Oracle® Cloud Using the Oracle E-Business Suite Adapter with Oracle Integration Generation 2



E89704-20 December 2022

ORACLE

Oracle Cloud Using the Oracle E-Business Suite Adapter with Oracle Integration Generation 2,

E89704-20

Copyright © 2015, 2022, Oracle and/or its affiliates.

Primary Author: Oracle Corporation

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle®, Java, and MySQL are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

Preface

Audience	vii
Documentation Accessibility	vii
Diversity and Inclusion	vii
Related Resources	viii
Conventions	ix

1 Understand the Oracle E-Business Suite Adapter

Oracle E-Business Suite Adapter Capabilities	1-1
What Application Version Is Supported?	1-5
Workflow to Create and Add an Oracle E-Business Suite Adapter Connection to an	
Integration	1-5

2 Set Up and Enable the Oracle E-Business Suite Adapter for Integrations

Setup Tasks for Enabling the Oracle E-Business Suite Adapter	2-1
Setup Tasks for a TLS-Enabled Oracle E-Business Suite Environment	2-4
Setup Tasks for Using the Oracle E-Business Suite Adapter as a Trigger (Source)	2 5
Connection	2-5

3 Create an Oracle E-Business Suite Adapter Connection

Create a Connection	3-1
Configure Connection Properties	3-2
Configure Connection Security	3-3
Configure an Agent Group (Conditional)	3-3
Test the Connection	3-4

Add the Oracle E-Business Suite Adapter Connection to an Integration

Add the Oracle E-Business Suite Adapter as a Trigger Connection	4-1
Oracle E-Business Suite Adapter Trigger Basic Information Page	4-1
Oracle E-Business Suite Adapter Business Events Page	4-2



Oracle E-Business Suite Adapter XML Gateway Message Page	4-4
Oracle E-Business Suite Adapter Trigger Summary Page	4-6
Add the Oracle E-Business Suite Adapter as an Invoke Connection	4-6
Basic Info Page	4-7
Oracle E-Business Suite Adapter Web Services Page	4-7
Oracle E-Business Suite Adapter Operations Page	4-9
Oracle E-Business Suite Adapter Operations — Add Filter Conditions Page	4-13
Oracle E-Business Suite Adapter Invoke Summary Page	4-14

5 Implement Common Patterns Using the Oracle E-Business Suite Adapter

Use Oracle E-Business Suite Business Events to Trigger Integration Endpoint in Oracle Integration	5-4
Use Oracle E-Business Suite XML Gateway Messages to Trigger Integration Endpoint in Oracle Integration	5-6
Post-Activation Manual Steps for XML Gateway Messages as a Trigger	5-8
Invoke Oracle E-Business Suite PL/SQL APIs from Oracle Integration	5-9
Invoke Oracle E-Business Suite Concurrent Programs from Oracle Integration	5-11
Invoke Oracle E-Business Suite Open Interfaces from Oracle Integration	5-13
Create Filters in the Add Filter Conditions Page (Optional)	5-16
Invoke Oracle E-Business Suite Java APIs from Oracle Integration	5-17

6 Oracle E-Business Suite Adapter Samples

An Example of Using a Business Event as a Trigger (Source) in an Integration	6-1
Prepare the Oracle E-Business Suite Instances	6-2
Prepare the Order Management Instance	6-2
Prepare the Oracle Accounts Receivables Instance	6-3
Establish Oracle E-Business Suite Connections	6-4
Create the Connection for Oracle E-Business Suite Order Management	6-4
Create the Connection for Oracle E-Business Suite Accounts Receivables	6-5
Create an Integration	6-6
Add the Oracle E-Business Suite Adapter (Trigger) and the REST Adapter (Invoke) to the Integration	6-7
Add the Oracle E-Business Suite Adapter as a Trigger with a Business Event	6-8
Add a Switch with Two Branch Rules	6-9
Add the Oracle E-Business Suite Adapter as an Invoke for the "Get_Order" Activity	6-10
Add the REST Adapter as an Invoke for the "Receivables" Activity	6-12
Create Mappings	6-14
Assign a Business Identifier for Tracking	6-21
Activate and Test the Integration	6-22



Sample XSD for the Oracle E-Business Suite Adapter as a Trigger with a Business Event Example	6-23
An Example of Using an XML Gateway Message as a Trigger (Source) in an Integration	6-25
Prepare the Oracle E-Business Suite Purchasing Instance	6-26
Establish an Oracle E-Business Suite Connection for Publishing XML Gateway Messages	6-27
Create an Integration	6-27
Add the Oracle E-Business Suite Adapter as a Trigger (Source) Connection	6-28
Assign a Business Identifier for Tracking	6-29
Activate the Integration	6-30
Configure Trading Partner Information for PostiIntegration	6-31
Test and Validate the Integration	6-32
An Example of Using a PL/SQL REST Service as an Invoke (Target) Connection in an Integration	6-34
Establish the Connections for Oracle E-Business Suite and REST Services	6-35
Create an Integration	6-37
Add the Oracle E-Business Suite Adapter as an Invoke (Target) Connection	6-38
Add the REST Adapter as a Trigger (Source) Connection	6-41
Create Mappings	6-44
Assign Business Identifier for Tracking	6-47
Activate and Test the Integration	6-48
Sample JSON Payloads for the Oracle E-Business Suite Adapter as an Invoke Example for a PL/SQL REST Service	6-49
An Example of Using an Open Interface REST Service as an Invoke (Target) Connection in an Integration	า 6-50
Establish the Connections for Oracle E-Business Suite and REST Services	6-52
Create an Integration with App Driven Orchestration	6-54
Add the REST Adapter (Trigger) and the Oracle E-Business Suite Adapter (Invoke) to the Integration	6-54
Add the REST Adapter as a Trigger Connection	6-56
Add the Oracle E-Business Suite Adapter as an Invoke Connection for Inserting Records	6-57
Add the Oracle E-Business Suite Adapter as an Invoke Connection for Submitting a Concurrent Program	6-59
Add the Loggers	6-62
Create Mappings	6-64
Assign Business Identifier for Tracking	6-66
Activate and Test the Integration	6-66
Sample XSD for the Oracle E-Business Suite Adapter as an Invoke Example for an Open Interface REST Service	6-69
Examples of Using a Java REST Service as an Invoke (Target) Connection in an Integration	6-70
Use a Java REST Service of Application Module Service Subtype as an Invoke (Target) Connection	6-71



Establish the Connections for Oracle E-Business Suite and REST Services	6-72
Create an Integration	6-74
Add the REST Adapter (Trigger) and Oracle E-Business Suite Adapter (Invoke) to the Integration	6-75
Create Mappings	6-83
Assign Business Identifier for Tracking	6-87
Activate and Test the Integration	6-87
Use a Java REST Service of Business Service Object Subtype as an Invoke (Target) Connection	6-88
Establish the Connections for Oracle E-Business Suite and REST Services	6-89
Create an Integration	6-91
Add the REST Adapter (Trigger) and Oracle E-Business Suite Adapter (Invoke) to the Integration	6-92
Create Mappings	6-97
Activate and Test the Integration	6-100

7 Troubleshoot the Oracle E-Business Suite Adapter and Related Error Messages

Error Messages While Testing an Oracle E-Business Suite Connection	7-1
Troubleshoot the Oracle E-Business Suite Adapter While Using it as a Trigger (Source) in an Integration	7-3
Disabled Event Error Message	7-4
Troubleshoot the Oracle E-Business Suite Adapter While Using it as an Invoke (Target) in an Integration	7-5
Undeployed REST Service Error Message	7-8
Method with "Not Deployed" Status Error Message	7-9



Preface

This guide describes how to configure this adapter as a connection in an integration in Oracle Integration.



The use of this adapter may differ depending on the features you have, or whether your instance was provisioned using Standard or Enterprise edition. These differences are noted throughout this guide.

Topics:

- Audience
- Documentation Accessibility
- Diversity and Inclusion
- Related Resources
- Conventions

Audience

This guide is intended for developers who want to use this adapter in integrations in Oracle Integration.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and



partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

Related Resources

See these Oracle resources:

Oracle Cloud

http://cloud.oracle.com

- Using Integrations in Oracle Integration Generation 2
- Using the Oracle Mapper with Oracle Integration Generation 2

Additionally, refer to the following Oracle E-Business Suite documentation, available in the Oracle E-Business Suite Documentation Web Library on the Oracle Help Center. See the latest:

- Release 12.2 documentation at https://docs.oracle.com/cd/E26401_01/ index.htm
- Release 12.1 documentation at https://docs.oracle.com/cd/E18727_01/ index.htm
- Oracle E-Business Suite Concepts

This book is intended for all those planning to deploy Oracle E-Business Suite Release 12.2, or contemplating significant changes to a configuration. After describing the Oracle E-Business Suite architecture and technology stack, it focuses on strategic topics, giving a broad outline of the actions needed to achieve a particular goal, plus the installation and configuration choices that may be available.

Oracle E-Business Suite Integrated SOA Gateway User's Guide

This guide describes the high level service enablement process, explaining how users can browse and view the integration interface definitions and services residing in Oracle Integration Repository.

Oracle E-Business Suite Integrated SOA Gateway Implementation Guide

This guide explains how integration administrators can manage and administer the web service activities for integration interfaces including native packaged integration interfaces, composite services (BPEL type), and custom integration interfaces. It also describes how to invoke web services from Oracle E-Business Suite by employing the Oracle Workflow Business Event System, and how to manage web service security, configure logs, and monitor both SOAP and REST messages.

Oracle E-Business Suite Integrated SOA Gateway Developer's Guide

This guide describes how integration developers can perform end-to-end service integration activities. These include orchestrating discrete web services into meaningful end-to-end business processes using business process execution language (BPEL), and deploying BPEL processes at runtime.

This guide also explains how to invoke web services using the Service Invocation Framework. This includes defining web service invocation metadata, invoking web services, and testing web service invocation.

Oracle E-Business Suite Maintenance Guide

This guide explains how to patch an Oracle E-Business Suite system, describing the adop patching utility and providing guidelines and tips for performing typical patching operations. It also describes maintenance strategies and tools that can help keep a system running smoothly.

Oracle E-Business Suite Security Guide

This guide contains information on a comprehensive range of security-related topics, including access control, user management, function security, data security, secure configuration, and auditing. It also describes how Oracle E-Business Suite can be integrated into a single sign-on environment.

Oracle E-Business Suite User's Guide

This guide explains how to navigate, enter and query data, and run concurrent requests using the user interface (UI) of Oracle E-Business Suite. It includes information on setting preferences and customizing the UI. In addition, this guide describes accessibility features and keyboard shortcuts for Oracle E-Business Suite.

Conventions

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

The following text conventions are used in this document:

1 Understand the Oracle E-Business Suite Adapter

Review the following conceptual topics to learn about the Oracle E-Business Suite Adapter and how to use it as a connection in integrations in Oracle Integration. A typical workflow of adapter and integration tasks is also provided.

Topics:

- Oracle E-Business Suite Adapter Capabilities
- What Application Version Is Supported?
- Workflow to Create and Add an Oracle E-Business Suite Adapter Connection to an Integration

Note:

There are overall service limits with Oracle Integration. A service limit is the quota or allowance set on a resource. See Service Limits.

Oracle E-Business Suite Adapter Capabilities

The Oracle E-Business Suite Adapter is one of many predefined adapters included with Oracle Integration allowing you to securely connect and use Oracle E-Business Suite services in integrations in Oracle Integration. It not only provides the connectivity between Oracle E-Business Suite and other cloud-based applications, but also significantly simplifies the complexity of typical integration experiences. Through the Oracle E-Business Suite Adapter, you can quickly integrate your systems with desired Oracle E-Business Suite services in the cloud, as well as monitor and manage the integrations when needed.

The Oracle E-Business Suite Adapter in Oracle Integration leverages the functionality of Oracle E-Business Suite Integrated SOA Gateway (ISG) to provide the access of Oracle E-Business Suite REST services.

Note:

The Oracle E-Business Suite Adapter in Oracle Integration allows you to connect to Oracle E-Business Suite Release 12.1.3 as well as Release 12.2.3 and onwards.

The following diagram illustrates the supported integrations when using the Oracle E-Business Suite Adapter from Oracle Integration:

Supporting Inbound and Outbound Integrations





In this diagram, Business Events and XML Gateway messages are available for inbound integrations in Oracle Integration when adding the Oracle E-Business Suite Adapter as a trigger (source) connection in an integration. If the Oracle E-Business Suite Adapter is added as an invoke (target) connection, PL/SQL APIs, Concurrent Programs, Java APIs, as well as Open Interface Tables and Views are available as REST services for invocation from Oracle Integration.

Note:

An outbound integration from Oracle E-Business Suite into Oracle Integration is also referred as an inbound (trigger or source) integration in Oracle Integration.

To access these REST services or interfaces on an on-premises Oracle E-Business Suite instance which is behind the firewall, Oracle Integration agents can be used if your Oracle E-Business Suite is not set up in a DMZ configuration.

Key Features

The Oracle E-Business Suite Adapter in Oracle Integration serves as a connection tool for you to access Oracle E-Business Suite services in the cloud. It has the following key features:

- It provides seamless connection between Oracle E-Business Suite and Oracle Integration.
- It leverages Oracle E-Business Suite Integrated SOA Gateway to provide Oracle E-Business Suite REST services.
- It supports business events and XML Gateway messages for inbound integrations in Oracle Integration when using the Oracle E-Business Suite Adapter as trigger (source) connections.
- It provides Oracle E-Business Suite services (PL/SQL APIs, concurrent programs, Java APIs, as well as open interface tables and views) for outbound integrations from Oracle Integration when adding the Oracle E-Business Suite Adapter as **invoke (target)** connections.
- It supports Oracle seeded and custom interfaces for integrations.
- It supports HTTP Basic Authentication security for REST services.



• It allows you to access and use Oracle E-Business Suite deployed REST-based services.

Note:

If a REST service is not deployed, it cannot be used for integration. When such a service is selected for an integration, "Not Deployed" is shown as the service status and a warning message appears indicating that you need to contact an Integration Administrator in Oracle E-Business Suite to deploy the service through Oracle Integration Repository before using it.

 It allows you to monitor and manage integration activities with Oracle E-Business Suite services.

Common Terminologies

To better understand the Oracle E-Business Suite Adapter, the following common terminologies are explained in this section.

Oracle E-Business Suite Integrated SOA Gateway (ISG)

Oracle E-Business Suite Integrated SOA Gateway provides the functionality to expose integration interfaces published in the Integration Repository as SOAP and REST based web services.

Oracle E-Business Suite users with appropriate privileges can deploy these integration interfaces as REST services and manage the service lifecycle activities through the Integration Repository. The Oracle E-Business Suite Adapter in turn provides the access to these REST services that you can use for creating integrations in Oracle Integration.

Integration Repository

Integration Repository is an essential component in Oracle E-Business Suite Integrated SOA Gateway. It is the centralized repository that contains numerous interface endpoints within Oracle E-Business Suite.

When the connection to Oracle E-Business Suite is successfully established, Oracle E-Business Suite service metadata will be retrieved from the Integration Repository and imported to Oracle Integration. You can then create an integration by selecting a desired Oracle E-Business Suite service. The supported interface types for integrations in Oracle Integration through the Oracle E-Business Suite Adapter are:

PL/SQL API

A business interface can be based on a PL/SQL package from which you invoke procedures and functions appropriate to an integration.

When you add the Oracle E-Business Suite Adapter as invoke (target) connections, PL/SQL REST services are available for outbound integrations from Oracle Integration.

Concurrent Program

A concurrent program runs as a concurrent process that executes multiple programs running in the background. Functions performed by concurrent programs are normally data-intensive and long-running, such as posting a journal.

The Oracle E-Business Suite Adapter supports outbound integrations with concurrent programs from Oracle Integration when adding the Oracle E-Business Suite Adapter as invoke (target) connections.



Java API

Java APIs are business interfaces based on Java classes. Oracle E-Business Suite Adapter supports the following Java API types:

- Java Bean Services This type of Java APIs whose methods must use parameters of either serializable Java Beans or simple data such as String, Int, and so forth can be categorized as Java Bean Services, a subtype of Java interface.
- Application Module Services Application Module Implementation class is a Java class that provides access to business logic governing the OA Framework-based components and pages. Such Java classes are called Application Module Services and are also categorized as a subtype of Java interface.
- Business Service Object (BSO) This type of interface is a high-level service component that allows BC4J (Business Components for Java) or OA
 Framework-based components to be deployed as services.

When you add the Oracle E-Business Suite Adapter as invoke (target) connections, Java REST services including all types of Java APIs are available for outbound integrations from Oracle Integration.

Business Event

A business event is an occurrence in Oracle E-Business Suite that might be significant to other objects in a system or to external agents. An example of a business event can be the creation of a new sales order or changes to an existing order.

When you add the Oracle E-Business Suite Adapter as trigger (source) connections, business events are available for inbound integrations in Oracle Integration.

• Open Interface Table

An open interface consists of the interface tables to store data from external sources and concurrent programs, as well as to validate and apply this data into the Oracle E-Business Suite base tables. All open interfaces are implemented using concurrent programs. Please note that Open Interface Table is often referred as Open Interface.

When you add the Oracle E-Business Suite Adapter as invoke (target) connections, open interface table REST services are available for outbound integrations from Oracle Integration.

Open Interface View

Open interface views are database objects that make data from Oracle E-Business Suite products available for selection.

Similar to open interface table, open interface view REST services are available for outbound integrations from Oracle Integration when adding the Oracle E-Business Suite Adapter as invoke (target) connections.

XML Gateway Message Map

Oracle XML Gateway comprises a set of services that allows easy integration with Oracle E-Business Suite to support XML messaging. It uses the message propagation feature of Oracle Advanced Queuing to integrate with Oracle Transport Agent to deliver messages to and receive messages from business partners.



Similar to business events, XML Gateway messages are available for inbound integrations in Oracle Integration when adding the Oracle E-Business Suite Adapter as trigger (source) connections.

For more information about Oracle XML Gateway, see the Oracle XML Gateway User's Guide.

Representational State Transfer (REST)

REST is an architecture principle in which the web services are viewed as resources and can be uniquely identified by their URLs. The key characteristic of a REST service is through the use of four HTTP methods (GET, POST, PUT, and DELETE) to denote the invocation of different operations.

Please note that POST is the only supported method for PL/SQL and concurrent program REST services; POST and GET are the supported methods for Java REST services. For open interface tables with Inbound direction, four HTTP methods are supported for REST service. For open interface tables with Outbound direction and open interface views, only the GET method is supported.

HTTP Basic Authentication

HTTP Basic Authentication is the only supported authentication security for REST services in this release.

When an HTTP client application tries to access an Oracle E-Business Suite REST service, user credentials (username/password) should be provided as input data in HTTP header as part of the REST request message. The username and password will be used for authentication and authorization.

From the perspective of the Oracle E-Business Suite Adapter in Oracle Integration, the username and password information is provided when creating an Oracle E-Business Suite connection. This credential information is then passed from Oracle Integration to Oracle E-Business Suite at runtime.

What Application Version Is Supported?

For information about which application version is supported by this adapter, see the Connectivity Certification Matrix.

See Connectivity Certification Matrix.

Workflow to Create and Add an Oracle E-Business Suite Adapter Connection to an Integration

You follow a very simple workflow to create a connection with an adapter and include the connection in an integration in Oracle Integration.

This table lists the workflow steps for both adapter tasks and overall integration tasks, and provides links to instructions for each step.



Task	Description	More Information
Prerequisites	Before using the Oracle E- Business Suite Adapter, you must perform setup tasks to ensure the appropriate user privileges and required features are in place and the Oracle E-Business Suite Adapter is ready for creating integrations in Oracle Integration.	Set Up and Enable the Oracle E-Business Suite Adapter for Integrations
1	Create the adapter connections for the applications you want to integrate. The connections can be reused in multiple integrations and are typically created by the administrator.	Create an Oracle E-Business Suite Connection
2	Create the integration. When you do this, you add the Oracle E-Business Suite Adapter as a trigger (source) or an invoke (target) connection to the integration.	Create Integrations in Using Integrations in Oracle Integration Generation 2, Add the Oracle E-Business Suite Adapter as a Trigger Connection, and Add the Oracle E-Business Suite Adapter as an Invoke Connection
3	Map data between the trigger connection data structure and the invoke connection data structure.	Map Data in Using Integrations in Oracle Integration Generation 2
4	(Optional) Create lookups that map the different values used by those applications to identify the same type of object (such as gender codes or country codes).	Manage Lookups in Using Integrations in Oracle Integration Generation 2
5	Activate the integration.	Manage Integrations in Using Integrations in Oracle Integration Generation 2 If an XML Gateway message is used in an integration, you must perform post activation steps to ensure the integration works properly. See: Post Activation Manual Steps for XML Gateway Messages as a Trigger
6	Monitor the integration on the dashboard.	Monitor Integrations in Using Integrations in Oracle Integration Generation 2

Task	Description	More Information
7	Track payload fields in messages during runtime.	Assign Business Identifiers for Tracking Fields in Messages and Manage Business Identifiers for Tracking Fields in Messages in Using Integrations in Oracle Integration Generation 2
8	Manage errors at the integration level, connection level, or specific integration instance level.	Manage Errors in Using Integrations in Oracle Integration Generation 2 and Troubleshoot the Oracle E- Business Suite Adapter and Related Error Messages while testing the connection and creating the integration with the Oracle E-Business Suite Adapter at design time.

To better understand how to use the Oracle E-Business Suite Adapter in an integration, see:

- Implement Common Patterns Using the Oracle E-Business Suite Adapter
- Oracle E-Business Suite Adapter Samples
 - An Example of Using a Business Event as a Trigger (Source) in an Integration
 - An Example of Using an XML Gateway Message as a Trigger (Source) in an Integration
 - An Example of Using a PL/SQL REST Service as an Invoke (Target) Connection in an Integration
 - An Example of Using an Open Interface REST Service as an Invoke (Target) Connection in an Integration
 - Examples of Using a Java REST Service as an Invoke (Target) Connection in an Integration

Additionally, refer to the following documents for more information about the Oracle E-Business Suite Adapter:

- Oracle E-Business Suite Adapter in Oracle Integration Frequently Asked Questions (FAQ), My Oracle Support Knowledge Document 2110687.1
- Oracle E-Business Suite Adapter Issues in Known Issues for Oracle Integration Generation 2
- What's New for Oracle Integration Generation 2



Set Up and Enable the Oracle E-Business Suite Adapter for Integrations

Before creating an Oracle E-Business Suite connection with the Oracle E-Business Suite Adapter, you must perform the setup tasks to ensure it works properly.

Topics:

2

Setup Tasks for Enabling the Oracle E-Business Suite Adapter

If your Oracle E-Business Suite environment is TLS enabled, perform the setup tasks to enable TLS. See: Setup Tasks for a TLS-Enabled Oracle E-Business Suite Environment.

 Setup Tasks for Using the Oracle E-Business Suite Adapter as a Trigger (Source) Connection

If an XML Gateway message is used as a trigger (source) in an integration, you must perform additional post activation tasks once you activate the integration to ensure the message works properly in Oracle Integration. See: Post Activation Manual Steps for XML Gateway Messages as a Trigger.

Setup Tasks for Enabling the Oracle E-Business Suite Adapter

Perform the following steps to set up the Oracle E-Business Suite Adapter:

1. Configure Oracle E-Business Suite Integrated SOA Gateway REST services.

Oracle E-Business Suite Integrated SOA Gateway is an essential component for the Oracle E-Business Suite Adapter in Oracle Integration. It is the path to access all Oracle E-Business Suite REST services that you can use in integrations in Oracle Integration.

If you have not configured Oracle E-Business Suite Integrated SOA Gateway, perform the setup and configuration steps as described in the following documents:

For Oracle E-Business Suite 12.2

Refer to Part A: Configuring Oracle E-Business Suite REST Services, *Installing Oracle E-Business Suite Integrated SOA Gateway, Release 12.2*, My Oracle Support Knowledge Document 1311068.1.

Ensure that you apply the latest patches for REST services in Document 1311068.1.

For Oracle E-Business Suite 12.1.3

Ensure that you configure Oracle E-Business Suite Integrated SOA Gateway to enable the REST service features. If Oracle E-Business Suite Integrated SOA Gateway is not configured, follow the setup tasks as described in My Oracle Support Knowledge Document 556540.1 to configure Oracle E-Business Suite Integrated SOA Gateway Release 12.1.3.

If Oracle E-Business Suite Integrated SOA Gateway is already configured in your instance, then apply these REST service patches in the sequence as described in My Oracle Support Knowledge Document 1998019.1 to enable the REST service features.



2. Configure access to Oracle E-Business Suite services.

To access Oracle E-Business Suite services from Oracle Integration, Oracle E-Business Suite services must be accessible in either of the following ways:

 These services are deployed in an environment set up in a DMZ (DeMilitarized Zone) configuration so that Oracle E-Business Suite REST services are publicly accessible through the Internet.

For DMZ configuration instructions in Oracle E-Business Suite, see *Oracle E-Business Suite Release 12.2 Configuration in a DMZ*, My Oracle Support Knowledge Document 1375670.1.

• If your Oracle E-Business Suite is not set up in a DMZ configuration, these services must be accessible through Oracle Integration agent framework.

For information about agents, see Manage the Agent Group and the On-Premises Connectivity Agent in *Using Integrations in Oracle Integration Generation 2.*

Please note that the on-premises agent should not be installed in an Oracle E-Business Suite instance. Instead, it should be installed in a separate machine.

3. Deploy the required REST services in Oracle E-Business Suite.

To use Oracle E-Business Suite REST services for integrations, ensure that you have performed the following tasks:

Deploy the Metadata Provider/Integration Repository service

The Metadata Provider/Integration Repository service is an API that fetches a list of services available for integration. To integrate these Oracle E-Business Suite services, you must deploy the "Metadata Provider" API as a REST service.

You can search the "Metadata Provider" API from the Integration Repository, and then select the Metadata Provider API from the search results to display the interface details page.

Please note that you must enter "provider" as the service alias name for the Metadata Provider API and select the **GET** HTTP method check boxes for **ALL** the methods contained in the API before deploying it as a REST service.

Important: If the Metadata Provider API is not deployed as a REST service with **GET** HTTP method and "provider" as the service alias, the Oracle E-Business Suite Adapter in Oracle Integration will not work as expected.

Deploy the Event Manager service

To use business events from Oracle E-Business Suite as a trigger (source) in an integration in Oracle Integration, you must deploy the Event Manager API as a REST service.

Similar to the Metadata Provider service, you can search the "Event Manager" API from the Integration Repository, and then deploy it as a REST service. Before the deployment, you must enter "subscription" as the service alias name and select the **POST** HTTP method check boxes for **ALL** the methods contained in the API.

 Deploy business function related APIs as Oracle E-Business Suite REST services



If you want to integrate or use Oracle E-Business Suite integration interfaces in Oracle Integration, you must first deploy these interface definitions as Oracle E-Business Suite REST services.

For example, to process a sales order in Oracle E-Business Suite, you must deploy the Sales Order Service (OE_INBOUND_INT) API as a REST service first before you can use this deployed Sales Order Service REST service from Oracle Integration through the Oracle E-Business Suite Adapter.

For information on deploying REST services, see Deploying REST Web Services, Oracle *E-Business Suite Integrated SOA Gateway Implementation Guide*.

4. Grant the required user privileges.

To use Oracle E-Business Suite REST services through the Oracle E-Business Suite Adapter in Oracle Integration, ensure that an Oracle E-Business Suite user has the privileges to:

Access the Metadata Provider/Integration Repository service

Allowing the access of the "Metadata Provider" API enables the user to browse Oracle E-Business Suite services in Oracle Integration through the Oracle E-Business Suite Adapter.

Access the Event Manager service

This enables the user to use business events as a trigger in Oracle Integration when adding the Oracle E-Business Suite Adapter as a trigger (source) in an integration.

Access or execute desired Oracle E-Business Suite APIs and services

To protect application data from unauthorized access or execution, you must grant the user the interface access privileges for the REST services provided through Oracle E-Business Suite Integrated SOA Gateway.

The Oracle E-Business Suite user credentials should be used to create an Oracle E-Business Suite connection in Oracle Integration. For example, if you plan to use an Oracle E-Business Suite user hrmanager from Oracle Integration to "create employee" in Oracle E-Business Suite, you need to:

- Create a security grant on all the methods contained in the Metadata Provider API to the hrmanager Oracle E-Business Suite user.
- Create a security grant on all the methods contained in the Event Manager API to the hrmanager Oracle E-Business Suite user.
- Create a security grant on the "Create Employee" method in the Employee API to the hrmanager Oracle E-Business Suite user.
- Use the hrmanager user credentials while creating an Oracle E-Business Suite connection in Oracle Integration.

At runtime, the username and password information provided through the Oracle E-Business Suite Adapter connection will be passed to Oracle E-Business Suite for user authentication for the service being invoked in an integration.

For information on creating security grants for REST services, see Managing Grants for Interfaces with Support for SOAP and REST Web Services, Oracle E-Business Suite Integrated SOA Gateway Implementation Guide.

For information on creating a connection with Oracle E-Business Suite Adapter, see Create an Oracle E-Business Suite Adapter Connection.



Setup Tasks for a TLS-Enabled Oracle E-Business Suite Environment

If your Oracle E-Business Suite instance is TLS enabled, to access the Oracle E-Business Suite instance in Oracle Integration, import additional certificates into Oracle Integration.

Perform the following setup tasks for your TLS-Enabled Oracle E-Business Suite environment:

1. Export the Oracle E-Business Suite Certificates.

If Oracle E-Business Suite server certificate is not in the Oracle Integration trusted certificate list, perform the following steps to export the Oracle E-Business Suite certificates:

- a. Access the Oracle E-Business Suite instance with the HTTPS URL from a web browser.
- b. After the Oracle E-Business Suite page has been successfully loaded in a browser, use the following steps to export the certificates from your web browser menu:
 - i. In Internet Explorer, select **Internet Options** from the **Tools** drop-down menu to open the Internet Options pop-up window.
 - ii. In the Content tab, click Certificates.
 - iii. In the Personal (or Other People) tab, select your certificates and click **Export**.
- c. You can export or save the certificates either in DER encoded binary X.509 (.crt) or in Base64 encoded. For example, the exported certificate is named as rootCA.crt.
- d. If the intermediate certificates mentioned in certificate chain is not present in the Oracle Integration trusted certificate list, you have to export the intermediate certificates in the sequence of intCA1.crt, intCA2.crt, ... intCAn.crt.
- 2. Import the Oracle E-Business Suite Certificates to Oracle Integration.
 - a. In the left navigation pane, click Home > Settings > Certificates.
 - b. Click Upload at the top of the page.
 - **c.** In the Upload Certificate dialog box, enter a unique alias and optional description for this certificate.
 - d. Select the certificate category as "Trust".
 - e. Click Browse and then select the trust file (for example, .cer or .crt) to upload.
 - f. Click Upload.

Please note that you need to import the root CA certificate first, and then followed by intermediate certificates in sequence.

Additionally, refer to the following documents for more information:



- For information on uploading certificates, see Manage Security Certificates in Using Integrations in Oracle Integration Generation 2.
- If your Oracle E-Business Suite environment is TLS enabled and if the Oracle E-Business Suite Adapter connection is configured to use the connectivity agent in Oracle Integration, you would have to import Oracle E-Business Suite certificates to the connectivity agent.

See: Download and Install the Agent in Using Integrations in Oracle Integration Generation 2.

Setup Tasks for Using the Oracle E-Business Suite Adapter as a Trigger (Source) Connection

To successfully use business events and XML Gateway messages as inbound integrations in Oracle Integration through the Oracle E-Business Suite Adapter, you must perform the following one-time setup tasks in Oracle E-Business Suite to enable the feature:

1. Store the Oracle Integration user credentials in Oracle E-Business Suite FND vault.

Execute the PL/SQL script <code>\$FND_TOP/sql/afvltput.sql</code> from Oracle E-Business Suite backend to upload and store the user credentials in Oracle E-Business Suite FND vault.

a. Connect to an Oracle E-Business Suite database:

sqlplus apps/apps password

b. Execute the script to upload the Oracle Integration user name:

@\$FND_TOP/sql/afvltput.sql FND REST_USERNAME <Oracle Integration user name>

Replace <Oracle Integration user name> with the user name used to log in to Oracle Integration, such as oiuser.

Ensure that this user has a necessary Oracle Integration user role to execute integrations in Oracle Integration.

c. Execute the script to upload the Oracle Integration user password:

@\$FND TOP/sql/afvltput.sql FND REST PASSWORD Password

Replace *password* with the actual password value associated with the Oracle Integration user.

At runtime, the Oracle Integration user credentials are retrieved from Oracle E-Business Suite FND vault and are embedded in the HTTP request along with business event data to Oracle Integration. It is included based on the HTTP Basic Authentication scheme. Oracle Integration then authenticates the user credentials based on the HTTP Basic Authentication method and accepts the business event data.

2. Configure proxy host and port for XML Gateway messages.

Note:

This step may not apply if there is no proxy server configured. In this case, ensure that network firewall rules for egress allow communication from Oracle E-Business Suite to Oracle Integration instance.



a. Log in to Oracle E-Business Suite as a user who has the System Administrator responsibility.

Select **Oracle Applications Manager** from the navigation menu. Navigate to the **Site Map**.

- b. Click AutoConfig.
- c. In the Context Files page, click the **Edit Parameters** icon for the Applications tier context file.
- d. In the Context File Parameters page, select the System tab.

Expand the <code>oa_web_server</code> node and update the values for the following AutoConfig variables:

Name	Variable	Value
OXTAOutUseProxy	s_oxta_proxy	true
OXTAOutProxyHost	s_oxta_proxyhost	<proxy host=""></proxy>
OXTAOutProxyPort	s_oxta_proxyport	<proxy port=""></proxy>

Save your work.

e. Run AutoConfig from the application tier.

Refer to Using AutoConfig to Manage System Configurations in Release 12, My Oracle Support Knowledge Document 387859.1.

Refer to the Oracle E-Business Suite Setup Guide, Release 12.2 for information on changing AutoConfig variables and executing AutoConfig in the application tier.

3. Configure proxy host and port at Concurrent Manger Tier JVM.

Note:

This step may not apply if there is no proxy server configured. In this case, ensure that network firewall rules for egress allow communication from Oracle E-Business Suite to Oracle Integration instance.

To access Oracle Integration from Oracle E-Business Suite on-premise which is behind the firewall, all outbound requests from Oracle E-Business Suite need to be routed through proxy host and port. Therefore, you need to configure and set up the proxy appropriately at the Concurrent Manger Tier JVM.

 Log in to Oracle E-Business Suite as a user who has the System Administrator responsibility.

Select **Oracle Applications Manager** from the navigation menu. Navigate to the **Site Map**.

- b. Click AutoConfig.
- c. In the Context Files page, click the **Edit Parameters** icon for the Applications tier context file.
- d. In the Context File Parameters page, select the Environments tab. Expand the oa_environments:adovars node to locate the APPSJREOPTS (AutoConfig variable or OA_VAR "s appsjreopts").



e. Enter the following additional JVM parameters:

```
-Dhttp.proxyHost=<http proxy host>
```

```
-Dhttp.proxyPort=<http proxy port>
```

```
-Dhttps.proxyHost=<ssl proxy host>
```

```
-Dhttps.proxyPort=<ssl proxy port>
```

Save your work.

f. Run AutoConfig from the application tier.

Refer to Using AutoConfig to Manage System Configurations in Release 12, My Oracle Support Knowledge Document 387859.1.

Refer to the Oracle E-Business Suite Setup Guide, Release 12.2 for information on changing AutoConfig variables and executing AutoConfig in the application tier.

- 4. Apply patches and configure the environment for communication over TLS 1.2.
 - a. Apply the following patches for your Oracle E-Business Suite environment.
 - For Oracle E-Business Suite 12.2, apply Patch 22612527 with the prerequisite Patch 13866584 to the FMW home.
 - For Oracle E-Business Suite 12.1.3, apply Patch 22612527 to the 10.1.3.5 home.
 - b. Update Java.

Update JDK 7 under <code>\$AF_JRE_TOP</code> with the Java Cryptography Extension (JCE) updates from the following page (https://www.oracle.com/java/technologies/javase-jce7-downloads.html). If you have a JAN-2016 Java version that already includes JCE, you can skip this step.

Note:

JDK 1.7.0_131 is the minimum required version for JDK 7 in Oracle E-Business Suite. For AIX platform, the minimum required version is JDK 1.7 SR10 FP1.

- c. Update the Oracle E-Business Suite context variables using Oracle Applications Manager.
 - i. Log in to Oracle E-Business Suite as a user who has the **Workflow** Administrator Web Applications responsibility.
 - ii. Select the **Oracle Applications Manager** link from the Navigator, and then select **AutoConfig**.
 - iii. Select the application tier context file, and choose Edit Parameters.
 - iv. Update the following context variables:
 - s_afjsmarg =-Dhttps.protocols=TLSv1,TLSv1.1,TLSv1.2 or Dhttps.protocols=TLSv1.2
 - To enable TLS 1.2 with backward compatibility, add the following:

s afjsmarg = -Dhttps.protocols=TLSv1,TLSv1.1,TLSv1.2

- To enable TLS 1.2 only, add the following:

```
s_afjsmarg = -Dhttps.protocols=TLSv1.2
```



- d. Run AutoConfig using the adautocfg.sh script in the application tier \$ADMIN SCRIPTS HOME directory.
- e. Use the adstpall.sh/adstrtal.sh script in the <code>\$ADMIN_SCRIPTS_HOME</code> directory to stop and restart all services.
- 5. (Optional) Import the TLS certificates to cacerts in Oracle E-Business Suite.

This step is required only if the Oracle Integration server certificate is not in the Oracle E-Business Suite trusted certificate list.

Export the Oracle Integration Certificates

Perform the following steps to export the Oracle Integration certificates:

- a. Access the Oracle Integration instance with the HTTPS URL from a web browser.
- b. After the Oracle Integration UI page has been successfully loaded in a browser, double click the Lock icon in the bottom right corner of the browser and export the certificates.

Note:

Different browser versions may have different steps to export the TLS certificates.

- In Internet Explorer, double click the Lock icon, then select Certificate Path. Select the topmost CA and click View Certificate. Then select Details, and then Copy to File.
- In Mozilla Firefox, double click the Lock icon and then select More Information next to IC's secure connection information. Select the Security tab in Page Info pop-up window. Click View Certificate and then the Details tab. Select the topmost CA and then click Export.

Alternatively, you can use the browser menu to export the certificates using the following steps:

- i. In Internet Explorer, select **Internet Options** from the **Tools** drop-down menu to open the Internet Options pop-up window.
- ii. In the Content tab, click Certificates.
- iii. In the Personal (or Other People) tab, select your certificates and click **Export**.
- c. You can export or save the certificates either in DER encoded binary X.509 (.crt) or in Base64 encoded. For example, the exported certificate is named as rootCA.crt.
- d. If the intermediate certificates mentioned in certificate chain is not present in the Oracle E-Business Suite trusted certificate list, you have to export the intermediate certificates in the sequence of intCA1.crt, intCA2.crt, ... intCAn.crt.

Import the Oracle Integration Certificates to Oracle E-Business Suite

Perform the following steps to import the Oracle Integration certificates to Oracle E-Business Suite:



- a. Navigate to the \$AF JRE TOP/lib/security directory.
- **b.** Back up the existing cacerts file.
- c. Copy the Oracle Integration server's root certificate rootCA.crt imported earlier to the security directory.
- d. Execute the following command to ensure that cacerts has the write permissions:

\$ chmod u+w cacerts

e. Add the server's root certificate rootCA.crt to the cacerts file:

```
\ keytool -importcert -keystore cacerts -storepass -alias rootCA -file rootCA.crt -v
```

Enter the keystore password when prompted. If the certificate already exists in the cacerts file, *keytool* will warn you and will allow you to cancel the import. Cancel the import.

Note: If the intermediate certificates need to be imported to the cacerts file, import them in the following sequence after importing the root certificate rootCA.crt:

```
$ keytool -importcert -keystore cacerts -storepass -alias intCA1 -
file intCA1.crt -v
$ keytool -importcert -keystore cacerts -storepass -alias intCA1 -
file intCA2.crt -v
...
$ keytool -importcert -keystore cacerts -storepass -alias intCA1 -
file intCAn.crt -v
```

f. When you have completed the modifications to the cacerts file, reset the permissions:

\$ chmod u-w cacerts

g. Restart Oracle E-Business Suite application tier services. Use the <code>adstpall.sh</code> and <code>adstrtal.sh</code> scripts in the \$ADMIN_SCRIPTS_HOME directory to stop and restart all services.



Create an Oracle E-Business Suite Adapter Connection

A connection is based on an adapter. You define connections to the specific cloud applications that you want to integrate.

Important:

Before establishing an Oracle E-Business Suite connection using the Oracle E-Business Suite Adapter in Oracle Integration, you must complete the required setup tasks and apply the latest patches for enabling the Oracle E-Business Suite REST services provided through Oracle E-Business Suite Integrated SOA Gateway. For the setup information, see Set Up and Enable the Oracle E-Business Adapter for Integrations.

Topics:

- Create a Connection
- Configure Connection Properties
- Configure Connection Security
- Configure an Agent Group (Conditional)
- Test the Connection

Create a Connection

The first step in creating an integration is to create the connections to the applications with which you want to share data.

- 1. In the navigation pane, click Integrations, then click Connections.
- 2. Click Create.



The Create Connection — Select Adapter dialog is displayed.



3. Select the adapter to use for this integration. You can also search for the type of adapter to use by entering a partial or full name in the **Search** field, and clicking **Search**.

The Create Connection dialog is displayed.

4. Enter the information to describe the connection.

What is it called?			
The Name can be changed later.	The Identifier can be set only now and it must be unique.		
* Name	SalesOpportunity		
* Identifier	SALESOPPORTUNITY		
Keywords	Enter new or existing keyword		
Select what role this connection	will play in integrations.		
* Role	Trigger and Invoke		
Description	What does it do?		
	1024 characters left		
		Cancel	Create

- Enter a meaningful name to help others find your connection when they begin to create their own integrations. The name you enter is automatically added in capital letters to the **Identifier** field. If you modify the identifier name, do not include a blank space (for example, Sales Opportunity).
- Enter optional keywords (tags). You can search on the connection keywords on the Connections page.
- Select the role (direction) in which to use this connection (trigger, invoke, or both). Only the roles supported by this adapter are displayed for selection.
 When you select a role, only the connection properties and security policies appropriate to that role are displayed on the Connections page. If you select an adapter that supports both invoke and trigger, but select only one of those roles, then try to drag the adapter into the section you did not select, you receive an error (for example, configure an Oracle Service Cloud (RightNow) Adapter as only an invoke, but drag the adapter to the trigger section).
- Enter an optional description of the connection.
- 5. Click Create.

Your connection is created and you are now ready to configure connection details, such as email contact, connection properties, security policies, connection login credentials, and (for certain connections) agent group.

Configure Connection Properties

Enter the information for your Oracle E-Business Suite Adapter connection:

1. Go to the **Connection Properties** section.



 In the Connection URL field, enter a URL (http://<ebs host name>:<port>) to connect to an Oracle E-Business Suite instance.

Note:

This URL address is where the Oracle E-Business Suite services are deployed and can be publicly accessible either through DMZ configuration or the Oracle Integration agent framework. See the step about configuring the access to Oracle E-Business Suite services, as described in Setup Tasks for Enabling the Oracle E-Business Suite Adapter.

Configure Connection Security

Configure security for your Oracle E-Business Suite Adapter connection by selecting the security policy and security token.

- 1. Go to the **Security** section.
- 2. Enter your login credentials to access the Oracle E-Business Suite instance you specified earlier in the Connection Properties section.
 - a. In the **Security Policy** field, "Basic Authentication" is automatically displayed as the value.

The "Basic Authentication" policy is the only security policy supported in this release.

b. In the Username field, enter a valid user name.

Note:

The user name specified here should be granted the privileges to access and execute the Oracle E-Business Suite APIs and services. See the step about granting the required user privileges, as described in Setup Tasks for Enabling the Oracle E-Business Suite Adapter.

c. In the **Password** field, enter the cooresponding password for the user name you entered.

Click the **Show** or **Hide** button to verify and confirm the password you specified here.

Configure an Agent Group (Conditional)

If your Oracle E-Business Suite is not directly accessible to Oracle Integration, you must configure an agent group to access the Oracle E-Business Suite services behind the fire wall.

1. Click Configure Agents.

The Select an Agent Group page appears.

- 2. Click the name of the agent group.
- 3. Click Use.

To configure an agent group, you must download and install the on-premises connectivity agent. See Download and Run the On-Premises Agent Installer and About Agents and



Integrations Between On-Premises Applications and Oracle Integration in Using Integrations in Oracle Integration Generation 2.

Test the Connection

After creating an Oracle E-Business Suite connection with Oracle E-Business Suite Adapter, you can test the connection to ensure that it is successfully configured.

- 1. In the upper right corner of the page, click **Test**.
- 2. Wait for a message about the results of the connection test.
 - If the test was successful, then the connection is configured properly.
 - If the test failed, edit the configuration details you entered. Check for typos, verify the URL and credentials. Continue to test till the connection is successful.
- 3. When complete, click **Save**, and then click

Once you have successfully tested and established the connection to the Oracle E-Business Suite instance, a list of serviceable APIs or interfaces (such as XML Gateway maps or business events) from Oracle E-Business Suite licensed products and product families will be imported from the connected instance to Oracle Integration.

For information about error messages if occur while testing the connection, see Error Messages While Testing an Oracle E-Business Suite Connection.



Add the Oracle E-Business Suite Adapter Connection to an Integration

When you drag the Oracle E-Business Suite Adapter into the trigger or invoke areas of an integration, the Adapter Endpoint Configuration Wizard is invoked. This wizard guides you through configuration of the Oracle E-Business Suite Adapter endpoint properties.

These topics describe the wizard pages that guide you through configuration of the Oracle E-Business Suite Adapter as a trigger or an invoke in an integration.

Topics

- Add the Oracle E-Business Suite Adapter as a Trigger Connection
- Add the Oracle E-Business Suite Adapter as an Invoke Connection

Add the Oracle E-Business Suite Adapter as a Trigger Connection

When adding the Oracle E-Business Suite Adapter as a trigger (invoke) connection, the Configure Oracle E-Business Suite Adapter Endpoint Wizard is invoked. Based on your selections in the wizard, the following pages can be displayed.

Topics:

- Oracle E-Business Suite Adapter Trigger Basic Information Page
- Oracle E-Business Suite Adapter Business Events Page
- Oracle E-Business Suite Adapter XML Gateway Message Page
- Oracle E-Business Suite Adapter Trigger Summary Page

Oracle E-Business Suite Adapter Trigger Basic Information Page

When you use the Oracle E-Business Suite Adapter as a trigger in an integration, you can have an option to use either a business event or an XML Gateway message as an inbound



Element	Description
What do you want to call your endpoint?	 Provide a meaningful name so that others can understand the responsibilities of this connection. You can include English alphabetic characters, numbers, underscores, and dashes in the name. You cannot include the following: Blank spaces (for example, My Inbound Connection) Special characters (for example, #;83& or righ(t) now4) Multibyte characters
What does this endpoint do?	Enter an optional description of the connection's responsibilities. For example: Raise a business event. or Use XML Gateway message.
What do you want to configure the endpoint for?	 Select either one of the interface types that you want to configure for your integration: Business Event - allows the selection of a business event in an integration. XML Gateway Map - allows the selection of an XML Gateway message map in an integration.

integration in Oracle Integration. Enter a name, description, and desired interface type for each trigger connection.

Oracle E-Business Suite Adapter Business Events Page

Select a business event for your integration by entering its associated product family and product information in the Business Events page.

Element	Description
Product Family	Select a desired Oracle E-Business Suite application product family for your integration. For example, select Order Management Suite from the drop-down list.
	Note that the available product families for your selection are based on the Oracle E-Business Suite instance to which you are connecting.
Product	Select a desired product from the selected product family. For example, Order Management .



Element	Description
Business Event	 Once you select a product, a list of business events including both Oracle seeded events and custom ones contained in the selected product is populated for your selection. Locate a desired business event through either of the following ways: Select a desired event name from the drop-down list. For example, select Event for OIP status update notification. Use the Filter by Name field to find your desired event. For example, enter Oracle in this field to find the event name starting with "Oracle".
	You can define custom business events to meet your needs. If required, annotate the custom events, and then upload them to the Integration Repository. For information on creating custom business events, see Creating Custom Integration Interfaces, Oracle E-Business Suite Integrated SOA Gateway Developer's Guide. For information on uploading custom interfaces to the Oracle Integration repository residing in Oracle E-Business Suite Integrated SOA Gateway, see Generating ILDT Files and Uploading ILDT Files to Integration Repository, Oracle E-Business Suite Integrated SOA Gateway Implementation Guide.
Internal Name	Displays the internal name of the selected event, such as oracle.apps.ont.oip.statuschange.update for the

selected event "Event for OIP status update notification".

Element	Description	
Status	Displays the corresponding event status for the selected business event. It can have either of the following values:	
	Enabled	
	This indicates that the selected event has the associated event subscription created, and this event is ready to use in an integration.Disabled	
	If there is no event subscription created for the selected event, "Disabled" is shown. A warning message also appears indicating that this event is not ready to use in an integration. To use this event, you must enable it first from Oracle E-Business Suite.	
	For information on enabling the event subscription, see the Defining Events, Managing Business Events chapter in the Oracle Workflow Developer's Guide.	
Description	Displays the event description information.	

Click Next.

The Summary page appears with the selected business event information.

For information on using business events as a trigger connection, see Use Oracle E-Business Suite Business Events to Trigger Integration Endpoint in Oracle Integration.

Oracle E-Business Suite Adapter XML Gateway Message Page

Enter XML Gateway message information that you plan to use as a trigger in your integration.

Element	Description
Product Family	Select a desired Oracle E-Business Suite application product family for your integration. For example, select "Applications Technology" from the drop-down list.
	Note that the available product families for your selection are based on the Oracle E-Business Suite instance to which you are connecting.
Product	Select a desired product from the selected product family. For example, "Service Suite".



Element	Description	
XML Gateway Map	 Once you select a product, a list of XML Gateway messages including both Oracle seeded and custom messages contained in the selected product is populated for your selection. Locate a desired XML Gateway message through either of the following ways: Select a desired XML Gateway message name from the drop-down list. For example, select "Add Salesorder". Use the Filter by Name field to find your desired XML Gateway message. For example, enter Add in this field to find the event name starting with "Add". 	
	✓ Note: You can define custom XML Gateway messages to meet your needs. If required, annotate the custom events, and then upload them to the Integration Repository. For information on creating custom XML Gateway messages, see Creating Custom Integration Interfaces, Oracle E- Business Suite Integrated SOA Gateway Developer's Guide. For information on uploading custom interfaces to Oracle Integration Repository residing in Oracle E- Business Suite Integrated SOA Gateway, see Generating ILDT Files and Uploading ILDT Files to Integration Repository, Oracle E-Business Suite Integrated SOA Gateway Implementation Guide.	
IREP Name	Displays the corresponding Integration Repository name after you selected an XML Gateway message. For example, "XNB:SOO" is shown for the selected XML Gateway message "Add Salesorder".	
Internal Name	Displays the internal name of the selected XML Gateway message, such as "XNB_OM_SALESORDER_OAG72_OUT" for "Add Salesorder".	
Standard	Displays the integration standard information, such as "OAG 7.2".	
Description	Displays the description information of the selected XML Gateway message.	

Click Next.

The Summary page appears with the selected XML Gateway information.



For information on using XML Gateway message as a trigger connection, see Use Oracle E-Business Suite XML Gateway Messages to Trigger Integration Endpoint in Oracle Integration.

Oracle E-Business Suite Adapter Trigger Summary Page

You can review the trigger (source) endpoint configuration details on the Oracle E-Business Suite Adapter Trigger Endpoint Configuration Summary page.

Element	Description
Product Family	Displays the selected product family for your configuration, such as "Order Management Suite".
Product	Displays the selected product for your configuration, such as "Order Management".
Business Event (or XML Gateway Map)	Displays the internal name of the selected interface, either an event or XML Gateway message, such as "oracle.apps.ont.oip.statuschange.update" for an event or "itg_process_po_007_out" for a message.
Integration Pattern	Request only.
Instructions (for XML Gateway only)	If the selected interface is an XML Gateway message, this field appears. It displays a list of manual steps that you must perform for the integration with an XML Gateway message map. These tasks include activating the integration and configuring a desired trading partner in Oracle E-Business Suite. See Post Activation Manual Steps for XML Gateway Messages as a Trigger.

Click Done.

Add the Oracle E-Business Suite Adapter as an Invoke Connection

When adding the Oracle E-Business Suite Adapter as an invoke (target) connection, you can integrate with an Oracle E-Business Suite REST service in an integration through the Configure Oracle E-Business Suite Adapter Endpoint Wizard. The supported Oracle E-Business Suite REST services can be any of the following interface types:

- PL/SQL
- Concurrent Program
- Java
- Open Interface

Topics:

- Basic Information
- Oracle E-Business Suite Adapter Web Services Page
- Oracle E-Business Suite Adapter Operations Page



Oracle E-Business Suite Adapter Invoke Summary Page

Basic Info Page

You can enter a name and description on the Basic Info page of each adapter in your integration.

Element	Description	
What do you want to call your endpoint?	Provide a meaningful name so that others can understand the responsibilities of this connection. You can include English alphabetic characters, numbers, underscores, and hyphens in the name. You can't include the following characters:	
	• No blank spaces (for example, My Inbound Connection)	
	 No special characters (for example, #;83& or righ(t)now4) except underscores and hyphens 	
	No multibyte characters	
What does this endpoint do?	Enter an optional description of the connection's responsibilities. For example:	
	This connection receives an inbound request to synchronize account information with the cloud application.	

Oracle E-Business Suite Adapter Web Services Page

Select a desired API or REST service that you plan to use in an integration by entering its associated product family, product, and interface type in the Web Services page.

Element	Description
Product Family	Select a desired Oracle E-Business Suite application product family that you want to use for your integration. For example, select "Order Management Suite" from the drop-down list.
	Note that the available product families for your selection are based on the Oracle E-Business Suite instance you are connecting.
Product	Select a desired product from the selected product family. For example, "Order Management".
Interface Type	Select a desired interface type from the following values:
	• All: This value is selected by default.
	All the supported interfaces when adding the Oracle E- Business Suite Adapter as an invoke (target) connection will be listed in the API field for selection. These include interface types of PL/SQL APIs, Java APIs, concurrent programs, open interface tables, and open interface views.
	 Concurrent Program: This displays all concurrent program names in the API field for your selection.
	 Open Interface: This displays all open interface tables and open interface views in the API field for your selection.
	 PL/SQL: This displays all PL/SQL APIs in the API field for your selection.
	 Java: This displays all Java-based APIs including Java Bean Services, Application Module Services, and Business Service Objects in the API field for your selection.


Element	Description
ΑΡΙ	Displays a list of API names based on your selected interface type including both Oracle seeded and custom interfaces contained in the selected product. For example, select "Sales Order Services" API.

Note:

If one or more of the methods contained in the selected API are deployed as REST services, after you click **Next**, the Operations page appears. However, if none of the methods within the selected API is deployed as a REST service, an error message is shown indicating that the associated REST service is not available. You must deploy the selected API as a REST service first before using it in your integration.

For information on deploying REST services, see Deploying REST Web Services, Oracle E-Business Suite Integrated SOA Gateway Implementation Guide.

You can define custom PL/SQL APIs, Java-based APIs, and concurrent programs to meet your needs if required, annotate the custom interface based on the annotation standards, and then upload it to the Integration Repository. You can deploy the custom interface as a REST service from Oracle E-Business Suite Integrated SOA Gateway. The REST service will then be available to use for integrations from Oracle Integration.

Note:

Custom interface types of open interface tables and open interface views are not supported.

- For information on creating custom interfaces, see Creating Custom Integration Interfaces, Oracle E-Business Suite Integrated SOA Gateway Developer's Guide.
- For information on annotating custom APIs, see Integration Repository Annotation Standards, Oracle E-Business Suite Integrated SOA Gateway Developer's Guide.
- For information on uploading custom interfaces to Oracle Integration Repository resided in Oracle E-Business Suite Integrated SOA Gateway, see Generating ILDT Files and Uploading ILDT Files to Integration Repository, Oracle E-Business Suite Integrated SOA Gateway Implementation Guide.

Element	Description			
Internal Name	Displays the internal name of the selected interface, such as OE_INBOUND_INT for the "Sales Order Services" API.			
Description	Displays the selected interface description information.			

Oracle E-Business Suite Adapter Operations Page

Enter REST service operation or method information that you plan to use as an invoke in your integration.

Element	Description
ΑΡΙ	Displays the API name (such as "OE_INBOUND_INT") that you selected earlier in the Web Services page.
Methods	Select a desired method contained in the selected API. For example, select "PROCESS_ORDER" as the method from the "OE_INBOUND_INT" API.
	If the selected interface is an open interface (such as RAXMTR), a list of open interface tables contained in the selected open interface is displayed as the methods, along with the associated concurrent program submission method SUBMIT_CP_ <internal name="" of="" the<br="">associated concurrent program> (such as "SUBMIT_CP_RAXMTR") shown as the last entry in the table.</internal>
	Note:
	SUBMIT_CP_ <inter< th=""></inter<>

SUBMIT_CP_<inter nal name of the associated concurrent program> is only displayed for an open interface. This method will not be shown if the selected interface is an open interface view.



Element	Description				
Direction (for Open Interfaces only)	Appears only if the selected interface is an open interface table or open interface view. It displays a read-only value (Inbound or Outbound) for the selected method of an open interface table or view.				
	Note: If the selected method is SUBMIT_CP_ <inter nal name of the associated concurrent program>, Direction and CRUD Operation (described in the next row) are not shown in this page.</inter 				



Element	Description
CRUD Operation (for Open Interfaces only)	 Appears only if the selected interface is an open interface table or open interface view. If the selected method is an open interface table with Inbound direction, the available operations for your selection are: Create (default): Creates or adds new entries for the selected method in the open interface table. Read: Reads, retrieves, searches, or views existing data for the selected method in the open interface table. Update: Updates or edits existing entrie for the selected method in the open interface table. Delete: Deletes or removes existing entries for the selected method in the open interface table.
	Note: If the selected operation value is Read, Update, or Delete, the Add Filter Conditions link appears. Clicking this link allows you to optionally create filter conditions for the selected method if desired in the Add Filter Conditions page. See: Oracle E-Business Suite Adapter Operations — Add Filter Conditions Page.
	 If the selected method is an open interface table or view with Outbound direction, Read is the only available operation and is automatically selected by default. If the selected method is SUBMIT_CP_<internal associated="" concurrent="" name="" of="" program="" the="">, this field is not shown.</internal>



Element	Description
Operation (for Java APIs only)	Appears only if the selected interface is a Java API. The available options for your selection are:
	 Create (default): Performs the HTTP "POST" action to the selected method in the Java API
	 Read: Performs the HTTP "GET" action to the selected method in the Java API.
	 By default, you cannot perform Read operation of all Java methods. Only if HTTP "GET" is enabled for a desired method first, you can deploy that method with GET option in Oracle E-Business Suite and then can use Read operation from the Oracle E-Business Suite Adapter for an integration. Otherwise, you can use the Create operation for the same method if it is deployed as a REST operation in Oracle E-Business Suite. Fo information on deploying a Java API as a REST service with desired HTTP verbs, see: Deploying REST Web Services, Oracle E-Business Suite Integrated SOA Gateway Implementation Guide "Annotations for Application Module Services" in Java Annotations, Oracle E-Business Suite Integrated SOA Gateway Developer's Guide
Service Status	Displays the corresponding REST service status for the selected method.
	Ready to Use
	 This indicates that the selected method is deployed as a REST service and it is ready to use for your integration. Not Deployed
	If the selected method is not deployed as a REST service, then Not Deployed is shown as the service status instead. Additionally a warning message appears, indicating that yo must deploy the method as a REST service first before using it for your integration.
	To deploy the selected method as a REST service, you need to log in to Oracle E- Business Suite as a user who has the Integration Administrator role. Select the Integrated SOA Gateway responsibility and the Integration Repository link from the navigation menu. Search and locate the selected interface from the Integration Repository, and then deploy it as a REST service. Only when the REST service is available in Oracle E-Business Suite, you car then proceed to the process of adding Oracle E-Business Suite as a target connection. For information on deploying REST services
	see Deploying REST Web Services, Oracle E-Business Suite Integrated SOA Gateway Implementation Guide.

Element	Description
Description	Displays the selected method description information.

Oracle E-Business Suite Adapter Operations — Add Filter Conditions Page

You can optionally create filter conditions for a selected open interface in your integration if the selected **CRUD Operation** value for a method is **Read**, **Update**, or **Delete**. Use this feature to add conditions to only allow certain data to be passed in your integration.

Element	Description
Element	Select a desired open interface table or view column from the drop-down menu. This returns the elements filtered by the text you selected. For example, select "QUANTITY_ORDER" as the filter text. Then only the column names with "QUANTITY_ORDER" will be retrieved.
Operator	Select an appropriate operator for your filter condition.
	The available operation options are:
	• Equals (default)
	Not Equals
	Less Than
	Less or Equal To
	Greater Than Greater or Equal To
	 In
	Not In
	For example, select " Greater Than " for the filter element "QUANTITY_ORDER".
Value	Enter a literal value or a parameter in this field. For example, enter 1 for the filter element "QUANTITY_ORDER".
	If the value is a parameter or variable, add : (colon) before the parameter name as a prefix. For example, :BATCH_NUM would be a parameter whose value is determined at runtime.
	Please note that the :BATCH_NUM parameter specified here will be available for mapping later at the design time and will be part of the input parameters in the schema (xsd) file generated for this integration.
AND/OR	If there are more than one filter conditions listed in the table, specify desired logical operator values (AND and OR) to associate with these conditions in the table.

To update an existing condition, select a desired condition that you want to edit first. The entered values become editable. To remove a filter condition entered earlier in the table, click the x icon next to the condition you want to remove. Click **Detach** to manage the filter



conditions in a separate Detached Table page. Click **Clear All** to remove all the filter conditions listed in the table.

Click **OK** to save the filter conditions and return back to the Operations page. See: Oracle E-Business Suite Adapter Operations Page.

Oracle E-Business Suite Adapter Invoke Summary Page

You can review the invoke (target) endpoint configuration details on the Oracle E-Business Suite Adapter Invoke Endpoint Configuration Summary page.

Element	Description
Product Family	Displays the selected product family for your configuration, such as "Financial Receivables Suite".
Product	Displays the selected product for your configuration, such as "Receivables".
Web Service	Displays the internal name of the selected interface, such as "RAXMTR".
Method	Displays the selected method or operation name, such as "RA_INTERFACE_LINES_ALL".
Direction (for Open Interface only)	Displays either "Inbound" or "Outbound" for the selected open interface table or open interface view.
CRUD Operation (for Open Interface only)	Displays selected operation value for the open interface table or open interface view.
Operation (for Java API only)	Displays selected operation value for the Java method.
Status	Displays the service status of the selected method or operation, such as "Ready to Use".
Integration Pattern	Synchronous

Click Done.

Implement Common Patterns Using the Oracle E-Business Suite Adapter

The Oracle E-Business Suite Adapter supports both inbound and outbound integrations in Oracle Integration. You can use the Oracle E-Business Suite Adapter as a trigger or as an invoke connection in an integration.

• For Inbound Integration from Oracle E-Business Suite to Oracle Integration

When adding the Oracle E-Business Suite Adapter as a trigger (source) connection, you can use either of the following interface types to trigger an inbound integration in Oracle Integration:

- Business Event
- XML Gateway Message

Configure Oracle E-Bu	siness Suite Adapter Endpoint		×
		③ Help ▼ < Back Next > (Cancel Done
Welcome to This wizard an XML Gat	Oracle E-Business Suite Adapter Source Configuration W helps you configure source endpoint using Oracle E-Business eway Map in Oracle E-Business Suite.	fizard Suite Adapter connection. You will be asked to select a Busine	× ess Event or
🧳 Basic Info	* What do you want to call your endpoint?	EBS_Source_event	
Business Events	What does this endpoint do?	raise a business event	
Summary	* What do you want to configure the endpoint for?	Business Event () XML Gateway Map	

• For Outbound Integration from Oracle Integration to Oracle E-Business Suite

When adding the Oracle E-Business Suite Adapter as an invoke (target) connection, you can use an Oracle E-Business Suite REST service to invoke an outbound integration from Oracle Integration. The available interface types that support this integration pattern are:



- PL/SQL
- Concurrent Program
- Open Interface Table and View
- Java API

Configure Oracle E	-Business Suite Ad	lapter Endpoint						
			Ø	Help 🔻	< Back	Next >	Cancel	Don
Select O Select th	Pracle E-Business Suite e target service which wi	Service ill be used to perform operation on Orac	le E-Busine	ss Suite app	lication.			×
🖋 Basic Info	Product Family	Order Management Suite		\sim				^
Web Services	Product	Order Management		\sim				
Operations	Interface Type	All		~				
Summary	* ADI	All						
	API	PL/SQL	N					
		Concurrent Program	5	oncurre	nt Program			
		Open Interface		oncurr	ent Program			
		Java						
		Order Import Concurrent Program						
		Order Management Sales Orders						
		OUTBOUND: Purchase Order Acknowl	edgment (8	55/ORDRSF) Concurrent	Program		
		OUTBOUND: Purchase Order Change	Acknowled	gment (865/	ORDRSP) Co	oncurrent P	rogram	
		Process Order API						
		Purchase Order Acknowledgments Ext	ension Colu	umns API				
		Purchase Order Change Acknowledgn	nents Exten	sion Columr	IS API			
	Internal Name	ECEPOI875						
	Description	This concurrent program allows users	to run the i	nbound Groo	ery Purchase	e Orders El	DI ^	~
	<				-		>	

REST Header Mapping

This type of integration requires the following RESTHeader elements to be passed as part of the input parameters in invoking Oracle E-Business Suite services. These header elements are used to set applications context values which are required in the API used in an integration for service invocation.

- Responsibility: It represents responsibility_key (such as "SYSTEM_ADMINISTRATOR").
- RespApplication: It represents Application Short Name (such as "FND").
- SecurityGroup: It represents Security Group Key (such as "STANDARD").
- NLSLanguage: It represents NLS Language (such as "AMERICAN").
- Org_Id: It represents Org Id (such as "202").

At design time, you need to map each of these RESTHeader elements from the Source section to the corresponding elements in the Target section while creating a mapping.



fiew 🔻 Filter 🕎	Detach	Map 🕂		View w	Filter	Detach		
Source	Find	٩	Mappings	Target		Find	٩,	Mapping
∡ <> *execute					> "RA_INTE	RFACE_LINES_ALL_Input		
	ERFACE_LINES_ALL_I	input			⊿ <> *RES	THeader		
⊿ <> *RE	STHeader			0	<> F	Responsibility		Responsibility
<>	*Responsibility	9		0	<> F	RespApplication		RespApplicatio
\diamond	*RespApplication	9		9	<> 5	SecurityGroup		SecurityGroup
<>	*SecurityGroup	9		0	<> N	ILSLanguage		NLSLanguage
$\langle \rangle$	*NLSLanguage	Ø .		0	00	Drg_ld		Org_ld
<>	*Org_ld	9		0	<> Selec	t		Select
<> *Sel	lect	0			∡ <> *Input	Parameters		
▶ <> *Inpi	utParameters				▶ 75 F	A INTERFACE LINES ALL	REC	

Additionally, you assign appropriate values to these elements if required in your mapping to pass application context values for invoking an Oracle E-Business Suite service. For example, you can assign the following values for each element listed in the table required to invoke a "SUBMIT_CP_RAXMTR" REST service.

Element	Value
Responsibility	"EMPLOYEE_DIRECT_ACCESS_V4.0"
RespApplication	"PER"
SecurityGroup	"STANDARD"
NLSLanguage	"AMERICAN"
Org_ld	"204"

After assigning the values listed above for the RESTHeader elements, you can find these values are mapped and displayed in the Target section.

•	✓ <> RESTHeader	
~	<> Responsibility	*EMPLOYEE_DIRECT_ACCESS_V4.0*
~	<> RespApplication	"PER"
~	<> SecurityGroup	"STANDARD"
	<> NLSLanguage	"AMERICAN"
	<> Org_Id	"204"

For information about RESTHeader mapping, see the "Creating Mappings" section described in the following examples:

- An Example of Using a PL/SQL REST Service as an Invoke (Target) Connection in an Integration
- An Example of Using an Open Interface REST Service as an Invoke (Target) Connection in an Integration
- An Example of Using a Java REST Service as an Invoke (Target) Connection in an Integration

Topics:

- Use Oracle E-Business Suite Business Events to Trigger Integration Endpoint in Oracle Integration
- Use Oracle E-Business Suite XML Gateway Messages to Trigger Integration Endpoint in Oracle Integration
- Invoke Oracle E-Business Suite PL/SQL APIs from Oracle Integration
- Invoke Oracle E-Business Suite Concurrent Programs from Oracle Integration
- Invoke Oracle E-Business Suite Open Interfaces from Oracle Integration
- Invoke Oracle E-Business Suite Java APIs from Oracle Integration

Use Oracle E-Business Suite Business Events to Trigger Integration Endpoint in Oracle Integration

Important:

Before adding the Oracle E-Business Suite Adapter as a trigger (source) connection for an inbound integration in Oracle Integration, ensure that you have performed the required setup tasks to enable this feature. See Setup Tasks for Using the Oracle E-Business Suite Adapter as a Trigger (Source) Connection.

A business event is an occurrence in Oracle E-Business Suite that may trigger the next business process or action. An example of a business event can be a purchase order status change which may trigger an notification to be sent to the parties who have subscribed to the event. Oracle E-Business Suite provides various business events for use in integrations. To leverage the business event and event subscription features, you can configure the Oracle E-Business Suite Adapter with business events to invoke an integration endpoint in Oracle Integration.

You can locate a desired business event based on selected product family and product for your integration. When the selected business event is raised in Oracle E-Business Suite at runtime, the Oracle E-Business Suite Adapter will propagate the event information from Oracle E-Business Suite to Oracle Integration to trigger the integration.



Note:

You can define custom business events to meet your needs if required, annotate the custom events, and then upload them to the Integration Repository. Additionally, make sure that these custom events are enabled (with "Enabled" event status) in Oracle Workflow Business Event System with the **Workflow Administrator Web Applications** responsibility.

To use these custom events for integrations, you need to log in to Oracle Integration and locate the Oracle E-Business Suite connection you plan to use for integrations. Click the **Actions** menu icon and then select **Refresh Metadata**.

For information on creating custom business events, see Creating Custom Integration Interfaces, Oracle E-Business Suite Integrated SOA Gateway Developer's Guide. For information on uploading custom interfaces to Oracle Integration Repository resided in Oracle E-Business Suite Integrated SOA Gateway, see Generating ILDT Files and Uploading ILDT Files to Integration Repository, Oracle E-Business Suite Integrated SOA Gateway Implementation Guide.

When adding a business event in an integration, you can locate an event through either of the following ways in the Business Events page of the Configure Oracle E-Business Suite Adapter Endpoint Wizard:

 Select a desired event name from the drop-down list. For example, select "Event for OIP status update notification".

Configure Oracle E-E	Business Suite Adapte	r Endpoint	
		Help v < Back Next > Cance	Don
Select Ora Select the I Suite, asso	ICLE E-Business Suite Busin Business Event which will b boated event data and parar	less Event e used to trigger this integration flow. Whenever the selected business event occurs in Oracle E-Busin meters are sent to this integration.	iess
Basic Info	Product Family	Order Management Suite	1
Business Events	Product	Order Management 🗸	
Summary	* Business Event	Filter by name	
		Event for Genesis Outbound Acknowledgment	
		Event for OIP status update notification	
	Internal Name	oracle.apps.ont.oip.statuschange.update	
	Status	Enabled	
	Description	Oracle Order Management will raise this event when Order is booked, line Schedule Ship Date changes, shipped and is invoiced when the profile "OM : Raise Status Change Business Event" is cet to "Vec"	
	<		



Use the Filter by name field to find your desired event. For example, enter an
event partial name along with wildcard characters "*OIP*" in this field to search the
event names containing "OIP".

Product Family	Order Management Sui	te	~
Product	Order Management	Filter by name	\sim
* Business Event	*OIP*		
	Event for OIP status upda	ate notification	

After you selected an event, if the event status is "Disabled" indicating that there is no event subscription created for the event, to use that event for an integration, you must enable it first from Oracle E-Business Suite. For information on enabling the event subscription, see Subscribing to Business Events, Oracle E-Business Suite Integrated SOA Gateway Implementation Guide.

- For an integration example of configuring the Oracle E-Business Suite Adapter with a business event, see An Example of Using a Business Event as a Trigger (Source) in an Integration.
- For information about error messages if occur while adding the Oracle E-Business Suite Adapter as a trigger (source) connection in an integration, see Troubleshoot the Oracle E-Business Suite Adapter While Using it as an Invoke (Target) in an Integration.

Use Oracle E-Business Suite XML Gateway Messages to Trigger Integration Endpoint in Oracle Integration

Important:

Before adding the Oracle E-Business Suite Adapter as a trigger (source) connection for an inbound integration in Oracle Integration, ensure that you have performed the required setup tasks to enable this feature. See: Setup Tasks for Using the Oracle E-Business Suite Adapter as a Trigger (Source) Connection.

Oracle E-Business Suite provides various XML Gateway interfaces for use in integrations with trading partners and third party applications. By leveraging these XML Gateway interfaces and messages, Oracle E-Business Suite Adapter can be configured to support an easy integration between Oracle E-Business Suite and Oracle Integration through standard-based XML messaging. This integration pattern is an ideal solution when you need to interact with third party applications that use open standards. Moreover, it is also suitable for scenarios where trading partners change frequently.



Similar to business events, you can use outbound XML Gateway messages from Oracle E-Business Suite to trigger inbound integrations in Oracle Integration when adding the Oracle E-Business Suite Adapter as trigger (source) connections.

When an XML Gateway outbound transaction occurs in Oracle E-Business Suite at runtime, this message is enqueued to the ECX_OUTBOUND queue as an existing XML Gateway processing. Oracle Transport Agent (OTA) from Oracle XML Gateway will fetch the message from the queue and post it to Oracle Integration.

Note:

You can define custom XML Gateway message maps to meet your needs if required.

After you completed the configuration with an XML Gateway message through the Oracle E-Business Suite Adapter, to successfully use the selected message map in Oracle Integration, you must perform required manual tasks after you activate the integration. These manual steps are included in the **Instructions** section as part of the Summary page.



For information on how to perform these manual steps, see Post Activation Manual Steps for XML Gateway Messages as a Trigger.

• For more information on using XML Gateway messages in integrations, see An Example of Using an XML Gateway Message as a Trigger (Source) in an Integration.



 For information about error messages if occur while adding the Oracle E-Business Suite Adapter as a trigger (source) connection in an integration, see Troubleshoot the Oracle E-Business Suite Adapter While Using it as an Invoke (Target) in an Integration.

Post-Activation Manual Steps for XML Gateway Messages as a Trigger

After you create an integration with an XML Gateway message from Oracle E-Business Suite in Oracle Integration, you must manually perform the following tasks:

- **1.** Activate the integration.
- 2. Obtain the integration endpoint URL.

In the Integrations page, click the Integration Details icon ("i") for a desired integration. The endpoint URL should be displayed in a pop-up window with the following format:

https://<Oracle Integration Host>:<Port>/ic/api/integration/v1/flows/
ebusiness/<integration>/1.0/metadata.

The URL will be used later as the protocol address when configuring a trading partner in Oracle XML Gateway.

Note:<integration> indicates the alias name for a deployed REST service, such as "PROCESS_PO" in this sample.

- 3. Configure a desired trading partner in Oracle E-Business Suite by specifying the communication protocol and address as well as the user credentials for the XML message specified in an integration.
 - a. Log in to Oracle E-Business Suite as a user (such as sysadmin) who has the XML Gateway responsibility.
 - Select the XML Gateway responsibility and then select Define Trading Partners from the navigator. The Define Trading Partner Setup form appears.
 - c. Search and locate a desired trading partner to be configured.
 - **d.** In the Trading Partner Details region, add the following information for the trading partner:
 - Transaction Type: A desired transaction type for your XML Gateway message, such as PO
 - Transaction Subtype: A desired subtype for your XML Gateway message, such as PRO
 - Map: A desired XML Gateway message, such as itg_process_po_007_out
 - Connection/Hub: DIRECT
 - Protocol: HTTPS
 - Protocol address: https://<Oracle Integration Host>:<Port>/ic/api/ integration/v1/flows/ebusiness/<integration>/1.0/

Enter the integration endpoint URL (without metadata at the end) you recorded earlier.

Username: <Oracle Integration user name>



Enter the Oracle Integration user credentials used to execute integrations in Oracle Integration.

Password: Password

Replace *password* with the actual password value of the associated Oracle Integration user.

Operating Unit Vision Operations Trading Partner Type Supplier Advanced Network Devices 2000 Century Way Santa Clara CA 95613-4565 Company Admin Email nobody@localhost6.com User Setup Code Conversion Trading Partner Site Company Admin Email nobody@localhost6.com User Setup Code Conversion Transaction Transaction Transaction Transaction Transaction Transaction Transaction Transaction Type SubType Code PO PRO OAG PO PROCESS OUT ttg_process_p pIRECT TTRS PO PRO OAG PO PROCESS OUT ttg_process_p DIRECT TTRS Image: colspan="2">Image: colspan="2" Image: colspan="2"	21	rading Partner	Setup							l .	
Trading Partner Type Trading Partner Name Trading Partner Site Company Admin Email Supplier Advanced Network Devices 2000 Century Way Santa Clara CA 95613-4565 nobody@localhost6.com User Setup Code Conversion Trading Partner Details Transaction Transaction Standard Type External Transaction Transaction Type Connection/ Protocol PO PRO OAG PO PROCESS OUT tg_process_p DIRECT TTTERS Image: Details Image: Details Image: Details Image: Details Image: Details Image: Details Image: Details Image: Details Image: Details Image: Details Image: Details Image: Details Image: Details Image: Details		(Operating Unit	Vision Op	erations]					
Trading Partner Name Advanced Network Devices Trading Partner Site 2000 Century Way Santa Clara CA 95613-4565 Company Admin Email nobody@localhost6.com User Setup Code Conversion Transaction Transaction Standard Transaction Tran		Trading	Partner Type	Supplier							
Trading Partner Site Company Admin Email 2000 Century Way Santa Clara CA 95613-4565 User Setup Code Conversion Trading Partner Details External External Transaction Transaction Standard Type External External PO PRO OAG PO PROCESS OUT Itg_process_p DIRECT HTPS ************************************		Trading I	⊃artner Name	Advanced	l Network Devi	ces					
Company Admin Email nobody@localhost6.com User Setup Code Conversion Trading Partner Details Transaction Transaction Standard Transaction Transaction Transaction Map Hub Type SubType Code PO PROCESS OUT itg_process_p DIRECT HTTPS PO PRO OAG PO PROCESS OUT itg_process_p DIRECT HTTPS (1		Trading	g Partner Site	2000 Cer	itury Way Sa	nta Clara CA 9	5613-4565	5			
User Setup Code Conversion Trading Partner Details External Transaction Transaction Transaction Transaction Type SubType PO PRO PO PRO PO PROCESS OUT Itg_process_p DIRECT HTPS Image: Code Image: Code Image: Code Image: Code PO PRO Image: Code Image: Code Image: Code Image: Code <td></td> <td>Company</td> <td>Admin Emai</td> <td>nobody@</td> <td>)localhost6.cor</td> <td>n</td> <td></td> <td></td> <td></td> <td></td> <td></td>		Company	Admin Emai	nobody@)localhost6.cor	n					
Trading Partner Details Transaction Transaction Standard Transaction Transaction Transaction Type SubType Direction Map Hub Type PO PRO OAG PO PRO OAG PO PRO OAG PO PRO OAG PO PROCESS OUT Itg_process_p DIRECT Image: SubType Image: SubType Image: SubType PO PRO OAG PO PRO OAG PO PROCESS OUT Image: SubType Image: SubType Image: SubType Image: SubType PO PRO OAG PO PROCESS OUT Image: SubType						User S	ietup	Code C	onversion		
External External External Transaction Transaction Transaction Connection/ Protocol Type SubType Direction Map Hub Type PO PRO OAG PO PROCESS OUT Itg_process_p DIRECT HTTPS Image: starting transaction Image: starting transaction Im	-т	rading Partn	er Details								
External Transaction External Transaction External Transaction Connection/ Protocol Protocol PO PRO OAG PO PROCESS OUT Itg_process_p DIRECT HTTPS Image: constraints PO PRO OAG PO PROCESS OUT Itg_process_p DIRECT HTTPS Image: constraints Image		i a anig i a a a									
Transaction Transaction Transaction Connection/ Protocol Type SubType Oirection Map Hub Type PO PRO OAG PO PROCESS OUT itg_process_p DIRECT HTPS Image: constraint of the state					External	External					
Type SubType Direction Map Hub Type PO PRO OAG PO PROCESS OUT itg_process_p DIRECT HTTPS Image: state stat		Transaction	Transaction	Standard	Transaction	Transaction			Connection/	Protocol	
PO PRO GAG PO PROCESS OUI Itg_process_p DIRECT FTTES m Image: Image in the ima	-	Туре	SubType	Code	Туре	SubType	Direction	Map	Hub	Туре	
		PO	PRO	OAG	PO	PROCESS	OUT	itg_process_p	DIRECT	HITPS	
											1
					Î	1	Î			Î	
	h			[1	1	<u> </u>				
				[<u> </u>				
				[1		<u> </u>				
				l			<u> </u>	L			
	U										
	(4									DO

e. Save your work.

For more information on setting up trading partners, see Trading Partner Setup, Oracle XML Gateway User's Guide.

Invoke Oracle E-Business Suite PL/SQL APIs from Oracle Integration

Oracle E-Business Suite contains numerous interface integration endpoints which can be exposed as REST services through Oracle E-Business Suite Integrated SOA Gateway. To leverage and use these Oracle E-Business Suite REST services to access Oracle E-Business Suite application data, you need to configure the Oracle E-Business Suite Adapter as invoke (target) connections.

PL/SQL REST services are one of the available interfaces for use in outbound integrations from Oracle Integration. In response to a request in an integration, a PL/SQL REST service can be invoked to access or update Oracle E-Business Suite application data to fulfill the integration needs.



Note:

In addition to Oracle seeded PL/SQL APIs, you can use custom PL/SQL APIs or REST services for your integration needs.

For example, select "Sales Order Services" PL/SQL API in the Web Services page of the Configure Oracle E-Business Suite Adapter Endpoint Wizard. The corresponding interface information is automatically populated. This includes the interface internal name (OE_INBOUND_INT) and description.

		Help 🔻 Kack Next >	Cancel	Don	4
Select Ora Select the	acle E-Business Suite So target service which will	rvice e used to perform operation on Oracle E-Business Suite application.		;	<
A Dania Infa	Des durat Franklin			1	
Basic Into	Product Family	Order Management Suite			
Web Services	Product	Order Management			
Operations	Interface Type	PL/SQL V			
Summary	* API	Filter by name			
		Process Order API			
		Purchase Order Acknowledgments Extension Columns API			
		Purchase Order Change Acknowledgments Extension Columns API			
		Sales Agreement API			
		Sales Order Services			
		Ship Conformation			
	Internal Name	OE_INBOUND_INT			
	Description	This API allows clients to perform various operations on sales orders.			,

After the selection, if one or more methods contained in the selected interface are deployed as REST service operations, after you click **Next**, the Operations page appears.

In the Operations page of the Configure Oracle E-Business Suite Adapter Endpoint Wizard, the selected interface internal name OE_INBOUND_INT is automatically populated.



Configure Oracle E-Busine	ss Suite Adapt	er Endpoint	×
		· Help ▼	Cancel Done
Select Operation Operations for se Operation should	n for Oracle E-Bus lected Oracle E-Bu be 'Ready to use' f	iness Suite Service siness Suite Service are listed. Select Operation to perform on Oracle E-Business Suite applicatio o configure the target endpoint for integration.	x on. Selected
✓ Basic Info	API	OE_INBOUND_INT	
Veb Services	* Methods	PROCESS_ORDER	
Operations			
Summary			
	Service Status	Ready to Use Use this procedure to build Oracle Applications Adapter based web services that create, update or delete Sales Orders in the Order Management system. It is optimized for usage in web service and recommended for this purpose over Process Order API. DO NOT use Process Order API (

For more information about using PL/SQL REST services in an integration, refer to:

- For an integration example of using PL/SQL REST services, see An Example of Using a PL/SQL REST Service as an Invoke (Target) Connection in an Integration.
- For troubleshooting information while creating an integration with the Oracle E-Business Suite Adapter as an invoke (target) connection in Oracle Integration, see Troubleshoot the Oracle E-Business Suite Adapter While Using it as an Invoke (Target) in an Integration.

Invoke Oracle E-Business Suite Concurrent Programs from Oracle Integration

In addition to using PL/SQL REST services as explained earlier, you can access and update Oracle E-Business Suite data through the use of concurrent program REST services.

A concurrent program runs as a concurrent process that executes multiple programs running in the background. To leverage the functionality provided by concurrent programs for Oracle E-Business Suite applications, you can configure the Oracle E-Business Suite Adapter to invoke a desired concurrent program REST service as an outbound integration from Oracle Integration.

Note:

Similar to PL/SQL APIs, you can define and use custom concurrent programs in integrations in Oracle Integration.

When adding the Oracle E-Business Suite Adapter as an invoke (target) connection, in the Web Services page of the Configure Oracle E-Business Suite Adapter Endpoint Wizard, you can navigate to a desired product family, such as "Marketing Suite", and select "Trade



Management" as the product name to locate a concurrent program called "Claim Settlement Fetcher Program" for your integration.

			🕑 Help 🔻	< Back	Next >	Cancel	Done
Select O Select the	racle E-Business Suite S e target service which will	ervice be used to perform operation on Oracl	e E-Business Suite app	olication.			×
Basic Info	Product Family	Marketing Suite	~				^
Veb Services	Product	Trade Management	\sim				
Operations	Interface Type	Concurrent Program					
Summary	* API	Filter by name					
		Claim Settlement Fetcher Program					
		Claims Aging Populating					
		Claims Autopay					
		Funds Accrual Engine					
		Generate Party List for Market Qualifie	rs				
		Net Accrual Engine					
		Perform Recalculated Commitment F	or Offers				
		Refresh Account Manager Dashboard	i				
		Refresh Materialized View					
	Internal Name	OZFARFETCH					
	Description	This program retrieves transactions of	created in Oracle Payab	les (check) or O	racle	^	~
	<						>

If one or more methods contained in the selected "Claim Settlement Fetcher Program" interface are deployed as REST service operations, after you click **Next**, the Operations page appears.

In the Operations page of the Configure Oracle E-Business Suite Adapter Endpoint Wizard, you can then select a desired service operation, such as "Process" as the method name for your integration.



siness Suite Adapt	pter End	dpoint											>
							0	Help 🔻	•	< Back	Next >	Cancel	Done
ation for Oracle E-Bus or selected Oracle E-Bu ould be 'Ready to use' t	usiness S Business e' to config	Suite Servi Suite Servio gure the tar	ice ce are list rget endpo	ted. Sel oint for i	lect Ope integrat	eration t	o perforn	n on Oracl	e E-Bu	siness Si	uite applicat	ion. Selected	d
API	OZFA	ARFETCH											
* Methods	Proce	ess											
Service Status	s Read	ly to Use											
Description	Trade	e Managem	ent - Clair	ims Sett	tlement	Fetcher							
	ation for Oracle E-B or selected Oracle E-B ould be 'Ready to use API * Methods Service Statu Description	ation for Oracle E-Business or selected Oracle E-Business ould be 'Ready to use' to confi API OZF/ * Methods Proce Service Status Read Description Trade	siness Suite Adapter Endpoint ation for Oracle E-Business Suite Servi or selected Oracle E-Business Suite Servi ould be 'Ready to use' to configure the tar API OZFARFETCH * Methods Process Service Status Ready to Use Description Trade Managem	siness Suite Adapter Endpoint ation for Oracle E-Business Suite Service or selected Oracle E-Business Suite Service are lis ould be Ready to use' to configure the target endp API OZFARFETCH * Methods Process Service Status Ready to Use Description Trade Management - Cla	siness Suite Adapter Endpoint ation for Oracle E-Business Suite Service or selected Oracle E-Business Suite Service are listed. Se ould be 'Ready to use' to configure the target endpoint for API OZFARFETCH * Methods Process Service Status Ready to Use Description Trade Management - Claims Set	siness Suite Adapter Endpoint ation for Oracle E-Business Suite Service or selected Oracle E-Business Suite Service are listed. Select Ope ould be Ready to use to configure the target endpoint for integral API OZFARFETCH * Methods Process Service Status Ready to Use Description Trade Management - Claims Settlement	siness Suite Adapter Endpoint ation for Oracle E-Business Suite Service or selected Oracle E-Business Suite Service are listed. Select Operation to ould be Ready to use to configure the target endpoint for integration. API OZFARFETCH * Methods Process Service Status Ready to Use Description Trade Management - Claims Settlement Fetcher	siness Suite Adapter Endpoint	siness Suite Adapter Endpoint Help Ation for Oracle E-Business Suite Service are listed. Select Operation to perform on Oracl Ould be Ready to use' to configure the target endpoint for integration. API OZFARFETCH Methods Process Service Status Ready to Use Description Trade Management - Claims Settlement Fetcher	siness Suite Adapter Endpoint Help Help He	siness Suite Adapter Endpoint Help Alpha Help Appli API OZFARFETCH Methods Process Service Status Ready to Use Description Trade Management - Claims Settlement Fetcher	siness Suite Adapter Endpoint Help Back Next > ation for Oracle E-Business Suite Service are listed. Select Operation to perform on Oracle E-Business Suite application de Ready to use' to configure the target endpoint for integration. API OZFARFETCH * Methods Process Service Status Ready to Use Description Trade Management - Claims Settlement Fetcher	siness Suite Adapter Endpoint Help Back Next Cancel ation for Oracle E-Business Suite Service or selected Oracle E-Business Suite Service are listed. Select Operation to perform on Oracle E-Business Suite application. Selecter oud be Ready to use to configure the target endpoint for integration. API OZFARFETCH * Methods Process Service Status Ready to Use Description Trade Management - Claims Settlement Fetcher

For more information about using concurrent program REST services in an integration, refer to:

- For more information on configuring the Oracle E-Business Suite Adapter with concurrent program REST services, see Add the Oracle E-Business Suite Adapter as an Invoke (Target) Connection.
- For information about error messages if occur while creating an integration with the Oracle E-Business Suite Adapter as an invoke (target) connection in Oracle Integration, see Troubleshoot the Oracle E-Business Suite Adapter While Using it as an Invoke (Target) in an Integration.

Invoke Oracle E-Business Suite Open Interfaces from Oracle Integration

This pattern allows you to directly interact with the Oracle E-Business Suite application data stored in a desired open interface table. When you add the Oracle E-Business Suite Adapter as invoke (target) connections, open interface table and open interface view REST services are available for outbound integrations from Oracle Integration.

Depending on the direction of a selected open interface table in an integration, you can perform various actions to manage the data.

- You can use an open interface table with Inbound direction to read, insert, update, or remove data stored in an open interface table.
- You can use an open interface table with Outbound direction to only read the data stored in the table.



Open interface views are database objects that make data from Oracle E-Business Suite products available for selection. If you use an open interface view in an integration, you can only read the data stored in the selected open interface view.

Note:

Custom interface types of open interface tables and open interface views are not supported.

For example, in the Web Services page of the Configure Oracle E-Business Suite Adapter Endpoint Wizard, select "AR Autoinvoice" open interface from the drop-down list. Its internal name is that of the associated concurrent program (such as "RAXMTR"), and the description is the full description of the associated concurrent program as well.

		Help v < Back Next > Cancel	Don
Select Or Select the	racle E-Business Suite Se target service which will be	rvice used to perform operation on Oracle E-Business Suite application.	1
Basic Info	Product Family	Financial Receivables Suite	
eb Services	Product	Receivables	
perations	Interface Type	Open Interface	
immary	* дрі	Filter by name Filter by name AR Autoinvoice AR Payments Interface OUT: Credit/Debit Memo (812) OUT: Invoice (810/INVOIC) Sales Tax Rate Interface	
	Internal Name	RAXMTR	
	Description	Using AutoInvoice, you can import and validate transaction data from other financial systems, and create invoices, debit memos, credit memos, and on-account credits in Oracle Receivables. For more information see online documentation.	

In the Operations page of the wizard, a list of tables contained in the selected open interface "RAXMTR" is displayed as the methods, along with the associated concurrent program submission SUBMIT_CP_<internal name of the associated concurrent program> (such as SUBMIT_CP_RAXMTR) shown in the last entry of the list.



Note:

SUBMIT_CP_<internal name of the associated concurrent program> is only displayed for an open interface table. This method will not be shown if the selected interface is an open interface view. If the SUBMIT_CP_RAXMTR method in this example is selected, then the **Direction** and **CRUD Operation** fields (shown in the screenshot below) are not displayed in this page.

Configure Oracle E-Bu	siness Suite Adapter	Endpoint						
			0	Help 🐨	< Back	Next >	Cancel	Done
Select Oper Operations fr Operation sh	ration for Oracle E-Busin or selected Oracle E-Busin would be 'Ready to use' to c	ss Suite Service ss Suite Service are listed. Select O nfigure the target endpoint for integra	peration to perform on ion.	Oracle E-Bu	isiness Suite	application.	Selected	×
🖋 Basic Info	API	RAXMTR						
🖋 Web Services	* Methods	RA_INTERFACE_DISTRIBUTIONS_	ALL					
💙 Operations		RA_INTERFACE_ERRORS_ALL						
Summary		RA_INTERFACE_LINES_ALL						
		RA_INTERFACE_SALESCREDITS_	ALL.					
	Direction	INBOUND						
	CRUD Operation	Create						
	Service Status	Ready to Use						
	Description	The RA_INTERFACE_LINES_ALL ta imports into Oracle Receivables.	ble stores interface inf	ormation for	eachinvoice	line that Aut	olnvoice	

CRUD Operation

• If the selected method is an open interface table with Inbound direction, you can select a desired operation (Create, Read, Update, or Delete) for that method.

For information on each CRUD operation, see Oracle E-Business Suite Adapter Operations Page.



Note: If you select Read, Update, or Delete as its value, you can optionally create filter conditions for the selected method by clicking Add Filter Conditions link.
CRUD Operation Read V Add Filter Conditions
See Create Filters in the Add Filter Conditions Page (Optional).

- If the selected method is an open interface table or view with Outbound direction, **Read** is the only available operation and is automatically selected by default.
- If the selected method is SUBMIT_CP_<internal name of the associated concurrent program>, this field is not shown.

For more information on using open interface tables and open interface views in an integration, refer to:

- For an integration example of using open interface REST services, see An Example of Using an Open Interface REST Service as an Invoke (Target) Connection in an Integration.
- For troubleshooting information while creating an integration with the Oracle E-Business Suite Adapter as an invoke (target) connection in Oracle Integration, see Troubleshoot the Oracle E-Business Suite Adapter While Using it as an Invoke (Target) in an Integration.

Create Filters in the Add Filter Conditions Page (Optional)

If the selected CRUD Operation value for an open interface table or view method is **Read**, **Update**, or **Delete**, you can optionally click the **Add Filter Conditions** link to create conditions to filter the endpoint data before it is passed to the associated REST service for your integration at runtime.

Use the Add Filter Conditions page to specify conditions for your integration.



onfigure Oracle E-E	usiness Suite Adapter En	dpoint						
			Θ	Help 💌	< Back	Next >	Cancel	Done
Filter the s Filtering is	elected operation optional. You can specify one or r	nore conditions to filter th	e endpoint data b	oefore it enters	the integrat	ion flow.		×
Basic Info	Add Filter Conditions							
Web Services	The conditions will be a	applied to the operation: R	A_INTERFACE_L	LINES_ALL				
perations	Detach 🗕	×						
ummary	Element	Element Operator Value AND/OP						
	QUANTITY_ORDER	Greater Than 1	1	AN	AND			
	SALES_ORDER_ ~	Equals 🗸	02-10-2018			\sim		
						Clear All		
						0100171		
	Cancel Ok							

For more information on creating filter conditions, see Oracle E-Business Suite Adapter Operations — Add Filter Conditions Page.

Invoke Oracle E-Business Suite Java APIs from Oracle Integration

When you use the Oracle E-Business Suite Adapter as invoke connections, Java REST services including Java Bean Services, Application Module Services, and Business Service Object subtypes are available for outbound integrations from Oracle Integration. You can use a Java-based REST service to access Oracle E-Business Suite application data to add new entries or fetch existing records to meet your integration needs.

Note:

In addition to Oracle seeded Java APIs, you can use custom Java APIs or REST services for your integration needs.

For example, you can select "Self-Service HR" Java API in the Web Services page of the Configure Oracle E-Business Suite Adapter Endpoint Wizard, and then select "Get Person Absence Type Balances" as the method in the Operations page of the wizard.



Configure Oracle E-Business Suite Adapter Endpoint							
		Help • < Back Next >	Cancel	Done			
Select Ope Operations Operation s	for selected Oracle E-Bus should be 'Ready to use'	iness Suite Service siness Suite Service are listed. Select Operation to perform on Oracle E-Business Suite applic to configure the target endpoint for integration.	ation. Selected	d			
V Basic Info	API	oracle.apps.per.mobile.server.PerMobSSHRAMImpl					
Web Services	Services * Methods Calculate Absence Duration						
Operations	Operations Get Assignment Data						
Summary		Get Person Absence Type Balances					
		Get Person Planned Absences List					
		Get Person Recent Absences List					
		Get Oracle SSHR Person Details					
		Get Person Directs Details					
		Get Current User Details and Preferences					
	Operation	Read -					
	Service Status	rvice Status Ready to Use					
	Description	Gets absence balance of a person for an absence type or across eligible absence types.					
		······································					
				1			

Note that the Operation field appears only if the selected interface is a Java API.

Java REST services support **Create** (default) and **Read** operations.

For information on how to use these two operations, see Oracle E-Business Suite Adapter Operations Page.

Important:

By default, you cannot perform **Read** (using "GET" HTTP verb) operation on all Java methods when using the Oracle E-Business Suite Adapter. Only if HTTP "GET" is enabled for a desired method first, you can deploy that method with GET option in Oracle E-Business Suite and then can use **Read** operation from the Oracle E-Business Suite Adapter for an integration. Otherwise, you can use the **Create** operation for the same method if it is deployed as a REST operation in Oracle E-Business Suite. For information on deploying a Java API as a REST service with desired HTTP verbs, see:

- Deploying REST Web Services, Oracle E-Business Suite Integrated SOA Gateway Implementation Guide
- "Annotations for Application Module Services" and "Annotations for Java Bean Services" in Java Annotations, Oracle E-Business Suite Integrated SOA Gateway Developer's Guide

For more information on using Java APIs in an integration, refer to:

For integration examples of using Java REST services, see:



- Use a Java REST Service of Application Module Service Subtype as an Invoke (Target) Connection
- Use a Java REST Service of Business Service Object Subtype as an Invoke (Target) Connection
- For troubleshooting information while creating an integration with the Oracle E-Business Suite Adapter as an invoke (target) connection in Oracle Integration, see Troubleshoot the Oracle E-Business Suite Adapter While Using it as an Invoke (Target) in an Integration.



6

Oracle E-Business Suite Adapter Samples

This chapter incudes examples of using the Oracle E-Business Suite Adapter in an integration in Oracle Integration.

Topics:

- An Example of Using a Business Event as a Trigger (Source) in an Integration
- An Example of Using an XML Gateway Message as a Trigger (Source) in an Integration
- An Example of Using a PL/SQL REST Service as an Invoke (Target) Connection in an Integration
- An Example of Using an Open Interface REST Service as an Invoke (Target) Connection in an Integration
- Examples of Using a Java REST Service as an Invoke (Target) Connection in an Integration

An Example of Using a Business Event as a Trigger (Source) in an Integration

Sample Business Scenario

A business event "Event for OIP status update notification"

(oracle.apps.ont.oip.statuschange.update) is used in this example to explain using the Oracle E-Business Suite Adapter to trigger an integration in Oracle Integration.

In this example, when a sales order is booked as part of the business flow, Oracle Order Management raises the event oracle.apps.ont.oip.statuschange.update, and a draft invoice is created in Oracle Accounts Receivables.

At the design time, you need to create an integration called "Order to Invoice" with Oracle E-Business Suite Order Management as a trigger (source) connected through the Oracle E-Business Suite Adapter and Oracle E-Business Suite Accounts Receivables as an invoke (target) connected through a generic REST Adapter. The "Order to Invoice" integration will subscribe to this business event.

During the runtime, when the status of the sales order is changed in the order header, the business event oracle.apps.ont.oip.statuschange.update is raised in Oracle E-Business Suite Order Management which triggers the integration. If the status of the sales order is "Booked", the order details information is fetched from Oracle E-Business Suite Order Management. The Oracle E-Business Suite Adapter prepares and propagates the order details as event payload from Order Management to invoke the integration endpoint in Oracle Integration. As a result, the draft invoice is created in Oracle Accounts Receivables.

Assumption

 Assume that REST services are directly accessible from Oracle Integration; therefore, the Oracle Integration connectivity agent is not used in this example.



• Oracle E-Business Suite Order Management and Oracle E-Business Suite Accounts Receivables are two different instances used in this example.

Based on the integration scenario, the sample tasks for using an Oracle E-Business Suite business event in an integration are included in the Topics section:

Topics:

- 1. Prepare the Oracle E-Business Suite Instances
- 2. Establish Oracle E-Businss Suite Connections
- 3. Create an Integration
- 4. Add the Oracle E-Business Suite Adapter (Trigger) and the REST Adapter (Invoke) to the Integration
- 5. Create Mappings
- 6. Assign a Business Identifier for Tracking
- 7. Activate and Test the Integration
- 8. Sample XSD for the Oracle E-Business Suite Adapter as a Trigger with a Business Event Example

Prepare the Oracle E-Business Suite Instances

Before adding Oracle E-Business Suite connections, you must prepare the following Oracle E-Business Suite instances to ensure the required setup or configuration is in place.

- Prepare the Order Management Instance
- Prepare the Oracle Accounts Receivables Instance

Prepare the Order Management Instance

Perform the following tasks to ensure the required setup and configuration for Oracle E-Business Suite Order Management is ready for integrations in Oracle Integration:

1. Ensure that you perform the required setup tasks to enable the Oracle E-Business Suite Adapter.

These tasks include configuring Oracle E-Business Suite REST services, configuring the access to these services, deploying required REST services in Oracle E-Business Suite, and granting the user privileges to these services.

Specifically, ensure that you deploy the following REST services and have grants for the **operations** user:

- Metadata Provider REST service
 - Deploy the Metadata Provider API with "provider" as the service alias name
 - Deploy the Metadata Provider API with GET HTTP method for all the methods contained in the API
 - Grant the access privileges for all the methods contained in the API to the operations user
- Event Manager REST service



- Deploy the Event Manager API with "subscription" as the service alias name
- Deploy the Event Manager API with **POST** HTTP method for **all** the methods contained in the API
- Grant the access privileges for all the methods contained in the API to the operations user

For detailed instructions on these tasks, see: Setup Tasks for Enabling the Oracle E-Business Suite Adapter.

2. Ensure that you perform the required setup tasks to enable the inbound (trigger or source) integrations.

These tasks include storing the Oracle Integration user credentials in Oracle E-Business Suite FND vault, setting up proxy URLs in Oracle E-Business Suite, and importing TLS certificates to Oracle E-Business Suite. For detailed instructions, see: Setup Tasks for Using the Oracle E-Business Suite Adapter as a Trigger (Source) Connection.

3. Deploy the Order Management API, OE_ORDER_PUB (Process Order), as a REST service and grant the method access privileges to the **operations** user.

In this example, only grant the "Get Order" method contained in the API to the **operations** user.

4. Ensure that the profile option "OM: Raise Status Change Business Event" is set to Yes.

Prepare the Oracle Accounts Receivables Instance

Perform the following tasks to ensure the required setup and configuration for Oracle E-Business Suite Accounts Receivables is ready to use in an integration in Oracle Integration:

1. Configure Oracle E-Business Suite Integrated SOA Gateway REST services.

Follow the setup tasks as described in My Oracle Support Knowledge Document 556540.1 to configure Oracle E-Business Suite Integrated SOA Gateway Release 12.1.3 and apply the REST service patches to enable the REST service feature. For more information, see step 1, as described in Setup Tasks for Enabling the Oracle E-Business Suite Adapter.

- 2. Deploy the Invoice Creation API as a REST service with the following requirements and grant the desired method access privilege to the operations user:
 - Deploy the Invoice Creation API with "invoice" as the service alias name
 - Deploy the Invoice Creation API with **POST HTTP method only for the** "Create Single Invoice" method contained in the API

Note: PL/SQL APIs can be exposed as REST services only with POST HTTP method.

• Grant the access privilege only for the Create Single Invoice method contained in the API to the operations user

For information on deploying REST services, see Deploying REST Web Services, Oracle *E-Business Suite Integrated SOA Gateway Implementation Guide*.

For information on creating security grants for REST services, see Managing Grants for Interfaces with Support for SOAP and REST Web Services, Oracle E-Business Suite Integrated SOA Gateway Implementation Guide.



Establish Oracle E-Business Suite Connections

Before creating an integration, you need to establish the following connections that will be used later in this example:

- Create the Connection for Oracle E-Business Suite Order Management
- Create the Connection for Oracle E-Business Suite Accounts Receivables

Create the Connection for Oracle E-Business Suite Order Management

This section describes how to create a connection for the Oracle E-Business Suite Order Management instance by using the Oracle E-Business Suite Adapter. This connection will be added later as a trigger (source) in an integration.

Perform the following steps to establish the connection for Oracle E-Businss Suite Order Management in Oracle Integration:

- 1. In the navigation pane, click Home > Integrations > Connections.
- 2. On the Connections page, click **Create**.
- 3. In the Create Connection Select Adapter dialog appears.

You can locate the Oracle E-Business Suite Adapter by entering a full or partial name to locate "Oracle E-Business Suite" from the dialog.

For example, enter "Oracle E-Business Suite" in the Search field. The Oracle E-Business Suite Adapter is filtered from the list of adapters.

Click the **Select** button for "Oracle E-Business Suite" to use the Oracle E-Business Suite Adapter. The Create Connection dialog appears.

- 4. Enter the following information for the Oracle E-Business Suite Order Management connection:
 - Connection Name: Enter "Order Management".
 - Identifier: Accept the default populated identifier such as, ORDER_MANAGEMENT".
 - Keywords: Enter "Order Management".
 - Connection Role: Select the "Trigger and Invoke" role for this connection.
 - **Description:** Enter "Create an Oracle E-Business Suite Order Management connection" as the description.

Click Create to create the connection.

- 5. The Connection Details page is displayed for the "Order Management" connection you just created. Enter additional connection details by specifying the following information:
 - In the Connection Properties section, enter a URL (http://<Oracle E-Business Suite host name>:<port>) to connect to an Oracle E-Business Suite Order Management instance.
 - In the Security section, enter **operations** as the user name and its associated password to access the Oracle E-Business Suite

Order Management instance you specified earlier in the Connection Properties section.



- 6. Click **Test** to test the "Order Management" connection you just specified.
- When complete, click Save and then click

Oracle E-Business Suite connection "Order Management" appears in the Connections page.

Create the Connection for Oracle E-Business Suite Accounts Receivables

As described earlier that Oracle E-Business Suite Order Management and Accounts Receivables are two different instances used in this example, you need to create a connection for the Oracle Accounts Receivables instance by using the REST Adapter. This connection will be added later as an invoke (target) to an integration.

- 1. In the navigation pane, click Home > Integrations > Connections.
- 2. On the Connections page, click **Create**.
- 3. In the Create Connection Select Adapter dialog appears.

Enter "REST" in the Search field. The REST Adapter is filtered from the list of adapters.

Click the **Select** button for "REST" to use the REST Adapter. The Create Connection dialog appears.

- 4. Enter the following information for the Oracle E-Business Suite Accounts Receivables connection:
 - Connection Name: Enter "Receivables" as the connection name.
 - Identifier: Accept the default populated identifier such as "RECEIVABLES".
 - Keywords: Enter "Receivables".
 - Connection Role: Select the "Trigger and Invoke" role for this connection.
 - Description: Enter "Create a connection for Oracle E-Business Suite Receivables" as the description.

Click Create to create the connection.

- 5. The Connection Details page is displayed for the "Receivables" connection you just created. Enter additional connection details by specifying the following information:
 - In the Connection Properties section, enter the following information:
 - Connection Type: Select "REST API Base URL".
 - Connection URL: Enter a connection URL (http://<Oracle E-Business Suite host name>:<port>/webservices/rest/invoice) for the Invoice Creation REST service with invoice alias name that you deployed earlier while preparing the Receivables instance.
 - In the Security section, accept the "Basic Authentication" as the default security policy.

Enter **operations** as the user name and its associated password to access the Invoice Creation REST service you specified earlier in the Connection Properties section.

 Click Test to test the connection you just specified for Oracle E-Business Suite Accounts Receivables.



7. When complete, click **Save** and then click

Oracle E-Business Suite connection "Receivables" now appears in the Connections page.

Create an Integration

Based on the business scenario described earlier, you need to create an integration called "Order to Invoice" with the Orchestration pattern. This pattern allows you to orchestrate trigger, invoke, and switch activities if required into a process diagram in an integration. You can also add mappings on switch branches later if needed.

This section describes how to create an integration with the Orchestration pattern. Information on adding each activity in the diagram is explained later in this chapter.

Perform the following steps to create an integration:

- 1. In the left navigation pane, click Home > Integrations > Integrations.
- 2. On the Integrations page, click Create.

The Select Integration Style dialog is displayed.

3. Choose the "App Driven Orchestration" integration style for use in this example and click **Select**.



Note:

Depending on your integration requirements, when adding the Oracle E-Business Suite Adapter as a trigger (source) connection, you can use it with "App Driven Orchestration" or "Publish To OIC".

- 4. The Create New Integration dialog appears. Enter the following information:
 - What do you want to call your integration? Enter a meaningful name for your integration, such as "Order to Invoice".
 - Identifier: Accept the default identifier value "ORDER_TO_INVOICE".
 - Version: Accept the default version number.
 - Documentation URL: Leave this blank.



- What does this integration do? Enter "Create an integration for order to invoice" as the description for this integration.
- Which package does this integration belong to? Leave this blank.
- Which keyword defines this integration: Leave this blank.
- 5. Click Create and Save.

To complete the integration, you need to add the following tasks that are described in the next few sections:

• Add the desired connections to the integration you just created.

See: Add the Oracle E-Business Suite Adapter (Trigger) and the REST Adapter (Invoke) to the Integration.

• Add mappings in the integration.

See: Create Mappings.

• Assign business identifiers for tracking.

See: Assign Business Identifier for Tracking.

Add the Oracle E-Business Suite Adapter (Trigger) and the REST Adapter (Invoke) to the Integration

In this example, the orchestration flow diagram created for this integration includes the following activities:

 The Oracle E-Business Suite Adapter as a trigger activity called "Order_Status_Update" for the Oracle E-Business Suite Order Management instance

This trigger activity uses the business event

oracle.apps.ont.oip.statuschange.update through the Oracle E-Business Suite Adapter. When the status of a sales order is updated, Oracle Order Management raises this event.

See: Add the Oracle E-Business Suite Adapter as a Trigger with a Business Event.

- A switch added with two branches
 - The defined branch called "Booked Order" is the major orchestration flow for the integration.
 - The Otherwise branch is not used in this example.

See: Add a Switch with Two Branch Rules.

Mappings defined for "Get_Order"

It allows you to map and pass the order related parameters to the "Get_Order" activity to invoke the GET_ORDER REST Service.

See: Create Mappings.

 The Oracle E-Business Suite Adapter as an invoke activity called "Get_Order" for the Oracle E-Business Suite Order Management instance.

This invoke activity uses the GET_ORDER operation of the Process Order (OE_ORDER_PUB) REST service when adding the Oracle E-Business Suite Adapter as an invoke. This service retrieves the sales order information.

See: Add the Oracle E-Business Suite Adapter as an Invoke for the "Get_Order" Activity.



Mappings defined for "Create_Invoice"

This activity assigns the sales order related elements from the "Get_Order" activity to the Invoice related elements in the "Create_Invoice" activity.

See: Create Mappings.

 The REST Adapter as an invoke activity called "Create_Invoice" for the Oracle E-Business Suite Accounts Receivables instance

This activity configures a request payload using the XML schema file type and then creates an invoice in Oracle Accounts Receivables through the invocation of the CREATE_SINGLE_INVOICE REST service.

See: Add the REST Adapter as an Invoke for the "Receivables" Activity.



Topics:

- Add the Oracle E-Business Suite Adapter as a Trigger with a Business Event
- Add a Switch with Two Branch Rules
- Create Mappings
- Add the Oracle E-Business Suite Adapter as an Invoke for the "Get_Order" Activity
- Add the REST Adapter as an Invoke for the "Receivables" Activity

Add the Oracle E-Business Suite Adapter as a Trigger with a Business Event

Perform the following steps to add the first activity called "Order_Status_Update" for the Oracle E-Business Suite Order Management connection:



1. In the "Order to Invoice" integration canvas, drag and drop the Oracle E-Business Suite connection called "Order Management" from the Triggers section in the upper right corner to the large + section within the circle in the integration canvas.

The Configure Oracle E-Business Suite Adapter Endpoint wizard appears.

- 2. Enter the following information In the Basic Info page:
 - What do you want to call your endpoint? Enter "Order_Status_Update" as the endpoint name.
 - What does this endpoint do? Enter the description of this integration endpoint.
 - What do you want to configure the endpoint for? Select Business Event.

Click **Next** to proceed with the rest of the configuration.

- 3. In the Business Events page, specify the following information for your connection:
 - Product Family: Select "Order Management Suite" from the drop-down list.
 - Product: Select "Order Management" from the drop-down list.
 - Business Event: Select "Event for OIP status update notification" from the populated list.

After you select an event name, the corresponding event information, including internal name (oracle.apps.ont.oip.statuschange.update), event status "Enabled", and description, is automatically populated in this page.

Click Next.

4. The Summary page appears with the selected event information.

The Oracle E-Business Suite Adapter Source Endpoint configuration is successfully created with the selected event.

Click Done.

The "Order_Status_Update" endpoint now appears as a trigger in the integration flow.

Add a Switch with Two Branch Rules

Perform the following steps to add a Switch:

1. Drag and drop the "Switch" action from the Actions section on the right to the integration right after the Order_Status_Update activity.

This action adds two rules allowing you to define routing expression branches for your integration.

- 2. Click edit on the first rule. The Condition Builder page appears.
- 3. In the Condition Builder, enter the following information to create the condition: All of Name = 'STATUS CODE' and Value = 'BOOKED':
 - Enter "Booked Order" as the Expression Name.
 - In Source section, expand the BusinessEvent_Input node, then the InputParameters node, then the BusinessEvent node, then the ParameterList node, and then the Parameter node.
 - a. Drag and drop the **Name** element to the right top under the New Condition section.
 - Select = from the drop-down list.



- Enter 'STATUS CODE' in the text box as the condition value.

Click the Add Condition (+) icon.

- **b.** Drag and drop the **Value** element to the right top under the New Condition section.
 - Select = from the drop-down list.
 - Enter 'BOOKED' in the text box as the condition value.

Click the Add Condition (+) icon.

• In the Match field, select "All of" from the list.

Expression in "Order_Status_Update (1.0)"		Expression Mode
Inputs	Expression Name Booked Order	6
Source Find Q	Match All of	
*BusinessEvent_Input	Name = "STATUS_CODE" Value = "BOOKED"	
∡ <> *BusinessEvent	New Condition 🕂 () ₊ 🔻 着 📢	
<> EventName	Drag and drop or type here	
<> EventData		.a
⊿ 🐺 Parameter	Drag and drop or type here	
<> Name 💙		
\$tracking_var_1 \$tracking_var_2		
\$tracking_var_3		
View v Detach		
Components Find Q		
Im Functions Im Operators		

Save your work. Click Close to return to the integration.

Add the Oracle E-Business Suite Adapter as an Invoke for the "Get_Order" Activity

Perform the following steps to add the Oracle E-Business Suite Adapter as an invoke connection:

1. Drag and drop the Oracle E-Business Suite connection "Order Management" from the Invokes section on the right to the integration right after the Booked Order rule.

The Configure Oracle E-Business Suite Adapter Endpoint wizard appears.

- 2. In the Basic Info page, enter the following information:
 - What do you want to call your endpoint? Enter "Get_Order" as the endpoint name.
 - What does this endpoint do? Enter the description of this integration endpoint, such as "Get an order in Oracle E-Business Suite".

Click Next.


- 3. In the Web Services page, specify the following information for your target connection:
 - Product Family: Select "Order Management Suite" from the drop-down list.
 - Product: Select "Order Management".
 - Interface Type: Select "PL/SQL".
 - **API:** Select "Process Order API" from the populated list for this example.

The corresponding API internal name (OE_ORDER_PUB) and description are automatically populated.

Click Next.

4. In the Operations page, select a desired method name contained in the selected API (OE_ORDER_PUB). For example, select "GET_ORDER". The corresponding service status value "Ready to Use" is displayed in this page, along with the description information.



Configure Oracle E-B	usiness Suite Adapt	er Endpoint					×
		(Help 🔻	< Back	Next >	Cancel	Done
Select Operations Operations Operations	eration for Oracle E-Bus for selected Oracle E-Bu should be 'Ready to use' to	Iness Suite Service siness Suite Service are listed. Select Operation to perform configure the target endpoint for integration.	on Oracle E-I	Business Suite	Application.	Selected	×
V Basic Info	API	OE_ORDER_PUB					
Veb Services * Methods		DELETE_LINE			*		
Operations		DELETE_ORDER					
Summary		GET_ORDER			-		
		ID_TO_VALUE					
		LOCK_ORDER					
		PROCESS_HEADER					
		PROCESS_LINE					
		PROCESS_ORDER			*		
	Service Status	Ready to Use					
	Description	Use this procedure to retrieve the information about a Sal attributes, sales credits, payments, and lot and serial num	es Order, inclu nber informatio	uding price adj on for return lin	ustments, pr ies.	icing	

Click Next.

5. The Summary page displays the selected API information. This includes the selected product family name (Order Management Suite), product name (Order Management), web service name (OE_ORDER_PUB), integration pattern (Synchronous), operation name (GET_ORDER), and the operation status (Ready to Use).

Click Done.

The "Get_Order" activity for Order Management now appears as part of the integration flow, along with the "Get_Order" map icon where you can define the mapping later. See: Create Mappings.



Add the REST Adapter as an Invoke for the "Receivables" Activity

Perform the following steps to add the REST Adapter as an invoke connection:

1. Drag and drop the Oracle E-Business Suite connection "Receivables" from the INVOKES toolbar on the left to the integration, after the Get_Order activity in the Booked Order route.

The Configure Oracle REST Endpoint wizard appears. Enter the following information in the Basic Info page:

- What do you want to call your endpoint? Enter the name of this endpoint, such as "Create_Invoice".
- What does this endpoint do? Enter the usage of this endpoint, such as "Provide REST endpoint with input payload for invoice creation".
- Select to configure multiple resources or verbs (maximum 11)? Leave this field unchecked.

Click Next.

- 2. In the Resource Configuration page, enter the following information:
 - What does this operation do? Enter the usage of this operation, such as "Provide REST endpoint with input payload for invoice creation".
 - What is the endpoint's relative resource URI? Enter "/ create_single_invoice/".
 - What action do you want to perform on the endpoint? Select "POST" from the drop-down list.
 - **Configure a request payload for this endpoint** Select this check box indicating that a request payload is required in this activity.



Ipoint	
Help v < Back Next > Cancel	Done
to the REST Endpoint Configuration Wizard rd helps you configure an endpoint using the REST adapter.	
* Provide an operation name	
default	
What does this operation do?	
Provide REST endpoint with input payload for invoice creation	
* What is the endpoint's relative resource URI?	
/create single invoice/	
* What action do you want to perform on the endpoint?	
POST ¥	
Based on your selections, you can add parameters or configure a request and/or response for this endpoint.	
Select any options that you want to configure:	
Add and review parameters for this endpoint	
Configure a request payload for this endpoint	
Configure this endpoint to receive the response	
	Ippint Image: Im

- 3. In the Request page, perform the following tasks:
 - In the "Select the request payload file" section, select the XML schema radio button.
 Please note that the request payload file type can be either XML schema or JSON format.
 - Browse and select the sample XSD for the Create Invoice REST service.

For the sample XSD information, see Sample XSD for the Oracle E-Business Suite Adapter as a Trigger with a Business Event Example.

- In the Element field, select "CREATE_SINGLE_INVOICE_Input" from the drop-down list.
- In the "Select the type of payload with which you want the endpoint to receive" section, select the **XML** button as the payload type.



Configure REST Endpoint		
	Help v < Back Next > Cancel	Done
Configure the R Configure the red	equest Payload quest payload details for this endpoint.	×
✓ Basic Info	Operation Name: default	
Resource Configuration	Resource URI: /create_single_invoice/	- 1
Request Parameters	HTTP Method: POST	- 1
Request		- 1
Request Headers	Select the multipart attachment processing options	
CORS Configuration		
Response	Multipart request is of type multipart/form-data with HTML form payload	- 1
Response Headers	Select the request payload format	
Operations		- 1
Summary	XML Schema	- 1
	Schema Location Choose File No file chosen	
	* Element CREATE_SINGLE_INVOICE_Input ~	- 1
	What is the media-type of Request Body? (Content-Type Header)	
	XML	- 1
	○ XML(text)	
		-
		•

In this example, we do not need to configure this endpoint to receive Response.

4. Click **Next**. This displays the Summary page with the following REST service information that you specified earlier. Click **Done**.

The Create_Invoice activity appears in the integration flow, listed as the last activity in the Booked Order rule.

Similar to the "Get_Order" activity, the "Create_Invoice" map icon also appears (along with the Create_Invoice activity) where you can define the mapping later. See: Create Mappings

Save the integration.

At the end of this step, the integration flow contains the activities added in this section.

Create Mappings

Oracle E-Business Suite Business Event is defined by the WF_EVENT_T data structure. After adding the required connections to the integration, you need to create the following mappings to pass the required parameter values to the subsequent REST services:

- Define mappings for Get_Order
- Define mappings for Create Invoice

Create Mappings for Get_Order

In this example, a sales order Header Id is available as one of the business event parameters. In WF_EVENT_T , event parameters are available as Name-Value pair in repeating Parameter element. To obtain the value of the Header Id parameter and pass it to the subsequent Get_Order service call, you need to create mappings for Get_Order.



 In the Order_Status_Update integration flow, click edit for the Map to Get_Order icon. The mapper is displayed.



- 2. In the mapper, the business event related elements are displayed in the Source section, whereas the Get_Order related parameters are listed in the Target area. To obtain the value of the sales order Header Id (P_HEADER_ID) included as part of the event parameters and pass it to the subsequent Get_Order REST service, you need to define the XSL expression for the P_HEADER_ID parameter.
- 3. Define the XSL expression for the P_HEADER_ID parameter by performing the following tasks:
 - a. In the Target section, expand the GET_ORDER Request (Oracle E-Business Suite) node, and then the InputParameters node. Click the P_HEADER_ID element to open the Build Mappings page.
 - **b.** In the Mapping area of the Build Mappings page, notice that the **P_HEADER_ID** element is displayed as the Target element.
 - c. In Source section of the Build Mappings page, expand the BusinessEvent_Input node, then the InputParameters node, then the BusinessEvent node, then the ParameterList node, and then the Parameter node.
 - d. Drag and drop the **Value** element from the Source section to the Mapping section as the value for the **P_HEADER_ID** element.
 - e. Right-click the P_HEADER_ID element and select Create Target Node from the

drop-down menu. Click SILT and then . Drag and drop the XSL element "if" to the **P_HEADER_ID** element. Drag and drop the **Name** element from the Source section to the if element to define the XSL expression <xsl:if test="nssrcmpr:Name='HEADER ID'">.

f. Similarly, drag and drop the XSL element "for-each" from the Source section to the Target section to define the XSL expression <xsl:for-each select="/ nssrcmpr:BusinessEvent_Input/nssrcmpr:InputParameters/ nssrcmpr:BusinessEvent/nssrcmpr:ParameterList/nssrcmpr:Parameter">>.



g. Save your work.

Expand the nodes to ensure that the P_HEADER_ID parameter is included as part of the structure.

🚱 Мар			
🕝 Designer 🛛 🔯 Code 🛛 🌞	Test ★ Recommend		🌟 Developer 🔤 XSLT View 🔻 🔻 Filter 🍋 🗁 🖉
 D Eventkey 	Q ^	Mapping Canvas	^_Order Request (Oracle E-Business Suite) [I ∩ √ ×
EventData	`		GET_ORDER_Input*
			RESTHeader* O
A B Parameter			InputParameters*
- Joil			P_API_VERSION_NUMBER OL
A D Name			P_INIT_MSG_LIST OL 4 Flow Control
E oll			P_RETURN_VALUES OL 4 - Choose
Value			P_HEADER_ID O
			if -9 × if
ntegration Metadata			P_HEADER 💽 🖌 🚺 otherwise
Franking Variable 1	× *		nii 🖂 💶 🔺 when
Expression for P HEADER ID			× Output
» /neercmncBueinneeEvent /	nnutine eremprinnut Parametere i	neercong Bueineee Eventineercong Parameter	vi ist/sesrcmor.Parameter/sesrcmor.Value
// maarcinpr.buaineaacvencin	npuensarcinpi.input arameterar		
			T text
			value-of

- 4. Perform the following tasks to assign constant values to the target elements:
 - a. In the Target section, expand the GET_ORDER Request (Oracle E-Business Suite) node, and then the RESTHeader node.

Right-click the **Responsibility** element and then select **Create Target Node** from the drop-down menu.

b. In the Expression Builder at the bottom of the page, click the "Switch to Developer View" icon and then enter 'ORDER_MGMT_SUPER_USER' for the Responsibility element. A function icon is added to the Mapping Canvas section for the target Responsibility element node.

Similarly, use the same approach to assign appropriate values to the target elements listed in the following table:

Path	Element	Value
GET_ORDER Request (Oracle E-Business Suite)/ RESTHeader	RespApplication	'ONT'
GET_ORDER Request (Oracle E-Business Suite)/ RESTHeader	SecurityGroup	'STANDARD'
GET_ORDER Request (Oracle E-Business Suite)/ RESTHeader	NLSLanguage	'AMERICAN'
GET_ORDER Request (Oracle E-Business Suite)/ RESTHeader	Org_ld	'204'
GET_ORDER Request (Oracle E-Business Suite)/ InputParameters	P_API_VERSION_NUMBER	'1.0'
GET_ORDER Request (Oracle E-Business Suite)/ InputParameters	P_INIT_MSG_LIST	'F'



Path	Element	Value
GET_ORDER Request (Oracle E-Business Suite)/ InputParameters	P_ORG_ID	'204'

After you complete the mappings for Get_Order, the function icons should appear in the Mapping Canvas section for the corresponding target element nodes.



5. Click Validate or Close (which also performs validation) to exit the mapper, then click Save to save your changes when prompted.

Create Mappings for Create_Invoice

Perform the following steps to create the mappings:

1. In the Order_Status_Update integration flow, click **edit** for the Map to Create_Invoice icon.

The mapper appears.

- 2. Assign constant values to the target elements.
 - a. In the Target section, expand the Create_Invoice Request (REST) node, then the CREATESINGLEINVOICE Input node, and then the RESTHeader node.

Right-click the **Responsibility** element and then select **Create Target Node** from the drop-down menu.

In the Expression Builder at the bottom of the page, click the "Switch to Developer View" icon and then enter 'RECEIVABLES_VISION_OPERATIONS' for the Responsibility element.
 A function icon is added to the Mapping Canvas section for the target Responsibility element node.

Similarly, use the same approach to assign appropriate values to the target elements listed in the following table:



Path	Element	Value
Create_Invoice Request (REST)/ CREATESINGLEINVOICE Input/RESTHeader	RespApplication	'AR'
Create_Invoice Request (REST)/ CREATESINGLEINVOICE Input/RESTHeader	SecurityGroup	'STANDARD'
Create_Invoice Request (REST)/ CREATESINGLEINVOICE Input/RESTHeader	NLSLanguage	'AMERICAN'
Create_Invoice Request (REST)/ CREATESINGLEINVOICE Input/RESTHeader	Org_ld	'204'
Create_Invoice Request (REST)/ CREATESINGLEINVOICE	P_API_VERSION	'1.0'
Create_Invoice Request (REST)/ CREATESINGLEINVOICE Input/InputParameters	P_INIT_MSG_LIST	'Τ'
Create_Invoice Request (REST)/ CREATESINGLEINVOICE Input/InputParameters	P_COMMIT	'Τ'
Create_Invoice Request (REST)/ CREATESINGLEINVOICE Input/InputParameters/ P_BATCH_SOURCE_REC	BATCH_SOURCE_ID	'1188'
Create_Invoice Request (REST)/ CREATESINGLEINVOICE Input/InputParameters/ P_TRX_HEADER_TBL/ P_TRX_HEADER_TBL_ITE M	TRX_HEADER_ID	'101'
Create_Invoice Request (REST)/ CREATESINGLEINVOICE Input/InputParameters/ P_TRX_HEADER_TBL/ P_TRX_HEADER_TBL_ITE M	CUST_TRX_TYPE_ID	'1684'
Create_Invoice Request (REST)/ CREATESINGLEINVOICE Input/InputParameters/ P_TRX_HEADER_TBL/ P_TRX_HEADER_TBL_ITE M	BILL_TO_CUSTOMER_ID	'1290'



Path	Element	Value
Create_Invoice Request (REST)/ CREATESINGLEINVOICE Input/InputParameters/ P_TRX_HEADER_TBL/ P_TRX_HEADER_TBL_ITE M	SHIP_TO_CUSTOMER_ID	'1290'
Create_Invoice Request (REST)/ CREATESINGLEINVOICE Input/InputParameters/ P_TRX_HEADER_TBL/ P_TRX_HEADER_TBL_ITE M	COMMENTS	'Invoice created via ICS integration for booked Sales Order in Order Management'

After you complete this step, the function icons should appear in the Mapping Canvas section for the corresponding target element nodes.



- 3. Add the following mapping for the header:
 - In the Source section, enter "HEADER_ID" in the Search field to locate this parameter.

Select the **HEADER_ID** element from the **X_HEADER_REC** node.

 In the Target section, expand the Create_Invoice Request (REST) node, then the CREATESINGLEINVOICE Input node, then the InputParameters node, then the P_TRX_HEADER_TBL node, and then the P_TRX_HEADER_TBL_ITEM node.

Select the **TRX_NUMBER** element.



Drag the **HEADER_ID** element from the Source section to the **TRX_NUMBER** element in the Target section to map the data.

The mapped source element **HEADER_ID** and **TRX_NUMBER** target element are connected in a blue line.

OIHEADER_ID OIUNVOICE_TO_CONTACT_ID OIUNVOICE_TO_ORG_ID OIUNVOICING_RULE_ID	P TRX HEADER TBL ITEM*	
Expression for: TRX_NUMBER		×
\$Get_Order/nsmpr0.GET_ORDERResponse/	nsmpr1:OutputParameters/nsmpr1:X_HEADER_REC/nsmpr1:HEADER_ID	× ~

4. Use the same approach, as described in the previous step, to add the following sets of mappings for the line items:

Source Path	Source Element	Target Path	Target Element
Get_Order Response (Oracle E-Business Suite) / GET_ORDERRespo nse/ OutputParameters/ X_LINE_TBL/ X_LINE_TBL_ITEM	LINE_NUMBER	Create_Invoice Request (REST)/ CREATESINGLEINV OICE Input/ InputParameters/ P_TRX_LINES_TBL/ P_TRX_LINES_TBL _ITEM	LINE_NUMBER
Get_Order Response (Oracle E-Business Suite) / GET_ORDERRespo nse/ OutputParameters/ X_LINE_TBL/ X_LINE_TBL_ITEM	ORDERED_ITEM	Create_Invoice Request (REST)/ CREATESINGLEINV OICE Input/ InputParameters/ P_TRX_LINES_TBL/ P_TRX_LINES_TBL _ITEM	DESCRIPTION
Get_Order Response (Oracle E-Business Suite) / GET_ORDERRespo nse/ OutputParameters/ X_LINE_TBL/ X_LINE_TBL_ITEM	ORDERED_QUANTI TY	Create_Invoice Request (REST)/ CREATESINGLEINV OICE Input/ InputParameters/ P_TRX_LINES_TBL/ P_TRX_LINES_TBL _ITEM	QUANTITY_ORDER ED
Get_Order Response (Oracle E-Business Suite) / GET_ORDERRespo nse/ OutputParameters/ X_LINE_TBL/ X_LINE_TBL_ITEM	ORDERED_QUANTI TY	Create_Invoice Request (REST)/ CREATESINGLEINV OICE Input/ InputParameters/ P_TRX_LINES_TBL/ P_TRX_LINES_TBL _ITEM	QUANTITY_INVOIC ED

Source Path	Source Element	Target Path	Target Element
Get_Order Response (Oracle E-Business Suite) / GET_ORDERRespo nse/ OutputParameters/ X_LINE_TBL/ X_LINE_TBL_ITEM	UNIT_SELLING_PRI CE	Create_Invoice Request (REST)/ CREATESINGLEINV OICE Input/ InputParameters/ P_TRX_LINES_TBL/ P_TRX_LINES_TBL _ITEM	UNIT_SELLING_PRI CE

- 5. Assign the following values:
 - In the Target section, expand the Create_Invoice Request (REST) node, then the CREATESINGLEINVOICE Input node, then the InputParameters node, and then the P_TRX_DIST_TBL node.

Right-click the **P_TRX_DIST_TBL_ITEM** element and select **Create Target Node** from the drop-down menu.

In the Expression Builder at the bottom of the page, click the "Switch to Developer View" icon and then enter '<nsmpr1:P_TRX_DIST_ID/>' for the P_TRX_DIST_TBL_ITEM element.

A **function** icon is added to the Mapping Canvas section for the target **P_TRX_DIST_TBL_ITEM** element node.

 In the Target section, expand the Create_Invoice Request (REST) node, then the CREATESINGLEINVOICE Input node, then the InputParameters node, and then the P_TRX_SALESCREDITS_TBL node.

Right-click the **P_TRX_SALESCREDITS_TBL_ITEM** element and select **Create Target Node** from the drop-down menu.

In the Expression Builder at the bottom of the page, click the "Switch to Developer View" icon and then enter

'<nsmpr1:P_TRX_SALESCREDITS_ID/>' for the P_TRX_SALESCREDITS_TBL_ITEM
element.

A **function** icon is added to the Mapping Canvas section for the target **P_TRX_SALESCREDITS_TBL_ITEM** element node.

Click **Validate** or **Close** (which also performs validation) to exit the mapper, then click **Save** to save your changes when prompted.

Assign a Business Identifier for Tracking

Perform the following steps to track payload fields in messages during runtime:

1. In the Create Order Integration page, click **Tracking**.

The Business Identifiers For Tracking dialog appears.

2. From the Available Source Fields section, expand the **BusinessEvent_Input** node, then the **InputParameters** node, and then the **BusinessEvent** node.

Drag and drop the **Event Key** element to the Tracking Field column in the table as the primary Tracking field.

- 3. Click Done.
- 4. Save your work and then click **Exit Integration**.



Activate and Test the Integration

Perform the following steps to activate the integration:

1. On the Integrations page, click



for the "Order to Invoice" integration that you created earlier to activate the integration.

2. The Confirmation dialog appears. Click Activate to confirm this action.

Notice that a status message is displayed in the banner at the top of the Integrations page.

Test the Integration at Runtime

- 1. Log in to Oracle E-Business Suite as the operations user who has the Order Management Super User, Vision Operations (USA) responsibility.
- 2. Select **Order, Returns** and then **Sales Order** from the navigation menu to open the Sales Orders form.
- 3. In the Sales Orders form, select the Order Information tab.
- 4. Create a new Sales Order for customer "A.C. Networks" with the following information:
 - Customer: A.C. Networks
 - Operation Unit: Vision Operations
 - Order Type: Mixed
 - Ship To Location: Provo (OPS) 3405 East Bay Blvd. Provo, UT 84606, US
 - Bill To Location: Provo (OPS) 3405 East Bay Blvd. Provo, UT 84606, US
 - Price List: Corporate
 - Currency: USD
- 5. Select the Line Items tab to add the following line item:
 - Ordered Item: AS54888
 - Quantity: 1
 - Item Type: STANDARD
 - UOM: Each
 - Unit Price: Accept the populated unit price.
 - Request Date: Accept the populated date (such as 14-MAY-2016)
- 6. Save this new order.

This order is created with "Entered" status.

7. Click Book Order.

The order status is now updated to "Booked". It internally raises a business event oracle.apps.ont.oip.statuschange.update which will trigger the integration.



In the design time, the "Order to Invoice" integration created earlier in Oracle Integration will subscribe to this business event. At runtime, since the order status is changed to "Booked", Oracle Order Management will raise the business event which triggers the integration in Oracle Integration. The order details information is fetched from Oracle E-Business Suite Order Management and passed as event payload to create the invoice in Oracle Accounts Receivables.

Monitor the Result in Oracle Integration

- 1. Log in to Oracle Integration home page, click Monitoring.
- 2. In the navigation pane, click Tracking.

The Tracking page appears.

- 3. Click the instance created for the "Order to Invoice" integration.
- 4. Click "Event Key" to display the flow diagram of the integration instance.

This page provides the instance tracking information. Notice that the status of this instance is "Completed" indicating that the integration is executed successfully. You can verify if there is any error occurred if desired.

Validate the Result in Oracle E-Business Suite Accounts Receivables

Log in to Oracle Accounts Receivables as the operations user who has the Receivables, Vision Operations (USA) responsibility. Select **Transactions** and then **Transactions** from the navigation menu.

Locate the invoice transaction for the "A.C. Networks" customer by selecting **Query for Transaction**. The invoice should be created in Oracle Accounts Receivables.

Sample XSD for the Oracle E-Business Suite Adapter as a Trigger with a Business Event Example

The following information shows the sample xsd used for the Create Invoice REST service. This service is added through the REST Adapter for the business event example described earlier. For information on how to use this sample xsd in an integration, see: Add the Oracle E-Business Suite Adapter (Trigger) and the REST Adapter (Invoke) to the Integration.

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"</pre>
elementFormDefault="qualified" attributeFormDefault="unqualified">
<xs:element name="CREATE SINGLE INVOICE Input">
<xs:complexType>
<xs:sequence>
<xs:element name="RESTHeader">
<xs:complexType>
<xs:sequence>
<xs:element name="Responsibility" type="xs:string"></xs:element>
<xs:element name="RespApplication" type="xs:string"></xs:element>
<xs:element name="SecurityGroup" type="xs:string"></xs:element>
<xs:element name="NLSLanguage" type="xs:string"></xs:element>
<xs:element name="Org Id" type="xs:string"></xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
```



```
<xs:element name="InputParameters">
<xs:complexType>
<xs:sequence>
<xs:element name="P API VERSION" type="xs:int"></xs:element>
<xs:element name="P INIT MSG LIST" type="xs:string"></xs:element>
<xs:element name="P COMMIT" type="xs:string"></xs:element>
<xs:element name="P BATCH SOURCE REC">
<xs:complexType>
<xs:sequence>
<xs:element name="BATCH SOURCE ID" type="xs:int"></xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="P TRX HEADER TBL">
<xs:complexType>
<xs:sequence>
<xs:element name="P TRX HEADER TBL ITEM">
<xs:complexType>
<xs:sequence>
<xs:element name="TRX HEADER ID" type="xs:int"></xs:element>
<xs:element name="TRX NUMBER" type="xs:string"></xs:element>
<xs:element name="CUST TRX TYPE ID" type="xs:string"></xs:element>
<xs:element name="BILL TO CUSTOMER ID" type="xs:int"></xs:element>
<xs:element name="SHIP TO CUSTOMER ID" type="xs:string"></xs:element>
<xs:element name="COMMENTS" type="xs:string"></xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="P TRX LINES TBL">
<xs:complexType>
<xs:sequence>
<xs:element name="P TRX LINES TBL ITEM">
<xs:complexType>
<xs:sequence>
<xs:element name="TRX HEADER ID" type="xs:int"></xs:element>
<xs:element name="TRX LINE ID" type="xs:string"></xs:element>
<xs:element name="LINE NUMBER" type="xs:string"></xs:element>
<xs:element name="DESCRIPTION" type="xs:int"></xs:element>
<xs:element name="QUANTITY ORDERED" type="xs:string"></xs:element>
<xs:element name="QUANTITY INVOICED" type="xs:int"></xs:element>
<xs:element name="UNIT SELLING PRICE" type="xs:string"></xs:element>
<xs:element name="LINE TYPE" type="xs:int"></xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="P TRX DIST TBL">
<xs:complexType>
<xs:sequence>
<xs:element name="P TRX DIST TBL ITEM">
```



```
<xs:complexType>
<xs:sequence>
<xs:element name="TRX DIST ID"></xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="P TRX SALESCREDITS TBL">
<xs:complexType>
<xs:sequence>
<xs:element name="P TRX SALESCREDITS TBL ITEM">
<xs:complexType>
<xs:sequence>
<xs:element name="TRX SALESCREDIT ID"></xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>
```

An Example of Using an XML Gateway Message as a Trigger (Source) in an Integration

Sample Business Scenario

When a purchase order is approved in the Oracle E-Business Suite Purchasing application, a process purchase order XML message should be sent from Oracle E-Business Suite to Oracle Integration.

In this example, an XML Gateway message "Purchase Order XML message" from Oracle Purchasing is used as a trigger (source) to explain using the Oracle E-Business Suite Adapter to trigger an integration in Oracle Integration. The Oracle E-Business Suite Adapter is used to connect to the Oracle Purchasing instance. Additionally, you need to configure the trading partner in Oracle XML Gateway to send the outbound XML message from Oracle E-Business Suite to the integration endpoint in Oracle Integration.

At runtime, when an order is approved, if the supplier or trading partner is configured to receive the outbound XML message for Process Purchase Order, Oracle E-Business Suite Purchasing will trigger the integration and initiate XML Gateway outbound processing to send the process order XML message from Oracle E-Business Suite to Oracle Integration.

Based on the integration scenario, the sample tasks for using an Oracle E-Business Suite XML Gateway message in an integration are included in the Topics section:



Topics:

- 1. Prepare the Oracle E-Business Suite Purchasing Instance
- 2. Establish an Oracle E-Businss Suite Connection for Publishing XML Gateway Messages
- 3. Create an Integration
- 4. Add the Oracle E-Business Suite Adapter as a Trigger (Source) Connection
- 5. Assign Business Identifier for Tracking
- 6. Activate the Integration
- 7. Configure Trading Partner Information for Post Integration
- 8. Test and Validate the Integration

Prepare the Oracle E-Business Suite Purchasing Instance

This example uses the Oracle E-Business Suite Purchasing application to approve a purchase order. Before creating a connection, you must prepare the Oracle E-Business Suite Purchasing instance to ensure the required setup or configuration is in place.

 Configure Oracle E-Business Suite REST services provided through Oracle E-Business Suite Integrated SOA Gateway.

Follow the setup tasks, as described in My Oracle Support Knowledge Document 556540.1, to configure Oracle E-Business Suite Integrated SOA Gateway Release 12.1.3 and apply the REST service patches to enable the REST service feature. For more information, see step 1, as described in Setup Tasks for Enabling the Oracle E-Business Suite Adapter.

 (Optional) Import TLS certificates of Oracle Integration to Oracle E-Business Suite if required.

For information on importing TLS certificates, refer to step 4 as described in Setup Tasks for Using the Oracle E-Business Suite Adapter as a Trigger (Source) Connection.

3. (Optional) Set up proxy URLs in Oracle E-Business Suite if required.

For information on the proxy setup, refer to step 2 as described in Setup Tasks for Using the Oracle E-Business Suite Adapter as a Trigger (Source) Connection.

- 4. Deploy the Metadata Provider API as a REST service with the following requirements and grant the method access privileges to the operations user:
 - Deploy the API with "provider" as the service alias name
 - Deploy the API with GET HTTP verb for all the methods contained in the API
 - Grant the access privileges for **all** the methods contained in the Metadata Provider API to the operations user

For information on deploying REST services, see Deploying REST Web Services, Oracle E-Business Suite Integrated SOA Gateway Implementation Guide.

For information on creating security grants for REST services, see Managing Grants for Interfaces with Support for SOAP and REST Web Services, Oracle E-Business Suite Integrated SOA Gateway Implementation Guide.



Establish an Oracle E-Business Suite Connection for Publishing XML Gateway Messages

Perform the following steps to establish the connection for Oracle E-Business Suite in Oracle Integration:

- 1. In the navigation pane, click Home > Integrations > Connections.
- 2. On the Connections page, click **Create**.
- 3. In the Create Connection Select Adapter dialog appears.

You can locate the Oracle E-Business Suite Adapter by entering a full or partial name to locate "Oracle E-Business Suite" from the dialog.

Click the **Select** button for "Oracle E-Business Suite". The Create Connection dialog appears.

- 4. Enter the following information for your connection:
 - Connection Name: Enter "Purchasing" as the connection name.
 - **Identifier:** Accept the default identifier for your Oracle E-Business Suite connection, such as "PURCHASING".
 - **Keywords:** Leave this blank.
 - Connection Role: Select the "Trigger and Invoke" role for this connection.
 - **Description:** Enter description information for your connection, such as "Create an Oracle E-Business Suite Purchasing connection".

Click **Create** to create the connection. The Connection Details page is displayed for the "Purchasing" connection.

- 5. Enter additional connection details by specifying the following information:
 - In the Connection Properties section, enter a URL (http://<Oracle E-Business Suite host name>:<port>) to connect to an Oracle E-Business Suite instance.
 - In the Security section, ensure that "Basic Authentication" is selected as the security policy.

Enter **operations** as the user name and its associated password to access the Oracle E-Business Suite Purchasing instance you specified earlier in the Connection Properties section.

- 6. Click Test to test the "Purchasing" connection you just specified.
- 7. When complete, click Save and then click
 - <

Create an Integration

This section provides the instructions on creating an integration called "PROCESS PO" with the "Publish To OIC" integration pattern. This pattern allows you to add the Oracle E-Business Suite Purchasing connection specified earlier as a trigger in the integration.

Perform the following steps to create an integration:

1. In the left navigation pane, click **Home > Integrations > Integrations**.



2. On the Integrations page, click **Create**.

The Select Integration Style dialog is displayed.

3. Depending on your integration requirements, when adding the Oracle E-Business Suite Adapter as a trigger (source) connection, you can use it with "App Driven Orchestration" and "Publish To OIC" integration styles.

In this example, choose "Publish To OIC" first, and then click Select.



- 4. The Create New Integration dialog appears. Enter the following information:
 - What do you want to call your integration? Enter "PROCESS PO" as the integration name.
 - Identifier: Accept the default identifier value, such as "PROCESS_PO".
 - **Documentation URL**: Leave this blank.
 - Version: Accept the default version number.
 - What does this integration do? Enter description information for your integration, such as "Create an integration for processing a purchase order in Oracle Purchasing".
 - Which package does this integration belong to? Leave this blank.
 - Which keyword defines this integration Leave this blank.
- 5. Click Create and Save.

To complete the integration, you need to add the following tasks that are described in the next few sections:

• Add the desired connections to the integration you just created.

See: Add the Oracle E-Business Suite Adapter as a Trigger (Source) Connection.

Assign business identifiers for tracking.

See: Assign Business Identifier for Tracking.

Add the Oracle E-Business Suite Adapter as a Trigger (Source) Connection

Once the "PROCESS PO" integration is created, you can add the "Purchasing" connection that you just created by using the Oracle E-Business Suite Adapter as a trigger (source).



Perform the following steps to add the Oracle E-Business Suite Adapter as a trigger in the integration:

- 1. In the "PROCESS PO" integration canvas, search the "Purchasing" connection that you created earlier from the Connections panel.
- 2. Drag "Purchasing" from the Connections panel on the right to the Trigger (Source) area on the canvas. The Configure Oracle E-Business Suite Adapter Endpoint wizard appears.
- 3. Enter the following information In the Basic Info page:
 - What do you want to call your endpoint? Enter "EBS_Source" as the endpoint name.
 - What does this endpoint do? Enter "Process a purchase order in Oracle E-Business Suite".
 - What do you want to configure the endpoint for? Select XML Gateway Map.

Click **Next** to proceed with the rest of the configuration for your integration.

- 4. In the XML Gateway Message page, specify the following information for your trigger (source) connection:
 - Product Family: Select "Procurement" from the product family.
 - **Product:** Select "Internet Procurement Enterprise Connector" from the list of product names.
 - XML Gateway Map: Select a desired XML Gateway message name from the dropdown list. For example, select "Purchase Order XML message".

After you select the message map, the corresponding information is automatically populated in this page. This includes the Integration Repository name (PO:PRO), internal name ($itg_process_po_007_out$), integration standard (OAG 7.2) and the message map description.

Click Next.

5. The Summary page appears with the selected XML Gateway message information that you specified. This includes the XML Gateway message name itg_process_po_007_out from the selected "Procurement" product family and the "Internet Procurement Enterprise Connector" product, as well as the "Request Only" interaction pattern.

The Oracle E-Business Suite Adapter Source Endpoint configuration is successfully created with the selected XML Gateway message.

Click Done.

The connection for Oracle E-Businses Suite (called "Purchasing" in this example) now appears in the Trigger (Source) area on the canvas.

Assign a Business Identifier for Tracking

Perform the following steps to track payload fields in messages during runtime:

1. In the "PROCESS PO" integration canvas, click Tracking.

The Business Identifiers For Tracking dialog appears.

 From the Available Source Fields section, expand the XmlGateway_Input node, then the PROCESS_PO_007 node, then the DATAAREA node, then the PROCESS_PO node, and then the POORDERHDR node.

Drag the POID element to the Tracking Field column in the table.



The **POID** is displayed in the Tracking Field with a green check mark next to it in the table.

View 🔻	Filter 🕎	Detach			Business in	dentifiers enable runtime trackir	ng on messages. Specify up to th	ree tracking fields. A primary io	dentifier is
Source	Find		Q		Additional	business identifier fields are op	tional. At runtime, they are availa	ble for tracking only when this	integratio
	mlGateway_In	iput		~	flow is sele	ected.			
	> *ECX_HEAD	DER			Primary	Tracking Field	Tracking Name	Help Text	
4.0	PROCESS	_PO_007			0	POID	POID	How to track it?	
	♦ <> *CNTR	OLAREA				Drag a trigger field here	What to call it?	How to track it?	
		AREA				Drag a trigger field here	What to call it?	How to track it?	
	40	*POORDERHE	R						
)	> CATETIM							
)	OPERAMINATION OF CONTRACTOR	r						
		<> *POID	շիդ						
		<> *POTYPE	Ú						
		<> ACKREQU	JEST						
		<> CONTRAC	ТВ						
		<> CONTRAC	CTS						
		<> DESCRIP	TN						
)	NOTES							
		<> OPRAMTA	AUTH						
			SE	~					

- 3. Click Done.
- 4. Save your work and then click **Exit Integration**.

Activate the Integration

Activate the Integration

After you complete the integration with a desired XML Gateway message, you can activate the integration.

1. On the Integrations page, click



for the "PROCESS PO" integration that you created earlier to activate the integration.

2. The Confirmation dialog appears. Click Activate to confirm the action.

Notice that the status of the "PROCESS PO" integration changes to ACTIVE.

Record the Integration Endpoint in Oracle Integration

After activating the integration, you need to obtain the integration endpoint URL by clicking the Integration Details icon ("i") for the "PROCESS PO" integration. A pop-up window appears. Record the endpoint URL information.

In this example, the endpoint URL should be like:

https://<Oracle Integration Host>:<Port>/ic/api/integration/v1/flows/ ebusiness/PROCESS PO/1.0/metadata



This recorded integration endpoint URL (without the metadata at the end) will be used as the protocol address value when defining a trading partner in the post integration configuration, as described in Configure Trading Partner Information for Post Integration.

Configure Trading Partner Information for PostiIntegration

After you activate the integration, you must perform manual tasks to configure the trading partner ("Advanced Network Devices" in this example) for the outbound transaction message selected in the integration. This includes specifying the communication protocol and address as well as the user credentials in Oracle E-Business Suite.

Additionally, obtain the integration endpoint URL you recorded earlier, such as https://

Perform the following steps to configure the trading partner in Oracle E-Business Suite:

- 1. Log in to Oracle E-Business Suite as a user (such as sysadmin) who has the XML Gateway responsibility.
- 2. Select the XML Gateway responsibility and then select **Define Trading Partners** from the navigation menu. The Define Trading Partner Setup form appears.
- 3. In the Trading Partner Setup form, search and locate the desired trading partner called "Advanced Network Devices".
- 4. In the Trading Partner Details region, add the following information for the trading partner:
 - Transaction Type: PO
 - Transaction Subtype: PRO
 - Standard Code: OAG
 - External Transaction Type: PO
 - External Transaction Subtype: PROCESS
 - Direction: OUT
 - Map: itg_process_po_007_out
 - Connection/Hub : DIRECT
 - Protocol: HTTPS
 - Protocol address: https://<Oracle Integration Host>:<Port>/ic/api/ integration/v1/flows/ebusiness/PROCESS_PO/1.0/

Enter the integration endpoint URL (without metadata at the end) you recorded earlier.

• Username: <Oracle Integration user name>

Enter the Oracle Integration user credentials used to execute integrations in Oracle Integration.

• **Password**: *password*

Replace *password* with the actual password value of the associated Oracle Integration user.



Irading Partner Setup								
Operating Unit	Vision Op	erations						
Trading Partner Type	Supplier							
Trading Partner Name	Advanced	Network Devi	ces					
Trading Partner Site	2000 Cen	tury Way Sar	nta Clara CA 9	5613-4565	5			
Company Admin Email	nobody@	localhost6.con	n					
		(User S	etup	Code C	onversion		
Trading Partner Details								
Transaction Transaction	Standard Code	External Transaction Type	External Transaction SubType	Direction	і Мар	Connection/ Hub	Protocol Type	
PO PRO	OAG	PO	PROCESS	OUT	itg_process_p	DIRECT	HTTPS	
								i i i
								2
•			1					Þ

5. Save your work.

Test and Validate the Integration

Based on the example scenario, once a purchase order is approved in the Oracle E-Business Suite Purchasing application, Oracle Purchasing will initiate XML Gateway outbound processing and publish XML message to Oracle Integration. Therefore, you need to create a purchase order first and then approve the order to trigger the outbound processing from Oracle E-Business Suite.

Perform the following steps to create and approve a new purchase order:

1. Log in to the Oracle E-Business Suite Purchasing instance as the operations user who has the Purchasing, Vision Operations (USA) responsibility.

Select **Purchase Orders** and then **Purchase Orders** from the navigation menu.

- 2. In the Purchase Orders form, create a new purchase order for the configured trading partner or supplier called "Advanced Network Devices" with the following information:
 - Supplier: Advanced Network Devices
 - Type: Standard Purchase Order
 - Site: SANTA CLARA-ERS
 - Ship-To: M1- Seattle Mfg
 - Bill-To: V1- New York City
- 3. In the Line tab, add one line item:
 - Num: 1
 - Item: AS10000
 - Description: 405 Digital Camera



- UOM: Each
- Quantity: 1
- Price: 1
- Freight: Accept the default value
- FOB: Accept the default value
- Promised Date: Enter a desired date
- Need By Date: Enter a desired date

Operating Unit	Vision Operations	S		Created	18-MAY-2016 05:23	18					
PO, Rev	5949		0	Туре	Standard Purchase	Order		P-Card			
Supplier	Advanced Networ	rk Devices		Site	SANTA CLARA-ERS		(Contact			
Ship-To	M1- Seattle Mfg			Bill-To	V1- New York City		CL	urrency	USD		
Buyer	Stock, Ms. Pat			Status	Incomplete			Total	1.00		
Description											
Lines	Price Reference	Reference Do	cuments	Mor	e Agreem	ent Te	emporary Lab	oor			
Num	Item	Rev	Job		Category	Descript	ion	UOM	Quantity	Price	_ <u> </u>
1	AS10000				EQUIPMENT.A/V	405 Digit	al Camera	Each	1	1	
		1								1	
		405 Digital C	Camera								

4. Click Save.

Purchase order is created with "Incomplete" status.

5. Click Approve.

The Approve Document form appears.

6. In the Approval Details tab, select the "Submit for Approval" check box and ensure that the **XML** button is selected in the Transmission Method region.



Click OK. The order status is now updated from "Incomplete" to "Approved".

This status change will internally trigger the XML Gateway engine for outbound transactions. Additionally, it will trigger the "PROCESS PO" integration you created in Oracle Integration.

Monitor the Result in Oracle Integration

1. Log in to Oracle Integration.

In the Oracle Integration home page, select the **Monitoring** option from the navigation pane, and then **Integrations**.

2. Click the instance created for the "PROCESS PO" integration to monitor the result.

An Example of Using a PL/SQL REST Service as an Invoke (Target) Connection in an Integration

To better understand how to use Oracle E-Business Suite services in Oracle Integration, this chapter describes an integration example through the use of Oracle E-Business Suite Adapter as an invoke (target) connection.

Sample Business Scenario

Take a PL/SQL API called Sales Order Services (OE_INBOUND_INT) as an example to explain the integration between the Oracle E-Business Suite Adapter and a trigger (source) connection in Oracle Integration.

In this example, the Oracle E-Business Suite Adapter is used as an invoke (target) connection for service invocation, and the REST Adapter is used as a trigger (source) connection to provide a REST request. When the Oracle E-Business Suite Adapter receives the request message with input payload for order creation from the trigger



(source) connection, the OE_INBOUND_INT REST service in Oracle E-Business Suite is invoked to create the order.

Once the integration is successfully executed at runtime, a sales order will be created in Oracle E-Business Suite.

Note: Any application adapters can be used as trigger (source) connections to create integrations for your business needs. In this example, the REST Adapter is used as a trigger (source) connection.

Based on the integration scenario, the sample tasks for using an Oracle E-Business Suite PL/SQL REST service in an integration are included in the Topics section:

Topics:

- 1. Establish the Connections for Oracle E-Business Suite and REST Services
- 2. Create an Integration
- 3. Add the Oracle E-Business Suite Adapter as an Invoke (Target) Connection
- 4. Add the REST Adapter as a Trigger (Source) Connection
- 5. Create Mappings
- 6. Assign Business Identifier for Tracking
- 7. Activate and Test the Integration
- 8. Sample JSON Payloads for the Oracle E-Business Suite Adapter as an Invoke Example for a PL/SQL REST Service

Establish the Connections for Oracle E-Business Suite and REST Services

Before creating an integration, you need to create the following two connections:

Connection for Oracle E-Business Suite

Once the connection to an Oracle E-Business Suite instance is successfully established, you can add the Oracle E-Business Suite Adapter as an invoke (target) connection later in an integration.

Connection for REST services

Similar to the Oracle E-Business Suite connection using the Oracle E-Business Suite Adapter, once the connection to REST services is established, you can use it as a trigger (source) connection later in an integration.

Create an Oracle E-Businss Suite Connection with Oracle E-Business Suite Adapter

Perform the following steps to establish the connection for Oracle E-Businss Suite in Oracle Integration:

- 1. In the navigation pane, click **Home** > **Integrations** > **Connections**.
- 2. On the Connections page, click **Create**.

In the Create Connection - Select Adapter dialog appears. Scroll down and select "Oracle E-Business Suite" from the dialog. You can optionally use the search feature to enter a



full or partial name to locate the Oracle E-Business Suite Adapter from the dialog. Click the **Select** button for "Oracle E-Business Suite" to create a connection through the Oracle E-Business Suite Adapter.

- **3.** In the Create Connection dialog, enter the following information for your connection:
 - Connection Name: Enter "EBS122".
 - Identifier: Accept the default populated identifier, such as "EBS122".
 - Keywords: Leave this blank.
 - **Connection Role:** Select the "Trigger and Invoke" role for this connection.
 - **Description:** Enter "Use the Oracle E-Business Suite Adapter connection in an integration" as the description.

Click **Create** to create the connection.

- 4. Enter additional connection details by specifying the following information:
 - In the Connection Properties section, enter a URL (http://<Oracle E-Business Suite host name>:<port>) to connect to an Oracle E-Busiess Suite instance.
 - In the Security section, ensure that the Basic Authentication is selected as the security policy.
 Enter operations as the user name and its associated password to access the Oracle E-Business Suite instance you specified earlier in the Connection Properties section.
 - Click **Configure Agents** to display the Select an Agent group dialog. A list of available agent groups is automatically populated for your selection. Select a desired agent group, such as "EBS", and click **Use** to enable the selection.
- 5. Click **Test** to test the connection you just specified for Oracle E-Business Suite.
- 6. When complete, click **Save** and then click ◀

The Oracle E-Business Suite connection "EBS122" now appears in the Connections page.

Create an Connection for REST Services

Perform the following steps to create an connection for REST APIs:

1. On the Connections page, click **Create**.

The Create Connection - Select Adapter dialog appears.

2. Scroll down and select "REST" from the dialog. You can optionally use the search feature to enter a full or partial name to locate the REST Adapter from the dialog.

Click the **Select** button for "REST" to create an connection through the REST Adapter.

3. The Create Connection dialog appears.

Enter "GenericREST" as the Connection Name. The identifier value, GENERICREST, is automatically populated. Leave the optional Keywords field blank.



Select "Trigger" as the Connection Role. Enter a meaningful description for this connection, such as "The sample source REST endpoint".

- 4. Click **Create** to create the connection.
- 5. In the Security section, enter "Basic Authentication" as the security policy.
- 6. Click Test to test the connection you just specified for REST services.
- Click Save and then click

The "GenericREST" connection for REST services appears in the Connections page, along with the Oracle E-Business Suite connection "EBS122" that you created earlier.

Create an Integration

Perform the following steps to create an integration between REST services and Oracle E-Business Suite:

- 1. In the left navigation pane, click **Home > Integrations > Integrations**.
- 2. On the Integrations page, click Create.

The Select Integration Style dialog is displayed.

3. When adding the Oracle E-Business Suite Adapter as an invoke (target) connection, you can use it with "App Driven Orchestration" or "Subscribe To OIC" based on your business needs.

In this example, choose the "App Driven Orchestration" integration pattern and click **Select** to create an integration.

- 4. The Create New Integration dialog appears. Enter the following information:
 - What do you want to call your integration? Enter "Create Order" as the name.
 - Identifier: Accept the default identifier value such as "CREATE ORDER".
 - Version: Accept the default version number.
 - **Documentation URL**: Leave this blank.
 - What does this integration do? Enter description information for your integration, such as "Create a sales order in Oracle E-Business Suite".
 - Which keyword defines this integration: Leave this blank.

To complete the integration, you need to add the following tasks that are described in the next few sections:

Add the desired connections to the integration you just created.

See:

- Add the Oracle E-Business Suite Adapter as an Invoke (Target) Connection.
- Add the REST Adapter as a Trigger (Source) Connection.
- Add mappings to the integration.

See: Create Mappings.

• Assign business identifiers for tracking.

See: Assign Business Identifier for Tracking.



Add the Oracle E-Business Suite Adapter as an Invoke (Target) Connection

Once the integration is created, add the Oracle E-Business Suite connection "EBS122" that you created earlier as an invoke (target) connection in your integration.

Perform the following steps to add the Oracle E-Business Suite Adapter as an invoke (target) connection:

- 1. In the Create Order integration canvas, search the "EBS122" connection that you created earlier from the Connections panel.
- 2. Drag **EBS122** from the Connections panel on the right to the Target area on the canvas.

The Configure Oracle E-Business Suite Adapter Endpoint wizard appears.

- 3. In the Basic Info page, enter the following information for your endpoint:
 - What do you want to call your endpoint? Enter "EBS_Reference".
 - What does this endpoint do? Enter "Create a Sales Order in Oracle E-Business Suite".

Click Next.

Configure Ora	acle E-Bi	usiness Suite Adapter Endpoint						×
			🕑 He	lp 🔻	< Back	Next >	Cancel	Done
V P	Velcome to his wizard arameters	o Oracle E-Business Suite Adapter Target Endp helps you configure target endpoint using Oracle to integrate and perform a business task in Oracl	coint Configuration Wizard E-Business Suite Adapter connection e E-Business Suite.	n. You w	ill be asked	to specify co	nfiguration	×
Basic Info		* What do you want to call your endpoint?	EBS_Reference					
Web Services		What does this endpoint do?	Create a sales order in Oracle E-Bu	isiness (Suite			
Summary								

- **4.** In the Web Services page, specify the following information for your target connection:
 - **Product Family:** Select "Order Management Suite" from the drop-down list.
 - Product: Select "Order Management".



• Interface Type: Select "PL/SQL" from the list.

After you select a desired product family, a product, and an interface type, a list of PL/SQL APIs including Oracle seeded APIs and custom ones contained in the selected product "Order Management" is populated for further selection.

oningure oracle E-	Dusiness oute Aua		
		Help V < Back Next > Cancel	Done
Select Ora Select the	acle E-Business Suite Se target service which will	ervice be used to perform operation on Oracle E-Business Suite application.	>
Basic Info	Product Family	Order Management Suite	^
Veb Services	Product	Order Management	
perations	Interface Type	PL/SQL V	
ummary	* API	Filter by name	
		Process Order API	
		Purchase Order Acknowledgments Extension Columns API	
		Sales Anreement API	
		Sales Order Services	
		Ship Conformation	
	Internal Name	OE_INBOUND_INT	
	Description	This API allows clients to perform various operations on sales orders.	,

Select a desired API name, such as "Sales Order Services". The corresponding API internal name (OE_INBOUND_INT) and description are automatically populated.

Click Next.

5. The selected API internal name OE_INBOUND_INT appears in the Operations page.

Select a desired method name contained in the selected OE_INBOUND_INT API for this invoke (target) connection. For example, select "PROCESS_ORDER".



			0	Heln 🔻	< Back	Next >	Cancel	Der
			0	neip •	< Dack	NEXT 2	Cancer	DOI
Select O Operation Operation	peration for Oracle E ns for selected Oracle I n should be 'Ready to u	Business Suite Service E-Business Suite Service are listed. Se use' to configure the target endpoint for	lect Operation to perform integration.	on Oracle E	-Business Su	uite applicati	on. Selected	i
Basic Info	API	OE_INBOUND_INT						
Veb Services	* Methods	PROCESS_ORDER						
perations								
ummary								
	Service Status	Ready to Use						
	Description	Les this pressdurs to build Oracle A	anliaationa Adaptar basa	d web convio	as that areat	o undato	•	
	Description	or delete Sales Orders in the Order N	Anagement system. It is	optimized fo	r usage in we	b services	Ç	
		and recommended for this purpose of	Ver 1 locess Order Ar I.	DONOTUS	e i locess oi	del Al I (

Click Next.

6. The Summary page displays all the selected interface details. This information includes the selected "PROCESS_ORDER" operation (with "Ready to Use" status) contained in the "OE_INBOUND_INT" web service from the Order Management Suite product family and Order Management product. This page also displays the default interaction pattern "Synchronize" and security policy "Username Token" for the selected service.

The Oracle E-Business Suite Adapter Target Endpoint configuration is successfully created.



Configure Oracle E-	Business Suite Adapte	er Endpoint					×
			🕑 Help 🔻	< Back	Next >	Cancel	Done
Oracle E-	-Business Suite Adapter T Business Suite Adapter Targ	Target Endpoint Configuration Summary get Endpoint configuration was successful.				N	×
						3	
🖋 Basic Info	Product Family	Order Management Suite					
🖋 Web Services	Product	Order Management					
Operations	Web Service	OE_INBOUND_INT					
Summary	Interaction Pattern	Synchronous					
	Operation	PROCESS_ORDER					
	Status	Ready to Use					
	Security Policy	Username Token					

Click Done.

7. Click Save to save your work.

The connection for Oracle E-Businses Suite now appears in the Invoke (Target) area on the canvas.

Add the REST Adapter as a Trigger (Source) Connection

After adding the Oracle E-Business Suite invoke (target) connection, you need to add a trigger (source) connection in the integration. The trigger (source) connection can be any application adapters suitable for your integrations. In this example, the REST Adapter is used for the integration.

Perform the following steps to add the REST Adapter as a trigger (source) connection:

- 1. In the Create Order integration canvas, locate the "GenericREST" connection that you created earlier by entering "GenericREST" in the Connections field.
- 2. Drag GenericREST from the Connections panel on the right to the Trigger (Source) area on the canvas.

The Configure Oracle REST Endpoint wizard appears.

- 3. Enter the following information in the Basic Info page:
 - What do you want to call your endpoint? Enter the name of this endpoint, such as "Source".
 - What does this endpoint do? Enter the usage of this endpoint, such as "Provide REST endpoint with input payload for sales order creation".



• Select to configure multiple resources or verbs (maximum 11)? - Leave this field unchecked.

Click Next.

- 4. In the Resource Configuration page, enter the following information:
 - What does this operation do? Enter the usage of this operation, such as "Provide REST endpoint with input payload for sales order creation".
 - What is the endpoint's relative resource URI? Enter "/process order".
 - What action do you want to perform on the endpoint? Select "POST" from the drop-down list.
 - **Configure a request payload for this endpoint** Select this check box indicating that a request payload is required in this activity.

Ensure that you select the following two check boxes for this trigger (source) connection:

- Configure a request payload for this endpoint
- Configure this endpoint to receive the response

Configure REST Endpoir	it
	Help v < Back Next > Cancel Done
Welcome to the This wizard hel	e REST Endpoint Configuration Wizard × ps you configure an endpoint using the REST adapter.
 Basic Info Resource Configuration 	* Provide an operation name default
Request Parameters Request	What does this operation do?
Request Headers	Provide REST endpoint with input payload for sales order creation
CORS Configuration	* What is the endpoint's relative resource URI?
Response	/process_order
Response Headers	* What action do you want to perform on the endpoint?
Operations	
Summary	
	Based on your selections, you can add parameters or configure a request and/or response for this endpoint. Select any options that you want to configure: Add and review parameters for this endpoint Configure a request payload for this endpoint Configure this endpoint to receive the response
	Configure Request Headers? 👔 🗆 Standard 🔞 🗆 Custom

Click Next.

- 5. In the Request page, perform the following tasks:
 - In the "Select the request payload file" section, select **JSON schema**.

Please note that the request payload file type can be either XML schema or JSON format.

 Click Browse to select a desired request payload file, such as "request.json". Click Open to attach the selected file.



For the sample request payload, see Sample JSON Payloads for the Oracle E-Business Suite Adapter as an Invoke Example for a PL/SQL REST Service.

 In the "What is the media-type as Request Body? (Content-Type Header)" section, select the JSON button as the type.

		-
	Help V < Back Next > Cancel	Don
Configure the R Configure the re	Request Payload quest payload details for this endpoint.	
✓ Basic Info	Operation Name: default	
Resource Configuration	Resource URI: /process_order	
Request Parameters	HTTP Method: POST	
Request	Select the multinart attachment processing options	
Request Headers		
CORS Configuration	W □ Request is multipart with payload	
Response	Multipart request is of type multipart/form-data with HTML form payload	
Response Headers	Select the request payload format	
Operations	IPON Cample	
Summary		- 1
	Sample Location Choose File No file chosenOR enter sample JSON <>	
	* Element request-wrapper 🗸	
	What is the media-type of Request Body? (Content-Type Header)	
	⊖ XML	
	XML(text)	
	JSON	

Click Next.

6. In the Response page, select **JSON Sample** as the response payload format for this example.

Similar to the request, the response payload type can be either XML schema or JSON format.

Click **Browse** to select a desired request payload file, such as "response.json". Click **Open** to attach the selected file.

For the sample response payload, see Sample JSON Payloads for the Oracle E-Business Suite Adapter as an Invoke Example for a PL/SQL REST Service.

In the "What is the media-type as Request Body? (Content-Type Header)" section, select the **JSON** button as the type.



Configure REST Endpoint		
	Help v < Back Next > Cancel Do	one
Configure the R Specify the respo	asponse Payload inse payload details for this integration.	3
✓ Basic Info	HTTP Method: POST	4
🖋 Resource Configuration		
Request Parameters	Select the multipart attachment processing options	ł
🖋 Request	Response is multipart with payload	I
Request Headers	Multipart response is of type multipart/form-data with HTML form payload	I
CORS Configuration		-
Response	Select the response payload format	I
Response Headers	JSON Sample 🗸	I
Operations	Sample Location Choose File No file chosenOR enter sample JSON < inline >>>	I
Summary	* Element response-wrapper 🗸	
	What is the media-type of Response Body? (Accept Header)	1
	O XML	I
	XML(text)	
	JSON	
	O Other Media Type	
	Media Type For example, application/oracle.cloud+json, applic	4

7. Click Next.

This displays the Summary page with the following REST service information that you specified earlier. Click **Done**.

Click **Save** to save your work. The GenericREST connection now appears in the Trigger (Source) area on the canvas, along with the "EBS1225" displayed in the Invoke (Target) area.

Create Mappings

This step is to create mappings between the source and target data structures in the integration. It includes the following mappings:

- mappings for EBS_Reference
- mappings for **Source**

Create mappings for EBS_Reference:

- 1. In the Create Order integration flow, click edit for the Map to EBS_Reference icon. The mapper is displayed.
- 2. In the mapper, perform the following tasks to create mappings:
 - In the Source section, expand the Source Request (REST) node, then the Request Wrapper node, then the PROCESSORDER Input node, and then the InputParameters node.

Select the **P_API_VERSION_NUMBER** element.

 In the Target section, expand the EBS_Reference Request (Oracle E-Business Suite) node, and then the InputParameters node.

Select the **P_API_VERSION_NUMBER** element.



Drag the **P_API_VERSION_NUMBER** element from the Source section to the **P_API_VERSION_NUMBER** element in the Target section to map the data.

Once you complete this step, the mapped source value and the corresponding target element are connected by a blue line.

📀 Мар		
📀 Designer 🛛 🐼 Code 🔹 Test 🔺 Recomm	end 🔀 Develope	r − [#] XSLT View v T Filter K) (≃ *
✓ I PROCESSORDER Input*	Mapping Canvas	Target Q
 nil REST Header* 		Request (Oracle E-Business Suite)*
💿 nil		RESTHeader* 🖸 🕨
▶ D↓Responsibility*		Responsibility and
Resp Application*		RespApplication
Security Group*		SecurityGroup 🚥
INLS Language*		NLSLanguage 🔤
Org Id*		Language
◢		Org_ld as
💿 nil		InputParameters* 💽 🔺
OIP API VERSION NUMBER*		
► OLP INIT MSG LIST*		P_INIT_MSG_LIST □ ↓ 4
P RETURN VALUES*		P_RETURN_VALUES 🛛 🗐
► OLP ACTION COMMIT*		P_ACTION_COMMIT
▶	•	P HEADER REC

Similarly, use the same approach to complete the mappings for the elements listed in the following table.

Source Path	Source Element	Target Path	Target Element
Source Request (REST)/Request Wrapper/ PROCESSORDER Input/RESTHeader	Responsibility	EBS_Reference Request (Oracle E- Business Suite)/ RESTHeader	Responsibility
Source Request (REST)/Request Wrapper/ PROCESSORDER Input/RESTHeader	RespApplication	EBS_Reference Request (Oracle E- Business Suite)/ RESTHeader	RespApplication
Source Request (REST)/Request Wrapper/ PROCESSORDER Input/RESTHeader	SecurityGroup	EBS_Reference Request (Oracle E- Business Suite)/ RESTHeader	SecurityGroup
Source Request (REST)/Request Wrapper/ PROCESSORDER Input/RESTHeader	NLSLanguage	EBS_Reference Request (Oracle E- Business Suite)/ RESTHeader	NLSLanguage
Source Request (REST)/Request Wrapper/ PROCESSORDER Input/RESTHeader	Org_ld	EBS_Reference Request (Oracle E- Business Suite)/ RESTHeader	Org_ld



Source Path	Source Element	Target Path	Target Element
Source Request (REST)/Request Wrapper/ PROCESSORDER Input/Input Parameters	P_INIT_MSG_LIST	EBS_Reference Request (Oracle E- Business Suite)/ InputParameters	P_INIT_MSG_LIST
Source Request (REST)/Request Wrapper/ PROCESSORDER Input/Input Parameters	P_RETURN_VALUES	EBS_Reference Request (Oracle E- Business Suite)/ InputParameters	P_RETURN_VALUES
Source Request (REST)/Request Wrapper/ PROCESSORDER Input/Input Parameters	P_ACTION_COMMIT	EBS_Reference Request (Oracle E- Business Suite)/ InputParameters	P_ACTION_COMMIT

3. Once the mapping is complete, click Validate and Close to save your work.

4. Click Exit Mapper.

Create mappings for Source:

- 1. In the Create Order integration flow, click edit for the Map to Source icon. The mapper is displayed.
- 2. In the mapper, perform the following tasks to create mappings:
 - In the Source section, expand the EBS_Reference Response (Oracle E-Business Suite) node, then the PROCESS_ORDERResponse node, and then the OutputParameters node.

Select the **X_RETURN_STATUS** element.

 In the Target section, expand the Source Reponse (REST) node, then the Response Wrapper node, and then the Output Parameters node.

Select the X_RETURN_STATUS element.

Drag the **X_RETURN_STATUS** element from the Source section to the **X_RETURN_STATUS** element in the Target section to map the data.

3. Use the same approach to complete the mappings for the elements listed in the following table.

Source Path	Source Element	Target Path	Target Element
EBS_Reference Response (Oracle E- Business Suite)/ PROCESS_ORDER Response/ OutputParameters/ X_MESSAGES/ X_MESSAGES_ITE M	MESSAGE_TEXT	Source Reponse (REST)/Response Wrapper/ OutputParameters/ X_MESSAGES/ X_MESSAGES_ITE M	MESSAGE_TEXT


Source Path	Source Element	Target Path	Target Element
EBS_Reference Response (Oracle E- Business Suite)PROCESS_OR DERResponse/ OutputParameters/ X HEADER REC	ORDER_NUMBER	Source Reponse (REST)/Response Wrapper/ OutputParameters/ X_HEADER_REC	ORDER_NUMBER

📀 Designer 🛛 🔯 Code 🔹 Test 🔺 Reco	ommend	🔀 Developer	$-^{\pi}_{_{\mathrm{M}}}$ XSLT	View 🔻	$\overline{\overline{\gamma}}$ Filter	19 (°	e - 1
Sources	Mapping Canvas	5	Target				0
 Source Request (REST)* Request Wrapper* Connectivity Properties* 				Source I	Response Response	(REST)* Wrapper*	
 EBS_Reference Response (Orac PROCESS_ORDERResponse* 	cie I				Output Parar	neters* 🖸	•
 OutputParameters* OutputParameters* 				X RE	X MESSAG	ES* 🖸 🕨	
 X_MESSAGES nil 				X MES	SAGES ITEN	/// ⊡ //* ⊡ ⊾	
 X_MESSAGES_ITEM nil 				MESS	AGE TEXT*		
MESSAGE_TEXT X_HEADER_REC						nii 💿	
 X_HEADER_VAL_REC X_HEADER_ADJ_TBL 				ORD C	ER NUMBER	R" 🔟 🖣	

Once the mapping is complete, click Validate and Close to save your work.

4. Click Exit Mapper.

Click Save to save your work.

Assign Business Identifier for Tracking

To effectively track payload fields in messages during runtime, you can specify up to three tracking fields to enable runtime tracking on messages.

1. In the Create Order Integration page, click **Tracking**.

The Business Identifiers For Tracking dialog appears.

2. From the Available Source Fields section, drag the payload field that you want to track to the Tracking Field column.

For example, drag the INVENTORY_ITEM_ID element from the Available Source Fields section to the Tracking Field column in the table.

Enter "item" as the Tracking Name for the INVENTORY_ITEM_ID element.



siness Identifiers I	For Tracking							
Available Source Fields	Find Q		Business across in	identifiers enable ru tegration flows and i	ntime tracking on messages. Specify u s always available.	up to three tracking fields. A primary i	identifier is required. It enables you	to track field
🔺 🖒 execute		^	Additiona	I business identifier f	fields are optional. At runtime, they are	available for tracking only when this i	ntegration flow is selected.	
	rapper		To enab	Type a descriptive r	name that will be displayed when this	ntegration flow messages.		
# <> PROC	CESS_ORDER_Input		Prima	field is used on the messages (for exar	runtime Tracking page to filter the mple, "Purchase Order").	Tracking Name	Help Text	
)⊧ <> R	RESTHeader		0		INVENTORY ITEM ID	item	How to track it?	-
ai <> In	nputParameters							
	<> P_API_VERSION_NUMBER				Drag a source field here	What to call it?	How to track it?	
•	<> P_INIT_MSG_LIST	=			Drag a source field here			
•	<> P_RETURN_VALUES	>			12			
4	<> P_ACTION_COMMIT							
	<> P_HEADER_REC							
- I.	<> P_LINE_TBL							
	# <> P_LINE_TBL_ITEM							
	NVENTORY_ITEM_	1						
	<> LINE_TYPE_ID							
	<>> ORDERED_QUANT	п						
	<> PAYMENT_TERM_I	D I						
	<> PRICE_LIST_ID	-						
							Do	ne Cano

3. Click Done.

Save your work and then click Exit Integration.

Activate and Test the Integration

Activate the Integration

After you complete the integration with desired source and target connections and mappings, you can activate the "Create Order" integration.

Perform the following steps to activate the integration:

1. On the Integrations page, click



for the "Create Order" integration that you created earlier to activate the integration.

2. The Confirmation dialog appears. Click Activate.

Notice that a status message is displayed in the banner at the top of the Integrations page.

Test the Integration

To view the activated "Create Order" integration, click the **View** icon. A pop-up dialog appears with the integration details.

You can copy the Endpoint URL (https://<Oracle Integration Host>:<Port>/ic/api/integration/v1/flows/ebusiness/CREATE_ORDER/1.0/) and open it in any REST client to invoke the REST service for order creation.

For example, an order number 69359 is created successfully after the service invocation and is shown in the Response tab.





Verify Order Creation in Oracle E-Business Suite

Log in to Oracle E-Business Suite as a user who has the Order Management Super User, Vision Operations (USA) responsibility.

Select **Order Returns** and then **Sales Order** from the navigation menu to open the Sales Orders form.

Search for an order by pressing the **F11** key. In the Customer PO field, enter the order ID retrieved from the service invocation. For example, enter 69359 and press the **CTRL+F11** keys to execute the query. You should be able to find the order created in Oracle E-Business Suite.

Sample JSON Payloads for the Oracle E-Business Suite Adapter as an Invoke Example for a PL/SQL REST Service

This section includes the JSON request and response payloads used in the example of adding the Oracle E-Business Suite Adapter as an invoke (target) connection in an integration.

For information on using these payloads, see: Add the REST Adapter as a Trigger (Source) Connection.

Sample Request Payload for the request.json File



```
"P ACTION COMMIT": "T",
    "P HEADER REC": {
      "BOOKED FLAG": "N",
      "ORDER TYPE ID": "1430",
      "ORG ID": "204",
      "PAYMENT TERM ID": "4",
      "PRICE LIST ID": "1000",
      "SOLD TO ORG ID": "1002",
      "TRANSACTIONAL CURR CODE": "USD",
      "OPERATION": "CREATE"
    },
    "P LINE TBL": {
      "P LINE TBL ITEM": {
        "INVENTORY ITEM ID": "149",
        "LINE TYPE ID": "1427",
        "ORDERED QUANTITY": "1",
        "PAYMENT TERM ID": "4",
        "PRICE LIST ID": "1000",
        "UNIT LIST PRICE": "12.55",
        "UNIT SELLING PRICE": "12.55",
        "OPERATION": "CREATE"
      }
    },
    "P RTRIM DATA": "n"
 }
}
```

Sample Response Payload for the response.json File

An Example of Using an Open Interface REST Service as an Invoke (Target) Connection in an Integration

Sample Business Scenario

}

An open interface "AR Autoinvoice" (RAXMTR) is used to explain how to insert invoice data in Oracle E-Business Suite through the invocation of REST services.



In this example, the REST Adapter is used as a trigger (source) connection and the Oracle E-Business Suite Adapter is used as invoke (target) connections to invoke the REST services contained in the RAXMTR open interface.

At runtime when the integration is triggered, the Oracle E-Business Suite Adapter receives a request with input payload from the trigger (source) connection, invokes the RA_INTERFACE_LINES_ALL REST service to insert data, and invokes the SUBMIT_CP_RAXMTR REST service to submit the corresponding concurrent program. Once the integration is executed and completed successfully, invoice line data is inserted into the RA_INTERFACE_LINES_ALL open interface table in Oracle Receivables. Additionally, you will find the log messages as output responses indicating the number of records are inserted into the table and the concurrent request ID. You can then use the request ID to view and verify the report of the RAXMTR concurrent program.

Prerequisites:

Before creating the integration in Oracle Integration, you need to ensure the following tasks are in place:

 The "AR Autoinvoice" (RAXMTR) open interface is deployed as a REST service with alias autoinvoice. All included service operations or interface tables are selected and deployed as REST service operations.

Inte Busine	rnal Name RAXMTR Type Concurrent F Product Receivables ss Entities <u>Credit Memo</u> pline Help Importing Tra	Program and , <u>Debit Mem</u> nsaction Info	I Open	Interfac <u>ceivable</u> n Usino	e <u>s Invo</u> Autol	ice nvoice. Ora	cle Receivab	Status Scope	Active Public			
REST Se Service (operations	iew WADL										
Name		Direction	GET	POST	PUT	DELETE	Grant					
AR Autoinv	oice						_					
RA INTERF	ACE DISTRIBUTIONS	Inbound	1	~	~	~						
RA INTERF	ACE SALESCREDITS	Inbound	1	1	~	1						
RA INTERF	ACE ERRORS ALL	Inbound	1	1	1	×						
RA INTERF	ACE LINES ALL	Inbound	1	1	1	×						
SUBMIT CF	RAXMTR			1								
GTIP To a	apply any changes in Oper	ation, Unde	ploy the	e servic	e. n at H	TTP Trans	nort level. S	nd either of	the following	in "Authorizat	ion" head	er as ner

Record the following REST service endpoint from the WADL:

https://<host>:<port>/webservices/rest/<alias>/RA INTERFACE LINES ALL/



Replace <alias> with autoinvoice in this example. You will use this service endpoint later when you create a REST connection in Oracle Integration.

• Security grants are created for the operations user.

Based on the integration scenario, the sample tasks for using an Oracle E-Business Suite Open Interface REST service in an integration are included in the Topics section:

Topics:

- 1. Establish the Connections for Oracle E-Business Suite and REST Services
- 2. Create an Integration with App Driven Orchestration
- 3. Add the REST Adapter (Trigger) and the Oracle E-Business Suite Adapter (Invoke) to the Integration
- 4. Create Mappings
- 5. Assign Business Identifier for Tracking
- 6. Activate and Test the Integration
- 7. Sample XSD for the Oracle E-Business Suite Adapter as an Invoke Example for an Open Interface REST Service

Establish the Connections for Oracle E-Business Suite and REST Services

In this integration example, you need to create the following two connections:

Connection for Oracle E-Business Suite

Once the connection to an Oracle E-Business Suite instance is successfully established, you can add the Oracle E-Business Suite Adapter as invoke (target) connections later in an integration.

Connection for REST services

You need to establish the connection for REST services. You can add this REST connection as a trigger (source) connection later in an integration.

Create an Oracle E-Businss Suite Connection with Oracle E-Business Suite Adapter

Perform the following steps to establish the connection for Oracle E-Businss Suite in Oracle Integration:

- 1. In the navigation pane, click **Home** > **Integrations** > **Connections**.
- 2. On the Connections page, click Create.

In the Create Connection - Select Adapter dialog appears. Scroll down and select "Oracle E-Business Suite" from the dialog. You can optionally use the search feature to enter a full or partial name to locate the Oracle E-Business Suite Adapter from the dialog. Click the **Select** button for "Oracle E-Business Suite" to create a connection through the Oracle E-Business Suite Adapter.

- **3.** In the Create Connection dialog, enter the following information for your connection:
 - Connection Name: Enter "EBSDemo".



- Identifier: Accept the default populated identifier, such as "EBSDEMO".
- Keywords: Leave this blank.
- Connection Role: Select the "Trigger and Invoke" role for this connection.
- **Description:** Enter "Use the Oracle E-Business Suite Adapter connection in an integration" as the description.

Click Create to create the connection.

- 4. Enter additional connection details by specifying the following information:
 - In the Connection Properties dialog, enter a URL (http://<Oracle E-Business Suite host name>:<port>) to connect to an Oracle E-Busiess Suite instance.
 - In the Security section, ensure that the Basic Authentication is selected as the security policy.

Enter operations as the user name and its associated password to access the Oracle E-Business Suite instance you specified earlier in the Connection Properties section.

• Click **Configure Agents** to display the Select an Agent group dialog. A list of available agent groups is automatically populated for your selection.

Select a desired agent group, such as "EBS", and click **Use** to enable the selection.

After you specify the connection information for "EBSDemo", the connection details page is displayed.

- 5. Click **Test** to test the connection you just specified for Oracle E-Business Suite.
- 6. Click **Save** and then click

The Oracle E-Business Suite connection "EBSDemo" now appears in the Connections page.

Create an Connection for REST Services in This Example

Perform the following steps to create an connection for REST APIs:

1. On the Connections page, click Create.

The Create Connection - Select Adapter dialog appears.

2. Scroll down and select "REST" from the dialog. You can optionally use the search feature to enter a full or partial name to locate the REST Adapter from the dialog.

Click the **Select** button for "REST" to create an connection through the REST Adapter.

3. The Create Connection dialog appears.

Enter "RESTSample" as the Connection Name. The identifier value, GENERICREST, is automatically populated. Leave the optional Keywords field blank.

Select "Trigger" as the Connection Role. Enter a meaningful description for this connection, such as "The sample source REST endpoint".

- 4. Click Create to create the connection.
- 5. In the Security section, enter "Basic Authentication" as the security policy.
- 6. Click Test to test the connection you just specified for REST services.



7. Click **Save** and then click

The "RESTSample" connection for REST services appears in the Connections page, along with the Oracle E-Business Suite connection "EBSDemo" that you created earlier.

Create an Integration with App Driven Orchestration

Perform the following steps to create an integration between REST services and Oracle E-Business Suite:

- 1. In the left navigation pane, click Home > Integrations > Integrations.
- 2. On the Integrations page, click **Create**. The Select Integration Style dialog is displayed.
- 3. In this example, choose the "App Driven Orchestration" integration style and click **Select** to create an integration.

The Create New Integration dialog appears. Enter the following information:

- What do you want to call your integration? Enter "EBS OIT Demo" as the name.
- Identifier: Accept the default identifier value such as "EBS_OIT_DEMO".
- Version: Accept the default version number.
- **Documentation URL**: Leave this blank.
- What does this integration do? Enter description information for your integration, such as "Inserting records in an Open Interface Table".
- Which keyword defines this integration: Leave this blank.
- 4. Click Create and Save.

An empty canvas is displayed.

To complete the integration, you need to add the following tasks that are described in the next few sections:

Add the desired connections to the integration you just created.

See: Add the REST Adapter (Trigger) and the Oracle E-Business Suite Adapter (Invoke) to the Integration.

• Add mappings to the integration.

See: Create Mappings.

• Assign business identifiers for tracking.

See: Assign Business Identifier for Tracking.

Add the REST Adapter (Trigger) and the Oracle E-Business Suite Adapter (Invoke) to the Integration

After creating an integration with "App Driven Orchestration" pattern, you need to orchestrate desired activities for the integration.



In this example, the "EBS OIT Demo" orchestration flow diagram created for this integration includes the following activities:

The REST Adapter as a trigger connection "REST"

This activity provides the invoice line information as an input payload for invocation of the RA_INTERFACE_LINES_ALL REST service through the Oracle E-Business Suite Adapter.

See: Add the REST Adapter as a Trigger Connection.

Mapping defined for "RA_Interface_Lines"

This activity allows you to map and pass the invoice related parameters to the "RA_Interface_Lines" activity to invoke the RA_INTERFACE_LINES_ALL REST service contained in the "AR Autoinvoice" (RAXMTR) open interface.

See: Create Mappings.

 The Oracle E-Business Suite Adapter as an invoke connection (called RA Interface Lines) for inserting invoice line data

This activity invokes the RA_INTERFACE_LINES_ALL REST service when adding the Oracle E-Business Suite Adapter as an invoke connection. This activity will insert multiple invoice line records into the RA_INTERFACE_LINES_ALL open interface table in Oracle Receivables when the service is invoked successfully.

See: Add the Oracle E-Business Suite Adapter as an Invoke Connection for Inserting Records.

The first logger called "Interface"

This activity allows you to log message about the "Success Count" information after the successful invocation of the RA_INTERFACE_LINES_ALL REST service.

Mapping defined for "Submit_RAXMTR"

This activity provides the parameter values to the "Submit_RAXMTR" activity in order for the concurrent program to run successfully.

See: Create Mappings.

• The Oracle E-Business Suite Adapter as an invoke connection (called "Submit RAXMTR") for submitting associated concurrent program

This activity invokes the "SUBMIT_CP_RAXMTR" REST service to submit the RAXMTR (Autoinvoice Master Program) concurrent program. When the request of running the concurrent program is processed or executed, validation is performed on the corresponding open interface.

See: Add the Oracle E-Business Suite Adapter as an Invoke Connection for Submitting a Concurrent Program.

The second logger called "CPSubmitResponse"

Once the concurrent request is successfully processed, use this activity to log message about the concurrent request ID. You can view the associated report through the concurrent request ID for validation.

See: Add the Loggers.

Topics:

- Add the REST Adapter as a Trigger Connection
- Add the Oracle E-Business Suite Adapter as an Invoke Connection for Inserting Records



- Create Mappings
- Add the Oracle E-Business Suite Adapter as an Invoke Connection for Submitting a Concurrent Program
- Add the Loggers

Add the REST Adapter as a Trigger Connection

The REST Adapter is used in this example to provide invoice information as an input to the RA_INTERFACE_LINES_ALL REST service invocation through the Oracle E-Business Suite Adapter.

Perform the following steps to add the REST Adapter as a trigger (source) connection:

1. In the "EBS OIT Demo" integration canvas, drag and drop the REST Adapter connection called "RESTSample" from the Triggers section in the upper right corner to the large + section within the circle in the integration canvas.

The Configure REST Endpoint wizard appears.

- 2. Enter the following information:
 - What do you want to call your endpoint? Enter the name of this endpoint, such as "REST".
 - What does this endpoint do? Enter the usage of this endpoint, such as "Provide REST endpoint with input payload".
 - What is the endpoint's relative resource URI? Enter / RA_INTERFACE_LINES_ALL/.
 - What action does the endpoint perform? Select "POST" from the dropdown list.

Ensure that you select the following check box for this trigger (source) connection:

Configure a request payload for this endpoint

Click Next.

- 3. In the Request page, perform the following tasks:
 - In the "Select the request payload file" section, select the XML schema button.

Please note that the request payload file type can be either XML schema or JSON format.

• Click **Browse** to select a desired request payload file, such as "input.xsd". Click **Open** to attach the selected file. System will parse the schema and display the root element (RA_INTERFACE_LINES_ALL_input) in the Element field.

For the sample request payload, see Sample XSD for the Oracle E-Business Suite Adapter as an Invoke Example for an Open Interface REST Service.

• In the "Select the type of payload with which you want the endpoint to receive" section, select the **XML** button as the payload type.

Click Next.

4. This displays the Summary page with the following REST service information that you specified earlier:



- **REST Service URI**: /RA_INTERFACE_LINES_ALL/
- Method: POST
- Request Media Type: application/xml

Click Done.

Click Save to save your work.

The "REST" endpoint now appears as a trigger in the integration flow.

Add the Oracle E-Business Suite Adapter as an Invoke Connection for Inserting Records

After adding the REST Adapter as a trigger connection, you can add the Oracle E-Business Suite connection that you created earlier as an invoke (target) connection in your integration. This allows you to invoke an open interface table REST service to insert invoice line data into the open interface table RA INTERFACE LINES ALL in Oracle Receivables.

Perform the following steps to add the Oracle E-Business Suite Adapter in the orchestration flow:

1. In the "EBS OIT Demo" integration canvas, drag and drop the "EBSDemo" connection from the Invokes toolbar on the right to the integration, right after the "REST" activity you created earlier.

The Configure Oracle E-Business Suite Adapter Endpoint wizard appears.

- 2. In the Basic Info page, enter the following information for your endpoint:
 - What do you want to call your endpoint? Enter "RA_Interface_Lines".
 - What does this endpoint do? Enter "Insert invoice data in Oracle Receivables".

Click Next.

- 3. In the Web Services page, specify the following information for your target connection:
 - **Product Family:** Select "Financial Receivables Suite" from the drop-down list.
 - Product: Select "Receivables".
 - Interface Type: Select "Open Interface" from the list.
 - **API:** Select "AR Autoinvoice" for this example.

The corresponding API internal name (RAXMTR) and description are automatically populated.



Configure Oracle E-Busines	ss Suite Adapte	er Endpoint	
		Help w < Back Next > Cancel	Don
Select Oracle E-I Select the target se	Business Suite Se ervice which will be	rvice used to perform operation on Oracle E-Business Suite application.)
Sasic Info	Product Family	Financial Receivables Suite	ŀ
Web Services	Product	Receivables	
Operations	Interface Type	Open Interface	
Summary	* API	Filter by name AR Autoinvoice AR Payments Interface OUT: Credit/Debit Memo (812) OUT: Invoice (810/INVOIC) Sales Tax Rate Interface	Ξ
	Internal Name	RAXMTR	
	Description	Using AutoInvoice, you can import and validate transaction data from other financial systems, and create invoices, debit memos, credit memos, and on-account credits in Oracle Receivables. For more information see online documentation.	

Click Next.

4. In the Operations page, select a desired method name contained in the selected API (RAXMTR) for this invoke (target) connection.

For example, select "RA_INTERFACE_LINES_ALL".

In the CRUD Operation field, select "Create" from the drop-down list.

Configure Oracle E-Busi	iness Suite Adapter	Endpoint	
		Help v < Back Next > Can	cel Done
Select Operations for Operations show	tion for Oracle E-Busin selected Oracle E-Busin uld be 'Ready to use' to c	ess Suite Service ess Suite Service are listed. Select Operation to perform on Oracle E-Business Suite application. Select onfigure the target endpoint for integration.	ed
🖋 Basic Info	API	RAXMTR	
Veb Services	* Methods	RA_INTERFACE_DISTRIBUTIONS_ALL	
🎸 Operations		RA_INTERFACE_ERRORS_ALL	
Summary		RA_INTERFACE_LINES_ALL	
		RA_INTERFACE_SALESCREDITS_ALL	
	Direction	NBOUND	
	CRUD Operation	Create	
	Service Status	Ready to Use	
	Description	The RA_INTERFACE_LINES_ALL table stores interface information for eachinvoice line that AutoInvoice imports into Oracle Receivables.	a



Click Next.

5. The Summary page displays all the selected interface details. This information includes the selected "RA_INTERFACE_LINES_ALL" operation (with CRUD "Create" operation) contained in the "RAXMTR" web service from the Financial Receivables Suite product family and Receivables product. This page also displays the default interaction pattern "Synchronize" for the selected service.

onfigure Oracle E-Bu	siness Suite Adapter E	ndpoint				
			🕑 Help 🔻	< Back	Next > Cancel	Done
Oracle E-Bu Oracle E-Bu	usiness Suite Adapter Targe Isiness Suite Adapter Target E	et Endpoint Configuration Summary indpoint configuration was successful.				>
Basic Info	EBS RA_Interface	Lines				
Operations	Description					
ummary	Product Family Product Web Service	Financial Receivables Suite Receivables RAXMTR				
	Operation Direction CRUD Operation	RA_INTERFACE_LINES_ALL INBOUND Create				
	Status Interaction Pattern	Ready to Use Synchronous				

The Oracle E-Business Suite Adapter Target Endpoint configuration is successfully created.

Click Done.

6. Click **Save** to save your work.

The connection for Oracle E-Business Suite called "RA_Interface_lines" now appears as part of the orchestration flow.

Add the Oracle E-Business Suite Adapter as an Invoke Connection for Submitting a Concurrent Program

After adding the Oracle E-Business Suite Adapter as an invoke connection (RA_Interface_lines) to invoke the RA_INTERFACE_LINES_ALL REST service, you can add the second invoke connection in the flow to invoke the SUBMIT_CP_RAXMTR REST service to submit the RAXMTR (Autoinvoice Master Program) concurrent program.

Perform the following steps to add the Oracle E-Business Suite Adapter as an invoke (target) connection for concurrent program submission:



1. In the "EBS OIT Demo" integration canvas, drag and drop the "EBSDemo" connection from the Invokes toolbar on the right to the integration, right after the "RA_Interface_lines" activity you just created in Step 2.



The Configure Oracle E-Business Suite Adapter Endpoint wizard appears.

2. In the Basic Info page, enter the following information for your endpoint:



- What do you want to call your endpoint? Enter "Submit_RAXMTR".
- What does this endpoint do? Enter "Submit the concurrent program for RAXMTR".

Click Next.

- 3. In the Web Services page, specify the following information for your target connection:
 - **Product Family:** Select "Financial Receivables Suite" from the drop-down list.
 - Product: Select "Receivables".
 - Interface Type: Select "Open Interface" from the list.
 - API: Select "AR Autoinvoice".

The corresponding API internal name (RAXMTR) and description are automatically populated.

Click Next.

4. In the Operations page, select a desired method name contained in the API (RAXMTR) for this invoke (target) connection. In this example, select "SUBMIT_CP_RAXMTR".

			🕑 Help	• < Back	Next >	Cancel	Don
Select Operations Operations Operation s	for selected Oracle E-Bus for selected Oracle E-Bus hould be 'Ready to use' to	iness Suite Service iness Suite Service are listed. Select Operation to p configure the target endpoint for integration.	erform on Oracle	E-Business Suite	application.	Selected	3
Basic Info	API	RAXMTR					
Web Services	* Methods	RA_INTERFACE_DISTRIBUTIONS_ALL					
Operations		RA_INTERFACE_ERRORS_ALL					
Summary		RA_INTERFACE_LINES_ALL					
		RA_INTERFACE_SALESCREDITS_ALL					
		SUBMIT_CP_RAXMTR					
	Service Status Description	Ready to Use Interface your transactions to Oracle Receivables					

Click Next.

5. The Summary page displays all the selected interface details. This information includes the selected "SUBMIT_CP_RAXMTR" operation contained in the "RAXMTR" REST service from the Financial Receivables Suite product family and Receivables product. This page also displays the default interaction pattern "Synchronize" for the selected service.



The Oracle E-Business Suite Adapter Target Endpoint configuration is successfully created.

Click Done.

6. Click Save to save your work.

Add the Loggers

After adding both the trigger and invoke connections in the canvas, you can add the logger to log messages. In this example, you need to add the following two loggers in the orchestration flow:

Add the first logger after "RA_Interface_Lines"

This activity is to log message about the "Success Count" information after the successful invocation of the RA_INTERFACE_LINES_ALL REST service.

Add the second logger after "Submit_RAXMTR"

Once the concurrent program is successfully processed, use this activity to log message about the concurrent request ID. You can then view the associated report through the concurrent request ID for validation.

Perform the following steps to add loggers:

1. Add the First Logger "Interface" for Success Count

In the "EBS OIT Demo" integration page, from Actions section on right side of canvas, drag and drop the **Logger** activity to the canvas, right after "RA_Interface_Lines" and before "Submit_RAXMTR".

The Create Action page appears.

2. Enter "Interface" as the Name field in the Create Action page.

Logger Ac	tion
Please give a	unique name and description to this action.
* Name	Interface
Description	Enter description

Click Create.

The logger "Interface" is created successfully.



3. In the Logger Action page, perform the following tasks:



- In the Log field, select the **Always** button.
- In the Logger Message field, click the **Pencil** icon to provide the logger message in the Log Message page.

Use the String Concat function as Expression to display Success Count.

In the Source section, expand the **RA_INTERFACE_LINES_ALLResponse** node, then the **OutputParameters** node, and then the **Summary** node.

Select the **SuccessCount** element and click **I** to move the element to the right top under the Expression section. Click **Validate** and then **Close**.

Log Message	Close	Validate
Expression in "Interface - EBS OIT Demo (1.0)"		
Inputs	Expression	0
View • Filter Er Detach	\$RA_Interface_lineseference/ins1RA_INTERFACE_LINES_ALLResponse /nssrcmpr.OutputParameters/nssrcmpr.Summary/nssrcmpr.SuccessCour	t
<pre>////////////////////////////////////</pre>	A Expression Summary ()	:
∡ <> *Summary		.4
SuccessCount		
► <> "Result		
View 💌 🛗 Detach		
Components Find Q		
Gperators		

4. Add the Second Logger "CPSubmitResponse" for Concurrent Program Submit ID

In the "EBS OIT Demo" integration page, from Actions section on right side of canvas, drag and drop the **Logger** activity to the canvas, right after "Submit_RAXMTR".

The Create Action page appears.



- Enter "CPSubmitResponse" as the Name field in the Create Action page. Click Create.
- 6. In the Logger Action page, select the **Always** button.

Click the **Pencil** icon to provide log message in the Log Message page.

Use the String Concat function as Expression to display CP Submit ID.

In the Source section, expand the **Submit_RAXMTR** node, then the **RAXMTRResponse** node, and then the **OutputParameters** node.

Drag and drop the **CP_Submit** element to the right top under the Expression section. Click **Validate** and then **Close**.

Create Mappings

After orchestrated the required activities in this example, you need to create the following mappings to ensure the source and target data between activities can be processed successfully for the integration:

- Create mappings for "RA_Interface_Lines"
- Create mappings for "Submit_RAXMTR"

Create Mappings for the RA_Interface_Lines Map

- In the "EBS OIT Demo" integration page, click the Edit icon for the Map to RA_Interface_Lines icon.
- 2. Perform the following tasks to creating mapping:

In this example, you need to map all the elements under the RA_INTERFACE_LINES_ALL_Input node from the Source section to the corresponding elements in the RA_INTERFACE_LINES Request (Oracle E-Business Suite) node under the Target section.

For example, create the first mapping using the following steps:

 In the Source section, expand the RA_INTERFACE_LINES Request (Oracle E-Business Suite) node, then the RA_INTERFACE_LINES_ALL_Input note, and then the RESTHeader node.

Select the Responsibility element from the RESTHeader node.

• In the Target section, expand the **RA_INTERFACE_LINES Request (Oracle E-Business Suite)** node, and then the **RESTHeader** node.

Select the Responsibility element.

Drag and drop the **Responsibility** element from the Source section to the **Responsibility** element in the Target section to map the data.

- 3. Use the same mapping mechanism described above to map all the elements under the RA_INTERFACE_LINES_ALL_Input node from the Source section to the corresponding elements in the RA_INTERFACE_LINES Request (Oracle E-Business Suite) node under the Target section. Specifically, you need to creating mappings for the following elements:
 - All elements under the **RESTHeader** node from the Source section to the corresponding elements in the Target section
 - The **Select** element from the Source section to the **Select** element in the Target section



- All elements under the **InputParameters** node from the Source section to the corresponding elements in the **InputParameters** node in the **Target** section
- Click Validate or Close to exit the mapper, then click Save to save your changes when prompted.

Create Mappings for the Submit_RAXMTR Map

- 1. In the "EBS OIT Demo" integration page, click the **Edit** icon for the Map to Submit_RAXMTR icon.
- 2. In the Mapper page, assign constant values to the target elements.
 - a. In the Target section, expand the Submit RAXMTR (Oracle E-Business Suite) node, and then the RESTHeader node.
 - **b.** Click the **Toggle functions** icon 🔝 to launch the **Components** panel.
 - c. Right-click the **Responsibility** element and select **Create Target Node** from the drop-down menu.
 - In the Expression Builder at the bottom of the page, click the "Switch to Developer View" icon and then enter 'RECEIVABLES_VISION_OPERATIONS' for the Responsibility element.
 A function icon is added to the Mapping Canvas section for the target Responsibility element node. This icon indicates that a function is used in this mapping.

Similarly, use the same approach to assign appropriate values to the target elements listed in the following table:

Path	Element	Value
Submit RAXMTR (Oracle E- Business Suite)/RESTHeader	RespApplication	'AR'
Submit RAXMTR (Oracle E- Business Suite)/RESTHeader	SecurityGroup	'STANDARD'
Submit RAXMTR (Oracle E- Business Suite)/RESTHeader	NLSLanguage	'AMERICAN'
Submit RAXMTR (Oracle E- Business Suite)/RESTHeader	Org_ld	'204'
Submit RAXMTR (Oracle E- Business Suite)/ InputParameters	APPLICATION	'AR'
Submit RAXMTR (Oracle E- Business Suite)/ InputParameters	PROGRAM	'RAXMTR'
Submit RAXMTR (Oracle E- Business Suite)/ InputParameters	SUB_REQUEST	'0'
Submit RAXMTR (Oracle E- Business Suite)/ InputParameters	NumberofInstances	'1'
Submit RAXMTR (Oracle E- Business Suite)/ InputParameters	Organization	'204'
Submit RAXMTR (Oracle E- Business Suite)/ InputParameters	BatchSourceId	'20'



Path	Flement	Value
1 a	Liement	value
Submit RAXMTR (Oracle E- Business Suite)/ InputParameters	BatchSourceName	'PROJECTS INVOICES'
Submit RAXMTR (Oracle E- Business Suite)/ InputParameters	BaseDueDateonTrxDate	Ϋ́

After you complete this step, function icons are added in the Mapping Canvas section for the corresponding target elements listed in the table above.



3. Click Validate or Close (which also performs validation) to exit the mapper, then click Save to save your work.

Assign Business Identifier for Tracking

Perform the following steps to provide identifiers for tracking during runtime:

1. In the 'EBS OIT Demo" Integration page, click Tracking.

The Business Identifiers For Tracking dialog appears.

2. From the Available Source Fields section, expand the RA_INTERFACE_LINES_ALL_Input node and then the RESTHeader node.

Drag and drop the **Org_Id** element to the Tracking Field column in the table as the primary Tracking field.

- 3. Click Done.
- 4. Save your work and then click **Close**.

Activate and Test the Integration

Perform the following steps to activate the integration:



1. On the Integrations page, click



for the "EBS OIT Demo" integration that you created earlier to activate the integration.

2. The Confirmation dialog appears. Click Activate to confirm this action.

Notice that a status message is displayed in the banner at the top of the Integrations page.

When this integration is activated, the endpoint to trigger the integration is displayed on top of the page, along with a link to the Tracking page to track instances.

The REST endpoint URL may be as: https://<host>:<port>/ic/api/integration/v1/ flows/rest/EBS OIT DEMO/1.0/metadata

Test the Integration at Runtime

- 1. Open a REST client.
- 2. Post the following HTTP request:

```
<?xml version="1.0" encoding="utf-8"?>
<RA INTERFACE LINES ALL Input>
 <RESTHeader>
  <Responsibility>RECEIVABLES VISION OPERATIONS</Responsibility>
  <RespApplication>AR</RespApplication>
  <SecurityGroup>STANDARD</SecurityGroup>
  <NLSLanguage>AMERICAN</NLSLanguage>
  <Org Id>204</Org Id>
 </RESTHeader>
<Select>QUANTITY,TRX NUMBER,BATCH SOURCE NAME</Select>
<InputParameters>
<RA INTERFACE LINES ALL REC>
 <INTERFACE LINE ATTRIBUTE9>1</INTERFACE LINE ATTRIBUTE9>
 <INTERFACE LINE ATTRIBUTE11>1</INTERFACE LINE ATTRIBUTE11>
 <INTERFACE LINE ATTRIBUTE10>1</INTERFACE LINE ATTRIBUTE10>
 <ORG ID>204</ORG ID>
 <COMMENTS>Created by Service</COMMENTS>
 <QUANTITY>10</QUANTITY>
 <TRX NUMBER>Demo-Rec1</TRX NUMBER>
 <CONVERSION RATE>1</CONVERSION RATE>
 <CONVERSION DATE>2018-08-18</CONVERSION DATE>
 <CONVERSION TYPE>User</CONVERSION TYPE>
 <ORIG SYSTEM SHIP ADDRESS ID>1030</ORIG SYSTEM SHIP ADDRESS ID>
 <ORIG SYSTEM SHIP CUSTOMER ID>1004</ORIG SYSTEM SHIP CUSTOMER ID>
 <ORIG SYSTEM BILL ADDRESS ID>1030</ORIG SYSTEM BILL ADDRESS ID>
 <ORIG SYSTEM BILL CUSTOMER ID>1004</ORIG SYSTEM BILL CUSTOMER ID>
 <TERM ID>4</TERM ID>
 <TERM NAME>30 Net</TERM NAME>
 <CUST TRX TYPE ID>1</CUST TRX TYPE ID>
 <CUST TRX TYPE NAME>Invoice</CUST TRX TYPE NAME>
 <AMOUNT>1000.00</AMOUNT>
 <CURRENCY CODE>USD</CURRENCY CODE>
 <DESCRIPTION>Project Invoices</DESCRIPTION>
 <LINE TYPE>LINE</LINE TYPE>
```



```
<SET OF BOOKS ID>1</SET OF BOOKS ID>
 <BATCH SOURCE NAME>PROJECTS INVOICES</BATCH SOURCE NAME>
 <INTERFACE LINE ATTRIBUTE7>Line</INTERFACE LINE ATTRIBUTE7>
 <INTERFACE LINE ATTRIBUTE6>1</INTERFACE LINE ATTRIBUTE6>
 <INTERFACE LINE ATTRIBUTE5>Sole, Mr. Samuel</
INTERFACE LINE ATTRIBUTE5>
 <INTERFACE LINE ATTRIBUTE4>Vision Operations</
INTERFACE LINE ATTRIBUTE4>
 <INTERFACE LINE ATTRIBUTE3>Services 01</INTERFACE LINE ATTRIBUTE3>
 <INTERFACE LINE ATTRIBUTE2>31</INTERFACE LINE ATTRIBUTE2>
 <INTERFACE LINE ATTRIBUTE1>ATZ Services</INTERFACE LINE ATTRIBUTE1>
 <INTERFACE LINE CONTEXT>PROJECTS INVOICES</INTERFACE LINE CONTEXT>
</RA INTERFACE LINES ALL REC>
<RA INTERFACE LINES ALL REC>
 <INTERFACE LINE ATTRIBUTE9>1</INTERFACE LINE ATTRIBUTE9>
 <INTERFACE LINE ATTRIBUTE11>1</INTERFACE LINE ATTRIBUTE11>
 <INTERFACE LINE ATTRIBUTE10>1</INTERFACE LINE ATTRIBUTE10>
 <ORG ID>204</ORG ID>
 <COMMENTS>Created by Service</COMMENTS>
 <QUANTITY>20</QUANTITY>
 <TRX NUMBER>Demo-Rec2</TRX NUMBER>
 <CONVERSION RATE>1</CONVERSION RATE>
 <CONVERSION DATE>2018-08-18</CONVERSION DATE>
 <CONVERSION TYPE>User</CONVERSION TYPE>
 <ORIG SYSTEM SHIP ADDRESS ID>1030</ORIG SYSTEM SHIP ADDRESS ID>
 <ORIG SYSTEM SHIP CUSTOMER ID>1004</ORIG SYSTEM SHIP CUSTOMER ID>
 <ORIG SYSTEM BILL ADDRESS ID>1030</ORIG SYSTEM BILL ADDRESS ID>
 <ORIG SYSTEM BILL CUSTOMER ID>1004</ORIG SYSTEM BILL CUSTOMER ID>
 <TERM ID>4</TERM ID>
 <TERM NAME>30 Net</TERM NAME>
 <CUST TRX TYPE ID>1</CUST TRX TYPE ID>
 <CUST TRX TYPE NAME>Invoice</CUST TRX TYPE NAME>
 <AMOUNT>1000.00</AMOUNT>
 <CURRENCY CODE>USD</CURRENCY CODE>
 <DESCRIPTION>Project Invoices</DESCRIPTION>
 <LINE TYPE>LINE</LINE TYPE>
 <SET OF BOOKS ID>1</SET OF BOOKS ID>
 <BATCH SOURCE NAME>PROJECTS INVOICES</BATCH SOURCE NAME>
 <INTERFACE LINE ATTRIBUTE7>Line</INTERFACE LINE ATTRIBUTE7>
 <INTERFACE LINE ATTRIBUTE6>1</INTERFACE LINE ATTRIBUTE6>
 <INTERFACE LINE ATTRIBUTE5>Sole, Mr. Samuel</
INTERFACE LINE ATTRIBUTE5>
 <INTERFACE LINE ATTRIBUTE4>Vision Operations</
INTERFACE LINE ATTRIBUTE4>
 <INTERFACE LINE ATTRIBUTE3>Services 01</INTERFACE LINE ATTRIBUTE3>
 <INTERFACE LINE ATTRIBUTE2>33</INTERFACE LINE ATTRIBUTE2>
 <INTERFACE LINE ATTRIBUTE1>ATZ Services</INTERFACE LINE ATTRIBUTE1>
 <INTERFACE LINE CONTEXT>PROJECTS INVOICES</INTERFACE LINE CONTEXT>
</RA INTERFACE LINES ALL REC>
</InputParameters>
</RA INTERFACE LINES ALL Input>
```

3. Click the Tracking page link mentioned earlier to display the Tracking Instances page.



- Click the business identifier (such as Org_Id: 204) to display the orchestration flow diagram of the integration instance.
- From the menu, select View Activity Stream to view log messages about Success Count from the Interface step and the log message about concurrent program Submit ID from the 'CPSubmitReponse'' step.

Log messages can be like:

- a. LogActivity -<Date Time>- Success Count <no. of records in payload that was successfully inserted to RA INTERFACE LINES ALL> - Interface
- b. LogActivity -<Date Time>- CP Submit ID <Request ID returned by CP Submit> - CPSubmitResponse
- 6. Use the Submit ID to track the status of the associated concurrent program in Oracle E-Business Suite. Once the execution of the concurrent program is completed, you can view the report for the result of this concurrent program.

Sample XSD for the Oracle E-Business Suite Adapter as an Invoke Example for an Open Interface REST Service

This section includes the XML request payload used in the example of using an open interface table REST service as an invoke connection in an integration.

For information on using this payload in the Configure REST Endpoint wizard page, see: An Example of Using an Open Interface Table REST Service as an Invoke (Target) Connection in an Integration.

Sample Request Payload for the input.xsd File

```
<xs:schema attributeFormDefault="unqualified" elementFormDefault="qualified"</pre>
xmlns:xs="http://www.w3.org/2001/XMLSchema">
 <xs:element name="RA INTERFACE LINES ALL Input">
  <xs:complexType>
   <xs:sequence>
    <xs:element name="RESTHeader">
     <xs:complexType>
      <xs:sequence>
       <xs:element type="xs:string" name="Responsibility"/>
       <xs:element type="xs:string" name="RespApplication"/>
       <xs:element type="xs:string" name="SecurityGroup"/>
       <xs:element type="xs:string" name="NLSLanguage"/>
       <xs:element type="xs:string" name="Org Id"/>
      </xs:sequence>
     </xs:complexType>
   </xs:element>
   <xs:element type="xs:string" name="Select"/>
   <xs:element name="InputParameters">
    <xs:complexType>
     <xs:sequence>
      <xs:element name="RA INTERFACE LINES ALL REC" maxOccurs="unbounded"</pre>
minOccurs="0">
      <xs:element type="xs:string" name="INTERFACE LINE ATTRIBUTE11"/>
      <xs:element type="xs:string" name="INTERFACE LINE ATTRIBUTE10"/>
      <xs:element type="xs:decimal" name="ORG ID"/>
```



```
<xs:element type="xs:string" name="COMMENTS"/>
      <xs:element type="xs:decimal" name="QUANTITY"/>
      <xs:element type="xs:string" name="TRX NUMBER"/>
      <xs:element type="xs:decimal" name="CONVERSION RATE"/>
      <xs:element type="xs:date" name="CONVERSION DATE"/>
      <xs:element type="xs:string" name="CONVERSION TYPE"/>
      <xs:element type="xs:decimal"</pre>
name="ORIG SYSTEM SHIP ADDRESS ID"/>
      <xs:element type="xs:decimal"</pre>
name="ORIG SYSTEM SHIP CUSTOMER ID"/>
      <xs:element type="xs:decimal"</pre>
name="ORIG SYSTEM BILL ADDRESS ID"/>
      <xs:element type="xs:decimal"</pre>
name="ORIG SYSTEM BILL CUSTOMER ID"/>
      <xs:element type="xs:decimal" name="TERM ID"/>
      <xs:element type="xs:string" name="TERM NAME"/>
      <xs:element type="xs:decimal" name="CUST TRX TYPE ID"/>
      <xs:element type="xs:string" name="CUST TRX TYPE NAME"/>
      <xs:element type="xs:decimal" name="AMOUNT"/>
      <xs:element type="xs:string" name="CURRENCY CODE"/>
      <xs:element type="xs:string" name="DESCRIPTION"/>
      <xs:element type="xs:string" name="LINE TYPE"/>
      <xs:element type="xs:decimal" name="SET OF BOOKS ID"/>
      <xs:element type="xs:string" name="BATCH SOURCE NAME"/>
      <xs:element type="xs:string" name="INTERFACE LINE ATTRIBUTE7"/>
      <xs:element type="xs:string" name="INTERFACE LINE ATTRIBUTE6"/>
      <xs:element type="xs:string" name="INTERFACE LINE ATTRIBUTE5"/>
      <xs:element type="xs:string" name="INTERFACE LINE ATTRIBUTE4"/>
      <xs:element type="xs:string" name="INTERFACE LINE ATTRIBUTE3"/>
      <xs:element type="xs:string" name="INTERFACE LINE ATTRIBUTE2"/>
      <xs:element type="xs:string" name="INTERFACE LINE ATTRIBUTE1"/>
      <xs:element type="xs:string" name="INTERFACE LINE CONTEXT"/>
     </xs:sequence>
    </xs:complexType>
   </xs:element>
  </xs:sequence>
  </xs:complexType>
 </xs:element>
 </xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>
```

Examples of Using a Java REST Service as an Invoke (Target) Connection in an Integration

Oracle E-Business Suite Adapter supports the Java-based REST services as invoke connections in integrations. To better understand how to use Java REST services to fetch and use application data in integrations, this section includes integration examples of using various Java subtypes of REST services as invoke connections.

Topics:

- Use a Java REST Service of Application Module Service Subtype as an Invoke (Target) Connection
- Use a Java REST Service of Business Service Object Subtype as an Invoke (Target) Connection

Use a Java REST Service of Application Module Service Subtype as an Invoke (Target) Connection

Sample Business Scenario

An Application Module Service, a subtype of Java interface, called "Self-Service HR" is used to explain how to obtain available absence details from Oracle E-Business Suite through the invocation of a Java REST service.

In this example, the REST Adapter is used as a trigger (source) connection and the Oracle E-Business Suite Adapter is used as an invoke (target) connections to invoke the "Get Person Absence Type Balances" (getPersonAbsenceBalanceDtls) REST service operation contained in the "Self-Service HR" Java API.

At runtime when the integration is triggered, the Oracle E-Business Suite Adapter receives a request with input payload from the trigger (source) connection, invokes the getPersonAbsenceBalanceDtls REST service operation to obtain data. Once the integration is executed and completed successfully, the available person absence data is retrieved and returned as part of the JSON response message.

Prerequisites:

Before creating the integration in Oracle Integration, you need to ensure the following tasks are in place:

• The "Self-Service HR" is deployed as a REST service with alias sshr. All included service operations are selected and deployed as REST service operations.



		Home	* Favorites	Setting	v Worklist ↓	Logged in As SYSADMIN	? Help	<u>ل</u> م
gration Repository Administration								
agration Repository > ava Details : Self-Service HR						Browse Search	Printab	le Page
						Log Configuration Disa	bled Ce	onfigure
Internal Name oracle.apps.per.mobile.server.Per Type Java Product Human Resources Status Active Business Entities HR Person(1). Mobile Optimized /	MoloSBHRAMImpi NPI	Scope Interface Source Interface Subtype	Public Oracle Applicatio	n Module Serv	ices			
REST Web Service Grants Service Allas sshr								
REST Service Status Deployed <u>View WADL</u>								
REST Service Status Deployed <u>Mew WADL</u> Service Operations								
REST Service Status Deployed <u>Mew WADL</u> Service Operations								
EST Service Status Deployed <u>Mew WAD</u> . Service Operations	Internal Name	GET	POST	Grant				
HEST Service Status Deployed <u>Mew WADL</u> Service Operations (중 ☆ マ 때 Expand AI Cottapte AI Display Name @ Self-Service HR	Internal Name oracle.apps.per.mobile.server.PerMobSSHRAMimp	GET	POST	Grant				
HEBT Service Status Deployed <u>West WKDL</u> Service Operations	Internal Name oracia apps.psr.mobile.server.PerMobSSHRAMimp catoulateAbsenceDuration	GET N	POST	Grant				
EEST Service Status Deployed <u>Mex WADL</u> Ervice Operations	Internal Name oracia apps.per.mobile.server.PerMobSSHRAMimp cator/ats/basinceDutation gerAssignmentData	GET	POST	Grant 2				
HEST Service Status Deployed <u>Mex.WAD</u> , Service Operations	Internal Name oracia apos, permobie, server PerMobSSHRAMImp calculark/steencobunition gerKsermertData gerUserDetails	0ET	POST ✓ ✓ ✓	Grant IIII IIII IIII				
EEST Service Status Deployed <u>Wex WADL</u> Service Operations	Internal Name oracia apas permobils server PerMobSSHRAMing caloulate/beencoEuration getAssignmentData getSsHRPersonData	GET	POST ✓ ✓ ✓ ✓ ✓	Grant III III III III III III III III III				
EEST Service Status Deployed <u>Mex WKDL</u> Eervice Operations	Internal Name oracie apps.perrobie.server.PerMobSSHRAMinp catoutsAbenceDuration getAssignmen/Data getUser/Datals getSter/Details getSter/Details getPersonAbsenceBalanceDris	<mark>کی کی ک</mark>	POST ✓ ✓ ✓ ✓ ✓ ✓ ✓	Grant 33 33 33 33 33 33				
HEST Service Status Deployed <u>Mex WADI</u> , Service Operations	Internal Name oracia apop per mobile server PerMooSSHRAMIng calculateAbsenceDuration gerKsummData gerUserDetails gerESHRPersoData gerESHRPersoData gerESHRPersoData	GET 3 3 4 3 4 3 4 3 4 4 3 4 3 4 3 4 3 4 3	POST ✓	Grant 				
REST Service Status Deployed Mex.WADL Service Operations	Internal Name oracia appa permobile server PerModSSHRAMIng calculate/beencolluation gerAssignmentData gerIsterDetails gerIsterDetails	aer a a a a a a a a a a a a a	POST	Grant Called				

Record the following REST service endpoint from the WADL:

```
https://<host>:<port>/webservices/rest/<alias>/
getPersonAbsenceBalanceDtls/
```

Replace <alias> with sshr in this example. You will use this service endpoint later when you create a REST connection in Oracle Integration.

• Security grants are created for the bpalmer user.

Based on the integration scenario, the sample tasks for using an Oracle E-Business Suite Java REST service of Appication Module Service subtype in an integration are included in the Topics section:

Topics:

- 1. Establish the Connections for Oracle E-Business Suite and REST Services
- 2. Create an Integration
- 3. Add the REST Adapter as a Trigger (Source) Connection
- 4. Add the Oracle E-Business Suite Adapter as an Invoke (Target) Connection
- 5. Create Mappings
- 6. Assign Business Identifier for Tracking
- 7. Activate and Test the Integration

Establish the Connections for Oracle E-Business Suite and REST Services

In this integration example, you need to create the following two connections:

Connection for Oracle E-Business Suite



Once the connection to an Oracle E-Business Suite instance is successfully established, you can add the Oracle E-Business Suite Adapter as invoke (target) connections later in an integration.

Connection for REST services

You need to establish the connection for REST services. You can add this REST connection as a trigger (source) connection later in an integration.

Create an Oracle E-Businss Suite Connection with Oracle E-Business Suite Adapter

Perform the following steps to establish the connection for Oracle E-Businss Suite in Oracle Integration:

- 1. In the navigation pane, click Home > Integrations > Connections.
- 2. On the Connections page, click **Create**.

In the Create Connection - Select Adapter dialog appears. Scroll down and select "Oracle E-Business Suite" from the dialog. You can optionally use the search feature to enter a full or partial name to locate the Oracle E-Business Suite Adapter from the dialog. Click the **Select** button for "Oracle E-Business Suite" to create a connection through the Oracle E-Business Suite Adapter.

- 3. In the Create Connection dialog, enter the following information for your connection:
 - Connection Name: Enter "EBSDemo".
 - Identifier: Accept the default populated identifier, such as "EBSDEMO".
 - Keywords: Leave this blank.
 - **Connection Role:** Select the "Trigger and Invoke" role for this connection.
 - **Description:** Enter "Use the Oracle E-Business Suite Adapter connection in an integration" as the description.

Click Create to create the connection.

- 4. Enter additional connection details:
 - In the Connection Properties section, enter a URL (http://<Oracle E-Business Suite host name>:<port>) to connect to an Oracle E-Busiess Suite instance.
 - In the Security section, ensure that the Basic Authentication is selected as the security policy.
 Enter bpalmer as the user name and its associated password to access the Oracle E-Business Suite instance you specified earlier in the Connection Properties section.
 - Click Configure Agents to display the Select an Agent group dialog. A list of available agent groups is automatically populated for your selection.

Select a desired agent group, such as "EBS", and click **Use** to enable the selection.

After you specify the connection information for "EBSDemo", the connection details page is displayed.

- 5. Click **Test** to test the connection you just specified for Oracle E-Business Suite.
- 6. Click **Save** and then click

<

The Oracle E-Business Suite connection "EBSDemo" now appears in the Connections page.

Create an Connection for REST Services in This Example



Perform the following steps to create an connection for REST APIs:

1. On the Connections page, click **Create**.

The Create Connection - Select Adapter dialog appears.

2. Scroll down and select "REST" from the dialog. You can optionally use the search feature to enter a full or partial name to locate the REST Adapter from the dialog.

Click the **Select** button for "REST" to create an connection through the REST Adapter.

3. The Create Connection dialog appears.

Enter "RESTSample" as the Connection Name. The identifier value, GENERICREST, is automatically populated. Leave the optional Keywords field blank.

Select "Trigger" as the Connection Role. Enter a meaningful description for this connection, such as "The sample source REST endpoint".

- 4. Click **Create** to create the connection.
- 5. Enter the following connection details:
 - In the Connection Properties section, enter the following information:
 - Connection Type: Select "REST API Base URL".
 - Connection URL: Enter a connection URL (

```
http://<Oracle E-Business
    Suite host name>:<port>/webservices/rest/
sshr
```

) for the "Self-Service HR" REST service with

sshr

alias name that you deployed earlier.

 In the Security section, accept the default "Basic Authentication" as the security policy.

Enter sshr as the user name and its associated password to access the "Self-Service HR" REST service you specified earlier in the Connection Properties section.

- 6. Click Test to test the connection you just specified for REST services.
- 7. Click Save and then click

The "RESTSample" connection for REST services appears in the Connections page, along with the Oracle E-Business Suite connection "EBSDemo" that you created earlier.

Create an Integration

Perform the following steps to create an integration for invoking a Java REST service:



- 1. In the left navigation pane, click **Home > Integrations > Integrations**.
- 2. On the Integrations page, click **Create**.

The Select Integration Style dialog is displayed.

3. When adding the Oracle E-Business Suite Adapter as an invoke (target) connection, you can use it with "App Driven Orchestration" or "Subscribe To OIC" based on your business needs.

In this example, choose the "App Driven Orchestration" integration style and click **Select** to create an integration with a blank source and target.

- 4. The Create New Integration dialog appears. Enter the following information:
 - What do you want to call your integration? Enter "EBS Java Service Demo" as the name.
 - Identifier: Accept the default identifier value such as "EBS_JAVA_SERVICE_DEMO".
 - Version: Accept the default version number.
 - **Documentation URL**: Leave this blank.
 - What does this integration do? Enter description information for your integration.
 - Which package does this integration belong to? Leave this blank.
 - Which keyword defines this integration: Leave this blank.

To complete the integration, you need to add the following tasks that are described in the next few sections:

• Add the desired connections to the integration you just created.

See:

- Add the REST Adapter as a Trigger (Source) Connection.
- Add the Oracle E-Business Suite Adapter as an Invoke (Target) Connection.
- Add mappings to the integration.

See: Create Mappings.

• Assign business identifiers for tracking.

See: Assign Business Identifier for Tracking.

Add the REST Adapter (Trigger) and Oracle E-Business Suite Adapter (Invoke) to the Integration

In this example, the orchestration flow diagram created for this integration includes the following activities:

 The REST Adapter as a trigger activity called "REST" for the "RESTSample" connection created earlier.

This trigger activity uses the endpoint's relative resource URI / getPersonAbsenceBalanceDtls/ through the REST Adapter.

See: Add the REST Adapter as a Trigger (Source) Connection.

Mappings defined for "EBS_Reference"



It allows you to map and pass the trigger parameters to the "EBS_Reference" activity to invoke the "Get Person Absence Type Balances" Oracle E-Business Suite REST service.

See: Create Mappings.

 The Oracle E-Business Suite Adapter as an invoke activity called "EBS_Reference" for "EBSDemo" connection that you created earlier.

This invoke activity uses the "Get Person Absence Type Balances" method with the "read"operation from the "Self-Service HR" REST service when adding the Oracle E-Business Suite Adapter as an invoke. This service retrieves the available absence details from Oracle Human Resources Suite.

See: Add the Oracle E-Business Suite Adapter as an Invoke (Target) Connection.

• Mappings defined for "REST"

This activity assigns the available absence related elements from the "EBS_Reference" activity to the corresponding elements in the "REST" activity.

See: Create Mappings.





Topics:

- Add the REST Adapter as a Trigger (Source) Connection
- Add the Oracle E-Business Suite Adapter as an Invoke (Target) Connection
- Create Mappings

Add the REST Adapter as a Trigger (Source) Connection

After creating an integration "EBS Java Service Demo", you need to add a trigger (source) connection in the integration. The trigger (source) connection can be any application adapters suitable for your integrations. In this example, the REST Adapter is used for the integration.



Perform the following steps to add the REST Adapter as a trigger (source) connection:

- 1. In the Create Order integration canvas, locate the "RESTSample" connection that you created earlier by entering "RESTSample" in the Connections field.
- 2. Drag **RESTSample** from the Connections panel on the right to the Trigger (Source) area on the canvas.

The Configure REST Endpoint wizard appears.

- 3. Enter the following information in the Basic Info page:
 - What do you want to call your endpoint? Enter the name of this endpoint, such as "REST".
 - What does this endpoint do? Enter the usage of this endpoint, such as "Provide REST endpoint with input payload to obtain person absence details".
 - Select to configure multiple resources or verbs (maximum 11) Leave this box unchecked.

Click Next.

- 4. Enter the following information in the Resource Configuation page:
 - What does this operation do? Enter the usage of this operation, such as "Provide REST endpoint with input payload to obtain person absence details".
 - What is the endpoint's relative resource URI? Enter "/ getPersonAbsenceBalanceDtls/".
 - What action does the endpoint perform? Select "GET" from the dropdown list.

Ensure that you select the following two check boxes for this trigger (source) connection:

- Add and review parameters for this endpoint
- · Configure this endpoint to receive the response

Click Next.

5. In the Request Parameters page, perform the following tasks:



Configure REST Endpoint				
		🕑 Help 🔻	< Back Next > Cancel	Done
Configure the R Configure the red	equest Query Parameters uuest query parameters for this endpoint.			3
Sasic Info	Operation Name: default			
Resource Configuration	Resource IIRI: /netPersonAbsenceBa	anceDtis/		
Request Parameters	nesource on			
Request	HITP Method: GET			
Request Headers	Specify Query Decemptore			
CORS Configuration	specity query Parameters			
Response	📄 Detach 🕂 🗙			
Response Headers	Name	Data Type		
Operations	personid	integer	~	
Summary				
	Template Parameters Displays the template parameters in the on the Basic Info page and cannot be ed	relative resource URI. Template parame	ters are determined by details you	specified

- The Resource URI field displays the "/getPersonAbsenceBalanceDtls/" information you entered earlier.
- In the "Specify Query Parameters" region, click the **Add (+)** icon to enter the following information in a new row:
 - Name: Enter "personid".
 - Data Type: Select "Integer" from the list.

Click Next.

6. In the Response page, select the JSON Sample button for this example.

Click <<inline>> to enter the following JSON payload:

```
{
  "getPersonAbsenceBalanceDtls" : {
  "OutputParameters" : {
    "Output" : {
    "PerAbsenceBalanceDataBean" : [ {
        "Personid" : 1,
        "BusinessGroupId" : 2,
        "AbsenceAttendanceTypeId" : 3,
        "AbsenceTypeName" : "string",
        "Total" : 0.0,
        "Available" : 0.0,
        "Taken" : 0.0,
        "Planned" : 0.0
        }
    ]
    }
}
```



} } }

Click Next.

7. This displays the Summary page of the REST service information that you specified earlier. Click **Done**.

Click **Save** to save your work. The RESTSample connection now appears in the Trigger (Source) area on the canvas in the Invoke (Target) area.

Add the Oracle E-Business Suite Adapter as an Invoke (Target) Connection

After adding the source connection in the integration "EBS Java Service Demo", you can add the Oracle E-Business Suite connection "EBSDemo" as an invoke (target) connection in the integration.

Perform the following steps to add the Oracle E-Business Suite Adapter as an invoke (target) connection:

- **1.** In the Create Order integration canvas, search the "EBSDemo" connection that you created earlier from the Connections panel.
- 2. Drag **EBSDemo** from the Connections panel on the right to the Target area on the canvas.

The Configure Oracle E-Business Suite Adapter Endpoint wizard appears.

- 3. In the Basic Info page, enter the following information for your endpoint:
 - What do you want to call your endpoint? Enter "EBS_Reference".
 - What does this endpoint do? Enter "Get person absence details".

Click Next.

4. In the Web Services page, specify the following information for your target connection:



	mess Suite Adapte	rEndpoint
		Help v < Back Next > Cancel D
Select Oracle Select the targ	e E-Business Suite Ser get service which will be	vice e used to perform operation on Oracle E-Business Suite application.
Basic Info	Product Family	Human Resources Suite
Veb Services	Product	Human Resources
perations	Interface Type	Java 🗸
Aufinitiar y	* API	Filter by name Person Directory Self-Service HR
	Internal Name Description	oracle.apps.per.mobile.server.PerMobSSHRAMImpl Provides services that can be invoked by a client application to retrieve Oracle SSHR Person details such as absences and assignment. Absence details include information about absences availed and absence balance. Assignment details include information about job, position,

- Product Family: Select "Human Resources Suite" from the drop-down list.
- Product: Select "Human Resources".
- Interface Type: Select "Java" from the list.

After you select a desired product family, a product, and an interface type, a list of Java APIs including Oracle seeded APIs and custom ones contained in the selected product "Human Resources" is populated for further selection.

Select a desired Java API name, such as "Self-Service HR". The corresponding API internal name and description are automatically populated.

Click Next.

5. The selected API internal name appears in the Operations page.



		Help v < Back Next >	Cancel	Don
Select Ope Operations Operation s	Fration for Oracle E-Bus for selected Oracle E-Bus should be 'Ready to use'	iness Suite Service siness Suite Service are listed. Select Operation to perform on Oracle E-Business Suite applica to configure the target endpoint for integration.	ation. Selected	t t
Basic Info	API	oracle.apps.per.mobile.server.PerMobSSHRAMImpl		
Web Services	* Methods	Calculate Absence Duration		
Operations		Get Assignment Data		
Summary		Get Person Absence Type Balances		
		Get Person Planned Absences List		
		Get Person Recent Absences List		
		Get Oracle SSHR Person Details		
		Get Person Directs Details		
	Operation	Read •		
	Service Status	Ready to Use		
	Description	Gets absence balance of a person for an absence type or across eligible absence types.		

- **Method:** Select a desired method name contained in the selected "Self-Service HR" API for this invoke (target) connection. For example, select "Get Person Absence Type Balances".
- Operation: Select "Read" as the value from the drop-down list.

Click Next.

6. The Summary page displays all the selected interface details. This information includes the selected "getPersonAbsenceBalanceDtls" Method and Operation "Read" (with "Ready to Use" status) contained in the selected Java REST web service from the Human Resources Suite product family and Human Resources product. This page also displays the default interaction pattern "Synchronize" for the selected service operation.

The Oracle E-Business Suite Adapter Target Endpoint configuration is successfully created.


onfigure Oracle E-Busine	ess Suite Adapter Er	ndpoint				
			🕑 Help 🔻	< Back	Next > Cancel	Done
Oracle E-Busine	ess Suite Adapter Targe ss Suite Adapter Target B	t Endpoint Configuration Summary indpoint configuration was successful.				>
Basic Info	EBS Absence					
Operations	Description					
ummary	Product Family Product Web Service	Human Resources Suite Human Resources oracie.apps.per.mobile.server.PerMobSSH	IRAMImpl			
	Method Operation Status Interaction Pattern	getPersonAbsenceBalanceDtls Read Ready to Use Synchronous				

Click Done.

7. Click Save to save your work.

The connection for Oracle E-Businses Suite now appears in the Invoke (Target) area on the canvas.

Create Mappings

After adding the trigger (source) connection and invoke (target) connection in your integration, you can create the following mappings to pass the required parameter values to the subsequent REST services:

- Define mappings for EBS_Reference
- Define mappings for REST

Create mappings for EBS_Reference:

- 1. In the 'EBS Java Service Demo' integration flow, click edit for the EBS Reference icon.
- 2. Perform the following tasks to assign constant values to the target elements:
 - In the Target section, expand the **Request (Oracle E-Business Suite)** node, and then the **RESTHeader** node.

Right-click the **ctx_responsibility** element and select **Create Target Node** from the drop-down menu.

• In the Expression Builder at the bottom of the page, click the "Switch to Developer View" icon and then enter 'EMPLOYEE_DIRECT_ACCESS_V4.0' for the ctx_responsibility element.



A **function** icon is added to the Mapping Canvas section for the target **ctx_responsibility** element node.

Similarly, use the same approach to assign values to the target elements listed in the following table:

Path	Element	Value
Request (Oracle E-Business Suite)/RESTHeader	ctx_respapplication	'PER'
Request (Oracle E-Business Suite)/RESTHeader	ctx_securitygroup	'STANDARD'
Request (Oracle E-Business Suite)/FilterParameters	businessGroupId	'202'
Request (Oracle E-Business Suite)/FilterParameters	absenceAttendanceTypeId	'12'



After you complete this step, the function icons should appear in the Mapping Canvas section for the corresponding target element nodes.

- 3. Create the mappings between the source and target elements:
 - In the Source section, expand the **execute** node, then the **QueryParameters** node.

Select the **personid** element.

• In the Target section, expand the **Request (Oracle E-Business Suite)** node, and then the **FilterParameters** node.

Select the personid element.

Drag the **personid** element from the Source section to the **personid** element in the Target section to map the data.

Once you complete this step, the mapped source value and the corresponding target element are marked with green checks.

4. Click Validate and then Close to exit the Mapper. Click Save to save work.

Create mappings for REST:



- **1.** In the middle of the integration, click **edit** for the **REST** icon.
- 2. Create mappings to map the source and target elements.
 - In the Source section, expand the EBS_Reference Response (Oracle E-Business Suite) node, then the getPersonAbsenceBalanceDtlsResponse node, then the getPersonAbsenceBalanceDtls_Output node, then the OutputParameters node, then the Output node, and then the PerAbsenceBalanceDataBean node.

Select the Personid element.

 In the Target section, expand the REST Response (REST) node, then the Response Wrapper node, then the Get Person Absence Balance Dtls node, then the OutputParameters node, then the Output node, and then the Per Absence Balance Data Bean node.

Select the **Personid** element.

Drag the **Personid** element from the Source section to the **Personid** element in the Target section to map the data.

3. Use the same approach to complete the mappings for the elements listed in the following table.

Source Path	Source Element	Target Path	Target Element
EBS_Reference Response (Oracle E- Business Suite)/ getPersonAbsenceBala nceDtlsResponse/ getPersonAbsenceBala nceDtls_Output/ OutputParameters/ Output/ PerAbsenceBalanceDa taBean	BusinessGroupId	REST Response (REST)/REST Response/get Person Absence Balance Dtls/ OutputParameters/ Output/Per Absence Balance Data Bean	BusinessGroupId
EBS_Reference Response (Oracle E- Business Suite)/ getPersonAbsenceBala nceDtlsResponse/ getPersonAbsenceBala nceDtls_Output/ OutputParameters/ Output/ PerAbsenceBalanceDa taBean	AbsenceAttendanceTy peld	REST Response (REST)/REST Response/get Person Absence Balance Dtls/ OutputParameters/ Output/Per Absence Balance Data Bean	AbsenceAttendanceTy peld
EBS_Reference Response (Oracle E- Business Suite)/ getPersonAbsenceBala nceDtlsResponse/ getPersonAbsenceBala nceDtls_Output/ OutputParameters/ Output/ PerAbsenceBalanceDa taBean	AbsenceTypeName	REST Response (REST)/REST Response/get Person Absence Balance Dtls/ OutputParameters/ Output/Per Absence Balance Data Bean	AbsenceTypeName



Source Path	Source Element	Target Path	Target Element
EBS_Reference Response (Oracle E- Business Suite)/ getPersonAbsenceBala nceDtlsResponse/ getPersonAbsenceBala nceDtls_Output/ OutputParameters/ Output/ PerAbsenceBalanceDa taBean	Total	REST Response (REST)/REST Response/get Person Absence Balance Dtls/ OutputParameters/ Output/Per Absence Balance Data Bean	Total
EBS_Reference Response (Oracle E- Business Suite)/ getPersonAbsenceBala nceDtlsResponse/ getPersonAbsenceBala nceDtls_Output/ OutputParameters/ Output/ PerAbsenceBalanceDa taBean	Taken	REST Response (REST)/REST Response/get Person Absence Balance Dtls/ OutputParameters/ Output/Per Absence Balance Data Bean	Taken
EBS_Reference Response (Oracle E- Business Suite)/ getPersonAbsenceBala nceDtlsResponse/ getPersonAbsenceBala nceDtls_Output/ OutputParameters/ Output/ PerAbsenceBalanceDa taBean	Planned	REST Response (REST)/REST Response/get Person Absence Balance Dtls/ OutputParameters/ Output/Per Absence Balance Data Bean	Planned



Once you complete this step, the mapped source value and the corresponding target element are connected by a line.

Click Validate and then click Close to save your changes when prompted.

The two mappings are all created successfully.

Click Save to save your work.

Assign Business Identifier for Tracking

Perform the following steps to track payload fields in messages during runtime:

1. In the "EBS Java Service Demo" Integration page, click Tracking.

The Business Identifiers For Tracking dialog appears.

2. From the Available Source Fields section, expand the QueryParameters node.

Drag the **personid** element to the Tracking Field column in the table as the primary Tracking field.

- 3. Click Done.
- 4. Save your work and then click **Close**.

Activate and Test the Integration

Activate the Integration

After you complete the integration with desired source and target connections and mappings, you can activate the "EBS Java Service Demo" integration.

Perform the following steps to activate the integration:

1. On the Integrations page, click



for the "EBS Java Service Demo" integration that you created earlier to activate the integration.

2. The Confirmation dialog appears. Click Activate.

Notice that a status message is displayed in the banner at the top of the Integrations page.

3. Click the displayed URL in the banner: https://<Oracle Integratoin Host>:<Port>/ic/api/integration/v1/flows/rest/EBS_JAVA_SERVICE_DEMO/1.0/ metadata.

Test the Integration

Perform the following steps to test the integration:

- 1. Copy the Endpoint URL (https://<Oracle Integratoin Host>:<Port>/ic/api/ integration/v1/flows/rest/EBS_JAVA_SERVICE_DEMO/1.0/ getPersonAbsenceBalanceDtls/?personid=[personid-value]).
- 2. Paste the URL address in a web browser and replace the value of [personid-value] with "125".

Press "Enter".



3. When prompted, provide Oracle Integration user name and password for authentication.

The absence information for the person whose Id 125 is displayed.

JSON	Raw Data	Headers	
Save Co	ору		
getPer	sonAbsenceBa	alanceDtls:	
🔻 Outp	outParameter	s:	
₹0	utput:		
	PerAbsence	BalanceDataBean:	
	▼0:		
	Persor	nid:	125
	Busine	essGroupId:	202
	Absen	ceAttendanceTypeId:	12
	Absen	ceTypeName:	"Vacation"
	Total		50
	Availa	able:	50
	Taken		0
	Planne	ed:	0

Use a Java REST Service of Business Service Object Subtype as an Invoke (Target) Connection

Sample Business Scenario

In this example, a Business Service Object, a subtype of Java interface, called "Site Services" is used to create a site in Oracle E-Business Suite Site Hub.

Similar to the example of using a Java Application Module Service, the REST Adapter is used as a trigger (source) connection and the Oracle E-Business Suite Adapter is used as an invoke (target) connection. In this example, the "Create Site" REST service operation contained in the "Site Services" Java API will be invoked to create a site.

At runtime, the Oracle E-Business Suite Adapter receives a request with input payload from the trigger (source) connection, and thus invokes the "Create Site (createSite)" REST service operation to create a site. Once the integration is executed and completed successfully, a JSON response message is returned with a site number indicating that a new site is successfully created in Oracle E-Business Suite Site Hub.

Prerequisites:



Before creating the integration in Oracle Integration, you need to ensure the following tasks are in place:

• The "Create Site" operation contained in the "Site Services" Business Service Object is deployed as a REST service operation with alias named site.

Answerstein Report Answerstein Report Answerstein Report Status Answerstein Report Answerstein Report Status Answerstein Report Status Answerstein Report Status Status Status <th></th> <th>ory</th> <th></th> <th></th> <th></th> <th>G Home</th> <th>★ Favorites</th> <th>Settings</th> <th>Worklist</th> <th>Contact Admin</th> <th>Logged in As SYSADMIN</th> <th>? Help</th> <th>ل Logout</th>		ory				G Home	★ Favorites	Settings	Worklist	Contact Admin	Logged in As SYSADMIN	? Help	ل Logout
representation of the service State State Active State State Active State State Active State State Active State State State State State Active State S	Integration Repository Administration												
generalized marrier of conception production between the section of the section	Integration Repository > Business Service Object : Site Ser	vices									Browse Search	Printabi	e Page
REST Service Status Image: Status	Qualified Name / oracle/apps/ms/life/servi Interface oracle.apps.ms.life.servic Estands oracle.apps.ms.life.servic Product Oracle Site Hub Overview SOAP Web Service REST Web Servic * Service Allas Site	ice/SiteService e.SiteService Grants				In	Status Scope terface Source	Active Public Oracle		Desig	n Time Log Disabled	Configure	
Image Internal Name OET POST Site Sarvices add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater add Site To Cuater update Site Header And Address update Site Header And Address add add Site Purpose add add Site Purpose of The To apply any changes in Operation, Undeploy the service. To To apply any changes in Operation, Undeploy the service. To To apply any changes in Operation, Undeploy the service. To Diagnostice EST Service Is security PHTP Basic Authentication at HTTP Transport level. Send either of the following in "Authorization" header as per HTTP Basic scheme: - Usermame Fragescord - Usersame Fragescord - Usersame Fragescord - Usersame Fragescord	REST Service Status Deployed View WADL Service Operations												
Name Internal Name GET POST Grant Site Services add Site To Liver add Site T													
Site Services oread Site add Site To Claster oread Site oread Site To Claster oread Site To Claster oread Site To Claster	Name	Internal Name	GET	POST	Grant								
add Sile To Cluster add Sile To Cluster image: Cluster create Sile create Sile image: Cluster image: Cluster add Sile To Cluster add Sile To Cluster image: Cluster image: Cluster add Sile To Cluster add Sile To Cluster image: Cluster image: Cluster add Sile To Cluster add Sile To Cluster image: Cluster image: Cluster add Sile To Cluster add Sile To Cluster image: Cluster image: Cluster update Sile Meader And Address updateSile Meader And Address image: Cluster image: Cluster add Sile Purpose add Sile Purpose image: Cluster image: Cluster of The To apply any changes in Operation, Undeploy the service. image: Cluster image: Cluster To Elst Service is secured by HTTP Basic AuthentScation at HTTP Transport level. Send either of the following in "Authorization" header as per HTTP Basic scheme: image: Cluster - Usersmane Passenord - Usersmane Passenord - Usersmane Passenord - Usersmane Passenord - Usersmane Passenord - Usersmane Passenord - Usersmane Passenord - Usersmane Passenord - Usersmane Passenord - Usersmane Passenord - Usersmane Passenord - Usersmane Passenord <td>Site Services</td> <td></td>	Site Services												
create Site create Site create Site create Site add Site To Henarchy add Site To Henarchy i i associate Site With Trade Area Group associate Site With Trade Area Group i i update Site Hender And Addess updateSiteHender And Addess i i i update Site Hender And Addess updateSiteHender And Addess i i i update Site Hender And Addess updateSiteHender And Addess i i i update Site Hender And Addess updateSiteHender And Addess updateSiteHender And Addess i i update Site Hender And Addess updateSiteHender And Addess updateSiteHender And Addess i i update Site Hender And Addess updateSiteHender And Addess i i i i update Site Hender And Addess updateSiteHender And Addess i i i i of The Top top the and Addess in Operation, Underjoint the service. i i i i Bits Diagnostice REST Web Service is secured by HTTP Basic Authentication at HTTP Transport level. Send either of the following in "Authorization" header as per HTTP Basic scheme: i Disome Secure Ond	add Site To Cluster	addSiteToCluster											
add Sile To Herrarchy add Sile To Herrarchy add Sile To Herrarchy associate Sile With Trade Area Group associate Sile With Trade Area Group associate Sile With Trade Area Group associate Sile With Trade Area Group associate Sile With Trade Area Group associate Sile With Trade Area Group update Sile Header And Address updateSile Header And Address image add Sile Purpose add Sile Purpose image dift To tapply any changes in Operation, Undeploy the service. image Table Diagnosticis EST Wob Service is secured by HTTP Basic Authentication at HTTP Transport level. Send either of the following in "Authorization" header as per HTTP Basic scheme: - - Username Preserved - - -	create Site	createSite		1									
associate Site With Trade Area Group associate Site With Trade Area Group <td>add Site To Hierarchy</td> <td>addSiteToHierarchy</td> <td></td> <td></td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	add Site To Hierarchy	addSiteToHierarchy			100								
update Site Header And Address update Site Header And Address update Site Header And Address add Site Purpose addSite Purpose update Site Header And Address add Site Purpose addSite Purpose update Site Header And Address of The To apply any changes in Operation, Undeploy the service. Table Diagnestics REST Service Security Restrict is secured by HTTP Basic Authentication at HTTP Transport level. Send either of the following in "Authorization" header as per HTTP Basic scheme: - Userment Pressnord - Security Token. - User colspan="2">- Diagnostic concole - Diagnostic Concole - Diagnostic Concole	associate Site With Trade Area Group	associateSiteWithTradeAreaGroup											
add Site Purpose Image: Comparison (Comparison) of The To apply any changes in Operation, Undeploy the service. The To apply any changes in Operation, Undeploy the service. Table Diagnostics REST Service Security REST Which Service is secured by HTTP Basic Authentication at HTTP Transport level. Send either of the following in "Authorization" header as per HTTP Basic scheme: - Username Plasmod - Security Token. Thr: Use Login Service to obtain Security Token for given user credentiats. Undeploy	update Site Header And Address	updateSiteHeaderAndAddress			1								
Console C	add Site Purpose	addSitePurpose											
Username Password Username Password Username Password Security Token Security Token for given user credentials. Undeploy Diagnostic Console Browse Search Printable Page	IP To apply any changes in Operation, Undep Table Diagnostics REST Service Security DEST Wah Sender In secure by MTTD Basis A	icy the service.	aither	of the follow	inudine in 1	Authorization	ion ^e booder on	DOT HTTP B	usia schoma:				
Diagnostic Consolt Browse Search Printable Page	REST Web Service is secured by HTTP Basic A - Username:Password - Security Token. Tip: Use Login Service to obtain Security Toker Undeptoy	uthentication at HTTP Transport level. Send	either	of the foll	owing in '	'Authoriza'	ion" header as	per HTTP B	isic scheme:				
Browse Search Printable Page											D	agnostic C	onsole
											Browse Search	Printabl	e Page

Record the following REST service endpoint from the WADL:

https://<host>:<port>/webservices/rest/<alias>/createSite/

Replace <alias> with site in this example. You will use this service endpoint later when you create a REST connection in Oracle Integration.

• Security grants are created for the plmmgr user.

Based on the integration scenario, the sample tasks for using an Oracle E-Business Suite Java REST service of Business Service Object subtype in an integration are included in the Topics section:

Topics:

- 1. Establish the Connections for Oracle E-Business Suite and REST Services
- 2. Create an Integration
- 3. Add the REST Adapter (Trigger) and Oracle E-Business Suite Adapter (Invoke) to the Integration
- 4. Create Mappings
- 5. Activate and Test the Integration

Establish the Connections for Oracle E-Business Suite and REST Services

In this integration example, you need to create the following two connections:



Connection for Oracle E-Business Suite

Once the connection to an Oracle E-Business Suite instance is successfully established, you can add the Oracle E-Business Suite Adapter as invoke (target) connections later in an integration.

Connection for REST services

You need to establish the connection for REST services. You can add this REST connection as a trigger (source) connection later in an integration.

Create an Oracle E-Businss Suite Connection with Oracle E-Business Suite Adapter

Perform the following steps to establish the connection for Oracle E-Businss Suite in Oracle Integration:

- 1. In the navigation pane, click **Home** > **Integrations** > **Connections**.
- 2. On the Connections page, click **Create**.

In the Create Connection - Select Adapter dialog appears. Scroll down and select "Oracle E-Business Suite" from the dialog. You can optionally use the search feature to enter a full or partial name to locate the Oracle E-Business Suite Adapter from the dialog. Click the **Select** button for "Oracle E-Business Suite" to create a connection through the Oracle E-Business Suite Adapter.

- **3.** In the Create Connection dialog, enter the following information for your connection:
 - Connection Name: Enter "EBS".
 - Identifier: Accept the default populated identifier, such as "EBS".
 - Keywords: Leave this blank.
 - **Connection Role:** Select the "Trigger and Invoke" role for this connection.
 - **Description:** Enter "Use the Oracle E-Business Suite Adapter connection in an integration" as the description.

Click **Create** to create the connection.

- 4. Enter additional connection details:
 - In the Connection Properties section, enter a URL (http://<Oracle E-Business Suite host name>:<port>) to connect to an Oracle E-Busiess Suite instance.
 - In the Security section, ensure that the Basic Authentication is selected as the security policy.

Enter plmmgr as the user name and its associated password to access the Oracle E-Business Suite instance you specified earlier in the Connection Properties section.

• Click **Configure Agents** if required to display the Select an Agent group dialog. A list of available agent groups is automatically populated for your selection.

Select a desired agent group, such as "EBS", and click **Use** to enable the selection.

After you specify the connection information for "EBS", the connection details page is displayed.



- 5. Click **Test** to test the connection you just specified for Oracle E-Business Suite.
- 6. Click **Save** and then click

The Oracle E-Business Suite connection "EBS" now appears in the Connections page.

Create an Connection for REST Services in This Example

Perform the following steps to create an connection for REST APIs:

1. On the Connections page, click Create.

The Create Connection - Select Adapter dialog appears.

2. Scroll down and select "REST" from the dialog. You can optionally use the search feature to enter a full or partial name to locate the REST Adapter from the dialog.

Click the Select button for "REST" to create an connection through the REST Adapter.

3. The Create Connection dialog appears.

Enter "RESTSample" as the Connection Name. The identifier value, RESTSAMPLE, is automatically populated. Leave the optional Keywords field blank.

Select "Trigger" as the Connection Role. Enter a meaningful description for this connection, such as "The sample source REST endpoint".

- 4. Click Create to create the connection.
- 5. In the Security section, enter "Basic Authentication" as the security policy.
- 6. Click **Test** to test the connection you just specified for REST services.
- 7. Click Save and then click

The "RESTSample" connection for REST services appears in the Connections page, along with the Oracle E-Business Suite connection "EBS" that you created earlier.

Create an Integration

Perform the following steps to create an integration for invoking a Java REST service of Business Service Object subtype:

- 1. In the left navigation pane, click **Home** > **Integrations** > **Integrations**.
- 2. On the Integrations page, click Create.

The Select Integration Style dialog is displayed.

3. When adding the Oracle E-Business Suite Adapter as an invoke (target) connection, select the "App Driven Orchestration" integration style.

Click Select to create an integration with a blank source and target.

- 4. The Create New Integration dialog appears. Enter the following information:
 - Name: Enter "BSO Site" as the name.
 - Identifier: Accept the default identifier value such as "BSO_SITE".
 - Version: Accept the default version number.
 - Documentation URL: Leave this blank.



- **Keywords**: Leave this blank.
- **Package**: Leave this blank.
- **Description**: Enter appropriate description for this integration.

To complete the integration, you need to add the following tasks that are described in the next few sections:

• Add the desired connections to the integration you just created.

See:

- Add the REST Adapter as a Trigger (Source) Connection.
- Add the Oracle E-Business Suite Adapter as an Invoke (Target) Connection.
- Add mappings to the integration.

See: Create Mappings.

Add the REST Adapter (Trigger) and Oracle E-Business Suite Adapter (Invoke) to the Integration

In this example, the orchestration flow diagram created for this integration includes the following activities:

• The REST Adapter as a trigger activity called "RESTSample" for the "RESTSample" connection created earlier.

This trigger activity uses the endpoint's relative resource URI /createSite/ through the REST Adapter.

See: Add the REST Adapter as a Trigger (Source) Connection.

Mappings defined for "EBS_Site"

It allows you to map and pass the trigger parameters to the "EBS_Site" activity to invoke the "Create Site" Oracle E-Business Suite REST service.

See: Create Mappings.

• The Oracle E-Business Suite Adapter as an invoke activity called "EBS_Site" for "EBS" connection that you created earlier.

This invoke activity uses the "Create Site" method with the "create" operation from the "Site Services" REST service when adding the Oracle E-Business Suite Adapter as an invoke connection. This service creates a site in Oracle E-Business Suite Site Hub.

See: Add the Oracle E-Business Suite Adapter as an Invoke (Target) Connection.

Mappings defined for "RESTSample"

This activity assigns the site information elements from the "EBS_Site" activity to the corresponding elements in the "RESTSample" activity.

See: Create Mappings.





Topics:

- Add the REST Adapter as a Trigger (Source) Connection
- Add the Oracle E-Business Suite Adapter as an Invoke (Target) Connection
- Create Mappings

Add the REST Adapter as a Trigger (Source) Connection

After creating an integration "EBS Site", you need to add a trigger (source) connection in the integration. The trigger (source) connection can be any application adapters suitable for your integrations. In this example, the REST Adapter is used for the integration.

Perform the following steps to add the REST Adapter as a trigger (source) connection:

- 1. In the Create Order integration canvas, locate the "RESTSample" connection that you created earlier by entering "RESTSample" in the Connections field.
- 2. Drag **RESTSample** from the Connections panel on the right to the Trigger (Source) area on the canvas.

The Configure REST Endpoint wizard appears.

- 3. Enter the following information in the Basic Info page:
 - What do you want to call your endpoint? Enter the name of this endpoint, such as "RESTSample".



- What does this endpoint do? Enter the usage of this endpoint, such as "Provide REST endpoint with input payload to create a site".
- Select to configure multiple resources or verbs (maximum 11) Leave this box unchecked.

Click Next.

- 4. Enter the following information in the Resource Configuation page:
 - What does this operation do? Enter the usage of this operation, such as "Provide REST endpoint with input payload to create a site".
 - What is the endpoint's relative resource URI? Enter "/site/".
 - What action does the endpoint perform? Select "POST" from the dropdown list.

Ensure that you select the following two check boxes for this trigger (source) connection:

- Configure a request payload for this endpoint
- Configure this endpoint to receive the response

Click Next.

- 5. In the Request page, perform the following tasks:
 - In the "Select the request payload format" section, select JSON Sample.
 - Click <<inline>> to enter the following JSON information as the Request Sample JSON payload:

```
{
  "site":{
   "SiteNumber":"123",
   "SiteName":"site",
   "SiteType":"type",
   "SiteStatus":"status",
   "BrandName":"brand",
   "Country":"United States",
   "Address1":"a1"
  }
}
```

- Click OK.
- In the "What is the media-type as Request Body? (Content-Type Header)" section, select the **JSON** button as the type.

Click Next.

- 6. In the Response page, perform the following tasks:
 - Select JSON Sample as the response payload format for this example.
 - Click <<inline>> to enter the following JSON information as the Response Sample JSON payload:

```
{
   "message":"Status message"
}
```



- Click OK.
- In the "What is the media-type as Response Body? (Content-Type Header)" section, select the **JSON** button as the type.

Click Next to display the Summary page and review the information you have entered.

7. Click **Done** and click **Save** to save your work. The RESTSample connection now appears in the Trigger (Source) area on the canvas in the Invoke (Target) area.

Add the Oracle E-Business Suite Adapter as an Invoke (Target) Connection

After adding the source connection in the integration "EBS_Site", you can add the Oracle E-Business Suite connection "EBS" as an invoke (target) connection in the integration.

Perform the following steps to add the Oracle E-Business Suite Adapter as an invoke (target) connection:

- **1.** In the Create Order integration canvas, search the "EBS" connection that you created earlier from the Connections panel.
- 2. Drag **EBS** from the Connections panel on the right to the Target area on the canvas.

The Configure Oracle E-Business Suite Adapter Endpoint wizard appears.

- 3. In the Basic Info page, enter the following information for your endpoint:
 - What do you want to call your endpoint? Enter "EBS_Site".
 - What does this endpoint do? Enter "Create a site".

Click Next.

4. In the Web Services page, specify the following information for your target connection:

Configure Oracle E-I	Business Suite Adapte	r Endpoint
		Help v < Back Next > Cancel Do
Select Or Select the	racle E-Business Suite Se a target service which will b	rvice e used to perform operation on Oracle E-Business Suite application.
Pasic Info	Product Family	Oracle Supply Chain Management Family
Web Services	Product	Oracle Site Hub
Operations	Interface Type	Java
Summary	* API	Filter by name
	Create Update Hierarchy Service Get Hierarchy Service Process UDA Service	
		Site Services
	Internal Name	/oracle/apps/rrs/site/service/SiteService
	Description	Creates a Site. The method accepts a Site object which holds the fields for the Site. The Site object can contain the Site header details and data for one address, one purpose, one cluster, one hierarchy and hierarchy node, and one trade area group. Additional purposes, clusters, hierarchies and trade area groups can be specified using subsequent add methods. The Site



- Product Family: Select "Oracle Supply Chain Management Family" from the drop-down list.
- Product: Select "Oracle Site Hub".
- Interface Type: Select "Java" from the list.

After you select a desired product family, a product, and an interface type, a list of Java APIs including Oracle seeded APIs and custom ones contained in the selected product "Oracle Site Hub" is populated for further selection.

Select a desired Java API name, such as "Site Services". The corresponding API internal name and description are automatically populated.

Click Next.

5. The selected API internal name appears in the Operations page.

		Help v < Back Next > Cancel Do
Select Operations Operations	eration for Oracle E-Bus s for selected Oracle E-Bu should be 'Ready to use'	iness Suite Service siness Suite Service are listed. Select Operation to perform on Oracle E-Business Suite application. Selected to configure the target endpoint for integration.
Basic Info	API	/oracle/apps/rrs/site/service/SiteService
Web Services	* Methods	add Site Purpose
perations		add Site To Cluster
ummary		add Site To Hierarchy
		associate Site With Trade Area Group
		create Site
	Operation	Create •
	Service Status	Ready to Use
	Deservatives	Constant a City, The method accepts a City philost which holds the fields for the City. The City philost
	Description	Creates a site. The method accepts a site object which holds the helds for the site. The site object can contain the Site header details and data for one address, one purposes, one cluster, one hierarchy and hierarchy node, and one trade area group. Additional purposes, clusters, hierarchies

- Method: Select a method name called "create Site" in this example.
- **Operation:** Select "create" as the value from the drop-down list.

Click Next.

6. The Summary page displays all the selected interface details. This information includes the selected "createSite" Method and Operation "create" (with "Ready to Use" status) contained in the selected Java REST web service from the Oracle Supply Chain Management Family product family and Oracle Site Hub product. This page also displays the default interaction pattern "Synchronize" for the selected service operation.

The Oracle E-Business Suite Adapter Target Endpoint configuration is successfully created.



Click Done.

7. Click **Save** to save your work.

The connection for Oracle E-Businses Suite now appears in the Invoke (Target) area on the canvas.

Create Mappings

After adding the trigger (source) connection and invoke (target) connection in your integration, you can create the following mappings to pass the required parameter values to the subsequent REST services:

- Define mappings for EBS_Site request
- Define mappings for RESTSample response

Create mappings for EBS_Site request:

- 1. In the 'EBS Site' integration flow, click edit for the EBS Site icon.
- 2. Perform the following tasks to create mappings between elements:
 - In the Source section, expand the **RESTSample Request (REST)** node, then the **Request Wrapper** node, and then the **Site** node.

Select the Site Number element.

 In the Target section, expand the EBS_Site Request (Oracle E-Business Suite) node, then the InputParameters node, and then the site node. Select the SiteNumber element.

Drag the **Site Number** element from the Source section to the **SiteNumber** element in the Target section to map the data.

Similarly, use the same approach to map the elements from the same Source location to the same Target location listed in the following table:

Source Element	Target Element
Site Name	SiteName
Site Type	SiteType
Site Status	SiteStatus
Brand Name	BrandName
Country	Country
Address1	Address1



			?	0
Map to EBS_Site BSO Ste (1.0)			Close	Validate
🚱 Мар				
📀 Designer 🛛 🔯 Code 🚔 Test 🌟 Recommend		\gtrsim Developer $-\frac{\pi}{2}$ XSLT	View v T Filter In 🕾	
 RESTSample Request (REST)* Request Wrapper* 	Mapping Canvas		site	°,
- nii			SiteNumber	4
⊿			SiteName	۰
· nii			SiteType	۹
Site Number*			SiteStatus	۰.
Site Name*			BrandName	۰
Site Type*			CalendarName 💽	۰
Site Status*			LegalEntity 💽	۰
Brand Name*			ExternalParty 💽	۰
Country*			Country 📵	۰
Address 1*			Address1 🧕	۰
Connectivity Properties*			Address2 💽	•
Integration Metadata			Address3 💽	•
- ·····			Address4 💽	•
Tracking Variable 1			City 💽	۰.
ITTACKING Variable 2			County 💽	4

- 3. Perform the following tasks to assign constant values to the target elements:
 - In the Target section, expand the EBS_Site Request (Oracle E-Business Suite) node, and then the RESTHeader node.

Right-click the **Responsibility** element and select **Create Target Node** from the drop-down menu.

• In the Expression Builder at the bottom of the page, click the "Switch to Developer View" icon and then enter 'RRS_USER' for the Responsibility element.

A **function** icon is added to the Mapping Canvas section for the target **Responsibility** element node.

Similarly, use the same approach to assign constant values to the target elements listed in the following table:

Path	Element	Value
EBS_Site Request (Oracle E-Business Suite)/ RESTHeader	RespApplication	'RRS'
EBS_Site Request (Oracle E-Business Suite)/ RESTHeader	NLSLanguage	'AMERICAN'

		? 🙆
Map to EBS_Site BSO Site (1.0)		Close Validate
🚱 Мар		
📀 Designer 🛛 🔯 Code 🐇 Test 🔺 Recommend	*	Developer $-\frac{\pi}{2}$ XSLT View $=$ $\overline{\gamma}$ Filter $\stackrel{_{\mathcal{H}}}{=}$ $\stackrel{_{\mathcal{H}}}{\longrightarrow}$ $\stackrel{_{\mathcal{H}}}{=}$
RESTSample Request (REST)*	Mapping Canvas	Target Q
A Sequest Wrapper*		EBS Site Deguest (Orgale E Business Suite)
\cdots nil		EBS_Site Request (Oracle E-Business Suite)
⊿		InputParameters* 🔘 🕨
: nil		site
Site Number*		RESTHeader* 💽 🕨
Site Name*	٨	Responsibility
Site Type*	A	RespApplication
Site Status*	^	SecurityGroup
Image: Brand Name*	٨	NLSLanguage
Country*	^	Language
Address 1*		Org_ld
Connectivity Properties*		
Integration Metadata		
Tracking Variable 1		
Tracking Variable 2		

After you complete this step, the function icons should appear in the Mapping Canvas section for the corresponding target elements.

4. Click Validate and then Close to exit the Mapper. Click Save to save work.

Create mappings for RESTSample response:

- 1. In the middle of the integration, click edit for the RESTSample icon.
- 2. Create mappings to map the source and target elements.
 - In the Source section, expand the EBS_Site Response (Oracle E-Business Suite) node, then the createSiteResponse node, then the createSite_Output node, and then the OutputParameters node.

Select the **string** element.

• In the Target section, expand the **RESTSample Response (REST)** node, and then the **Response Wrapper** node.

Select the **Message** element.

Drag the **string** element from the Source section to the **Message** element in the Target section to map the data.





3. Click Validate and then Close to exit the Mapper. Click Save to save work.

Activate and Test the Integration

Activate the Integration

Perform the following steps to activate the "EBS Site" integration you just created:

1. On the Integrations page, click



for the "EBS Site" integration that you created earlier to activate the integration.

2. The Confirmation dialog appears. Click Activate.

Notice that a status message is displayed in the banner at the top of the Integrations page.

Test the Integration

Perform the following steps to test the integration:

1. Click



, then click Test on the message that is displayed.

2. In the Request section of the Test page, select Body tab and then enter the following information in the Body field:

```
{
  "site":{
   "SiteNumber":"Site1",
   "SiteName":"Demo Site",
   "SiteType":"Internal",
   "SiteStatus":"Active",
   "BrandName":"Brand A",
   "Country":"United States",
   "Address1":"100 A1"
```



	# ?	SA
< BSO Site (1.0.0)		
Configure request properties, then Test your endpoint and verify the response. Track Instances Show Endpoint Metadata ②		
POST /lc/api/integration/v1/flows/rest/BSO_SITE/1.0/site/		Test
⊿ Request		
URI Parameters Headers Body cURL Integration Properties		
<pre>Text File 1 { 2 * "site": { 3 * "SiteNumber": "Sitel", 4 * "SiteNumber": "Demon Site", 5 * "SiteType": "Internal", 6 * "SiteStatus": "Active", 7 * "BrandName": "Active", 8 * "Country": "United States", 9 * "Address1: "100 A1" 10 } 11 }</pre>		
▶ Response		

3. Click **Test** to invoke the integration.

} }

In the Response section, you will find the following response message indicating that this integration is successfully invoked. The new site called "Demo Site" with site number <code>Site1</code> is created in Oracle E-Business Suite Site Hub.

```
{
"message": "SUCCESS. Site Number=Site1"
}
```

7

Troubleshoot the Oracle E-Business Suite Adapter and Related Error Messages

This chapter describes troubleshooting information and error messages if occur at the design time while testing an Oracle E-Business Suite connection and while creating an integration with an Oracle E-Business Suite Adapter connection in Oracle Integration. The possible resolutions are also included.

Topics:

- Error Messages While Testing an Oracle E-Business Suite Connection
- Troubleshoot the Oracle E-Business Suite Adapter While Using it as a Trigger (Source) in an Integration
- Troubleshoot the Oracle E-Business Suite Adapter While Using it as an Invoke (Target) in an Integration

For additional information on managing errors, see Manage Errors in Using Integrations in Oracle Integration Generation 2.

Error Messages While Testing an Oracle E-Business Suite Connection

The following table describes error messages if occur while testing an Oracle E-Business Suite connection with Oracle E-Business Suite Adapter from Oracle Integration:

Error Code	Error Message	Resolution
CASDK-0002	Verify Integrated SOA Gateway setup on Oracle E-Business Suite. For details, refer to Setup chapter in Using the Oracle E- Business Suite Adapter guide.	Ensure to complete the setup tasks for Oracle E-Business Suite Integrated SOA Gateway (ISG), as described in Setup Tasks for Enabling the Oracle E- Business Suite Adapter.
CASDK-0004	Invalid user name or password.	Provide valid Oracle E-Business Suite user name and password combination.



Error Code	Error Message	Resolution
CASDK-0005	User is not authorized to execute the service. Please check the user grants.	All methods of the Metadata Provider service do not have required grants created. Grant the required user privileges to Metadata Provider service, as described in step 4, Setup Tasks for Enabling the Oracle E- Business Suite Adapter. Alternatively, this error could also occur if the access to Oracle E- Business Suite instance is forbidden or blocked from Oracle Integration. Ensure that Oracle Integration is able to access the Oracle E-Business Suite instance.
CASDK-0005	Verify if Metadata Provider service is deployed with alias 'provider'. Ensure that all its methods are deployed with GET verb.	 This error occurs due to either of the following reasons: The Metadata Provider API is not deployed as a REST service. All the methods of the API are not deployed with GET verb. The API is deployed with GET verb but with a service alias other than "provider". To resolve the issue, ensure to deploy all the methods in the Metadata Provider API with GET verb and with service alias "provider". For information on deploying Metadata Provider service, see step 3, as described in Setup Tasks for Enabling the Oracle E-Business Suite Adapter
CASDK-0005	Error connecting to the Oracle E- Business Suite: <url></url>	Provide valid Oracle E-Business Suite host and port information (http(s):// <oracle e-<br="">Business Suite host name>:<port>) where Oracle E- Business Suite is configured for ISG REST services.</port></oracle>
CASDK-0005	A connector specific exception was raised by the application. The connection URL should be of the format: http:// <oracle E-Business Suite host name>:<port></port></oracle 	This error occurs due to invalid URL format. To resolve the issue, remove any trailing slash in the URL. Ensure that the Oracle E- Business Suite connection URL is of the format: http(s):// <oracle e-business="" suite<br="">host name>:<port></port></oracle>



Error Code	Error Message	Resolution
CASDK-0005	Connection URL should be of the format: http:// <host name>:<port></port></host 	This issue occurs because of protocol error. To resolve the issue, the connection URL should be of the format: http(Oracle E-Business Suite host name>: <port></port>
CASDK-0007	Unable to establish a secure connection to example.com. SSL protocol related exception occurred sun.security.validator.ValidatorEx ception: PKIX path building failed:sun.security.provider .certpath.SunCertPathBuil derException: unable to find valid certification path to requested target- PKIX path building failed: sun.security.provider.cer tpath.SunCertPathBuilderE xception: unable to find valid certification path to requested target - unable to find valid certification path to requested target - unable	This error occurs because of TLS certificate issues. If Oracle E-Business Suite requires a specific TLS certificate, ensure that you import or upload the Oracle E-Business Suite TLS certificate to Oracle Integration. See: Setup Tasks for a TLS- Enabled Oracle E-Business Suite Environment.

Troubleshoot the Oracle E-Business Suite Adapter While Using it as a Trigger (Source) in an Integration

The following table describes troubleshooting information while using the Oracle E-Business Suite Adapter as a trigger (source) connection in an integration:

Issue	Resolution
If there is no XML Gateway map selected in the XML Gateway Message page, after you click Next, the following error may occur: Please select a XML Gateway Map to proceed. If no maps are listed, select another Product / Product family.	Ensure that you select a desired XML Gateway message from the populated list based on your selected product and product family before clicking Next . For information on configuring the endpoint for XML Gateway message maps, see Oracle E- Business Suite Adapter XML Gateway Message Page.
If there is no business event selected in the Business Events page, after you click Next, the following error may occur: Please select a Business Event to proceed. If no events are listed, select another Product / Product family.	Ensure that you select a desired business event from the populated list based on your selected product and product family before clicking Next . For information on configuring the endpoint for business events, see Oracle E-Business Suite Adapter Business Event Page.



Issue	Resolution
When you attempt to edit an integration endpoint with Oracle E-Business Suite connection that has been successfully executed, the API used in the integration is not selected and an error occurs.	The cause of this issue could be due to product name change of the API used in the integration. To resolve the issue, you must reselect the product name of that API in the Web Services page of the Configure Oracle E-Business Suite Adapter Endpoint Wizard.
If you select a business event with "Disabled" status in the Business Events page of the Configure Oracle E-Business Suite Adapter Endpoint Wizard, then the following error occurs: Business Event is disabled in Oracle E- Business Suite. To use this Business Event, enable it from Oracle E-Business	If a business event is not "Enabled" in Oracle Workflow Business Event System, you will not be able to use it in an integration when adding the Oracle E-Business Suite Adapter as a trigger connection. To resolve this issue, perform the following steps to enable the event:
Suite. Contact Oracle E-Business Suite Integration Administrator. (See Disabled Event Error Message)	1. Log in to Oracle E-Business Suite as a user who has the Workflow Administrator Web Applications responsibility.
	2. Select the Workflow Administrator Web Applications responsibility, then Administrator Workflow, and then Business Events from the navigation menu.
	3. Search for your desired business event.
	 Notice that the Event Status is displayed in the Events Results table.
	5. If the event is disabled, click the Update icon from the table. Select " Enabled " and save the changes.
	Once the business event is enabled in Oracle E- Business Suite, perform the following tasks:
	1. Log in to Oracle Integration and click Connections .
	2. On the Connections page, locate the Oracle E-Business Suite connection.
	3. From the Actions menu icon, click Refresh Metadata.
	The business event you just enabled will be available for use in Oracle Integration.

Disabled Event Error Message

If a selected business event is not enabled in Oracle Workflow Business Event System, then "Disabled" is shown as the Status field value, along with an error indicating that you need to enable it enable first before using it in an integration.



Configure Oracle E-Busines	ss Suite Adapter	Endpoint					
			🕑 Help 🔻	< Back	Next >	Cancel	Done
Select Oracle E-I Select the Businer Suite, associated	Business Suite Busin ss Event which will be event data and paran	ness Event e used to trigger this integration flow. Wheneve neters are sent to this integration.	er the selected busines:	s event occu	rs in Oracle	E-Business	×
Sasic Info	Product Family	Human Resources Suite	😣 Error:				
Business Events	Product	Human Resources	Business Eve Suite. To use	nt is disable this Busines	d in Oracle s Event, ena	E-Business able it from	
Summary	* Business Event	Filter by name	Oracle E-Bus E-Business S	iness Suite. Suite Integrat	Contact Ora ion Adminis	acie trator.	
	1	Accept Applicant Assignment	manud				
		Activate Applicant Assignment					
		Activate Contingent Worker Assignment					
		Activate Employee Assignment					
		Actual Termination of Contingent Worker Ass	signment				
		Actual Termination of Employee					
		Cancel Hire					
		Convert To Applicant					
		Convert To Contingent Worker					
		Copy Competencies					
	Internal Name	oracle.apps.per.api.assignment.accept_apl_	asg				
	Status	Disabled					
	A Business Even	t is not ready for use. To use this Business	Event, enable it from	Oracle E-Bu	siness Suit	te. Contact	Oracle
	Description	This event is raised when the assignment sta	atus of an applicant is c	hanged to A	ccepted.		

Troubleshoot the Oracle E-Business Suite Adapter While Using it as an Invoke (Target) in an Integration

The following table describes troubleshooting information while using the Oracle E-Business Suite Adapter as an invoke (target) connection in an integration:

Issue	Resolution
When the Metadata Provider API in Oracle E- Business Suite only has the "isActive" method deployed, but the rest of all methods in the API are not deployed, then the following error may occur: Empty set of values appear in the drop down during the Product Family selection.	To resolve the issue, ensure to deploy all the methods in the Metadata Provider API with GET verb and with service alias " provider ". For information on deploying the Metadata Provider service, see step 3, as described in Setup Tasks for Enabling the Oracle E-Business Suite Adapter.
When any of the Metadata Provider API methods (such as getInterfaces, getMethods, getProducts) except the "isActive" method are deployed but do not have grants created, the following error may occur: The application has encountered an unexpected error. Please check the application connection details and credentials, and retry your request.	To resolve the issue, in addition to deploying all the methods in the Metadata Provider API with GET verb, ensure that you grant the required user privileges to the Metadata Provider service, as described in step 4, Setup Tasks for Enabling the Oracle E-Business Suite Adapter.



Issue	Resolution
When you attempt to edit an integration endpoint with Oracle E-Business Suite connection that has been successfully executed, the API used in the integration is not selected and an error occurs.	The cause of this issue could be due to product name change of the API used in the integration. To resolve the issue, you must reselect the product name of that API in the Web Services page of the Configure Oracle E-Business Suite Adapter Endpoint Wizard.
If you select an interface that is not deployed as a REST service in the Web Services page of the Configure Oracle E-Business Suite Adapter Endpoint Wizard, the following error occurs: Service is not deployed as REST in Oracle E-Business Suite. To use this service, deploy it from Integration Repository of Oracle E-Business Suite. Contact Oracle E-Business Suite Integration Administrator.	This error occurs because none of the methods within the selected interface is deployed as a REST service operation. To resolve this issue, ensure that you deploy the selected interface as a REST service first before using it in an integration. For information on deploying an interface as a REST service, see step 3 as described in Setup Tasks for Enabling the Oracle E-Business Suite Adapter.

(See Undeployed REST Service Error Message)

Issue	Resolution				
If you select a method or operation that is not deployed as a REST service operation in the Operations page of the Configure Oracle E- Business Suite Adapter Endpoint Wizard, then "Not Deployed" is shown as the Service Status field, along with the following error:	Ensure that you deploy the selected method as REST service operation first by using the follow steps:				
	 Log in to Oracle E-Business Suite as a user who has the Integration Administrator privileges. 				
Oracle E-Business Suite. To use this service, deploy it from Integration Repository of Oracle E-Business Suite.	2. Navigate to the Integrated SOA Gateway responsibility and then select Integration Repository from the navigation menu.				
Integration Administrator. (See Method with "Not Deployed" Status Error Message)	3. Search for the desired API. It can be an interface type of PL/SQL, Java, concurrent program, or open interface table or view.				
	Note:				
	 To locate a Java API of business service object, select "Business Service Object" as the interface type in the Search page. To locate other Java APIs, ensure that you select the following fields after clicking Show More Search Options in the Search page: Category: Interface Subtype Category Value: "Java Bean Services" or "Application Module Services" 				
	 Ensure that you select the desired method or operation that you want to use in an integration before deploying it as a REST service operation. 				
	See: Deploying REST Web Services, Oracle E-Business Suite Integrated SOA Gateway Implementation Guide.				
	5. Log in to Oracle Integration.				
	 Navigate to an Oracle E-Business Suite connection that you want to use in your integration. 				
	7. From the Actions menu, click Refresh Metadata.				
	The deployed interface should be available for use in Oracle Integration.				



Issue	Resolution
When attempting to select the Read operation for a Java method in the Operations page of the Configure Oracle E-Business Suite Adapter Endpoint Wizard, you cannot find it displayed for selection.	The Read operation performs the GET HTTP verb for a Java method. When it is not available for selection in the Operations page of the Configure Oracle E-Business Suite Adapter Endpoint Wizard, this indicates that the Java method does not have GET selected during the REST service deployment in Oracle E-Business Suite. To use this operation for a Java method in an integration, perform the following tasks:
	 Ensure the GET check box for the Java method that you want to use is selected before service deployment. Otherwise, you can only use the default "Create" operation that performs the HTTP "POST" action for that Java method in an integration. See: Deploying REST Web Services. Oracle
	E-Business Suite Integrated SOA Gateway Implementation Guide.
	 Select the Read operation for that Java method in the Operations page of the Configure Oracle E-Business Suite Adapter Endpoint Wizard when adding the Oracle E- Business Suite Adapter as an invoke connection. See: Invoke Oracle E-Business Suite Java

Undeployed REST Service Error Message

If none of the methods within the selected interface is deployed as a REST service operation, then an error message is shown indicating that the associated REST service is not available. You must deploy the selected interface as a REST service in Oracle E-Business Suite first.



Select the	target service which will	be used to perform operation on Orac	de E-Busine	ss Suite app	lication.			^
Basic Info	Product Family	Order Management Suite						^
Veb Services	Product	Order Management		Service	is not deploy	ed as REST	in Oracle	
Operations	Interface Type	Open Interface		E-Busir from Ini	ness Suite. To regration Rep	o use this se ository of Ora	rvice, deploy acle E-Busin	it iess
Summary	* API	Filter by name		Suite. C Integrat	contact Oracle ion Administr	e E-Busines: rator.	s Suite	
		INBOUND: Grocery Purchase Orders	(875/ORDE	RS) Concur	rent Program	1		
		INBOUND: Purchase Order Change	s (860/ORD)	CHG) Concu	rrent Program	n		
		Order Import Concurrent Program						
		OUTBOUND: Purchase Order Ackno	wledgment ((855/ORDRS	SP) Concurrer	nt Program		
		Sales Order Header Acknowledgme	je Acknowie nts View	agment (86:	(URDRSP) C	concurrent Pi	rogram	
		Sales Order Line Acknowledgments	View					
	Internal Name	ECEPOCI						_
	Description	This concurrent program allows use	rs to run the	inbound Ch	ange Purcha	se Orders El		

Method with "Not Deployed" Status Error Message

If a selected method is not deployed as a REST service operation, then "Not Deployed" is shown as the Service Status field value, along with an error indicating that you need to deploy the selected method first before using it in an integration.



Configure Oracle E-E	Business Suite Adap	ter Endpoint						×
			(🕑 Help 🔻	< Back	Next >	Cancel	Done
Select Op Operations Operation	eration for Oracle E-Bu s for selected Oracle E-B should be 'Ready to use'	siness Suite Service usiness Suite Service are listed. Sele to configure the target endpoint for ir	ect Operation to perf ntegration.	orm on Oracle	E-Business St	uite applicati	on. Selected	×
🖋 Basic Info	API	FND_USER_PKG						
Veb Services	* Methods	CHANGE_USER_NAME	N					
Operations		DERIVE_PERSON_PARTY_ID	1					
Summary		FORM_LDAP_WRAPPER_UPDAT	TE_USER					
		LDAP_WRAPPER_CHANGE_USER_NAME						
		LDAP_WRAPPER_CREATE_USE	R					
		LDAP_WRAPPER_UPDATE_USE	R					
		LDAP_WRP_UPDATE_USER_LO	ADER					
		LOAD_ROW				•		
	Service Status	Not Deployed						
	Service operation is not deployed in Oracle E-Business Suite. To use this service, deploy it from Integration Repository of Oracle E-Business Suite. Contact Oracle E-Business Suite Integration Administrator. Description This api changes username, deals with encryption changes and update foreign keysthat were using the old username. PLEASE NOTE THAT x_change_source IS PRIVATE ARGUMENT ONLY USED BY SSO!!							

