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Announcing Oracle E-Business Suite Innovations in 2021

We are pleased to announce the Oracle E-Business Suite (EBS) innovations made available in release updates throughout 2021, the largest being Oracle E-Business Suite 12.2.11 and the EBS Enterprise Command Centers - November 2021 Update that we are delivering today.

These latest releases follow the EBS Enterprise Command Centers - March 2021 Update and Oracle E-Business Suite Cloud Manager 21.1.1 and 21.1.1.1 Updates, delivered in July and September, respectively.

The continuing pattern of new releases is consistent with our strategy of continuous innovation on Oracle E-Business Suite 12.2, which delivers ongoing applications and technology updates without a major upgrade, along with Oracle Premier Support for Oracle E-Business Suite 12.2 through at least 2032.

In the pages that follow, we share highlights of the 2021 innovations grouped under the categories of "Modern User Experience", "Functional Innovation", and "Operational Efficiency".

Cliff Godwin, Senior Vice President, Applications Development, provides his color commentary in the related "Oracle E-Business Suite: Innovations in 2021" video. The video complements the "Oracle E-Business Suite Enterprise Command Centers - March 2021" video that Cliff recorded earlier this year.

Modern User Experience:

Enterprise Command Centers (ECC): EBS Enterprise Command Centers, introduced in October 2018, continue to be a focus for investment. Our full ECC offering now includes 32 command centers with more than 110 dashboards across the following E-Business Suite product areas:

- **Financials:** Receivables, iReceivables, Payables, Assets, Lease Contracts (Financials), Lease and Finance Management
- **Procurement and Projects:** iProcurement: Consumer-like Shopping, Procurement, Projects, Project Procurement, Contract Lifecycle Management for Public Sector
- **Order Management and Logistics:** Order Management, Inventory Management, Advanced Pricing, iStore: Modern Shopping Experience, Landed Cost Management, Channel Revenue Management, Incentive Compensation
- **Manufacturing:** Discrete Manufacturing, Process Manufacturing, Outsourced Manufacturing, Project Manufacturing, Cost Management, Quality
- **Asset Lifecycle and Service:** Enterprise Asset Management, Asset Tracking, Service Contracts, Service (TeleService), Field Service, Depot Repair
- **Human Capital Management:** Human Resources, Payroll

Increasingly, users can start their E-Business Suite sessions with command center dashboards that let them browse and drill on key indicators, charts and graphs and leverage consumer-like search and filters to quickly identify and act on their highest business priorities.

With command centers, users have a better, more productive user experience, while IT has reduced demand for custom operational reports.

Enterprise Command Centers are easy to deploy, and are available at no additional cost to licensed users of the underlying E-Business Suite products. While you must be running E-Business Suite 12.2.4 or higher to deploy the command centers, you need not be running one of the latest 12.2.X release levels, such as 12.2.11, to uptake the latest command center updates.

- **New Command Centers, New Dashboards and Updates to Existing Dashboards** – EBS Enterprise Command Center Updates in March 2021 and November 2021 delivered the following new command centers and dashboards, as well as enhancements to existing dashboards:
  - **2 New Command Centers**
    - Payroll Command Center
    - Project Manufacturing Command Center
  - **8 New Dashboards in Existing Command Centers**
    - Discrete Manufacturing: Genealogy & Trace
    - Discrete Manufacturing: Assembly Completions
    - Quality (for Process Manufacturing): Sample Inspections and Sample Analysis

- Costing (for Process Manufacturing): WIP Valuation
- Inventory: Space Utilization and Slotting
- Asset Tracking: Assets
- Projects: Billing
- Service: Charges

- **ECC Framework Enhancements –** the ECC Framework, used to create and modify command centers, includes these 2021 updates:
  - Network Diagram
  - Pop-ups within Dashboards
  - APEX Integration with ECC
  - Look-Ahead Visualizations in Chart Cascading
  - Waterfall Chart
  - Color Pinning in Charts
  - Relative Date Range Filters
  - Export to PDF
  - Default Saved Search

- **Pop-ups within Dashboards –** a new ECC pop-up capability lets users take quick action from within dashboards, reducing the need to navigate to separate transaction pages. Here are some example cases:
  - Procurement: Reassign Requisitions
  - Order Management: Release Holds
  - Service: Uptake Tasks
  - iReceivables: Cancel Dispute
  - Advanced Pricing: Update Price Lists
  - iProcurement: Item Details

- **Payroll Command Center** – a new Payroll Command Center helps you better manage the payroll cycle and reduces your reliance on operational reports.

  Before a payroll run, you can find and fix data exceptions that might cause processing errors. After a run, you can reconcile results – investigating any discrepancies across payrolls and periods, with drilldown to element and assignment details.

  You can simplify your tax statutory reporting – analyzing and reporting tax balances at federal, state, and local levels (with initial scope focused on United States legislation.)

  Example Payroll Command Center use cases include:

  - Identify and Correct Critical Employee Data to Ensure Successful Payroll Processing
  - Identify Overtime Costs to Reduce Payroll Budget Overages

- o   Identify and Minimize Check Payments to Encourage Direct Deposit Signup

- **Discrete Manufacturing Command Center: Genealogy &Trace –** in March 2021, we added Genealogy & Trace capabilities to the Discrete Manufacturing Command Center to enable efficient tracing of product genealogy for root cause and impact analysis. In November 2021, we enhanced those capabilities with dashboard pop-ups and other optimizations.

  In the "Oracle E-Business Suite: Innovations in 2021" video, we show how a quality manager can use our Discrete Manufacturing: Genealogy & Trace solution to investigate and act on a product quality problem, in this case with gearbox assemblies.

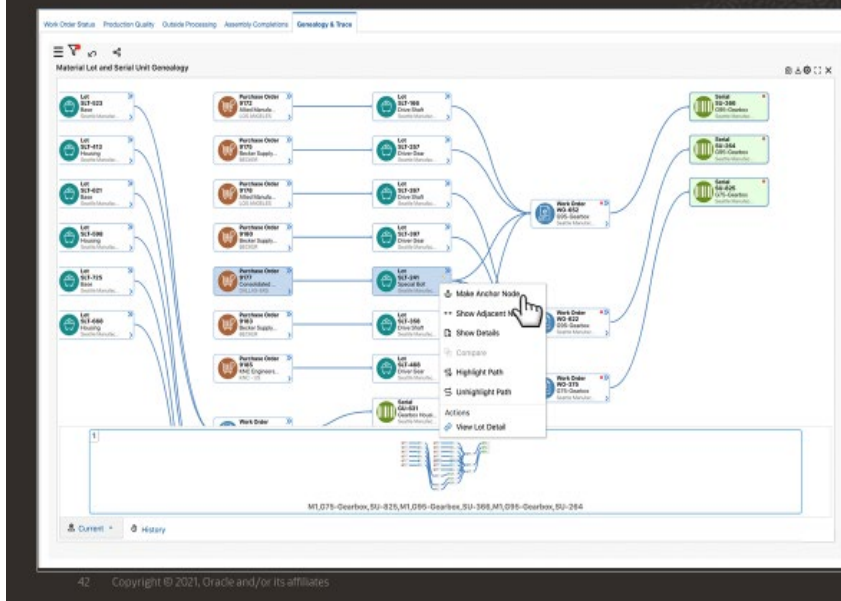 We begin by reviewing the typical discrete manufacturing flow:

  1) You issue purchase orders to buy lots of material
  2) You assign incoming material lots to work orders for building assemblies
  3) The assemblies become items input to other work orders for higher-level assemblies, looping until a finished, shippable product is attained

  We then show a manager using the Discrete Manufacturing: Production Quality dashboard to drill down on the most common reason for gearbox rejections: "Final Inspection – Noise Problem (3)".

  Upon seeing the list of impacted assemblies, the manager clicks a new "View Network" pop-up to display the serial unit genealogy of material lots and manufactured parts. Using a new "Highlight Path" capability, the manager zeros in on a lot of special bolts common to the noisy gearboxes.

  Clicking to "Show Details" of the common bolt lot, the manager sees that the "medium precision" bolt grade is out of the norm. The manager then uses the "Make anchor node" capability to see the full consumption and impact of the problem bolt lot.

Discovering that some impacted assemblies are reserved on Sales Orders, the manager places the Sales Orders on hold to ensure additional quality checks are performed. Likewise, the manager puts impacted assemblies still in inventory on "Inventory Hold" to prevent additional Sales Order reservations.

The quality manager then uses a new "Find Similar" capability to search for bolt lots with similar problem attributes to determine if additional quarantine or recall actions are needed.

Updated Look and Feel: In earlier 12.2.X releases, we delivered different UI "themes" to provide flexibility in UI look and feel. You can use the delivered themes, or create your own themes. With 12.2.11, we provide a new "Redwood Theme" to enable look and feel consistency with Oracle's SaaS applications.

Functional Innovation:

Industry-Focused Investments: EBS 12.2.11 enhances already-rich industry-specific capabilities, confirming our commitment to help complex, global organizations run their operations on EBS.

- **G-Invoicing for US Federal Program Agencies** – G-Invoicing is the long-term solution for Federal Program Agencies to manage their intragovernmental Buy/Sell transactions. Throughout 2021, we have been working with requesting

and servicing agencies that run EBS to provide G-Invoicing support in both Projects and Procurement.

- **Procurement: Shared Service Support for Project Centric Purchases –** 12.2.11 provides shared services procurement functionality for global project-oriented enterprises such as Engineering and Construction companies.

  Our shared services support for project-centric purchases allows a single operating unit to make bulk purchases on behalf of many operating units where project work occurs, enabling efficient central procurement for global projects.

- **Projects: Budgetary Control for Labor and Non-Labor Transactions** – for budgetary control-enabled projects, expenditure commitments are checked against available funds. 12.2.11 enhancements to the Projects: Budgetary Control feature help improve cost control with expanded funds checking. You can check funds to validate commitments for Labor and Non-Labor costs, and other expenses tracked in external systems. When you interface the actual expenditures from the other systems, you then release the commitments.

Cross-Industry Investments: EBS 12.2.11 extends and enhances functionality for use across many different industries.

- **Supply Chain Management: Returns on Internal Sales Orders –** 12.2.11 improves handling of internal sales orders between organizations in the same enterprise. This enhancement allows EBS to manage and account for returns on an internal sales order.

- **Order Management: Enhanced Milestone and Usage Billing –** across several 12.2.X releases, we have improved support for ordering and billing combinations of products, subscriptions, and services with functionality for:
    - Subscription Ordering
    - Recurring Billing
    - Milestone Billing
    - Usage Based Billing

  With 12.2.11, Milestone Billing lets you insert and re-sequence billing milestones, and attach additional information to billing plans via descriptive flexfields. Usage Based Billing in Order Management lets you copy and edit usage billing plans. In Lease and Finance Management, you can base usage billing for lease contracts on multi-factor metrics. For example, you can lease equipment based on a timeframe or usage limit, whichever comes first.

- **Inventory/Warehouse Management: Rules Using Material Classification –** in 12.2.6, we introduced support for material classification codes that allow you to track additional attributes for an item, such as country of origin or type of packaging, for use during outbound picking and shipping operations. In 12.2.10, we added inbound capture of classification codes to facilitate inventory tracking and storage based on material classification.

  With 12.2.11, the Warehouse Management Rules Engine can guide putaway and pick operations by classification code. For example, you can pick items to fulfill a particular customer's order based on country of origin, or you can assign items with holiday packaging to particular storage locations.

- **Process Manufacturing: Distributed Sampling –** process manufacturers for products such as food and beverages, metals, chemicals, and pharmaceuticals are subject to regulations that lead to a tight focus on quality control.

  In 12.2.11, a new Distributed Sampling capability allows you to define subsets or "units" of quality specifications for various dimensions of a product, such as physical, chemical, and visual properties. You can distribute unit specifications and samples to different laboratories, then aggregate results to determine if the samples meet the overall quality specification.

- **Enterprise Asset Management: Enhanced Technician Assignment –** in earlier 12.2.X releases, we introduced a Mobile Maintenance app that allows:
  - a manager to assign a work order to a technician
  - a technician to self-assign work by creating a work order or by selecting from a departmental queue

  In 12.2.10, we provided an HTML interface that lets managers mass assign work to technicians. In 12.2.11, we enhanced the interface to allow a manager to inspect unassigned work order operations and match those to available and qualified technicians.

- **Time & Labor: Time Entry for Discrete Manufacturing –** with 12.2.11, you can enter a timecard that associates your time with Discrete Manufacturing work order operations. This provides a consistent review and approval process for managers who have workers performing both manufacturing and maintenance time entries.

- **Additional APIs for Extensions and Integrations –** In 12.2.11, we provide these additional APIs:
  - Inventory: Create Subinventories
  - BOM: Maintain Resources, Standard Operations and Routings
  - BOM: Transfer Engineering Items to Manufacturing

- Product Hub: Update Customer Items and Customer Item Cross References
- Product Hub: Manufacturer Part Numbers
- Configured Items: Selective Copy Cross References
- Discrete Manufacturing: Change Order Notifications: Configuration
- Warehouse Management: Multi-Project LPN Consolidation
- Process Manufacturing: Draw Sample

- **Support for Outbound REST Services –** we already support inbound REST services from APIs available through the EBS Integration Repository. New with 12.2.11 is support for outbound REST services and the ability to associate the invocation of those services with new or existing Business Events.

Operational Efficiency:

EBS on Oracle Cloud Infrastructure (OCI): in 2021, we saw a rapid increase in moves of on-premises EBS environments to OCI. To assist these moves, we provide EBS Cloud Manager automation for:

- Provisioning of EBS environments on OCI
- "Lift and shift" of fully configured, on-premises EBS environments to OCI
- Lifecycle management of EBS environments running on OCI.

Releases in July and September delivered these additional EBS Cloud Manager capabilities:

- **Support for Flexible Shapes** – EBS on OCI customers can change the shape of a virtual machine (VM) instance without having to rebuild the instance or redeploy EBS. This lets you scale up compute resources for increased performance, or scale down to reduce cost.
- **Support for Universal Credit Management (UCM) Middleware Licensing Model** – EBS on OCI customers can select a middleware licensing model that allows expense to rise and fall based on usage, consistent with the elastic pricing already available for the database.
- **Discovery Feature of Manually Migrated Environments –** customers who have manually migrated their on-premise EBS environments to OCI, or have manually updated their EBS environments after migrating to OCI, can leverage EBS Cloud Manager automation to discover and manage those environments going forward.
- **Certification of EBS on Exadata Cloud@Customer Gen 2** – EBS is now certified to run on the latest generation of Exadata Cloud@Customer. This certification includes the migration of E-Business Suite to Exadata Cloud@Customer.

Modern Database Architecture: with 12.2.11, we have advanced two current initiatives:

- **Adoption of Database Standards, Public APIs, Features and Architecture** – we are modernizing the way EBS interacts with the database to take advantage of the latest database capabilities.
- **New EBS System Architecture –** we have introduced a new EBS System Schema Architecture that optimizes the use of system privileges.

  These initiatives will benefit all EBS customers, whether running on premises or on OCI, with:

  - Improvements to separation of duties and security
  - Certification of Unified Auditing
  - Simplified integration with Oracle Database Vault
  - Easier and cleaner adoption of new database features
  - Faster database certifications with new database releases
  - Enablement of planned certification with Oracle Autonomous Database

Availability and Deployment:

Oracle E-Business Suite 12.2.11: Oracle E-Business Suite 12.2.11 is currently available on My Oracle Support as Patch 31856789. Release 12.2.11 is cumulative and includes new updates as well as updates made available in one-off patches on 11.5.10, 12.0, 12.1.3 and prior 12.2 releases.

The 12.2.11 patch must be applied on top of Oracle E-Business Suite Release 12.2. Instructions for downloading and applying the patch are in the "Oracle E-Business Suite Release 12.2.11 Readme", Doc ID 2758997.1.

Oracle Enterprise Command Centers: Instructions for installing or upgrading to the latest version of the Oracle Enterprise Command Center Framework and for enabling the available command centers are in "Installing Oracle Enterprise Command Center Framework, Release 12.2 (Latest Version)", Doc ID 2495053.1. The document lists all applicable patches for Release 12.2.4 and higher.

HRMS Release Update Pack: Instructions for applying the latest Oracle HRMS Legislative Data Patch are available in "Latest Oracle HRMS Legislative Data Patch Available (HR Global / hrglobal)", Doc ID 145837.1.

EBS Cloud Manager for EBS on Oracle Cloud Infrastructure: Instructions for deploying the latest Oracle E-Business Suite Cloud Manager on Oracle Cloud Infrastructure and for preparing the tenancy for the first set of Oracle E-Business Suite environments are in the "Deploy Oracle E-Business Suite Cloud Manager on Oracle Cloud Infrastructure" chapter of the Oracle E-Business Suite Cloud Manager Guide.

Additional Supporting Resources:

- Oracle E-Business Suite: Innovations in 2021 (Video) *[Cliff Godwin's video highlights]*

- Oracle E-Business Suite Release Content Documents (Doc ID 1302189.1) *[EBS new and changed features]*

- Oracle E-Business Suite Learning Center *[EBS Transfer of Information (TOI) learning center for new and changed features]*

- Oracle E-Business Suite on Oracle.com *[EBS news and information]*

- Oracle E-Business Suite Release 12.2 Information Center (Doc ID 1581299.1) *[EBS 12.2 reference information]*

- Oracle E-Business Suite Documentation Web Library, Release 12.2 *[EBS 12.2 product documentation]*

- E-Business Suite Legislative Updates Center (Doc ID 871204.2) *[EBS legislative updates latest information]*

- E-Business Suite Ideas Lab of the My Oracle Support Community *[Customer-voted enhancement ideas on My Oracle Support]*