

Oracle Supply Chain & Manufacturing Cloud

Update 21D Spotlight

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Hello, I am Jon Chorley, CSO and Group Vice President of Oracle Supply Chain & Manufacturing Product Strategy, and in this spotlight I'll highlight a few new capabilities in update 21D.

Oracle Supply Chain & Manufacturing Cloud | Update 21D

- Supply Chain Planning
- Inventory Management
- Manufacturing
- Maintenance
- Order Management
- Procurement
- Logistics
- Product Lifecycle Management
- Blockchain & Internet of Things



We will view this Update in the following areas.

Oracle Supply Chain & Manufacturing Cloud | Update 21D

➔ Supply Chain Planning

Inventory Management

Manufacturing

Maintenance

Order Management

Procurement

Logistics

Product Lifecycle Management

Blockchain & Internet of Things

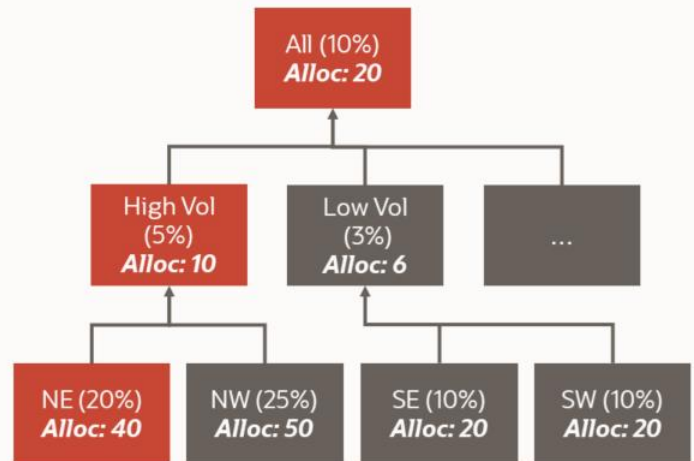


First up, Supply Chain Planning

Supply Planning - Allocate supply hierarchically in backlog management

Honor commitments and distribute high-demand items more fairly

- Set aside a quantity or percentage of supply for specific customers, regions, channels or other groups
- Tap more general pools of supply when individual allocations are depleted
- Use lower-priority allocations to fulfill higher-priority demands when needed



If you need to commit a minimum quantity of high-demand products to specific customers or channels, new allocation features in backlog management can now help you distribute supply more efficiently. You can define pools of supply based upon any order attribute, and designate additional shared allocations within a region or across customer segments to deal with local demand variability. If demand exceeds allocated supply, you can even draw from unused lower-priority allocations when needed.

Demand Management – Improve New Product and Discontinuation Process

Manage product transitions better

- Manage new product launch and product discontinuation dates
 - Forecast will not be generated prior to the specified launch date or after specified discontinuation date of a product
- Specify demand impact to related existing items affected by a product transition
 - Identify items that are likely to be cannibalized by a new product and specify percentage or absolute change to forecasts

DM-DEMO-21D

Demo Manage Product Life Cycle by Item and Date

Item	Measure	Launch Date	Adjusted Launch Date	Final Launch Date	Discontinuation Date	Adjusted Discontinuation Date	Final Discontinuation Date
HL-LAPTAB-8GB							
KB-360CB-CABINET						4/1/20	4/1/20
KB-360CB-REF			5/1/20	5/1/20			

Demo Manage Forecast During Product Life Cycle

Item	Measure	Month	January 2030	February 2030	March 2030	April 2030	May 2030	June 2030	July 2030
HL-LAPTAB-8GB	Shipments Forecast		1,666,622	1,536,905	1,529,094	1,571,99	1,605,981	1,606,746	1,643,52
	Adjusted Shipments Forecast								
	Change to Shipments Forecast Percentage								
	Final Shipments Forecast		1,666,622	1,536,905	1,529,094	1,571,99	1,605,981	1,606,746	1,643,52
KB-360CB-CABINET	Shipments Forecast		12,928,25	11,783,925	11,681,325				
	Adjusted Shipments Forecast								
	Change to Shipments Forecast Percentage								

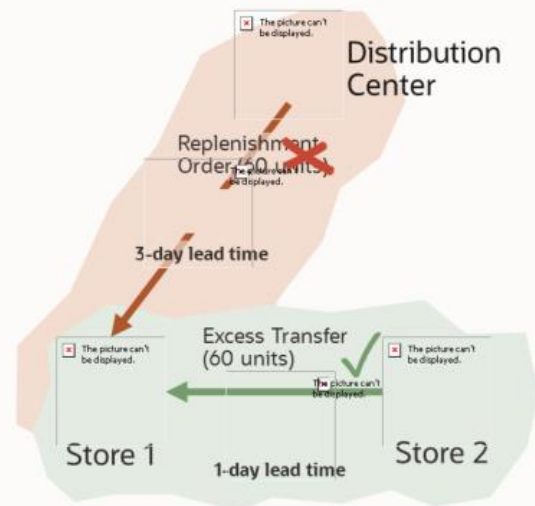
New product introductions or product end-of-life decisions often increase or decrease the demand of related existing products. These impacts on demand during product transitions are typically referred to as halo or cannibalization effects. Demand Management Update Cloud 21D introduces two complementary capabilities to manage these product transitions better -

1. A new Manage Product Launch UI to easily modify launch dates or end of life dates. Demand Management cloud will not create forecast prior to the NPI date or after the discontinuation date.
2. Specify time-phased cannibalization or halo effect factors to reduce or increase the forecast of related existing products.

Demand Management – Rebalance Inventory during Replenishment Planning

Quickly respond to local demand variations and reduce unnecessary replenishments

- Transfer supply from stores or depots that have an excess to other locations that need it
- Respond to localized supply shortages faster than centralized distribution centers could
- Avoid replenishing stores with new stock when unused supply's already available nearby



Due to varying demand and supply, some facilities end up having excess inventory while others have a shortage. Starting with Update 21D, you can now rebalance inventory among stores or depots when excess is available, rather than procuring material from upstream facilities or suppliers. Rebalancing can save you time and money by dealing with shortages locally, while providing better service to customers.

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Supply Chain Planning

➔ **Inventory Management**

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Next up Inventory

Subinventories with On-Hand Balances for Interorganization Transfers

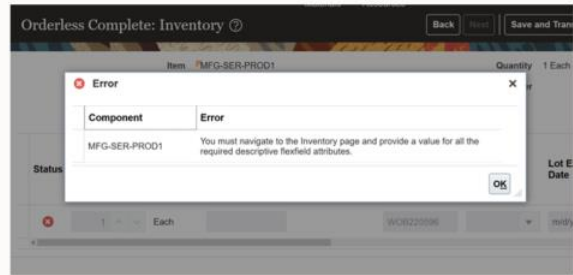
The screenshot shows the Oracle 'Create Interorganization Transfer' interface. A modal window titled 'Search On-Hand Quantity: RCV-101' is open, displaying search results for item RCV-101. The results table lists subinventories and their on-hand quantities. A red box highlights the 'Search On-Hand Quantity' button in the main interface, and a red arrow points from it to the modal window. A red text box at the bottom of the modal window states: 'Search and return subinventories where on-hand quantity exists.'

Owning Party Site	Owning Party	Procurement BU	Revision	Subinventory	Locator	Lot	Available Quantity	On-Hand Quantity	UOM Name
				INVRCT02	RCV2 1.1	887991	2	2	Each
				Depot	RMAL01		3	3	Each
				Store	HTSL1		80	80	Each
				Store	LL0005		8	8	Each
				Store	880007		3	3	Each

- Interorganization transfers are a convenient way to transfer material quickly between inventory organizations when you don't require a formal pick, pack, or ship process.
- With update 21D, when creating an interorganization transfer, you can now automatically search and return only those subinventories where on-hand quantity is currently available.
- This lets you see which subinventories have on-hand balances, the available quantity, and other pertinent data about the on-hand goods so you can quickly make an informed decision about where to transfer materials from.

Enforce Required Lot and Serial Attributes During Orderless Transactions

- Validate mandatory lot and serial attributes when reporting an orderless completion or orderless return
- Display an error message if the mandatory lot or serial attribute values are not entered for an orderless transaction



Lot and serial attributes are used to provide additional details about the materials and product during the production process. Now with Update 21D you can improve procedural compliance by ensuring that your operators enter the required descriptive flexfields for lots and serials before completing orderless completion or return transactions.

Improve Lead Time Accuracy for Partial Shift Resource Assignment Scenarios

- Adjust the calculated manufacturing lead time for resources at the first operation that do not start in the first shift
- Calculate the lead time correction factor as the difference between the start times of the schedule and the first shift

The screenshot displays the 'Edit Work Center: Assembly' interface. The 'Resource Availability' section shows a table with columns for 'Resource', 'Inception On', 'Default Units Available', 'Available 24 Hours', and three shift columns: 'MFG SHIFT 1', 'MFG SHIFT 2', and 'MFG SHIFT 3'. Below this, the 'Overview' section shows a 'Calculate Lead Times and Roll Up Cumulative Lead Times' process. The 'Process Options' section includes buttons for 'Process Options', 'Advanced', 'Submit', and 'Cancel'. The 'Description' section provides a detailed explanation of the process. The 'Log' section shows a list of log entries with columns for 'Time to Execute', 'Item', 'Batch', 'Delivery', 'Process Name', 'Version', 'Lot Size', 'UOM', 'Fixed (Days)', 'Variable (Days/Unit)', and 'Total'. The 'Log' section also includes a table with columns for 'Item', 'Batch', 'Delivery', 'Process Name', 'Version', 'Lot Size', 'UOM', 'Fixed (Days)', 'Variable (Days/Unit)', and 'Total'.

Item	Batch	Delivery	Process Name	Version	Lot Size	UOM	Fixed (Days)	Variable (Days/Unit)	Total
AS475100	Primary	7			1.0	Each	0.125	0.0	0.125
							0.57		

The calculation of lead time components for manufactured goods now supports an adjustment in scenarios when resources of the first operation do not start in the first shift of the plant. A correction factor is calculated, considering the difference between the schedule start time and the first shift's start time. As a result, the calculated manufacturing lead time is more accurate, which in turn, leads to the correct planning of material and resources by supply chain planning.

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- Manufacturing



Maintenance

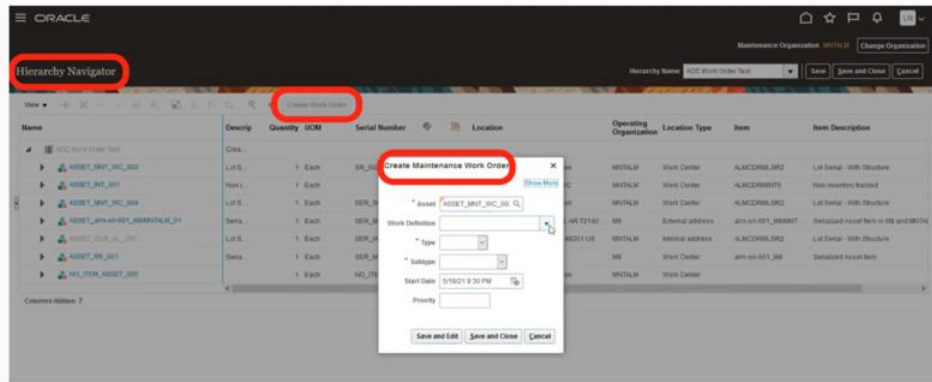
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Now Maintenance

Create Work Order for an Asset from Logical Hierarchy

- Drill down the logical hierarchy to find the failed Asset
- Quickly create a work order for an asset directly from the asset hierarchy



Update 21B introduced the concept of an Asset Logical Hierarchy to organize operational assets in a fashion that enhances a user's ability to find, interact and manage them over time. With update 21D this has been enhanced to allow you to create a work order from the asset you have navigated to. Simply drill down through the hierarchy – identify the asset in question – and push a button to create a work order. All from within one page.

Deliver More Effective & Efficient Service with Service Logistics Cloud



- New service entitlement coverage levels for “site” & “party”
- Eliminates the need to create coverage for each & every asset
- Fully-integrated solution ensures
 - Service delivered in accordance with the contract
 - Contracted prices & discounts are automatically applied



With Service Logistics Cloud, you can deliver more effective & efficient Field service and drive profitability. Update 21D takes advantage of Subscription Management Cloud’s new service coverage levels for “site” and “party”. You no longer need to create coverage for each and every asset covered by your customer’s contract, greatly improving your efficiency and ensuring that you are delivering the right level of service to which your customer is entitled. Plus, contracted prices and discounts are automatically applied, ensuring accurate billing & accounting so you can drive profitability in your service business.

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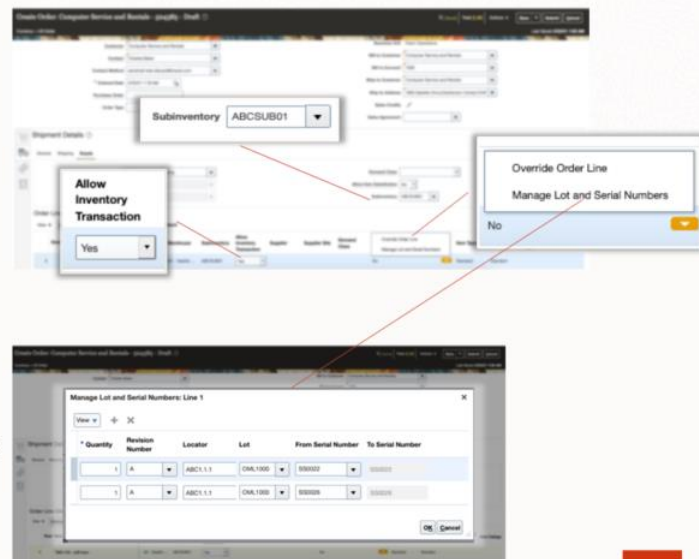


Now Order Management

Sales Order Fulfillment without Picking or Shipping

Improved customer buying experience with faster order processing

- For uses cases when the pick, pack and ship process is not required
- Directly reduce on-hand quantity to fulfill sales orders
- View locator, serial number, lot number and revision with corresponding quantity from Order Management order line and fulfillment views
- Select subinventory and allow inventory transaction flag in Order Management
- Allocate costs and recognize the cost of goods sold



Some fulfillment transactions – such as over the counter sales – do not require picking and shipping steps. Update 21D introduces a new fulfillment flow to support this use case more efficiently. It will allow you to determine the source and location of the material then directly reduce on-hand quantity in that location before costing the transaction and recognizing the cost of goods sold.

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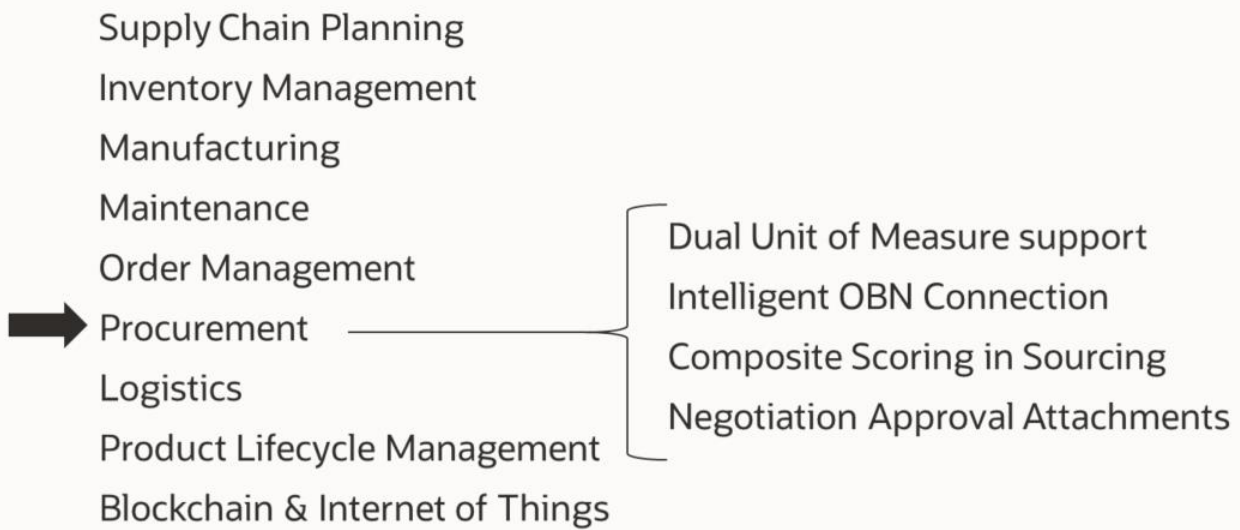
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Next Procurement:

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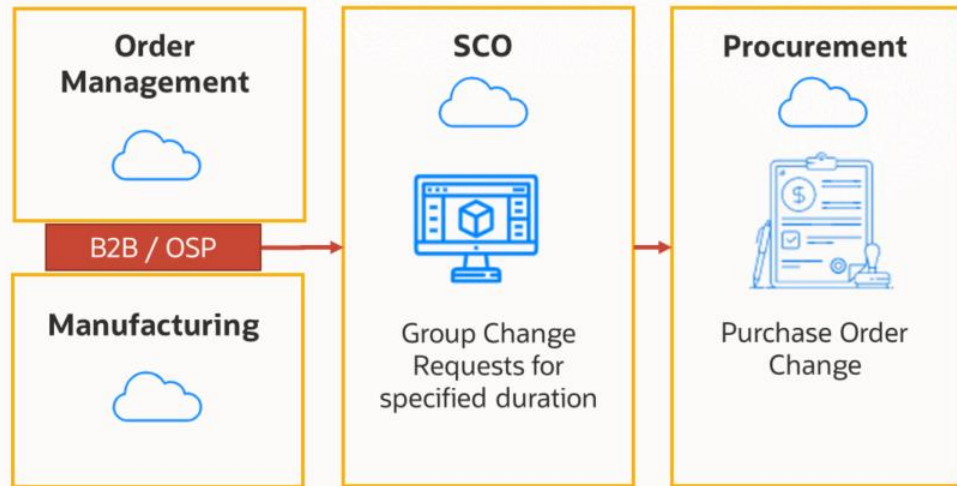
Some of the new capabilities are:

- Expanded Dual Unit of Measure support
- a new "Intelligent" connection to the Oracle Business Network
- Composite Scoring in Sourcing
- ... together with Negotiation Approval Attachments

For full details on these enhancements please see the separate Spotlight under Procurement.

Group and Process Multiple Change Requests on a Purchase Order

- Manage multiple change requests for a purchase order by grouping them
- Groups change requests by specifying a wait duration you can specify within Supply Chain Orchestration (SCO)



In addition, Supply Chain Orchestration has been enhanced to allow you to group PO change requests against back-to-back flows or from outside processing (OSP) flows and process them together, improving your efficiency.

Supplier Rebates

Maximize rebate revenue and strengthen supplier relationships



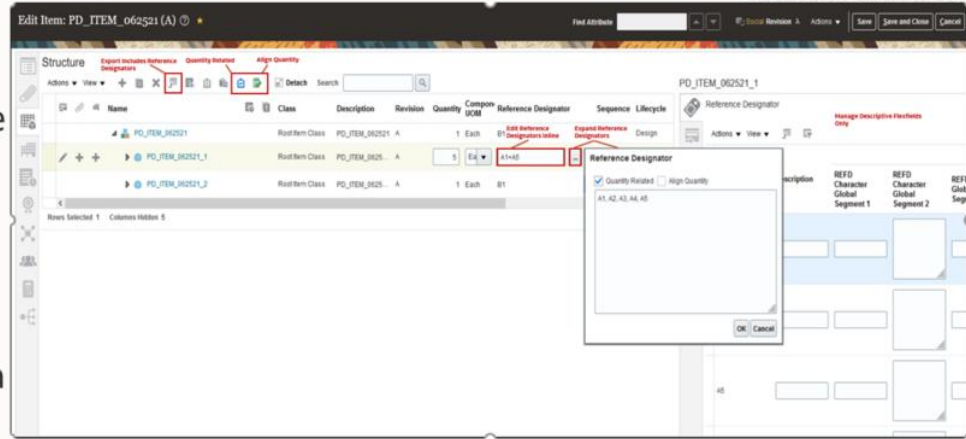
➤ Manage complex rebate programs ➤ Execute programs and track monies owed ➤ Rapidly settle and close out claims



- In order to address the need to maximize the value of your rebate programs, Update 21D introduces a new Supplier Rebate process through an integration of Oracle Cloud Procurement with Channel Revenue Management, Inventory Management, Payables and Subledger Accounting. This allows you to model the rebate agreement between you and your supplier. As items are received from the supplier, receipt transactions are uploaded into Channel Revenue Management and accruals calculated based on program eligibility. Accruals are tracked through the Supplier Checkbook which provides a view into the financial status and performance of your supplier programs. Finally, Channel Revenue Management allows you to automate the claim creation and settlement process to realize faster time to value - claims can be generated based on earned accruals, interfaced to Payables and the claim closed with details of the settlement.
- This supplier rebate functionality provides a complete solution to manage the full life cycle of your supplier rebates.

Easily Manage Reference Designators Inline

- View and enter reference designators directly in the structure table
- Flexibility to efficiently enter a range and/or list of reference designators
- Auto-validate and align structure component and reference designator quantities



Reference Designators are used to define the placement of individual instances of an given item in the assembly. Now with Update 21D, in the Product Development work area you can now quickly view and enter your reference designators directly inline within the structures table, allowing your engineers can efficiently enter reference designators as a range, a list or both. A new 'Align Quantity' action allows for quick validation of any quantity mismatches and ensures an accurate reference designator definition. Additionally, a new reference designator dialog box allows for an expanded view to easily view and edit large volumes of reference designator data.

Define and Use Dual UOM Items and Substitutes

- New validations when creating substitutes for items that contain dual units of measure
- Ensure comprehensive governance of dual UOM items when making item substitutions

Edit Item: A-Flaged-Hex-SS (V1) ⌚ ⭐



* ItemA-Flaged-Hex-SS

* DescriptionFlanged Hex head Stainless Bolt M22 Right Hand Thread Chrome plated.

Item ClassRoot Item Class

Approval StatusApproved

OverviewSpecificationsStructuresAttachmentsAssociationsRelationshipsCategoriesQuality

Related ItemsTrading Partner ItemsGTINCross-ReferencesSpoke System Items

ActionsViewFormat✚✎✕🔍📄Detach↶Wrap

To Item	Primary Unit of Measure	Secondary Unit of Measure	Type	Controlled At	Rank	Reciprocal	P	E
M-Hex Bolt - M22-SS	Each	Box of 20	Substitute	Master Level		---		

Substitutes							
Item	Item Primary Unit of Measure	Item Secondary Unit of Measure	Relationship type	TO Item	To Item Primary Unit of Measure	To Item Secondary Unit of Measure	
A-Flaged-Hex-SS	Each	Box of 20	Substitute	M-Hex Bolt - M22-SS	Each	Box of 20	

As noted earlier, the expansion of Dual Unit of Measure support was a major initiative across. One of the enhancements to ensure consistency in 21D is validations to ensure that the substitute of a dual UOM item can only be substituted with another item that has matching units of measures and assigned to the same inventory organization. This eliminates the need for redefining correct substitutes, manual validations and reduces operational errors during downstream transactions.

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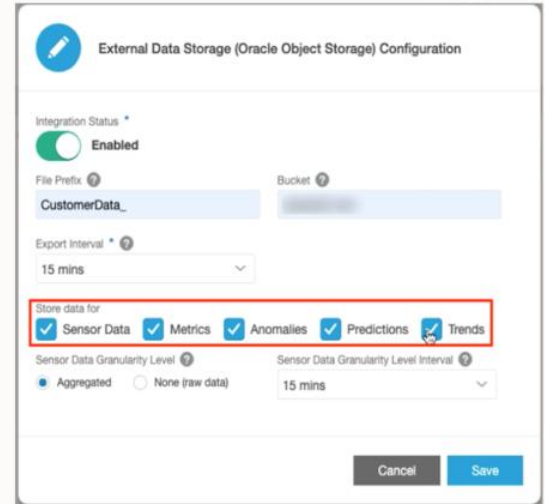


Finally, Lets look at IOT applications and Blockchain with Intelligent Track & Trace

Asset & Production Monitoring

IoT Data Externalization to ATP/ADW/SCS

- Configure IoT applications to store data in customer provided instance of ATP, ADW, and SCS for analytical and storage purposes
- Select the best Oracle provided storage system to meet long term storage, data access, and budgetary requirements
- Export data, such as sensor data, big data analytics, BI dashboards to long-term storage
- Select the frequency to sync the data ranging from 15 minutes to 4 hours



External Data Storage (Oracle Object Storage) Configuration

Integration Status *
☒ Enabled

File Prefix ⓘ CustomerData_ Bucket ⓘ

Export Interval * ⓘ
15 mins

Store data for

☒ Sensor Data ☒ Metrics ☒ Anomalies ☒ Predictions ☒ Trends

Sensor Data Granularity Level ⓘ Sensor Data Granularity Level Interval ⓘ

☒ Aggregated ☐ None (raw data) 15 mins

Cancel Save

First up, Production and Asset Monitoring's Data Externalization capabilities

IoT Intelligent applications generate vast amount of data. For some of that data, the useful lifetime exceeds the storage limit traditionally provided within an IoT application. Oracle IoT Applications can now be configured to store data on a customer provided instance of ATP, ADW, and SCS. Customers that require long term storage of IoT data can select the best Oracle provided storage system to meet their data access and budgetary requirements.

Connected Worker

Heatmap View

- View worker movement and dwell time at an aggregated level for a given time period and location to reduce potential health risks for high density and high dwell time areas

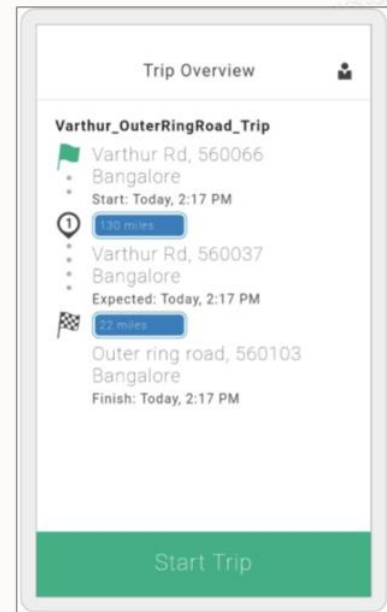


In Connected Worker Users can now view worker movement and dwell time at an aggregated level for a given time period and location to reduce potential health risks for high density and high dwell time areas.

Fleet Monitoring

3rd Party Carrier Flow Support for Trips

- As an Operations Manager, view all third-party trips. Start the trips on the web application and monitor the location and condition in Fleet Monitoring
- As a Carrier Driver, receive a trip link and start the trip in the mobile app and monitor location data as it flows from the mobile app to Fleet Monitoring



Next, Fleet Monitoring.

Earlier, third-party (3PL) cargo could only be monitored in shipments. Customers can now monitor third-party cargo in trips. Unlike shipments, 3PL trips can have inventory items sending geo-location updates along with other sensor values, such as temperature, pressure, humidity and so on.

Customers can now simply attach sensors on a pallet or an item and monitor shipment location as well as cargo condition via those sensors throughout the transit duration, without the need for any carrier telematics or network visibility feed.

Oracle Intelligent Track and Trace

Content-based Correlation

- Allows correlating two transaction documents using the reference key value if the ledger key value is not available or does not match

Attachment Support for Manual Document Upload of CSV and JSON files

- Attach CSV or JSON files to a transaction document during manual upload



Finally, Intelligent Track & Trace,

Currently, two transaction documents can be correlated only if the ledger key of the first document matches the cross-reference value of the second document. This is a limiting factor since it can prevent two documents from being correlated if one of the documents does not have the data to create a cross-reference to the other document.

This new feature allows correlating two documents using the reference key value if the ledger key value is not available or does not match with another transaction document.

In addition we have added support to Attach CSV or JSON files to a transaction document during manual upload.

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For more details:
<http://www.oracle.com/readiness>

Thank You.

Jon Chorley

CSO & GVP, SCM Product Strategy
Cloud Applications



For more details on these and other new capabilities in Update 21D, please visit the SCM section at oracle.com/readiness.

My name is Jon Chorley, and thank you for watching.



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