Oracle

SCM Cloud
Implementing Innovation Management

Release 12
# Contents

**Preface**

1 **Introduction to Innovation Management**
   - Overview
   - Getting Started with Oracle Innovation Management Cloud: Checklist
   - Deploying Innovation Management: Points to Consider
   - About the Innovation Management Implementation Guide

2 **Setting up the Functional Area: Product Innovation**
   - Defining Product Innovation: Overview
   - Configuring External Systems for Integration: Overview
   - Class Management in Oracle Innovation Management: Explained
   - Innovation Management Lookups: Explained
   - Manage Planning Periods: Explained
   - Manage Product Portfolio Metrics: Explained
   - Manage Portfolio and Product Rule Sets: Explained

3 **Customizing Innovation Management**
   - Customize Innovation Management: Explained
   - Set Up Concept Rollups: Explained
   - Adding Custom Metrics using Page Composer in Innovation Management: Procedure
   - Creating Additional Tabs for a Proposal: Worked Example
   - Enable Single Sign-On for Innovation Management: Explained
   - FAQs on Social Networking in Oracle Innovation Management
## 4 Configuring Innovation Management for Integration with External Systems

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>27</td>
</tr>
<tr>
<td>Register Agile PLM: Explained</td>
<td>27</td>
</tr>
<tr>
<td>Register Agile EDM System: Explained</td>
<td>28</td>
</tr>
<tr>
<td>Register Agile EDM File Server: Explained</td>
<td>29</td>
</tr>
<tr>
<td>Manage Target System: Explained</td>
<td>29</td>
</tr>
<tr>
<td>Manage Connections: Points to Consider</td>
<td>29</td>
</tr>
<tr>
<td>Manage Mapping to External System: Points to Consider</td>
<td>33</td>
</tr>
<tr>
<td>Manage Mapping to Innovation Management: Points to Consider</td>
<td>36</td>
</tr>
<tr>
<td>Working with Oracle Fusion Project Portfolio Management in Innovation Management: Points to Consider</td>
<td>39</td>
</tr>
<tr>
<td>Troubleshooting</td>
<td>40</td>
</tr>
</tbody>
</table>

## 5 Appendix: Configuring Agile PLM for Integration with Innovation Management

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuring Agile PLM: Overview</td>
<td>43</td>
</tr>
<tr>
<td>Configuring Message Protection for Agile PLM: Explained</td>
<td>44</td>
</tr>
<tr>
<td>Configure Users in Agile PLM: Explained</td>
<td>45</td>
</tr>
<tr>
<td>Innovation Management Attributes in Agile PLM (On Page Two): Explained</td>
<td>46</td>
</tr>
<tr>
<td>Add Oracle Innovation Management Attributes to Required Privileges in Agile PLM: Explained</td>
<td>47</td>
</tr>
<tr>
<td>Configure Reference Objects in Agile PLM: Explained</td>
<td>47</td>
</tr>
<tr>
<td>Privileges for Innovation Management Users in Agile PLM: Explained</td>
<td>48</td>
</tr>
<tr>
<td>Register Agile PLM: Explained</td>
<td>49</td>
</tr>
</tbody>
</table>

## 6 Appendix: Configuring Agile EDM for Integration with Innovation Management

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuring Agile EDM: Overview</td>
<td>51</td>
</tr>
<tr>
<td>Configure Agile EDM Web Services: Explained</td>
<td>51</td>
</tr>
<tr>
<td>Configure SSO for Agile EDM: Explained</td>
<td>51</td>
</tr>
<tr>
<td>Attach Web Service Client Policies for Oracle Innovation Management: Explained</td>
<td>57</td>
</tr>
<tr>
<td>Customize Agile EDM Setup: Explained</td>
<td>58</td>
</tr>
<tr>
<td>How do I enable SAML/SSL debugging?</td>
<td>59</td>
</tr>
<tr>
<td>How do I resolve a Time Stamp synchronization issue?</td>
<td>59</td>
</tr>
</tbody>
</table>
Preface

This preface introduces information sources that can help you use the application.

Oracle Applications Help

Use the help icon 🎯 to access Oracle Applications Help in the application. If you don’t see any help icons on your page, click the Show Help icon 🎯 in the global header. Not all pages have help icons. You can also access Oracle Applications Help at https://fusionhelp.oracle.com.

Using Applications Help

Watch: This video tutorial shows you how to find help and use help features.

Additional Resources

- **Community:** Use Oracle Applications Customer Connect to get information from experts at Oracle, the partner community, and other users.

- **Guides and Videos:** Go to the Oracle Help Center to find guides and videos.

- **Training:** Take courses on Oracle Cloud from Oracle University.

Documentation Accessibility

For information about Oracle’s commitment to accessibility, see the Oracle Accessibility Program.

Comments and Suggestions

Please give us feedback about Oracle Applications Help and guides! You can send e-mail to: oracle_fusion_applications_help_ww_grp@oracle.com.
Introduction to Innovation Management

Overview

Oracle Innovation Management and Oracle Product Development, along with Oracle Product Hub, deliver comprehensive Innovation to Commercialization capabilities across your entire product value chain.

Oracle Innovation Management consists of the following products:

- Product Requirements and Ideation Management
- Concept Design Management
- Product Lifecycle Portfolio Management

Oracle Product Development enables you to manage product data and change orders while balancing cost.

In the Setup and Maintenance work area, these products appear as Functional Areas. You can view and implement them through the Product Management offering.

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Requirements and Ideation Management (PRIM)</td>
<td>The Innovation process begins with Ideas entered or uploaded into Ideas Management. Ideas that gain interest and approval are attached to a product proposal and later converted into more formal requirements specifications. Later these can be developed as input for detailed design in Product Lifecycle Management (PLM) solutions. Allows employees and stakeholders to collaborate on product innovation ideas and record requirements. Product managers can integrate requirements with concepts in Concept Design Management, and ideas with proposals in Product Lifecycle Portfolio Management.</td>
</tr>
<tr>
<td>Concept Design Management (CDM)</td>
<td>Offers a collaborative design workspace for product architects, designers and executives to generate, capture, analyze, and approve product concepts that address product strategy goals. Approved concepts can then be transferred directly to Product Lifecycle Management (PLM) solutions for prototype planning, detailed design and product introduction.</td>
</tr>
<tr>
<td>Product Lifecycle Portfolio Management (PLPM)</td>
<td>Allows product portfolio managers to create, analyze, manage and revise product portfolios, to arrive at an optimal product mix. Portfolio managers can also optimize resources across a portfolio, evaluate portfolios, and design forecasting road maps.</td>
</tr>
<tr>
<td>Product Development (PD)</td>
<td>Uses Items, Structures (BOM), and Changes to track the development processes around products, and enable fast-track commercialization of the right products. PD enables a company to incorporate concepts or early BOMs, designs, and other documents from sources such as Oracle Innovation Management or external PLM applications. PD manages changes formally and centrally on items (parts), and items/BOMs can be released to manufacturing with recommendations on sourcing (example, manufacturer parts).</td>
</tr>
</tbody>
</table>
For information about getting started with Oracle Cloud and implementing Oracle SCM Cloud, refer to the Oracle Cloud Documentation library.

For information about upgrading from previous releases of Oracle Fusion Applications, refer to the Oracle Fusion Applications Upgrade Guide.

**Related Topics**
- Defining Product Development: Overview
- Defining Product Innovation: Overview

### Getting Started with Oracle Innovation Management Cloud: Checklist

This topic outlines the recommended steps for implementing Oracle Innovation Management Cloud Service. The sequence of setup tasks is split across the Cloud Service Administrator and Application Implementation Consultant roles.

#### Tasks for the Service Administrator in the Oracle Cloud Customer Portal

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Step 1 - Understand Your User Profiles** | With your Oracle Applications Cloud Service, you have three user profiles:  
  - Two application profiles: used to access your Stage Environment and Production Environment.  
  - Your Oracle profile: used to access all oracle.com sites including My Oracle Support and the Oracle Cloud Portal. |
| **Step 2 - Confirm Your Browser Configuration** | Confirm that you are using one of the supported browsers with Oracle’s recommended configuration (minimum native screen resolution of 1280x1024).  
  - Internet Explorer 11.x, 10.x, 9.x  
  - Mozilla Firefox 24+  
  - Google Chrome 35+  
  - Apple Safari 7.x and 6.x |
| **Step 3 - Confirm Your Application Login Credentials** | Locate your Welcome e-mail containing your application user login credentials for the Stage and Production Environments.  
  
  **Tip:** When first provisioned, the Stage and Production Environments are assigned a default sizing for a number of concurrent users. These defaults may not be adequate and may be changed to provide optimal performance. We recommend that you identify your sizing requirements early in the implementation. Ensure that they are adjusted in advance of when you support a number of users. Supply this information through a Service Request raised with Oracle Cloud Operations who manage the environments. This helps minimize delays in your implementation. |
Step 4 - Add Additional Notification Contacts
Initially, you are the only person at your company who receives critical Oracle notifications, including upgrade and outage schedules.

As a best practice, you can add users to receive important notifications of upgrades and outages when you are unavailable.

1. In the Oracle Cloud portal, sign in using your Oracle.com account credentials.
2. Click the Sign in to Notifications button.
3. In the Oracle Notifications Portal page, click the Users tab.
4. Click the Add User button, and fill out the user information. Ensure that the Role is Administrator, and that you select Yes in the Receive e-mails field.

Users with the role of Administrator can add other employees to receive notifications.

Step 5 - Add Additional Administrators for your Oracle Applications Cloud
We recommend appointing at least two administrators who can access My Services and perform administrative functions.

1. Locate your Welcome e-mail and access the Service Administrator Action List.
2. Follow the My Services URL and login with your Oracle credentials.

Note: You are required to change your password the first time.

3. In the Identity Domain field, paste the Identity Domain (environment name) from your e-mail.
4. Click Sign In.
5. Click Security > Users > Add
6. Fill out the information for the new user, making sure to move an Administrator role to the Assigned Roles list.

Users with a role of Administrator can access My Account to:
- order more services
- manage services from all identity domains and data centers for your account
- monitor service status
- view historical usage data
- add Account Administrators

Step 6 - Register Your New Customer Support Identifier in My Oracle Support
You should have already received a separate e-mail containing the Customer Support Identifier (CSI) for your new Oracle Cloud Service. You must register this CSI in My Oracle Support using your Oracle Account.

The first person to request access to a CSI is checked by Oracle to ensure that the domain of the e-mail matches the domain associated with the CSI.

Once approved, you are made the administrator of that CSI, and can approve access requests to your CSI.

- If this is your first time using My Oracle Support, you will be prompted for your CSI number after signing in.
  Enter your CSI number, click Request Access and follow the instructions.
- If you have previously used My Oracle Support, add your CSI to your My Oracle Support account by following these steps:
  a. After signing in, click the More tab and select Settings.
Task | Description
--- | ---
b. Click My Account on the left side of the page.  
c. Click the Request Access button.  
d. In the Support Identifier field, enter your new CSI number and click the Request Access button.

If someone else has already been made administrator for that CSI, then your request is e-mailed to him or her for approval.

---

Tasks for the Service Administrator in the Setup and Maintenance Work Area

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Step 7 - Configure the Product Management Offering** | In the Setup and Maintenance work area, scroll through the product icons and select the Product Management offering. Navigate to the Administration section. From the Actions menu, click Change Configuration.  

Enable the following functional areas of Innovation Management for implementation:

- Product Requirements and Ideation Management  
- Concept Design Management  
- Product Lifecycle Portfolio Management  
- Product Management Business Intelligence Analytics (if your users require BI Reports for IM)

Optionally, create Implementation Projects to assign individual setup tasks to one or more implementors.  

Alternatively, click Setup to start the implementation process yourself. |

| **Step 8 - Sync Oracle Innovation Management with Oracle Identity Manager (OIM)** | This task pulls information about users, roles, and roles provisioned to users, from the LDAP directory in OIM to the Oracle Fusion Applications tables.  

**Note:** You must perform this task before you create implementation users so that appropriate roles are available for them.  

Search and execute the Run User and Roles Synchronization Process task.  

Click Submit. Click OK at the end of the process, and close the window.  

Once the Oracle Fusion Applications tables are initialized with this information, they are maintained automatically. |

| **Step 9 - Create a Primary Implementation User** | For your consultants to access and begin your implementation process, create the primary implementation user for your lead consultant.  

Once completed, this user can create additional users for the rest of the implementation team. |

---
To create the primary user, follow these instructions:

1. Sign in with your Fusion user ID and password.
2. Select Navigator > Setup and Maintenance
3. Search for the Create Implementation Users task. Click the Go to Task icon. This task opens Oracle Identity Manager.
4. In Oracle Identity Manager, follow the Administration link, and click Create User.
5. Provide the following attributes and click Save.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>First and Last Name</td>
<td>Any valid string</td>
</tr>
<tr>
<td>Organization</td>
<td>As applicable</td>
</tr>
<tr>
<td>User Type</td>
<td>As applicable</td>
</tr>
</tbody>
</table>

6. To provision the new user with roles now, click the Roles tab and click Assign. The ALL USERS role is assigned by default.
7. Search for the Application Implementation Consultant role. Select it and click Add.
8. Click Assign to search for additional roles to add to the user.
9. Add the following Roles, at minimum: IT Security Manager, Employee.

Close the window.

Notify your primary implementation team member that their user ID has been created. Give them their initial password.

**Step 10 - Set up Key Implementation Users and Security Profiles**

After your environments are provisioned, you as the Service Administrator have sufficient security abilities to create three implementation users with the necessary roles.

These users are:

- **OIMAdmin**: Can access Oracle Identity Manager (OIM) to perform all required security setup functions for your implementation.
- **TechAdmin**: Can perform key technical duties, including functional setup and assigning security roles to users.
- **APPL_IMPL_CONSULTANT & SCM_IMPL_CONSULTANT**: Can perform key functional duties, including functional setup.

You may decide to replace or refine these initial users, but these users have all the access required to get you started.

**Tasks for the Application Implementation Consultant in the Setup and Maintenance Work Area**
## Task Description

### Step 11 - Create Data Roles and Assign Security Profiles

By default, users are denied access to all data. You can secure data by provisioning roles that provide the necessary access.

Data roles apply explicit data security policies on job and abstract roles. Create and maintain data roles in the Authorization Policy Manager (APM).

Assign a predefined security profile to relevant job or abstract roles using the Oracle Human Capital Management (HCM) setup task Manage Data Role and Security Profiles.

### Step 12- Create a Legal Address and a Legal Entity

To create application users, you must have basic HCM Corporate Structure data ready.

1. Search for the Manage Legal Addresses task and create a legal address.
2. Create a new legal entity using the Manage Legal Entity task.

   Enable the options that identify the entity as a Payroll Statutory Unit and a Legal Employer.

### Step 13 - Create A Legislative Data Group and Associate it to the Legal Entity

Use the Manage Legislative Data Groups task to create a legislative data group.

Use the Manage Legal Entity HCM Information task to associate the required legislative data group with the legal entity (Payroll Statutory Unit and Legal Employer).

### Step 14 - Create a Business Unit

Run the Manage Business Unit task to create one or more business units.

### Step 15 - Create End Users

To create application users, perform the Manage Users task in the Setup and Maintenance work area.

When you create a user, you must also assign the user one or more roles. Roles have all required privileges mapped to them that allow the user to perform tasks in the application.

> **Note:** Perform the Create Implementation Users task as an administrator to access OIM. Search for users by name, and assign required roles.

Oracle Innovation Management is shipped with the following job and duty roles:

- Product Design Engineer: Concept Development Duty
- Product Design Manager: Concept Management Duty
- Product Management VP: Portfolio Management Duty
- Product Manager: Product Proposal Management Duty
- Product Portfolio Manager: Portfolio Management Duty
- Employee: Idea Management Duty

> **Note:** You can import user data in bulk from a file. For more information, refer to the guide Getting Started with Your Sales Cloud Implementation.

### Step 16 - Perform Common Application Configuration

Common applications configuration includes setup of security, common reference objects, collaboration messaging, OTBI and custom ESS jobs, data export and import instructions, and maintenance tasks.
Refer to the guide Oracle SCM Cloud Implementing Common Features for Oracle SCM Cloud.

### Step 17 - Define Product Innovation

The following tasks per functional area are seen in the Product Management offering, under the Define Product Innovation task list:

- **Product Requirements and Ideation Management**
  - Manage Product Idea Classes
  - Manage Product Idea Statuses
  - Manage Product Requirement Classes
  - Manage Product Requirement Statuses
  - Manage Product Requirements and Ideation Lookups

- **Concept Design Management**
  - Manage Product Concept Classes
  - Manage Product Concept Component Classes
  - Manage Product Concept Lookups
  - Manage Product Concept Statuses
  - Manage Proposal Statuses

- **Product Lifecycle Portfolio Management**
  - Manage Portfolio Statuses
  - Manage Portfolio and Product Rule Sets
  - Manage Product Portfolio Classes
  - Manage Product Portfolio Lookups
  - Manage Product Portfolio Metrics
  - Manage Product Portfolio Planning Periods

### Step 18 - Configure Oracle Innovation Management for Integration (Optional)

Configure Oracle Innovation Management to integrate with target PLM systems or Oracle Product Development.

1. Register Agile PLM
   - Register Agile EDM System
   - Register Agile EDM File Server
2. Manage Target System

### Step 19 - Customize and Extend Oracle Innovation Management (Optional)

- Define custom attributes and custom metrics in Innovation Management; use Page Composer and Data Composer to enable them.
- Enable Oracle Social Network for business objects in IM.

### Tasks for the PLM Administrator in External Environments

Perform these tasks to configure Agile PLM or Agile EDM. These tasks are required only if you intend to integrate either of these systems with IM.
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 20: Configure a Target System for Integration (Optional)</strong></td>
<td>Configure Agile PLM or Agile EDM or Oracle Product Development to integrate with Oracle Innovation Management.</td>
</tr>
<tr>
<td><strong>Step 20 a - Configure Agile PLM</strong></td>
<td>The following tasks are required to integrate Oracle Innovation Management with Agile PLM only.</td>
</tr>
<tr>
<td>1.</td>
<td>Configure security certificates.</td>
</tr>
<tr>
<td>2.</td>
<td>Enable Security Assertion Markup Language (SAML) web services in Agile PLM.</td>
</tr>
<tr>
<td>3.</td>
<td>Configure web service connections in Enterprise Manager.</td>
</tr>
<tr>
<td>5.</td>
<td>Enable Oracle Innovation Management attributes in Agile PLM.</td>
</tr>
<tr>
<td>6.</td>
<td>Add Oracle Innovation Management attributes to required privileges in Agile PLM.</td>
</tr>
<tr>
<td>7.</td>
<td>Configure External References Application and Subclass in Agile PLM.</td>
</tr>
<tr>
<td>8.</td>
<td>Enable required privileges for Oracle Innovation Management users to create reference objects in Agile PLM.</td>
</tr>
</tbody>
</table>

**Note:** If you are integrating Oracle Innovation Management to Agile PLM (9.3.4 or above), you also require WebLogic Suite or WebLogic Suite for Oracle Applications.

| **Step 20 b - Configure Agile EDM** | The following tasks are required to integrate Oracle Innovation Management with Agile EDM only. |
| 1. | Configure Agile EDM web services |
| 2. | Configure SSO for Agile EDM web services |
| a. | Set up Agile EDM LDAP |
| b. | Create Wallet |
| c. | Attach Web Service Policies to Agile EDM web services |
| 3. | Attach Web Service Client Policies for Oracle Innovation Management |
| 4. | Customize Agile EDM setup |
| Custom changes include: | |
| o | Configure database objects in SQL |
| o | Import the Loader file |
| o | Set up File Vault |
| o | Configure External References |

**Related Topics**

- User and Role Synchronization: Explained
- Creating Implementation Users: Procedure
- Creating Data Roles for Implementation Users: Procedure
- Defining Product Innovation: Overview
- Configuring External Systems for Integration: Overview
Deploying Innovation Management: Points to Consider

This topic discusses deployment and integration options available to implementors of Oracle Innovation Management.

Deployment Choices

Deploy Innovation Management on-premise or in cloud environments, depending on your required level of control and customization.

<table>
<thead>
<tr>
<th>Deployment Option</th>
<th>Deployed By</th>
<th>Level of Control and Customization</th>
<th>Speed of Adoption and Agility</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-premise</td>
<td>You</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Private Cloud</td>
<td>Oracle deploys and manages for you in an exclusive private cloud</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Oracle Public Cloud</td>
<td>Oracle provides a subscription-based service</td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>

Another possible deployment scenario is of a Hybrid Cloud, where Oracle integrates Cloud deployments with legacy applications on-premise, although customizations are limited.

Integration Choices

In addition to deploying on-premise or on cloud, you can integrate Innovation Management with other Oracle Cloud and external PLM applications.

- **Oracle Product Development Cloud**
  
  Streamline new product development and introduction processes. Innovation Management Cloud with Product Development Cloud helps in rapidly innovating and developing the best mix of profitable products.

- **Oracle Fusion Project Portfolio Management Cloud**
  
  Track the conversion of ideas to projects and profitable products. Use tasks associated with work items for requirements specification, concept, and proposals of the project.

- **Oracle Agile Product Lifecycle Management**
  
  Leverage legacy items and PLM processes by integrating Agile PLM with Innovation Management (in a Hybrid Cloud, or on-premise).

- **Oracle Agile Engineering Data Management**
  
  Leverage legacy design data and processes by integrating Agile e6 with Innovation Management (in a Hybrid Cloud, or on-premise).
About the Innovation Management Implementation Guide

This topic discusses the structure of the Innovation Management Implementation Guide. The chapters describe business process setup and functional area setup tasks, in that order.

<table>
<thead>
<tr>
<th>Chapter Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Innovation Management</td>
<td>Lists the setup tasks common to SCM implementation that are required prior to setting up Innovation Management. Includes information about deployment scenarios applicable to Innovation Management.</td>
</tr>
<tr>
<td>Setting up the Functional Area: Innovation Management</td>
<td>Provides a roadmap of setup tasks, and identifies key setup decisions that are required to set up individual modules in Innovation Management.</td>
</tr>
<tr>
<td>Configuring Agile PLM for Integration with Innovation Management</td>
<td>Details the tasks required to configure Agile PLM for integration with Innovation Management. Optional to implementors.</td>
</tr>
<tr>
<td>Configuring Agile EDM for Integration with Innovation Management</td>
<td>Details the tasks required to configure Agile EDM for integration with Innovation Management. Optional to implementors.</td>
</tr>
<tr>
<td>Configuring Innovation Management for Integration with External Systems</td>
<td>Details the tasks required to configure Innovation Management for integration with external applications. Optional to implementors.</td>
</tr>
<tr>
<td>Customizing Innovation Management</td>
<td>Details the use of Data Composer and Page Composer in customizing concept rollups, and the setup of Oracle Social Network in Innovation Management.</td>
</tr>
</tbody>
</table>
2 Setting up the Functional Area: Product Innovation

Defining Product Innovation: Overview

This topic outlines the prerequisites and default tasks required to define Product Innovation in the Setup and Maintenance workspace.

Prerequisites

You must first complete the common application setup and configuration tasks for Product Management. In the Setup and Maintenance workspace, use the Search: Tasks panel to find individual tasks, and click the Go to Task icon in the Task Search Results page to view and edit individual tasks. Navigate to the Define Product Innovation task list.

The configuration tasks detailed here for Oracle Product Innovation are independent of the tasks for Oracle Product Development.

<table>
<thead>
<tr>
<th>Task List</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define Product Requirements and Ideation Management</td>
<td>Use this task list to configure ideas, and requirements specifications.</td>
</tr>
<tr>
<td>• Manage Product Idea Classes</td>
<td></td>
</tr>
<tr>
<td>• Manage Product Idea Statuses</td>
<td></td>
</tr>
<tr>
<td>• Manage Product Requirements Classes</td>
<td></td>
</tr>
<tr>
<td>• Manage Product Requirements Statuses</td>
<td></td>
</tr>
<tr>
<td>• Manage Product Requirements and Ideation Lockups</td>
<td></td>
</tr>
<tr>
<td>Define Concept Design Management</td>
<td>Use this task list to configure concepts and concept components.</td>
</tr>
<tr>
<td>• Manage Product Concept Classes</td>
<td></td>
</tr>
<tr>
<td>• Manage Product Concept Component Classes</td>
<td></td>
</tr>
<tr>
<td>• Manage Product Concept Statuses</td>
<td></td>
</tr>
<tr>
<td>• Manage Product Concept Lookups</td>
<td></td>
</tr>
<tr>
<td>Define Product Lifecycle Portfolio Management</td>
<td>Use this task list to configure proposals and portfolios.</td>
</tr>
<tr>
<td>• Manage Proposal Statuses</td>
<td></td>
</tr>
</tbody>
</table>
Configuring External Systems for Integration: Overview

Oracle Innovation Management integrates with systems such as Agile PLM, Agile EDM, and Oracle Product Development, through view objects, application modules, and web services.

You can perform the following tasks by integrating target systems:

- Associate issues to ideas
  - Relate issues to concepts that improve products
  - Relate issues or ideas to requirements to drive improved designs

- Create items in Product Development from concept components
  - Search and use an existing item to create a concept
  - Associate requirements to Agile items (trace which requirements were used to build the eventual product)
  - Map attributes from Agile PLM items to concept components

- Allow proposals to be related to or drive projects in Agile PPM
  - View status and key attributes of Projects within proposals
  - Integrate actual cost and resources from Agile PLM Project into proposals
  - Check how a proposal is progressing against projected cost and resources

Related Topics

- Configuring Agile PLM: Overview
- Configuring Agile EDM: Overview
- Configuring Oracle Innovation Management for Integration: Overview
Class Management in Oracle Innovation Management: Explained

Class Management is the definition of classes, class hierarchies, and class codes to establish reusable business objects. This topic introduces Class Management for Ideas, Requirements Specifications, Concepts, and Portfolios in Oracle Innovation Management.

The tasks addressed in this topic are:

- Manage Product Idea Classes
- Manage Product Requirement Classes
- Manage Product Concept Classes
- Manage Product Concept Component Classes
- Manage Product Portfolio Classes

Class

Use classes and subclasses to define business object types.

When you create a class, the class name that you provide is stored and used as an object type, at the time of business object creation.

Select a class to edit the class name and description. The **Object Creation Allowed Indicator** in the **Edit Class** page controls the possibility of creating business objects of the current class value. Select the indicator to ensure that the class name is available to use as a type when creating a business object.

Class Code

A Class Code is a constant and unique value associated with each class across Oracle Innovation Management and associated PLM systems.

You can define a class code only once, when creating a class, as it is used during integration with external systems, and is required to remain a consistent internal code.

**Note:** You cannot edit the class code after class creation. However, you can delete the existing class, if it was not already used to create an object, and create a class with the required class code.

Class Hierarchy

Class Hierarchy enables you to group and search for classes, based on class values or business objects types.

Select a class in the **Manage Class** page to view the class hierarchy in the **Edit Class** page.
Innovation Management Lookups: Explained

Oracle Innovation Management provides lookups that you can use to define values in Requirements, Concept, and Portfolio modules during implementation.

This topic addresses the following tasks:

- Manage Product Requirements and Ideation Lookups
- Manage Product Concept Lookups
- Manage Product Portfolio Lookups

Use standard lookups in Oracle Innovation Management to define values such as type, status, priority, scope, compliance, resource pool, metrics, lifecycle phases, and rank.

Application statuses are also standard lookups. You can execute the following tasks as lookup tasks:

- Manage Product Idea Status
- Manage Product Requirement Status
- Manage Product Concept Status
- Manage Proposal Status
- Manage Portfolio Status

The following table details the standard lookups available in Oracle Innovation Management.

Lookup types with customization level **System** do not allow you to add or delete lookup codes. However, you can edit the **Meaning** and **Description** fields of the existing lookup codes.

<table>
<thead>
<tr>
<th>Application</th>
<th>Module</th>
<th>Lookup Type</th>
<th>Lookup Code Meaning</th>
<th>Customization Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideas</td>
<td>Status</td>
<td>Pending, Accepted, Rejected, Implemented, In Progress, Review</td>
<td>User</td>
<td></td>
</tr>
<tr>
<td>Requirements and Ideation Management</td>
<td>Associated Product</td>
<td>Common Services, Product Concept Design, Product Lifecycle Portfolio Management, Product Requirements and Ideation Management</td>
<td>User</td>
<td></td>
</tr>
<tr>
<td>Requirement Fulfillment</td>
<td>Yes, No</td>
<td>User</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requirement Priority</td>
<td>Must Have, Nice to Have, Should Have</td>
<td>User</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requirement Scope</td>
<td>Yes, No</td>
<td>System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requirement Status</td>
<td>Pending, Submitted, Released</td>
<td>System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application</td>
<td>Module</td>
<td>Lookup Type</td>
<td>Lookup Code Meaning</td>
<td>Customization Level</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------</td>
<td>-----------------------------</td>
<td>----------------------------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Product Concept Design</td>
<td>Concepts</td>
<td>Proposal Business Unit</td>
<td>Business Unit</td>
<td>User</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concept Product Type</td>
<td>New Product, Technology Evaluation, Product Redesign</td>
<td>User</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Component Product Type</td>
<td>Documentation, Electrical, Mechanical, Software, Tooling</td>
<td>User</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concept Status</td>
<td>Draft, Submitted Approved, Converted</td>
<td>System</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cost Category</td>
<td>Development, Production</td>
<td>System</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cost Status</td>
<td>Actual, Projected</td>
<td>System</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Proposal Cost Types</td>
<td>Fixed, Labor, Material, Variable</td>
<td>System</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Funding Request For</td>
<td>Concept, Feasibility, Product, Prototyping</td>
<td>User</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market Strategy</td>
<td>Differentiation, Neutralization, Optimization, Others</td>
<td>System</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Primary Justification</td>
<td>Enter New Markets, Enter New Regions, Exit Market, Expand Market Share</td>
<td>User</td>
</tr>
</tbody>
</table>

**Related Topics**

- Lookups: Explained
- How can I edit lookups?
- Managing a Standard Lookup: Example

**Manage Planning Periods: Explained**

Product portfolio planning period is the time period during which the portfolio objects collect data for analysis. Before defining a planning period, create planning period units using the **Manage Product Portfolio Planning Period** task in the Setup and Maintenance work area.
Provide start date, number of units and specify the duration, which can be either monthly or quarterly, to create planning period time units. The planning period time units are created with default labels. You can add time units for a previously created planning period unit by providing the number of units before the first unit or by providing the number of units after the last unit.

\[\text{Note:}\] After you have created a planning period unit specifying a duration, you cannot make further changes except for changing the names of the units.

To create a planning period, provide the start date planning period unit, end date planning period unit, and select the planning period unit from the choice list.

Impact of planning period and planning period units:

- The columns in the Manage Resource Capacity table is dynamically created and displayed based on the number of planning period units defined in the planning period for the portfolio.
- The timelines in the Schedule, Resource, and Launch charts are decided based on the number of planning period units defined in the planning period for the portfolio.

Manage Product Portfolio Metrics: Explained

Oracle Innovation Management offers you a list of predefined metrics that you can use for measuring portfolio performance. You can also set the minimum and maximum threshold values for these metrics in accordance with business requirements.

Metrics can be defined in the Manage Product Portfolio Metrics task within the Setup and Maintenance work area. Metrics marked as Enabled are made available for selection when you add metrics using Actions > Define Metrics. Enabled metrics that are also marked as Default appear in the locations described here.

<table>
<thead>
<tr>
<th>Default metrics for</th>
<th>Appear here</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product proposals</td>
<td>In the Proposal Metrics selection dialog that opens when you click the 123 icon during proposal creation.</td>
</tr>
<tr>
<td>Products</td>
<td>As column headers in the Elements table.</td>
</tr>
<tr>
<td>Portfolios</td>
<td>As column headers in the Scenarios table.</td>
</tr>
</tbody>
</table>

\[\text{Note:}\] A portfolio is a grouping of product lines, most often within company Business Units. All proposals related to product lines within a portfolio should ideally be evaluated by a common set of metrics so that the evaluations are consistent and objective. If you define consistent metrics for a portfolio and proposals within that portfolio, portfolio metrics can be rolled up from proposals as needed.

Metrics are of three types:

- **Derived** - Calculated using fixed formulas. (Examples: Return On Investment, Internal Rate of Return)
- **Derived and rolled up** - Calculated using fixed formulas and derived from certain values that you enter. (Examples: Net Present Value, Actual Cost, Projected Cost).
- **User entered** - Entered by the user in the user interface. (Examples: Impact, Alignment, Risk Numeric)
The following portfolio metrics can be configured using Data Composer:

- Resource Value Index
- Cost Value Index
- Expected Commercial Value
- Resources Productivity Index
- Cost Productivity Index
- Portfolio Strategic Fit

Related Topics

- Net Present Value: How It Is Calculated
- Internal Rate of Return: How It Is Calculated
- Break Even Time: How It Is Calculated
- Payback Period: How It Is Calculated
- Customize Innovation Management: Explained

Manage Portfolio and Product Rule Sets: Explained

Define portfolio and product rule sets to associate multiple rules together, and assign them to portfolio classes.

<table>
<thead>
<tr>
<th>Type of Rule Set and Rule</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Validation</td>
<td>Define validation conditions based on attribute values.</td>
</tr>
<tr>
<td></td>
<td>predefined business rules</td>
</tr>
<tr>
<td></td>
<td>Logical expression</td>
</tr>
<tr>
<td></td>
<td>Validation condition</td>
</tr>
<tr>
<td></td>
<td>User message</td>
</tr>
</tbody>
</table>

Assignments

Define the value of an attribute, based on the specified condition. Rules are executed in the order of their sequence in the rule set.

Target business entities are:

- Portfolio General Information
- Product
- Scenario

Composite

Aggregate rules sets that operate on different attribute groups. Composite rule sets contain both validation and assignment rule sets.
Related Topics

- Rules and Rule Sets: Explained
- What’s a rule set?
3 Customizing Innovation Management

Customize Innovation Management: Explained

Customize Innovation Management view objects and create custom attributes using Data Composer and Page Composer.

Custom Attributes

Use the Navigator menu to locate the Innovation Management Custom Objects tool. Click it to access Data Composer Setup tasks, including Manage Customizable Objects and Manage Global Functions.

Use Data Composer to:

- Customize the label and help text of standard fields
- Create top-level custom objects as well as new child objects
- Add custom fields of different types (such as text, number, date, choice list, and check box) to standard and custom objects
- Define application action using validation rules, triggers, and functions
- Set field-level and object-level validation rules

Custom attributes are implicitly tied to Value Objects (VO), each belonging to its own business object. The custom attributes that you create are added to a resource catalog, and are visible on search using Page Composer.

A value object in Innovation Management refers to business objects (for example: concepts, ideas, requirements), line-level objects (for example: concept components), or relationship objects (for example: concept structures).

The following table summarizes the customizable objects, pages, and regions in Innovation Management. The view objects listed here are available on the Data Composer user interface for customization.

<table>
<thead>
<tr>
<th>View Object</th>
<th>Corresponding Page or Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idea</td>
<td>Edit Idea, Manage Ideas, Search</td>
</tr>
<tr>
<td></td>
<td>Create Idea dialog</td>
</tr>
<tr>
<td>Requirement</td>
<td>Details tab, Create Requirement Line dialog</td>
</tr>
<tr>
<td></td>
<td>Table view</td>
</tr>
<tr>
<td></td>
<td>Search</td>
</tr>
<tr>
<td>RequirementSpecification</td>
<td>Create Requirements Specification dialog</td>
</tr>
<tr>
<td></td>
<td>Search</td>
</tr>
<tr>
<td></td>
<td>Details tab</td>
</tr>
<tr>
<td>Concept</td>
<td>Create Concept dialog</td>
</tr>
<tr>
<td></td>
<td>Specifications Pane</td>
</tr>
</tbody>
</table>
Manage Custom Objects

To customize objects, access the **Custom Objects** link from the Navigator. As an Application Implementation Consultant, you can then expose the custom configuration in the corresponding user interface region or pages using the Page Composer.

You can also edit the business logic associated with each custom object.

**Note:** To use Page Composer, you must have **Source View** enabled as an Administrator Profile value.

1. In the Setup and Maintenance work area, search for the **Manage Administrator Profile Values** task.
2. Search for a Profile Option with Display Name containing Composer.
3. Select the search result with the option code FND_PAGE_COMPOSER_SOURCE_VIEW.
4. In the Profile Values section, ensure that for Profile Level Site, the Profile Value is set to **Yes**.

Conversion of Data Composer Fields

When you convert a concept component having custom fields to a PLM item, only the Text fields are currently copied to the PLM item. Trying to convert a concept component that includes custom data types other than text fields, may result in an error.
Set Up Concept Rollups: Explained

If you have the required administrator privileges, you can create concept metrics, or rename existing concept metrics using Data Composer, and execute them using the Recalculate action. You can also define which of these metrics, including their target values, are displayed in the Spider Chart and Summary Table.

Custom metrics allow you to clearly define your product-specific metrics, against which your product concepts can be evaluated and approved or rejected.

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>Determines if the rollup definition is included in the calculation or not.</td>
</tr>
<tr>
<td>Rollup Column</td>
<td>Column of attributes selected for rollup and aggregation.</td>
</tr>
<tr>
<td>Result Column</td>
<td>Destination column that displays rolled up results and appears in the Concept work area to all users.</td>
</tr>
<tr>
<td>Consider Quantity</td>
<td>Determines if the attributes selected in the Rollup Column should be multiplied with quantity or not, in the rollup calculation.</td>
</tr>
<tr>
<td>Incomplete Rollup Count Column</td>
<td>Column that displays the number of incomplete values in subitems of a given parent item. It implies that there is no value present in the Rollup Column for the selected line item.</td>
</tr>
<tr>
<td>Variance Target Column</td>
<td>Column that mandates where the target value must be entered by the user beforehand, and displays target values of the selected attribute, required for calculating variance. The default calculation for variance is: Variance = Rollup Result Value - Target Value</td>
</tr>
<tr>
<td>Variance Result Column</td>
<td>Destination column that displays the calculated variance.</td>
</tr>
<tr>
<td>Inverse Variance</td>
<td>When selected, variance is calculated as Target Value - Rollup Result Value. When not selected, variance is calculated as Rollup Result Value - Target Value.</td>
</tr>
</tbody>
</table>

After you have defined your required objects and attributes using Data Composer, use Page Composer to search for custom attributes in the Resource Catalog and add them to specific areas, such as the concept structure table.

Refer to the Oracle Fusion Applications Extensibility Guide for detailed information on customizing pages.

Related Topics
- Calculating Metrics in Concepts: Worked Example
- Analyzing a Product Concept: Explained
Adding Custom Metrics using Page Composer in Innovation Management: Procedure

This topic describes the process of adding custom metrics in a concept structure using Data Composer and Page Composer.

To create and work with custom metrics in concepts, the main steps are:

1. Ensure that you have the privileges to access the 'Manage Customizable Objects' menu option. For information on managing job roles and assignments, refer to the Oracle SCM Cloud Securing Oracle SCM Cloud guide.
2. Add custom attributes using Data Composer
3. Activate a sandbox
4. Customize pages and associate attributes using Page Composer

Add Custom Attributes Using Data Composer
Define metrics and rollup logic that are tailored to your business needs.

To create custom attributes:

1. Within the Data Composer Setup menu, click Manage Customizable Objects. The Manage Custom Objects page appears.
2. Click the ConceptStructure object to edit it.
3. In the Edit Object page, create a custom field (of type number, text, for example) and define its constraints and default values as required.
4. Click Save and Close in the Create Custom Field page to finish creating the custom metric. Click Done to close the Edit Object page.

Creating Additional Tabs for a Proposal: Worked Example

This example shows the administrator how to configure additional tabs for a proposal object.

Adding a Tab to a Proposal

1. In Data Composer, as the administrator, create the attributes that can be used for additional proposal tabs. Additional tabs can also use existing standard attributes and repeat attributes across tabs.
2. Next, enable tab creation for a proposal.
3. Within the Concepts application, search for a proposal.
4. Go to the Edit Proposal page and expand Settings and Actions.
5. From the list under Administration select Customize Pages.
6. From the View menu select Source to reveal the component properties of the proposal object.
7. Under the **Tabs** tab click **Add Tab**. There can be up to ten additional tabs added to a proposal.
8. Within the tab creation window select the attributes required for the new proposal tab. When finished click **OK**.
9. The proposal object will now reflect the newly created tab with the selected attributes.

---

**Enable Single Sign-On for Innovation Management: Explained**

You can make it possible for your users to use a single user name and password to sign in to all of your on-premises and Oracle SCM Cloud applications by implementing Oracle Enterprise Single Sign-On.

Oracle Enterprise Single Sign-On (SSO) is available for customers who have implemented either the Microsoft Active Directory Federation Server (ADFS) 2.0 or the Oracle Identity Federation Service 11g identity provider (IdP). Other identity providers require special approval. Here is the standard approval process:

1. Contact your salesperson or open a service request for SSO Enablement on support.oracle.com
2. Your Oracle sales or help desk sends you a questionnaire to fill out.
3. After you return the questionnaire, Oracle representatives evaluate your responses and obtain approval, usually within 24 hours.
4. After you are approved, Oracle sets up your Oracle SCM Cloud environment and you receive the appropriate documentation on setting up your system.

It typically takes a minimum of two weeks or more for Oracle to implement the SSO for your Oracle SCM Cloud environment after you obtain necessary approval.

**Related Topics**

- What are the prerequisites for Oracle Social Network integration?
- Oracle Social Network Objects in Oracle Innovation Management: Overview

---

**FAQs on Social Networking in Oracle Innovation Management**

**How do I share my opinion with development teams on terminating a product?**

If the **Edit Portfolio** page has a **Social** link, you can invite others to a conversation to discuss the ideas.

For example, as a portfolio manager, you carefully weigh the market share research, revenue, and future portfolio plans, and suspect that it may be time to end support for one of the products in your portfolio. You want to make sure you have agreement from the people closest to the product, the product development manager, and the product manager.

From the **Edit Portfolio** page:

1. Click the **Social** link to open Oracle Social Network (OSN).
2. Click **New Conversation**.
3. Invite your product manager and product development manager to the conversation.

The details of your conversation and key aspects of the portfolio are visible on the portfolio wall in OSN for everyone to view.

After a joint online discussion about the pros and cons of terminating the product, questions are asked and answered, and supporting documents are uploaded and reviewed. When you click the **Social** link from a business object, all the social networking features provided by OSN are instantly available. This makes it easy to bring in the people you require to make an informed decision.

Depending on your job role and permissions, you can use social networking features for the following Oracle Innovation Management business objects:

- Ideas
- Requirements Specifications
- Concepts
- Proposals
- Portfolios

**Related Topics**

- Managing Oracle Social Network Objects: Explained

**How do I share my ideas with key stakeholders in Oracle Innovation Management?**

If the **Manage Ideas** page has a **Social** link, you can invite others to a conversation to discuss the ideas.

For example, while at a customer meeting, an idea for enhancing the product emerges, that you think is worth pursuing. You want to get it into the system so that the product manager and other stakeholders can consider it as they weigh options for the next release.

From the **Manage Ideas** page:

1. Add the details of product enhancement in the form of an idea, and post it.
2. Click the **Social** link to open **Oracle Social Network**.
3. Click **New Conversation**.
4. Invite your product manager and product development manager to the conversation.

The details of your conversation and key aspects of the Idea are visible on the Idea wall in Oracle Social Network for everyone to view.

You might decide to share customer views about the idea, and post the customer e-mail ID to the Conversation in the form of a document.

After several days of discussion on the Idea, you collectively decide that the idea has enough merit to move forward. The product manager creates a Requirement to get the ball rolling, frequently referring back to the Conversation to see what was said. The Idea is thus translated into tangible requirements that can be measured in reality.

Depending on your job role and permissions, you can access social networking features for the following Oracle Innovation Management business objects:

- Ideas
Why does the web service connection fail?

The web service call may fail due to a number of exceptions including path certification, bad encryption, and policy enforcement exceptions. You must create a service request for your administrator to resolve the issues.

Verify that you have completed the following prerequisite steps:

1. Obtain details of the WSDL URL and the user credentials to use from the web service provider.
2. Get the server encryption certificate and the Certificate Authority (issuer) certificate from the web service provider.
3. Create a custom field for an object that has a calculated default value.
4. Prepare the Groovy script for the expression used to calculate the field’s default value. The Groovy code must prepare the argument values, which in this example are two values that are summed.

To call a web service from a Groovy script that is secured with message protection, complete the following tasks:

1. Create the web service connection.
2. Add the web service call to the Groovy script, and check whether the call succeeds.
3. Contact the administrator to resolve run time exceptions

Create a service request for your administrator:

a. Retrieve the server encryption certificate and the Certificate Authority (issuer) certificate from the web service provider.

b. Attach the server encryption certificate and the issuer certificate to the service request, and include the WSDL location, and error details.

c. Submit the service request.

The administrator adds the server encryption certificate and the issuer certificate into the Oracle Innovation Management trust store. The administrator also creates an alias for the server encryption key, which you must use to recreate the web service connection.

d. Wait until your administrator informs you that the certificates have been imported, and that the server encryption alias has been created; then close the service request.

4. Recreate the web service connection.
5. Verify that the web service call succeeds.

Related Topics

• Oracle Social Network Objects in Oracle Innovation Management: Overview

• What are the prerequisites for Oracle Social Network integration?
4 Configuring Innovation Management for Integration with External Systems

Overview

The tasks Register Agile PLM, Register Agile EDM, Register Agile EDM File Server, and Manage Target System are not module-specific. Complete these optional tasks as required to integrate external PLM systems with Oracle Innovation Management.

Note: You must first complete the common application setup and configuration tasks for Product Management in the Setup and Maintenance workspace.

<table>
<thead>
<tr>
<th>Task List</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Register Agile PLM</td>
<td>This task is a prerequisite for the Manage Target System task, and required to connect Oracle Agile Product Lifecycle Management (Agile PLM) to Oracle Innovation Management.</td>
</tr>
<tr>
<td>Register Agile EDM</td>
<td>This task is a prerequisite for the Manage Target System task, and required simultaneously with the Register Agile EDM File Server task, to connect Oracle Agile Engineering Data Management (Agile EDM) to Oracle Innovation Management.</td>
</tr>
<tr>
<td>Register Agile EDM File Server</td>
<td>This task is a prerequisite for the Manage Target System task, and required simultaneously with the Register Agile EDM task, to connect Oracle Agile Engineering Data Management to Oracle Innovation Management.</td>
</tr>
<tr>
<td>Manage Target Systems</td>
<td>Use this task to configure connections between Oracle Innovation Management and external Product Lifecycle Management (PLM) systems, or Oracle Product Development.</td>
</tr>
</tbody>
</table>

Register Agile PLM: Explained

This task integrates Oracle Agile PLM with Oracle Innovation Management.

Note: You must first complete the common application setup and configuration tasks for Product Management in the Setup and Maintenance workspace.

The typical Agile PLM endpoint is {protocol}://{host}:{port}/CoreService/services/{service}?wsdl

The values for protocol, host, port, and context root (CoreService) need to be entered into the corresponding field for registering the target endpoint in your Cloud application using the Setup and Maintenance workspace.

Use the Register Agile PLM task to configure server details of the target system (Agile PLM) intended for use, as tabulated here.
<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Server Protocol</td>
<td>Select from the menu options (http or https)</td>
</tr>
<tr>
<td>*External Server Host</td>
<td>Enter the Agile PLM system name. Example: &lt;plmserver&gt;.oracle.com</td>
</tr>
<tr>
<td>*External Server Port</td>
<td>Example: 7001</td>
</tr>
</tbody>
</table>

The following table details the Associated Modules and their Context Root Values.

<table>
<thead>
<tr>
<th>Module</th>
<th>Context Root Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>AgileA9WebClient</td>
<td>Default is Agile. You can change this during Agile PLM installation.</td>
</tr>
<tr>
<td>AgileA9CoreService</td>
<td>Enter the SAML web service reference value here that matches the value defined in the file application.xml. &lt;context-root&gt;CoreService&lt;/context-root&gt;</td>
</tr>
</tbody>
</table>

Register Agile EDM System: Explained

The Register Agile EDM System and Register Agile EDM File Server tasks are prerequisites for the Manage Target System task, to connect Oracle Agile EDM to Oracle Innovation Management.

Complete the Register Agile EDM System task to configure server details of the target Agile EDM system intended for use. This task enables the sharing and display of Agile EDM data in the Oracle Innovation Management environment, in use cases involving relationships, links, and quick view.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Server Protocol</td>
<td>Select from the menu options</td>
</tr>
<tr>
<td>*External Server Host</td>
<td>Enter the system name for the Agile EDM system. Example: &lt;plmserver&gt;.oracle.com</td>
</tr>
<tr>
<td>*External Server Port</td>
<td>Example: 7001</td>
</tr>
</tbody>
</table>

The following table describes the Associated Modules.

<table>
<thead>
<tr>
<th>Module</th>
<th>Context Root Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORA_AGILEE6CORESERVICES</td>
<td>Example: CoreService</td>
</tr>
</tbody>
</table>
Register Agile EDM File Server: Explained

The Register Agile EDM System and Register Agile EDM File Server tasks are prerequisites for the Manage Target System task, to connect Oracle Agile EDM to Oracle Innovation Management.

Complete the Register Agile EDM File Server task to configure server details of the target Agile EDM system intended for use. This task enables transfer of file attachments directly associated with business objects in Oracle Innovation Management, to Agile EDM.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Server Protocol</td>
<td>Select from the menu options</td>
</tr>
<tr>
<td>*External Server Host</td>
<td>Enter the system name for the Agile EDM system.</td>
</tr>
<tr>
<td></td>
<td>Example: &lt;plmserver&gt;. oracle.com</td>
</tr>
<tr>
<td>*External Server Port</td>
<td>Example: 7001</td>
</tr>
</tbody>
</table>

The following table describes the Associated Modules.

<table>
<thead>
<tr>
<th>Module</th>
<th>Context Root Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORA_AGILEE6STREAMINGFILESERVICES</td>
<td>Example: StreamingFileService</td>
</tr>
</tbody>
</table>

Manage Target System: Explained

Use the Manage Target System task to configure data connections, based on web services, between Oracle Innovation Management and target PLM systems.

- Use the Manage Connections task to define template-based connectors that enable access between Oracle Innovation Management and target PLM systems or Oracle Product Development.
- Use the Manage Mapping to External System task to configure the display and usage of target PLM or Oracle Product Development Cloud entities and their attributes within Oracle Innovation Management.
- Use the Manage Mapping to Innovation Management task to map Oracle Innovation Management entities and attributes to target PLM or Oracle Product Development Cloud entities, depending on the connector used.

Related Topics

- Integration with External Systems: Points to Consider
Manage Connections: Points to Consider

Use the **Manage Connections** task to configure multiple target PLM system connections, and activate any one at a given time.

Preconfigured connector templates are available for Agile PLM, Agile EDM, and Product Development configurations. The connector templates are easily identified by their names (beginning with **ORA_**) as well as their descriptions in the **Connector Type** column.

Duplicate the connector template

Duplicate any one of the existing connector templates to create a connector.

> **Note:** You cannot edit a connector template directly.

To duplicate a connector template:

1. Select it and click the **Duplicate** icon or use the **Duplicate** option from the **Actions** menu.
2. Name the newly created connector.

> **Note:** The connector name cannot begin with **ORA_**.

Customize the Agile PLM connector

To integrate Agile PLM with Oracle Innovation Management, start by duplicating the **ORA_A9** connector template. Customize and configure the newly created connector using the **Edit** option from the **Actions** menu.

Alternatively, select the newly created connector and click the **Edit** icon.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client URL</td>
<td>URL of the Oracle Agile PLM Web Client</td>
</tr>
</tbody>
</table>

*Object Create Batch Size

Minimum value is 1.

The maximum value depends on the hardware configuration used.

If this value is high, the web service payload is too large.

*Object Read Batch Size

Define how many objects are read with the object ID from the Agile PLM system in one chunk.

The minimum value is 1.

The maximum value depends on the hardware configuration used.

If this value is high, the web service payload is too large.

*Maximum Number of Search Results

Define the maximum number of records to be retrieved from a query, irrespective of the number of records that match the search criteria.
### Value | Description
--- | ---
| Minimum value is 1. The maximum value depends on the hardware configuration used. If this value is high, the web service payload is too large.

| *Buffer Size for Attachments in MB | Example: 10 |
| *Buffer Size for Thumbnails in MB | Example: 10 |

### ECO Usage
Define the engineering change order processing type to use when transferring items or item structures to PLM.

If you select an option other than User Selection, the end user is not given an option on the engineering change order action when converting a concept component in Oracle Innovation Management to an item in the external PLM system.

### Overwrite Web Service URL
The check box is enabled by default, and the predefined web service endpoint is used to access an Agile PLM system which is not SAML-enabled.

Disable the Overwrite Web Service URL check box to engage the Web Service URL defined through the Register Agile PLM task.

### Web Service URL
If you enable the Overwrite Web Service URL check box, ensure that the Web Service URL you add points to a SAML-enabled Agile PLM system.

Example: http://<plmserver>:<port>/CoreService/services

_Arrow Note:_ If Overwrite Web Service URL is enabled, you can verify if the URL provided is valid, by opening the URL in a browser. If the URL is incorrect, the WSDL file does not open in the browser. You must then change the value in Web Service URL.

---

### Customize the Agile EDM connector
To integrate Agile EDM with Oracle Innovation Management, start by duplicating the ORA_E6 connector template. Customize and configure the newly created connector using the Edit option from the Actions menu.

Alternatively, select the newly created connector and click the Edit icon.

### Value | Description
--- | ---
| Minimum value is 1. The maximum value depends on the hardware configuration used. If this value is high, the web service payload is too large.

| *Object Create Batch Size |
| Define how many objects are read with the object ID from the Agile PLM system in one chunk. The minimum value is 1. |

<p>| *Object Read Batch Size |
| --- | --- |
| Minimum value is 1. The maximum value depends on the hardware configuration used. If this value is high, the web service payload is too large. |</p>
<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The maximum value depends on the hardware configuration used. If this value is high, the web service payload is too large.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>*Buffer Size for Attachments in MB</th>
<th>Example: 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Buffer Size for Thumbnails in MB</td>
<td>Example: 10</td>
</tr>
</tbody>
</table>

**ECO Usage**

Define the engineering change order processing type to use when transferring items or item structures to PLM.

If you select an option other than **User Selection**, the end user is not given an option on the engineering change order action when converting a concept component in Oracle Innovation Management to an item in the external PLM system.

<table>
<thead>
<tr>
<th>*Daemon Host</th>
<th>Details of the currently connected PLM server. Example: &lt;plmserver&gt;. oracle.com</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Daemon Port</td>
<td>Example: 16000</td>
</tr>
</tbody>
</table>

Use the **Test Connection** button to validate the daemon connection during the configuration process itself.

<table>
<thead>
<tr>
<th>*Application</th>
<th>Example: fusionref</th>
</tr>
</thead>
<tbody>
<tr>
<td>*File Vault</td>
<td>Default value: fusion For more information on the File Vault, refer to the section Customizing Agile EDM Setup: Explained.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>*Client URL</th>
<th>Link to the Agile EDM Java Client. Test the URL using the <strong>External URL</strong> icon.</th>
</tr>
</thead>
</table>

**Overwrite Web Service URL**

The check box is enabled by default, and the predefined web service endpoint is used to access an Agile EDM system.

Disable the **Overwrite Web Service URL** check box to engage the Web Service URL defined through the **Register Agile PLM** task.

**Note:** If **Overwrite Web Service URL** is enabled, you can verify if the URL provided is valid, by opening the URL in a browser. If the URL is incorrect, the WSDL file does not open in the browser. You must then change the value in **Web Service URL**.

<table>
<thead>
<tr>
<th>*Document File Service URL</th>
<th>Used by the <strong>Register Agile EDM File Server</strong> task.</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Metadata Service URL</td>
<td>Core web service URL used by the <strong>Register Agile EDM</strong> task.</td>
</tr>
</tbody>
</table>
Customize the Product Development connector

To integrate Oracle Product Development with Oracle Innovation Management, start by duplicating the ORA_PD connector template. Customize and configure the newly created connector using the Edit option from the Actions menu. Alternatively, select the newly created connector and click the Edit icon.

Use the tasks Manage Item Organizations and Manage Item Classes in the Product Management offering to create and manage item classes, item organizations, and item templates. Refer to the Oracle SCM Cloud Implementing Product Information Management guide for information.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Default Organization</td>
<td>Select from a list of organizations in the menu.</td>
</tr>
<tr>
<td></td>
<td>Example: Vision Germany</td>
</tr>
<tr>
<td>*Default Item Class</td>
<td>Select from a list of item classes in the menu.</td>
</tr>
<tr>
<td></td>
<td>Example: Root Item Class</td>
</tr>
<tr>
<td>*Default Item Template</td>
<td>Select from the menu.</td>
</tr>
<tr>
<td></td>
<td>Example: Configured Item</td>
</tr>
</tbody>
</table>

Manage Mapping to External System: Points to Consider

Use the Manage Mapping to External System task to define entities, entity subtypes (subclasses), and their relationships to corresponding entities in the external PLM system.

The configuration of entities in this task determines their availability and usage in all Oracle Innovation Management integration use cases.

Edit Base Entities

The connector template you use contains a nonnegotiable list of base entities. You cannot add an entity that is absent from the list.
Note: You must duplicate a template connector and modify the copy. The template connectors are not modifiable.

1. Select the required connector from the Connector Name menu to view entities associated with it.
2. Click the New icon or New option from the Actions menu in the Entity pane to add entities from a list specific to each connector.

### Edit or Remove Entity Subtypes

Some entities may contain subtypes (also called subclasses in Oracle Agile PLM) that you can configure for additional value in an entity definition, and to appear in the Quick View of a PLM item in Oracle Innovation Management.

Caution: Removing subtypes deletes all related records like assigned attributes and mappings. Deleting subtypes from an active connector can cause errors in active sessions.

Select an entity and click the New icon or New option from the Actions menu in the Entity pane, to add subtypes which are defined in the Agile PLM application for the selected base entity.

### Edit an Entity

Select an entity and click the Edit icon or Edit option from the Actions menu in the Entity pane, to modify the entity name or its auto number source.

Note: The auto number source is applicable to the Agile PLM connector only. Define the value in the Oracle Agile PLM Java Client for object classes, to allow newly created objects in Agile PLM to be automatically numbered.

### Define Individual Attributes of Entities

Among other options, decide the order of visibility of each attribute, and if it can be found in the Oracle Innovation Management search options.

1. Select an entity from the Entity pane to view its attributes in the Attribute pane.
2. Click the New icon or New option from the Actions menu in the Attributes pane to add attributes from a list predefined per entity.
3. Select an attribute and click the Edit icon or Edit option from the Actions menu in the Attributes pane to edit it.

Note: Attributes common to all subtypes, configured at the entity level in Oracle Innovation Management, are also known as Title Block or Page Two attributes in the Agile PLM Java Client. Attributes particular to some subtypes, configured at the subentity level in Oracle Innovation Management, are also known as Page Three attributes in the Agile PLM Java Client.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute Name</td>
<td>Enter the name of the field as intended for display for users.</td>
</tr>
<tr>
<td></td>
<td>The modifiable name is the label of the attribute seen in Oracle Innovation Management, such as in Quick View or the search results table.</td>
</tr>
<tr>
<td>API Name</td>
<td>The auto-generated, unique system-wide identifier for objects in Oracle Agile PLM.</td>
</tr>
<tr>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>API Name</td>
<td>A read-only value field.</td>
</tr>
<tr>
<td>Data Type</td>
<td>A predefined value indicating the type of attribute. Values include: SINGLELIST_ DISPLAYVALUE SINGLELIST_ KEY MULTILIST_ DISPLAYVALUE INTEGER, DATE, STRING, MONEY_AMOUNT, MONEY_ CURRENCY DOUBLE, UNITOFMEASURE_ AMOUNT UNITOFMEASURE_ UNIT.</td>
</tr>
<tr>
<td>Data Type Length</td>
<td>A predefined value indicating the number of bytes that can be entered in the field.</td>
</tr>
<tr>
<td>Scale</td>
<td>Enter the number of digits required after the decimal point (in a numeric field only). This setting must be greater than or equal to zero (0).</td>
</tr>
<tr>
<td>Searchable Indicator</td>
<td>Enable or disable the attribute from being added as search criteria in the Oracle Innovation Management search options for Parts, Items, Designs and Relationships.</td>
</tr>
<tr>
<td></td>
<td>Attributes from relation entities like part structure are not searchable.</td>
</tr>
<tr>
<td></td>
<td><strong>Important:</strong> When using the Agile EDM connector, and the Searchable Indicator option is enabled on Boolean data type attributes of Items, the Advanced Search function in Oracle Innovation Management may not display accurate records.</td>
</tr>
<tr>
<td>Search Result Sequence</td>
<td>Indicate the column order in which you require the attribute field to appear in search results within Oracle Innovation Management.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> An empty value or a value less than 0 implies that the attribute is not displayed.</td>
</tr>
<tr>
<td>Quick View Sequence</td>
<td>Indicate the row order in which you require the attribute field to appear in the Quick View box that is displayed on hovering over a PLM item within Oracle Innovation Management.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> An empty value or a value less than 0 implies that the attribute is not displayed.</td>
</tr>
<tr>
<td>Basic Search Sequence</td>
<td>Indicate the row order in which you require the attribute field to be displayed as search criteria when the Basic Search function is in use.</td>
</tr>
<tr>
<td></td>
<td>This field is applicable only to the Agile EDM connector template.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> An empty value or a value less than 0 implies that the attribute is not displayed.</td>
</tr>
<tr>
<td>Advanced Search Sequence</td>
<td>Indicate the row order in which you require the attribute field to be displayed as search criteria when the Advanced Search function is in use.</td>
</tr>
<tr>
<td></td>
<td>This field is applicable only to the Agile PLM connector template.</td>
</tr>
</tbody>
</table>
Implementing Innovation Management

Chapter 4

Configuring Innovation Management for Integration with External Systems

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Value</td>
<td>Assign a default value to be used for the attribute field in Oracle Innovation Management, if the user does not provide a value. Default values are relevant in the following use cases:</td>
</tr>
<tr>
<td></td>
<td>- In search results, when no value is defined in the Agile PLM system</td>
</tr>
<tr>
<td></td>
<td>- When creating objects in the Agile PLM system.</td>
</tr>
<tr>
<td></td>
<td>For example, all attributes denoting currency have a default value of <strong>USD</strong>, as an Oracle Innovation Management user cannot specify the currency type. In Oracle Agile PLM, the currency value of a business object obtained from Oracle Innovation Management is automatically appended with the value <strong>USD</strong>.</td>
</tr>
<tr>
<td>Is Hover Over</td>
<td>Use the check box to enable or disable the attribute from being displayed as a Quick View attribute in Oracle Innovation Management.</td>
</tr>
<tr>
<td>Is Hyperlink</td>
<td>Use the check box to enable or disable the attribute from being linked directly to its source object in the external PLM system. For thumbnail attributes, a link to open the thumbnail image is provided.</td>
</tr>
<tr>
<td>Is Auto Number Source</td>
<td>Use the check box to indicate the key attribute having an auto number source. This field is applicable only to the Agile PLM connector template. To create an object of an entity in Agile PLM, you must define an auto number source value.</td>
</tr>
</tbody>
</table>

Manage Mapping to Innovation Management: Points to Consider

Use the **Manage Mapping to Innovation Management** task to configure value transformations for handling data across the data formats of external PLM systems, Oracle Product Development, and the data formats of Oracle Innovation Management.

Mapping Sets

Each mapping set per connector template represents a use case that filters the data model of Oracle Innovation Management to fulfill unique scenario requirements.

*Note:* You cannot edit the name of a mapping set, or create a mapping set.

The following table describes the mapping sets associated with the connector templates.
Mapping Set | Use Case
--- | ---
AUCommonReferences | Control entities and type of objects that can be linked through the Relationships table

CDMCopyItem | Control entities when converting an item to a concept component
The item can belong to either an external PLM system or Oracle Product Development.

CDMCreateItem | Control entities when converting a concept component to an item

CDMDefault | Determine how Designs are linked through the Designs table

CDMLinkItem | Control entities when linking them through to the concept structure

CDMProposalProjects | Link projects from Agile PLM to proposals in Oracle Innovation Management

**Note:** This mapping set is not applicable to the Agile EDM and Oracle Product Development connectors.

E6Attachment | Determine what type of Document is created to hold the file attachments copied from Oracle Innovation Management to Agile EDM during a Convert to Item operation.

**Note:** This mapping set is not applicable to the Agile PLM and Oracle Product Development connectors.

VINItem | Control entities in the graphical display of concept structure.

---

View and Edit Entity Mappings

Select a connector and a mapping set to view and edit the entity mappings associated with the mapping set.

**Note:** You cannot add an entity that is absent from the list.

1. To add an entity to the active mapping set, click the New icon or New option from the Actions menu in the Innovation Management Entity Mappings pane.
2. To modify the Innovation Management Entity Name, select an entity mapping and click the Edit icon or Edit option from the Actions menu in the Innovation Management Entity Mappings pane.

You may edit the Entity name in the following use cases:

- Disable linking a Project from Agile PLM into Innovation Management if this use case should not be supported.
- Change the subclass of part to be used when converting components to items in Agile PLM.
- Limit the type of objects to be linked through the relationships table or rename the object names to be shown in the list.

**Caution:** Changing the name incorrectly can result in errors in the data model.
3. View, add, edit, or delete attributes of the selected entity mapping.

   a. To view entity attributes in the **Attribute** pane, select an entity mapping from the **Innovation Management Entity Mappings** pane.

   b. To add attributes from a list predefined per entity, click the **New** icon or **New** option from the **Actions** menu in the **Attributes** pane.

   c. To edit an attribute, select it and click the **Edit** icon or **Edit** option from the **Actions** menu in the **Attributes** pane.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute Name</td>
<td>Define the <strong>Attribute</strong> name as it is to be used in Oracle Innovation Management.</td>
</tr>
<tr>
<td>Innovation Management Attribute Name</td>
<td>The name of the attribute as known in Oracle Innovation Management.</td>
</tr>
<tr>
<td>Innovation Management Data Type</td>
<td>Value indicating the type of Oracle Innovation Management object attribute: DATE, DOUBLE, INTEGER, LONG, BOOLEAN, DECIMAL, STRING, JBO_NUMBER, JBO_DATE.</td>
</tr>
<tr>
<td>Innovation Management Type Length</td>
<td>Value indicating the number of numeric places or characters that can be entered in the field.</td>
</tr>
<tr>
<td>Innovation Management Type Scale</td>
<td>Enter the number of digits required after the decimal point (in a numeric field only). This setting must be greater than or equal to zero (0).</td>
</tr>
<tr>
<td>From Converter</td>
<td>Select from a list of values detailed in the section Handling Custom Conversions Between Data Types.</td>
</tr>
<tr>
<td>To Converter</td>
<td>Select from a list of values detailed in the section Handling Custom Conversions Between Data Types.</td>
</tr>
</tbody>
</table>

### Handling Custom Conversions Between Data Types

Use the **From Converter** and **To Converter** options for handling custom conversions between data types in Oracle Innovation Management and an external PLM system.

<table>
<thead>
<tr>
<th>From and To Converter Values</th>
<th>Converter Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>oracle, apps, scm.</td>
<td>Converts negative integer values to 0; positive values are left intact.</td>
</tr>
<tr>
<td>productCollaboration.</td>
<td></td>
</tr>
<tr>
<td>auIntegration.</td>
<td></td>
</tr>
<tr>
<td>configuration.</td>
<td></td>
</tr>
<tr>
<td>uiModel. AUConverterFactory</td>
<td></td>
</tr>
<tr>
<td>$PositiveIntegerConverter. class</td>
<td></td>
</tr>
</tbody>
</table>

| oracle, apps, scm.          | Converts strings which are numeric into positive integers (see PositiveInteger converter) and nonnumeric strings to 0 (as integer). |
| productCollaboration.       |                        |
| auIntegration.              |                        |
| configuration.              |                        |
Working with Oracle Fusion Project Portfolio Management in Innovation Management: Points to Consider

Manage Oracle Innovation Management projects by associating work items such as concepts, proposals, and requirements specifications to a project task. You can define rules to associate work items to project tasks and determine the completion of tasks based on work item statuses.

When you associate Oracle PLM objects with tasks in the Project Management work area, you can view the relationships in Oracle PLM pages also. Alternatively, you can search for project tasks in Oracle PLM, and associate them with PLM objects as relationships.

Implement Oracle Innovation Management and Oracle Fusion Project Portfolio Management for Integration

You must implement the following tasks in the Product Requirements and Ideation Management or Concept Design Management functional areas in the Product Management offering to integrate Oracle Innovation Management with Oracle Fusion Project Portfolio Management.
## Oracle Innovation Management Business Objects in Project Tasks

You can manage product development projects in Oracle Fusion Project Management only if you are added as a project enterprise resource, such as project manager or team member of projects, in the project plan.

Project managers assigned the appropriate job role, such as product manager, product design manager, or product portfolio manager, can perform the following actions:

- Open and manage project work items in Oracle PLM
- Navigate to Projects from the Relationships tab in Oracle PLM, and view summary information of the related object on hover.
- Define rules to specify statuses that determine when work items can be considered complete. When a work item reaches the appropriate status, the task is updated to complete.
- Set task completion rules, based on status, for each Oracle PLM business object that is associated with a project task.

### Related Topics

- Managing Product Development Projects: Worked Example
- Work Items: Explained

### Troubleshooting
Validate Configurations in Innovation Management: Explained

Validate external PLM system configurations and Innovation Management integration with the use cases listed in this section.

- Search for PLM items, documents, and designs
- Read attribute values of PLM items and designs
- Read structure and relationships of PLM items and designs
- Create PLM items and designs
- Create structure and relationships for items and designs
- Read and write file contents to and from file servers

If the following issues occur, refer to the chapter SmartRules in the Agile PLM Administrator Guide for more information:

- Converting to an item structure when the parent item has a file attachment does not create a child item, if the Agile PLM SmartRule is set to either “Copy with Warning” or “Reference with Warning”.
- The Design table has no rows, but the header has a count for users with a default privilege in Agile PLM.
- An Agile PLM Integration Framework error occurs when trying to add some single-list and multi-list attributes.

Related Topics

- Configuring Agile PLM: Overview
- Configuring Agile EDM: Overview

Errors in Integrating Innovation Management: Explained

This topic lists error messages that you may encounter while integrating Oracle Innovation Management to external PLM systems, their causes, and actions that may resolve these errors.

The following table lists errors and their possible causes.

<table>
<thead>
<tr>
<th>Error</th>
<th>Cause and Action</th>
</tr>
</thead>
</table>
| Search errors for Agile PLM items in the Edit Concept page | **Cause:** Change the Web Services policy assignment to: \`oracle/wss_saml_bearer_or_username_token_service_policy\`

**Action:** Import the Oracle Innovation Management Cloud certificate as a Trusted Certificate. In Enterprise Manager, navigate to WebLogicDomain > Context Menu: Security > Keystore.

1. Select OWSM > Keystore
2. Select Manage.
3. Select Import.
4. Select Import as a trusted certificate.
5. Browse to locate the certificate file. Open the certificate file; or, paste the certificate text contents into the space provided.
6. Click OK.

Repeat for all certificates in the hierarchy up to the Root Certificate Authority.
<table>
<thead>
<tr>
<th>Error</th>
<th>Cause and Action</th>
</tr>
</thead>
</table>
| SOAP Fault code: MustUnderstand | **Cause:** The Policy Header sent by the client in the SOAP message was not understood by the Agile PLM server. An immediate child element of the Header element, with the `mustUnderstand` attribute set to 1, was not understood.  
**Action:** Confirm that the alias used to import the certificate matches the Keystore.Recipient.Alias value. |
| General security error from WSSEcurityEngine: Callback supplied no password for null. | **Cause:** The alias that was used to import the Agile PLM certificate into the Oracle Innovation Management Cloud server keystore does not match the value that was configured for Keystore.Recipient.Alias of the WebServices policy.  
**Action:** The alias used to import the Agile PLM certificate into the Oracle Innovation Management server keystore does not match the value that was configured for the Keystore.Recipient.Alias of the WebServices policy. |
| Security error | **Cause:** The server was not able to process the security token; or, the security token failed validation.  
**Action:** Check the log files for security-related errors. It is possible that the security certificate was not imported properly as a trusted certificate; or, within the certification hierarchy, the certification authority from Agile PLM is not trusted. All the certificates in the hierarchy up to the Root Certificate Authority must be imported as trusted certificates. |
| The thumbnail image for an Agile PLM item does not display when the item is added to a concept structure | **Cause:** Thumbnails are not configured in Agile PLM or enabled for the current user.  
**Action:** Confirm that the user account in Oracle Innovation Management Cloud has an identical user account in Agile PLM. Thumbnail settings must be enabled for both Agile PLM and the Agile PLM user account.  
The Oracle Innovation Management Web Service Client sends a SOAP Message to the Agile PLM Server, which is not processed on the server side.  
• **Agile Java Client > Server Settings > Preferences > Thumbnail Display** > Enable  
• **Agile Java Client > Users > [user account] > Preferences > Thumbnails** > On  
Ensure that each file type used is enabled for AutoVue in Agile PLM.  
• **Agile Java Client > System Settings > Viewers and Files > File Association** [tab] |

**Related Topics**  
• Configuring Agile EDM: Overview
5 Appendix: Configuring Agile PLM for Integration with Innovation Management

Configuring Agile PLM: Overview

This topic details the process of configuring Agile PLM to integrate with Oracle Innovation Management.

Deployment Scenario

The instructions in this topic are for the scenario where Oracle Innovation Management is an Oracle Cloud instance, and Agile PLM is installed on-premise at your company.

Prerequisites

Ensure that the configuration tasks are executed by an administrator with knowledge of both:

- Oracle Agile PLM Java Client, and
- Oracle Functional Setup Manager (FSM).

The administrator user must have all required Administrator-related privileges in Agile PLM.

System requirements include:

- **Oracle Agile PLM 9.3.4** with Hot Fixes 1, 2, 3, 11, 26, 43, 52, and 146 installed
- OR
- **Oracle Agile PLM 9.3.5** with Hot Fixes 15 and 24 installed

as per the guidelines in the Agile Installation documentation.

You must also complete the [A9 and File Manager Web Services Setup Checklist](http://docs.oracle.com/cd/E69230_05/otn/pdf/install/html_agai/output/appendix_b.htm#sthref67) to configure web service security as described in Chapter 7 of the Agile PLM Security Guide.

Configuration Process

Complete the following tasks in sequence.

<table>
<thead>
<tr>
<th>Task</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Create a service request to exchange security certificate information and configure message protection.</td>
<td>Export security keys and exchange security certificates between the Agile PLM and Oracle Innovation Management systems.</td>
</tr>
<tr>
<td>Task</td>
<td>Summary</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2. Import the Innovation Management security certificate to the Agile PLM system.</td>
<td>Use Enterprise Manager to import the security certificate you received from Support.</td>
</tr>
<tr>
<td>4. Make sure the endpoint is visible from outside your firewall.</td>
<td>Confirm that the endpoint is accessible.</td>
</tr>
<tr>
<td>5. Create Oracle Innovation Management users in Agile PLM</td>
<td>Create users in Agile PLM with user IDs identical to those in Oracle Innovation Management.</td>
</tr>
<tr>
<td>7. Add Oracle Innovation Management attributes to required privileges in Agile PLM</td>
<td>Enable appropriate roles for Oracle Innovation Management users in Agile PLM. Enable <strong>Read Items</strong>, <strong>Modify Preliminary Items</strong>, and <strong>Modify Released Item</strong> privileges for Oracle Innovation Management users in Agile PLM.</td>
</tr>
<tr>
<td>8. Configure Reference Objects in Agile PLM</td>
<td>Create reference objects in Agile PLM to support linking back from Agile PLM to Oracle Innovation Management.</td>
</tr>
<tr>
<td>9. Set privileges for Innovation Management users in Agile PLM.</td>
<td>Create <strong>Discovery</strong> and <strong>Read</strong> privileges for reference objects.</td>
</tr>
<tr>
<td>10. Configure and activate the Agile PLM Connector.</td>
<td>Use the Register Agile PLM task to configure server details of the target system.</td>
</tr>
</tbody>
</table>

**Configuring Message Protection for Agile PLM: Explained**

For the integration between Oracle Innovation Management and Agile PLM to work, you must configure a domain trust between the WebLogic domain, where Oracle Innovation Management is running, and the domain where Agile PLM is running.

In production environments, the security certificates configured in the identity keystore of an Agile PLM WebLogic domain are official certificates provided by a Certificate Authority (CA) to make sure the identity of the Agile PLM host is officially certified. Even in this case, the certificate provided by the CA and imported into the identity keystore may not be sufficient for the cloud application domain to trust the identity of the target system host, given that the hierarchy of certification up to the root certificate may not be known to the WebLogic domain.
The objective is to allow identity trust by providing the public certificate associated with your system host and all certificates in the hierarchy to the root CA and submit a service request to ask for those certificates to be imported to the trust store of the WebLogic domain.

1. Create a service request with the following information:

   a. Name of the service request: Message Protection Configuration on Oracle Cloud To Integrate With Agile PLM
   b. Include the following information in the comments section:
      
      - Specify the version of Agile PLM you are using.
      - Specify which message protection policy to use. The default is `oracle/wss11_saml_token_with_message_protection_client_policy`.
   c. Attach all security certificates to the service request.
   d. Submit the service request.
   e. Wait until your administrator informs you that the service request has been processed.

2. Import the security certificate used by Oracle Cloud to sign the web service requests into the trust keystore of the target system and all certificates up to the top-level certificate authority.

   When the service request is processed, the security certificate used by the Oracle Cloud WebLogic domain to sign the web service requests is attached to the service request, together with all certificates up to the top-level certificate authority. You are notified that you can proceed to import the certificates to the trust keystore of your Agile PLM system. Download the certificates attached to the service request. The trusted certificates must be imported to the Oracle Web Services Manager KSS keystore and the full certificate chain must be available.

   a. Open Enterprise Manager for your Agile PLM installation.
   c. Expand OWSM > Select <keystore> > Manage.
   d. Select `Import`. Use Trusted Certificate as the Certificate Type and provide an alias.
   e. Import the certificates using cut-and-paste, or choose a local file containing the certificates.

3. Determine the target URL for the WebServices used for the integration and enter the corresponding values in Oracle Cloud using Setup and Maintenance. The typical endpoint for Agile PLM is as follows: `{protocol}:://{host}:{port}/CoreService/services/{service}?wsdl`; for example, `http://example.com:7001/CoreService/services/Search?wsdl`.

   The values for protocol, host, port, and context root should be entered into the corresponding fields for registering the target endpoint in Oracle Cloud, using the Setup and Maintenance workspace, as follows:

   a. Log in to Oracle Cloud with a user who has the privilege to modify configuration values, and then click `Setup and Maintenance`.
   b. Search for the `Register Agile PLM` task.
   c. Click the task name.
   d. Select the `Server Protocol` and enter values for External Server Host and External Server Port in the `Server Details` section. Enter the Context Root in the row named `AgileA9CoreService` in the `Associated Modules` section.
   e. Click `Save and Close`.

4. Make sure the endpoint is visible from outside your corporate firewall.

   The web services endpoint that was registered in Oracle Cloud must be reachable from outside your corporate firewall, so Oracle Cloud can call the corresponding web services. Make sure the port is open for incoming traffic and the host name is valid from outside the firewall.

5. Configure users to make sure they are consistent on both systems.

6. Configure and activate the connector.
Configure Users in Agile PLM: Explained

After you have configured the web services security layer, you must ensure that the user ID defined in Oracle Innovation Management also exists in Agile PLM. The user must also have enough privileges granted to execute required web services.

The identity of the user signing in to Oracle Innovation Management is applied to the web service call; it is implied that the same user attempts to execute actions in Agile PLM through the web services interface.

Use the following methods to make the required users available in Agile PLM:

Alternative 1: Create the same Oracle Innovation Management users in Agile PLM using the Java Client.

Alternative 2: Configure Agile PLM to use the same LDAP server as Oracle Innovation Management. For more information, refer to the Oracle Agile PLM Administrator Guide in the Oracle Agile Documentation library.

Related Topics
- Configure SAML Client Policy for Oracle Innovation Management: Explained

Innovation Management Attributes in Agile PLM (On Page Two): Explained

Enable users to add attributes, and add or edit values of attributes on items in Agile PLM, that can be used to hold information related to Oracle Innovation Management.

In Agile PLM Java Client, enable the Page Two tab for Parts and the attributes listed in the following table.

<table>
<thead>
<tr>
<th>Attribute API Name</th>
<th>Attribute Name</th>
<th>Type</th>
<th>Attribute Base ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDate16</td>
<td>Last Cost Update</td>
<td>Date</td>
<td>2000019547</td>
</tr>
<tr>
<td>IMList26</td>
<td>Country of Origin</td>
<td>List</td>
<td>2000019548</td>
</tr>
<tr>
<td>IMMoney11</td>
<td>Material Cost</td>
<td>Money</td>
<td>2000019549</td>
</tr>
<tr>
<td>IMMoney12</td>
<td>Nonmaterial Cost</td>
<td>Money</td>
<td>2000019550</td>
</tr>
<tr>
<td>IMMoney13</td>
<td>Nonrecurring Cost</td>
<td>Money</td>
<td>2000019551</td>
</tr>
<tr>
<td>IMNumeric11</td>
<td>Lead Time (days)</td>
<td>Numeric</td>
<td>2000019552</td>
</tr>
<tr>
<td>IMNumeric12</td>
<td>Number of Where Used</td>
<td>Numeric</td>
<td>2000019553</td>
</tr>
<tr>
<td>IMNumeric13</td>
<td>Number of Incidents</td>
<td>Numeric</td>
<td>2000019554</td>
</tr>
</tbody>
</table>
Add Oracle Innovation Management Attributes to Required Privileges in Agile PLM: Explained

Firstly, enable the attributes that have API names starting with **IM** in Agile PLM (on Page Two). Next, add Oracle Innovation Management attributes to the required Agile PLM privileges to ensure successful integration.

The privileges in Agile PLM are:

- Read Items
- Modify Preliminary Items
- Modify Released Items

Execute the following steps:

1. In the Agile PLM Java Client **Admin** tab, expand **User Settings**, then expand **Privileges** and double-click **All Privileges**.
2. Repeat the following steps for each of the privileges listed above:
   
   a. Search for the privilege in the **All Privileges** window and double-click it.
   b. Expand the menu of the **Applied to** field and ensure all the attributes listed above are present in the **Selected** panel. Move them from the list on the left if needed.

Configure Reference Objects in Agile PLM: Explained

To support linking back from Agile PLM to the Oracle Innovation Management system, the integration engages the **External References** functionality in Agile PLM.

To configure this functionality:

1. Sign in to the Agile PLM Java Client **Admin** tab and expand **System Settings**.
2. Select the **Admin** tab and expand **System Settings**.
3. Expand the node **Reference Objects Management** and double-click **Applications** under it. The **Applications** window is displayed.
4. To add the Oracle Innovation Management system as an additional Application, click **New** in the **Applications** window.
5. Complete the fields to create the application. While **Name**, **API Name**, and **Description** can be freely defined, pay attention to the following fields:

---

<table>
<thead>
<tr>
<th>Attribute API Name</th>
<th>Attribute Name</th>
<th>Type</th>
<th>Attribute Base ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMNumeric14</td>
<td>Number of Manufacturer Parts</td>
<td>Numeric</td>
<td>2000019555</td>
</tr>
<tr>
<td>IMNumeric15</td>
<td>Power Consumption</td>
<td>Numeric</td>
<td>2000019556</td>
</tr>
<tr>
<td>IMNumeric16</td>
<td>Item Score</td>
<td>Numeric</td>
<td>2000019557</td>
</tr>
</tbody>
</table>
Host Base URL must include the protocol, but no context path or port. Example: http://myserver.example.com
Port must include the port number (digits only) of the port where the Oracle Innovation Management application is running. Example: 7101

Note: To find the correct host and port, for Cloud deployments, create a service request for your administrator to request the URL and port for the Concept Management module. For on-premise deployments, sign in to your Innovation Management system and navigate to Concepts. Use the URL in the browser to determine the protocol, host name, and port.

Virtual Path must be left blank.
User ID and Password may be left blank
Enabled must be set to Yes.
6. Click OK to create the application.
7. In the Admin tab, expand Data Settings and double-click Classes underneath it.
   The Classes window appears.
8. Scroll to the class Reference objects (note that there is a base class called Reference Objects; select the class which is directly below the base class).
9. Click New to create a subclass of the class Reference Objects.
10. Complete the required fields to create a subclass.
11. Click OK to create the subclass.
12. In the window that opens, complete the following fields:
   Application: Select the application from the menu, which is the Reference Object created in step 6.
   Available On: Expand the menu from the list on the left, select Items and move it to the Selected panel.
   Click OK.
13. Click Save.

Privileges for Innovation Management Users in Agile PLM: Explained

In Agile PLM, enable the required privileges for Oracle Innovation Management users so they can interact with Agile PLM Reference Objects successfully.
1. Sign in to the Agile PLM Java Client with Administrator privileges.
2. Select the Admin tab and expand User Settings, then expand Privileges, and double-click All Privileges.
3. In the All Privileges window, click New to create a privilege.
4. Name the privilege Discover Reference Objects; optionally, provide a Description.
5. In the Privilege menu, select Discovery.
6. Click New next to the Criteria menu, to create a Criteria.
7. Name the criteria All Reference Objects; optionally, provide a Description.
8. In the Object Type field, select Reference Objects.
9. Click OK to create the criteria.
10. Click OK to create the privilege.
11. In the All Privileges window, click New to create a privilege.
12. Name the privilege Read Reference Objects; optionally, provide a Description.
13. In the Privilege menu, select Read.
14. In the Criteria menu, select the newly created criteria.
15. Expand the menu in the Applied to field and move all the fields to the Selected panel. Click OK.
16. Click OK to create the privilege.
17. Assign the two created privileges to the appropriate roles according to the users configured in Oracle Innovation Management.

For more information on these processes, refer to the Oracle Agile Product Lifecycle Management Administrator Guide in the Oracle Agile PLM documentation set.

Register Agile PLM: Explained

This task integrates Oracle Agile PLM with Oracle Innovation Management.

 penned Note: You must first complete the common application setup and configuration tasks for Product Management in the Setup and Maintenance workspace.

The typical Agile PLM endpoint is [protocol]://[host]:[port]/CoreService/services/[service]?wdsl

The values for protocol, host, port, and context root (CoreService) need to be entered into the corresponding field for registering the target endpoint in your Cloud application using the Setup and Maintenance workspace.

Use the Register Agile PLM task to configure server details of the target system (Agile PLM) intended for use, as tabulated here.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Server Protocol</td>
<td>Select from the menu options (http or https)</td>
</tr>
<tr>
<td>*External Server Host</td>
<td>Enter the Agile PLM system name.</td>
</tr>
<tr>
<td></td>
<td>Example: &lt;plmserver&gt;. oracle.com</td>
</tr>
<tr>
<td>*External Server Port</td>
<td>Example: 7001</td>
</tr>
</tbody>
</table>

The following table details the Associated Modules and their Context Root Values.

<table>
<thead>
<tr>
<th>Module</th>
<th>Context Root Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>AgileA9WebClient</td>
<td>Default is Agile. You can change this during Agile PLM installation.</td>
</tr>
<tr>
<td>AgileA9CoreService</td>
<td>Enter the SAML web service reference value here that matches the value defined in the file application.xml.</td>
</tr>
</tbody>
</table>

<context-root>CoreService</context-root>
Related Topics

- Manage Target System: Explained
Appendix: Configuring Agile EDM for Integration with Innovation Management

Configuring Agile EDM: Overview

This topic details the process of configuring Agile EDM to integrate with Oracle Innovation Management.

Prerequisites

Ensure that the configuration tasks are executed by an administrator with knowledge of both Agile EDM Java Client and Oracle Functional Setup Manager. The user must have all required administrative privileges in Agile EDM.

System requirements include Agile EDM e6.2 installed as per the guidelines in the Agile EDM installation documentation. Ensure all of the latest hot fixes have been installed.

Configuration Process

The following tasks are required to integrate Oracle Innovation Management with Agile EDM only.

1. Configure Agile EDM web services
2. Configure SSO for Agile EDM web services
   a. Setup Agile EDM LDAP
   b. Create Wallet
   c. Attach Web Service Policy to Agile EDM web services
3. Attach Web Service Client Policies for Oracle Innovation Management
4. Customize Agile EDM setup

Note: The security setup is an example and must be adapted according your production requirements.

Configure Agile EDM Web Services: Explained

This topic lists the steps required to ensure that web service calls with username and password in the Authorization Header work correctly.

PLMAuthenticator performs the authentication in WebLogic.

1. Create or update users in Agile EDM with the Web Service Enabled User flag activated.
2. Configure Web Service enabled Masks.

For more information, see the section Whitelist Mechanism for Masks in the Web Services Guide for Agile e6.
Configure SSO for Agile EDM: Explained

This topic describes the procedure required to configure Single Sign-On (SSO) for Agile EDM web services.

Complete the following tasks:

1. Set up Agile EDM LDAP
2. Create a Wallet (the container for security certificates of a domain).
3. Attach Web Service Policies to Agile EDM web services

Set up Agile EDM LDAP

Each web services-enabled user who uses Web Service SSO must be an LDAP user. Use the LDAP username for Web Service SSO.

For more information, refer to the section LDAP Support in the Security Guide for Agile e6

Create Wallet


1. Create Wallet.

Example:

```
set ep_root=D:\plm613
set wallet_dir=%ep_root%\wallet
mkdir %wallet_dir%
cd /D %wallet_dir%
set oracli_bin=D:\app\plmuser\product\11.2.0\client32_1\bin
%oracli_bin%\orapki wallet create -wallet %wallet_dir%\ws_sso -auto_login -pwd password1
%oracli_bin%\orapki wallet add -wallet %wallet_dir%\ws_sso -dn C=US,ST=California,L=Redwood
City,O=Oracle,OU=Agile PLM,CN=PLMSSO -keysize 1024 -self_signed -validity 3650 -pwd Password1
copy /Y %wallet_dir%\ws_sso\cwallet.sso %ep_root%\staging\custom\application\appname\WebServices\APP-INF\classes
copy /Y %wallet_dir%\ws_sso\ewallet.p12 %ep_root%\init\ws_sso
set JAVA_HOME=D:\Oracle\Java\jdk1.7\32bit
epkeytool.bat -encryptpwd -keyStore cwallet.sso -keyAlias orakey
-> pwd
```

Note: This is an example with self-signed certificate only; it is not suitable for use in production.

2. Copy the encrypted password to %ep_root%\init\plmdoc.xml.
3. Edit the file %ep_root%\build\applicationServer\weblogic_121\tpl_app\WebServices\ear\tpl_application.properties.
4. Deploy core web services.

Attach Web Service Policies to Agile EDM Web Services

For Oracle Innovation Management, you must enable **Perimeter Authentication**, as the password of the active Innovation Management user cannot be transferred in the web service call.
Note: The default Agile EDM web service deployment does not contain any web service policy.

You can use any kind of **Perimeter Authentication** as long as the versions of Agile EDM WebLogic and Fusion Applications allow it. The following example demonstrates the security configuration.

**Note:** You can adapt this example to your production security constraints.

- The Agile EDM Core Web Services are protected by the policy `Wssp1.2-2007-Saml2.0-Bearer-Https.xml`.
- The `createUpdateFileObject` operation of the **DocumentManagement Web Service** is protected by the policy `Wssp1.2-2007-Https.xml`, because this operation is only called internally from the **StreamingFileservice Web Service** using an existing **E6Ticket** for authentication.
- Transport-level security is used in this example. Do not use Message-level security for the `createUpdateFileObject` operation of the **DocumentManagement Web Service** and **StreamingFileservice Web Service** because these web services transfer large files.

Perform the following steps to enable policies on the web services:

1. Create the following files:
   a. File `ep_root\staging\custom\application\appname\WebServices\agile-ws-e6-jws-core.war\WEB-INF\weblogic-webservices-policy.xml`

   This file contains the web service policy configuration.

   ```xml
   <?xml version='1.0' encoding='windows-1252'?>
   <webservice-policy-ref xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:policy="http://xmlns.oracle.com/weblogic/policy">
   <policy-ref name="e6 SAML Bearer with HTTPS"/>
   <port-policy>
   <port-name>MetadataPort</port-name>
   <ws-policy>
   <uri>policy:Wssp1.2-2007-Saml2.0-Bearer-Https.xml</uri>
   <direction>both</direction>
   <status>enabled</status>
   </ws-policy>
   </port-policy>
   <port-policy>
   <port-name>BusinessObjectPort</port-name>
   <ws-policy>
   <uri>policy:Wssp1.2-2007-Saml2.0-Bearer-Https.xml</uri>
   <direction>both</direction>
   <status>enabled</status>
   </ws-policy>
   </port-policy>
   <port-policy>
   <port-name>ConfigurationPort</port-name>
   <ws-policy>
   <uri>policy:Wssp1.2-2007-Saml2.0-Bearer-Https.xml</uri>
   <direction>both</direction>
   <status>enabled</status>
   </ws-policy>
   </port-policy>
   <port-policy>
   <port-name>DocumentManagementPort</port-name>
   <ws-policy>
   <uri>policy:Wssp1.2-2007-Https.xml</uri>
   <direction>both</direction>
   </ws-policy>
   </port-policy>
   </webservice-policy-ref>
   ```
<status>enabled</status>
</ws-policy>
</port-policy>
<operation-policy>
<operation-name>createUpdateFileObject</operation-name>
<service-link>DocumentManagementServiceServlethttp</service-link>
<ws-policy>
<uri>Wssp1.2-2007-Https.xml</uri>
<direction>both</direction>
<status>enabled</status>
</ws-policy>
</operation-policy>
<operation-policy>
<operation-name>getFMSVault</operation-name>
<service-link>DocumentManagementServiceServlethttp</service-link>
<ws-policy>
<uri>Wssp1.2-2007-Saml2.0-Bearer-Https.xml</uri>
<direction>both</direction>
<status>enabled</status>
</ws-policy>
</operation-policy>
<operation-policy>
<operation-name>closeSession</operation-name>
<service-link>DocumentManagementServiceServlethttp</service-link>
<ws-policy>
<uri>Wssp1.2-2007-Saml2.0-Bearer-Https.xml</uri>
<direction>both</direction>
<status>enabled</status>
</ws-policy>
</operation-policy>
<operation-policy>
<operation-name>getCADAssembly</operation-name>
<service-link>DocumentManagementServiceServlethttp</service-link>
<ws-policy>
<uri>Wssp1.2-2007-Saml2.0-Bearer-Https.xml</uri>
<direction>both</direction>
<status>enabled</status>
</ws-policy>
</operation-policy>
<operation-policy>
<operation-name>getCADAssemblyNextDataBlock</operation-name>
<service-link>DocumentManagementServiceServlethttp</service-link>
<ws-policy>
<uri>Wssp1.2-2007-Saml2.0-Bearer-Https.xml</uri>
<direction>both</direction>
<status>enabled</status>
</ws-policy>
</operation-policy>
<operation-policy>
<operation-name>getDocumentManagementVersion</operation-name>
<service-link>DocumentManagementServiceServlethttp</service-link>
<ws-policy>
<uri>Wssp1.2-2007-Saml2.0-Bearer-Https.xml</uri>
<direction>both</direction>
<status>enabled</status>
</ws-policy>
</operation-policy>
<operation-policy>
<operation-name>getFiles</operation-name>
<service-link>DocumentManagementServiceServlethttp</service-link>
<ws-policy>
<uri>Wssp1.2-2007-Saml2.0-Bearer-Https.xml</uri>
<direction>both</direction>
<status>enabled</status>
</ws-policy>
</operation-policy>
b. File `ep_root\staging\custom\application\appname\WebServices\agile-ws-e6-jws-core.war\WEB-INF\web.xml`

This file is adapted from standard Agile EDM. The security constraints which require HTTP Authorization header are removed.

```xml
  <display-name>Agile e6.1.3 Core Web Services</display-name>
  <servlet>
    <servlet-name>MetadataServiceServlethttp</servlet-name>
    <servlet-class>com.agile.ws.e6.jws.metadata.MetadataService</servlet-class>
    <load-on-startup>0</load-on-startup>
  </servlet>
  <servlet>
    <servlet-name>BusinessObjectServiceServlethttp</servlet-name>
    <servlet-class>com.agile.ws.e6.jws.businessobject.BusinessObjectService</servlet-class>
    <load-on-startup>0</load-on-startup>
  </servlet>
  <servlet>
    <servlet-name>ConfigurationServiceServlethttp</servlet-name>
    <servlet-class>com.agile.ws.e6.jws.configuration.ConfigurationService</servlet-class>
    <load-on-startup>0</load-on-startup>
  </servlet>
  <servlet>
    <servlet-name>DocumentManagementServiceServlethttp</servlet-name>
    <servlet-class>com.agile.ws.e6.jws.documentmanagement.DocumentManagementService</servlet-class>
    <load-on-startup>0</load-on-startup>
  </servlet>
  <servlet>
    <servlet-name>ECServiceServlethttp</servlet-name>
    <servlet-class>com.agile.ws.e6.jws.ecservice.ECService</servlet-class>
    <load-on-startup>0</load-on-startup>
  </servlet>
  <servlet-mapping>
    <servlet-name>MetadataServiceServlethttp</servlet-name>
    <url-pattern>/MetadataService</url-pattern>
  </servlet-mapping>
  <servlet-mapping>
    <servlet-name>BusinessObjectServiceServlethttp</servlet-name>
    <url-pattern>/BusinessObjectService</url-pattern>
  </servlet-mapping>
  <servlet-mapping>
    <servlet-name>ConfigurationServiceServlethttp</servlet-name>
    <url-pattern>/ConfigurationService</url-pattern>
  </servlet-mapping>
</web-app>
```
c. File `ep_root\staging\custom\application\appname\WebServices\agile-ws-e6-jws-core.war\WEB-INF\weblogic.xml`

Security Role assignments required for security constraints in `web.xml` are removed.

```xml
<?xml version='1.0' encoding='UTF-8'?>
    <weblogic-version>12.1.2</weblogic-version>
    <context-root>CoreService</context-root>
</weblogic-web-app>
```

2. Redeploy Agile EDM Core Web services.

Example for Windows:

```bash
set JAVA_HOME=D:\Oracle\Java\jdk1.7\32bit
cd C:\ProgramData\agile\installer\6.1.3
setup.cmd j2eeappserver.deploy.webservices.core -propertyfile properties/application.properties >
    deploy_core.log 2> 1
<application>.properties
(Example):
plm.inst.name=AgileInstallation61
plm.application.name=<appname>
plm.application.adminserver_password=Password1
```


a. In the WebLogic Console, navigate to Security Realms > myrealm > Providers > Authentication > New Authentication Provider, and provide the following details:

   Name: name
   Type: SAML2IdentityAsserter

b. Restart the domain.

c. Configure a Web Service Identity Provider.

In the WebLogic Console, navigate to Security Realms > myrealm > Providers > Authentication > Saml2IdAsserter > Management > New > New Web Service Identity Provider and provide the following details:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>WSS-ldP-Partner-0</td>
</tr>
<tr>
<td>Enabled</td>
<td>Yes</td>
</tr>
</tbody>
</table>


**Field** | **Value**
---|---
Audience URIs | target: *: / CoreServices/ MetadataService  
| target: *: / CoreServices/ BusinessObjectService  
| target: *: / CoreServices/ DocumentManagementService  
| target: *: / CoreServices/ ConfigurationService
Issuer URI | www.oracle.com
Virtual User | Yes
Confirmation Method | Bearer
Process Attributes | Yes

d. Add the **Assertion Signing Certificate**.
   
i. In the WebLogic Console, navigate to Security Realms > myrealm > Providers > Authentication > Saml2IdAssertioner > Management > Provider partner name > Assertion Signing Certificate.
   
ii. Add the public certificate from Oracle Innovation Management using which the message is signed.

e. In the WebLogic Console, navigate to Security Realms > myrealm > Providers > Authentication > New Authentication Provider, and provide the following details:
   
   **Name:** name  
   **Type:** SAMLAuthenticator

f. Restart the domain.

### Attach Web Service Client Policies for Oracle Innovation Management: Explained

This topic describes the process of attaching web service client policies for Oracle Innovation Management.

1. Attach and configure the OWSM policy oracle/wss_saml20_token_bearer_over_ssl_client_policy with Enterprise Manager to the Oracle Agile EDM Core Web Services.
2. Start Enterprise Manager: `http://<EnterpriseManager>:<port>/em`
3. Navigate to Application Deployments, Internal Applications, ProductLifecycleManagementApp. From the context menu on the right, select **ADF**, then select **Configure ADF Connections**.
4. Select the **Web Service Connections** you want to configure (for example, ScmAgileE6App_DocumentManagementService) and then select **Advanced Connection Configuration**.
5. In the **OWSM Policies** tab, select **Attach/Detach**.
6. From the list, select `oracle/wss_saml20_token_bearer_over_ssl_client_policy`. Click **Attach**, and then **OK**.
7. Select the policy and edit the **Security Configuration Details**.
8. Change `keystore.sig.csf.key` to the certificate with which you want to sign the message. If you leave it empty, then the default is used. Click **Apply**.
9. Repeat steps 2-6 for the following Web Service Connections:
   - ScmAgileE6App_BusinessObjectService
   - ScmAgileE6App_MetadataService
   - ScmAgileE6App_ConfigurationService

For Web Service Connection ScmAgileE6DfmApp_DocumentFileService, use the policy oracle/oracle_no_authentication_client_policy.

Customize Agile EDM Setup: Explained

The Agile EDM Template Connector configuration is used as the base for the integration setup in Oracle Innovation Management. The following sections describe the necessary changes to Agile EDM setup that must be done to work with this default connector.

The customizing extensions contain changes in the following areas:

- Additional Item attributes
- Additional Item External Relationship tab
- Additional web services that have been added to the white list

For information on customizing extensions in Oracle Agile EDM specific to Oracle Innovation Management, refer to the Knowledge Base Note (KB 1665757) available on the help desk site at https://support.oracle.com.

Set Up File Vault

By default, the Oracle Innovation Management-Agile EDM Connector is configured to use a file vault named fusion. To change this, edit the Agile EDM Connector Configuration and change the File Vault configuration value. To use the default value, you must create a file vault named fusion in Agile EDM.


Create the following Configuration Parameters in Agile EDM.

- EDB-WSI: Assign the following Configuration Parameters below:
  - EDB-WSI-URL: https://example.com:7119/CoreServices > Type: -
  - EDB-WSI-DFM-URL: https://example.com:7103/StreamingFileService > Type: -

  Note: Use - as Type for the Configuration Parameter.

Configure External References

To support linking back from Agile EDM to the Oracle Innovation Management system, configure the URL of the Oracle Innovation Management system.

During creation of Agile EDM Items from Oracle Innovation Management, a row is created in the T_MASTER_IM relation table. This row contains the back reference to the Oracle Innovation Management Object. The first part of this URL is created by concatenating with an Agile EDM configuration value, which must be configured to point to the correct Oracle Innovation Management server.
You can see the URL for items created through Innovation Management in the **Innovation Management** tab of the **MaskEDB-ART-CFR**, which is created by the Loader file, as provided with the Knowledge Base Note.

You can define a site-specific parameter.

1. Sign in to Agile EDM as a customizing user.
2. Navigate to System, Other Parameters.
3. Search for FUSION-IM-URL.

---

### How do I enable SAML/SSL debugging?

To enable debugging of issues with SAML setup after startup, complete the steps documented in this topic.

1. Sign in to the WebLogic console of your application and navigate to **Servers, eSeries-01, Server Start**.
2. Add the following values to **Startup Arguments**: `Dweblogic.StdoutDebugEnabled=true -Dssl.debug=true -Dweblogic.wsee.verbose=weblogic.wsee.*`
3. Stop and start the eSeries-01 Server from the WebLogic console.

**Note:** Do not forget to remove these values and restart after finishing your debug session.

---

### How do I resolve a Time Stamp synchronization issue?

Sometimes system clocks are not synchronized between the Agile EDM WebLogic Server and Oracle Innovation Management WebLogic Server, which can lead to time stamp issues regarding the SAML conditions. For example, a message "Assertion is not yet valid" (based on the NotBefore condition) appears in the Agile EDM WebLogic log file when `weblogic.wsee.verbose` is set. To resolve such errors, refer to the section Tuning Web Service Security Policy Enforcement in Oracle Fusion Middleware Security and Administrator’s Guide for Web Services.
Glossary

**work item**
An item that represents a unit of work that team members are performing on a project task. The status of the work item can determine if a task is complete.