

**Oracle® Fusion Middleware**

Integration Overview for Oracle Identity Management Suite

11g Release 1 (11.1.1)

**E15477-01**

June 2010

Oracle Fusion Middleware Integration Overview for Oracle Identity Management Suite, 11g Release 1 (11.1.1)

E15477-01

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# Preface

This document describes the Identity Management integration options in Oracle Fusion Middleware 11g Release 1 (11.1.1).

## Audience

This document is intended for system administrators responsible for integrating identity management components and related third-party products for Oracle Fusion Middleware 11g Release 1 (11.1.1).

For specific interoperability details about the products mentioned in this guide, consult the certification matrix for Oracle Fusion Middleware 11g Release 1 (11.1.1.x), which is located at:

[http://www.oracle.com/technology/software/products/ias/files/fusion\\_certification.html](http://www.oracle.com/technology/software/products/ias/files/fusion_certification.html)

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## Related Documents

For more information, see the following documents in the Oracle Fusion Middleware 11g documentation set:

- *Oracle Fusion Middleware Installation Guide for Oracle Identity Management*
- *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Manager*
- *Oracle Access Manager Integration Guide*
- *Oracle Fusion Middleware Administrator's Guide for Oracle Adaptive Access Manager*
- *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation*
- *Oracle Fusion Middleware Administrator's Guide for Oracle Directory Integration Platform*
- *Oracle Fusion Middleware Introduction to Oracle Entitlements Server*
- *Understanding WebLogic Security*
- *Oracle Fusion Middleware Securing Oracle WebLogic Server*
- *Programming WebLogic Security*

## Conventions

The following text conventions are used in this document:

Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	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.

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# Introduction

This chapter introduces basic Oracle Fusion Middleware integration concepts. It contains these topics:

- [About Oracle Identity Management](#)
- [Objectives of Integration](#)
- [Types of Integration](#)
- [Key Integration Scenarios](#)
- [How to Use this Book](#)

## 1.1 About Oracle Identity Management

Oracle Identity Management provides customers with a path to meet compliance efficiently, secure critical applications and sensitive data, and lower operational costs. Using the most complete and best-in-class suite of IdM solutions, enterprises can manage the end-to-end lifecycle of user identities across all enterprise resources both within and beyond the firewall.

Through its foundation for service-oriented security, Oracle Identity Management 11g delivers enhanced security by automating provisioning of user accounts, dramatically reducing help desk calls, streamlining compliance audit and reporting, consolidating identity silos, enabling rapid integration with enterprise applications, and more.

Successful integration with identity management technologies is key to the secure operation of today's enterprise applications. This document will enable you to assess the tools and techniques that Oracle IdM provides to enable you to run secure enterprise operations.

## 1.2 Objectives of Integration

Components of Oracle Identity Management typically integrate with the existing infrastructure and applications in the enterprise. Some examples:

- A directory service may provide a centralized user store for existing applications that are LDAP-enabled.
- An access management solution may provide single sign-on and web authorization for existing Web applications in concert with the application servers deployed in the enterprise.
- A provisioning solution may streamline the onboarding procedure by orchestrating the various entities and accounts that need to be created across multiple systems when a new employee is hired.

- A role management solution may provide the necessary scoping to enforce audit rules.

Designed to help you respond and adapt to the needs of your enterprise, Oracle Identity Management presents a highly heterogeneous solution that gives you many different options to enhance security in your existing environment. Understanding the business requirements and implementing the right level of integration is the key to a successful identity management deployment.

Based on functional areas, this document provides a high-level guide to the types of integration available in each Oracle Identity Management product.

Its objective is to enable you to easily identify the capabilities and integrations available for your current enterprise deployment and to plan its future road map.

## 1.3 Types of Integration

This section explains the different types of possible IdM integrations:

- [Integration Among Oracle Identity Management Components](#)
- [Integration for other Oracle products](#)
- [Integration for Third-Party products](#)

### 1.3.1 Integration Among Oracle Identity Management Components

Many Oracle Identity Management components can integrate and interoperate with each other. For example, Oracle Access Manager can provide single sign-on for products such as Oracle Identity Manager and Oracle Identity Analytics.

This book covers the range of Oracle Identity Management component integrations.

### 1.3.2 Integration for other Oracle products

Oracle products cover a large spectrum of the technology stack, with products in all of these areas:

- operating systems
- virtual machines
- databases
- middleware
- applications

Oracle Identity Management is well equipped to handle many of the security requirements in each of these areas. Depending on your requirements, Oracle Identity Management can integrate with many products from the rest of the Oracle technology stack to provide additional security and identity management-related features to these products.

For example, Oracle Identity Manager provides user account management and provisioning support for Oracle E-Business Suite and Oracle PeopleSoft. This book will also cover those integration scenarios.



### 1.3.3 Integration for Third-Party products

For customers with non-Oracle products in their enterprise deployment, Oracle Identity Management can also integrate with many third-party products to strengthen and satisfy your business requirements.

For example, many of our LDAP-enabled products can be readily integrated with Microsoft Active Directory. You can use Oracle Access Manager, for example, to support Windows Native Authentication for web applications by integrating with a Microsoft Windows domain.

Where relevant, this book covers security integration scenarios between Oracle Identity Management and third-party products.

## 1.4 Key Integration Scenarios

Table 1–1 lists some key areas of integration in the identity management suite, and the components/products involved in each area.

**Table 1–1 Key Integration Scenarios**

Objective	Description	Components
Web Access Management	Centralized access management, single sign-on, fine-grained authentication and entitlement control.	Oracle Access Manager Oracle Identity Manager Oracle Adaptive Access Manager Oracle Entitlements Server
Federation	Authentication and single sign-on across security domains.	Oracle Identity Federation Oracle HTTP Server Oracle Access Manager Oracle Internet Directory Oracle Directory Server Enterprise Edition Third-party Directories
Enterprise Single Sign-On	Enable single sign-on in a distributed enterprise and through a variety of sign-on interfaces.	Oracle Access Manager Oracle Enterprise Single Sign-On Oracle Identity Manager Oracle Waveset IBM Tivoli Identity Manager
Risk Management	Protect your exposed Web applications, services, and end-users from online threats and insider fraud.	Oracle Adaptive Access Manager
User, Account, and Entitlement Provisioning	Provision users, accounts, and entitlements for your enterprise applications.	Oracle Identity Manager
Password Management	Options for integrating password management solutions into the enterprise.	Oracle Access Manager Oracle Adaptive Access Manager Oracle Identity Manager

**Table 1–1 (Cont.) Key Integration Scenarios**

<b>Objective</b>	<b>Description</b>	<b>Components</b>
<a href="#">Identity Governance</a>	Intelligent controls to enable sustainable risk and compliance management.	Oracle E-Business Suite Oracle Application Access Controls Governor SAP GRC
<a href="#">Database Security</a>	Advanced database security features and integration of IdM with Oracle and third-party directory environments.	Oracle Internet Directory Oracle Virtual Directory Oracle Directory Server Enterprise Edition Microsoft Active Directory
<a href="#">Fine-Grained Access Control</a>	Fine-grained entitlement management solution to secure critical applications.	Oracle Entitlements Server

## 1.5 How to Use this Book

Use this book to understand the major integration options available to meet your site's requirements. Use the references provided with each topic to learn more about each option, including specific prerequisites, installation, and post-install configuration.

The book contains a comprehensive cross-product index that you can use to quickly locate a topic of interest. Each integration topic is indexed twice, once for each component/product in the integration. For example, the Oracle Identity Manager connector for Microsoft Exchange is indexed under both Microsoft Exchange and Oracle Identity Manager. This allows you to see what types of integration are available for any particular Oracle Identity Management component. It also allows you to see all the relevant integration options Oracle Identity Management supports for a particular Oracle product or third-party product from the reverse angle, that is, from the latter perspective.

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## Web Access Management

Oracle Access Manager provides Web single sign-on to enable secure access to multiple applications with one authentication step. It also provides flexible support for all popular authentication methods, including login forms, digital certificates, and smart cards.

This chapter explains how you can integrate Oracle Access Manager with other components to enable Web access management for your enterprise applications. It contains these sections:

- [Oracle Access Manager for Oracle Identity Management](#)
- [Oracle Access Manager for Oracle Fusion Middleware](#)
- [Oracle Access Manager for Other Oracle Applications](#)
- [Oracle Access Manager for Third-Party Applications](#)

### 2.1 Oracle Access Manager for Oracle Identity Management

Oracle Access Manager provides single sign-on support for many Oracle Identity Management components. It also integrates with some Oracle Identity Management components to support more advanced features for those components. [Table 2-1](#) shows the supported integrations:

**Table 2-1 Oracle Access Manager for Oracle Identity Management**

Oracle Access Manager Integrated with	Additional Information
Oracle Identity Manager	Enabling Identity Administration with Oracle Identity Manager in the <i>Oracle Fusion Middleware Integration Guide for Oracle Access Manager</i>
Oracle Adaptive Access Manager	Integrating Oracle Access Manager and Oracle Adaptive Access Manager in the <i>Oracle Fusion Middleware Integration Guide for Oracle Access Manager</i>
	Configuring OAM and OAAM with Other Oracle Identity Management Products in the <i>Oracle Fusion Middleware Installation Guide for Oracle Identity Management</i>
Oracle Identity Navigator	Integrating with Oracle Identity Navigator in the <i>Oracle Fusion Middleware Integration Guide for Oracle Access Manager</i>
Oracle Identity Federation	<a href="#">Chapter 4, "Federation"</a>

## 2.2 Oracle Access Manager for Oracle Fusion Middleware

Oracle Access Manager integrates with various Oracle Fusion Middleware components to provide single sign-on support for applications running on Oracle WebLogic servers. [Table 2–2](#) shows the supported integrations:

**Table 2–2 Oracle Access Manager for Oracle Fusion Middleware**

Oracle Access Manager Integrated with	Additional Information
Oracle WebLogic Server 11g	Configuring Oracle Access Manager (OAM) in the <i>Oracle Fusion Middleware Installation Guide for Oracle Identity Management</i>  Registering Partners (Agents and Applications) Remotely in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager</i> .
Oracle HTTP Server 11g	Configuring Oracle Access Manager (OAM) in the <i>Oracle Fusion Middleware Installation Guide for Oracle Identity Management</i>  Registering Partners (Agents and Applications) Remotely in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager</i> .
Oracle HTTP Server 10g	Platform-specific Oracle Application Server Installation Guide for 10g. In particular see the chapter Configuring the Apache v1.3 and Oracle HTTP Server Web Servers.
Oracle Business Intelligence	
Oracle WebCache	
Oracle Application Server 10g	Platform-specific Oracle Application Server Installation Guide for 10g. Integrating with Oracle Application Servers in the Oracle Access Manager Integration Guide for 10g

## 2.3 Oracle Access Manager for Other Oracle Applications

Oracle Access Manager integrates with several enterprise applications from Oracle to support Web access management. [Table 2–3](#) shows the supported integrations:

**Table 2–3 Oracle Access Manager for Other Oracle Applications**

Oracle Access Manager Integrated with	Additional Information
Oracle E-Business Suite	<a href="http://www.oracle.com/technology/products/id_mgmt/pdf/idm_tech_wp_11g_r1.pdf">http://www.oracle.com/technology/products/id_mgmt/pdf/idm_tech_wp_11g_r1.pdf</a>
Siebel	<a href="http://www.oracle.com/technology/products/id_mgmt/pdf/idm_tech_wp_11g_r1.pdf">http://www.oracle.com/technology/products/id_mgmt/pdf/idm_tech_wp_11g_r1.pdf</a>
PeopleSoft Enterprise	Deploying Oracle Access Manager 10g SSO Solutions in the <i>Oracle Fusion Middleware Application Security Guide</i> .  Introduction to the OAM Policy Model, Single Sign-On, and Sign-Off in <i>Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager</i> .  <i>Oracle Fusion Middleware Integration Guide for Oracle Access Manager</i>

## 2.4 Oracle Access Manager for Third-Party Applications

Oracle Access Manager supports integration with many third-party products to provide web access management in a heterogeneous enterprise environment.

Table 2–4 shows the supported integrations:

**Table 2–4 Oracle Access Manager for Third-Party Applications**

<b>Oracle Access Manager Integrated with</b>	<b>Additional Information</b>
Apache Web servers	Configuring 10g WebGates for Apache v2-based Web Servers (OHS and IHS) in <i>Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager</i>
SAP mySAP	
IBM Lotus Domino	Configuring Lotus Domino Web Servers for 10g WebGates in <i>Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager</i>
IBM HTTP Server	Configuring 10g WebGates for Apache v2-based Web Servers (OHS and IHS) in <i>Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager</i>
Microsoft SharePoint	See the white paper Securing Microsoft Office SharePoint Server (MOSS) Resources at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/integrateappenvirom/moss.html">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/integrateappenvirom/moss.html</a>
Microsoft Internet Information Server (IIS)	Configuring 10g WebGates for the IIS Web Server in <i>Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager</i>
Microsoft Internet and Security Acceleration Server (ISA)	Configuring 10g WebGates for the ISA Server in <i>Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager</i>
Windows Native Authentication	Configuring Oracle Access Manager to use Windows Native Authentication in the <i>Oracle Fusion Middleware Integration Guide for Oracle Access Manager</i>



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## Enterprise Single Sign-On

Oracle Enterprise Single Sign-On Suite provides users with unified sign-on and authentication across all their enterprise resources. Unlike Oracle Access Manager that focuses on web access management, Oracle Enterprise Single Sign-On Suite covers also desktops, client-server, custom and host-based mainframe applications. Even if users travel or share workstations, they can enjoy the flexibility of a single log-on that eliminates the need for multiple user names and passwords and helps enforce strong password and authentication policies.

This chapter contains topics related to enterprise single sign-on:

- [Enterprise Single Sign-On Synchronization](#)
- [Enterprise Single Sign-On Provisioning Gateway](#)
- [Enterprise Single Sign-On Authentication Manager](#)

### 3.1 Enterprise Single Sign-On Synchronization

ESSO Synchronization is a component of Oracle Enterprise Single Sign-On Suite Logon Manager, which handles storage and retrieval of credentials and settings from an external repository such as an LDAP or RDBMS store. This feature lets you synchronize credentials between an end user's local store (on a workstation) and a store in a remote SSO repository (file system share, relational database, or directory server). You configure synchronization through the ESSO-LM administration console.

[Table 3–1](#) shows the supported integrations:

**Table 3–1 Oracle Enterprise Single Sign-On Suite Synchronization Manager Integrations**

ESSO Synchronization Manager Integrated with	Additional Information
Microsoft Active Directory	<a href="http://download.oracle.com/docs/cd/E15624_01/logon.11111/SSOAdmin.chm">http://download.oracle.com/docs/cd/E15624_01/logon.11111/SSOAdmin.chm</a>
Microsoft Active Directory Application Mode (ADAM)	<a href="http://download.oracle.com/docs/cd/E15624_01/logon.11111/SSOAdmin.chm">http://download.oracle.com/docs/cd/E15624_01/logon.11111/SSOAdmin.chm</a>
LDAP	<a href="http://download.oracle.com/docs/cd/E15624_01/logon.11111/SSOAdmin.chm">http://download.oracle.com/docs/cd/E15624_01/logon.11111/SSOAdmin.chm</a>
Database	<a href="http://download.oracle.com/docs/cd/E15624_01/logon.11111/SSOAdmin.chm">http://download.oracle.com/docs/cd/E15624_01/logon.11111/SSOAdmin.chm</a>

## 3.2 Enterprise Single Sign-On Provisioning Gateway

Oracle Enterprise Single Sign-On Suite Provisioning Gateway (ESSO-PG) enables system administrators to directly distribute, reset, remove, or delete user credentials to an Enterprise Single Sign-On solution without the need for any user involvement.

Here are some examples:

- An administrator can inject a new user's credentials directly into the user's ESSO-LM account.
- The administrator can update ESSO-LM simultaneously to reset a password and prevent an application from falling out of synchronization with ESSO-LM.
- When a user's access to an application is terminated, the administrator can use ESSO-PG to quickly remove the corresponding credentials from the user's ESSO-LM account.
- When a user leaves the company, the administrator can instantly delete all the user's credentials.

All these operations can be automatically initiated and controlled by industry-leading provisioning systems. ESSO-PG provides an open interface to integrate with other industry-standard or internally-developed provisioning systems, and also provides an interactive interface for administrators to manually provision credentials.

Table 3–2 shows the supported integrations:

**Table 3–2 Oracle Enterprise Single Sign-On Suite Provisioning Gateway Integrations**

ESSO-PG Integrated with	Additional Information
Oracle Identity Manager	<a href="http://download.oracle.com/docs/cd/E12472_01/provisioning_gateway/PGWOC.pdf">http://download.oracle.com/docs/cd/E12472_01/provisioning_gateway/PGWOC.pdf</a>
Oracle Waveset	<a href="http://download.oracle.com/docs/cd/E12472_01/provisioning_gateway/EPGSC.pdf">http://download.oracle.com/docs/cd/E12472_01/provisioning_gateway/EPGSC.pdf</a>
IBM Tivoli Identity Manager	<a href="http://download.oracle.com/docs/cd/E12472_01/provisioning_gateway/EPGSC.pdf">http://download.oracle.com/docs/cd/E12472_01/provisioning_gateway/EPGSC.pdf</a>
Novell Identity Manager	<a href="http://download.oracle.com/docs/cd/E15624_01/provisioning.11111/NIMIG.pdf">http://download.oracle.com/docs/cd/E15624_01/provisioning.11111/NIMIG.pdf</a>

## 3.3 Enterprise Single Sign-On Authentication Manager

Oracle Enterprise Single Sign-On Suite Authentication Manager (ESSO-AM), an add-on module to Oracle Enterprise Single Sign-on Logon Manager (ESSO-LM), enables an organization to seamlessly provide a strong authentication bridge to all its applications, including smart cards and Entrust authenticators.

Users can employ different authenticators at different times, and application access can be controlled based upon the authenticator used for all authentication events: initial authentication, re-authentication, and forced authentication.

Table 3–3 shows the supported integrations:



**Table 3–3 Oracle Enterprise Single Sign-On Suite Authentication Manager Integrations**

<b>ESSO-AM Integrated with</b>	<b>Additional Information</b>
Entrust	<a href="http://download.oracle.com/docs/cd/E15624_01/authentication.11111/ESAIG.pdf">http://download.oracle.com/docs/cd/E15624_01/authentication.11111/ESAIG.pdf</a>
LDAP	<a href="http://download.oracle.com/docs/cd/E12472_01/authentication_manager/ESAIG.pdf">http://download.oracle.com/docs/cd/E12472_01/authentication_manager/ESAIG.pdf</a>
Microsoft Windows	<a href="http://download.oracle.com/docs/cd/E12472_01/authentication_manager/ESAIG.pdf">http://download.oracle.com/docs/cd/E12472_01/authentication_manager/ESAIG.pdf</a>
Proximity cards	<a href="http://download.oracle.com/docs/cd/E12472_01/authentication_manager/ESAIG.pdf">http://download.oracle.com/docs/cd/E12472_01/authentication_manager/ESAIG.pdf</a>
smart cards	<a href="http://download.oracle.com/docs/cd/E12472_01/authentication_manager/ESAIG.pdf">http://download.oracle.com/docs/cd/E12472_01/authentication_manager/ESAIG.pdf</a>
RSA SecurID	<a href="http://download.oracle.com/docs/cd/E12472_01/authentication_manager/ESAIG.pdf">http://download.oracle.com/docs/cd/E12472_01/authentication_manager/ESAIG.pdf</a>



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# Federation

Oracle Identity Federation provides a comprehensive implementation of federation standards delivered via Oracle Universal Federation Framework - the unified, extensible and customizable architecture for rapid deployment in any multi-vendor environment.

Oracle Identity Federation allows customers to quickly achieve cross-domain SSO by providing a complete end-to-end federation deployment package, including a simple and lightweight deployment option for Service Providers.

This chapter introduces the integrations for Oracle Identity Federation:

- [Oracle Identity Federation for Oracle Identity Management](#)
- [Oracle Identity Federation for Oracle Fusion Middleware](#)
- [Oracle Identity Federation Authentication Engines](#)
- [Oracle Identity Federation Service Provider Integration Modules](#)

## 4.1 Oracle Identity Federation for Oracle Identity Management

Oracle Identity Federation integrates with several Oracle Identity Management products to provide integrated federation solutions. [Table 4-1](#) shows the supported integrations:

**Table 4-1 Oracle Identity Federation for Oracle Identity Management**

Oracle Identity Federation Integrated with	Additional Information
Oracle Access Manager	For 11g webgates, see <i>Integrating Oracle Access Manager with Oracle Identity Federation in the Oracle Fusion Middleware Integration Guide for Oracle Access Manager</i>  For 10g webgates, see <i>Oracle Access Manager in the Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>
Oracle Single Sign-On 10g	See <i>Oracle Single Sign-On in the Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>

## 4.2 Oracle Identity Federation for Oracle Fusion Middleware

Oracle Identity Federation integrates with Oracle Fusion Middleware products supporting a variety of federation use cases. [Table 4-2](#) shows the supported integrations:

**Table 4–2 Oracle Identity Federation for Oracle Fusion Middleware**

<b>Oracle Identity Federation Integrated with</b>	<b>Additional Information</b>
Oracle HTTP Server for Oracle Access Manager integration	Deploying Oracle Identity Federation with Oracle Access Manager in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>
Oracle HTTP Server to set up proxy for Oracle Identity Federation	Setting Up a Proxy for Oracle Identity Federation in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>

### 4.3 Oracle Identity Federation Authentication Engines

In Oracle Identity Federation, an authentication mechanism defines a method or policy for verifying an entity's claimed identity using submitted credentials. An authentication engine is a module implementing a particular authentication method.

Oracle Identity Federation provides several out-of-the-box authentication engines and supports custom authentication engines. [Table 4–3](#) shows the supported integrations:

**Table 4–3 Oracle Identity Federation Authentication Engines**

<b>Authentication Engine for</b>	<b>Additional Information</b>
Oracle Access Manager	Authentication Engines - Oracle Access Manager in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>
Oracle Single Sign-On 10g	Authentication Engines - Oracle Single Sign-On in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>
LDAP Directory	Authentication Engines - LDAP Directory in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>
Database Security	Authentication Engines - Database Security in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>
Database Table	Authentication Engines - Database Table in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>
Microsoft Windows CardSpace (InfoCard)	Authentication Engines - Infocard in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>
JAAS	Authentication Engines - JAAS in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>
Custom authentication engine	Authentication Engines - Custom in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>

### 4.4 Oracle Identity Federation Service Provider Integration Modules

A service provider (SP) integration module creates a user authenticated session at an identity and access management (IAM) system like Oracle Access Manager.

Oracle Identity Federation provides several out-of-the-box SP integration modules, and also supports custom service provider integration modules. [Table 4–4](#) shows the supported integrations:

**Table 4–4 Oracle Identity Federation SP Integration Modules**

<b>Oracle Identity Federation SP Integration Module for</b>	<b>Additional Information</b>
Oracle Access Manager	SP Integration module - Oracle Access Manager in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>
Oracle Single Sign-On 10g	SP Integration module - Oracle Single Sign-On in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>
Custom SP Integration Module for third-party IAM system	SP Integration Module - Custom in the <i>Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation</i>



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## Risk Management

Oracle Adaptive Access Manager supports companies by protecting their exposed Web applications, services, and end-users from online threats and insider fraud.

Oracle Adaptive Access Manager features include:

- risk-aware authentication,
- real-time behavior profiling,
- transaction and event risk analysis.

Oracle Adaptive Access Manager provides real-time or offline risk analysis by calculating the risk of an access request, an event or a transaction and determining proper outcomes to prevent fraud and misuse. A portion of the risk evaluation is dedicated to verifying a user's identity and determining if the activity is suspicious.

Oracle Adaptive Access Manager provides end-user-facing functionality to prevent fraud through its Virtual Authentication Devices to secure credential data at the entry point.

Oracle Adaptive Access Manager also provides interdiction methods including risk-based authentication, blocking, and configurable actions to interdict in other systems.

This chapter explains how you can integrate Oracle Adaptive Access Manager with other components to provide risk management for your enterprise applications. It contains these sections:

- [Oracle Adaptive Access Manager for Oracle Identity Management](#)
- [Oracle Adaptive Access Manager for Custom Applications](#)

### 5.1 Oracle Adaptive Access Manager for Oracle Identity Management

Oracle Adaptive Access Manager integrates with other Oracle Identity Management components to provide additional risk management support.

[Table 5–1](#) shows the supported integrations:

**Table 5–1 Oracle Adaptive Access Manager for Oracle Identity Management**

<b>Oracle Adaptive Access Manager Integrated with</b>	<b>Additional Information</b>
Oracle Access Manager	Integrating Oracle Access Manager and Oracle Adaptive Access Manager in the <i>Oracle Fusion Middleware Integration Guide for Oracle Access Manager</i>
Oracle Identity Manager for password flow	Deployment Options for Password Management in the <i>Oracle Fusion Middleware Integration Guide for Oracle Access Manager</i>
Oracle Internet Directory as an authentication provider	Oracle Identity Management Suite-Level Installation Scenarios in the <i>Oracle Fusion Middleware Installation Guide for Oracle Identity Management</i>
Oracle Virtual Directory as an authentication provider	Oracle Identity Management Suite-Level Installation Scenarios in the <i>Oracle Fusion Middleware Installation Guide for Oracle Identity Management</i>

## 5.2 Oracle Adaptive Access Manager for Custom Applications

Oracle Adaptive Access Manager provides a variety of mechanisms to integrate with custom applications.

Applications can integrate natively with Oracle Adaptive Access Manager using APIs. The Universal Installer reverse proxy deployment option offers login risk-based, multi-factor authentication to web applications without requiring any change to the application code.

[Table 5–2](#) shows the supported integrations:

**Table 5–2 Oracle Adaptive Access Manager with Custom Applications**

<b>Oracle Adaptive Access Manager Integration</b>	<b>Additional Information</b>
using Web Services and SOAP API	Using Web Services and SOAP API in the <i>Oracle Fusion Middleware Developer's Guide for Oracle Adaptive Access Manager</i>
using Java API	Integrating Native Java Applications in the <i>Oracle Fusion Middleware Developer's Guide for Oracle Adaptive Access Manager</i>
using OAAM Proxy for Internet and Security Acceleration Server (ISA)	Installing Oracle Adaptive Access Manager Proxy for Microsoft ISA in the <i>Oracle Fusion Middleware Developer's Guide for Oracle Adaptive Access Manager</i>
using OAAM Proxy for Apache	Installing Oracle Adaptive Access Manager Proxy for Apache in the <i>Oracle Fusion Middleware Developer's Guide for Oracle Adaptive Access Manager</i>



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## User, Account, and Entitlement Provisioning

Oracle Identity Manager provides a comprehensive provisioning solution for many enterprise resources. Predefined connectors and a flexible Adaptor Factory enable customers to easily establish connectivity with well-known targets and custom systems.

This connectivity forms the basis of Oracle Identity Manager, enabling you to provide support for self-service and delegated administration, password management, provisioning, and request and approval workflow across many enterprise targets.

This chapter explains how you can integrate Oracle Identity Manager with other components to provision users, accounts, and entitlements for your enterprise applications. It contains these sections:

- [Oracle Identity Manager Connectors for Oracle Identity Management](#)
- [Oracle Identity Manager Connectors for Databases](#)
- [Oracle Identity Manager Connectors for Oracle Applications](#)
- [Oracle Identity Manager Connectors for Third-Party Applications](#)

### 6.1 Oracle Identity Manager Connectors for Oracle Identity Management

[Table 6–1](#) shows the Oracle Identity Manager connectors for Oracle Identity Management components:

**Table 6–1 Oracle Identity Manager Connectors for Oracle Identity Management**

Oracle Identity Manager Connector for	Additional Information
Oracle Internet Directory	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a>  Under the "Oracle" connector group, select the Oracle Internet Directory document.
Oracle Directory Server Enterprise Edition <sup>1</sup>	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a>  Under the "Sun" connector group, select the Sun Java System Directory document.

<sup>1</sup> formerly Sun Java System Directory Server

### 6.2 Oracle Identity Manager Connectors for Databases

[Table 6–2](#) shows the Oracle Identity Manager connectors for databases:

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**Note:** These are generic database connectors and support other databases in addition to Oracle RDBMS.

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**Table 6–2 Oracle Identity Manager Connectors for Databases**

Oracle Identity Manager Connector for	Additional Information
Database User Management	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Databases" connector group, select the Database User Management document.
Database Application Tables	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Databases" connector group, select the Database Application Tables document.

## 6.3 Oracle Identity Manager Connectors for Oracle Applications

Table 6–3 shows the Oracle Identity Manager connectors for Oracle applications:

**Table 6–3 Oracle Identity Manager Connectors for Oracle Applications**

Oracle Identity Manager Connector for	Additional Information
JD Edwards EnterpriseOne User Management	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Oracle" connector group, select the JD Edwards EnterpriseOne User Management document.
Oracle E-Business Employee Reconciliation	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Oracle" connector group, select the Oracle E-Business Employee Reconciliation document.
Oracle E-Business User Management	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Oracle" connector group, select the Oracle E-Business User Management document.
Oracle Retail Warehouse Management System	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Oracle" connector group, select the Oracle Retail Warehouse Management System document.
PeopleSoft Employee Reconciliation	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Oracle" connector group, select PeopleSoft Employee Reconciliation document.
PeopleSoft User Management	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Oracle" connector group, select the PeopleSoft User Management document.
Siebel User Management	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Oracle" connector group, select the Siebel User Management document.

## 6.4 Oracle Identity Manager Connectors for Third-Party Applications

Table 6–4 shows the Oracle Identity Manager connectors for third-party applications:

**Table 6–4 Oracle Identity Manager Connectors for Third-Party Applications**

Oracle Identity Manager Connector for	Additional Information
BMC Remedy User Management	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "BMC" connector group, select the BMC Remedy User Management document.
BMC Remedy Ticket Management	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "BMC" connector group, select the BMC Remedy Ticket Management document.
Computer Associates ACF2 Advanced	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Computer Associates" connector group, select the CA ACF2 Advanced document.
Computer Associates Top Secret Advanced	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Computer Associates" connector group, select the CA Top Secret Advanced document.
Database User Management	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Databases" connector group, select the Database User Management document.
Database Application Tables	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Databases" connector group, select the Database Application Tables document.
IBM Resource Access Control Facility (RACF) Standard	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "IBM" connector group, select the IBM RACF Standard document.
IBM RACF Advanced	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "IBM" connector group, select the IBM RACF Advanced document.
IBM OS/400 Advanced	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "IBM" connector group, select the IBM OS/400 Advanced document.
IBM Lotus Notes and Domino	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "IBM" connector group, select IBM Lotus Notes and Domino documents.
Microsoft Active Directory User Management	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Microsoft" connector group, select the Microsoft Active Directory User Management document.

**Table 6–4 (Cont.) Oracle Identity Manager Connectors for Third-Party Applications**

<b>Oracle Identity Manager Connector for</b>	<b>Additional Information</b>
Microsoft Active Directory Password Synchronization	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Microsoft" connector group, select the Microsoft Active Directory Password Synchronization document.
Microsoft Exchange	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Microsoft" connector group, select Microsoft Exchange documents.
Microsoft Windows	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Microsoft" connector group, select the Microsoft Windows document.
Novell eDirectory	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Novell" connector group, select the Novell eDirectory document.
Novell GroupWise	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Novell" connector group, select the Novell GroupWise document.
RSA Authentication Manager	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "RSA" connector group, select the RSA Authentication Manager document.
RSA ClearTrust	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "RSA" connector group, select the RSA ClearTrust document.
SAP Employee Reconciliation	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "SAP" connector group, select the SAP Employee Reconciliation document.
SAP Enterprise Portal	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "SAP" connector group, select the SAP Enterprise Portal document.
SAP User Management	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "SAP" connector group, select the SAP User Management document.
Unix SSH	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a> Under the "Unix" connector group, select the Unix SSH document.

**Table 6–4 (Cont.) Oracle Identity Manager Connectors for Third-Party Applications**

<b>Oracle Identity Manager Connector for</b>	<b>Additional Information</b>
Unix Telnet	<a href="http://download.oracle.com/docs/cd/E11223_01/index.htm">http://download.oracle.com/docs/cd/E11223_01/index.htm</a>  Under the "Unix" connector group, select the Unix Telnet document.
Custom Connector with Adapter Factory	Developing Adapters in the <i>Oracle Fusion Middleware Developer's Guide for Oracle Identity Manager</i> .
Custom Connector with Generic Technology Connectors	Creating and Managing Generic Technology Connectors in the <i>Oracle Fusion Middleware Developer's Guide for Oracle Identity Manager</i>



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## Identity Governance

Oracle Identity Analytics (formerly Sun Role Manager) provides enterprises with the ability to engineer and manage roles and automate critical identity-based controls.

By integrating with the various enterprise systems including applications, operating systems, LDAP directories, and custom applications, Oracle Identity Analytics provides a complete view of access-related data that includes:

- the user's access,
- the why and how of that access, and
- whether the access violates policies.

Oracle Identity Analytics enables you to automate the access certification process and removes inappropriate access by integrating with a provisioning solution. It also provides evidence that the access complies with established policies.

Sections include:

- [Oracle Identity Analytics for Oracle Identity Management](#)
- [Oracle Identity Analytics for Third-Party Products](#)

### 7.1 Oracle Identity Analytics for Oracle Identity Management

Oracle Identity Analytics integrates with Oracle Identity Management components to pull in user, account and entitlement data, and to provide closed-loop remediation.

[Table 7-1](#) shows the Oracle Identity Analytics integrations supported for Oracle Identity Management components:

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**Note:** Oracle Waveset was formerly known as Sun Identity Manager.

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**Table 7-1 Oracle Identity Analytics Integration for Oracle Identity Management**

Oracle Identity Analytics Integration for	Additional Information
Oracle Identity Manager	Integrating with Oracle Identity Manager in the <i>Sun Role Manager 5.0.3 System Integrator's Guide</i> at: <a href="http://wikis.sun.com/display/Srm503Docs/System+Integrator%27s+Guide">http://wikis.sun.com/display/Srm503Docs/System+Integrator%27s+Guide</a>
Oracle WaveSet	Integrating with Sun Identity Manager in the <i>Sun Role Manager 5.0.3 System Integrator's Guide</i> at: <a href="http://wikis.sun.com/display/Srm503Docs/System+Integrator%27s+Guide">http://wikis.sun.com/display/Srm503Docs/System+Integrator%27s+Guide</a>

To integrate with Oracle Identity Manager and Oracle Waveset, Oracle Identity Analytics leverages the connectors in those components, thus indirectly integrating with the target systems supported by those components.

## 7.2 Oracle Identity Analytics for Third-Party Products

Oracle Identity Analytics integrates with third-party products to pull in user, account and entitlement data, and to provide closed-loop remediation.

Table 7–2 shows the Oracle Identity Analytics integrations supported for third-party products:

**Table 7–2 Oracle Identity Analytics Integration for Third-Party Products**

<b>Oracle Identity Analytics Integration</b>	<b>Additional Information</b>
for third-party provisioning servers	Integrating with Other Provisioning Servers in the <i>Sun Role Manager 5.0.3 System Integrator's Guide</i> at: <a href="http://wikis.sun.com/display/Srm503Docs/System+Integrator%27s+Guide">http://wikis.sun.com/display/Srm503Docs/System+Integrator%27s+Guide</a>
using ETL process	Role Manager ETL Process in the <i>Sun Role Manager 5.0.3 Business Administrator's Guide</i> at: <a href="http://wikis.sun.com/display/Srm503Docs/Business+Administrator%27s+Guide">http://wikis.sun.com/display/Srm503Docs/Business+Administrator%27s+Guide</a>



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# Password Management

This chapter explains how you can integrate with Oracle Identity Manager for centralized password management features. Topics include:

- [Oracle Identity Manager Password Management Support for Oracle Identity Management](#)
- [Oracle Identity Manager Password Management through Connectors](#)
- [Oracle Enterprise Single Sign-On Suite ESSO-PR for Password Reset](#)

## 8.1 Oracle Identity Manager Password Management Support for Oracle Identity Management

Oracle Identity Manager's password management feature includes password policy support and self-service administration for password reset and password change. Oracle Identity Manager provides centralized password management for other Oracle Identity Management components where password management is needed.

[Table 8–1](#) shows the supported integrations:

**Table 8–1 Oracle Identity Manager Password Management Support for Oracle Identity Management**

Oracle Identity Manager Integration with	Additional Information
Oracle Access Manager	Deployment Options for Password Management in the <i>Oracle Fusion Middleware Integration Guide for Oracle Access Manager</i> .
Oracle Adaptive Access Manager	Deployment Options for Password Management in the <i>Oracle Fusion Middleware Integration Guide for Oracle Access Manager</i> .
Oracle Access Manager and Oracle Adaptive Access Manager combined	Deployment Options for Password Management in the <i>Oracle Fusion Middleware Integration Guide for Oracle Access Manager</i> .

## 8.2 Oracle Identity Manager Password Management through Connectors

Oracle Identity Manager provides centralized password management for enterprise applications, a feature that you can leverage by provisioning through its connectors. In this way, you can configure a centralized password policy for the enterprise, allowing your users to specify a single password which can then be provisioned to the various targets where passwords are required.

Password reset, password change, and expiration can all be handled through Oracle Identity Manager's self-service support.

See [Chapter 6, "User, Account, and Entitlement Provisioning"](#) for more information on supported connectors.

## 8.3 Oracle Enterprise Single Sign-On Suite ESSO-PR for Password Reset

Oracle Enterprise Single Sign-on Password Reset (ESSO-PR) allows users to access their Windows user accounts in case they lose or forget their password, without requiring help desk or technical support, improving the operational efficiency of the enterprise.

For details, see the Oracle Enterprise Single Sign-on documentation library at:

[http://download.oracle.com/docs/cd/E12472\\_01/index.htm](http://download.oracle.com/docs/cd/E12472_01/index.htm)

ESSO-PR documents are located in the Password Reset Documentation section.

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## Database Security

This chapter describes integrations that support database security. Topics include:

- [Oracle Database Net Services LDAP Naming](#)
- [Oracle Database Enterprise User Security with LDAP](#)

**See Also:**

- <http://www.oracle.com/technology/deploy/security/database-security/enterprise-user-security/index.html>
- [http://www.oracle.com/technology/products/id\\_mgmt/odsee/ovd-dsee-eus.html](http://www.oracle.com/technology/products/id_mgmt/odsee/ovd-dsee-eus.html)

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**Note:** DB aliases are not supported.

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### 9.1 Oracle Database Net Services LDAP Naming

To manage large networking environments, administrators must be able to easily access a centralized repository to specify and modify the network configuration. To support this requirement, the Oracle Net Services configuration can be stored in an LDAP-compliant directory server.

Supporting LDAP-compliant directory servers provides the enterprise with a vehicle for centrally managing and configuring a distributed Oracle network. The directory can act as a central repository of information about database network components, user and corporate policies, and user authentication and security, thus replacing localized client-side and server-side configuration files.

[Table 9-1](#) shows the supported integrations:

**Table 9–1 Oracle Database Net Services LDAP Naming**

Oracle Database Net Services for	Additional Information
Directory Naming with Oracle Internet Directory	Centralized Configuration and Management in the <i>Oracle Database Net Services Administrator's Guide</i> . Using a Directory Server for Centralized Management in the <i>Oracle Database Net Services Administrator's Guide</i> .
Directory Naming with Oracle Virtual Directory	
Directory Naming with Microsoft Active Directory using Oracle Virtual Directory	Managing Network Address Information in the <i>Oracle Database Net Services Administrator's Guide</i> . Using a Directory Server for Centralized Management in the <i>Oracle Database Net Services Administrator's Guide</i> .
Directory Naming with Oracle Directory Service Enterprise Edition (formerly Sun Java System Directory Server) using Oracle Virtual Directory	How to set up Enterprise User Security with Oracle Virtual Directory and Oracle Directory Server Enterprise Edition at: <a href="http://www.oracle.com/technology/products/id_mgmt/odsee/ovd-dsee-eus.html">http://www.oracle.com/technology/products/id_mgmt/odsee/ovd-dsee-eus.html</a>

## 9.2 Oracle Database Enterprise User Security with LDAP

Enterprise User Security (EUS), a feature of Oracle Database Enterprise Edition, leverages Oracle Directory Services (ODS) to centrally manage database users and role memberships in an enterprise LDAP directory. This provides a way to address the security and management problems posed by maintaining database users and privileges in individual databases.

Table 9–2 shows the supported integrations:

**Table 9–2 Oracle Database Enterprise User Security with LDAP**

Enterprise User Security Integration for	Additional Information
Oracle Internet Directory	<a href="http://www.oracle.com/technology/products/aid/pdf/dirsrv_eus_integration.pdf">http://www.oracle.com/technology/products/aid/pdf/dirsrv_eus_integration.pdf</a>
Microsoft Active Directory using Oracle Virtual Directory	<a href="http://www.oracle.com/technology/products/oid/pdf/dirsrv_eus_integration.pdf">http://www.oracle.com/technology/products/oid/pdf/dirsrv_eus_integration.pdf</a>
Oracle Directory Service Enterprise Edition (formerly Sun Java System Directory Server) using Oracle Virtual Directory	<a href="http://www.oracle.com/technology/products/oid/pdf/dirsrv_eus_integration.pdf">http://www.oracle.com/technology/products/oid/pdf/dirsrv_eus_integration.pdf</a>

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## Fine-Grained Access Control

Oracle Entitlements Server provides a fine-grained entitlement management solution that secures critical applications with uncompromised performance and reliability. By combining centralized policy management with distributed policy decision-making and enforcement, it enables you to rapidly adapt to changing business requirements.

**See Also:** Oracle Entitlements Server product page at [http://www.oracle.com/technology/products/id\\_mgmt/oes/index.html](http://www.oracle.com/technology/products/id_mgmt/oes/index.html)

This chapter includes these topics:

- [Oracle Entitlements Server for Oracle Identity Management](#)
- [Oracle Entitlements Server for Oracle Fusion Middleware and Oracle SOA](#)
- [Oracle Entitlements Server for Third-Party products](#)

### 10.1 Oracle Entitlements Server for Oracle Identity Management

You can integrate Oracle Entitlements Server with Oracle Identity Management components. [Table 10-1](#) shows the supported integrations:

**Table 10-1** Oracle Entitlements Server for Oracle Identity Management

Oracle Entitlements Server Integrated with	Additional Information
Oracle Identity Manager	LDAPAuthenticator at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/blmconfigapi.html#wp1060276">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/blmconfigapi.html#wp1060276</a>
Oracle Adaptive Access Manager	Custom Attribute Retrievers at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/plugins.html#wp1167025">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/plugins.html#wp1167025</a>
Oracle Access Manager	Use OAM Authentication Provider or Identity Asserter

**Table 10–1 (Cont.) Oracle Entitlements Server for Oracle Identity Management**

Oracle Entitlements Server Integrated with	Additional Information
Oracle Identity Federation	Use OIF Authentication Provider or Identity Asserter
Oracle Virtual Directory	<ul style="list-style-type: none"> <li>■ LDAPAuthenticator at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/blmconfigapi.html#wp1060276">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/blmconfigapi.html#wp1060276</a></li> <li>■ LDAP Attribute Retrievers at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/retrievers.html#wp1171979">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/retrievers.html#wp1171979</a></li> </ul>
Oracle Directory Server Enterprise Edition (ODSEE)	<ul style="list-style-type: none"> <li>■ LDAPAuthenticator at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/blmconfigapi.html#wp1060276">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/blmconfigapi.html#wp1060276</a></li> <li>■ LDAP Attribute Retrievers at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/retrievers.html#wp1171979">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/retrievers.html#wp1171979</a></li> <li>■ OES Adapter for ODSEE at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/integrateappenviron/ales_adapter_appen.html">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/integrateappenviron/ales_adapter_appen.html</a></li> </ul>

## 10.2 Oracle Entitlements Server for Oracle Fusion Middleware and Oracle SOA

You can integrate Oracle Entitlements Server with Oracle Fusion Middleware components. [Table 10–2](#) shows the supported integrations:

**Table 10–2 Oracle Entitlements Server for Oracle Fusion Middleware**

Oracle Entitlements Server Integrated with	Additional Information
Oracle WebLogic Server (WLS) 8.1.5, 8.1.6, 9.2.2, 10.0 MP1, 10.37, 10.3.1, 10.3.2	Securing WebLogic Servers at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/integrateappenviron/configWLS.html">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/integrateappenviron/configWLS.html</a>
Oracle Service Bus (OSB) 2.6, 3.09, 10gR3	Securing Oracle Service Bus Runtime Resources at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/integrateappenviron/servicebus.html">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/integrateappenviron/servicebus.html</a>
Oracle Data Service Integrator (ODSI) 2.5, 3.0, 3.18	Securing Oracle Data Service Integrator at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/integrateappenviron/dataservices.html">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/integrateappenviron/dataservices.html</a>
Oracle Enterprise Repository	Storing and Versioning Policy with Oracle Enterprise Repository at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/integrateappenviron/aler.html">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/integrateappenviron/aler.html</a>

## 10.3 Oracle Entitlements Server for Third-Party products

Oracle Entitlements Server integrates with several third-party products. Table 10–3 shows the supported integrations:

**Table 10–3 Oracle Entitlements Server for Third-Party Products**

Oracle Entitlements Server Integrated with	Additional Information
Websphere Application Server 6.1	Configuring the WebSphere SSM at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/installssms/Config_WebSphereSSM.html">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/installssms/Config_WebSphereSSM.html</a>
Microsoft Active Directory 2000 and 2003	ActiveDirectoryAuthenticator at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/blmconfigapi.html#wp1058658">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/blmconfigapi.html#wp1058658</a>
Microsoft ADAM	ActiveDirectoryAuthenticator at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/blmconfigapi.html#wp1058658">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/blmconfigapi.html#wp1058658</a>
Microsoft .NET Framework 1.1 and 2.05	Programming Security for Web Services at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/webservicesprogrammersguide/index.html">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/webservicesprogrammersguide/index.html</a>
Microsoft Office SharePoint Server 2007	Securing Microsoft Office SharePoint Server (MOSS) at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/integrateappenviron/moss.html">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/integrateappenviron/moss.html</a>
Open LDAP v2.2.24	OpenLDAPAuthenticator at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/blmconfigapi.html#wp1060851">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/blmconfigapi.html#wp1060851</a>
Novell eDirectory v8.7.31	NovellAuthenticator at: <a href="http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/blmconfigapi.html#wp1060696">http://download.oracle.com/docs/cd/E12890_01/ales/docs32/adminref/blmconfigapi.html#wp1060696</a>





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