

Field Service

**Oracle Maintenance Accelerator for
Oracle Field Service**



Field Service
Oracle Maintenance Accelerator for Oracle Field Service

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Preface

This preface introduces information sources that can help you use the application and this guide.

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1 Overview and Use Cases

What is Oracle Maintenance Accelerator for Oracle Field Service?

Oracle Maintenance accelerator for Oracle Field Service seamlessly integrates these business flows:

- Work order - Activity data flow
- Activity - Work order data flow
- Available inventory data synchronization from Oracle Maintenance to Oracle Field Service
- Master data synchronization from Oracle Maintenance to Oracle Field Service
- Asset meter reading

The accelerator is a ready-to-use solution that streamlines scheduling and processing asset maintenance work. It is designed to cater to service models involving preventive, predictive, corrective, and urgent work in both field and depot repair scenarios. Oracle Field Service schedules and assigns these activities to the most suitable mobile resources through automated routing plans and optimization strategies. Mobile resources also get instant access to all the required activity details, allowing them to execute their work precisely, as defined by your company's business rules.

Resources use the same application to handle asset processing. It could include part installations and de-installations, while tracking resource, labor, and material consumption. The data and work completion statuses are updated in Oracle Maintenance to ensure data accuracy and consistency.

Use Cases

The Oracle Maintenance Accelerator for Oracle Field Service supports these use cases:

Work order - Activity data flow

As part of the work order-activity workflow, the accelerator creates activities in Oracle Field Service based on the work order definition in Oracle Maintenance. A maintenance work order can contain multiple operations, and each operation can have multiple resources. Based on the operation-resource information, an activity is created in Oracle Field Service. If the operation is defined without any resource, the activity is created based on the operation-level information. The activities created in Oracle Field Service is linked to each other based on the operation and resource sequence defined.

Activity - Work order data flow

Once the activity is scheduled in Oracle Field Service, the activity start date, end date, time, and technician information is updated in the work order. When an activity is assigned to a technician, the technician can start working on the job and complete it using the Oracle Field Service mobile app. Upon completion of the activity in Oracle Field Service, the accelerator automatically updates the labor hours (activity duration) and inventory items consumed by the technician for the activity back to the work order.

Available inventory data synchronization from Oracle Maintenance to Oracle Field Service

Fusion Inventory Management is the primary application for managing the inventory items associated with the asset. The accelerator ensures the availability of inventory items in Oracle Field Service by updating the items from the Fusion Inventory organization to the Oracle Field Service resource pool. The inventory items available in the Oracle Field Service resource pool are used for scheduling and processing the activity. The accelerator updates the available inventory quantities defined in the Fusion Inventory organization or sub-inventory level within Inventory Management to the Oracle Field Service resource pool.

Master data synchronization from Oracle Maintenance to Oracle Field Service

The accelerator considers Oracle Maintenance to be the master system for defining all the master data associated with a work order. The accelerator updates the master definitions from Oracle Maintenance to Oracle Field Service and maps that into these Oracle Field Service entities:

1. Standard Operations defined in Oracle Maintenance are updated as activity types.
2. Organizations defined in Oracle Maintenance are mapped as resources. The best practice is to create this as the parent bucket.
3. Work centers defined in Oracle Maintenance are mapped as work zones.
4. Resources defined in Oracle Maintenance are mapped as work skills.
5. Resource instances defined in Oracle Maintenance are mapped as field technicians.

Asset meter reading

As part of the meter reading data flow, the accelerator gets the latest meter reading from the asset meter configured. This value can be shown in an activity so that technicians or dispatchers can see the data and take appropriate actions while working on the activity. Similarly, data updated by Oracle Field Service users gets updated in the asset meter automatically.

2 Feature Description

Business Benefit

Here are some benefits of the Oracle Maintenance accelerator for Oracle Field Service:

- Optimizes your asset maintenance operations effectively
- Provides a better usability experience for the maintenance field workforce with the help of the Oracle Field Service mobile app
- Minimizes setup configurations required to use the workflows

Work Order - Activity Data Flow

A Maintenance work order includes work definition details, work order operation, and the resource(s) required.

A typical work order definition consists of the following:

- Work order header data: Work order header information contains key attributes such as the status of the work order, details of the asset, work order operations, and items.
- Work order operations: Operations define the sequence of steps to maintain an asset and resource requirements.
- Operation resource: Operation resources define the pool of resources required for the operation; this identifies the skill required for an activity.
- Work order operation items: The items defined as part of an operation are required inventory/material for the activity in Oracle Field Service.

As part of the data flow, the accelerator reads the work order operation, resource, and item information defined in a work order and then creates an activity in Oracle Field Service. When you create an activity in Oracle Field Service, it can be scheduled with the right technician using the routing plans configured in Oracle Field Service. The work order syncs the schedule information, including the activity start date, end date, and technician information.

Activity Creation in Oracle Field Service

Here's how activities are created in when you use the Oracle Maintenance accelerator:

- By default, when the status of a work order changes from unreleased to released, Oracle Field Service creates an activity. You can configure the look-up configuration 'WOStatusToSyncOFSActivity' in OIC with the appropriate work order statuses that the OIC accelerator could consider for creating the activity.
- In Oracle Maintenance, a maintenance organization creates work orders. Bucket resources in Oracle Field Service map the maintenance organizations. The system creates activities under the bucket in Oracle Field Service, corresponding to the maintenance organizations.

- You can configure appropriate routing plans for this bucket to schedule the activities for the right technicians.
- Operations defined in a work order map as activities in Oracle Field Service.
 - Operation items are the required inventory for the activity.
 - A resource and a 'resource instance' defines an operation. A resource in Oracle Maintenance represents the collection of labor users or equipment. An operation's 'resource instance' represents the labor user or equipment required to perform the job. The accelerator treats the resource instance as the 'preferred' resource for the activity.
- A work order might contain multiple operations; the accelerator creates multiple activities within Oracle Field Service in this case. Oracle Field Service links these activities by considering the sequence number of work order operations.
- The accelerator considers operation resources as the work skill requirement for an activity in Oracle Field Service.
- Multiple resources define an operation. The accelerator creates multiple activities in Oracle Field Service corresponding to each resource associated with the operation. These activities are linked in Oracle Field Service by considering the resource sequence number and operation sequence number.
 - 'Start Simultaneously' links to activities if the operations have the same sequence number.
 - 'Finish to Start' links to activities if the operations have different sequence numbers. Activities are scheduled one after the other in the ascending order of the operation sequence number.
- The work order operation's start and end dates are an activity's SLA start and end dates.
- When you define an operation without any resource, it creates the activity where the activity type can be used to define the work skill condition necessary to assign the activity to the right field technician in [Oracle Field Service.
- When you define an operation with a resource, it creates the activity with the resource information as an activity property 'mwo_op_resourcename', and this property can define the work skill condition used to assign the activity to the right field technician Oracle Field Service.
- Resource-required usage maps the expected duration of the activity.
- Labor resource instances in Oracle Maintenance maps field technicians in Oracle Field Service. If a Labor resource instance defines an operation, the accelerator treats the resource instance as the preferred resource for the activity.
- When an operation item with the required quantity defines an operation, the accelerator creates an activity with the corresponding item quantity as the required inventory for the activity.

Multi-Segment Activity Creation in Oracle Field Service

You can create operations as multi-segment activities in Oracle Field Service, if you've configured the standard operation as a multi-segment activity type in the OIC mapping table 'ORCL-BRT-ACT-TYPE-MAPPING'.

Note:

- Ensure you've created a parent resource for the Maintenance organization in Oracle Field Service. The external ID is configured in the lookup 'ORCL-BRT-MNT-OFS-CONFIG' with the variable ParentResourceId. The accelerator creates the organization as a bucket in Oracle Field Service and maps it under this parent resource ID.
- By default, the system creates activities in the bucket's non-scheduled pool. Once routed, it schedules and assigns the activity to the right technician. A configuration within the accelerator called 'ScheduledActivityEnabled' controls the creation of activities in a non-scheduled pool in Oracle Field Service. You can create activities in the bucket on a specific date by configuring this field as ' True'.
- When you create a work order with a non-standard operation, or if the "ORCL-BRT-ACT-TYPE-MAPPING" lookup table doesn't define the standard operation, the system creates an activity with a default activity type.
- You must configure these link templates in Oracle Field Service to create the link between activities,:
 - start-after
 - start-together
 - start-before

Activity - Work Order Data Flow

Here's how the activity schedule information from Oracle Field Service is updated in Oracle Maintenance using the accelerator.

After you've created the activities, Oracle Field Service can route the activities to appropriate technicians under the maintenance organization bucket with the help of routing. After running the routing plans, activities are scheduled and assigned to the right technicians. The accelerator updates the activity schedule information, which includes the activity start time, end time, and resource (field technician) to the work order operation.

- Activity start date is updated as the actual start date of the operation resource.
- Activity end date is updated as the actual end date of the operation resource.
- Field Technician is updated as Labor resource instance of the work order operation resource.
- When there are multiple resources associated with an operation, the operation's start date is the start date of the first operation resource (based on the sequence number). The end date of the operation is the end date of the last operation resource (based on the sequence number).

- If there's no resource associated with the operation, the activity start date is updated as the actual start date of the operation, and the activity end date is updated as the actual end date of the operation.
- For multi-segment activities:
 - The start date and time of the first segment are mapped as the operation/resource start date and time. Similarly, the end date and time of the last segment are assigned as the operation/resource end date and time.
 - The technician assigned with individual segments is assigned as the resource instance of the work order operation resource. If different technicians are assigned to different segments, multiple resource instances are created in Oracle Maintenance against the same resource.
- If the activity was rescheduled or moved manually by a user in Oracle Field Service, the new start date, end date, and field technician information are updated to the work order operations.

Note:

- The accelerator expects the resources instance to be available in Oracle Maintenance. If the technician associated with an activity isn't present in Oracle Maintenance, the accelerator doesn't update the resource instance in the work order operation.
- If multiple resource instances are scheduled as part of Oracle Field Service routing, but one or more resource instances aren't defined for that resource, then the integration doesn't update any resource instance details in the work order.

Oracle Field Service Processing and Updating the Activity Information to Work Order

When a technician receives an assignment for an activity, they can start working on the activity according to the schedule. Here are the actions that field technicians or other users can perform on the activity once it is processed and the corresponding changes they can make to the work order:

- **Activity Started:** When the activity starts, the activity status changes from 'pending' to 'started'. The accelerator option allows configuring the work order status to display corresponding to Oracle Field Service status changes. You can change the work order status to an appropriate value based on the status configuration mapping table defined on the OIC accelerator. See the Work Order Status section for more details.
- **Item/Material Installation:** When a field technician or any other user installs an item or specific quantity of items, the accelerator reserves the corresponding quantity of items in the maintenance inventory management until the activity is complete. These items move to the 'installed' pool in Oracle Field Service. These items are not available quantities for Oracle Field Service. When the inventory items are synchronized, items in the reserved state don't sync to Oracle Field Service.
- **Activity Completed:**
 - The work order operation item updates with actual items installed, and the work order labor resource is updated with the labor usage (activity duration).
 - The accelerator updates the item master with actual quantities installed. Reserved item quantities are deducted from the actual quantities, and the item master is updated.
 - The accelerator performs the material transaction in Oracle Maintenance based on the total quantities of items installed for the final calculations.
 - The accelerator performs the actual labor transaction in Oracle Maintenance for the final calculations.

- For a multi-segment activity, when individual segments are completed, the accelerator updates the labor resource usage and item consumption associated with that segment. When the segments are completed, the total labor usage is the sum of labor usage from individual segments. Similarly, the total item consumption is the sum of the items consumed by individual segments.
- Activity Canceled: If the work order contains a single operation resource and the corresponding activity is canceled, the work order is canceled with a cancellation reason, and the operation status remains as ready.
- Activity Deleted: When an activity is deleted in Oracle Field Service, the corresponding resource is deleted from Oracle Maintenance.

Note: Only Optional Operations (Count Point and Automatically Transact are false) can be deleted from a work order in Oracle Maintenance. The best practice is that all Standard Operations restrict the visibility of the delete/cancel button in Oracle Field Service based on the value of Count Point and Automatically Transact Flag. Deleting an activity from Oracle Field Service results in an error in the integration flow, and the corresponding operations aren't deleted from Oracle Maintenance.

- Activity Suspended: The 'suspend' action in Oracle Field Service creates a clone of the activity in the same queue as a not-ordered activity in 'pending status'. When the activity becomes a not-ordered activity, the start date/time of the maintenance operation resource/operation is updated with the SLA start and end dates of the not-ordered activity.
- Activity Not Done: The 'not done' action in Oracle Field Service indicates that the activity couldn't be completed that day for various reasons, such as unavailability of parts, lack of time to finish, and so on. Oracle Field Service treats the 'not done' status as a 'complete' status, and the accelerator follows one of these flows:
 - If the activity is started and has the duration, the labor resource usage corresponding to the resource is updated in the operation resource.
 - If the installation/de-installation of materials is done before the 'not done' action, the material transactions are updated in Oracle Maintenance.
 - The operation status is updated as 'completed' if all the activities corresponding to the operation resources in Oracle Field Service are 'Not Done'.
 - To create a new work order, a new operation, or a new resource as part of the Not Done action, follow these steps:
 - i. Ensure that the activity properties "Maintenance Action Type" and "Maintenance Planned Date" are configured using the activity page.
 - ii. Provide the values of "New Work Order", "New Operation", or "New Resource" for the "Maintenance Action Type" property. Based on the value of this field, the accelerator creates a new work order, operation, or resource in the work order. The entry in the "Maintenance Planned Date" captures the due date on which the new work order, operation, or resource is created in Oracle Maintenance. Configure the "Maintenance Planned Date" field such that a user enters the due date in the format 'YYYY:MM:DD HH:mm:ss'.

- Create a New Activity: While working on an activity, the user can create a new activity or a follow-up activity from Oracle Field Service. The accelerator can then create a corresponding new work order, work order operation, or operation resource in Oracle Maintenance.
 - The accelerator creates a new activity property in Oracle Field Service called "Maintenance Action Type" (label 'mwo_action_type') of the enumeration type with a value of "New Work Order", "New Operation", or "New Resource".
 - Based on the value of "New Work Order", "New Operation", or "New Resource" property, the accelerator creates a new work order, a new operation under the same work order, or a new resource under the work order operation.
 - Make sure you mention the Parent Reference Work Order number whenever a new activity is requested, so that:
 - The accelerator creates a new work order by using the work order type, work order subtype, and organization information from the reference work order.
 - The accelerator creates a new work order operation under the reference work order if the request is to create a new operation.
 - The accelerator creates a new resource under the reference work order if the request is to create a new resource.

If the Parent Reference Work Order number isn't present, the accelerator can't create a new work order, operation, or resource in Oracle Maintenance.

Activity and Work Order Status Update Work Flow

The predefined statuses associated with a work order include Unreleased, Released, On Hold, Completed, Closed, or Canceled. The work order operation has statuses of 'Ready' and 'Completed'. The accelerator can change the status of work order and work order operation based on the changes in the activity status.

By default:

- When an activity is in 'Pending' or 'Started' status in Oracle Field Service, the work order operation is in 'Ready' status, and there's no change in the initial work order status.
- When an activity is completed in Oracle Field Service, the corresponding operation status is changed to 'Completed'; when all the operations associated with the work order are completed, the status of the work order changes to 'Completed'.
- This table represents the work order and operation status when an activity is in 'Not Done', 'Suspended', or 'Canceled' status in Oracle Field Service.

Field Service Activity Status	Work Order Operation Status	Work Order Status
Not Done	Completed	Completed
Suspended	Ready	No change in status
Canceled	Ready	Canceled

Similarly:

- If the work order contains multiple operations and the corresponding activities in Oracle Field Service are in 'Canceled' status, the work order status changes to 'Canceled'.
- If the work order contains multiple operations and the corresponding activities in Oracle Field Service are in 'Completed' or 'Not Done' status, then the operation status is 'Completed', and the work order status is changed to 'Completed'.

Adding New Work Order Status

You can add user-defined work order status in Oracle Maintenance corresponding to the standard activity status. The accelerator can update the current work order status with a user-defined status based on the mapping configured in the accelerator.

The following table (lookup table in Oracle Integration Cloud) provides you an option to map the user-defined status in Oracle Maintenance to the standard status in Oracle Field Service. You can define the Oracle Field Service standard status and map that to a new work order status. The accelerator provides a custom activity property 'mwo_status_change_reason'. You can use the value of this field in the column "STATUS_CHANGE_REASON" to show different work order statuses against the same standard status in Oracle Field Service.

OFS_STATUS	STATUS_CHANGE_REASON	MNT_STATUS
Pending		Scheduled
Not Done	Awaiting parts	Awaiting parts
Not Done	Additional manpower	Additional manpower

For example:

- To display the work order status as 'Scheduled' (a user-defined status) in Oracle Maintenance when an activity is in 'Pending' status in Oracle Field Service, you can configure the OFS_STATUS (representing the Oracle Field Service standard status) as 'Pending' and the column MNT_STATUS (representing Oracle Maintenance status) as 'Scheduled' in the table.
- To display two different statuses ("Awaiting parts" or "Additional manpower") against the same activity status "Not Done" (Oracle Field Service status), configure the column OFS_STATUS with "Not Done. Configure the "STATUS_CHANGE_REASON" property with the values expected from "mwo_status_change_reason" in the mapping table. The accelerator updates the work order status per this configuration.

Work Order Update

If you update the work order data, when the data is synced from Oracle Maintenance to Oracle Field Service, the accelerator updates the Oracle Field Service activities as mentioned below.

- When you create a new operation or resource, a new activity is created in Oracle Field Service corresponding to the new operation or new resource that was added.
- When you remove an existing operation resource from the work order operation, the corresponding activity is deleted from Oracle Field Service.

Note:

- Operational-level information updates aren't updated in the activity.
- Operation resource level information updates aren't updated in the activity.
- If a work order has an operation with no resource, when you add a new resource into the operation after the work order syncs with Oracle Field Service, this updates the existing activity with the resource information.
- Any update to a past-dated work order doesn't update the corresponding past-dated activity in Oracle Field Service.

This table explains the actions in Oracle Field Service when you update the work order status in Oracle Maintenance:

Work Order Status	Unreleased	Released	On hold	Completed	Closed	Canceled
Unreleased	Not Applicable	New Activity creation Note: Make sure released status is allowed to sync the work order data in Oracle Field Service.	Delete the activities associated with the work order	Not Applicable	Not Applicable	Cancel the activities associated with the work order
Released	Delete the activities associated with the work order	Not Applicable	Delete the activities associated with the work order	Not Applicable	Not Applicable	Cancel the activities associated with the work order
On Hold	New Activity creation - If	New Activity creation	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Work Order Status	Unreleased	Released	On hold	Completed	Closed	Canceled
	unreleased status is configured to sync the work order data in Oracle Field Service. No action - If the status isn't configured.	Note: Make sure released status is allowed to sync the work order data in Oracle Field Service.				
Completed	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Closed	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Canceled	New Activity creation - If unreleased status is configured to sync the work order data in Oracle Field Service. No action - If the status isn't configured.	New Activity creation Note: Make sure released status is allowed to sync the work order data in Oracle Field Service.	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Field Mapping - Work Order to Activity

Work Order Field	Description	Field Service Field	Field Type	Description	Mandatory
Operation.WorkOrderNo	Prefix_<running number> ; For example: MWO_00001	apptNumber	String	The logic to form the column is "<WO number>-<Operation Seq No.>-<Operation Resource Seq No. if available>-<Operation Resource Code if available> "	M
Resource.ResourceSeq	This is configured in Setup and Maintenance.			For example: MWO_00001-10;	
Resource.ResourceCode					

Work Order Field	Description	Field Service Field	Field Type	Description	Mandatory
				MWO_00001-20-10-BMW	
Workorder.Organization	<p>The organization or entity on which the maintenance operation is performed, which includes many work areas and inturn many work centers to perform the job.</p> <p>Typically, inventory is maintained at this level.</p>	resourceld	String	<p>Parent level bucket</p> <ul style="list-style-type: none"> • Workcenters/ Resources created as child bucket • Inventory stored in this bucket (Resource Pool) • WO Activities are created under this bucket and assigned to Technician by routing plan 	M
Operation.WorkCenterC	<p>The physical area or location, where the maintenance activity is performed. The Labor and Equipment resources with capacity are maintained at this level.</p>	mwo_work_zone	String	Work zone in Oracle Field Service	M
Operation.PlannedStart	Operation Start Date	slaWindowStart date	DateTime		M
Operation.PlannedCom	Operation Completion Date - derived based on the Duration, if the Operation Start Date is specified.	slaWindowEnd	DateTime		M
Resource.RequiredUsag	Duration of the work to be performed by Resource.	duration	Minutes	<p>Mapped with the Resource's Required usage</p> <p>(RequiredUsage * 60)</p>	M
Operation.OperationSeq	The sequence number is defined in the operation, and it is to	mwo_op_seq_number	String	NEW: store the sequence number of Operation	M

Work Order Field	Description	Field Service Field	Field Type	Description	Mandatory
	be performed in this order.				
Operation.WorkOrderId		mwo_workorder_id	String		M
Resource.ProfileCode		mwo_work_skill	String		O
Resource.WoOperationId	Operation resource id	mwo_op_resourceid	String		O
Operation.OperationName		mwo_operation_name	String		M
Workorder.WorkOrderPriority		mwo_workorder_priority	String		O
WorkOrder.WorkOrderDescription		wo_case_note	String		O
Operation.OperationDescription		mwo_operation_note	String		O
Operation.WoOperationId		mwo_operation_id	String		M
Asset.AssetId		wo_asset_id	String		M
Asset.AssetId		mwo_asset_number	String		
Asset.SerialNumber		wo_asset_serial_number	String		
Asset.Description		wo_asset_name	String		
Asset.InstalledDate		wo_asset_install_date	String		
Operation.OperationCode		activityType	Enum		
Workorder.WorkOrderType		mwo_workorder_type	String		
Workorder.WorkOrderSubtype		mwo_workorder_subtype	String		
Resource.ResourceDescription		mwo_op_resource_note	String		
Workorder.OrganizationCode		mwo_workorder_org_code	String		
Workorder.CancelReason		mwo_cancel_reason	String		
Operation.OperationCode		mwo_standard_op_code	String		
		Preferred Resources:			
ResourceInstance.LaborerId		resourceId	String		
		Required Inventory:			

Work Order Field	Description	Field Service Field	Field Type	Description	Mandatory
OperationMaterial.Inven		model	String		
OperationMaterial.Quar		quantity	Number		
		Operation Completion:			
		mwo_transaction_status	String	Value: FAILURE. It will capture if there is any transaction error [resource/material] during activity completion/cancel/not done/suspend.	

Field Mapping - Activity to Work Order

Oracle Field Service to Maintenance - Work order data with scheduled dates and resource instance assignments

Oracle Maintenance Field	Description	Field Service Field	Field Type
Create New WO, New Operation or New Resource in Oracle Maintenance by accelerator	To create a work order, operation, or resource in Oracle Maintenance when a new activity is created in Oracle Field Service or when a users wants to create a work order, operation, or resource in Oracle Maintenance during notdone/ completed/ canceled.	mwo_action_type	enumeration
Create New WO, New Operation or New Resource in Oracle Maintenance by accelerator	To create a new work order, operation, or resource in Oracle Maintenance when a new activity is created in Oracle Field Service or when users wants to create a new work order, operation, or resource in Oracle Maintenance during notdone/completed/canceled.	mwo_planned_date	string with reg exp /^[0-9]{4}-(0[1-9] 1[0-2])-(0[1-9] 1-23[0-1]) (2[0-3] 01)[0-5][0-9]:[0-5][0-
Create New WO, New Operation or New Resource in Oracle Maintenance by accelerator	To create a new work order, operation, or resource in Oracle Maintenance when a new activity is created in Oracle Field Service or when users wants to create a new work order, operation, or resource in Oracle Maintenance during notdone/completed/canceled.	mwo_parent_ref_wo_num	string

Oracle Maintenance Field	Description	Field Service Field	Field Type
WO > Description	Sync the value captured in mwo_wo_desc to Oracle Maintenance work order description.	mwo_wo_desc	string
Custom WO Status	This can be configured in notDone scenario to capture the reason for notDone. Based on this value and Oracle Field Service activity status, the accelerator can set custom work order statuses by configuring the values in ORCL-BRT-OFS-MNT-STATUS-MAPPING lookup.	mwo_status_change_reason	enumeration

Available Item Synchronization from Inventory Management to Oracle Field Service

The Inventory Management orchestrates the end-to-end physical transactions of materials within Oracle Supply Chain Management.

As part of the Inventory Management integration flow, the accelerator can sync the available inventory items (available to transact quantities) required for processing the work order from the Inventory Management system to Oracle Field Service. These items are stored in the resource inventory pool in Oracle Field Service.

- In Inventory Management, storage facilities, warehouses, and distribution centers are implemented as inventory organizations, and subinventory is a section of inventory where items are physically stocked. The accelerator synchronizes the organization or subinventory as resources within Oracle Field Service.
- The accelerator updates the available (on-hand) quantities from Inventory Management and stores it in the resource inventory pool.
- Serialized items are updated with the Serial Numbers in the resource inventory.
- Non-serialized items are updated with the quantities within the resource inventory.
- The item quantities in the Inventory Management system can be defined at the organization, subinventory, or locator level. After updating the quantities in Oracle Field Service, technicians can view the quantities at the organization, subinventory, or locator level through the resource inventory pool.
- Inventory item synchronization is a scheduled integration that updates the items in bulk to Oracle Field Service.
- Inventory items deleted from the inventory management system are also removed from the Oracle Field Service resource pool.
- A new inventory property, "Inventory_identifier", is available as the model property for the inventory. The value of this property is a concatenation of subinventory, locator, and item names for non-serialized inventory types.

Sometimes, you may not need to sync all the inventory organizations or subinventories to Oracle Field Service. For example, you can keep an organization or subinventory for storing returned items. Items from this organization or subinventory may not be required in the resource pool in Oracle Field Service. You can configure the organizations and subinventories to be synced with Oracle Field Service as part of the accelerator setup configuration, as shown in this table:

Maintenance_Entity_Name	Maintenance_Entity_Type	OFS_Resource_Type
Business Unit (US1)	BUSINESS_UNIT	Truck
SRVTruck	SUBINVENTORY_GROUP	Truck

Maintenance_Entity_Name is the name of the business unit or subinventory. Maintenance_Entity_Type is the type of entity (business unit or subinventory group). Maintenance_Entity Type must be either a SUBINVENTORY_GROUP or BUSINESS_UNIT (be sure the values provided are in all uppercase, separated by underscores).

OFS_Resource_Type represents the type of resource to be created in Oracle Field Service. This mapping table provides an option to configure the name of the business unit under which the organization is defined in Oracle Maintenance, or the name of the inventory group that's used to group the subinventories in Oracle Maintenance and map that to the Oracle Field Service resource type (Truck or Bucket).

- To sync inventories from specific inventory organizations, you can configure the mapping table with business units under which this inventory organization is configured and map that to the Oracle Field Service resource type. The accelerator gets the inventory organization under the business unit and creates a resource of the type defined (Truck or Bucket) in Oracle Field Service.
- To sync quantities from specific subinventories alone, you can configure the mapping table with the subinventory group name and the resource type. The accelerator gets the subinventories that are under the subinventory group and creates the corresponding resources of the type defined (Truck or Bucket) in Oracle Field Service.

As part of the inventory item synchronization flow,

- Items defined at these organizations are synced to the corresponding resources in Oracle Field Service. The corresponding resource pool shows the inventory item quantities defined at the organization, subinventory, or locator.
- Similarly, items defined at subinventories are synced to the corresponding resource in Oracle Field Service. The inventory item quantities defined in the locator are shown in the corresponding resource pool.

Field Mapping :Fusion Inventory items to Oracle Field Service Inventory items

Inventory Data Model Field	Description	Description
maintenance org	code of maintenance organization	ID of the parent bucket where the maintenance organization is mapped
-	-	Type of Inventory to start in Oracle Field Service "part" - For non-serialised Inventory "part_sn" - For serialised inventory

Inventory Data Model Field	Description	Description
On-Hand item SerialNumber		Serial number in case of a serialised inventory
On-Hand item ItemNumber		Unique number for the part item
On-Hand item ItemNumber		Name / Description of the part item
On-Hand item Revision		Revision of the inventory item, if present
concat (On-Hand item ItemNumber, On-Hand item Revision)		Unique number for the part item concatenated with the revision
concat (subinventory, locator, part_item_number_rev)		Used as the unique identifier when syncing inventory items to inventory org in Oracle Field Service
PrimaryUOMCode		UOM Code associated with the part item coming from Inventory management
PrimaryQuantity		
Locator		Locator from which the inventory item is obtained
SubInventory		Subinventory from which the inventory item is obtained

Master Data Synchronization from Oracle Maintenance to Oracle Field Service

The maintenance organization defined in Oracle Maintenance is created as a bucket in Oracle Field Service as part of the integration. You can configure the organization IDs as a lookup variable 'includeOrganizations' in the OIC lookup

table 'ORCL-BRT-MNT-OFS-CONFIG'. Based on this ID, the accelerator syncs the relevant Maintenance Organizations into Oracle Field Service, as follows:

- Maintenance Resources are created as work skills.
- Maintenance work centers are created as work zones.
- Maintenance labor resource instances are created as field technicians.
- Maintenance Operations sync as activity types in Oracle Field Service. This table describes the field-level mapping between operation and activity type.

A mapping table is available in the accelerator for configuring these attributes:

STANDARD_OPERATION_CODE	ACTIVITY_LABEL	ACTIVITY_NAME	SEGMENTABLE	SEGMENT_MIN_DURATION	SEGMENT_MAX_DURATION	Default_Flag
DRAIN_OIL	drain_oil	Drain oil	False			True
CHANGE_OIL	drain_oil	Drain oil	False			False
REP_ENG	repair_engine	Repair Engine	True	30	120	True

Here are the details for the table:

- STANDARD_OPERATION_CODE - The Standard Operation Code defined in Oracle Maintenance.
- ACTIVITY_LABEL - Activity type label to be mapped in Oracle Field Service against the Operation Code.
- ACTIVITY_NAME - Name of the activity type to be created in Oracle Field Service if the activity type doesn't exist.
- SEGMENTABLE - Whether this activity type is segmentable or not.
- SEGMENT_MIN_DURATION - Minimum Duration for segmentable activity type.
- SEGMENT_MAX_DURATION - Maximum duration for the segmentable activity type.
- Default_Flag: The accelerator uses this flag while creating a follow-up activity from Oracle Field Service. There can be scenarios where multiple operation codes are mapped against the same activity type. Based on the default flag value, the accelerator identifies the standard operation code and creates a new operation under the work order in Oracle Maintenance. Here's an example: The standard operation code 'DRAIN_OIL & CHANGE_OIL' is mapped to the activity type 'drain_oil' as shown in the earlier table. When a user wants to create a follow-up activity from Oracle Field Service of type 'drain_oil', they can select the activity type as 'drain_oil'. The accelerator creates a new operation, 'DRAIN_OIL', under the current work order in Oracle Maintenance, because the default flag for the standard operation, DRAIN_OIL, is set to 'True'.

If the work order contains a new operation that isn't mapped in the earlier table, it's synced as a default activity.

Field Mapping : Standard Operation to Activity Type

Oracle Maintenance Field	Description	Field Service Field	Field Type	Description	Mandatory
Operation Description	Human readable description of Standard Operation Code, mapped against activity type group name	Activity type group name		Name of the activity type group	M
Operation Type	Classification of Standard Operations in Oracle Maintenance, mapped against activity type group which serves a similar purpose against activity types	Activity type group label		Label of activity type group	M
Standard Operation Code	Internal unique code used as identifier for activity types	Activity type label		Label of the activity type	M
Standard Operation Name	Readable name displayed in the user interface for activity types	Activity type name		Name of the activity type	M
	Status of the activity type can be identified based on the inactive date	Status		Status of the activity (active or not)	M

Field Mapping : Resource Instance to Oracle Field Service Resource

Oracle Maintenance Field	Description	Field Service Field	Description	Mandatory
Resource Instance Id		Resource Id	The unique identifier of the resource in Oracle Field Service.	M
Resource Instance Name		Resource Name	The name of the resource.	O
Resource Code		Work Skill Label	The label of work skill which is assigned to the technician representing the Resource.	M

Oracle Maintenance Field	Des	Ora Fiel Serv Fiel	Fiel Typ	Description	Mandatory
Maintenance Organisation ID		mwr resc orgi		The maintenance organization ID.	M
Resource identifier		user logi		Identifier used for user sign in.	
Status		Stat		Allowed Values: active , inactive	

Field Mapping : Work Center to Oracle Field Service Resource

Orac Main Field	Description	Field Serv Field	Field Type	Description	Mandatory
Work Centr code	Unique code of the work center	Reso Id		The unique identifier of the resource in Oracle Field Service.	M
Work Centr Nam	Name of the work center	Reso Nam		The name of the resource.	O
	Status of the work center can be identified based on the inactive date.	Statu		Allowed Values: active , inactive	M

Field Mapping : Equipment to Oracle Field Service Resource

Oracle Maintenance Field	Description	Description
Work Center code		The unique identifier of the parent resou

Oracle Maintenance Field	Description	Description
Resource instance name	Name of the resource instance (Equipment type)	The name of the resource (tool).
Resource instance identifier	Identifier of the resource (Equipment type)	The unique identifier of the resource in Oracle Field Service.
	Business Unit	The label of an organization unit under the resource that needs to be mapped.
		The type of the resource - Tool.
	Status of the resource instance can be identified based on the inactive date.	Allowed Values: active , inactive

View and Update Asset Meter Readings

Meter readings present important information for technicians while they're working on assets. The accelerator provides an option to configure the meter reading associated with an asset and an option to update the readings while they're working on an activity associated with the asset.

The accelerator creates these properties in Oracle Field Service to capture the values of a meter definition associated with an asset within Fusion:

- Meter name with reading type [Absolute / Change]
- Unique code of the meter template
- Direction of the reading [Ascending / Descending]
- Net reading and UOM
- Reading date/time
- New reading [to be entered by the technician upon completion]
- Comment [to be entered by the technician upon completion]

The accelerator gets the values of these fields from the asset meter defined in Fusion and updates these properties as part of the activity start and activity update events. You can configure the Activity Details page and display the relevant properties for the Oracle Field Service users. The accelerator updates the latest meter reading values of the asset from Fusion to the activity property. The accelerator updates the new meter reading value provided by the Oracle Field Service user to Fusion meters as part of the activity update event.

Field Mapping : Asset Meter Reading to Activity Properties

Oracle Maintenance Field	Description	Field Service Field	Description
MeterCode	Meter Code	meter_code_<<counter>>	Meter Code
MeterName, ReadingType		meter_name_<<counter>>	Meter name
NetValue, UnitOfMeasure		meter_last_reading_<<counter>>	The last net r
ReadingValue		meter_new_reading_<<counter>>	Latest captu
Comments		meter_comment_<<counter>>	Latest comm
ReadingDirectionMeaning		meter_direction_<<counter>>	The direction
ReadingDate		meter_last_reading_date_<<counter>>	Last reading
		mwo_meter_count	Total number
		mwo_meter_info	All meter info

Note:

- The accelerator supports a maximum of two asset meters. Based on the number configured for the field 'MNTAssetMaxNoOfMeters' in the OIC lookup table 'ORCL-BRT-MNT-OFS-CONFIG', the accelerator creates the meter reading properties. The maximum value that can be configured for the field "MNTAssetMaxNoOfMeters" is 2.
- The accelerator gets meter templates defined with the "Record Meters at Work Order Completion" property as "Mandatory"/"Optional" in Oracle Maintenance.

3 Enabling the Accelerator

Set Up the Oracle Maintenance Accelerator for Oracle Field Service

This topic shows you how you can set up the Oracle Maintenance accelerator for Oracle Field Service.

Step 1 - Create Applications in Oracle Field Service

To establish a connection between Oracle Field Service and OIC, the you must create these applications in Oracle Field Service:

- OIC application with details about the OIC endpoint.

↑ Applications

Add Application

Application Type
Oracle Integration

You can integrate with Oracle Integration platform to create integrations with cloud and on-premise applications.

Application Name

Required

OIC Host

Required

Host name of your Oracle Integration instance
Sample format: 'servername.oraclecloud.com'

User Name

Required

IDCS URL

Required

Base URL of Oracle Identity Cloud Service Admin console
Must have the format 'https://servername.oraclecloud.com'

Client ID

Required

Client ID of the Client application that you have created in IDCS

- REST/SOAP API application which would be used on OIC to send data from OIC to Oracle Field Service. You've to make sure these Oracle Field Service APIs are configured with appropriate access privileges.

↑ Applications

Add Application

Application Type
Applications using REST/SOAP API

You can consume Oracle Field Service REST/SOAP APIs by adding a new application.

Application Name
Required

Application ID
Required

Dismiss **Add**

Configure these methods for the Core REST API for this application:

- Activity - RW
- Business Events - RW
- Inventory - RW
- Resource - RW
- User - RW

Configure these methods for the Metadata REST API for this application:

- Activity Types - RW
- Properties - RW
- Work Skills - RW
- Work Zones - RW,
- Inventory Types - RO

Step 2 - Create Resource Types and User Types in Oracle Field Service

The next step is to create these required resource types and user types within :

- A resource type with the role of 'vehicle'. This is used to store inventory items from the Fusion Inventory Management system.
- A resource type with a role of 'bucket'. This is used to map the Maintenance Organization bucket in Oracle Field Service.
- A resource type with a role of 'Field resource'. This is used to map the field technicians (resource instances from Oracle Maintenance) .

Make sure you have created a user type that can be assigned to the field resources.

Step 3 - Configure Parent Resource in Oracle Field Service

The next step is to create a resource in Oracle Field Service that's the parent of all the other resources. The accelerator syncs:

- Maintenance Organization as a bucket under this parent resource.
- Inventory Orgs/Sub-inventory as vehicles/buckets under the created maintenance organization resources.
- Resource Instances as technicians under the created maintenance organization resources.

Note: The External ID of the resource is configured in the OIC lookup. Based on this look-up configuration, the accelerator syncs the values with Oracle Field Service.

Step 4 - Create Properties Used by Integration

Activate the Oracle Maintenance OFS Property Create Helper and run the Oracle Maintenance OFS Property Setup integrations. The properties listed in this table are installed in Oracle Field Service automatically.

Property Label	Name	Entity	GUI	Type
mwo_op_resourcename	Maintenance Resource Name	activity	text	string
mwo_op_seq_number	Operation Sequence Number	activity	text	string
mwo_workorder_id	Work Order ID	activity	text	string
mwo_workorder_type	Work Order Type	activity	text	string
mwo_operation_name	Work Order Operation Name	activity	text	string
mwo_workorder_priority	Work Order Priority	activity	text	string
mwo_operation_id	Work Order Operation ID	activity	text	string
mwo_workorder_subtype	Work Order SubType	activity	text	string
mwo_workorder_org_code	Maintenance Organization Code	activity	text	string
mwo_work_skill	Maintenance Work Skill	activity	text	string
mwo_work_zone	Maintenance Work Zone	activity	text	string
mwo_op_resourceid	Maintenance Resource ID	activity	text	string
mwo_resource_code	Maintenance Resource Code	activity	text	string
mwo_workorder_org_name	Maintenance Organization Name	activity	text	string
mwo_asset_number	Asset Number	activity	text	string
mwo_op_countpoint	Operation Count point	activity	text	string
mwo_subinventory	SubInventory	inventory	text	string
mwo_resource_ organization	Maintenance Organization	resource	text	string
mwo_resource_ subInventory	SubInventory	resource	text	string
mwo_appt_installed_ inventory	Activity Installed Inventory	activity	text	string
mwo_inventory_subInv	Inventory Source	inventory	text	string
mwo_operation_note	WO Operation Note	activity	text	string

Property Label	Name	Entity	GUI	Type
mwo_op_resource_note	Operation Resource Note	activity	text	string
mwo_locator	Locator	inventory	text	string
mwo_status_change_reason	Status change Reason	activity	combobox	enumeration
mwo_planned_date	Maintenance Planned Date	activity	text	string
mwo_action_type	Maintenance WO Action	activity	combobox	enumeration Expected values <ul style="list-style-type: none"> • New Operation • New Resource • New Work Order
mwo_parent_ref_wo_num	Parent Reference Work Order	activity	text	string
mwo_workcenter_id	Maintenance Work Center Id	activity	text	string
mwo_wo_desc	Maintenance Work Order Description	activity	text	string
mwo_resource_requirement	Resource Requirement	activity	text	string
mwo_op_resource_id	Maintenance Operation Resource ID	resource	text	string
mwo_transaction_status	Operation Transaction Status	activity	text	string
mwo_parent_apptnumber	Parent Work Order	activity	text	string
mwo_resource_orgid	Maintenance Organization ID	resource	text	string
mwo_inventory_org	Inventory Organisation	inventory	text	string
mwo_asset_status	Asset Status	activity	combobox	enumeration
wo_asset_purchase_date	Purchase Date	activity	text	string
wo_asset_status	Asset Status	activity	text	string
wo_asset_install_date	Install Date	activity	text	string
asset_view_translation_placeholders	Asset View Placeholders	activity	combobox	enumeration

Property Label	Name	Entity	GUI	Type
wo_asset_id	Asset Id	activity	text	string
wo_asset_products	Product	activity	text	string
inventory_identifier	Inventory Identifier	inventory	text	string
mwo_meter_count	Meter Count	activity	text	string
mwo_meter_info	Meter Info	activity	text	string
mwo_resource_id	Resource ID	resource	text	string
part_item_number	Item Number	inventory	text	string
part_item_rev_serial_num	Item Number with Revision and Serial Number	inventory	text	string
mwo_standard_op_code	Standard Operation Code	activity	text	string
wo_number	Work Order Number	activity	text	string
wo_asset_serial_number	Work Order Asset Serial Number	activity	text	string
wo_case_note	Work Order Case Note	activity	text	string
wo_asset_name	Work Order Asset Name	activity	text	string
part_uom_code	UOM Code	inventory	text	string
mwo_cancel_reason	Cancel Reason	activity	text	string
part_item_desc	Part Item Description	inventory	text	string

Step 5 - Add Properties to be Indexed for Search

For the integration to function, add these properties as indexes for the activity search API in Oracle Field Service in the **Configuration > Business Rules Search > Activity Search Fields** section:

- Work Order Number (appt_number)
- MWO Operation Id (mwo_operation_id)
- Asset Id (wo_asset_id)
- MWO WorkOrder Id (mwo_workorder_id)

Step 6 - Configure the 'ORCL-BRT-MNT-OFS-CONFIG' Lookup

The ORCL-BRT-MNT-OFS-CONFIG lookup contains the metadata used by the integration. You must configure this lookup for the integration to function properly. Because all the lookup configurations have default values, be sure to configure appropriate values per the business requirements for these lookups:

Name	Value to be inserted
includeOrganizations	The comma-separated values of Maintenance Org Codes that must be synced with Oracle Field Service. If you retain the default value (All), then all the maintenance organizations are synced.
IntegrationUser	The clientId/user used in the Oracle Maintenance OFS Adapter Connection .
LaborResourceType	The Oracle Field Service resource type associated with "Labor" resource instances in Oracle Maintenance (Created in step 4).
EquipmentResourceType	The Oracle Field Service resource type associated with "Equipment" resource instances in Oracle Maintenance (Created in step 4).
UserType	The Oracle Field Service user type which must be associated with "Labor" resource instances in Oracle Field Service (Created in step 4).
ParentResourceId	The external ID of the parent resource in Oracle Field Service (Created in step 3).
TravelArea	The travel area associated with work zones in Oracle Field Service (This is optional and is used only if you select Work Center → Work Zone sync).
DefaultActivityTypeLabel	This configuration is used to map a default activity type in Oracle Field Service if no match is found in ORCL-BRT-ACT-TYPE-MAPPING lookup. This isn't created in Oracle Maintenance as a standard operation.
WOStatusToSyncOFSActivity	This configuration is used in the activity creation flow to filter the work orders by status to sync with Oracle Field Service.
WO_STATUSES_ACTIVITY_CANCEL	This configuration is used to filter the work orders by status for Cancellation of Activities in Oracle Field Service.
WO_STATUSES_ACTIVITY_DELETE	This configuration is used to filter the work orders by status for Deletion of Activities in Oracle Field Service.
WO_STATUSES_ACTIVITY_COMPLETE	This configuration is used to filter the work orders by status for Completion of Activities in Oracle Field Service.
MNTSourceSystemCode	The Source System Code on Fusion. It is required for the transactions. This denotes the source system that started the transactions. This source system must be available in Fusion.
MNTSourceSystemType	The type of the source system, that is, INTERNAL/EXTERNAL value configured in Fusion.

Step 7 - Activating and Running the Prerequisite Integrations

After the you create prerequisite configurations, you can start running the integrations. Some of these integrations are to be run first so that the required data is added to Oracle Field Service.

1. As the first step, you can activate all the integrations given in the package (Activating the integrations is NOT the same as running them). This ensures that all the sub-integrations are active when you run the prerequisite integrations.
2. Run the **Oracle Maintenance OFS Resource Sync** integration. This integration is responsible for syncing the resource instances and the maintenance organizations from Oracle Maintenance with Oracle Field Service.
3. Run the Oracle Maintenance OFS Inventory Sync integration. Inventory types part and part_sn must be mapped with the model property. This integration is responsible for syncing the inventory orgs and the associated inventory items from Oracle Maintenance to Oracle Field Service. For the serialized inventories, the inventory type must be 'part_sn' and it must be mapped with the model property 'inventory_identifier'. For non-serialized inventories, the inventory type must be 'part' and it must be mapped with the model property 'inventory_identifier'.
4. Run the **Oracle Maintenance OFS Activity Types Sync** integration. This integration is responsible for syncing the Standard Operations to activity types in Oracle Field Service.

Note: In the package shared before the OIC store release, this integration syncs ALL the standard operation codes for the tracked Maintenance Organizations with Oracle Field Service. In the OIC Store version, you can map the Standard Operation to Activity Type in the new lookup ORCL-BRT-ACT-TYPE-MAPPING where you can specify what activity type the standard operation is mapped to. The integration then creates the necessary activity types in Oracle Field Service.

5. (Optional) Run the **Oracle Maintenance OFS WorkCenter Sync** integration. This integration syncs the work centers in Oracle Maintenance with the resource instance's work zone. You must set the work zone key as the mwo_work_zone property for this integration to work.

Step 8 - OIC Connection to Call OIC Factory API

Oracle Field Service Maintenance Lookup Helper is a helper integration which is used to read values from a multi-column lookup. You can use the OIC Factory API to achieve this.

The OIC Factory API supports Basic Authentication only in GEN 2 OIC instance and not in GEN 3 OIC instance. So, you must configure the OAuth connection to call the Oracle OFS Maintenance Lookup Helper.

Below is the OAuth Connection in Gen 2:

☰ ORACLE Integration

< ↻ Oracle Maintenance OAuth REST Connection **CONFIGURED**

Connection Properties

Connection to specify information to connect to your application/endpoint and process requests.

Connection Type
REST API Base URL

TLS Version **OPTIONAL**
TLSv1.2

* Connection URL
https:// [REDACTED]

Enable two way SSL for outbound connections (Optional) **OPTIONAL**
< Please select an item from the list >

Identity keystore alias name (Optional) **OPTIONAL**
Name of alias to use for establishing identity during two way SSL communication

Security

Security to specify the login credentials to access your application/endpoint.

Security Policy
OAuth Client Credentials

Here's the OAuth Connection in Gen 3:

Oracle Maintenance OAuth REST Connection

Configured	Role	Identifier	Updated on	Used in
Configured	Invoke	ORACLE_MAINTENANCE_OAUTH_REST_CONNECTION	Oct 27, 2023, 05:47:27 PM IST	2 integrations

Properties

Connection Type: REST API Base URL

Connection URL: https://design.integration. [redacted]

> Optional properties

Security

Security policy: OAuth Client Credentials

Access Token URL: https:// [redacted] /oauth2/v1/token

Client Id: 21ef3dbcda7427eac6d7768c3fa6611

Client Secret: [masked]

Optional security

Scope: https:// [redacted] cp.oraclecloud.com:443

Auth Request Media Type

Client Authentication: Send client credentials as basic auth header

Access type

- Public gateway**
Connect to endpoints using the internet.
- Private endpoint**
Connect to endpoints using your private network.
- Connectivity agent**
Connect to on-premises endpoints through the agent.

Configuration progress

100 %

- ✔ Create connection
- ✔ Configure connection properties
- ✔ Select a security policy and enter credentials
- ✔ Test Connection

For more information about the steps to configure a trusted application in IDCS, click [here](#).

Assign this Application Role to get the write access to the OIC Factory API:

The screenshot displays the Oracle Cloud Services console interface. On the left is a dark navigation sidebar with icons and labels for Groups, Applications, Oracle Cloud Services (highlighted), Jobs, Reports, Settings, and Security. The main content area shows the details for an Integration Cloud Service instance named 'tvm01gen3oic-ofscdev-ia'. At the top of this area are tabs for Details, Configuration, Web Tier Policy, Application Roles (selected), and Groups. Below the tabs is a search bar and action buttons: Select All, Import, and Export. The central part of the screen lists five application roles, each with a user icon, a checkbox, and a description:

- ServiceAdministrator**: Integration instance Administrator role Admin Role
- ServiceDeployer**: Integration instance deployer role
- ServiceDeveloper**: Integration instance developer role
- ServiceUser**: Integration instance user role
- ServiceEndUser**: Integration instance end user role

After you complete steps 1 to 8, the accelerator is ready for use; the work order and activity start getting synchronized.

Tips and Considerations

Here are some tips and considerations you must be aware of when you use the accelerator.

Create the activity flow from Oracle Field Service to Oracle Maintenance

- While creating a new activity using the Book Appointment option, be sure that you always configure a different appointment number or keep the appointment number empty for the new activity.
- The **Add new resource** option selected while creating a new activity from Oracle Field Service creates a new resource under the operation of the parent reference work order mapped in the activity.

Follow-up activity from Oracle Field Service upon cancellation

While cancelling an activity in Oracle Field Service, you can only use the 'newWO' creation action from Oracle Field Service.

Mapping Descriptive Flexfields (DFF) in Oracle Maintenance

The accelerator supports adding DFF at Work order, Operation, Operation resource, Operation transaction, Resource transaction, and Asset levels, in addition to the standard fields. You must configure the DFF in Oracle Field Service with the 'string' datatype for the accelerator to work as expected.

You can add extension groups at appropriate calls and map the required fields using data stitch.

For more information about extension groups in Oracle Integration, see [*Extend an Integration in an Accelerator Project*](#).

4 API Mappings

Oracle Field Service API Roles and Permissions

You must select some settings in the Oracle Field Service Core API and Metadata API for the accelerator to work.

Select these settings in the Core API:

- Activity: Read-Write
- Business Events: Read-Write
- Inventory: Read-Write
- Resource: Read-Write
- User: Read-Write

Select these settings in the Metadata API:

- Activity Type: Read-Write
- Property: Read-Write
- Work Skill: Read-Write
- Work Zone: Read-Write
- Inventory Type: Read-Write

Fusion API Duty Roles, Privileges, and Data Security

You must configure the duty roles in Fusion API as given in this table.

Duty Role	Description
Maintenance Management Web Service	Provides service access to maintenance asset management and work execution using the REST services.
Inventory Administration	Configures all setup-related activities for inventory management.
Inventory Transaction Management	Manages inventory transactions. Tasks include managing reservations and picks, editing pending transactions, and submitting transaction-related processes.
Inventory Management Web Service	Provides web service access to inventory management to perform activities such as creating inventory transactions, recording cycle counts, and performing pick transactions.
Supply Chain Common Web Service	Provides web service access to supply chain common to perform activities such as viewing inventory organizations, plant parameters, carriers, and units of measure list of values.
SOA operator Role	The SOA operator role.

You must configure the Data Security Policies as given in this table.

Business Object	Policy Description	Policy Store Implementation
Installed Base Asset	A Maintenance Manager can manage installed base asset for all installed base assets.	Privilege: Manage Installed Base Asset; Read; Update Resource: Installed Base Asset
Manufacturing Plant	A Manufacturing Engineer can manage the manufacturing plant for the manufacturing plants in which they can operate.	Privilege: Manage Production Resource; Manage Standard Operation; Manage Work Center; Manage Work Order; Manage Work Order Material Transaction; Manage Work Order Resource Transaction; Manage Work Order Operation Transaction; Resource: Manufacturing Plant
Inventory Organization	An Inventory Manager can manage item and inventory organization parameter for the inventory organizations in which they can operate.	Privilege: Manage Inventory Reservation; Manage Item Locator; Manage Item Lot and Item Serial; Manage On-Hand Quantity; Manage Inventory Transfer Order; Manage Maintenance Organization; Manage Subinventory; Resource: Inventory Organization
Item for Table EGP_SYSTEM_ITEMS_B	Defines the details of a transactable object. For example, an item can be any part, material, product, or service that's unique as compared with other items by nature of its attributes.	Privilege: Maintain Item Basic; View Item Basic Resource: EGP_SYSTEM_ITEMS_B

Go to **Setup and Maintenance > Manage Inventory Organization Data Access for Users** to give access to the Maintenance Organization for users with the roles mentioned earlier.

Oracle Maintenance to Oracle Field Service - Work Order Data

Use the table to map the header, operations, operation items, and operation resources of Oracle Maintenance with Oracle Field Service.

Sl.No	URL	Query Params/Payload	Fields Used from API	Integrations Using this API
1	<i>Get One Work Order</i>	expand=WorkOrderDFF onlyData=true	WorkOrderNumber WorkOrderId WorkOrderDescription OrganizationCode OrganizationId AssetNumber WoAssetId PlannedStartDate PlannedCompletionDate	Oracle Maintenance OFS Upsert Activity Helper
2	<i>Get Asset</i>	expand=assetDFF onlyData=true	AssetId AssetNumber AssetDescription InstalledDate SerialNumber	Oracle Maintenance OFS Upsert Activity Helper
3	<i>Get All Operations of Workorder</i>	expand="WorkOrderOperationDFF, WorkOrderOperationResource, WorkOrderOperationMaterial" onlyData=true limit=100 orderBy=OperationSequenceNumber:asc	WoOperationId OperationName OperationSequenceNumber OperationDescription OrganizationId	Oracle Maintenance OFS Upsert Activity Helper Oracle Maintenance OFS Delete Activity Helper

			<p>WorkCenterCode</p> <p>PlannedStartDate</p> <p>PlannedCompletionDate</p> <p>InventoryItemNumber</p> <p>InventoryItemId</p> <p>RequiredQuantity</p> <p>SupplySubInventory</p> <p>SupplyLocator</p>	
4	<i>Get Operation</i>	<p>onlyData=true</p> <p>expand=WorkOrderOperationResource, WorkOrderOperationMaterial</p> <p>limit=100</p> <p>orderBy=OperationSequenceNumber:asc</p>	<p>WoOperationId</p> <p>OperationName</p> <p>OperationSequenceNumber</p> <p>OperationDescription</p> <p>OrganizationId</p> <p>WorkCenterCode</p> <p>PlannedStartDate</p> <p>PlannedCompletionDate</p> <p>InventoryItemNumber</p> <p>InventoryItemId</p> <p>RequiredQuantity</p> <p>SupplySubInventory</p> <p>SupplyLocator</p>	
5	<i>Update Operation Material</i>	<pre>{ "SupplyType": "1" }</pre>		

6	<i>GetAllItem</i>	<p>ItemId=300000177306732</p> <p>OrganizationId=300000152243516</p>	<p>ItemId</p> <p>SerialGenerationValue</p>	
7	<i>GetAllOperationResources</i>	<p>onlyData=true</p> <p>expand=WorkOrderOperationResourceDFF, WorkOrderOperationResourceInstance</p> <p>limit=100</p> <p>orderBy=ResourceSequenceNumber:asc</p>	<p>WoOperationResourceId</p> <p>ResourceSequenceNumber</p> <p>ResourceCode</p> <p>StandardOperationCode</p> <p>RequiredUsage</p> <p>ResourceDescription</p> <p>ProfileCode</p> <p>LaborInstanceId</p>	
8	<i>UpdateOperationResource</i>	<pre>{ "ChargeType": "MANUAL" }</pre>		
11	<i>Update WO. Op. Resource</i>	<p>Workorder Id</p> <p>WO Operation Id</p> <p>WO Op Resource Id</p>	<p>Charge Type</p>	<p>Oracle Maintenance OFS Upsert Activity Helper</p>
17	<i>Get WO. Op. Resource Instances</i>	<p>Workorder Id</p> <p>WO Operation Id</p> <p>WO Op Resource Id</p>		<p>Oracle Maintenance OFS WO Status Update Helper</p>
18	<i>Delete Wo. Op. Resource Instance</i>	<p>Workorder Id</p> <p>WO Operation Id</p> <p>WO Op Resource Id</p> <p>WO Op Resource Instance Id</p>		<p>Oracle Maintenance OFS WO Status Update Helper</p>

19	<i>Get all Work Centers</i>			Oracle Maintenance OFS WorkCenter Sync
20	<i>Get all Work Center Resources</i>			Oracle Maintenance OFS WorkZone Update Helper
21	<i>Get all labour resources</i>			Oracle Maintenance OFS WorkZone Update Helper
22	<i>Get all equipment resources</i>			Oracle Maintenance OFS WorkZone Update Helper
23	<i>Get all resources</i>			Oracle Maintenance OFS WorkZone Update Helper

Oracle Field Service to Oracle Maintenance - Work Order Data with Scheduled Dates and Resource Instance Assignments

Sl.No	URL	Query Params/Payload	Fields Used from API	Integrations Using this API
1	<i>Get One Work Order</i>	OnlyData=true	PlannedStartDate PlannedCompletionDate	Oracle OFS Maintenance Activity WO Sync Helper
2	<i>UpdateWorkOrder</i>	{ "WorkOrderStatusCode": "ORA_RELEASED", "PlannedStartDate" : "2023-12-12 12:00:00", "PlannedEndDate" : "2023-12-12 14:00:00" }		Oracle OFS Maintenance Activity WO Sync Helper
3	<i>Get One Operation</i>	OnlyData=true	PlannedStartDate PlannedCompletionDate	Oracle OFS Maintenance Activity WO Sync Helper

4	<i>Update One Operation</i>	{ "PlannedStartDate" : "2023-12-12 12:00:00", "PlannedCompletionDate" : "2023-12-12 14:00:00" }		Oracle OFS Maintenance Activity WO Sync Helper
5	<i>Update Operation Resource</i>	{ "PlannedStartDate" : "2023-12-12 12:00:00", "PlannedCompletionDate" : "2023-12-12 14:00:00" }		Oracle OFS Maintenance Activity WO Sync Helper
6	<i>Get all Operations</i>		PlannedStartDate PlannedCompletionDate	Oracle OFS Maintenance Work Order Update Helper
7	<i>Get all Resources</i>		PlannedStartDate PlannedCompletionDate	Oracle OFS Maintenance WO Operation Update Helper
8	<i>Delete Resource Instance</i>			Oracle OFS Maintenance Operation Delete
9	<i>Create Resource Instance</i>	{ "BasisType": 1, "ResourceCode": "BR_Team", "RequiredUsage": 1, "ResourceSequenceNumber": 30, "UsageRate": 1, "PlannedStartDate": "2023-08-22 04:00:00",		Oracle OFS Maintenance Res Instance Sync Helper

		<pre>"PlannedCompletionDate": "2023-08-22 04:30:00" }</pre>		
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Oracle Field Service to Oracle Maintenance - Activity Sync from Oracle Field Service to Oracle Maintenance

Sl.No	URL	Query Params/Payload	Fields Used from API	Integrations Using this API
1	<i>Create Work Order</i>	<pre>{ "WorkOrderTypeCode": "PREVENTIVE", "WorkOrderSubTypeCode": "ORA_ PLANNED", "AssetNumber": "FLTR01", "OrganizationCode": "M001", "SchedulingMethod": "NO_ SCHEDULING", "PlannedStartDate": "2023-08-03 08:30:00", "PlannedCompletionDate": "2023-08-03 08:30:00", "WorkOrderOperation": [{ "CountPointOperationFlag": true, "OperationName": "Preventive Maintenance", "OperationSequenceNumber": 10, "PlannedStartDate": "2023-08-03 08:30:00",</pre>		Oracle OFS Maintenance Work Order Create

		<pre>"PlannedCompletionDate": "2023-08-03 08:30:00", "WorkCenterCode": "BMWWC", "StandardOperationCode": "DemoOP" }] }</pre>	
2	<i>Create Operation</i>	<pre>{ "CountPointOperationFlag" : true, "OperationName": "Preventive Maintenance", "OperationSequenceNumber" : 20, "PlannedStartDate": "2023-08-18T17:58:00", "PlannedCompletionDate": "2023-08-18T18:28:00", "WorkCenterCode" : "EngineRepairCenter", "StandardOperationCode" : "DO" }</pre>	Oracle OFS Maintenance Operation Create Helper
3	<i>Create Resource</i>	<pre>{ "BasisType": 1, "ResourceCode": "BR_Team", "RequiredUsage": 1, "ResourceSequenceNumber": 30, "UsageRate": 1, "PlannedStartDate": "2023-08-22 04:00:00",</pre>	Oracle OFS Maintenance Op Resource Create Helper

		<pre>"PlannedCompletionDate": "2023-08-22 04:30:00" }</pre>		
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Asset Status Update from Oracle Field Service to Oracle Maintenance

Sl.No	URL	Query Params/Payload	Fields Used from API	Integrations Using this API
1	<i>UpdateAssetStatus</i>	NA	NA	Oracle OFS Maintenance Work Order Update Oracle OFS Maintenance Update WO Status Oracle OFS Maintenance Followup Action Update Oracle OFS Maintenance Schedule Update Helper

Inventory Sync to Oracle Field Service: Real-Time Available Information Sync

Sl.No	URL	Query Params/Payload
1	<i>Get all organizations</i>	limit=1000

2	<i>Get all subinventories</i>	onlyData=true&limit=1000&expand=itemSubinventories,locators&q=OrganizationCode={OrganizationCode}
3	<i>Get all inventory balances</i>	onlyData=true&limit=1000&q=OrganizationCode={OrganizationCode};SubinventoryCode={SubinventoryCode};P
4	<i>Inventory Available Quantity Details</i>	{ "OrganizationCode": {OrganizationCode}, "ItemNumber": {ItemNumber}, "Subinventory": {Subinventory}, "Locator": {Locator} }
5	<i>Get Inventory Serial Numbers</i>	onlyData=true&q=OrganizationId={OrganizationId};Reserved=No;UsageCode=3;ItemNumber={ItemNumber};Sub
6	<i>Get Work Order Operation Materials</i>	
7	<i>Create Operation materials</i>	{ "MaterialSequenceNumber": 30, "InventoryItemNumber": "Gasket Set", "Quantity": 1, "UnitOfMeasure": "Each", "SupplyType": "1", "RequiredDate": "2017-08-08T00:00:00+00:00" }
8	<i>Update Operation Materials</i>	{ "RequiredQuantity": 1 }

9	<i>Get all reservations</i>	q=OrganizationCode={ORGANIZATION_CODE};DemandSourceType='Work order';SupplySourceType='On hand';It
10	<i>Delete one reservation</i>	
11	<i>Create reservations</i>	<pre>{ "OrganizationCode": "M001", "ItemNumber": "Axis Cable", "DemandSourceType": "Work order", "DemandSourceHeaderNumber": "MNT1WO-1902", "DemandSourceLineId": "300000259262849", "SupplySourceType": "On hand", "SubinventoryCode": "LocSubInv", "Locator": "Aisle...", "ReservationQuantity": "1", "ReservationUOMCode": "zzu" }</pre>

Standard Operation Configurations to Oracle Field Service

Sl.No	URL	Query Params/Payload	Fields Used from API	Integrations Using this API
1	<i>Get all operations</i>	limit=1000&q=CountPointOperationFlag=false	StandardOperationCode	Oracle Maintenance OFS A Types Sync

Work Center Configurations and Resource Instance to Oracle Field Service, Equipment and Equipment Instance to Oracle Field Service

Sl.No	URL	Query Params	Fields Used from API
1	https://fa-eqkh-dev8-saasfademo1.ds-fa.oraclepdemos.com/fscmRestApi/resources/11.13.18.05/productionResources?limit=100&q=OrganizationCode="M001"&expand=LaborInstance&onlyData=true	limit=100&q=OrganizationCode="M001"&expand=LaborInstance&onlyData=true	

APIs for Operation Completion

Sl.No	API Name	Query Params / Payload	Fields Used from API	Integrations Using th
1	<i>maintenanceresourcetransactions</i>	<pre> { "SourceSystemCode" : "OFS", "SourceSystemType" : "EXTERNAL", "ResourceTransactionDetail": [{ "LaborInstanceId": 1111, "ResourceCode": "Engine_team", "ResourceActivityCode": "ORA_SETUP", "OperationSequenceNumber": 10, "TransactionDate" : "2023-06-23 04:58:00", "OrganizationCode": "M001", "TransactionTypeCode": "RESOURCE_CHARGE", "TransactionQuantity": 1, "WorkOrderNumber": "MNT1WO-1430", "ResourceSequenceNumber": 10 }] } </pre>		Oracle OFS Maintenance Operation Completion

2	<i>maintenancematerialtransactions</i>	<pre>{ "SourceSystemCode" : "OFS", "SourceSystemType" : "EXTERNAL", "InterfaceBatchStatus": "VALID", "MaterialTransactionDetail" : [{ "OrganizationCode" : "M001", "TransactionQuantity" : 1, "TransactionDate" : "2023-06-15 08:38:00", "TransactionTypeCode" : "MATERIAL_ISSUE", "WoOperationSequenceNumber" : 10, "WorkOrderNumber" : "MNT1WO-1375", "InventoryItemNumber" : "RS Bushing" //"SubinventoryCode": "Stores" }] }</pre>		Oracle OFS Maintenance Operation Completion
3	<i>maintenanceoperationtransaction</i>	<pre>{ "SourceSystemCode" : "FUSION_MOBILE", "SourceSystemType" : "EXTERNAL", "OperationTransactionDetail" : [{ "OrganizationCode" : "M001", "WoOperationSequenceNumber" : 10, "TransactionDate" : "2023-06-23T06:19:00-03:00", "TransactionNote" : "REST Testing Maintenance Operation Txn", "WorkOrderNumber" : "MNT1WO-1442" , "FromDispatchState" : "READY", "ToDispatchState" : "CANCEL" }] }</pre>		Oracle OFS Maintenance Operation Completion

APIs for Meters

Sl.No	API Name	Query Params / Payload	Fields Used from A
1	<i>assetMeters</i>	q=MeterUsageCode='ORA_ASSET';RecordAtWoComplCode='ORA_MANDATORY' or 'ORA_OPTIONAL';ActiveEndDate> currentDateTime or is null	MeterCode MeterDefinitionId
2	<i>getMeterTemplate</i>	MeterDefinitionId	MeterName MeterCode UnitOfMeasure

			<p>MeterType</p> <p>ReadingType</p> <p>ReadingDirectionM</p> <p>RecordAtWoComple</p> <p>ResetAllowedFlag</p> <p>RolloverAllowedFla</p>
3	<i>getAllMeterReadings</i>	finder=MetersByAssetMeterUserKey;MntAssetNumber=<Asset Number>, MntMeterCode=<MeterCode>	<p>ReadingDate</p> <p>NetValue</p> <p>ReadingValue</p>
4	<i>createMeterReading</i>	<pre>{ "AssetId": xxxxxx, "MeterCode": "TEST", "ReadingDate": "2023-08-29T09:48:55.920+00:00", "MeterUsageCode": "ORA_ASSET", "ReadingValue": "230", "Comments": "XXXX XXXX XXXXX" }</pre>	

5 Integrations and Lookups

Integrations

Integration Properties

S.No	Integrations	Property Name	Default Value	Remarks
1	Oracle OFS Maintenance Activity WO Sync Helper	DelayInMilliseconds	5000	Retry configuration added to handle concurrent update issue with Fusion API
	Oracle OFS Maintenance WO Operation Update Helper	RetryCount	3	
	Oracle OFS Maintenance Work Order Update Helper			
	Oracle OFS Maintenance Create Res Copying Helper			
	Oracle OFS Maintenance Update WO Status			
	Oracle Maintenance Op Material Update Helper			

Oracle Maintenance to Oracle Field Service Metadata Sync

S.No	Integrations	Identifier	Dependent Integrations	Type (Real time / Scheduled / Subintegration)	Remarks
1	Oracle Maintenance OFS WorkCenter Sync	ORCL-BA-MNT_OFS_WC_SYNC		Scheduled	Integration to sync work centers to work zones in Oracle Field Service
2	Oracle Maintenance OFS Resource Sync	ORCL-BA-MNT_OFS_RES_SYNC		Scheduled	Schedule integration to sync resource from

					Oracle Maintenance to Oracle Field Service
3	Oracle Maintenance OFS Activity Types Sync	ORCL-BA-MNT_OFS_ACT_TYPE_SYNC		Scheduled	Integration which syncs standard operations as activity types in Oracle Field Service
4	Oracle Maintenance OFS Upsert Activity Type Helper	ORCL-BA-MNT_OFS_ACT_TYPE_HELP	Oracle Maintenance OFS Upsert Activity Type Helper	Sub Integration	Subintegration which creates an activity type in Oracle Field Service if the one with the same label doesn't already exist
5	Oracle Maintenance OFS Upsert Work Skill Helper	ORCL-BA-MNT_OFS_WS_HELPER	Oracle Maintenance OFS Resource Sync	Sub Integration	
6	Oracle Maintenance OFS Property Setup	ORCL-BRT-MNT_OFS_PROPERTY_SETUP		Scheduled	Property Setup integration to create all required properties for Oracle Maintenance Integrations
7	Oracle Maintenance OFS Property Create Helper	ORCL-BRT-MNT_OFS_PROP_CREAT_HLPR	Oracle Maintenance OFS Property Setup	Sub Integration	Helper Integration that would create a property in Oracle Field Service if it doesn't already exist
8	Oracle Maintenance OFS DFF Sync	ORCL-BA-OFS_MNT_DFF_SYNC	Oracle Maintenance OFS Upsert Activity Helper	Sub Integration	Helper integration to sync the context/global segments and the fields within the segments to Oracle Field Service at WO/Operation/Op Resource level.
9	Oracle Maintenance OFS WorkZone Update Helper	ORCL-BA-MNT_OFS_RES_WZ_HLPR	Oracle Maintenance OFS WorkCenter Sync	Sub Integration	Helper integration to sync the work zone to resources in Oracle Field Service. When a new work zone is added or a new resource is associated with a work zone, this integration syncs the work zone for the resource in Oracle Field Service.

Oracle Maintenance to Oracle Field Service Work Order Sync

S.No	Integrations	Identifier	Dependent Integrations	Type (Real time / Scheduled / Subintegration)	Remarks
1	Oracle Maintenance OFS Get Inventory Type Helper	ORCL-BA-MNT_OFS_GET_INV_TYPE_HLP	Oracle Maintenance OFS Upsert Activity Helper	Sub Integration	Helper integration to get the inventory type of the items
2	Oracle Maintenance OFS Update Activity Trigger	ORCL-BA-MNT_OFS_UPDATE_ACTY_TRIG		Realtime	Integration triggered on Update Oracle Maintenance Workorder event. It includes Create, Update, Cancel, Delete and Complete Activity Operations
3	Oracle Maintenance OFS Upsert Activity Helper	ORCL-BA-MNT_OFS_UPSERT_ACT_HELP	Oracle Maintenance OFS Update Activity Trigger	Sub Integration	Sub-integration to create or update activity from Workorder operation
4	Oracle Maintenance OFS Find Activities Helper	ORCL-BA-MNT_OFS_FIND_ACTIVITIES	Oracle Maintenance OFS Update Activity Trigger	Sub Integration	Helper integration to find the existing activities with the appointment numbers.
5	Oracle Maintenance OFS Delete Activity Helper	ORCL-BA-MNT_OFS_DEL_ACT_HELPER	Oracle Maintenance OFS Upsert Activity Helper	Sub Integration	Helper Integration to Delete the Activities if corresponding Operation/Resource deleted in Oracle Maintenance
6	Oracle Maintenance OFS WO Status Update Helper	ORCL-BA-MNT_OFS_WO_STS_HLP	Oracle Maintenance OFS Update Activity Trigger	Sub Integration	Sub integration used to sync Work order Status with an Oracle Field Service Activity
7	Oracle Maintenance OFS ActivityLink Check Helper	ORCL-BA-MNT_OFS_ACT_CHECK_HLPR	Oracle Maintenance OFS Upsert Activity Helper	Sub Integration	Integration used to check if an activity link is already present for an activity in Oracle Field Service.

8	Oracle Maintenance OFS Activity Type Lookup Helper	ORCL-BA-MNT_OFS_ACT_TYP_LKUP_HLP	Oracle Maintenance OFS Upsert Activity Helper Oracle Maintenance OFS Upsert Activity Type Helper	Sub Integration	Helper integration used to obtain activity type related details provided a standard operation code
9	Oracle Maintenance Op Material Update Helper	ORCL-BA-MNT_OP_MATER_UPDAT_HELP	Oracle Maintenance OFS Upsert Activity Helper	Sub Integration	Helper integration to update the Supply type as push for Operation material

Oracle Field Service to Oracle Maintenance Activity Schedule and Assignment Update

S.No	Integrations	Identifier	Dependent Integrations	Type (Real time / Scheduled / Subintegration)	Remarks
1	Oracle OFS Maintenance Work Order Update	ORCL-BA-OFS_MNT_WORK_ORDER_UPDAT		Realtime	Update WO Operation/resource schedule from Oracle Field Service to Oracle Maintenance for regular activities.
2	Oracle OFS Maintenance Segmented Activity Handler	ORCL-BA-OFS_MNT_SA_HANDLER		Realtime	Parent integration that's subscribed to schedule change and assignment change for multi segmented activities.
3	Oracle OFS Maintenance Schedule Update Helper	ORCL-BA-OFS_MNT_SCH_UPDAT_HELPER	Oracle OFS Maintenance Segmented Activity Handler	Sub Integration	Helper integration to get the start date time of the first segment and the end date time of the last segment and pass it to sub integration to update the schedule to Oracle Maintenance.
4	Oracle OFS Maintenance Activity WO Sync Helper	ORCL-BA-OFS_MNT_WO_SYNC_HELPER	Oracle OFS Maintenance Work Order Update	Sub Integration	Helper integration to sync the schedule of an activity from

					Oracle Field Service to Oracle Maintenance. This integration also does the time zone conversion before sending the updates to Oracle Maintenance.
5	Oracle OFS Maintenance WO Operation Update Helper	ORCL-BA-OFS_MNT_WOO_UPDT_HLPR	Oracle OFS Maintenance Activity WO Sync Helper	Sub Integration	Helper class to update the Operation window with the least start date of the resource and the max end date of the resource under the operation.
6	Oracle OFS Maintenance Work Order Update Helper	ORCL-BA-OFS_MNT_WO_UPDT_HLPR	Oracle OFS Maintenance WO Operation Update Helper	Sub Integration	Helper integration which sets the WO start date as the least operation start date time and WO end date time as the max operation end date time. This integration also updates the custom Work order statuses to Oracle Maintenance based on the mapping in the lookup, ORCL-BRT-OFS-MNT-STATUS-MAPPING.
7	Oracle OFS Maintenance Resource Instance Sync	ORCL-BA-OFS_MNT_RES_INSTNCE_SYNC		Realtime	This integration captures the move events triggered from Oracle Field Service for regular activities and updates the resource instance to Oracle Maintenance.
8	Oracle OFS Maintenance Res Instance Sync Helper	ORCL-BA-OFS_MNT_RES_INST_HLPR	Oracle OFS Maintenance Resource Instance Sync Oracle OFS Maintenance Work Order Create	Sub Integration	Helper integration to sync the resource instance against an Operation Resource in Oracle Maintenance.

9	Oracle OFS Maintenance Remove Res Instance Helper	ORCL-BA-OFS_MNT_RMV_INST_HELPER	Oracle OFS Maintenance Res Instance Sync Helper	Sub Integration	Helper integration to check if all the work order operations' resources instances are present in all resource instance's activity or not.
10	Oracle OFS Maintenance Create Res Copying Helper	ORCL-BA-OFS_MNT_CREATE_RES_HLPR	Oracle OFS Maintenance Res Instance Sync Helper	Sub Integration	Create a resource from the existing resource if the existing organisation don't have the resource details.
11	Oracle OFS Maintenance Segmented Activity Delete	ORCL-BA-OFS_MNT_SEGME_ACTIV_DEL		Realtime	This integration handles the sync of deletion of segments from Oracle Field Service to Oracle Maintenance
12	Oracle OFS Maintenance Master Segment Cancel	ORCL-BA-OFS_MNT_MAS_SEG_CANCEL		Realtime	This updates the Oracle Maintenance WO status to canceled when the master segment is canceled.
13	Oracle OFS Maintenance Update WO Status	ORCL-BA-OFS_MNT_UPDAT_WO_STATUS		Realtime	Updates Oracle Maintenance WO status when an activity starts and when the activity is made note done without any action type selection. The action type is captured in the custom field, mwo_action_type.
14	Oracle OFS Maintenance Operation Delete	ORCL-BA-OFS_MNT_OP_DEL		Realtime	This integration get triggered when an activity is deleted from Oracle Field Service. If the activity corresponds to an operation resource in Oracle Maintenance, then the resource is deleted from Oracle Maintenance.
15	Oracle OFS Maintenance DFF Sync	ORCL-BA-OFS_MNT_DFF_SYNC	Oracle OFS Maintenance Operation Completion Helper	Sub Integration	Helper integration to create a new context segment set from Oracle Field Service to Oracle Maintenance

			<p>Oracle OFS Maintenance Schedule Update Helper</p> <p>Oracle OFS Maintenance Work Order Update</p>	<p>or to sync the context segment field updates from Oracle Field Service to Oracle Maintenance.</p>
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Oracle Field Service to Oracle Maintenance New Activity and Follow-Up Activity Sync

S.No	Integrations	Identifier	Dependent Integrations	Type (Real time / Scheduled / Subintegration)	Remarks
1	Oracle OFS Maintenance Work Order Create	ORCL-BA-OFS_MNT_WO_CREATE		Realtime	This integration syncs the new activities created in Oracle Field Service to Oracle Maintenance.
2	Oracle OFS Maintenance Followup Action Update	ORCL-BA-OFS_MNT_FOLLOW_UP_ACT_UP		Realtime	Integration that creates a new WO/OP/RES in Oracle Maintenance based on the action type selection in Oracle Field Service.
3	Oracle OFS Maintenance Operation Create Helper	ORCL-BA-OFS_MNT_OP_CREATE_HELPER	Oracle OFS Maintenance Work Order Create	Sub Integration	Helper integration to create a new operation in Oracle Maintenance.
4	Oracle OFS Maintenance Op Resource Create Helper	ORCL-BA-OFS_MNT_OP_RES_CREA_HELP	Oracle OFS Maintenance Work Order Create	Sub Integration	Helper integration to create a new operation resource in Oracle Maintenance.

Oracle Field Service to Oracle Maintenance Inventory Sync

S.No	Integrations	Identifier	Dependent Integrations	Type (Real time / Scheduled / Subintegration)	Remarks
1	Oracle Maintenance OFS Inventory Internal Transfer	ORCL-BA-MNT_OFS_INV_INT_HELPER		Realtime	Integration to transfer undo-installed items from technician's pool to the source inventory (The Oracle Field Service resource from which the technician installed the inventory item).
2	Oracle OFS Maintenance Inventory Reserve Helper	ORCL-BA-MNT_OFS_INV_RESERV_HLPR	<ul style="list-style-type: none"> Oracle OFS Maintenance Inventory Install Helper Oracle OFS Maintenance Inventory Complete Helper 	Sub Integration	Subintegration used to create inventory reservation in Oracle Maintenance.
3	Oracle OFS Maintenance Inventory Activity Trigger	ORCL-BA-OFS_MNT_INV_ACT_TRIGGER		Realtime	Trigger for checking activity inventory changes to call Oracle OFS Maintenance Inventory Install Helper.
4	Oracle OFS Maintenance Inventory Resource Trigger	ORCL-BA-OFS_MNT_INV_RES_TRIG		Realtime	Trigger for checking resource inventory changes to call Oracle OFS Maintenance Inventory Install Helper.
5	Oracle OFS Maintenance Inventory Install Helper	ORCL-BA-OFS_MNT_INV_INST_HELPER	<ul style="list-style-type: none"> Oracle OFS Maintenance Inventory Activity Trigger Oracle OFS Maintenance Inventory Resource Trigger 	Sub Integration	Integration which would compute installed inventory for a given operation computing it across all the associated activities and triggers the reservation helper to set reservations for the same.
6	Oracle OFS Maintenance Inventory List Helper	ORCL-BA-OFS_MNT_INV_LIST_HELPER	<ul style="list-style-type: none"> Oracle OFS Maintenance Inventory Install Helper Oracle OFS Maintenance Inventory Complete Helper 	Sub Integration	Helper Integration which would return all the inventory items associated with an operation when an activity associated

					with the operation is provided.
7	Oracle Maintenance OFS Inventory Resource Helper	ORCL-BRT-MNT_OFS_INV_RES_HLPR	Oracle Maintenance OFS Inventory Sync	Sub Integration	Helper integration that would create Resource associated with inventory in Oracle Field Service and assign the appropriate properties.
8	Oracle Maintenance OFS Inventory Sync Helper	ORCL-BRT-MNT_OFS_INV_SYNC_HELPER	Oracle Maintenance OFS Inventory Sync	Sub Integration	Helper integration that would sync inventory items from a given subinventory to a resource in Oracle Field Service.
9	Oracle OFS Maintenance Inventory Complete Helper	ORCL-BA-OFS_MNT_INV_COMP_HELPER	Oracle OFS Maintenance Operation Completion Helper	Sub Integration	Helper Integration to trigger Material transaction in Oracle Maintenance, once an activity is completed in Oracle Field Service.
10	Oracle Maintenance OFS Inventory Sync	ORCL-BA-MNT_OFS_INV_SYNC			Driver integration to sync Inventory Items from Oracle Maintenance to Oracle Field Service.

Oracle Field Service to Oracle Maintenance Transactions and Operation Completion

S.No	Integrations	Identifier	Dependent Integrations	Type (Real time / Scheduled / Subintegration)	Remarks
1	Oracle OFS Maintenance Operation Completion	ORCL-BA-OFS_MNT_OP_CMPLT	Oracle OFS Maintenance Operation Completion Helper	Realtime	Main integration to do the resource transaction, material transaction, operation completion, Inventory Cont adjustment, asset status update and post meter read

2	Oracle OFS Maintenance Operation Completion Helper	ORCL-BA-OFS_MNT_OP_CMPLT_HELPER	<p>Oracle OFS Maintenance Operation Completion</p> <p>Oracle OFS Maintenance Work Order Update Helper</p> <p>Oracle OFS Maintenance Followup Action Update</p>	Sub Integration	<p>Helper integration to do the resource transaction, material transaction, operation completion, Inventory Count adjustment, asset status update and post meter read. If any of the resource or the material transaction got failed, the mwo_transaction status property will be set a FAILURE. If all the activities the operation are completed, canceled, or not done and there's no transaction failure in any of the activity, then it performs an Operation Transaction.</p> <p>Along with that it:</p> <ul style="list-style-type: none"> • Updates the inventory count also in Oracle Maintenance. • Updates the asset status • Posts the meter reading captured in Oracle Field Service to Oracle Maintenance.
3	Oracle OFS Maintenance Status Check Helper	ORCL-BA-OFS_MNT_STS_CHK_HELP	<p>Oracle OFS Maintenance Operation Completion</p> <p>Oracle OFS Maintenance Opn Completion Check Helper</p>	Sub Integration	<p>It checks if all the activities an operation are completed, canceled, or not done. It returns a value COMPLETE or INCOMPLETE, the transaction status [Any transaction failed in any of the activity in that operation] and the last activity Id to the parent integration.</p>
4	Oracle OFS Maintenance Opn Completion Check Helper	ORCL-BA-OFS_MNT_PREPO_OPN_CMPL_H	Oracle OFS Maintenance Operation Completion Helper	Sub Integration	<p>Helper integration to check any Operations before/after the current Operation is eligible for Operation Transaction Completion. If so, tries to complete those operations.</p>

Oracle Maintenance to Oracle Field Service Asset Meter Sync

S.No	Integrations	Identifier	Dependent Integrations	Type (Real time / Scheduled / Subintegration)	Remarks
1	Oracle Maintenance OFS Meters Sync Helper	ORCL-BA-OFS_MNT_METER_SYNC_HELPR	<ul style="list-style-type: none"> Oracle Maintenance OFS Upsert Activity Helper Oracle OFS Maintenance Schedule Update Helper Oracle OFS Maintenance Work Order Update Oracle OFS Maintenance Work Order Create Oracle OFS Maintenance Update WO Status 	Sub Integration	It syncs the current asset's meters and its latest reading data from Oracle Maintenance to Oracle Field Service. A maximum of two meters are synced to Oracle Field Service.

Oracle Field Service to Oracle Maintenance Asset Meter Readings Sync

S.No	Integrations	Identifier	Dependent Integrations	Type (Real time / Scheduled / Subintegration)	Remarks
1	Oracle OFS Maintenance Meter Reading Update	ORCL-BA-OFS_MNT_MTR_READ_UPDATE	Oracle OFS Maintenance Operation Completion Helper	Sub Integration	To post the latest meter reading captured in Oracle Field Service back to Oracle Maintenance.

Common Helper Integration

S.No	Integrations	Identifier	Type (Real time / Scheduled / Subintegration)	Remarks
------	--------------	------------	---	---------

1	Oracle OFS Maintenance Lookup Helper	ORCL-BA-OFS_MNT_LOOKUP_HELPER	Sub Integration	Helper integration to get the value from lookup based on the combination of two column values
2	Oracle OFS Maintenance Set Valid Date Helper	ORCL-BA-OFS_MNT_SET_VLD_DATE_HLP	Sub Integration	Helper integration to validate the dates and return the valid dates
3	Oracle OFS Maintenance Timezone Convertor Helper	ORCL-BA-OFS_MNT_TIMEZON_CONV_HLP	Sub Integration	Helper integration to convert the time to UTC time zone
4	Oracle Maintenance OFS Create Resource Helper	ORCL-BA-MNT_OFS_CREATE_RES_HLPR	Sub Integration	Helper integration to create a resource in Oracle Field Service, if it doesn't exist

Lookups

ORCL-BRT-ACT-TYPE-MAPPING Lookup

Lookup Name: ORCL-BRT-ACT-TYPE-MAPPING

Default Values:

- Standard operation codes and the corresponding activity types associated with it
- Column representing the default standard operation code for a given activity type

This lookup is also used to create the required activity types based on the Standard Operation code. It maps the data required to create segmentable activity types.

Sample Mapping:

STANDARD_OPERATION_CODE	ACTIVITY_LABEL	ACTIVITY_NAME	SEGMENTABLE	SEGMENT_MIN_DURATION	SEGMENT_MAX_DURATION	Default_Flag
DRAIN_OIL	drain_oil	Drain Oil	true	30	120	true
CHANGE_OIL	drain_oil	Drain Oil	true	30	120	false
REP_ENG	repair_engine	Repair Engine	false	(Add a Value)	(Add a Value)	true
BOD_REP	body_repair	Body Repair	true	60	240	true

ORCL-BRT-INV-TYPE-MAPPING Lookup

Lookup Name: ORCL-BRT-INV-TYPE-MAPPING

Default Values:

- List of business units to be tracked as part of the integration
- Subinventory groups and whether they must be tracked, or if they're to be treated as trucks for road call scenarios

Sample Mapping:

MAINTENANCE_ENTITY_NAME	MAINTENANCE_ENTITY_TYPE	OFS_RESOURCE_TYPE
SRVTRCK	SUBINVENTORY_GROUP	TRUCK
US1 Business Unit	BUSINESS_UNIT	INV_STORE_FLUSA
IGNSRVTRCK	SUBINVENTORY_GROUP	(Add a Value)
US2 Business Unit	BUSINESS_UNIT	INV_STORE_CAUSA
RETURN	SUBINVENTORY_GROUP	INV_DUMP

ORCL-BRT-OFS-MNT-STATUS-MAPPING Lookup

This lookup maps the Oracle Field Service Activity Status and Status Change Reason fields [custom field used to capture the NotDone reason] to Maintenance Work Order custom status. The values mapped depend on the business scenario.

Lookup Key	Usage
OFS_STATUS + STATUS_CHANGE_REASON	This lookup looks for a mapping for MNT_STATUS [custom MNT WO status] which can be derived from a combination of Oracle Field Service Activity Status and Status Change Reason [custom field to capture the reason for moving an activity to NotDone status].

Lookup Name: ORCL-BRT-OFS-MNT-STATUS-MAPPING

Default Values:









- List of business units to be tracked as part of the integration
- Subinventory groups and whether they must be tracked, or if they're to be treated as trucks for road call scenarios

Sample Mapping:

< ORCL-BRT-OFS-MNT-STATUS-MAPP

Lookup

Create a lookup to associate the different values used by your applications. When you

	OFS_STATUS ▾	×
	pending	(Add a Value)
	started	(Add a Value)
	completed	(Add a Value)
	pending	enroute
	notdone	RequiresTowing
	notdone	AdditionalTime
	notdone	AwaitingParts
	notdone	other

ORCL-BRT-METERS-PROPERTY-MAPPING Lookup

Lookup Key	Usage
meter_code_	To create the property for meter code as meter_code_<<counter>>
meter_comment_	To create the property for meter code as meter_comment_<<counter>>
meter_direction_	To create the property for meter code as meter_direction_<<counter>>
meter_last_reading_	To create the property for meter code as meter_last_reading_<<counter>>
meter_last_reading_date_	To create the property for meter code as meter_last_reading_date_<<counter>>
meter_name_	To create the property for meter code as meter_name_<<counter>>
meter_new_reading_	To create the property for meter code as meter_new_reading_<<counter>>

Lookup Name: ORCL-BRT-METERS-PROPERTY-MAPPING

ORCL-BRT-PROPERTY-MAPPING Lookup






Lookup Name: ORCL-BRT-PROPERTY-MAPPING

This lookup maps all the custom properties used in for the Maintenance integration. The label, name, entity, data type, and GUI are mapped in this table.

ORCL-BRT-PROPERTY-MAPPING

Lookup

Create a lookup to associate the different values used by your applications. When you

	INDEX ▼ ×	LABEL ▼ ×	NAME ▼
	0	mwo_op_resourcename	Maintenance Resource Name
	1	mwo_op_seq_number	Operation Sequence Number
	2	mwo_workorder_id	Work Order ID
	3	mwo_workorder_type	Work Order Type
	4	mwo_operation_name	Work Order Operation Name

ORCL-BRT-MNT-OFS-CONFIG Lookup

Lookup Name: ORCL-BRT-MNT-OFS-CONFIG

Lookup Keys and Usages:

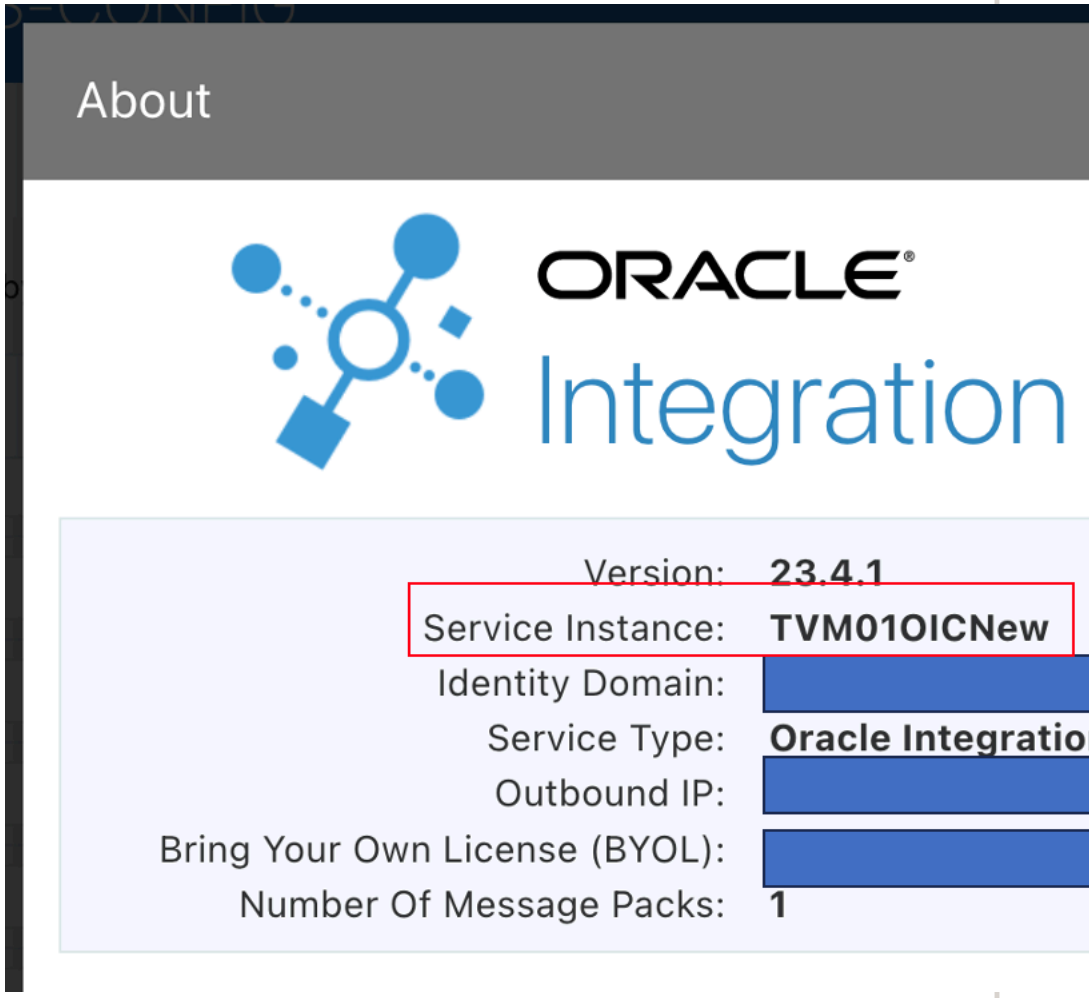
Lookup Key	Usage
WOStatusToSyncOFSActivity	The list of statuses in Oracle Maintenance that are synced to Oracle Field Service. You can add multiple Work Order Status(s) separated by commas.

Lookup Key	Usage
	For example: ORA_RELEASED, AWAIT_PARTS
ActivityTypeDefaultDuration	Default duration of activity types created as part of the Standard Operation sync.
ActivityTypeSegmentMinDuration	Minimum duration of activities for segmentable activity types (applicable only if segmenting flag is enabled).
ActivityTypeSegmentMaxDuration	Maximum duration of activities for segmentable activity types (applicable only if the segmenting flag is enabled).
ActivityTypeCreateSegmentedTypes	Controls whether activity types created are segmentable.
DefaultActivityTypeName	Name of the default activity type created in Oracle Field Service used for syncing ad hoc operations.
DefaultActivityTypeGroupName	Group Name of the default activity type created in Oracle Field Service used for syncing ad hoc operations.
DefaultActivityTypeLabel	Label of the default activity type created in Oracle Field Service used for syncing ad hoc operations.
DefaultActivityTypeGroupLabel	Group Label of the default activity type created in Oracle Field Service used for syncing ad hoc operations.
includeOrganizations	Multiple Organization Code(s) separated by comma(.). Value "All" includes all the organizations.
IntegrationUser	Used for echo suppression, this field contains the clientID for the Oracle Field Service connection used in Oracle Maintenance flow.
ScheduleActivityEnabled	When this flag is set to true, it creates the Oracle Field Service activity in the Scheduled pool. When set to false, all the synced activities are created under non scheduled pool. For example: true
Basis	Mandatory field to create a new resource under a Oracle Maintenance Operation. If the value is 1, then the resource consumption is fixed. It doesn't change according to work order quantity. If the value is 2, then the resource consumption isn't fixed. It might change according to work order quantity. For example: 1
UsageRate	Usage rate of the new resource created under an existing work order operation. Resource usage rate that the plant requires to make the required work order quantity. For example: 1

Lookup Key	Usage
RequiredUsage	<p>Required usage of the new resource created under an existing work order operation. Resource usage that the plant requires to make the required work order quantity.</p> <p>For example: 1</p>
MNTSourceSystemCode	<p>The Source System Code in Fusion. It is required for the transactions. This denotes the source system that started the transactions.</p> <p>For example: OFS</p>
MNTSourceSystemType	<p>The type of the source system, INTERNAL/EXTERNAL.</p> <p>For example: EXTERNAL</p>
SupplyInventoryDelimiter	<p>The delimiter used to separate parts used in forming an inventory identifier. It is used in both Activity Required Inventory and Inventory Sync Integrations.</p> <p>For example: .</p>
MNTAssetMaxNoOfMeters	<p>It holds the maximum number of meters a single asset can hold. Currently it supports only a maximum value of 2.</p>
EnableEchoSuppressionForSLA	<p>The flag that indicates whether to enable echo suppression for SLA or not. If this flag is set to true, then SLA fields are not updated when the Oracle Maintenance work order is synced to Oracle Field Service.</p> <p>For example: true</p>
IsAssetStatusUpdate	<p>When this flag is set to true, it enables the update of Asset status from Oracle Field Service to Oracle Maintenance whenever an activity is updated or started.</p> <p>For example: true</p>
NewWOSStatusFromOFSToMNT	<p>This is the work order status set whenever a new activity is created in Oracle Field Service and synced to Oracle Maintenance.</p> <p>For example: ORA_RELEASED</p>
WOSStatusUpdateFlag	<p>This flag indicates whether work order status must be moved to custom statuses whenever an activity status changes in Oracle Field Service.</p> <p>For example: true</p>

Lookup Key	Usage
InitialOpSeqNumber	<p>The operation sequence number with which a new operation is created whenever a new activity that's created in Oracle Field Service is synced to Oracle Maintenance.</p> <p>For example: 10</p>
ShouldCreateUserForEquipment	<p>This flag indicates whether to create user for equipment instances while syncing Resource Instances from Oracle Maintenance to Oracle Field Service. If set to false, the user isn't created for equipment type resource instances.</p> <p>For example: false</p>
TravelArea	<p>This is used while syncing work centres from Oracle Maintenance to Oracle Field Service.</p> <p>For example: MaintenanceTA</p>
ReservationSupplySourceType	<p>This is the value of SupplySourceType the inventory reservation.</p> <p>For example: On hand</p>
ShouldCreateEquipmentResource	<p>This flag indicates whether to sync equipment type resource instances. If set to false, such resource instances aren't synced.</p> <p>For example: true</p>
ShouldCreateResourceBucket	<p>This flag indicates whether to create resources as buckets. If set to false, all instances are synced under a Oracle Maintenance org.</p> <p>For example: false</p>
UserType	<p>This indicates the user type of labor resource instances synced from Oracle Maintenance to Oracle Field Service.</p> <p>For example: technician</p>
ParentResourceId	<p>The resource id of the parent bucket where the resources are to be synced.</p> <p>For example: maintenance_root</p>
BucketResourceType	<p>The resource type of buckets. It is used to create resource and Oracle Maintenance org.</p> <p>For example: BK</p>

Lookup Key	Usage
EquipmentResourceType	<p>The resource type of equipment instances synced from Oracle Maintenance to Oracle Field Service.</p> <p>For example: tool</p>
LaborResourceType	<p>The resource type of labour instances synced from Oracle Maintenance to Oracle Field Service.</p> <p>For example: PR</p>
WO_STATUSES_ACTIVITY_CANCEL	<p>The work order status(es) that are allowed to cancel all the corresponding activities in Oracle Field Service.</p> <p>For example: ORA_CANCELED</p>
WO_STATUSES_ACTIVITY_DELETE	<p>The work order status(es) that are allowed to delete all the corresponding activities in Oracle Field Service.</p> <p>For example: ORA_ON_HOLD,ORA_UNRELEASED</p>
WO_STATUSES_ACTIVITY_COMPLETE	<p>The work order status(es) that are allowed to complete all the corresponding activities in Oracle Field Service. Currently, there is no valid scenario, but you can configure to enable this flow.</p> <p>For example:</p>
SkipMntOperationsStatus	<p>When a work order is in this status, OIC skips the updates from Oracle Maintenance. This is to avoid deleting an activity from the Oracle Field Service, if the activity is moved to another resource instance that's not present in the organisation.</p> <p>Action for customer : Customer must create a custom Work Order status in Oracle Maintenance using the value RESCHEDULE.</p> <p>For example: RESCHEDULE</p>
OICInstanceName	<p>This field is required to get the instance details to call the OIC factory API.</p>

Lookup Key	Usage
	 <p>The screenshot shows the 'About' page for Oracle Integration. It features the Oracle logo and the text 'Integration'. Below this, a list of configuration details is displayed:</p> <ul style="list-style-type: none"> Version: 23.4.1 Service Instance: TVM01OICNew Identity Domain: [Redacted] Service Type: Oracle Integration Outbound IP: [Redacted] Bring Your Own License (BYOL): [Redacted] Number Of Message Packs: 1

Default Values:

- List of business units to be tracked as part of integration
- Subinventory groups and whether they must be tracked, or if they're to be treated as trucks for road call scenarios

ORCL-BRT-WO-DFF-MAPPING Lookup

Lookup Name: ORCL-BRT-WO-DFF-MAPPING

This lookup is used to map DFF fields in Oracle Maintenance work orders against activity properties in Oracle Field Service. Three columns are provided here:

- FLEXFIELD_CONTEXT : This value represents the context for which the current FLEXFIELD_SEGMENT is active. When populated with the value "__GLOBAL__" it implies that the segment is available globally.

- **FLEXFIELD_SEGMENT** : This value represents the API Name of the flexfield segment in Oracle Maintenance.
- **ACTIVITY_PROPERTY_LABEL** : This value represents the property label associated with the DFF field in Oracle Field Service.

You can also set the Flex Context from Oracle Field Service, if it's not already set in Oracle Maintenance. Use these steps to set the Flex Context:

1. Leave the **FLEXFIELD_SEGMENT** blank.
2. Set the value for **FLEXFIELD_CONTEXT** as "__FLEX_Context".
3. Set **ACTIVITY_PROPERTY_LABEL** as the property which would contain the flex context value from Oracle Field Service.

Sample Mapping:



ORCL-BRT-WO-DFF-MAPPING

Locked - V

Lookup

Create a lookup to associate the different values used by your applications. When you

FLEXFIELD_CONTEXT ▼	
__FLEX_Context	
__GLOBAL__	woinfo
__GLOBAL__	woreleaseti
__GLOBAL__	wocreation
MNT-OFS	mntofsfeld
MNT-OFS	mntofsfeld
MNT-OFS	mnttest

ORCL-BRT-WO-OP-DFF-MAPPING Lookup

Lookup Name: ORCL-BRT-WO-OP-DFF-MAPPING

This lookup is used to map DFF fields in Oracle Maintenance Work Order Operations against activity properties in Oracle Field Service.

Three columns are provided here:

- **FLEXFIELD_CONTEXT** : This value represents the context for which the current **FLEXFIELD_SEGMENT** is active. When populated with the value "**__GLOBAL__**" it implies that the segment is available globally.
- **FLEXFIELD_SEGMENT** : This value represents the API Name of the flexfield segment in Oracle Maintenance.
- **ACTIVITY_PROPERTY_LABEL** : This value represents the property label associated with the DFF field in Oracle Field Service.

You can also set the Flex Context from Oracle Field Service, if it's not already set from Oracle Maintenance. Use these steps:







1. Leave the **FLEXFIELD_SEGMENT** blank.
2. Set the value of **FLEXFIELD_CONTEXT** as "**__FLEX_Context**".
3. Set **ACTIVITY_PROPERTY_LABEL** as the property that must contain the flex context value from Oracle Field Service.

Sample Mapping:

< ORCL-BRT-WO-OP-DFF-MAPPING

Lookup

Create a lookup to associate the different values used by your applications. When you

	FLEXFIELD_CONTEXT ▾ ×	
	__GLOBAL__	datetime
	__GLOBAL__	sequencer
	__GLOBAL__	operationd
	Physio	physiocod
	Physio	physiovalu
	__FLEX_Context	(Add a Val

ORCL-BRT-WO-OP-RES-DFF-MAPPING Lookup

Lookup Name: ORCL-BRT-WO-OP-RES-DFF-MAPPING

This lookup is used to map DFF fields in Oracle Maintenance Work Order Operation Resources with activity properties in Oracle Field Service.

Three columns are provided here :

- **FLEXFIELD_CONTEXT**: This value represents the context for which the current **FLEXFIELD_SEGMENT** is active. When populated with the value "**__GLOBAL__**" it implies that the segment is available globally.
- **FLEXFIELD_SEGMENT** : This value represents the API Name of the flexfield segment in Oracle Maintenance.
- **ACTIVITY_PROPERTY_LABEL** : This value represents the property label associated with the DFF field in Oracle Field Service.

You can also set the Flex Context from Oracle Field Service, if it's not already set from Oracle Maintenance. Use these steps:

1. Leave the **FLEXFIELD_SEGMENT** blank.
2. Set the value for **FLEXFIELD_CONTEXT** as "**__FLEX_Context**".
3. Set **ACTIVITY_PROPERTY_LABEL** as the property that contains the flex context value from Oracle Field Service.

Sample Mapping:



ORCL-BRT-WO-OP-RES-DFF-MAPP

Lookup

Create a lookup to associate the different values used by your applications. When you

	FLEXFIELD_CONTEXT ▾	×	
	__GLOBAL__		requiredt
	__GLOBAL__		duration
	__GLOBAL__		completi
	__GLOBAL__		completi
	ResourceType		regular
	ResourceType		contracto
	__FLEX_Context		(Add a Va

Debugging and Troubleshooting

This topic let's you resolve some common errors that might occur while integrating Oracle Field Service with Oracle Maintenance using the accelerator.

This topic lists the errors, their symptoms, and solutions to resolve the errors:

- *Work Order Sync from Oracle Maintenance to Oracle Field Service*
- *Schedule updates from Oracle Field Service to Oracle Maintenance*
- *Inventory Reservations from Activity Installed Inventory*
- *Operation Completion*
- *Resource Sync or Organization Sync*

Work Order Sync from Oracle Maintenance to Oracle Field Service

Symptom: Work Order isn't synced to Oracle Field Service

Error: NA

Solution: Make sure all the prerequisites for work order sync are done and the work order statuses to be synced to Oracle Field Service are added in the lookup, ORCL-BRT-MNT-OFS-CONFIG with key, WOStatusToSyncOFSActivity.

Schedule updates from Oracle Field Service to Oracle Maintenance

Symptom: Activity schedules aren't updated

Error: Work Order Update failed due to Lock issue in Oracle Maintenance Work Order/Work Order Operation update API

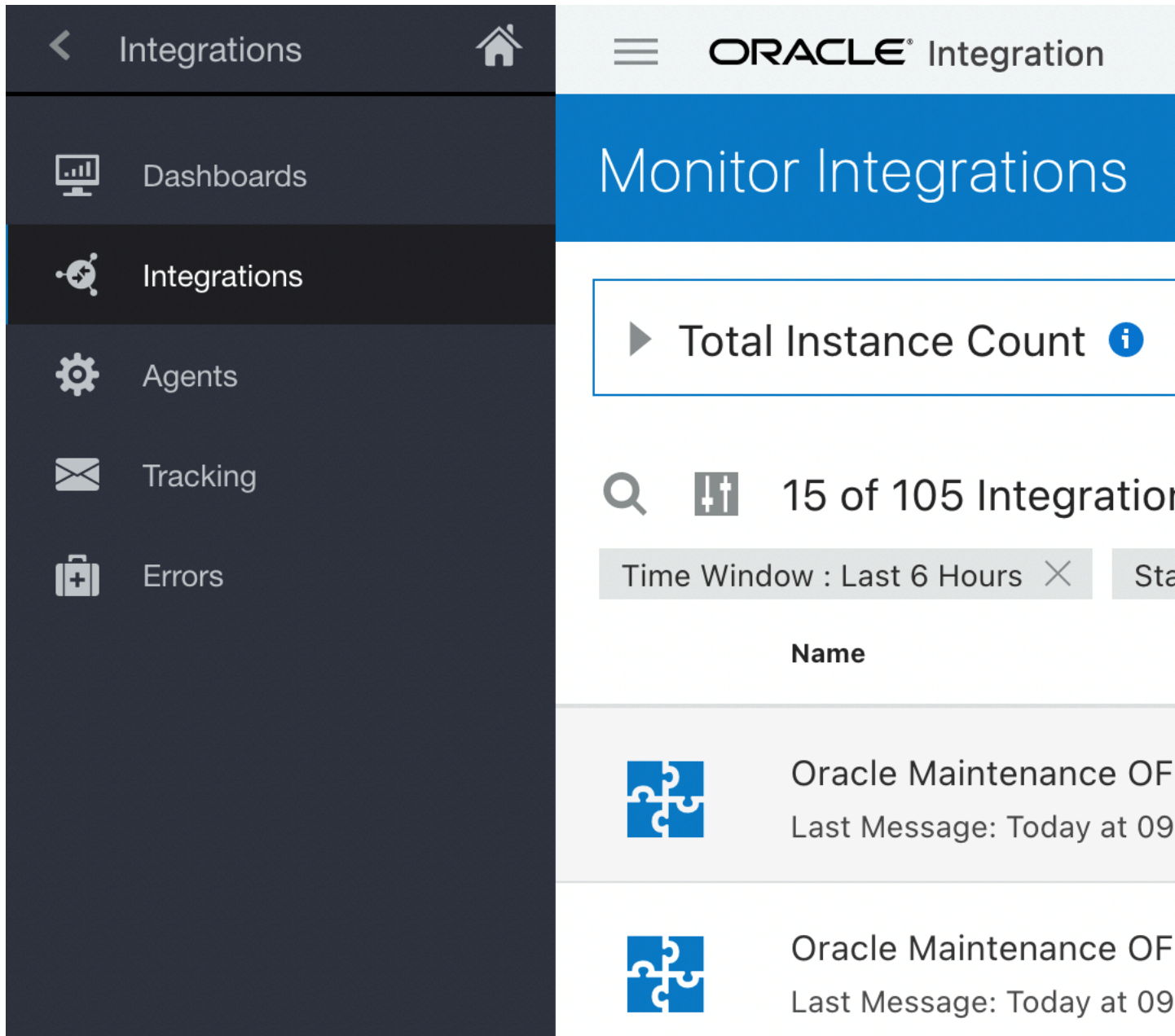
Solution: The accelerator includes the retry logic for all the schedule updates from Oracle Field Service to Oracle Maintenance. The integrations in which retry is implemented are as follows:

Integration	Default Retry Count	Default Delay in milliseconds
Oracle OFS Maintenance Activity WO Sync Helper	3	5000
Oracle OFS Maintenance WO Operation Update Helper	3	5000
Oracle OFS Maintenance Work Order Update Helper	3	5000
Oracle OFS Maintenance Create Res Copying Helper	3	5000
Oracle OFS Maintenance Update WO Status	3	5000

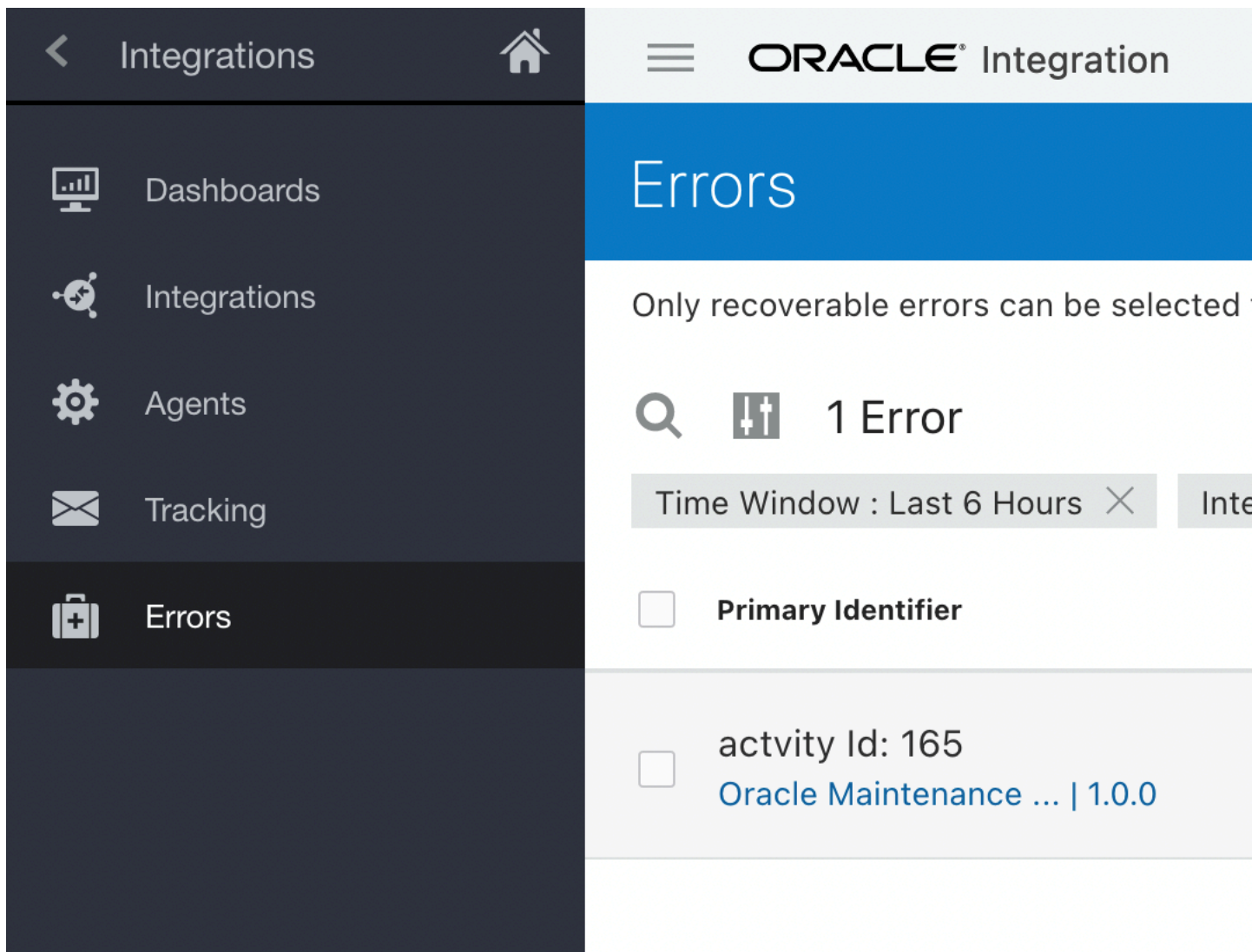
Integration	Default Retry Count	Default Delay in milliseconds
Oracle Maintenance Op Material Update Helper	3	5000

Try to increase the delay between the retries by changing the integration property "delayInMilliseconds" in the listed integration. Use these steps and rerun the integration from OIC:

1. Navigate to **Monitoring > Integrations > Integrations**.
2. Click the integration that's showing the error and resubmit it as shown in the screenshot.



3. Click the Resubmit button.



Inventory Reservations from Activity Installed Inventory

Inventory Reservation fails intermittently

Error:

When inventory is reserved simultaneously, it can trigger locks on the API.

Solution: The accelerator includes the retry logic for all the schedule updates from Oracle Field Service to Oracle Maintenance, the API is called a maximum of three times with an interval of 5 seconds between each attempt.

Operation Completion

Operation is not completed, after the last activity in the operation is completed in Oracle Field Service.

Error:

- There could be a resource transaction or material transaction error during the completion of any activity in the operation.
- The Source System defined in the lookup code "MNTSourceSystemCode" isn't available in Fusion.
- There was an error in a previous operation due to the errors listed earlier.

Solution:

- Review the resource and material transactions corresponding to the operation in Oracle Maintenance and complete it manually.
- Verify/create the Source System in Oracle Sales. For more information, see [Set Up Source Systems](#).

Resource Sync or Organization Sync

Resource Instances and Oracle Maintenance Organizations aren't present in Oracle Field Service

Error: The Resource Type for Oracle Maintenance Organization and/or the Resource Instance isn't configured in the lookup

Solution: Make sure BucketResourceType and LaborResourceType values are configured in the lookup.

Resource Instances and Oracle Maintenance Organizations aren't present in Oracle Field Service

Error: The ParentResourceId is not configured in the lookup

Solution: Make sure ParentResourceId is configured in the lookup and it corresponds to a resource that can contain child resources in Oracle Field Service.

Revision History

This document will continue to evolve as existing sections change and new information is added.

Date	What's Changed	Notes
February 2024	Initial Release	

