SCM Cloud

Integrating Service Logistics with Field Service

23D

SCM Cloud

Integrating Service Logistics with Field Service

23D

F85721-01

Copyright © 2023, Oracle and/or its affiliates.

Author: Stacey Tucker-Blosch

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle®, Java, and MySQL are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

	Get Help	i
1	About This Guide	1
	Audience and Scope	1
	Related Guides	1
2	Introduction	3
	Integration Component Architecture Between Service Logistics and Field Service	3
	Requirements and Licensing	6
3 4	Service Logistics Configuration	7
	Configure Service Logistics	7
	Field Service Configuration	9
	Configure Field Service	9
5	Oracle Integration Cloud Service Configuration	11
	Configure Oracle Integration Cloud Services	11
	Verify Integration Synchronization	11
	Set Up Password Policies for Integration Users	11
6	Integration Process Flow	13
	Understand How the Integration Works	13





Get Help

There are a number of ways to learn more about your product and interact with Oracle and other users.

Get Help in the Applications

Use help icons O to access help in the application. If you don't see any help icons on your page, click your user image or name in the global header and select Show Help Icons.

Get Support

You can get support at My Oracle Support. For accessible support, visit Oracle Accessibility Learning and Support.

Get Training

Increase your knowledge of Oracle Cloud by taking courses at Oracle University.

Join Our Community

Use *Cloud Customer Connect* to get information from industry experts at Oracle and in the partner community. You can join forums to connect with other customers, post questions, suggest *ideas* for product enhancements, and watch events.

Learn About Accessibility

For information about Oracle's commitment to accessibility, visit the *Oracle Accessibility Program*. Videos included in this guide are provided as a media alternative for text-based topics also available in this guide.

Share Your Feedback

We welcome your feedback about Oracle Applications user assistance. If you need clarification, find an error, or just want to tell us what you found helpful, we'd like to hear from you.

You can email your feedback to *oracle_fusion_applications_help_ww_grp@oracle.com*.

Thanks for helping us improve our user assistance!





1 About This Guide

Audience and Scope

This guide outlines the implementation and configuration steps required to integrate Oracle Fusion Service Logistics and Oracle Field Service Cloud (OFSC) to create a value-added business process and user experience. The administrator must enter the documented configurations and install the documented files to create the integration.

Each implementation of Oracle Field Service Cloud and Oracle Fusion Service Logistics is unique, and leads to the implementation of application customizations that support unique business requirements. While the steps in this document describe how to connect a non-customized Oracle Field Service Cloud instance to a non-customized Oracle Fusion Service Logistics instance, they can be combined with customizations that have already been applied to each instance.

Note: With release 20A (11.13.20.01.0), "Oracle Engagement Cloud" is now known as Oracle CX Sales and Oracle Fusion Service. Existing Oracle Engagement Cloud users will retain access to Oracle CX Sales and Fusion Service features under their preexisting licensing agreements. Any new users created within your current Oracle Engagement Cloud license count will also retain the same access to Oracle CX Sales and Oracle Fusion Service. To obtain additional features or manage your subscription, refer to your Oracle Cloud Applications Console. This document describes features available to users under Oracle CX Sales, Oracle Fusion Service, and Oracle Engagement Cloud licensing agreements.

Related Guides

To understand more about the information covered in this guide, refer to the following table for a list of related guides.

Title	Description
Getting Started with Service Logistics Implementation	Lists the steps required to configure Service Logistics
Using Service Logistics	Describes the functionality and user tasks for Service Logistics



2 Introduction

Integration Component Architecture Between Service Logistics and Field Service

Service Logistics enables customers to optimize parts logistics, source and order service parts, record costs and invoice customers. Field Service offers time-based, self-learning, and predictive technology to dispatch field service technicians to resolve customer issues.

The Service Logistics to Field Service integration offers the following:

Field Service Technicians Download: Field Service Technicians are set up as Person Parties in Oracle Fusion Trading Community Model. A usage of Field Service Technician can be associated with a Person Party from several Oracle Cloud User Interfaces (UIs) including the Service Logistics Manage Field Service Technicians setup UI. An Integration Cloud Service is then performed to create the technician in Field Service if the technician doesn't exist or update the technician if they already exist.

Stocking Locations and Inventory Balances Download: Subinventories defined in Oracle Fusion Inventory Management can be set up as Stocking Locations in the Service Logistics Manage Stocking Locations setup UI. Once defined as Stocking Locations, these subinventories are assigned a type of Technician. Stocking Locations can then be assigned to technicians in the Service Logistics Manage Field Service Technicians setup UI. Stocking locations hold parts inventory that technicians use when fixing customer issues. An Integration Cloud Service is performed on a periodic basis that syncs stocking locations and their inventory balances from Inventory Management to Field Service.

Stocking Locations and Inventory Balances Incremental Download: Instead of loading all inventory balances, which can take a long time to complete, only those items transacted on the same day as the integration are loaded. This will be a smaller subset of all items and will run much faster. You should set up this integration to run multiple times a day and every day of the week.

Technician Inventory Balances Download: As an alternative to the Stocking Locations and Inventory Balances download, this integration will store the inventory balances directly on the technician resource instead of the truck resource. This is a more common approach among Oracle Field Service Cloud customers. Only inventory balances in the technician's default usable stocking location, as defined in Service Logistics, are synced. This integration should only be used if the technician is assigned to only one stocking location.

Technician Inventory Balances Incremental Download: Instead of loading all inventory balances, which can take a long time to complete, the only items loaded are those that have been transacted on the same day that you run the integration. This will be a smaller subset of all items and will run much faster. You should set up the integration to run multiple times a day and every day of the week. This integration should be used if the technician is assigned to only one stocking location.

Part Item Number Download: The Supply Chain Cloud parts catalog is downloaded to Oracle Field Service Cloud so that field service technicians know which parts can be ordered.

Parts Orders Integration: From Oracle Field Service Cloud, the technicians can order parts that are required for an activity or they can order parts to replenish their trunk stock. Service Logistics will source the parts and create the transfer orders. Parts orders for an activity will also be visible through the B2B Service work order.



Technician Receive Parts: This integration is a follow-up for the parts orders integration. It allows field service technicians to receive parts in Oracle Field Service Cloud, which were either ordered for an activity or used to replenish their trunk stock.

Preventive Maintenance Work Orders: For customer owned asset's preventive maintenance execution, you must convert the maintenance forecast results into service requests and work orders. You can schedule this integration to perform these tasks. Customers can configure different business rules to:

- 1. Retrieve the work order area from the Oracle Field Service Cloud setup.
- 2. Pass it as an input.
- 3. Generate the preventive maintenance work orders.

Field Service Debrief Integration: Field service activities are created when a service work order is created in the Oracle Fusion Service Uls. Field Service Technicians use the Oracle Field Service Cloud debrief user interface on their mobile devices to report on:

- Labor hours recorded.
- Parts used and recovered.
- Expenses incurred on the activities assigned to them.

When the activity is completed, these debrief transactions are automatically created in Service Logistics and are visible in the Manage Charges and Estimates page. Field Service Administrators can then:

- 1. Review these debrief transactions.
- 2. Make any adjustments or corrections.
- **3.** Post the debrief transaction.

This generates a customer invoice for billing, adjusts inventory balances, updates customer's asset configuration, and captures cost of service.

The following figure displays how Oracle Fusion Service Logistics components and Oracle Field Service Cloud components are integrated using Oracle Integration Cloud Service.



Oracle Integration Cloud

The prebuilt integrations are available through Oracle Marketplace. You can log in and install the package directly into your Oracle Integration Cloud instance. The installation includes the following:



Connections

- Connection: Service Logistics ESS
- Connection: Service Logistics FA SOAP
- Connection: Service Logistics OFSC
- Connection: Service Logistics OFSC REST
- Connection: Service Logistics Technician
- Connection: Service Logistics Fusion REST
- Connection: Service Logistics Locations

Integrations

- Integration: Service Logistics Technician
- Integration: Service Logistics Inventory
- Integration: Service Logistics Inventory Incremental
- · Integration: Service Logistics Technician Inventory
- Integration: Service Logistics Technician Inventory Incremental
- Integration: Service Logistics Order Parts
- Integration: Service Logistics Replenish Parts
- Integration: Service Logistics Debrief
- Integration: Service Logistics Receive Parts
- Integration: Service Logistics Preventive Maintenance
- Integration: Service Logistics Parts Catalog

To access the integrations in Oracle Marketplace, do the following:

- 1. Access Oracle Marketplace. In the Search field, enter criteria: Oracle Service Logistics Cloud to Oracle Field Service Cloud OIC recipe.
- 2. Click the "Oracle Service Logistics Cloud to Oracle Field Service Cloud OIC recipe" in the search results.
- **3.** Click Get App.
- 4. Read and accept the Terms and click Next.

The My Oracle Support page Integrating Oracle Service Logistics Cloud with Oracle Field Service Cloud (Document ID 2481359.1) opens. This is where you can download the file.

Note: If Oracle Marketplace isn't available, you can download the prebuilt files from My Oracle Support Document 2481359.1 In the Attachments section, select the appropriate attachment for your implementation.

For additional information, see the Integration Component Architecture Between Oracle Fusion Service and Oracle Field Service topic in the Integrating Fusion Service with Field Service guide.

Related Topics

Integration Component Architecture Between Oracle Fusion Service and Oracle Field Service

Requirements and Licensing

Subscriptions to the following cloud services are required for implementing the Service Logistics and Field Service integration using Oracle Integration Cloud Service:

- Oracle Fusion Service Logistics: The integration is designed to work with Oracle Fusion Service Logistics Release 21A or later. Note that you can't get a direct subscription to Oracle Fusion Service Logistics. You need to subscribe to other Supply Chain cloud products in order to opt-in for the Service Logistics functional area.
- Oracle Field Service Cloud: The integration is designed to work with Oracle Field Service Cloud Release 21A or later.
- Oracle Integration Cloud Service: The integration is designed to work with Oracle Integration Cloud or Integration Cloud Service(ICS) version 20.3.3.0.0 or later.



3 Service Logistics Configuration

Configure Service Logistics

To configure Service Logistics for this integration, you must do the following:

- 1. Create the integration user that has the Field Service Administrator job role assigned.
- 2. Complete the following Service Logistics Setup:
 - Set profile option **Default Parent Resource Name** to match the top node in the resource hierarchy in Oracle Field Service. Note that the **Default Parent Resource Name** is a text field that must exactly match the external name of the resource in Oracle Field Service. The Default Parent Resource Name must be set up in the Work Area lookup before it can be added to this profile.





4 Field Service Configuration

Configure Field Service

To configure Field Service for the integration with Service Logistics, do the following:

- 1. Set up API Access in the Configuration Application user interface.
- 2. Set up the unit of measures for the items that have inventory balances in the technician stocking locations. To do this:
 - a. In Field Service, navigate to Configuration > Properties.
 - b. Search for the property called UOM. Enter values for Unit of Measure and UOM Code.
- **3.** Set up service activity codes for labor debrief.
 - a. Navigate to Configuration > Properties.
 - b. Search for property label labor_service_activity.
 - c. Enter values for **Service Activity** and **Service Activity Code**. The service activity code must match the service activity code defined in Service Logistics.
- 4. Set up service activity codes for labor expense.
 - a. Navigate to Configuration > Properties.
 - **b.** Search for property label **expense_service_activity**.
 - c. Enter values for **Service Activity** and **Service Activity Code**. The service activity code must match the service activity code defined in Service Logistics.
- 5. Set up service activity codes for parts used debrief.
 - a. Navigate to Configuration > Properties.
 - **b.** Search for property label **part_service_activity_used**.
 - c. Enter values for **Service Activity** and **Service Activity Code**. The service activity code must match the service activity code defined in Service Logistics.
- 6. Set up service activity codes for parts returned debrief.
 - a. Navigate to Configuration > Properties.
 - **b.** Search for property label **part_service_activity_returned**.
 - c. Enter values for Service Activity and Service Activity Code. The service activity code must match the service activity code defined in Service Logistics.
- 7. Set up labor items.
 - a. Navigate to Configuration > Properties.
 - **b.** Search for property label **labor_item_number**.
 - c. Enter values for labor item. The labor item must match the item number defined in Product Information Management.
- 8. Set up expense items.
 - a. Navigate to Configuration > Properties.
 - **b.** Search for property label **expense_item_number**.
 - c. Enter values for expense item. The expense item must match the item number defined in Product Information Management.





5 Oracle Integration Cloud Service Configuration

Configure Oracle Integration Cloud Services

Oracle Integration Cloud Services is used to sync Service Logistics field service technicians, stocking locations, inventory balances, and product catalog with Field Service. The following tasks must be performed to set up the secure integration between customer-specific instances:

- 1. Create the Oracle Integration Cloud User.
- 2. Import the Oracle Integration Cloud integration flows:
 - a. Log in to Oracle Integration Cloud.
 - **b.** Navigate to **Integrations**, then **Packages**.
 - c. Click the Import button.
 - d. Select the file downloaded from the Marketplace.
- 3. Specify connection url and credentials for all Service Logistics connections.
- 4. After all connections are defined, activate the Service Logistics integrations.

Refer to the section Oracle Integration Cloud in Chapter 2 for a list of these connections and integrations.

Verify Integration Synchronization

Follow the steps listed below to verify the synchronization.

In Service Logistics:

- 1. Open the Manage Field Service Technicians user interface.
- 2. Add a new person as a field service technician and assign a stocking location to the user.
- **3.** In Oracle Integration Cloud, search for integration **Service Logistics Technicians** and select **Submit Now**. If integration completes successfully, login to Oracle Field Service and verify that the technician is available.

Set Up Password Policies for Integration Users

You can set up password policies if you'd like to limit the number of days that a user's password will work. Expiration days can be set for up to 9999 days.

To set up password policies for integration users:

- **1.** Log in as a system administrator.
- 2. Open the Security Console page.
- **3.** Create a new user category.
- 4. Edit the password policy for the new user category.



5. Add the integration user to the new user category.



6 Integration Process Flow

Understand How the Integration Works

To understand how the Service Logistics to Field Service integration works, see the following sections:

Technician Download (Integration Name: Service Logistics Technician): Service Logistics field service technicians are downloaded to Field Service according to the following steps:

- 1. The Oracle Integration Cloud flow is a scheduled integration that you can run on demand or on a schedule.
- 2. A SOAP Service (PersonService.findPerson) is called to get a list of all field service technicians.
- 3. An OFSC Adapter (resources. Update Resource) is called to update the technician resource if it already exists.
- **4.** If resource doesn't exist:
 - A common REST Service (profilevalues) is called to get the parent node for the resource from profile Default Parent Resource Name.
 - OFSC Adapter (Resource.Create Resource) is called to create the resource. The field service technician resource being created will be assigned a parent resource as defined in the profile.
- 5. The technician details that are downloaded to OFSC include:
 - Parent Resource
 - Person Party ID
 - Full Name
 - Email
 - Mobile Phone Number
 - Status(active/inactive)

Note: You can run:

- Inventory balances integrations to store inventory on a truck resource.
- Technician inventory balances integrations to store inventory on a technician resource directly.

Inventory Balances Download (Integration Name: Service Logistics Inventory): Inventory balances for technician stocking locations are downloaded to Field Service using the following steps:

- 1. The Oracle Integration Cloud flow is a scheduled integration that you can run on demand or on a schedule.
- 2. A Service Logistics REST Service (stockingLocations REST API) is called to get all technician stocking locations.
- 3. OFSC Adapter (Resource.Get Resource) is called to check if the stocking location already exists.
- 4. If the stocking location doesn't exist:
 - OFSC Adapter (Resource.Create Resource) is called to create the stocking location as a truck resource. The truck resource is tied to the parent resource (from profile **Default Parent Resource Name**).
- 5. Service Logistics REST Service (trunkstocks) is called to get inventory balances for the stocking location.
- 6. OFSC REST Service (resources/custom-actions/bulkUpdateInventories) is called to replace inventory balances in Field Service.
- 7. The stocking location details that are downloaded to OFSC include:



- Resource ID (Truck ID)
- Stocking Location Name (Organization Code + Subinventory Name)
- Item Number
- Item Description
- Item Revision
- Serial Number
- On-hand Quantity
- Primary Unit of Measure

Inventory Balances Incremental Download (Integration Name: Service Logistics Inventory Incremental): Newly updated inventory balances for technician stocking locations are downloaded to Field Service using the following steps:

- 1. The Oracle Integration Cloud flow is a scheduled integration that you should run multiple times a day and every day of the week.
- 2. A Service Logistics REST Service (stockingLocations REST API) is called to get all technician stocking locations.
- 3. OFSC Adapter (Resource.Get Resource) is called to check if the stocking location already exists.
- **4.** If the stocking location doesn't exist:
 - OFSC Adapter (Resource.Create Resource) is called to create the stocking location as a truck resource. The truck resource is tied to the parent resource (from profile **Default Parent Resource Name**).
- 5. The Inventory REST Service (inventoryCompletedTransactions) is called to find all items that have been transacted on the current day.
- 6. The Service Logistics REST Service (trunkstocks) is called to get inventory balances for the item.
- 7. The OFSC REST Service (resources/custom-actions/bulkUpdateInventories) is called to create or update inventory balances in Field Service.
- 8. The stocking location details that are downloaded to OFSC include:
 - Resource ID (Truck ID)
 - Stocking Location Name (Organization Code + Subinventory Name)
 - Item Number
 - Item Description
 - Item Revision
 - Serial Number
 - On-hand Quantity
 - Primary Unit of Measure

Technician Inventory Balances Download (Integration Name: Service Logistics Technician Inventory): Inventory balances for technician's default usable subinventory are downloaded to Field Service using the following steps:

- **1.** The Oracle Integration Cloud is a scheduled integration that you can run on demand or on a schedule.
- 2. The Service Logistics REST Service (stockingLocations REST API) is called to get all the technician default usable stocking locations.
- 3. The Service Logistics REST Service (trunkstocks) is called to get inventory balances for the stocking location.
- 4. The OFSC REST Service (resources/custom-actions/bulkUpdateInventories) is called to replace inventory balances in Field Service.
- 5. The stocking location details that are downloaded to OFSC include:
 - Resource ID (Technician Party ID)



- Stocking Location Name (Organization Code + Subinventory Name)
- Item Number
- Item Description
- Item Revision
- Serial Number
- On-hand Quantity
- Primary Unit of Measure

Technician Inventory Balances Incremental Download (Integration Name: Service Logistics Technician Inventory Incremental): Newly updated inventory balances for technician's default usable stocking locations are downloaded to Field Service using the following steps:

- 1. The Oracle Integration Cloud is a scheduled integration that you should run multiple times in a day and every day of the week.
- 2. The Service Logistics REST Service (stockingLocations REST API) is called to get all the technician default usable stocking locations.
- 3. The Inventory REST Service (inventoryCompletedTransactions) is called to find all items that have been transacted on the current day.
- 4. The Service Logistics REST Service (trunkstocks) is called to get inventory balances for the item.
- 5. The OFSC REST Service (resources/custom-actions/bulkUpdateInventories) is called to update inventory balances in Field Service.
- 6. The stocking location details that are downloaded to OFSC include:
 - Resource ID (Technician Party ID)
 - Stocking Location Name (Organization Code + Subinventory Name)
 - Item Number
 - Item Description
 - o Item Revision
 - Serial Number
 - On-hand Quantity
 - Primary Unit of Measure

Part Item Number Download (Integration Name: Service Logistics Parts Catalog): Field Service Technicians need part item numbers to order replacement parts. Part item numbers are downloaded using the following process:

1. A batch program loads items from the Oracle Product Information Cloud to Field Service using Oracle Integration Cloud. The batch program is an OIC integration program that can be run on demand or scheduled to run from OIC.

- 2. This integration downloads all items for the inventory organization defined in profile Default Inventory Organization. Only items with Service Logistics Billing Type tied to Billing Category = Material are included. The item details downloaded include:
 - Item Number
 - Item Description
 - Item Revision
 - Primary Unit of Measure

Note: You must set up the labor and expense items in OFSC to match the labor and expense items in the item master in Product Information Management. See Chapter 4 for details.

Order Parts for an Activity (Integration Name: Service Logistics Order Parts): Parts orders integration between Service Logistics and Field Service occurs as follows:

- 1. Field service technicians click the **Order** button to order parts from OFSC using Service Logistics.
- 2. This creates an order activity in OFSC.
- **3.** Step 1 raises an event that triggers the integration.
- 4. An OFSC Adapter (Activity Inventory) is called to get all the parts ordered by the technician.
- 5. The data elements passed from OFSC to Service Logistics are:
 - Item Number
 - Quantity
 - Unit of Measure
 - Ship To Address Type (Technician or Customer)
 - Work Order ID (Fusion Service Work Order ID)
- 6. A Service Logistics REST service (partRequirementLines) is called to create part requirements and find a supply SOURCE (partRequirementLines/{partsReqLineId}/action/getPreferredSource).
- 7. The supply orchestration REST service (supplyRequests) is used to create the transfer order to ship the parts to the technician or to the customer site.
- 8. The parts ordered by the field service technician for the work order appear in the Oracle Field Service work order, along with other parts that ordered by the agent using the Fusion Service pages.
- 9. If the part isn't found, a backorder is created for the replenishment source.
- **10.** The following is downloaded to OFSC:
 - Transfer order number
 - Order activity status
 - Transfer order header ID

Note that field service technicians can order more than one part number and more than one quantity of the part.

Order Parts to Replenish Trunk Stock (Integration Name: Service Logistics Replenish Parts): Parts orders integration between Service Logistics and Field Service occurs as follows:

- 1. Field service technicians click the **Order** button to order parts from OFSC to replenish their trunk stock.
- 2. This creates an order activity in OFSC.
- 3. Step 1 raises an event that triggers the integration.
- 4. An OFSC Adapter (Activity Inventory) is called to get all the parts ordered by the technician.
- 5. The data elements passed from OFSC to Service Logistics are:
 - Item Number



- Quantity
- Unit of Measure
- Ship To Address Type (Technician or Customer)
- Work Order ID (Fusion Service Work Order ID)
- 6. A Service Logistics REST service (partRequirementLines) is called to create part requirements and find a supply SOURCE (partRequirementLines/{partsReqLineId}/action/getPreferredSource).
- 7. The supply orchestration REST service (supplyRequests) is used to create the transfer order to ship the parts to the technician or to the customer site.
- **8.** If the part isn't found, a backorder is created for the replenishment source.
- **9.** The following is downloaded to OFSC:
 - Transfer order number
 - Order activity status
 - Transfer order header ID

Note that field service technicians can order more than one part number and more than one quantity of the part.

Debrief Integration (Integration Name: Service Logistics Debrief): Debrief integration between Field Service and Service Logistics happens as follows:

- 1. When the technician completes the activity in Field Service, an event is raised that triggers this integration.
- 2. A Field Service REST service (activities/{activityId}/installedInventories) is called to fetch all the labor, parts, and expense debrief lines.
- 3. A Field Service REST service (activities/{activityId}/deinstalledInventories) is called to fetch all returned parts.
- 4. A Service Logistics REST service (debriefs/{debriefHeaderId}/child/lines) is called to create the:
 - Debrief transactions
 - Charges
 - Reservations for the parts used (the reservation is released when charges are posted).
- 5. The Auto Process Debrief Charges job is launched and tries to post the charges automatically, based on a set of rules that you define.
- 6. The field service administrator must review charges that don't post automatically and post them manually.
- 7. The debrief information that uploads to Service Logistics includes:
 - a. Labor Debrief
 - Service Activity
 - Labor Item
 - Start Time
 - End Time
 - b. Material Debrief
 - Service Activity
 - Item Number
 - Quantity
 - Unit of Measure
 - c. Expense Debrief
 - Service Activity



- Expense Item
- Amount
- Currency Code

Receive Parts (Integration Name: Service Logistics Receive Parts): This integration completes the receiving parts process by a field service technician. The integration between Service Logistics and Field Service occurs as follows:

1. The field service technician provides the received item quantity and clicks the **Receive** button, which starts the receiving process.

The application:

- Creates an activity in Oracle Field Service.
- Raises an event that triggers the Service Logistics Receive Parts integration.
- 2. The integration process retrieves the activity details from Oracle Field Service Cloud using the Oracle Field Service Adapter (Activity).
- The application calls an Inventory Management REST service (linesToReceive) to retrieve the expected shipment lines that can be received using the activity detail information (part item number and transfer order header ID).
- 4. If the application finds a valid shipment line, it calls another Inventory Management REST service (receivingTransaction) to create a receive transfer order. The application passes the following parameters while creating this transfer order transaction:
 - Quantity and UOM Code from Oracle Field Service Activity details.
 - Item number, Shipment Header Id, Shipment Line Id.
 - Destination Type code defaults to INVENTORY, Source Document Code to TRANSFER ORDER, and Transaction Type to RECEIPT.

Preventive Maintenance (Integration Name: Service Logistics Preventive Maintenance): This is a scheduled integration for generating preventive maintenance work orders.

- 1. Schedule Oracle Integration Service Logistics Preventive Maintenance to run on a daily or weekly basis.
- 2. This integration accepts the following five parameters:
 - MaintenanceOrganizationCode: Short name of the maintenance organization that runs the preventive work.
 - Category: Category for the service request.
 - WorkOrderIntegrationCd: Use ORA_WO_INT_OFSC for Oracle Field Service Cloud (OFSC) work order creation or ORA_WO_INT_SVC for generic work order creation.
 - WorkOrderStatusCode: Initial status code used for creating the work order.
 - WorkOrderTypeCd: Work order type code used for creating the work order.
- **3.** This integration starts with setting a default time zone, which you can modify based on the customer's time zone.
- **4.** Based on the organization code and work order type code passed as input, the application retrieves the corresponding identifier to pass for the process.
- **5.** The application calls Maintenance REST service (MaintenanceWorkOrders) to retrieve all released customer assets-based work orders with future planned start dates.
- 6. For each maintenance work order returned by the previous process, the application does the following:
 - Calls the Maintenance REST service (DocumentReference) to check for document reference of type ORA_SERVICE_REQUEST against the current maintenance work order. If there's reference data, then it skips processing.



- If there's no reference data, the application retrieves current asset details information by calling an SCM REST service (installBaseAssets).
- If the asset detail is missing the asset location, then it skips the processing. Otherwise, it calls the HCM SOAP API (LocationService) for the asset's current location ID to retrieve location details.
- The application calls the SCM REST service (WorkDefinition) to retrieve work definition details based on the maintenance work order work definition ID. The application then makes a call to CRM REST service (Contact) for the asset's contact details.
- For an OFSC work order creation (based on the parameter that you previously set up), the application retrieves the work area by calling the CRM REST service (svcWOAreas). By default, the country and postal code are passed to this rest service, but you can provide additional parameters based on your setup.
- For an OFSC work order creation: If there's an error during the work area retrieval processing, then the
 processing stops for the current maintenance work order.
- Based on the service request category, the application calls the CRM REST service (Categories) to retrieve the category ID and then calls another CRM REST service using the customer number and customer site number for the asset in order to retrieve the asset address.
- Create a service request by calling the CRM REST service (ServiceRequests) with the following parameters:
 - Title: Work definition name.
 - Problem Description: Work definition name description.
 - Account Party Id: Asset customer ID.
 - Primary Contact Party Id: Party ID from the contact details based on the asset contact.
 - Inventory Item Id: Asset item.
 - IB Asset Id: Asset ID.
 - Category Id: ID retrieved based on the service category name passed as the schedule parameter.
- Create a work order by calling the CRM REST service (CustomerWorkOrders) with following parameters:
 - Title: Work definition name.
 - SId: Service request ID.
 - Account Party Id: Asset customer ID.
 - Contact Party Id: Party ID from contact details based on the asset contact.
 - IB Asset Id: Asset ID.
 - Wo Integration Cd, Work Order Status Code: From the corresponding input parameter.
 - Wo Type Id: Retrieved at the beginning of the processing based on the input provided as work order typeCd.
 - Wo Area: For OFSC work order, it's retrieved as previously mentioned.
 - Resolution Due Date: Planned completion date from maintenance work order.
 - Contact Name, Contact Email, Contact Phone: Contact details retrieved based on the asset's contact id as previously mentioned.
 - Address Component: Address details retrieved by calling SOAP API as previously mentioned.
 - Time Zone Code: Value of the default time zone as set in the integration.
- For the current maintenance work order the application calls another SCM REST service (maintenanceWorkOrder) to find the maintenance operations that the work order requires. For each of these operations do the following:
 - For the current maintenance work order call the SCM REST service (maintenanceWorkOrders/ {WorkOrderld}/child/WorkOrderOperation/{WoOperationld}/child/WorkOrderOperationMaterial} to find materials that the work order requires to perform a maintenance operation.



- For each material create a part requirement line based on the following attribute mapping:
 - Destination Organization Id: Organization ID of the operation.
 - Need-by Date: Planned start date of operation.
 - Parent Entity Id: Work Order ID created during this integration processing.
 - Inventory Item Id, Quantity, UOM Code: As defined in operation materials.
 - Ship-to Address Type: Defaults as CUSTOMER.
 - Ship-to Party Id: Service request account party ID.
- The application calls the Maintenance REST service (maintenanceWorkOrders/{WorkOrderld}/child/ documentReference) to record the reference data based on the following parameters:
 - Source System Type Code: Defaults to ORA_INTERNAL.
 - Work Order Id: Maintenance work order ID that the integration is currently processing.
 - Document Type: Defaults to ORA_SERVICE_REQUEST.
 - Document Header Id: Service request ID that's created during processing.
- **7.** Error Handling: This scheduled integration creates service requests, work orders, and part requirement lines. It also validates various attributes. If there's a failure during processing, then the application:
 - Stops the processing for that maintenance work order.
 - Logs the message.
 - Deletes any data that it created during the processing, such as service requests, work orders, or part requirement lines.

