESB metadata such as schemas, transformations, and routing rules.

- Oracle JDeveloper

Oracle JDeveloper is a graphical and user-friendly way to model, edit, and design the services that comprise an Oracle Enterprise Service Bus system.

Figure 1–1 Oracle Enterprise Service Bus Architecture



See Also:

- *Oracle Enterprise Service Bus Developer's Guide*
- *Oracle Enterprise Service Bus Quick Start Guide*
- *Oracle Application Server Adapter for Files, FTP, Databases, and Enterprise Messaging User's Guide*

Installation Scenarios for Oracle Enterprise Service Bus

Installation scenarios for Oracle Enterprise Service Bus are described in the following sections:

- Scenario 1: Oracle Enterprise Service Bus with Oracle SOA Suite
- Scenario 2: Oracle Enterprise Service Bus for OracleAS Middle Tier Installation

This document describes Scenario 2, installation of Oracle Enterprise Service Bus for OracleAS Middle Tier. For information about installing Oracle Enterprise Service Bus with the Oracle SOA Suite, see the *Oracle Application Server 10g Release 3 (10.1.3.1.0) Installation Guide* for your operating system.

Scenario 1: Oracle Enterprise Service Bus with Oracle SOA Suite

Oracle Enterprise Service Bus is automatically as part of the 10*g* (10.1.3.1.0) Oracle SOA Suite basic or advanced installation, providing a design and standalone test environment. Using this installation type, you design your process and then perform preproduction deployment and testing. Once you are ready for production, you use Oracle Enterprise Service Bus on the OracleAS Middle Tier to deploy the ESB service.

When you perform basic install of Oracle Enterprise Service Bus with Oracle SOA Suite, you get these components:

- Oracle ESB Server
- Oracle ESB Control
- Oracle Database Lite

> **Note:** Oracle Database Lite is configured to support Unicode. By default, `DB_CHAR_ENCODING` is set to `UTF8` in the `polite.ini` file.

With Oracle SOA Suite advanced installation, you can also use Oracle Database.

> **Note:** In 10*g* (10.1.3.1.0), Oracle JDeveloper is no longer bundled with Oracle Enterprise Service Bus. You must install Oracle JDeveloper separately for use with Oracle Enterprise Service Bus projects.

For details about the SOA Suite installation, see the *Oracle Application Server 10g Release 3 (10.1.3.1.0) Installation Guide* for your operating system.

Scenario 2: Oracle Enterprise Service Bus for OracleAS Middle Tier Installation

Oracle Enterprise Service Bus for OracleAS Middle Tier provides a standards-based infrastructure for running service message flows. Before installation, you configure an Oracle Database for use with Oracle Enterprise Service Bus by running the Oracle Application Server Integration Repository Creation Assistant (IRCA).

When you select the Oracle Enterprise Service Bus for OracleAS Middle Tier installation type, the following components are installed:

- ESB Server
- ESB Console

This installation type requires that Oracle Application Server 10*g* (10.1.3.1.0) J2EE and Web Server or J2EE Server instance should be installed in the Oracle home into which you plan to install Oracle Enterprise Service Bus.

Refer to *Oracle Application Server 10g Release 3 (10.1.3.1.0) Installation Guide* for your operating system for information on installing J2EE Server and Web Server middle tier.

Installing on an Upgraded OracleAS Middle Tier

If you are currently using an Oracle Application Server 10*g* Release 3 (10.1.3) Middle Tier, you must upgrade to 10*g* (10.1.3.1.0) using the appropriate patch set before installing Oracle Enterprise Service Bus.

> **See Also:** For more information, visit the Oracle Technology Network at `https://www.oracle.com/technology/index.html`

System Requirements for Oracle Enterprise Service Bus

This section describes operating system and requirements for Oracle Enterprise Service Bus, as well as the database, globalization, and Web browser support provided by Oracle Enterprise Service Bus.

System requirements for Oracle Enterprise Service Bus with Oracle SOA Suite installation are specified in the *Oracle Application Server 10g Release 3 (10.1.3.1.0) Installation Guide* for your operating system.

> **Note:** The information provided here reflects the platforms that were supported at the time this document was released. For the most recent list of supported platforms, see the Certify tab in Oracle Metalink, available at `https://metalink.oracle.com/` for Oracle customers.

Operating System and Computer Requirements

Before you install Oracle Enterprise Service Bus, ensure that the computer, on which you plan to install, meets the requirements described in Table 1–1.

Table 1–1 System Requirements for Installing Oracle Enterprise Service Bus

Element	Requirement
Operating system	▪ Sun SPARC Solaris version 8, 9, and 10 **See Also**: *Oracle Application Server Installation Guide 10g* (10.1.3.1.0) for Solaris Operating System (SPARC 64-bit) for information on any required operating system patches, packages, swap space requirements, and kernel parameter settings ▪ Red Hat Enterprise Linux AS/ES 3.0, and 4.0 ▪ SUSE Linux Enterprise Server 9 **See Also**: *Oracle Application Server Installation Guide 10g* (10.1.3.1.0) *for Linux* for information on any required operating system patches, packages, swap space requirements, and kernel parameter settings ▪ Windows 2000 with Service Pack 3 or higher ▪ Windows Server 2003 with Service Pack 1 or higher ▪ Windows XP Service Pack 2 or higher **Note:** If you are running Windows XP with Service Pack 2, see Document ID `280874.1` on Oracle MetaLink at the following location: `https://metalink.oracle.com` **See Also**: *Oracle Application Server Installation Guide 10g* (10.1.3.1.0) *for Microsoft Windows* for information on processor, TEMP directory, virtual memory, and swap space requirements **Note**: For support on operating systems not listed in this table, check the Certify section of Oracle MetaLink (`https://metalink.oracle.com`). For UNIX-based operating systems not listed in this table, but listed as supported in Certify, use the instructions in this guide labeled for UNIX and the corresponding *Oracle Application Server Installation Guide 10g (10.1.3.1.0)* for that operating system (for information on any required operating system patches, packages, swap space requirements, and kernel parameter settings). Oracle Enterprise Service Bus for OracleAS Middle Tier is supported on all operating systems listed in Certify.
Disk space	2 GB **Note**: Requires an additional 400 MB temporary space.

Table 1–1 (Cont.) System Requirements for Installing Oracle Enterprise Service Bus

Element	Requirement
Memory	1.5 GB
Swap space	512 MB minimum
Monitor	Configured to display at least 256 colors

Supported Databases

Following databases are supported for use with the Oracle Enterprise Service Bus installation:

- Oracle9*i* Database Release 2 (9.2.0.7) or later
- Oracle Database 10*g* Release 2 (10.2.0.2) or later
- Oracle Database 10*g* Release 1 (10.1.0.5) or later
- Oracle Database 10*g* Express Edition version 10.2.0.1.0 may be used for non-production purposes. For more information, refer to the following location:

  `http://www.oracle.com/technology/products/database/xe/`

  See Also:

  - Patches & Updates tab of OracleMetaLink (`https://metalink.oracle.com`) for information about any required patches for your version of the Oracle Database.
  - *Oracle Application Server Installation Guide 10g Release 3 (10.1.3.1.0)* for your operating system for information about the supported Oracle Application Server Metadata Repository databases.

Java Development Kit Support

This release of Oracle Enterprise Service Bus is certified for use with Java Development Kit (JDK) 1.5.

Supported Web Browsers for Use with the Oracle Enterprise Service Bus Console

The Oracle Enterprise Service Bus Console supports the following Web Browsers:

- Internet Explorer 6.0 SP2 (supported on Microsoft Windows only)
- Mozilla1.7
- Firefox 1.0.4
- Netscape 7.2

Note: Oracle Enterprise Service Bus Console does not support the Apple Safari Web browser.

Note: Ensure that cookies are enabled in the Web browser. The Oracle Enterprise Service Bus caching mechanism uses cookies to identify user sessions.

Globalization Support

This section provides information about globalization and XSLT mapper parsing. It includes the following sections:

- Oracle Enterprise Service Bus Console and Server Locales
- XSLT Mapper Parsing

Oracle Enterprise Service Bus Console and Server Locales

The Oracle Enterprise Service Bus Console is available in the following languages: French, German, Italian, Spanish, Portuguese, Japanese, Korean, Simplified Chinese, and Traditional Chinese.

Oracle JDeveloper is available in English and Japanese. The Oracle Enterprise Service Bus Console and Oracle JDeveloper retrieve and display text message from Oracle Enterprise Service Bus Server in the server locale on certain pages. To avoid mixed languages from being displayed, make sure that the Oracle Enterprise Service Bus Console and the Oracle Enterprise Service Bus Server are using the same locale.

XSLT Mapper Parsing

The XSLT mapper uses 8-bit Unicode Transformation Format (UTF-8) encoding for the operating system to read XSL content from files. Therefore, be aware that parsing errors can occur if XSL content is not encoded using UTF-8.

2

Oracle Enterprise Service Bus Installation

This chapter describes how to install and deinstall Oracle Enterprise Service Bus and related tasks. It contains the following sections:

- Installation Overview for Oracle Enterprise Service Bus on page 2-1
- Preinstallation Tasks for Oracle Enterprise Service Bus on page 2-2
- Installation Tasks for Oracle Enterprise Service Bus on page 2-7
- Postinstallation Tasks for Oracle Enterprise Service Bus on page 2-7
- Understanding the Directory Structure for Oracle Enterprise Service Bus on page 2-8
- Silent and Non-Interactive Installation and Deinstallation on page 2-9
- Deinstalling Oracle Enterprise Service Bus on page 2-14

Installation Overview for Oracle Enterprise Service Bus

This section provides an overview of installation tasks for Oracle Enterprise Service Bus, and provides references to procedures for performing these tasks. It contains following sections:

- Exploring the Oracle Enterprise Service Bus CD-ROM
- Installation Tasks Summary and Where to Find Procedures

Exploring the Oracle Enterprise Service Bus CD-ROM

The Oracle Enterprise Service Bus product CD-ROM contains the following files and directories at the top level:

- `README_ESB.txt` – The readme file for this release, which contains important information that you should read prior to beginning the installation.
- esb – The directory that contains software to install
- doc—The directory that contains this installation guide

Installation Tasks Summary and Where to Find Procedures

This section provides an overview of installation tasks for Oracle Enterprise Service Bus for OracleAS Middle Tier.

Note: The Integration Repository Creation Assistant referenced in Table 2–1 is a utility that creates the Oracle Enterprise Service Bus user and schema in the Oracle Database. For more information, see Appendix A, "Integration Repository Creation Assistant".

Table 2–1 provides an overview of installation tasks to perform for Oracle Enterprise Service Bus for OracleAS Middle Tier.

Table 2–1 Oracle Enterprise Service Bus for OracleAS Middle Tier

For	Follow These Steps...	See Also...
	1. Install Oracle Database, if not already installed. See Also: Supported Databases on page 1-5.	*Oracle Database Installation Guide 10g* or *Oracle Database Installation Guide 9i* for your operating system
	2. Create the Oracle Enterprise Service Bus schema and user in the Oracle Database using the Integration Repository Creation Assistant (IRCA). The `.bat/.sh` scripts to run IRCA are located in the installation CD under the `install/soa_schemas` directory.	"Step 2: Run the Integration Repository Creation Assistant on the Database" on page 2-3
	3. Install Oracle Application Server 10*g* (10.1.3.1.0) and select either the J2EE Server installation type or the J2EE and Web Server installation type.	*Oracle Application Server 10g Release 3 (10.1.3.1.0) Installation Guide* for your operating system.
	4. Install the Oracle Enterprise Service Bus for OracleAS Middle Tier.	"Installation Tasks for Oracle Enterprise Service Bus" on page 2-4.

Preinstallation Tasks for Oracle Enterprise Service Bus

This section describes the preinstallation steps for Oracle Enterprise Service Bus for OracleAS Middle Tier, which are as follows:

- Step 1: Install the Oracle Database - If Not Already Installed
- Step 2: Run the Integration Repository Creation Assistant on the Database
- Step 3: Install or Upgrade Oracle Application Server

Note: This document provides installation details only for Oracle Enterprise Service Bus for OracleAS Middle Tier. For information about installing Oracle Enterprise Service Bus with Oracle SOA Suite, see the *Oracle Application Server 10g* (10.1.3.1.0) *Installation Guide* for your operating system.

Step 1: Install the Oracle Database - If Not Already Installed

A database is required for the Oracle Enterprise Service Bus to store service metadata (such as XSDs, XSLTs, routing rules, service descriptions, and wsdl). The supported databases are listed in the "Supported Databases" section on page 1-5.

If you already have an Oracle Database that meets the requirements listed in "Supported Databases" on page 1-5, then you do not need to reinstall the database. Otherwise, install or upgrade before you proceed.

See Also:

- *Oracle Database Installation Guide for Microsoft Windows (32-Bit)*
- *Oracle Database Installation Guide for Linux x86*
- *Oracle Database Installation Guide for Solaris Operating System (SPARC 64-Bit)*

Step 2: Run the Integration Repository Creation Assistant on the Database

Run the Integration Repository Creation Assistant to create the database user and schema. Integration Repository Creation Assistant creates the default user `oraesb`, the default password `oraesb`, and the tablespace `oraesb` in the Oracle Database.

For details about how to run the Integration Repository Creation Assistant utility, see Appendix A, "Integration Repository Creation Assistant".

Note that:

- If you previously installed Oracle Enterprise Service Bus and you already ran Integration Repository Creation Assistant on this Oracle Database, then you do not need to run it again.
- If you already have an Oracle Enterprise Service Bus user (`oraesb`) in the target database, then stop all sessions, activities, and transactions for the user before running Integration Repository Creation Assistant. This involves shutting down Oracle Enterprise Service Bus server, Oracle Enterprise Service Bus Control, and Oracle JDeveloper.

Step 3: Install or Upgrade Oracle Application Server

Oracle Enterprise Service Bus must be installed on Oracle Application Server 10*g* (10.1.3.1.0). Options include:

- Install Oracle Application Server 10*g* (10.1.3.1.0) and select the J2EE Server installation type or the J2EE and Web Server installation type.

  See Also: *Oracle Application Server 10g* (10.1.3.1.0) *Installation Guide* for your operating system

  or

- Upgrade an existing Oracle Application Server 10*g* Release 3 (10.1.3) Middle Tier

  See Also: "Installing on an Upgraded OracleAS Middle Tier" on page 1-3

Installation Tasks for Oracle Enterprise Service Bus

Before installing Oracle Enterprise Service Bus on an OracleAS Middle Tier, as mentioned in "Preinstallation Tasks for Oracle Enterprise Service Bus" section on page 2-2, you must already have a database installed. This must be an Oracle Database on which the Integration Repository Creation Assistant has been executed to create the necessary database user and schema (see "Step 2: Run the Integration Repository Creation Assistant on the Database" on page 2-3).

To install Oracle Enterprise Service Bus for OracleAS Middle Tier:

1. Ensure that all preinstallation tasks and requirements described in "Preinstallation Tasks for Oracle Enterprise Service Bus" on page 2-2 have been completed.
2. Log on to the host on which you want to install Oracle Enterprise Service Bus components.
3. Insert the Oracle Enterprise Service Bus CD-ROM.
4. Start Oracle Universal Installer from the `esb` directory of the CD-ROM as follows:

Platform	Action
UNIX/Linux	Enter the following command at the operating system prompt: `./runInstaller`
Windows	Double-click `setup.exe`.

   The Welcome screen is displayed.

5. Click **Next**.

   The Specify File Locations screen is displayed.

6. Select the Oracle home name and directory path where Oracle Application Server 10.1.3.1.0 J2EE and Web Server or J2EE Server instance is located.

   Note:

   - The name of the OC4J instance in the middle tier on which you are installing Oracle Enterprise Service Bus should not be longer than 12 characters.
   - Do not accept the default name and path. The installer looks for the Oracle Application Server 10.1.3.1.0 J2EE and Web Server or J2EE Server instance. If you specify an incorrect path, the Dependencies alert appears. Enter the name and path as shown in the following example:

     UNIX/Linux example:

     ```
     Name: Home1
     Path: /home/oracle/OraHome_1
     ```

     Windows example:

     ```
     Name: Home1
     Path: C:\OraHome_1
     ```

   - Do not change the directory path in the Source field. This is the location of installation files.

7. Click **Next**.

   The Select Installation Type screen is displayed.

8. Select Enterprise Service Bus for OracleAS Middle Tier and click **Next**.

   Note: Enterprise Service Bus for Developers is not a supported option. To install Oracle Enterprise Service Bus as part of the Oracle SOA basic installation for pre-production testing purposes, see the *Oracle Application Server Installation Guide 10g Release 3 (10.1.3.1.0)* for your operating system.

   The Specify Outgoing HTTP Proxy Information screen is displayed.

9. If you have a direct connection to the Internet and do not use a proxy server, or if you accept the default information, then click **Next**. Otherwise, enter the information as shown in Table 2–2.

   Note: This information is applicable to Windows platforms and is automatically filled in if your browser has been configured for Proxy Server information under LAN Settings on the Connections tab.

   If your browser is using Automatic Configuration of proxies, then you must fill in this information.

   On platforms other than Windows, proxy information is manually set in the `opmn.xml` file.

Table 2–2 Outgoing HTTP Proxy Information

Field	Description	Example
HTTP Proxy Host	Enter the name of the proxy server host.	`www-proxy.us.acme.com`
HTTP Proxy Port	Enter the port number of the proxy server host.	`80`
Bypass proxy for addresses	Enter an address that bypasses the proxy. You may enter more than one address, separating each with a semi-colon (;).	`*.us.acme.com;*.us.acme.com;<local>` **Note**: The `<local>` tag ensures that your hostname is automatically included in the bypass proxy list.

   The Specify Database screen is displayed.

10. Provide the details as described in the following table:

Information	Description	Example
Database Type	This must be an Oracle Database.	NA

Information	Description	Example

Hostname and Port	The full name or IP address of your database host and the listener port.
	The default listener port is 1521.
		`my-pc.acme.com:1521`
		or
		`137.1.18.228:1521`

Service Name	The service name that you specified when you installed the database. The default service name is orcl, which may be prepended to the fully qualified domain name (FQDN) for your database.
	Note that this is not the SID.
	If you are not sure, then run the SQL*Plus command show `parameter service_names`.
		`orcl`
		or
		`orcl.us.acme.com`

`ORAESB` Schema Password	The password assigned to the user oraesb. You may have changed this password during preinstallation tasks. For information about the oraesb user account, refer to the section "Step 2: Run the Integration Repository Creation Assistant on the Database" on page 2-3.	NA

Note: If you install multiple ESB repositories in a database, the second repository installation overwrites the existing ESB metadata configuration, specifically the old values in the `ESB_PARAMETER` table. You need to export the `ESB_PARAMETER` table before installing the second repository, then import the `ESB_PARAMETER` table after completing the installation of the second repository.

For more information about exporting and importing the `ESB_PARAMETER` table, see "Updating the ESB Metadata" in *Oracle Application Server Enterprise Deployment Guide* .

11. Click **Next**.

> **Note:** It takes a few minutes for the database connection to be established.

The Administration Settings screen is displayed.

12. Specify the administrator password. This must match the Oracle Application Server administrator password.

> **Note:** During installation of Oracle Enterprise Service Bus on a patched 10.1.3.1.0 J2EE instance, which is associated with Oracle Internet Directory in Oracle Application Server Infrastructure 10.1.2.0.2, you might see the following messages in the background console:
>
> `The operation is unsupported`
>
> These messages can be ignored.

13. Click **Next**.

    The Select ESB Type screen is displayed.

14. Select one of the following options:
    - Repository: To install only repository.
    - Runtime: To install only runtime.
    - Repository and Runtime: To install repository and runtime.
15. Click **Next**.

    The Summary screen is displayed.

16. Click **Install**.

    The Installation Progress screen appears for a few seconds, and then the Configuration Assistants screen appears, listing the following:
    - The Oracle ESB Configuration Assistant
    - The Oracle Process Management and Notification Configuration Assistant

    The installer automatically executes each configuration assistant in sequence, displaying the progress in the Status column. No action is required on this screen.

    When installation completes, the End of Installation screen appears with information for your review.

17. Click **Exit** and confirm when prompted.

    The Getting Started page is displayed.

This completes the installation procedures.

Postinstallation Tasks for Oracle Enterprise Service Bus

After installing Oracle Enterprise Service Bus, complete the postinstallation steps described in these sections:

- Step 1: Recommended - Change Default Passwords

- Step 2: Recommended - Update the Path on UNIX/Linux

Step 1: Recommended - Change Default Passwords

It is important to change all default passwords before you start using the product.

Oracle Containers for J2EE (OC4J) deploys with a default password (`welcome1`) for access to the Oracle Enterprise Manager 10g URL. Change this password immediately after installation.

An initial domain named default is also created with the installation. You can create ESB domains and configure Oracle Enterprise Service Bus server properties from the Oracle Enterprise Service Bus Control. The password for Oracle Enterprise Service Bus Control is automatically set to `oracle`. Change this password immediately after installation.

Two user accounts, named `default` and `esbadmin`, are automatically created with your Oracle Enterprise Service Bus installation. The initial password for both accounts is `welcome1`. Change the password on both accounts immediately after installation is complete.

The default user provides access to the default domain. The esbadmin user provides access to all domains.

Step 2: Recommended - Update the Path on UNIX/Linux

After installing on a UNIX or Linux platform, add `Oracle_Home/integration/esb/bin` to the path. This enables you to run useful commands such as `obant.sh` and `obversion.sh`, and also facilitates the deployment and running of samples.

Understanding the Directory Structure for Oracle Enterprise Service Bus

Table 2–3 shows the directory structure that is created after completing installation:

Table 2–3 Directory Structure for Oracle Enterprise Service Bus Installed Components

Directory	Contains...
cfgtoollogs	Contains the Oracle Universal Installer configuration tools logs.
diagnostics	Contains Oracle Universal Installer diagnostic information.
integration	ESB subdirectory
ESB	These subdirectories:
■ bin	■ ESB server binary and script files
■ config	■ Configuration and properties files
■ install	■ ESB installer-related files
■ lib	■ Oracle Enterprise Service Bus JAR files
■ samples	■ All samples and associated files
inventory	Oracle installed products.
jdk	The required Java Developer's Kit version.
jre	Java runtime environment files and libraries.
lib	Servlet jar file.

Table 2–3 (Cont.) Directory Structure for Oracle Enterprise Service Bus Installed

Directory	Contains...
OPatch	The opatch utility and files to help patch components within this product.
oui	Oracle Universal Installer.

Silent and Non-Interactive Installation and Deinstallation

This section describes how to install and deinstall Oracle Enterprise Service Bus in silent and non-interactive mode. This section contains the following topics:

- Silent Installation on page 2-9
- Non-Interactive Installation on page 2-9
- Preinstallation on page 2-10
- Create the Response File on page 2-10
- Start the Installation on page 2-12
- Postinstallation on page 2-13
- Security Tips for Silent and Non-Interactive Installations on page 2-13
- Silent Deinstallation on page 2-13

Silent Installation

Silent installation eliminates the need to monitor the Oracle Enterprise Service Bus installation because there is no graphical output and no input by the user.

Silent installation of Oracle Enterprise Service Bus is accomplished by supplying the Oracle Universal Installer with a response file and specifying the `-silent` flag on the command line. The response file is a text file containing variables and parameter values which provide answers to the installer prompts. By providing all input in a response file, which you invoke at the command-line prompt or in batch mode, you eliminate the need for direct interaction from the user, and a graphical user interface is not displayed.

If this is a first time installation of Oracle Enterprise Service Bus, you must create the `oraInst.loc` file before starting. File creation is described in "Preinstallation" on page 2-10.

Following installation of Oracle Enterprise Service Bus, you need to run the `root.sh` script as the root user. The `root.sh` script detects settings of environment variables and enables you to enter the full path of the local bin directory.

Use silent installation of Oracle Enterprise Service Bus when there are similar installations on more than one computer. Additionally, use silent install when performing the Oracle Enterprise Service Bus installation from a remote location using the command line.

Non-Interactive Installation

Non-interactive installations also use a response file to automate the Oracle Application Server installation. In non-interactive installations, there is graphical output and users may enter input.

Non-interactive installation of Oracle Enterprise Service Bus is also accomplished by supplying the Oracle Universal Installer with a response file but without specifying the `-silent` flag on the command line. The response file is a text file containing variables and parameter values which provide answers to the installer prompts. If you have not provided responses to all of the installer prompts, you need to enter information during the installation.

If this is a first time installation of Oracle Enterprise Service Bus, you must create the `oraInst.loc` file before starting. File creation is described in "Preinstallation" on page 2-10.

Following installation of Oracle Enterprise Service Bus, you need to run the `root.sh` script as the root user. The `root.sh` script detects settings of environment variables and enables you to enter the full path of the local `bin` directory.

Use non-interactive installation of Oracle Enterprise Service Bus when there are specific screens you want to observe during installation.

Preinstallation

If this is a first time installation of Oracle Enterprise Service Bus, you need to perform the following steps:

1. Log in as the root user.

   ```
   prompt> su
   ```

2. Create the `/var/opt/oracle` directory, if it does not already exist.

   ```
   # mkdir /var/opt/oracle
   ```

3. Create the `/var/opt/oracle/oraInst.loc` file. This file specifies the inventory directory that the installer will use.

   Using a text editor such as vi or emacs, enter the following line in the file:

   ```
   inventory_loc=oui_inventory_directory
   ```

   Replace `oui_inventory_directory` with the full path to the directory where you want the installer to create the inventory directory. For example:

   ```
   inventory_loc=/opt/oracle/oraInventory
   ```

   Make sure that the `oinstall` operating system group has write permissions to this directory.

4. Create an empty `/etc/oratab` file.

   ```
   # touch /var/opt/oracle/oratab
   ```

5. Exit from the root user.

   ```
   # exit
   ```

Create the Response File

Before doing a silent or non-interactive installation, you must provide information specific to your installation in a response file. The installer will fail if you attempt an installation using a response file that is not configured correctly. Response files are text files that you can create or edit in a text editor.

Creating Response Files from Templates

Response files template for Oracle Enterprise Service Bus middle tier installation is available in the `stage/Response` directory on Disk 1 of the Oracle Enterprise Service Bus CD-ROM. The file name is `oracle.tip.esb.installtype_Server.rsp`.

Creating Response Files by Using the Record Mode in the Installer

You can run the installer in record mode to save your inputs to a file that you can use later as a response file. This feature is useful if you need to perform the same installation on different computers.

To run the installer in record mode:

1. Start up the installer with the `-record` and `-destinationFile` parameters.

   ```
   prompt> /path/to/runInstaller -record -destinationFile newResponseFile
   ```

   Replace `newResponseFile` with the full path to the response file that you want the installer to create. Example: `/opt/oracle/myJ2EEResponse.rsp`.

   On Windows:

   ```
   /path/to/setup.exe -record -destinationFile newResponseFile
   ```

2. Enter your values in the installer screens. The installer will write these values to the file specified in the `-destinationFile` parameter.

   When you click the Install button, the installer automatically writes all your values to the specified file. At this point, you can complete the installation on this computer, or you can exit without performing the installation

Secure information, such as passwords, is not written to the file, so you must modify the response file before you can use it. To set the password, modify the `sl_adminDialogReturn` parameter. See the generated response file for a description of the parameter.

Variables to Modify in the Response Files

For Oracle Enterprise Service Bus middle tier installation, modify the following variables:

```
UNIX_GROUP_NAME
FROM_LOCATION
ORACLE_HOME
oracle.tip.esb.midtier:sl_MdConnect
oracle.tip.esb.midtier:s_DBHost="stbck19.us.oracle.com"
oracle.tip.esb.midtier:s_DBPort="1521"
oracle.tip.esb.midtier:s_DBPasswd="oraesb"
oracle.tip.esb.midtier:s_DBSid="db4985.us.oracle.com"
oracle.tip.esb.midtier:iASinstancePW="welcome1"
```

Example Response File

The following example shows a sample of a response file for a silent installation of Oracle Enterprise Service Bus on a middle tier :

```
RESPONSEFILE_VERSION=2.2.1.0.0
UNIX_GROUP_NAME="svrtech"
FROM_LOCATION=/ade_autofs/shiphomes_
linux/releaseBuilder/linux/dailyShiphomes/esb/10.1.3.0.0/daily//060925.2200/Disk1
/stage/products.xml
```

```
ORACLE_HOME=/scratch/aime1/work/soa3392
ORACLE_HOME_NAME=soa3392
SHOW_SPLASH_SCREEN=false
SHOW_WELCOME_PAGE=false
SHOW_INSTALL_PROGRESS_PAGE=false
SHOW_COMPONENT_LOCATIONS_PAGE=false
SHOW_CUSTOM_TREE_PAGE=false
SHOW_SUMMARY_PAGE=false
SHOW_REQUIRED_CONFIG_TOOL_PAGE=false
SHOW_OPTIONAL_CONFIG_TOOL_PAGE=false
SHOW_RELEASE_NOTES=false
SHOW_ROOTSH_CONFIRMATION=false
SHOW_END_SESSION_PAGE=false
SHOW_EXIT_CONFIRMATION=false
NEXT_SESSION=false
NEXT_SESSION_ON_FAIL=false
SHOW_DEINSTALL_CONFIRMATION=false
SHOW_DEINSTALL_PROGRESS=false
SHOW_IAS_COMPONENT_CONFIG_PAGE=false
ACCEPT_LICENSE_AGREEMENT=true
RESTART_SYSTEM=<Value Unspecified>
CLUSTER_NODES=<Value Unspecified>
OUI_HOSTNAME=isunnat04.us.oracle.com
PreReqConfigSelections=""
n_ValidationPreReqConfigSelections=0
TOPLEVEL_COMPONENT={"oracle.tip.esb","10.1.3.0.0"}
DEINSTALL_LIST={"oracle.tip.esb","10.1.3.0.0"}
COMPONENT_LANGUAGES={"en"}
INSTALL_TYPE=installtype_Server
sl_
HTTPProxyInfoConfig={"www-proxy.us.oracle.com","80","*.oracle.com;*.us.oracle.com
"}
s_configProxyOptions="-http-proxy-required true -http-proxy-host
www-proxy.us.oracle.com -http-proxy-port 80 -http-no-proxy-for
 *.oracle.com;*.us.oracle.com"
nValidationHTTPProxyInfoConfig=0
oracle.tip.esb.midtier:sl_MdConnect={"Oracle Database",
 "stbck19.us.oracle.com:1521", "", "", "db4985.us.oracle.com", "", "oraesb", ""}
oracle.tip.esb.midtier:s_DBHost="stbck19.us.oracle.com"
oracle.tip.esb.midtier:s_DBPort="1521"
oracle.tip.esb.midtier:s_DBPasswd="oraesb"
oracle.tip.esb.midtier:s_DBSid="db4985.us.oracle.com"
oracle.tip.esb.midtier:iASinstancePW="welcome1"
oracle.tip.esb.midtier:bMaskValidationMD=false
oracle.tip.esb.midtier:nValidationMD=0
oracle.tip.esb.midtier:n_choosedb=0
oracle.tip.esb.midtier:s_dbVendor="oracle"
oracle.tip.esb.midtier:s_esbtype=both
oracle.tip.esb.midtier:sl_adminDialogReturn={"welcome1", "", "default_group^oc4j
_soa", "", ":", ""}
oracle.tip.esb.midtier:bMaskValidationAdminInfo=false
oracle.tip.esb.midtier:n_validateAdminDialogInfo=0
```

Start the Installation

To make the installer use the response file, specify the location of the response file that you want to use as a parameter when starting the installer.

To perform a non-interactive installation:

```
prompt> setenv DISPLAY hostname:0.0
prompt> runInstaller -responseFile absolute_path_and_filename
```

To perform a silent installation, use the `-silent` parameter:

```
prompt> runInstaller -silent -responseFile absolute_path_and_filename
```

Postinstallation

The success or failure of the non-interactive and silent installations is logged in the `installActions<time_stamp>.log` file. Additionally, the silent installation creates the `silentInstall<time_stamp>.log` file. The log files are created in the `oraInventory/logs` directory.

The `silentInstall<time_stamp>.log` file contains the following line if the installation was successful:

```
The installation of Oracle Enterprise Service Bus was successful.
```

Security Tips for Silent and Non-Interactive Installations

One of the pieces of information in the response file is the installation password. The password information is in clear text.

To minimize security issues regarding the password in the response file, follow these guidelines:

- Set the permissions on the response files so that they are readable only by the operating system user who will be performing the silent or non-interactive installation.
- If possible, remove the response files from the system after the silent or non-interactive installation is completed.

Silent Deinstallation

You can perform a silent deinstallation of Oracle Enterprise Service Bus by supplying a silent deinstallation parameter to the response file you used for installation.

Modify the following parameter in your installation response file:

```
REMOVE_HOMES={"<ORACLE_HOME to be removed>"}
```

For example:

```
REMOVE_HOME="/local_location/oracle_home"
```

> **Note:** You still need to follow the clean up steps described in "Deinstalling Oracle Enterprise Service Bus" on page 2-14.

To perform a silent deinstallation, use the `-deinstall` parameter when entering the command:

```
prompt> runInstaller -silent -deinstall -responseFile absolute_path_and_filename
```

Deinstalling Oracle Enterprise Service Bus

To deinstall Oracle Enterprise Service Bus, follow these steps:

1. On the host where Oracle Enterprise Service Bus is installed, log in as the system user.
2. Stop ESB Server and all processes of Oracle Enterprise Service Bus.
3. Start Oracle Universal Installer, as follows, depending on the operating system on which Oracle Enterprise Service Bus is installed:
   - On Microsoft Windows

     Select **Start**, **All Programs**, **Oracle – *Oracle-Home***, **Oracle Installation Products**, **Universal Installer**, where *Oracle_Home* is the name of the Oracle home where you installed Oracle Enterprise Service Bus.
   - On Unix

     Enter the following command at the operating system prompt:

     ```
     ./runInstaller
     ```

   An Oracle Universal Install Window window opens to inform you that the Oracle Universal Install is being prepared for launch. This window closes and the Welcome page for Oracle Universal Install is displayed.
4. In the Welcome page, click **Deinstall Products.**

   The Inventory dialog box opens.
5. Expand the Oracle home that contains the products to deinstall.
6. Select **Oracle Enterprise Service Bus** and then click **Remove**.

   A Confirmation dialog box opens.
7. Verify that the products and components listed are the ones you want to deinstall, and then click **Yes.**

   The Remove dialog box opens.
8. Monitor the progress of the deinstallation. When it completes, in the Inventory dialog box, click **Close**.

   Note: The deinstallation does not remove files created after installation (for example, project files, server files, log files, and so on). You must manually remove these files and directories. It is recommended that you delete the integration directory under your Oracle home after backing up any required files.
9. In the Welcome page, click **Cancel,** and then **Yes,** when you are asked for confirmation.
10. Restart your computer to stop any remaining processes associated with the deinstallation.
11. From the `server.xml` file delete all the enries which point the *`ORACLE_HOME`*`/integration/esb` directory. The `server.xml` file is located in the *`ORACLE_HOME`*`\j2ee\home\config` directory.

    For example:

```
<shared-library name="oracle.db.lite" version="10.1.3">
  <code-source path="C:\product\10.1.3\OracleAS
_Mid\integration\esb/lib/olite40.jar" />
  </shared-library>
<shared-library name="apache.commons" version="10.1.3">
  <code-source path="C:\product\10.1.3\OracleAS
   _Mid\integration\esb/lib/commons-fileupload-1.1.jar" />
  <code-source path="C:\product\10.1.3\OracleAS
   _Mid\integration\esb/lib/commons-codec-1.3.jar" />
  <code-source path="C:\product\10.1.3\OracleAS
   _Mid\integration\esb/lib/commons-transaction-1.0.jar" />
  <code-source path="C:\product\10.1.3\OracleAS
   _Mid\integration\esb/lib/commons-collections-2.1.jar" />
  <code-source path="C:\product\10.1.3\OracleAS
   _Mid\integration\esb/lib/commons-io-1.1.jar" />
  <code-source path="C:\product\10.1.3\OracleAS
   _Mid\integration\esb/lib/commons-dbcp-20031203.jar" />
  <code-source path="C:\product\10.1.3\OracleAS
   _Mid\integration\esb/lib/commons-pool-1.1.jar" />
  </shared-library>
```

12. Delete any files that remain in the deleted instance's Oracle home directory.

Note:

- If you want to deinstall and reinstall Oracle Enterprise Service Bus in the same Oracle home, ensure that you first remove files and subdirectories under `Oracle_Home` before performing the Oracle Enterprise Service Bus reinstallation.
- You cannot deinstall and then reinstall within the same Oracle home during the same OUI install session. You must exit the OUI after deinstallation, clean out the directory structure, and then restart a fresh installation.

A

Integration Repository Creation Assistant

This appendix describes how to use the Integration Repository Creation Assistant. It contains the following sections:

- About the Integration Repository Creation Assistant on page A-1
- System Requirements on page A-1
- Running the Integration Repository Creation Assistant on page A-1

About the Integration Repository Creation Assistant

Integration Repository Creation Assistant is a command-line utility used to create and load the Oracle Enterprise Service Bus `oraesb` schema into an Oracle Database. It is necessary to run Integration Repository Creation Assistant if you plan to install Oracle Enterprise Service Bus on an Oracle Application Server 10*g* (10.1.3.1.0) middle tier..

System Requirements

Requirements for using the Integration Repository Creation Assistant include:

- An Oracle Database

  See Also: "Supported Databases" on page 1-5 for the list of supported database versions

- JDK 1.4 or 1.5
- 120 MB disk space for tablespaces

If you will be running Oracle Enterprise Service Bus in a multi-lingual environment, it is recommended that you use the Unicode (`AL32UTF8`) database character set encoding. Using a character set encoding other than Unicode may result in possible loss or misinterpretation of data.

Running the Integration Repository Creation Assistant

You must run the Integration Repository Creation Assistant on the machine where your Oracle Database is installed, or from a remote Oracle Client with sqlplus installed.

Take these steps to run the Integration Repository Creation Assistant utility:

1. Set `ORACLE_HOME` in your environment so that you can use sqlplus to connect to the local or remote Oracle Database.

2. Make sure you can connect to your Oracle Database as the `SYS` database user with a command structured as follows:

   ```
   $ORACLE_HOME/bin/sqlplus "sys/sysPassword@serviceName as
   sysdba"
   ```

3. If your `ORACLE_HOME` does not contain a JDK with a valid version as listed in "System Requirements" on page A-1, set `JAVA_HOME` to the correct JDK version.
4. If there are Oracle Enterprise Service Bus users in the target database, ensure that these users are logged out. Integration Repository Creation Assistant will prompt you before overwriting existing data.
5. Unzip the `irca.zip` distribution into an appropriate directory.
6. Execute the `irca.sh` command to load the schema into the target database. Integration Repository Creation Assistant provides two execution modes: silent and interactive.

   In silent mode, you provide all the execution parameters in a single string, using the syntax:

   ```
   irca[.sh] oraesb "db_host db_port db_service_name" sys_
   password [-overwrite] ORAESB oraesb_password
   ```

   In the interactive mode, you invoke the command by specifying only the schema to be loaded:

   ```
   irca[.sh] oraesb
   ```

   The utility prompts you for the database details and the passwords.

Index

C

CD-ROM
  exploring, 2-1
components installed, 1-3
cookies
  Web browsers and, 1-5

D

deinstallation steps, 2-14
deinstalling, 2-14
directories
  doc, 2-1
  esb, 2-1
directory structure, 2-8
doc directory, 2-1

E

ESB Console, 1-3
  server locales and, 1-6
esb directory, 2-1
ESB Server, 1-3

F

Firefox 1.0.4, 1-5

G

globalization support, 1-6

H

hardware requirements for installation, 1-4

I

installation
  Exploring the Oracle Enterprise Service Bus CD-ROM, 2-1
  Installation Tasks, 2-4
  Outgoing HTTP Proxy Information, 2-5
  overview, 2-1
  Postinstallation, 2-7
  preinstallation Tasks, 2-2
  specify database, 2-5
  System Requirements, 1-3
  Tasks Summary and Where to Find Procedures, 2-1
Installation Scenarios, 1-2
  Installing on an Upgraded OracleAS Middle Tier, 1-3
  Oracle Enterprise Service Bus with Oracle SOA Suite, 1-2
  OracleAS Middle Tier Installation, 1-3
installation types, 1-3
  Oracle Enterprise Service Bus for OracleAS Middle Tier, 1-3
Integration Repository Creation Assistant, 2-3
  About, A-1
  Running, A-1
  System Requirements, A-1
Internet Explorer, 1-5
IRCA
  About, A-1
  Running the IRCA, A-1
  System Requirements, A-1

J

Java Development Kit Support, 1-5

M

Mozilla 1.7, 1-5

N

Netscape 7.2, 1-5

O

Oracle Database Lite, 1-3
Oracle Enterprise Service Bus
  Deinstallation, 2-14
  Installation, 1-2
Oracle Enterprise Service Bus Components, 1-1
  ESB Console, 1-1
  ESB Metadata Server, 1-1
  ESB Server, 1-1
  Oracle JDeveloper, 1-1

P

Postinstallation Tasks, 2-7
  Change Default Passwords, 2-8
  Understanding the Directory Structure, 2-8
preinstallation, 2-2
  Install or Upgrade Oracle Application Server, 2-3
  installing the Oracle Database, 2-3
  Integration Repository Creation Assistant, 2-3

R

README_ESB.txt file, 2-1
Response file
  Creating from Templates, 2-11
  Example, 2-11
  record mode, 2-11
  Variables, 2-11
response file, 2-10

S

Security, 2-13
server locales
  Oracle Enterprise Service Bus Console and, 1-6
Silent Deinstallation, 2-13
silent deinstallation, 2-9
silent installation, 2-9
Silent Non-Interactive Installation and Deinstallation, 2-9
  Create the Response File, 2-10
  Deinstallation, 2-13
  installation, 2-12
  Non-Interactive Installation, 2-9
  postinstallation, 2-13
  Preinstallation, 2-10
  security, 2-13
  Silent Installation, 2-9
software requirements for installation, 1-4
supported Databases, 1-5
Supported Web Browsers, 1-5
  Firefox 1.0.4, 1-5
  Internet Explorer, 1-5
  Mozilla 1.7, 1-5
  Netscape 7.2, 1-5
System Requirements, 1-3
  Java Development Kit, 1-5
  Operating System and Computer Requirements, 1-4
  Supported Databases, 1-5
  Supported Web Browsers, 1-5

U

UTF-8
  and XSLT mapper, 1-6

W

Web browsers
  cookies and, 1-5

X

XSLT mapper
  UTF-8 and, 1-6
XSLT mapper parsing, 1-6