Oracle E-Business Suite R12.1 Standalone Applications for Release 11.5.10 Customers: How Possible?

Delivering Value in Uncertain Times

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Director, Product Strategy
Oracle Applications Development
Focus on Opportunities to Achieve Rapid Return Today

Invest in Ways to Standardize and Simplify with a Global Business Platform
Delivering Value in Uncertain Times
Summary of Release 12.1 Rapid Value Standalone Solutions

- Business Intelligence Applications
  - Procurement & Spend Analytics
  - HR & Talent Management Analytics
  - Project Analytics
  - Federal Financial Analytics

- VCP & Supply Chain Management
  - Oracle Manufacturing Operations Center
  - Oracle Advanced Planning Command Center
  - Oracle Demand Signal Repository
  - Oracle Service Parts Planning
  - Oracle Sourcing
  - Oracle Warehouse Management

- Master Data Management
  - Site Hub
  - Product Hub & PIM for Retail/Telco
  - Customer Data Hub
  - Financials Accounting Hub

- Human Resources
  - Oracle Incentive Compensation
  - Oracle iRecruitment
  - Oracle Learning Management

- UPK Tool & Content (30 products)
- Oracle Application and Change Management Packs for EBS
- Oracle GRC Applications
Oracle E-Business Suite in an Enterprise
An Overview Sample

Enterprise Platform
- Indent. Mgt
- Ent. Mgr
- OBIEE
- AIA / SOA Suite
- UPK
- Etc…
Delivering Value in Uncertain Times
Summary of Release 12.1 Rapid Value Standalone Solutions

- Business Intelligence Apps
- Master Data Management
- GRC
- EBS
- EPM
- Planning Solutions
- Ent. Platform
- PLM OTM
- Transaction Solutions
Business Intelligence Applications
Business Intelligence Solutions
Release 12.1 Rapid Value Standalone Solutions

• Procurement & Spend Analytics
• HR & Talent Management Analytics
• Project Analytics
• Federal Financial Analytics

AND

• Oracle Manufacturing Operations Center
Business Intelligence Solutions

Identify Top Savings Opportunities
Procurement & Spend Analytics

Improve Global Talent Management
HR Analytics

Make Better Decisions with Greater Insight
Project Analytics

Applications for the Apple iPhone
Oracle Business Indicators

Make Better Decisions with Greater Insight
Federal Financials Analytics

WHAT
- Prebuilt analytics for Federal Financials
- Budget execution analysis
- Spending & Payment analysis

HOW
- Track appropriations, apportionments & allotments
- Track commitments, obligations, and expenditures at different fund levels
- Visibility and drill down at each fund level: Fund, Programs, Projects, Organization, Object Class

RESULTS
- Monitor budget spending
- Improve cash flow management
- Minimize interest payments
- Minimize delinquent debt amounts
- Visibility to prepare new budgets
Business Intelligence Solutions
Built on OBI EE

Oracle Business Intelligence (BI) Applications

Common Enterprise Information Model
Oracle Business Intelligence Server

Oracle Business Analytics
Warehouse Schema

Other Datasources
IVR, ACD, CTI
Hyperion
MS Excel
Syndicated

Oracle Applications

Packaged ETL Maps
Universal Adapters

Auto | Comms. & Media | Complex Mfg. | CPG | Energy | Financial Services | High Tech | Insurance & Health | Life Sciences | Public Sector | Travel & Trans

Sales | Service & Contact Center | Marketing | Order Management & Fulfillment | Supply Chain | Financials | Human Resources

Oracle Applications

E-Business Suite
Siebel
PeopleSoft Enterprise
JD Edwards EnterpriseOne

ORACLE APPLICATIONS
## Business Intelligence Solutions
Certification

### Currently Shipping Oracle BI Applications (OBIA 7.9.6)
Certified for 11.5.8, 11.5.9, 11.5.10 and Release12+

<table>
<thead>
<tr>
<th>Oracle BI Application</th>
<th>Oracle EBS module</th>
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<tr>
<td>Financial Analytics</td>
<td>Oracle Financials (GL, Payables, Receivables)</td>
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<tr>
<td>Project Analytics</td>
<td>Oracle Projects</td>
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<tr>
<td>Human Resources Analytics</td>
<td>Oracle Human Resources, Oracle Payroll</td>
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<tr>
<td>Supply Chain and Order Management Analytics</td>
<td>Oracle Order Management, Oracle Discrete Manufacturing (for Inventory), Oracle Financials (for Receivables and Revenue)</td>
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<tr>
<td>Procurement and Spend Analytics</td>
<td>Oracle Purchasing/Procurement, Oracle iProcurement, Oracle Financials (for Payables)</td>
</tr>
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</table>
Oracle Manufacturing Operations Center
Manufacturing Operations Center (MOC)
Convert real-time shop floor data into usable intelligence with Oracle Manufacturing Operations Center

WHAT

- A separately deployable application designed to bridge the information divide between the ERP and Plant Floor
- Combines ERP data with real-time Plant Floor information within an extensible, standard-based data model, on top of which role-based analytics have been created

COMPONENTS

- Collection
- Contextualization Engine
- Data Analysis (OBI Dashboard)
Manufacturing Operations Center (MOC)
Architecture and Integration Overview

**ERP Systems**
- Other External Data
- Corporate BI (Oracle E-Business Suite 11.5.10)

**Contextualization Engine**
- Manufacturing Operations Data Model
  - Role-Based Dashboards

**Master Data, Reference Data and Transaction Data**

**Automation and Process Control Systems**
- PLC
- CNC Machines
- DCS
- SCADA Systems
- Advanced Process Control
- Human Machine Interface

**Device-Generated Data**

**Shop Floor Communication Drivers**
- MES

**Users**
- Plant Mgr / VP of Mfg
- Cross-Plant KPIs
- Historical Trends
- Plant-Specific KPIs
- Real-Time Updates

**Oracle BI**

**Production Manager**
# Manufacturing Operations Center (MOC)

## Key Data Elements

- Single Source of Truth, Single Manufacturing Operations Data Model
- Generic Manufacturing Operations Data Model

<table>
<thead>
<tr>
<th>MASTER DATA</th>
<th>REFERENCE &amp; TRANSACTION DATA</th>
<th>DEVICE DATA</th>
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<tbody>
<tr>
<td>• Equipment</td>
<td>• Resource Cost</td>
<td>• Tag Master</td>
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<tr>
<td>• Resource</td>
<td>• Item Cost</td>
<td>• Tag Readings</td>
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<td>• Equipment Hierarchy</td>
<td>• Work Orders</td>
<td>• Equipment Output</td>
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<td>• Work Order Transactions</td>
<td>• Equipment Status</td>
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<tr>
<td>• Items</td>
<td>• Material Requirement</td>
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<td>• Item Hierarchy</td>
<td>• Material Consumed Transactions</td>
<td>• Extensible Attributes</td>
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<td>• Material Produced Transactions</td>
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<td>• Calendar</td>
<td>• Resource Requirement</td>
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<td>• Calendar Shifts</td>
<td>• Resource Actual</td>
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<td></td>
<td>• Equipment Standard Rates</td>
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<td></td>
<td>• Sales Order Lines</td>
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<td>• Work Order Schedule</td>
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<tr>
<td></td>
<td>• Equipment Schedule</td>
<td></td>
</tr>
</tbody>
</table>
Manufacturing Operations Center (MOC)
ERP (Oracle E-Business Suite 11.5.10) Data Collection Process

EBS Data Acquisition

Using Oracle Warehouse Builder

EBS Entities → MOC Interface Tables → MOC Staging Tables → MOC Fact Tables

External Data Acquisition

Using Oracle Warehouse Builder

External Systems → MOC Staging Tables → MOC Fact Tables → MOC Error Tables

Manual Data Acquisition

Using Oracle Warehouse Builder

Excel Templates → MOC Staging Tables → MOC Fact Tables → MOC Error Tables
Manufacturing Operations Center (MOC)
ERP (E-Business Suite 11.5.10) Integration - Dependencies and Interactions

• Adapters to Collect Data from Oracle 11.5.10 Oracle E-Business Suite for:
  – Shift Definitions
  – Item and Item Hierarchy
  – Resource and Resource Hierarchy
  – Work orders and Flow Schedules (discrete & process)

• Oracle Warehouse Builder
  – Metadata driven ETL tool to extract data from source system
Manufacturing Operations Center (MOC)
Shop Floor Data Collection - Dependencies and Interactions

• Partner Solutions
  – KEPServerEX by Kepware Technologies
  – DeviceWise Enterprise Edition by ILS Technology
  – MatrikonOPC SFC by MatrikonOPC
Master Data Management
Oracle Enterprise Master Data Management
Create and Maintain Complete, Accurate Master Data
Manage Product Information Centrally

Oracle Product Information Hub

WHAT
- Single view of product information can be leveraged
- Manage sell-side catalog

HOW
- Consolidate, manage, and maintain product information from source systems and channels
- Maintain clean and consistent product data with configuration tools

RESULTS
- Improves speed of decision making
- Decreases cost of product management and supplies
- Reduces non-compliance

Manage Location Information Centrally

Oracle Site Hub

WHAT
- A new master data management application to manage all business processes related to physical locations (sites) such as retail stores

HOW
- A highly extensible site data specific repository combined with purpose built UI’s, integrations to related applications and mapping

RESULTS
- Enhance operational efficiency in site opening, closing or maintenance, improves decision making and increases IT agility
Oracle Site Hub
Where do “Site” info reside in an organization?

• Applications and Systems

- Property Mgmt
- Asset Mgmt
- Facilities Mgmt
- MRO
- Lease Mgmt
- Financials
- CRM
- Projects
- Virtual Design
- Engineering
- Real Estate Mgmt
- CAD/PDM
- Mfg
- SCM
- Logistics
- HR
- Transportation
- Legacy

• Business Processes

- Site Selection
- Site Opening/Closure
- Lease Administration
- Project Management
- Real Estate Management
- Facilities Management
- Site Procurement
- Site Maintenance
- Inventory Management
- Regulatory & Safety Compliancy
- Territory Management
- Logistics Management/Optimization
## Oracle Site Hub
### Integrate – Web Services

<table>
<thead>
<tr>
<th></th>
<th></th>
<th><strong>Description</strong></th>
</tr>
</thead>
</table>
| 2 | Site Services | Services for creating and updating of a Site:  
| 3 | Add a Purpose to an existing Site as specified by the Site Number.  
| 4 | Adds an existing Site to an existing Cluster.  
| 5 | Adds an existing Site to an existing Hierarchy.  
| 6 | Associates an existing Site to an existing Trade Area Group.  
| 7 | Creates a Site.  
| 8 | Updates the Site header and address based on the Site Number specified.  
| 9 | Get Site Information | PL/SQL  
| 10 | Basic Attributes of a Site and Basic details (like Address and Purpose)  
| 11 | Associations of a site (like Trade Areas, Clusters and Hierarchy)  
| 12 | Attributes of a Site (These are the UDA's for various entities i.e. Site, Location and Trade Area)  
| 13 | Contacts of a Site (like Phone, Email, URL and other contact details)  
| 14 | Attachments related to the Site. (If there are any documents of links created as attachments for this Site)  
| 15 | Asset Details attached to this Site (like Details of any assets attached to  
| 16 | User defined attributes updated | PL/SQL  
| 17 | Update Cluster Event | Business Event  
| 18 | Update Hierarchy Event | Business Event  
| 19 | Update Site Event | Business Event  
| 20 | Create Cluster Event | Business Event  
| 21 | Create Hierarchy Event | Business Event  
| 22 | Create Site Event | Business Event  
| 23 | Post Attribute Change Event | Business Event  
| 24 | Pre Attribute Change Event | Business Event  
| 25 | Site Bulkload Event | Business Event  

PL/SQL APIs are easily enabled as web services.
Oracle Site Hub
Consolidate – Data Collection

Consolidate

Collection

Spreadsheet

Data Quality

Centralized Data Model

Manual Creation

Bulk Load

Govern

Cleanse

Share

Trusted Site Data

EBS
Siebel
PeopleSoft
Custom
Legacy

• Simplify loads via Excel import / export – WebADI for EBS
• Create/Update Sites via Web Services
• Data Quality – Cleanse and Standardize

Aggregate Data from Multiple Sources into Repository
Oracle Site Hub
Share – Publish Data

- Web services as a foundation for SOA architecture
- Reduce integration cost

Easily Manage and Share Site Information
Oracle Site Hub Deployment Options
Option#1: Site Hub and Oracle E-Business Suite in One Global Instance

Oracle E-Business Suite
With
*Embedded*
Site Hub

Oracle E-Business Suite Release 12.1

Middleware

- Siebel
- SAP
- Legacy
- External Apps
Oracle Site Hub Deployment Options
Option#2 – Oracle E-Business Suite as a Spoke to the Site Hub

Oracle E-Business Suite
Release 12.1

Oracle MDM:
Site Hub
Release 12.1

Oracle E-Business Suite
R11i or
R12.0 or
R12.1

Middleware

Siebel
SAP
Legacy
External Apps
Planning Solutions
Release 12.1 Rapid Value Standalone Solutions

- Demand Signal Repository (*)
- Service Parts Planning (*)
- Advanced Planning Command Center (*)
- Collaborative Planning
- Demand Management
- Inventory Optimization
- Strategic Network Optimization

(*) New in Release 12.1
Oracle Demand Signal Repository

Planning Solutions
- Demand Signal Repository
- Service Parts Planning
- Advanced Planning Command Center
Demand Signal Repository (DSR)

WHAT

– A separately deployable application designed to maintain a consolidated view of demand information between the Manufacturer and Retailer to facilitate the transition to demand-driven

COMPONENTS

– Data Collection
– Integration Services
– Pre-Built Integrations
– Data Analysis (OBI Dashboard)
Demand Signal Repository (DSR)
Solution Integration Overview

- **Retail Store Data**
  - POS sales
  - Store inventory
  - Store Orders
  - Promotional plans
  - Store forecasts

- **Retail DC/Distributor Data**
  - DC shipments
  - DC inventory

- **External Data**
  - IRI/AC Nielsen
  - 3rd party demographic
  - Causal (weather, etc.)
  - RFID/EPC
  - IMS, NDC, EDI (867, 852), Scripts,
  - Unstructured text

Oracle Applications
- **Oracle Applications**
  - DEMANTRA DEMAND MANAGEMENT

Non-Oracle Applications
- **Non-Oracle Applications**
  - TRADE PROMOTION PLANNING & OPT
  - SALES & OPERATIONS PLANNING
  - SUPPLY & DISTRIBUTION PLANNING
  - PRODUCT LIFECYCLE MANAGEMENT

SOA-Based Integration
- **SOA-Based Integration**

Pre-Built Integration
- **Pre-Built Integration, via an Adapter**

Data Upload
- **Data Upload**

Demand Signal Repository
- **Demand Signal Repository**
  - CAPTURE
  - MANAGE
  - ANALYZE
  - RESPOND
  - INTEGRATE
Demand Signal Repository (DSR)
Data Upload Process – Fact Data Example

Data Collection via Oracle Warehouse Builder Process

Source File → Interface Table → Staging Table → Target Table

Common Validations:
• Formatting & Codes
• Unrecognized or Ambiguous Items or Locations
• Unauthorized/New items
• Missing Allocation Pattern
Demand Signal Repository (DSR)
Integration - Web Services

- DSR Web Services enable sharing DSR data with complementary applications such as:
  - Manufacturer applications
  - Retailer applications

- These web services provide cleansed retail point of sale, on-hand inventory and other data at daily store level, or aggregated to a higher level as needed.
Demand Signal Repository (DSR)
Integration - Web Services

- Web Services publishes Retailers’ data that is stored in DSR fact tables to the calling application; the fact tables are:
  - RETAIL SALE RETURN ITEM DAY
  - PROMOTION PLAN
  - INVENTORY ITEM STATE
  - RETAILER ORDER ITEM DAY
  - SALE FORECAST ITEM BY DAY
  - RETAILER SHIP ITEM DAY
  - COMPETITOR SALES RETURN DATA

- Web Services provides detailed and aggregate level data
  - Output data is provided in XML format in an XML file
  - Output currency is the Reporting Currency
  - Output UOM is in Primary UOM
Demand Signal Repository (DSR)
Solution Pre-requisites

- Demand Signal Repository can be implemented without installing any of Oracle E-Business Suite modules
- Available with Release 12.1
- Specific Technology Needed
  - Oracle Warehouse Builder 10.2.0.4
  - Oracle BI EE 10.1.3.4
  - **Oracle Data Integrator 10.1.3.4** (for RMS* integration)
  - Oracle Database 10g or 9i2, Oracle iAS 10gR3, 11g
  - Oracle FMW – SOA Suite - Web Services - Version: 10.1.3.3

*RMS: Retail Merchandising System
Demand Signal Repository (DSR)  
Dependencies and Interactions

• Dependencies on Other Products  
  – None

• Other Products Dependent on this Product Solution  
  – None

• Pre-packed Integrations/Adapter - Optional
  1. Oracle Retail Merchandising System, (RMS) 10.0 or higher
     • The adapter to RMS can be purchased separately
  2. Demantra Demand Management 7.2.0.2, 7.3*
     • This pre-packed integration is part of the DSR solution
Oracle Service Parts Planning

Planning Solutions
- Demand Signal Repository
- Service Parts Planning
- Advanced Planning Command Center
Service Parts Planning (SPP)

WHAT

– A new application within Oracle Value Chain Planning designed to support the increasing importance of after-market service through the management of service parts

COMPONENTS (when deploying with 11.5.10)

– Collections
– Forecasting and Replenishment Engine
– Order Release
Service Parts Planning (SPP)
Integrated Solution

Value Chain Planning (VCP)

Demand Management (DM)

Inventory Optimization (IO)

Collaborative Planning (CP)

Service Parts Planning (SPP)

Strategic Network Optimization (SNO)

Oracle E-Business Suite (EBS)
11.5.10 and 12.1
Service Parts Planning (SPP)
Architecture

**UI - Advanced Planning Command Center**

- EMBEDDED ANALYTICS

**R12.1 VCP Instance with SPP**

- Operational Data Store (ODS)
- PLANS

**Collections**

**Database Links**

**ERP**
- EBS 11.5.10
- EBS 12.0
- EBS 12.1

**Legacy**

**OBIEE**

**Oracle Database 11g**
Service Parts Planning (SPP)
Solution Pre-requisites

• Need to Install Value Chain Planning (VCP) R12.1
  – But only setup Oracle Service Parts Planning
  – Install VCP 12.1 on a separate instance from EBS 11.5.10

• Specific Technology Needed
  – None beyond Release 12.1 technology stack
Service Parts Planning (SPP)
Dependencies and Interactions

• Dependencies on Other Oracle EBS 11.5.10 Products (for running SPP)
  – Oracle Purchasing
  – Oracle Order Management
  – Oracle Inventory

• Dependencies on Other Oracle VCP 12.1 Products (for running SPP)
  – Oracle Demand Management (optional)
  – Oracle Inventory Optimization (optional)
  – Oracle Collaborative Planning (optional)
Service Parts Planning (SPP)
Data to be Collected from ERP

- Item Attributes
- Order Types:
  - External Repair Orders, Internal Repair Orders
  - Purchase Orders, Sales Orders, On Hand
- Organizations
- Manufacturing Forecast
- Field Service Usage History
- Depot Usage History
- Shipment History
- Parts Returns History
- Product Returns History
- Install Base History
Service Parts Planning (SPP)
Collections Workbench (UI) - Overview

Data Collection using PL/SQL Procedures via Database Links

Other Capabilities
- Drill Down to Supply/Demand Detail
- Drill Down to Item Detail

View all collected data in the Plans tab
Define Queries in the Query tab
View collected data along different dimensions
Service Parts Planning (SPP)
Orders to be Released to ERP

• Four kinds of planned orders can be released from Service Parts Planning
  – Planned External Repair Orders
  – Planned Internal Repair Orders
  – Planned New Buy Orders
  – Planned Transfers
Advanced Planning Command Center (APCC)
Elevates Planning Insights

WHAT

- A new application built on top of Oracle Advanced Planning that maximizes the value of your planning information by increasing accessibility and strengthening business orientation

- Elevates the power of planning and planning insights to the business decision making level. Does for Supply Chain Planning what Hyperion does for Financials

COMPONENTS

- Collection from ERP (i.e. EBS 11.5.10)
- Collection from APS 11.5.10 (push)
- All Analytical Capabilities
- Plan Archival
- Scenario Management
APCC Integration with APS 11.5.10
Deployment and Configuration

APS 11.5.10

- APS Operational Data Store 11.5.10
- Oracle Demantra 7.1/7.2
- Advanced Supply Chain Planning 11.5.10

APS 12.1

- APS Operational Data Store 12.1
- Advanced Planning Command Center 12.1

Multiple EBS (11.5.10) or Legacy instances

Collect into both instances

APCC Integration with APS 11.5.10
Setup and Process

**STEPS ON APS 11.5.10 SERVER**

- Run Collections from EBS/Source
  - Setup all required Profiles
  - Define Plans
    - Launch plans with “Export to APCC” option
      - System launches Archive Plan Summary program
        - Manually launch Archive Plan Summary program
          - Purge Plan Summary

**STEPS ON 12.1 APCC SERVER**

- Run Collections from EBS/Source
  - Setup all required Profiles
    - Create Scenarios
      - Assign Plans to Scenarios
        - Sales and Operations Planning Analyst Dashboard
          - Supply Chain Analyst Dashboard
APCC Integration with APS 11.5.10

Business Value

• Leverage following key capabilities of Advanced Planning Command Center without a 12.1.1 upgrade of Planning systems
  – All Analytical Capabilities
  – Plan Archival
  – Scenario Management

• Support for a global APCC 12.1.1 instance that can integrate with multiple APS 11.5.10 servers. Enables a single source of truth for the global supply chain of an enterprise.
APCC Integration with APS 11.5.10

Limitations

- **No Contextual Drilldowns**
  - Contextual drilldowns from APCC to ASCP and Demantra applications will be available only in the configuration where APS Server is upgraded to 12.1 and co-located with APCC.

- **Need to collect into both APCC and APS instances**
  - The source (EBS/Legacy) data needs to be collected into both APCC and APS instances with identical instance code.
  - In APCC this is used only required for dimension data. So could be less frequent for APCC.

- **No support for Strategic Network Optimization**
  - This will be available only in the configuration where APS Server is upgraded to 12.1.

- **Planning Web Services and BPEL Processes not enabled for these plans**
  - The plans from the APS 11.5.10 Server are not enabled in LOVs in Processes tab of Advanced Planning Scenario Manager in APCC in the 12.1 instance.
  - But these plans are accessible from the scenarios tab in Advanced Planning Scenario Manager in APCC 12.1 to build scenarios using Plans & Forecasts from APS 11.5.10 Server.
  - Users can still save multiple archives of a plan from APS 11.5.10.
Advanced Planning Command Center
Solution Pre-requisites

• Need an APS 11.5.10 Instance
  – Patch 8461280 and its pre-reqs as in its readme, APCC 12.1 Backport/Integration with 11.5.10 patch
  – Can deploy APCC 12.1.1 with multiple APS 11.5.10

• Install the Oracle E-Business Suite 12.1.1
  – But only setup APCC 12.1.1
  – APCC 12.1.1 Installation
    • Metalink Note 759571.1: “Oracle Advanced Planning Command Center
  – Patch 8461268 and its pre-reqs as in its readme, APCC 12.1 Backport/Integration with 11.5.10 patch
Advanced Planning Command Center
Solution Pre-requisites - Technologies

• Specific Technology Needed
  – OBIEE 10.1.3.4
  – The data upload from EBS 11.5.10 to the APCC instance is through the database link. This is used by the archive plan summary program to push the plan summary from the 11.5.10 Planning Server to the APCC Server.
Advanced Planning Command Center
Dependencies and Interactions

• Dependencies on Other Oracle 11i10 Products
  – Oracle Inventory
  – Oracle HR
  – Oracle Purchasing
  – Oracle Manufacturing
  – Oracle Projects
  – Oracle Supply Chain Intelligence
  – Oracle Order Management
  – Oracle GL
  – Oracle Bill of Materials

• Other Products Dependent on this Product
  – None beyond Release 12.1 technology stack
Advanced Planning Command Center
Data to be Collected from E-Business Suite 11.5.10

- Items / Product Families / Item Categories
- Organizations
- Bills of Material
- Projects / Tasks
- Suppliers and Customers
- Calendars
- Resources
- Regions and Zones
- Demand classes
- Currency conversion rates
- Purchase orders, sales orders, work orders, on hands, shipment receipts, purchase requisitions, forecasts, shipment history, booking history, production history, in transits

Data Collection via PL/SQL Procedures via Database Links
Advanced Planning Command Center
Data to be Collected from APS 11.5.10

- Demantra Forecasts
- ASCP plan outputs in summary form (bucketed by day)
  - Demands
  - Supplies and recommendations
  - Exceptions
  - Key performance indicators
- IO plan outputs in summary form
  - Demands
  - Supplies and recommendations
  - Key performance indicators
  - exceptions

Data Collection via PL/SQL Procedures via Database Links
Transaction Solutions
Transaction Solutions
Rapid Value Standalone Solutions

• Distributed Deployment Option
  • Oracle Warehouse Management
  • Oracle Manufacturing Execution System
  • Oracle Enterprise Asset Management

• Standalone Solutions
  • Oracle Sourcing
  • Oracle Incentive Compensation
  • Oracle iLearning
Distributed Warehouse Management

Transaction Solutions - Distributed

- Oracle Warehouse Management
- Oracle Manufacturing Execution System
- Oracle Enterprise Asset Management
Distributed Warehouse Management

Business Drivers

Facilitate Outsourcing
How to serve the needs of LSPs for a warehouse solution that handles complexity and integration with client systems?

Distributed WMS
- WMS instance decoupled from EBS
- Easily integrate with host system
- Streamlined processes & visibility

WMS for Non-EBS Host
How can I use WMS to manage my warehouse with a non-EBS host system?

Ensure High Availability
How to ensure that a mission critical application like WMS is available 24*7?

Leverage Features in Recent WMS Release
How can I use the features in the latest WMS release without upgrading the whole application suite?
Distributed Warehouse Management

Overview

WMS at Warehouse level fully integrated with the central ERP instance
Distributed Warehouse Management
Integrated but Decoupled WMS

Host Instance Supporting Financials, Order Management & Procurement

Host System (EBS or Non-EBS)

R11i or R12.0 or R12.1

Order Management
Procurement
Financials
Master Data Management

Integration Framework

Integrated but Decoupled WMS Instances

European DCs
Manufacturing Plants
LSP Warehouse
Remote Warehouse

Distributed WMS Instances Supporting Warehouse Execution
Integration template for transaction docs using Oracle Data Integration (ODI) will be provided.

- **Host System**
  - **Non-EBS**
  - **E-Business Suite (EBS)**
  - **ODI Interface**

- **ODI Interface**
  - **Distributed WMS**
    - **Outbound Logistics**
    - **Inbound Logistics**

- **Host instance with Financials, OM, PO and Inventory Org**

- **WMS Enabled Org with detailed WMS setup, change control and OTM integration**
Distributed Warehouse Management
Inbound Flow

- Purchase Order entry and payables process will be carried out in host instance
- Distributed WMS Instance will have basic purchase order management capabilities
- Distributed WMS can receive inbound ASNs and perform receipts against them
- Some integration work will be required
Distributed Warehouse Management
Outbound Flow

- Order entry and receivables process will be carried out in host instance
- Distributed WMS Instance will have basic order management capabilities
- Distributed WMS can generate shipping documents as well as outbound ASNs
- Some integration work will be required
Distributed Warehouse Management
Integration Points

- ODI makes it easier for migrating and transforming data across database instances
- Besides ODI Integration is also possible using Open Interfaces/Public APIs/Processes

<table>
<thead>
<tr>
<th>Process</th>
<th>Document Reference</th>
<th>Category</th>
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<td>Outbound</td>
<td>Shipment Advice</td>
<td>ERP</td>
</tr>
<tr>
<td>Outbound</td>
<td>Shipment Confirmation</td>
<td>WMS</td>
</tr>
<tr>
<td>Inbound</td>
<td>Receipt Advice</td>
<td>ERP</td>
</tr>
<tr>
<td>Inbound</td>
<td>Receipt Confirmation</td>
<td>WMS</td>
</tr>
<tr>
<td>Materials Management</td>
<td>Stock Adjustment and Other Transactions</td>
<td>Provider</td>
</tr>
<tr>
<td>Master Data</td>
<td>Item Master Data</td>
<td>Receiver</td>
</tr>
<tr>
<td>Master Data</td>
<td>Customer Data</td>
<td>Receiver</td>
</tr>
<tr>
<td>Master Data</td>
<td>Vendor Data</td>
<td>Receiver</td>
</tr>
</tbody>
</table>
Standalone Sourcing

Transaction Solutions - Standalone
  • Oracle Sourcing
  • Oracle Incentive Compensation
  • Oracle iLearning
Oracle Sourcing
Other Related Standalone Solutions

• Procurement Contracts
• Procurement On Demand

• **Session ID:** S311562
  – **Title:** Oracle Procurement Road Map: New and Expanding Deployment Options
  – **Date/Time:** Wednesday 14-Oct-09 11:45-12:45
  – **Room:** Moscone West L2 Room 2011
Standalone Sourcing

WHAT

– A separately deployable application designed to carry out Strategic Sourcing activities in a standalone mode, integrating outcome agreements back to the E-Business Suite purchasing system

COMPONENTS

– Data Collection
– Sourcing and Negotiation Engine
– Pre-Built Integrations
Standalone Sourcing
Configuration Flow

Extract data from ERP
Populate WebADI templates
Run WebADI scripts

Common Validations:
• Formatting
• Codes (UOM, Currency, Business Unit Types, etc.)
• Duplicate records
Standalone Sourcing
Configuration Flow

Items setup

Select a viewer for the template document

Downloaded template

Upload from templates
Standalone Sourcing
Integration to back-office Procurement Application

Export Outcome document from Standalone Sourcing

Initiate upload process in the back-office application

Downloaded to desktop

Upload to Procurement application complete
## Standalone Sourcing

WebADIs for Data Collection

<table>
<thead>
<tr>
<th>Setup Name</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locations</td>
<td>User can create new locations</td>
</tr>
<tr>
<td>Business Groups</td>
<td>User can create new Business Groups</td>
</tr>
<tr>
<td>Operating Units</td>
<td>User can create new Operating Units</td>
</tr>
<tr>
<td>Inventory Organizations</td>
<td>User can create new Inventory Organizations</td>
</tr>
<tr>
<td>Employee/Buyer/User</td>
<td>User can create new employee, buyer, user by entering clean data</td>
</tr>
<tr>
<td></td>
<td>Selection criteria is used to search for the existing employee</td>
</tr>
<tr>
<td>Supplier/Address/Contact</td>
<td>User can create new supplier, address, contact by entering clean data</td>
</tr>
<tr>
<td></td>
<td>Selection criteria is used to search for the existing supplier</td>
</tr>
<tr>
<td>Jobs</td>
<td>User can create/update Job details</td>
</tr>
<tr>
<td>Positions</td>
<td>User can create/update Position details</td>
</tr>
</tbody>
</table>
## Standalone Sourcing

### WebADIs for Data Collection

<table>
<thead>
<tr>
<th>Setup Name</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calendars</td>
<td>User can create new period type, period set, periods</td>
</tr>
<tr>
<td>UOM Classes</td>
<td>User can create / update the UOM class details</td>
</tr>
<tr>
<td>UOMs</td>
<td>User can create / update the UOMs</td>
</tr>
<tr>
<td>Currencies</td>
<td>User can add/update currencies</td>
</tr>
<tr>
<td>Conversions</td>
<td>User can enter conversion rates for Standard/Inter/Intra Class conversions</td>
</tr>
<tr>
<td>Currency Conversions</td>
<td>User can define currency conversions</td>
</tr>
<tr>
<td>Item Categories</td>
<td>User can create / update the Item Categories</td>
</tr>
<tr>
<td>Items</td>
<td>User can create / update the Items</td>
</tr>
</tbody>
</table>
Oracle Incentive Compensation

Transaction Solutions - Standalone

- Oracle Sourcing
- Oracle Incentive Compensation
- Oracle iLearning
Oracle Incentive Compensation
Transactional Based Variable Compensation

Collect Transactions
- Open Collections
  - EBS or External Tables
  - Spreadsheets
    - Manual Adjust
  - Flexible Plan Rules

Calculate
- Calculation Engine
  - Align & Credit
  - High Performance Calculations
    - Eyes closed Retro
    - Incremental Calc

Analyze
- Incentive Analytics
  - Attainment Tracking
  - Plan Performance & Cost
  - What-If Scenarios
  - Ad Hoc Analysis
  - Transaction Drill

Distribute Payment
- Payment Interface
  - Approval Workflow
  - Draws, Recovery
  - Adjustments
  - Oracle Total Comp

EBS Payroll /AP or 3rd party
Oracle Incentive Compensation
Stand-alone Release 12.1 OIC – How it is Done?

Release 11i

1) Collect
2) 1 to 1 Mapping
3) Collect
4) Typical OIC processing
   • Load
   • Calculate
   • Distribute Payment

OM
AR
Payroll
AP

Release 12.1

1) Collect
2) 1 to 1 Mapping
3) Collect
4) Typical OIC processing
   • Load
   • Calculate
   • Distribute Payment

OM
AR
Payroll
AP

OIC Transaction Interface
OIC Transaction Interface
OIC Payment Interface
OIC Payment Interface

Legacy

Legacy

Legacy
Oracle Incentive Compensation (OIC)
Pre-requisite and Dependencies & Interactions

• Install EBS 12.1 on Separate Instance
  – But only setup OIC 12.1

• Integration with EBS 11i or Release 12.x
  – Oracle Receivables
  – Oracle Order Management
  – Oracle Payables
  – Oracle Payroll
Oracle Incentive Compensation (OIC)
Integration – Data Collection

- **Open Collection – UI Tool – part of OIC Workbench**
  - Configurable data mappings (tables and field mapping)
  - Transforms and loads into OIC interface tables

- **Seeded Collection - Out-of-the-box mapping & collection from EBS 11i & 12.x**
  - Order Management
  - Account Receivable

- **Integration - Best Practices for Open Collection**
  - OIC Open Collection tool (for < ~10 interfaces)
  - Oracle Data Integrator (ODI) (for > ~10 interfaces)
  - SOA, BPEL PM (If process orchestration is needed to prepare the data)
Oracle Incentive Compensation (OIC)
Data to be Collected and Released from 11i Core ERP

• Data Collection
  – Participants (periodic synch)
    • Customer Service Agents or Account Managers (employees)
    • Partners
  – Sales Orders (periodic synch)

• Data to be Released/Calculated/Produced
  – Commission to be paid to the participants
Oracle Incentive Compensation (OIC)
Integration – Data Collection – Out-of-the-Box Integration

• If you are an E-Business Suite HR user
  – we provide an integration to publish commission payments to Compensation Workbench and the Total Compensation Statement

• If you are a PeopleSoft HCM user
  – Provide integration to synchronize “Participants”
  – Supports both employees and non-employees to OIC sales reps
  – BPEL orchestrates the transformation between PeopleSoft to OIC
  – Pre-Req: PeopleSoft HR 8.9

• With AIA 2.5:
  – Oracle Transportation Mgmt PIP for variable driver pay
  – Siebel CRM Integration
Oracle Incentive Compensation (OIC)
Integration AIA 2.5 - Siebel CRM Integration

<table>
<thead>
<tr>
<th>Processes Enabled</th>
<th>Overview</th>
</tr>
</thead>
</table>
| **1. Order to Commission**  
Siebel CRM to EBS OIC | • Participant Synch between Siebel Sales and Siebel PRM to OIC  
• Synch Siebel Sales Order to OIC  
• Commission reporting |

Certified against:
• Siebel Sales, PRM, Order Management 7.8, 8.0, 8.1 SIA  
• EBS Oracle Incentive Compensation 12.1  
• Oracle Data Integrator

(Data Flows)
- Periodic Synch of Trx - Order to Compensation  
- Periodic Synch of Compensated Participants

(UI Flows)
- Commission Reporting  
- Get Commission Report
Extra Slides
**Distributed** Manufacturing Execution System (MES)

**Transaction Solutions - Distributed**
- Oracle Warehouse Management
- **Oracle Manufacturing Execution System**
- Oracle Enterprise Asset Management
Agenda
Distributed Manufacturing Execution System

• Business Need
• Architecture
• Benefits
• How the Integration works
• Q&A
Business Need

- MES to Support 24x7 Manufacturing Operations
- Real-time Event Driven Operations Management
- Global Visibility and Control Across Multiple Plants
- Uptake MES without Upgrading ERP
- Simplified Setup for MES
Distributed Discrete MES

MES at plant level fully integrated with the central ERP instance
Distributed Manufacturing Execution System (MES)

Architecture Overview

Planning / 3rd Party

ERP Instance

Inbound Txn Services

Oracle Data Integrator

Inbound Data Services

Inbound Setup Services

Distributed MES Instance

- Receiving
- Maintenance
- Quality
- MES
- Inventory
- Shipping
- HR
Distributed Manufacturing Execution System (MES)

Benefits

Leverage Latest Features
• Uptake latest MES 12.1.1 features without having to upgrade entire ERP

Choice of Distributed Footprint
• Deploy Inventory, WMS, Maintenance, Shipping distributed along with MES as necessary

Ensure High Availability
• Support 24 x 7 manufacturing operations
• Unaffected by ERP downtimes

Easy to Setup & Integrate with ERP
• Can be setup in minimal steps
• Easily integrate with existing ERP using sample ODI maps from Oracle
• Same Data model = Easier Integration
• Create custom ADF UIs easily using web services
How the Integration Works

Move Transaction carried out in MES Instance

Move Replayed in ERP Instance
ODI Maps

Sample ODI Maps for data movement from MES to ERP

- Job Creation
- Move Transactions
- Resource Transactions
- Material Transactions
Importing Topology

Navigation for Importing Topology

Zip file
Importing Topology

Data Server

Physical Schemas
Importing Work Repository

Navigation for Importing Work Repository

Zip file
Move ODI Map

Source Datastores

Target Datastore

Filters

Mappings
ODI Package

Procedure To process material transaction

Job Creation Interface
ODI Scenario

Frequency of Execution
# Routing Mapping Table in ODI

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>assembly_item_id</td>
<td>The inventory item id of the assembly</td>
</tr>
<tr>
<td>organization_id</td>
<td>Organization identifier</td>
</tr>
<tr>
<td>start_op</td>
<td>The first operation in MES that will be reported to MAP_TO_OP in ERP</td>
</tr>
<tr>
<td>end_op</td>
<td>The last operation in MES that will be reported to MAP_TO_OP in ERP</td>
</tr>
<tr>
<td>map_to_op</td>
<td>The corresponding operation in ERP</td>
</tr>
<tr>
<td>last_op</td>
<td>The last operation of the routing in MES</td>
</tr>
</tbody>
</table>

## Example Data

<table>
<thead>
<tr>
<th>Starting Operation</th>
<th>End Operation</th>
<th>ERP Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>40</td>
<td>70</td>
<td>20</td>
</tr>
<tr>
<td>80</td>
<td>80</td>
<td>30</td>
</tr>
<tr>
<td>90</td>
<td>90</td>
<td>40</td>
</tr>
</tbody>
</table>
# Configurable Dispatch List

## Personalization

### Dispatch List

<table>
<thead>
<tr>
<th>Select Job Op</th>
<th>Assembly</th>
<th>Serialized</th>
<th>Ready</th>
<th>Clock In/Out Action Name</th>
<th>Start Date</th>
<th>Total Qty Op</th>
<th>Prior UOM</th>
<th>Exception</th>
<th>Customer</th>
<th>Shift</th>
<th>Express Move Qty Complete</th>
<th>Scrap</th>
</tr>
</thead>
<tbody>
<tr>
<td>248506:10</td>
<td>Laptop Z600</td>
<td>☑️</td>
<td>☑️</td>
<td>☑️</td>
<td>22-Sep-2008 07:00:00</td>
<td>5</td>
<td>Ea</td>
<td></td>
<td>Alliance Systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>248507:10</td>
<td>Laptop Z600</td>
<td>☑️</td>
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<td>Ea</td>
<td></td>
<td>Alliance Systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>248512:10</td>
<td>Laptop Z620</td>
<td>☑️</td>
<td>☑️</td>
<td>☑️</td>
<td>22-Sep-2008 07:00:00</td>
<td>10</td>
<td>Ea</td>
<td></td>
<td>Department of Defence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>248510:10</td>
<td>Laptop Z610</td>
<td>☑️</td>
<td>☑️</td>
<td>☑️</td>
<td>22-Sep-2008 07:00:00</td>
<td>10</td>
<td>Ea</td>
<td></td>
<td>Department of Defence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>248511:10</td>
<td>Laptop Z620</td>
<td>☑️</td>
<td>☑️</td>
<td>☑️</td>
<td>22-Sep-2008 07:00:00</td>
<td>10</td>
<td>Ea</td>
<td></td>
<td>Department of Defence</td>
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<td></td>
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<td>☑️</td>
<td>☑️</td>
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<td>Ea</td>
<td></td>
<td>Department of Defence</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Dispatch List Ordering Parameter

- **Operation Start Date:** Ascending
- **Assembly:** Ascending
- **Custom Order Attribute:** Ascending

---

*Oracle*
**Configurable Dispatch List**

**Personalization**

## Dispatch List

### Transactions

<table>
<thead>
<tr>
<th>Select</th>
<th>Job Op</th>
<th>Assembly</th>
<th>Ready</th>
<th>Clock In/Out Action</th>
<th>Total Qty Op</th>
<th>Prior UOM</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>248506:10</td>
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<td>✓</td>
<td></td>
<td>5</td>
<td>Ea</td>
<td></td>
<td>5</td>
</tr>
<tr>
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<td>248507:10</td>
<td>Laptop Z600</td>
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<td>10</td>
<td>Ea</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Actions:** Launch Resource Workbench
New Web Services

Following new Web Services can be used to create Simple Custom UIs

- Dispatch List
- Job Creation
- Move Transaction
- Job Completion Transaction
Simple UIs
Build flexible UI declaratively using ADF framework

Completion web service

Quantity Available reduced by 1

Server