

**Oracle Utilities Work and Asset
Management Connector for Enterprise
Resource Planning**

Release Notes

Release 2.1.1

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Oracle Utilities Work and Asset Management Connector for Enterprise Resource Planning Release Notes for Release 2.1.1

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Preface

These release notes provide an overview of the integration between Oracle Utilities Work and Asset Management and Enterprise Resource Planning Applications (such as Oracle E-Business Suite, PeopleSoft, JD Edwards EnterpriseOne, Fusion Applications or ERP Cloud) and are intended for anyone installing, implementing or using the integration.

Integration Documentation and Resources

The following additional documentation resources are available for this release:

Resource	Location
Oracle Utilities Work and Asset Management Connector for Enterprise Resource Planning Installation Guide	The same folder as this document, with the distribution for this product.
Oracle Utilities Work and Asset Management Connector for Enterprise Resource Planning Implementation Guide	The same folder as this document, with the distribution for this product.
Oracle Utilities Work and Asset Management Connector for Enterprise Resource Planning Release Notes	The same folder as this document, with the distribution for this product.
Oracle Utilities Work and Asset Management Documentation: <ul style="list-style-type: none">• Installation Guide• Admin Guide• Business User Guide	Refer to Oracle Utilities Work and Asset Management documentation located on the Oracle Technology Network.
Oracle Support Access the support site for the Certification Matrix for Oracle Utilities Products (Doc ID 1454143.1) Please refer to Bug #23557782 which will accumulate all WAM patches required for the integration.	Visit the My Oracle Support at https://support.oracle.com website at regular intervals to keep apprised of changes.
Training	Visit Oracle University at http://education.oracle.com/pls/
Web Services Security	For more information about Web services security using Oracle Fusion Middleware 12c refer to https://docs.oracle.com/middleware/12211/cross/webservicetasks.htm .

Resource	Location
Oracle Fusion Middleware What's New In Oracle WebLogic Server guide	http://docs.oracle.com/middleware/1221/wls/NOTES/whatsnew.htm#NOTES570
Section: Standards Support, Supported Configurations and WebLogic Server Compatibility, Database Interoperability	
For additional information on the type of database to use.	

Note: The latest versions of these documents are available on the Oracle Utilities Global Business Unit Portal at:
http://docs.oracle.com/cd/E72219_01/documentation.html

Common Terms

AIA Terms

ABCS	Application Business Connector Services A requestor ABCS accepts the request from the client application through a client-specific Application Business Message (ABM) and returns the response to the client application through a client-specific ABM. The client side ABM is the payload that is passed by the requestor application to the requestor ABCS.
DVM	Domain Value Map
EBM	Enterprise Business Messages - Packets of data which the Mediator or JCA adapter accepts from requesters and routes to providers. They carry the pieces of data needed for the requests to be understood and serviced.
EBO	Enterprise Business Object
JMS	Java Message Service - The JMS producers are responsible for posting the message to the Consumer JMS Queue for the corresponding target application.
EBS	Enterprise Business Service
ESS	Oracle Enterprise Scheduler Service
SOA	Service-Oriented Architecture – Software modules that are provided as services can be integrated or used by several applications using SOA, even if their respective architectures are substantially different. Rather than defining an API, SOA defines the interface in terms of protocols and functionality.
XSL	Extensible Style Language

General Terms

Edge applications	The applications that are involved in the two-way integration processes - Oracle Utilities Work and Asset Management and other Enterprise Resource Planning applications.
JMS Adapter Consumer	JMS adapter used in the SOA composite to read message from a queue is referred to as a Consumer. The adapter has Consumer as a part of the name. For example, SyncWorkerOUWAMUtilitiesJMSConsumer.
JMS Adapter Producer	The JMS adapter used in the SOA composite to write a message to a queue is referred to as a Producer. The adapter has Producer as a part of the name. For example, SyncWorkerERPJMSProducer.

Participating Application	One of the two applications involved in the two-way integration processes- Oracle Utilities Work and Asset Management, Enterprise Resource Planning system.
Provider Processes	All the integration processes, which are invoked by the reading message from the queue are referred to as Provider Processes. These processes transform the request message from the queue to the edge application format and execute the inbound service on the edge application with a message. These processes have ProvABCImpl as a part of the name. For example, SyncWorkerOUWAMUtilitiesProvABCImpl.
Requestor Processes	All the integration processes, which are invoked by the edge application initiating the request are referred to as Requestor Processes. These processes put the request message with or without transformation in the queue. These processes have ReqABCImpl as a part of the name. For example, SyncWorkerERPReqABCImpl.
SOAP	Simple Object Access Protocol. It is a protocol specification for exchanging structured information in the implementation of Web Services in computer networks.
XAI	XML Application Integration. An Oracle Utilities Framework utility used to configure the system transfer information between Oracle Utilities Work and Asset Management and external applications using XML. XAI exposes system business objects as a set of XML based web services. The service can be invoked using different methods, for example, Hypertext Transfer Protocol (HTTP) or Java Message Service (JMS). Consequently, any application or tool that can send and receive XML documents can access the rich set of system business objects.
XSD	A schema definition file.

Acronyms

Term	Definition
ABCS	Application Business Connector Services
AIA	Oracle Application Integration Architecture
AP	Accounts Payable
API	Application Programming Interface
AST	Application Specific Technology
BPEL	Business Process Execution Language
EBO	Enterprise Business Object
ERP	Enterprise Resource Planning
ESC	Enterprise Resource Planning system Supply Chain business model
GL	General Ledger
PIP	Process Integration Pack
SOA	Service Oriented Architecture
WAM or OUWAM	Oracle Utilities Work and Asset Management
WSC	Oracle Utilities Work and Asset Management Supply Chain business model

Conventions

The following text conventions are used in this document:

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

Release Notes

Asset intensive enterprises need to invest significantly in order to maintain operations and continue to grow their business in an increasingly uncertain economic environment. It is essential for these organizations to be able to fully optimize investment decisions and opportunities to lower operating costs to ensure good returns on the investment.

Oracle Utilities Work and Asset Management is a comprehensive solution specifically targeting electric, gas and water utility operations. The product supports the entire asset lifecycle work processes from budgeting and accounting, designing, estimating, planning through construction, commissioning, maintenance and repair, retirement, and removal. It also includes the resource management, which includes the smart grid device configuration and general framework processes needed in support of asset lifecycle management and utility plant accounting.

Integration Overview

Oracle Utilities Work and Asset Management v2 processing is commonly used with an Enterprise Resource Planning (ERP) suite of applications such as Oracle E-Business Suite, PeopleSoft, JD Edwards EnterpriseOne and Fusion applications including ERP Cloud. There are five common functional integration areas, Purchasing, Financials, Inventory, and Human Resources. Each of these business process areas has a need to both sync common data stores and to share transactional information for action. Oracle Utilities Work and Asset Managementv2 offers application services and business logic to enable these integrated business processes. This integration connector uses Oracle SOA Suite and existing Oracle Enterprise Business Objects (EBOs) and Services as a standardized common enterprise message format that is independent of any particular application.

The EBOs used by the connector to facilitate integration are:

- Worker
- ChartOfAccounts
- Invoice
- Item
- BlanketPurchaseAgreement
- PurchaseOrder
- InventoryTransaction
- SupplierParty
- AccountingEntry
- DisbursedPayment
- ItemBalance
- Requisition
- ShipmentReceipt

This connector can be used to implement client specific integrations based on business requirements. Some common implementation models are:

- Model #1: WAM performing Work, Inventory, Purchasing, Invoicing and ERP performing Financials
- Model #2: WAM performing Work Management functions and ERP performing all Supply Chain - Inventory, Purchasing, Invoicing, and Financials

The integration benefits implementations by:

- Allowing them to leverage strengths of Oracle Utilities Work and Asset Managementv2 and Enterprise Resource Planning applications by synchronizing key common data and transactions.
- Eliminating the duplicate effort, thus reducing cycle times.
- Matching of order, receipt and invoice.
- Centralized processing of fully matched invoices.
- Providing technology to connect these applications.
- Decreasing the total cost of ownership.
- Leveraging Oracle SOA Suite technology with Oracle Enterprise Business Objects, the solution provides tools for implementing a sustainable and adaptable Service Oriented Architecture-based integration.

The integration flows that are enabled by this connector include:

- Synchronize Master Data Processes
 - Employee
 - Vendor / Vendor Location
 - Chart of Accounts
 - Stock Item
 - Storeroom
- Synchronize Purchasing Processes
 - Blanket Contract
 - Purchase Requisition
 - Purchase Order
 - Receipts
- Synchronize Financials of Accounts Payable and General Ledger Processes
 - Invoice
 - Invoice Payment
 - GL Transaction
- Synchronize Inventory Processes

- Stock Transaction
- Purchase Returns
- Material Requisition
- Materials Issue
- Material Return

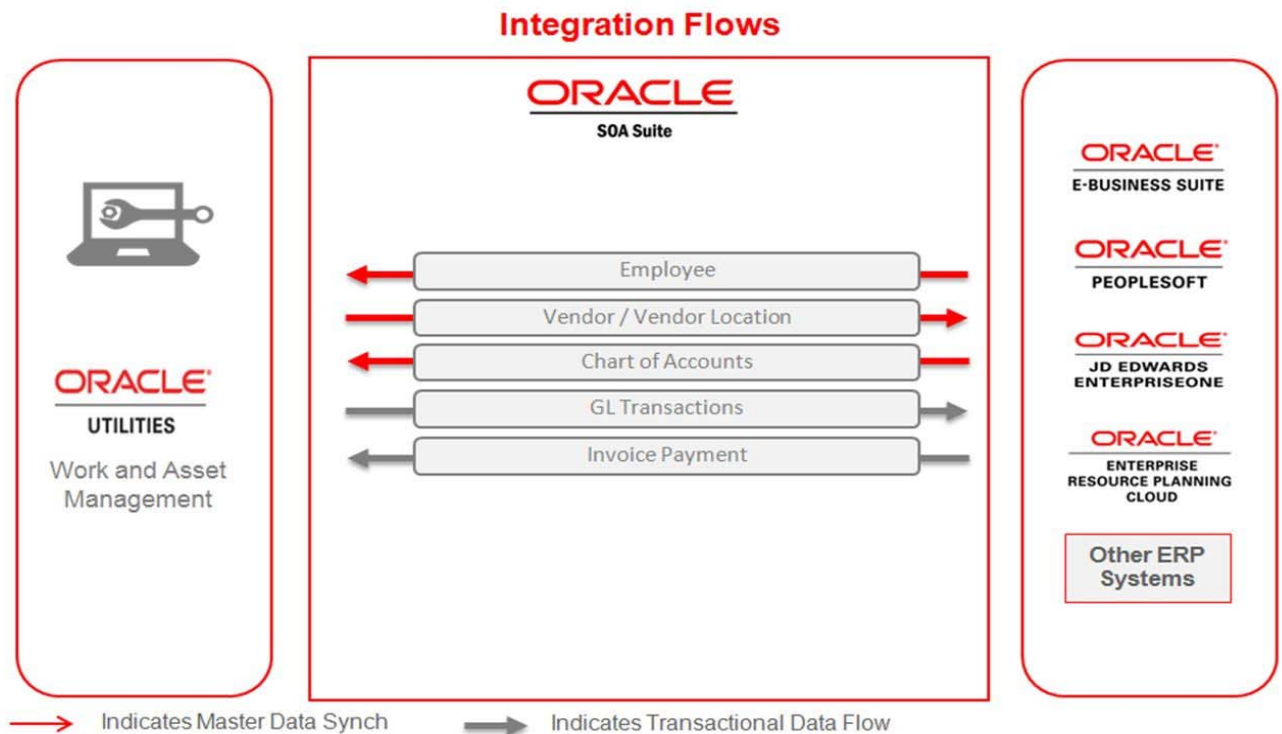
Note: Refer to the Oracle Utilities Work and Asset Management Connector for Enterprise Resource Planning Implementation Guide for a comprehensive description of implementing the available connector functionality.

Integration Processes

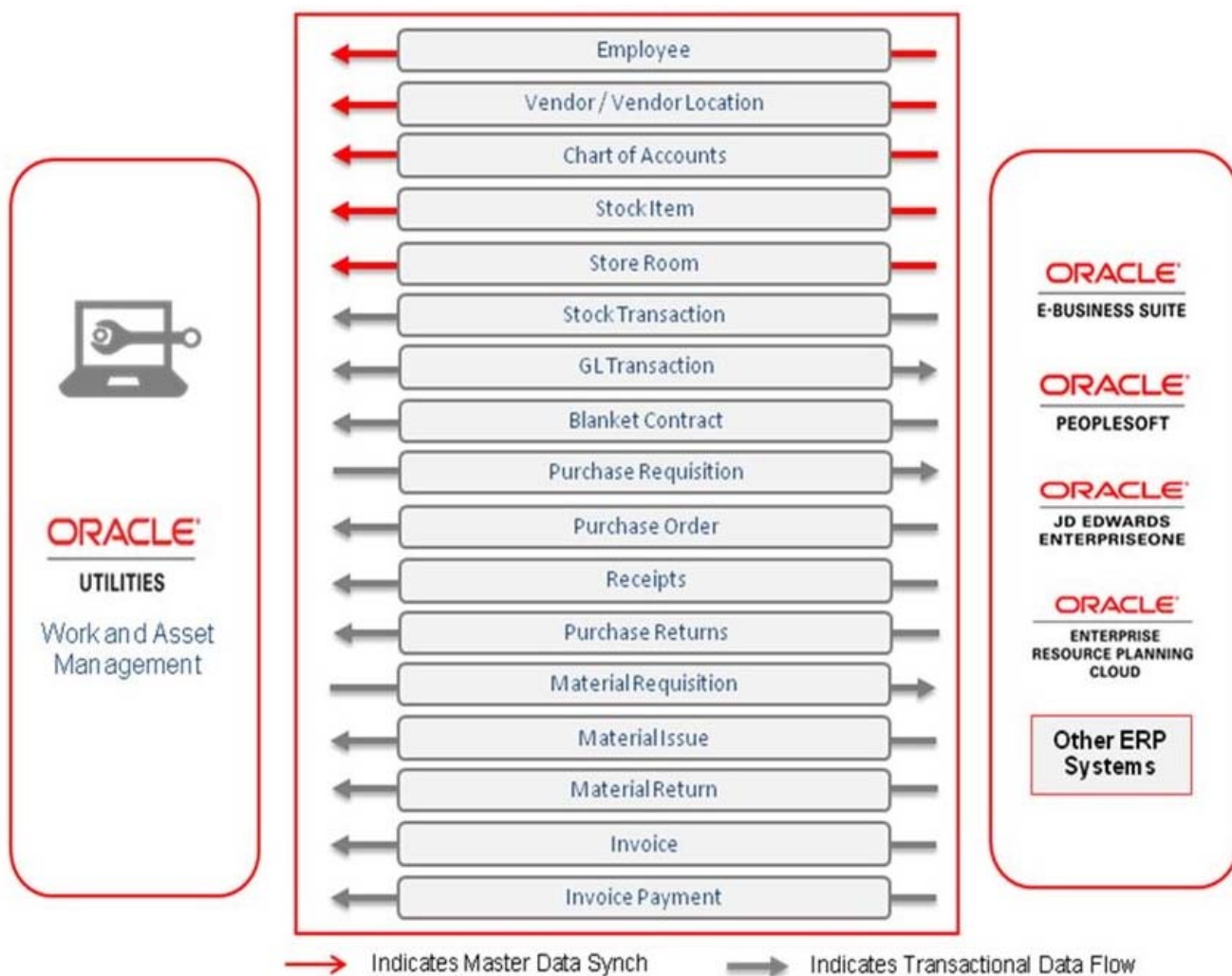
The primary systems involved in this integration product are:

- Oracle Utilities Work and Asset Management (WAM) version 2.1.1.
- Enterprise Resource Planning Applications (including partner integrations to Oracle solutions such as E-Business Suite 12.2.4 and others).

The following diagram shows the process driven data synchronization flows that can be enabled with this integration product:



Model 1: Integration Processes for WSC Business Model



Model 2: Integration Processes for ESC Business Model

Key Features of this Integration

The key notes about the integration and processes are as follows:

- This connector leverages true canonical object integration based on service oriented architecture design patterns.
- The integration processes are adaptable. Implementations can extend the data and processes to suit required business scenarios.
- There are two primary business models enabled by this connector, but the Enterprise Resource Planning System is typically the system of record for general ledger and accounts payable information as well as human resources and accounting and Oracle Utilities Work and Asset Management is typically the system of record for asset related and work related information and functions (cost accounting associated with assets and work). What typically changes, between the business models chosen, is which system owns the information and processes related to inventory and purchasing (the supply chain functions).

For the Enterprise Resource Planning System Supply Chain business model (ESC) and the Oracle Utilities Work and Asset Management Supply Chain business model (WSC), the following integration data processes are available to be implemented:

Worker (ERP -> WAM)

Enterprise Resource Planning Human Resource System integration to Oracle Utilities Work and Asset Management creates/updates valid employee and contingent worker information including profiles, learning history, certification, competencies, and qualifications as examples.

Supplier Party (ERP -> WAM)

In order for Oracle Utilities Work and Asset Management to create purchase requisitions and to plan work, suppliers or vendors are often needed as a “suggested vendor”. This requires a list of the valid vendors, which typically come from the Enterprise Resource Planning system.

Chart of Accounts (ERP -> WAM)

Enterprise Resource Planning Financials owns the list of the valid accounting combinations and cost centers so that the Enterprise Resource Planning Chart of Accounts must also be sent to Oracle Utilities Work and Asset Management as the valid charge numbers with the cost centers (budgetary accounts) and the expense codes (types of charges) being synced to Oracle Utilities Work and Asset Management.

Accounting Entry (WAM -> ERP or ERP -> WAM)

Oracle Utilities Work and Asset Management must account for all the financial transactions associated with assets and work that occurs so transactions that originate in Oracle Utilities Work and Asset Management must be sent to the Enterprise Resource Planning Financials System. Similarly when the Enterprise Resource Planning System is the source system for Inventory Transactions, the related accounting transactions can flow to the Oracle Utilities Work and Asset Management System.

Requisition (WAM -> ERP)

The Oracle Utilities Work and Asset Management purchase requisition is used as the conduit to send a purchase request to the Enterprise Resource Planning System.

Purchase Order (ERP -> WAM)

The “Issued/Approved” Purchase Orders from the Enterprise Resource Planning System must be sent back to Oracle Utilities Work and Asset Management for information. Additionally, Oracle Utilities Work and Asset Management can receive materials when using the Oracle Utilities Work and Asset Management inventory processes.

Blanket Purchase Agreement (ERP -> WAM)

The blanket contracts for the standard pricing in the stock reorder processing are sent from the Enterprise Resource Planning System to Oracle Utilities Work and Asset Management System.

Inventory Transaction (ERP -> WAM)

When inventory is managed in the Enterprise Resource Planning System Supply Chain model, all the materials are issued in the Enterprise Resource Planning System.

Item (ERP->WAM)

When Inventory materials are ordered, both applications need to reference the same valid stock item identifier. With the Work and Asset Management Supply Chain model, the direction of this interface may change for inventory items associated with asset maintenance and repair operations.

Item Balance (ERP->WAM)

When inventory is managed in the Enterprise Resource Planning System Supply Chain model, the Enterprise Resource Planning System sends the valid stock item details (storeroom) to Oracle Utilities Work and Asset Management application.

Process Inventory Receipt Transaction ((ERP->WAM)

The inventory receipt details is transferred from the primary system that is used to manage inventory depending on the selected Supply Chain model.

Storeroom (ERP->WAM)

Information related to the addition of a new Storeroom or information related to updates of existing Storeroom is transferred from Enterprise Resource Planning System to Oracle Utilities Work and Asset Management application.

Purchase Return Transaction (ERP->WAM)

When a purchased item is returned back to Supplier, the information updated in Enterprise Resource Planning system need to be transferred to Oracle Utilities Work and Asset Management application.

Material Requisition Transaction (ERP->WAM)

The material request information and information related to readiness to issue need to be transferred from Enterprise Resource Planning System to Oracle Utilities Work and Asset Management application.

Material Issue (ERP->WAM)

The items in Stock are issued based on request. This information related to issue of material is to be transferred from Enterprise Resource Planning System to Oracle Utilities Work and Asset Management application.

Material Return (ERP->WAM)

The material issued from Inventory previously may not find its use and may be returned back to Storeroom. In such case the information related to return transaction is transferred from Enterprise Resource Planning System to Oracle Utilities Work and Asset Management application.

Invoice (ERP->WAM)

Any request to purchase material leads to generation of Invoice in Enterprise Resource Planning system. This information is to be transferred from Enterprise Resource Planning System to Oracle Utilities Work and Asset Management application.

Invoice Payments (ERP->WAM)

Whenever a payment is made for an Invoice in the Enterprise Resource Planning system, the payment information is transferred from the Enterprise Resource Planning System to the Oracle Utilities Work and Asset Management application.