

Oracle® Retail and WMS Cloud

Implementation Guide

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Oracle Retail and WMS Cloud Implementation Guide, Release 16.0.040

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Preface

This guide provides detailed information that is important when integrating between Oracle Warehouse Management Cloud and Oracle Retail solutions.

Audience

This guide is intended for administrators.

This guide describes the administration tasks for Oracle Retail Integration Cloud Services.

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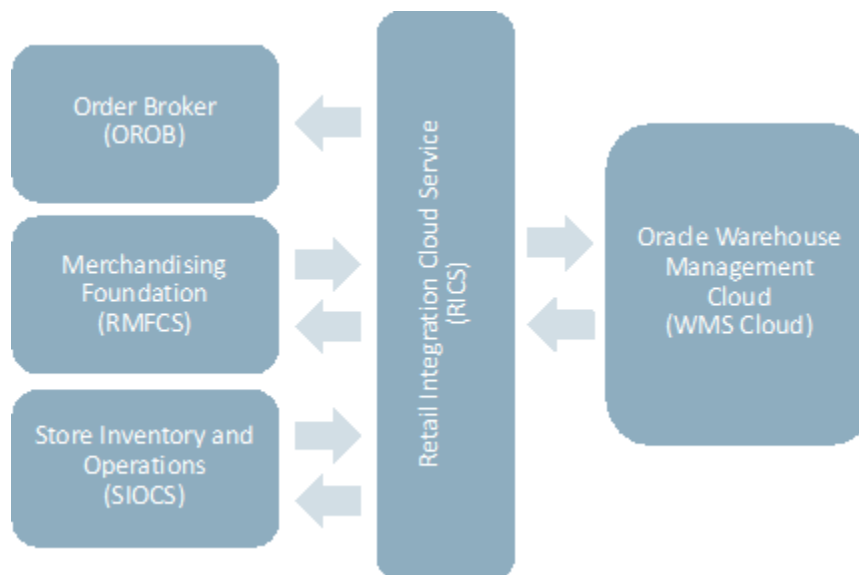
Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Introduction

This document will provide an overview of the integration between Oracle Warehouse Management Cloud and Oracle Retail solutions. The Oracle Retail solutions included in this integration are primarily Oracle Retail Integration Cloud Service (RICS), and Oracle Retail Merchandising Foundation Cloud Service (RMFCS). But, there are also integration points with Oracle Retail Store Inventory and Operations Cloud Service (SIOCS) and Oracle Retail Order Broker (ROB).

Note: This integration is also supported in SIM on premise for version 16.0.2.3.

Figure 1-1 Integration Points



The integration between these solutions has been built using pre-existing integrations and using mapping tools that are part of the RICS component known as RIB (Retail Integration Bus). Messages from RMFCS and SIOCS are published to the RIB and then transformed into the format needed by WMS Cloud. The mapping tool in RICS then will call the WMS Cloud REST APIs to deliver the information.

Similarly, when WMS Cloud sends information to the Oracle Retail solutions, the WMS Cloud outbound interface is configured to work with an exposed SOAP API in RICS, which transforms the data into the format needed by RMFCS and places it on the queue to be picked up by the appropriate RIB subscriber using a REST API.

RMFCS and WMS Cloud Integrations

Table 1–1 RMFCS and WMS Cloud Integrations

From RMFCS to WMS Cloud	From WMS Cloud to RMFCS
Items	Outbound ASNs
Stores	Inventory Adjustments
Partners	RTV Shipments
Suppliers	Stock Order Status Updates
Purchase orders	Outbound ASNs
Stock Orders (Transfers and Allocations)	
RTV Requests	

SIOCS and WMS Cloud Integrations

Table 1–2 SIOCS and WMS Cloud Integrations

From SIOCS to WMS Cloud	From WMS Cloud to SIOCS
Outbound ASNs	Outbound ASNs

OROB and WMS Cloud Integrations

Table 1–3 OROB and WMS Cloud Integrations

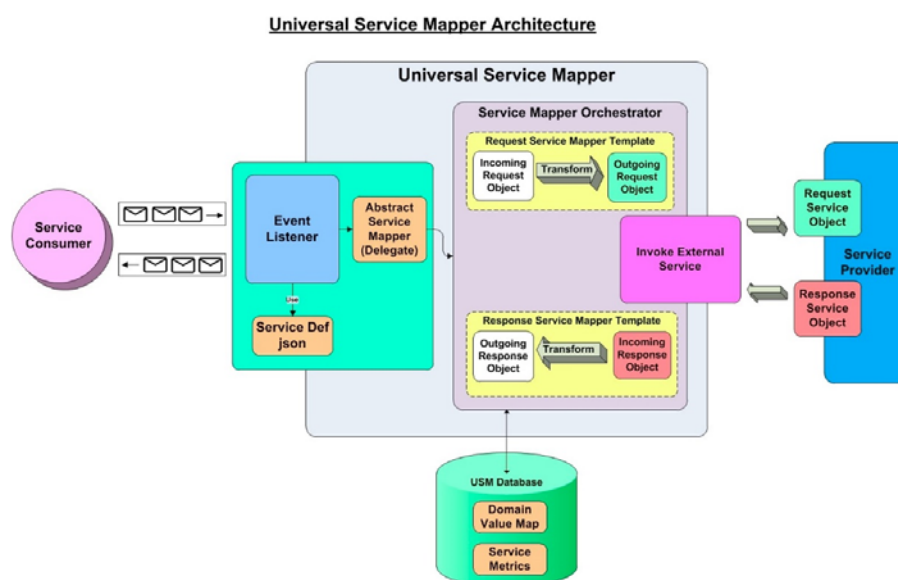
From OROB to WMS Cloud	From WMS Cloud to OROB
	Stock Order Status Updates
	Receipts

WMS Cloud also subscribes to inbound ASNs that are received from suppliers with shipment details for purchase orders. These are also brokered through RIB, but the source for these transactions is the supplier.

Integration Architecture

This chapter explains the different components that are used to make the whole integration work seamlessly.

Figure 2-1 Universal Service Mapper Architecture



The component of RICS that is used to do the mapping needed for this integration is referred to as the universal service mapper (USM). It has three major components:

- Event Listener
- Service Mapper Orchestration
- External Service Invocation and Service Provider

Event Listener

The Event Listener is a service which is open to receiving data from the application that is connected to it. For the integration covered in this document, the two applications are a RIB component called RIB-LGF and WMS Cloud. The applications have the following URL pattern set in their target for USM: `http://<host>:<port>`.

When the application sends data, the Event Listener internally calls the Abstract Service Mapper, which determines the family, message type and the operations from the message received by referring to the Service Definition JSON files. These files store the crucial data required for the communication of the participating applications,

including the host URLs of the source and destination applications along with usernames and passwords, if applicable.

Service Map Orchestrator

The Abstract Service Mapper in turn calls the Service Map Orchestrator which decides what data is to be populated in the mapper templates. The orchestrator does the mapping, field by field, from the source application to destination application.

The actual mapping logic is contained in orchestration files. All fields are mapped using a one-to-one mapping. Fields not required by the destination application are simply dropped. If a field is not present in the source data, then it is mapped using a pre-determined default value or left as null if allowed.

Certain key-value pairs are also managed in the integration layer in order to maintain context between the applications. See [Domain Value Maps \(DVMs\)](#) for more information on this configuration.

Service Provider and External Services

The Service Map Orchestrator component calls the services hosted by the service providers (RIB-LGF or WMS Cloud) after the mapping operations are completed. The service provider consumes these REST service calls via USM. USM holds the information necessary for it to call these services in a file.

Templates

Templates files hold the actual mapping information and use an xml format. There are three different types of templates used:

- Request Templates – used when the source application sends a message that has to be mapped to the destination application format.
- Response Templates – the result of the mapping that has been performed on the source application.
- Failure Templates – contain error codes and messages due to issues incurred in the mapping process, such as missing data or unexpected server events.

These templates are visible in the USM user interface to help manage errors that may occur in the integration.

Domain Value Maps (DVMs)

Domain Value Maps are tables that live in the integration layer that contain defaults and cross references used in the mapping between applications and assist in transforming the messages from one format to the other. There are two types of DVMs - static and dynamic. Static DVMs are used for foundational or seed data that doesn't often change. Dynamic DVMs are built during runtime and usually associated with transactional data, such as purchase orders.

For more information on all these concepts and the overall architecture, see the *Oracle Retail Integration Cloud Service Universal Service Mapper User Guide*.

Integration Errors

WMS Cloud

WMS Cloud provides visibility to errors that may occur in the integration in two screens - Input Interfaces and Output Interfaces. The Inbound Interfaces screen will provide visibility to errors that occur in integration from RMFCS or SIOCS applications into WMS Cloud.

For data inbound to WMS Cloud, the APIs will respond back with appropriate error messages in the response if the message fails validation. These error messages can also be seen in the "Stage Record" tab of "Input Interfaces" screen as shown below. Both failed and successful messages are visible in this screen.

Figure 3-1 Input Interfaces

File group	Header group	PO Nbr	Facility	Company	Action Code	Status	Err Str	Order Date
123_2019031...	23_20190314...	PO03142019...	DC1	NS_TEST1	UPDATE	Failed	Sequence Number Mismatch for item alternate code Item 11	2019-03-14
123_2019031...	23_20190314...	PO03142019...	DC1	NS_TEST1	UPDATE	Failed	Cannot create multiple details with the same sequence number but different items. (Seq nbr: 1, Items: Item ...	2019-03-14
123_2019031...	23_20190314...	PO03142019...	DC1	NS_TEST1	UPDATE	Failed	Order Quantity cannot be less than Shipped/Received Qty.(Ord_qty is 10.00000, shipped qty is 15.00000, ...	2019-03-14
123_2019031...	23_20190314...	PO03142019...	DC1	NS_TEST1	CREATE	Failed	Cannot change the PO as the pre-existing one is already linked to a shipment	2019-03-14
123_2019031...	23_20190314...	PO03142019...	DC1	NS_TEST1	CREATE	Failed	Cannot change the PO as the pre-existing one is already linked to a shipment	2019-03-14

If there are issues with the data sent in the interface, appropriate changes need to be made to the data and data needs to be resent. However, if the issue is that dependent data is missing, for example, a purchase order is sent for an item that doesn't exist in WMS Cloud, then once the data is corrected the record can be reprocessed from the Input Interfaces view by selecting the appropriate record and clicking the "Reprocess selected records" button.

For data sent from WMS Cloud to RMFCS, SIOCS, and OROB, the status of the messages sent from WMS cloud can be seen in the Output Interfaces view. Like the Input Interfaces view, both successful and failed messages are visible in this screen.

Figure 3–2 Output Interfaces

Output Interfaces					
Facility Code	Company Code	Interface Type	Filename	Status	Create Timestamp
DC1	NS_TEST1	Inventory History Export	IHTHGNS_TEST1DC1000003325.xml	Failed	01/17/2019 8:44:54 PM
DC1	NS_TEST1	Inventory History Export	IHTHGNS_TEST1DC10000016853.xml	Processed	02/22/2019 2:33:33 AM
DC1	NS_TEST1	Inventory History Export	IHTHGNS_TEST1DC10000016938.xml	Processed	02/22/2019 3:58:31 AM
DC1	NS_TEST1	Inventory History Export	IHTHGNS_TEST1DC10000016943.xml	Processed	02/22/2019 4:03:31 AM

If messages appear with Failed status, then the details of the errors can be viewed by clicking on the Interface Logs button, as seen below. Depending on the error, this view will also allow the message to be resent by clicking on the Resend button.

Figure 3–3 Output Interfaces – Interface Logs

Sequence Nbr	Connection Info	Message	Create Timestamp
4	1 - REST Web Service: oic.nuser@https://p1.logfireapp...	Could not POST to URL: 403 - FORBIDDEN	01/17/2019 8:44:55 PM
3	1 - REST Web Service: oic.nuser@https://p1.logfireapp...	Response content: <!DOCTYPE html> <html lang="e...	01/17/2019 8:44:55 PM
2	1 - REST Web Service: oic.nuser@https://p1.logfireapp...	POST - https://p1.logfireapps.com/ns_test2/index/	01/17/2019 8:44:55 PM
1	1 - REST Web Service: oic.nuser@https://p1.logfireapp...	Transmission Processing Started	01/17/2019 8:44:55 PM

Universal Service Mapper (USM)

USM can also be used to view any errors that may occur during the transfer of data.

Starting in the Home tab, which is the landing page for USM, it gives the overall status of the system. It also gives the number of available mappings, total service activity count and also number of successful and failed activities.

Figure 3–4 USM Home

The Monitoring tab gives information on the success or failure of a particular flow, including the start and end time of the source operation and the status of the mapping operation. Then, for the highlighted flow in the table, you will be able to see the data before and after the mapping to help with tracking down errors.

Figure 3–5 USM Monitoring

The screenshot shows the Oracle Universal Service Mapper interface. At the top, there are navigation tabs: Home, Mapping Designer, Test Drivers, Monitoring, Admin, Import/Export, Configurations, and System Logs. The 'Monitoring' tab is active, displaying a table of activities. Below the table, there are sections for 'Request Data Before Mapping' and 'Request Data After Mapping'.

Activity ID	Start Time	End Time	Mapper Service Name	Source Operation	Status
121	Sep 04 04:20 EDT 2019	Sep 04 04:20 EDT 2019	LogFileReceiver_ServiceMappingOrchestration.smo	HttpPost	✓
105	Aug 28 02:44 EDT 2019	Aug 28 02:44 EDT 2019	RdtLogFileVendor_ServiceMappingOrchestration.smo	VendorCre	✓
105	Aug 28 02:30 EDT 2019	Aug 28 02:30 EDT 2019	RdtLogFileVendor_ServiceMappingOrchestration.smo	VendorCre	✓
104	Aug 28 02:28 EDT 2019	Aug 28 02:28 EDT 2019	RdtLogFileVendor_ServiceMappingOrchestration.smo	VendorDel	✗
103	Aug 28 02:18 EDT 2019	Aug 28 02:18 EDT 2019	RdtLogFileVendor_ServiceMappingOrchestration.smo	VendorCre	✓
102	Aug 28 02:13 EDT 2019	Aug 28 02:13 EDT 2019	RdtLogFileVendor_ServiceMappingOrchestration.smo	VendorCre	✓
101	Aug 28 02:04 EDT 2019	Aug 28 02:04 EDT 2019	LogFileRdtAduot_ServiceMappingOrchestration.smo	HttpPost	✓

Additionally, the System Logs tab gives detailed information on errors on every flow individually. You can see the success or failure message by clicking on the respective flow and viewing the logs for it below.

Figure 3–6 USM System Logs

The screenshot shows the Oracle Universal Service Mapper interface with the 'System Logs' tab active. It displays a table of log files and a section for file content.

File Name	Size (in KB)	Last Modified
vsm-default.log	280.29	Thu Sep 05 05:56:48 EDT 2019
LogFileReceiver-system.log	62.04	Wed Sep 04 20:58 EDT 2019
RdtLogFileVendor-system.log	612.49	Wed Aug 28 02:44 15 EDT 2019
LogFileRdtAduot-system.log	22.51	Wed Aug 28 02:04 03 EDT 2019
RdtLogFileVendorOrder-system.log	387.84	Tue Aug 27 05:17 36 EDT 2019
RdtLogFileOrder-system.log	373.63	Tue Aug 27 05:15 25 EDT 2019
RdtLogFileStores-system.log	92.33	Tue Aug 27 02:36 44 EDT 2019
RdtLogFileRTWeb-system.log	46.21	Tue Aug 27 02:36 09 EDT 2019
RdtLogFileASIN-system.log	61.13	Tue Aug 27 02:35 44 EDT 2019

The 'File Content' section shows log entries with timestamps and messages, such as:

```

2019-09-04T04:20:15.154 [ACTIVE] executeThread: 121 for queue: 'weblogic.kernel.Default (self-tuning)'; DEBG GenerateMethodAccessor47 - -----
2019-09-04T04:20:15.160 [ACTIVE] executeThread: 121 for queue: 'weblogic.kernel.Default (self-tuning)'; DEBG GenerateMethodAccessor47 - -----
2019-09-04T04:20:15.166 [ACTIVE] executeThread: 121 for queue: 'weblogic.kernel.Default (self-tuning)'; DEBG GenerateMethodAccessor47 - -----
2019-09-04T04:20:15.166 [ACTIVE] executeThread: 121 for queue: 'weblogic.kernel.Default (self-tuning)'; DEBG GenerateMethodAccessor47 - log4j:nd loaded from zip:/scratch/ohs1/ohs1_tg/1000main/server-bin-server/req_2n_user/ovs-web-user/1010h/user/1019-101/11_1m_1m1/10191.mh
2019-09-04T04:20:15.166 [ACTIVE] executeThread: 121 for queue: 'weblogic.kernel.Default (self-tuning)'; DEBG GenerateMethodAccessor47 - Class loaded from /ohs1/ohs1_tg/ovs_data
2019-09-04T04:20:15.166 [ACTIVE] executeThread: 121 for queue: 'weblogic.kernel.Default (self-tuning)'; INFO GenerateMethodAccessor47 - Reloading external_enu_infra_*.json as it has not been reloaded for a while.
2019-09-04T04:20:15.166 [ACTIVE] executeThread: 121 for queue: 'weblogic.kernel.Default (self-tuning)'; DEBG GenerateMethodAccessor47 - end1000 - /ohs1/ohs1_tg/ovs_data/service_mapper
2019-09-04T04:20:15.166 [ACTIVE] executeThread: 121 for queue: 'weblogic.kernel.Default (self-tuning)'; DEBG GenerateMethodAccessor47 - External err msg item name/errmsg_pmgmsg1
2019-09-04T04:20:15.166 [ACTIVE] executeThread: 121 for queue: 'weblogic.kernel.Default (self-tuning)'; DEBG GenerateMethodAccessor47 - External err msg item value/ow_group_in_oracle.com)
2019-09-04T04:20:15.166 [ACTIVE] executeThread: 121 for queue: 'weblogic.kernel.Default (self-tuning)'; DEBG GenerateMethodAccessor47 - External err msg item name/errmsg_pmgmsg1
    
```

Data Conversion

This chapter lists the setup and conversion of data to be done before any messages are sent between solutions. This includes conversion of master data, like stores, warehouses, and items, as well as conversion of any open transactional data and initialization of inventory levels.

Manual Conversion

For a few foundational data elements, it is recommended that you just manually set up the data in WMS Cloud to match what you have in your RMFCS implementation. This includes the configuration of order types and reason codes.

Order Types

Order types are used to determine which types of transactions will be mapped to RMFCS, SIOCS, and OROB. Because of how they are managed in WMS Cloud, they cannot be pre-configured and so must be setup manually as outlined below. Create one order type record in WMS Cloud for each of the below order types. Note: Order Type is case sensitive.

Table 4–1 Order Types

Oracle Retail Transaction	WMS Cloud	
	Order Type	Description
Customer Orders	B2C	Sales Orders
Stock Orders and Purchase Orders	B2B	Stock Orders
RTV Request	RTV	Return to Vendor Request

The flags for configuration of the order types can be set however works best for your business. However, for B2C orders, the "Single Order on Multiple Loads" must be set to Not Allowed when integrating with OROB because it can only handle a single tracking number per fulfillment order.

For more information on how to create order types and how these flags are used in WMS Cloud, see the Oracle Warehouse Management Cloud documentation.

Reason Codes

Reason codes in WMS Cloud are similar to the inventory adjustment reason codes used in RMFCS. If you already have inventory adjustments reasons configured in RMFCS, then these same codes should be setup in WMS Cloud, as appropriate. If you

are adding new codes for your WMS Cloud implementation, then you will need to add them in both solutions.

Note: RMFCS requires inventory adjustment reasons to be numeric and less than or equal to four digits in length.

Convert Master Data

This section describes how to initialize master data in WMS Cloud based from RMFCS data. Master data includes stores, warehouses, external finishers, supplier sites, items, and item/location combinations from RMFCS. Prior to running the integration to load data into Cloud WMS, the key master data from RMFCS must be loaded into WMS Cloud, to ensure all subscribers and publishers can execute successfully.

Other Notes

- The WMS Managed flag for each of the below described entities in WMS Cloud should be set to N (false).
- Where necessary, truncate RMFCS values to ensure that they meet any size limitations of WMS Cloud.
- In addition to the data elements called out below, you will need to validate that the codes used for language, states and countries match between RMFCS/SIOCS and WMS Cloud as part of the initial configuration.
- WMS Cloud is a multi-tenant application and requires a company code to be sent in all inbound integrations, including those recommended for data conversion below. The code to be used when loading data can be found in the Companies screen in WMS Cloud for your implementation.

Note: This code will be assigned to your company on provisioning of WMS Cloud. It is not the same ID created as the top level of the organizational and merchandise hierarchies in RMFCS.

- Use the action code CREATE for all conversion data loading, when required on the WMS Cloud inbound file.
- To extract data from your RMFCS database to support the conversion requirements outlined below, it is recommended that you use one of the following methods:
 - Replicated DAS schema
 - Application Express (APEX) Data Viewer
 - BI Publisher

Stores, Partners, and Warehouses

First, stores, partners, and warehouses must be loaded. For stores and partners, these can be setup manually in the WMS Cloud Facilities screen, or loaded from data extracted from RMFCS. It is recommended that data be loaded using the Store and Site interfaces to minimize data entry errors.

Stores

Extract the attributes for stores into a .csv file, based on the attributes in the Store API. The table below outlines how the RMFCS attributes map to the WMS Cloud attributes.

Table 4–2 Stores Mappings

RMFCS	WMS Cloud
store.store	code
store.store_name	name
addr.add_1	address_1
addr.add_2	address_2
addr.city	city
addr.county	locality
addr.state	state
addr.country_id	country
addr.post	zip
store.store_mgr_name	contact
store.phone_number	phone_nbr
store.email	email
store.lang	lang

Other Notes

- Use the primary business address (type 01) as the address for this import.

External Finishers

Extract attributes for external finishers into a .csv file, based on the attributes in the Site API. The table below outlines how the RMFCS attributes map to the WMS Cloud attributes.

Table 4–3 External Finisher Mappings

RMFCS	WMS Cloud
partner.partner_id	code
partner.partner_desc	name
addr.add_1	address_1
addr.add_2	address_2
addr.city	city
addr.county	locality
addr.state	state
addr.country_id	country
addr.post	zip
addr.contact_name	contact
addr.contact_phone	phone_nbr
addr.contact_email	email

Table 4–3 (Cont.) External Finisher Mappings

RMFCS	WMS Cloud
partner.lang	lang

Other Notes

- Only partners of type 'E' (External Finisher) from RMFCS should be loaded into WMS Cloud.
- Use the primary business address (type 01) as the address for this import.

Warehouses

Because WMS Cloud does not have an inbound integration for warehouses, they must be created within the solution manually. The warehouse IDs in WMS Cloud should match the physical warehouse IDs in RMFCS. Virtual warehouses will not exist in WMS Cloud. Warehouses in WMS Cloud are added in the Facilities screens. For details on how to create facilities, refer to the Oracle Warehouse Management Cloud documentation.

Note: If you add any new physical warehouses in RMFCS post implementation of this integration, those facilities will also need to be created manually in WMS Cloud using similar rules to that described above.

Vendors

Extract attributes for supplier sites into a .csv file, based on the attributes in the Vendor API. The table below outlines how the RMFCS attributes map to the WMS Cloud attributes.

Table 4–4 Vendors Mappings

RMFCS	WMS Cloud
supsupp.supplier	vendor_code
supsupp.sup_name	name
addr.add_1	address_1
addr.add_2	address_2
addr.add_3	address_3
addr.city	city
addr.state	state
addr.country_id	country
addr.post	zip
addr.contact_name	contact
addr.contact_phone	phone_nbr
addr.contact_email	email

Other Notes

- Only supplier sites should be loaded into WMS Cloud.

- Use the primary business address (type 01) as the address for this import.

Items

To initialize items in WMS Cloud, it is recommended that they be loaded from data exported from RMFCS to create a .csv file with the attributes required. Then, use the APIs provided by WMS Cloud for loading. Only approved items should be loaded into WMS Cloud.

Item Header

Use the Item API to load transaction level items from RMFCS. The table below outlines how the RMFCS attributes map to the WMS Cloud attributes.

Table 4-5 Item Header Mappings

RMFCS	WMS Cloud
item_master.item	part_a or item_alternate_code
item_master.item_parent	part_a
diff_ids.diff_1_description	part_b
diff_ids.diff_2_description	part_c
diff_ids.diff_3_description	part_d
diff_ids.diff_4_description	part_e
item_master.dept	hierarchy1_code
deps.dept_name	hierarchy1_description
item_master.class	hierarchy2_code
class.class_name	hierarchy2_description
item_master.subclass	hierarchy3_code
subclass.sub_name	hierarchy3_description
item_master.item_desc	description
item_master.short_desc	short_descr
item_master.handling_temp	shipping_temperature_instr
(see below)	catch_weight_method
(see below)	retail_price
item_master.brand_name	brand_code
item_master.inventory_ind	invn_attr_a_tracking

Other Notes

- Only approved, transaction-level items should be loaded into WMS Cloud using this API.
- For items without a parent or with a parent but not using diffs in RMFCS, part_a should be set equal to the item ID when loaded into WMS Cloud.
- RMFCS will not send length, width, height, weight, and cube information to WMS Cloud. These fields will be protected in WMS Cloud. This is due to differences in UOM related fields between the two solutions.

- Values not listed above are not available in RMFCS so should be left null in the import to WMS Cloud.
- Item Facility records do not need to be loaded. They will be created automatically in WMS Cloud.
- If an item has a defined catch_weight_type in RMFCS, then use Y for the catch_weight_method field. Otherwise, set to N.
- For retail price, the integration will send the regular retail price for the item in the base zone converted to the primary currency and standard unit of measure. Similar logic can be used for the item conversion.
- Hierarchy levels 4 and 5 should be left null in WMS Cloud.

Item Barcodes

Use the Item Barcode API to load reference items from RMFCS to WMS Cloud. The table below outlines how the RMFCS attributes map to the WMS Cloud attributes.

Table 4–6 Item Barcodes Mappings

RMFCS	WMS Cloud
item_master.item	vendor_barcode
item_master.item_parent	item_barcode

Other Notes

- Only approved reference items (where tran_level+1 = item_level) from RMFCS for transaction items that meet the criteria of the item import above should be mapped in this API.
- WMS Cloud requires a mandatory barcode for each item loaded into it, and in cases where RMFCS does not have this value, the item can be duplicated as the barcode.

Item Pre-packs

Use the Item Pre Packs API to load the components of a pack item from RMFCS to WMS Cloud. The table below outlines how the RMFCS attributes map to the WMS Cloud attributes.

Table 4–7 Item Pre-packs Mappings

RMFCS	WMS Cloud
packitem_breakout.pack_no	parent_item_code
packitem_breakout.seq_no	seq_no
packitem_breakout.item	child_item_code
packitem_breakout.pack_item_qty	child_units

Other Notes

- Only component details for approved, complex pack items should be loaded into WMS Cloud using this API.
- Simple packs are treated as regular items in terms of stocking and inventory movement within WMS Cloud and hence they will be sent in the integration as part of the item feed.

Convert Transactional Data

It is highly recommended that you close all open shipments between the facilities that will be using WMS Cloud and your stores so that there are no open transfers or allocations for the facility, including any customer orders from the warehouse. This means that no stock orders would need to be converted into WMS Cloud from RMFCS. However, it is expected that some open purchase orders may exist that need to be converted. Additionally, there will be a need to initialize the inventory values in WMS Cloud and synch this with RMFCS. The sections below outline the recommended approach for this.

Purchase Orders

To initialize purchase orders in WMS Cloud, it is recommended that they be loaded from data exported from RMFCS using the Data Viewer or BI Publisher to create a .csv file with the attributes needed. Then, use the APIs provided by WMS Cloud for loading. Only approved purchase orders that have open quantity still to be received should be loaded into WMS Cloud.

Table 4–8 Purchase Orders Mappings

RMFCS	WMS Cloud
wh.physical_wh	facility_code
ordhead.order_no	po_nbr
ordhead.dept	dept_code
ordhead.supplier	vendor_code
ordhead.not_after_date	cancel_date
ordhead.currency_code	cust_field_1
use conversion date	ord_date
ordhead.not_before_date	delivery_date
ordhead.earliest_ship_date	ship_date
ordloc.item	item_alternate_code
wh.physical_wh	facility_code
ordloc.qty_ordered (see also note below)	ord_qty
item_master.standard_uom	uom
ordloc.unit_cost	unit_cost
ordsku.supp_pack_size	pre_pack_total_units
(see note below)	seq_nbr

Other Notes

- All open, approved POs that are shipping to a facility that will be managed by WMS Cloud.
- Only include open orders in the converted data. Open orders are those in approved status in RMFCS that have non-received order quantity.
- All virtual warehouse order quantity will need to be summed to the physical warehouse level for this conversion. Virtual warehouses will not be visible in WMS Cloud.

- The sequence number required by WMS cloud is similar to a PO line number and is used for all purchase orders loaded into WMS Cloud. This will need to be generated for the converted orders.
- Vendor ASNs do not need to be converted.

Inventory

In order to initialize inventory levels in WMS Cloud and ensure that they match the values in RMFCS, it is recommended that a cycle count be created and the results of the count be mapped to a similar count setup in RMFCS. WMS Cloud doesn't support importing a cycle count from an external system, so the recommended approach is as follows:

Note: After go-live, this is the recommended approach for future cycle counting in the warehouse as well.

1. Schedule a cycle count in WMS Cloud.
2. Schedule a corresponding stock count in RMFCS for the same date/facility including all departments.
3. Export the results of the count from WMS Cloud by scheduling an Inventory Summary export (see below for more information on scheduling jobs).

Figure 4–1 WMS Scheduled Jobs

Job Number	Job Type	Facility	Company	Schedule Name
J000000025	Generate Inventory Summary	DC_ES	CO_ES	Inventory Sun

4. Configure the output interface.

Figure 4–2 WMS Output Interface Configuration

Facility Code	Company Code	Interface Type	Interface Format
DC_ES	CO_ES	Inventory Summary Export	XML

5. Convert the format exported above into the format used by the RMFCS import for WMS stock counts, which is used to take a file from a warehouse management

system and convert it into the format needed by the Stock Count Upload process. Make sure the date used in the extracted file matches the count created in step 2.

Note: This import is called LIFSTKUP_JOB in the job scheduler. It is also part of the STOCKCOUNTUPLOAD_PROCESS and STOCKCOUNT_UPLOAD_PROCESS_ADHOC. See the *Oracle Retail Merchandising Foundation Cloud Service Operations Guide Volume 1* for more details.

6. Run the appropriate processes and take the appropriate actions in RMFCS to upload the results and complete the count.

This should set the inventory levels in WMS Cloud and ensure that they match those in RMFCS.

Other Notes

- Only the total quantity and/or total weight are used by RMFCS in the input file for the import. The other quantity and weight fields are ignored.

Integration Configuration

This chapter covers configuration that needs to be done in order to schedule jobs and the outbound interfaces.

Schedule Jobs

Create a schedule job for Inventory History that will extract the relevant information during scheduled intervals from WMS Cloud. This needs to be set up for Receipts, RTVs, Stock Orders, Inventory Adjustments, and Outbound ASNs. You can create one schedule for all of these entities, or separate schedules by functional area. Segregating has the advantage of setting different frequency on each scheduled job which is set using the Every and Period fields. The example below shows how the Generate Inventory History extract in WMS Cloud could be setup in three different schedules based on the activity code that correlates to an RMFCS entity.

Table 5–1 *Inventory History Extract in WMS Cloud*

Job Type	Activity Code	Schedule Name	Schedule Type	Every	Period
Generate Inventory History Extract	1	Receipts	Interval	Set these fields to values between 1 and 5 minutes, depending on the volume of transactions that are being processed in your warehouse. The more transactions being processed, the shorter the interval should be.	
Generate Inventory History Extract	10	SOSstatus	Interval		
Generate Inventory History Extract	19	InvAdj	Interval		

Configure Outbound Interfaces

Outbound interface configurations must be created in WMS Cloud for each facility, one for each of the following exports:

- Inventory History
- Outbound Loads
- Outbound Manifest

Inventory History Export

The Inventory History export is used to communicate updates to receipts, for purchase orders, transfers, and allocations, stock order status updates, and inventory adjustments. To configure this for export, set the interface format to XML on the Output Interface Configuration for Inventory History Export.

Next, create three targets for Inventory History Export, using the appropriate host and port for your implementation in the URL definition. The target creation can be done in the WMS Cloud application under the Output Interface Configuration tab.

Figure 5–1 Output Interface Configuration

The screenshot shows a web browser window displaying the 'Output Interface Configuration' form. The browser's address bar shows 'DC_ES - CO_ES' and the user is logged in as 'Administrator'. The form contains the following fields and values:

- Sequence Nbr: 1
- MHE System: (empty)
- Interface Protocol: REST Web Service
- URL: http://<host>:<port>/usm/EventL
- FTP Host: (empty)
- FTP Port: 0
- Target Directory: (empty)
- Username: (empty)
- Password: (empty)
- Encrypt File: (checkbox)
- Encrypt Recipient: (empty)
- Send Acknowledgement Email: (checkbox)
- Max Retries: 3
- Retry Delay (Seconds): 10
- Send Failure Email:
- Custom Integration: (checkbox)

At the bottom of the form, there are three buttons: 'Save', 'Cancel', and 'Reset'. The footer of the page indicates 's Per Page: 25', 'Retrieved 05/02/2019 1:53:42 AM', and '1 / 1 Pages'.

Target 1: Receipts

URL:

http://<host>:<port>/usm/EventListener.do?app=rib-igf&family=Receiving&type=ReceiptMod

Output Interface Target Criteria:

- Column name = Activity Code
- SQL operator = '='
- Column value = '1'

- 1 - Container Received

Target 2: SOStatus

URL:

http://<host>:<port>/usm/EventListener.do?app=rib-igf&family=SOStatus&type=SOStatusCre

Output Interface Target Criteria:

- Column name = Activity Code
- SQL operator = IN
- Column value = '10|27'
 - 10 - Container Detail Packed
 - 27 - Order Cancellations

Target 3: InvAdj

URL:

http://<host>:<port>/usm/EventListener.do?app=rib-igf&family=InvAdjust&type=InvAdjustCre

Output Interface Target Criteria:

- Column name = Activity Code
- SQL operator = IN
- Column value = '19|24|25|63|64'
 - 19 - Inventory Adjustment Cycle Count Active
 - 24 - Unlock Container - Before ASN Verification
 - 25 - Unlock Container - After ASN Verification
 - 63 - Lock Update pre-verification LPN
 - 64 - Lock Update post-verification LPN

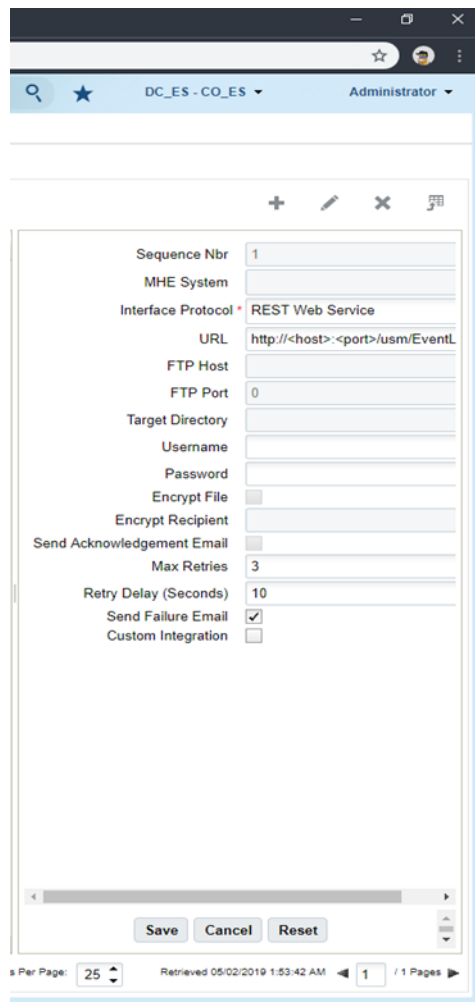
Outbound Loads Export

The Outbound Loads export is used to map shipments that are shipped via TL/LTL from the warehouse to RMFCS (RTVs and stock order shipments), SIOCS (stock order shipments to stores), and OROB (stock order shipments for customer orders), as opposed to via a parcel service such as UPS or FedEx. To configure this for export, set the interface format to XML on the Output Interface Configuration for Outbound Loads Export.

Note: This determination is made based on the presence or absence of a parcel service in the Ship Via field for an order.

Next, create two targets for Outbound Loads Export, using the appropriate host and port for your implementation in the URL definition. The target creation can be done in the WMS Cloud application under the Output Interface Configuration tab.

Figure 5–2 Output Interface Configuration



Target 1: RTV

URL:

http://<host>:<port>/usm/EventListener.do?app=rib-lgf&family=RTV&type=RTVCre?interfaceType=ObLoad

Output Interface Target Criteria:

- Column name = Order type
- SQL operator = IN
- Column value = RTV

Target 2: ASNOut

URL:

http://<host>:<port>/usm/EventListener.do?app=rib-lgf&family=ASNOut&type=ASNOutMod?interfaceType=ObLoad

Output Interface Target Criteria:

- Column name = Order Type
- SQL operator = IN

- Column value = B2B | B2C

Outbound Manifest

The Outbound Manifest export is also used to map shipments to RMFCS (RTVs and stock order shipments), SIOCS (stock order shipments to stores), and OROB (stock order shipments for customer orders). But unlike the Outbound Load Export, it is done via a parcel service. To configure this for export, set the interface format to XML on the Output Interface Configuration for Outbound Manifest.

Note: This determination is made based on the presence or absence of a parcel service in the Ship Via field for an order.

Figure 5–3 Output Interface Configuration

Sequence Nbr	1
MHE System	
Interface Protocol	REST Web Service
URL	http://<host>:<port>/usm/EventL
FTP Host	
FTP Port	0
Target Directory	
Username	
Password	
Encrypt File	<input type="checkbox"/>
Encrypt Recipient	
Send Acknowledgement Email	<input type="checkbox"/>
Max Retries	3
Retry Delay (Seconds)	10
Send Failure Email	<input checked="" type="checkbox"/>
Custom Integration	<input type="checkbox"/>

Save Cancel Reset

s Per Page: 25 Retrieved 05/02/2019 1:53:42 AM 1 / 1 Pages

Next, create two targets for Outbound Manifest, using the appropriate host and port for your implementation in the URL definition. The target creation can be done in the WMS Cloud application under the Output Interface Configuration tab.

Target 1: RTV

URL:

http://<host>:<port>/usm/EventListener.do?app=rib-igf&family=RTV&type=RTVCore?interfaceType=ObManifest

Target 2: ASNOut

URL:

http://<host>:<port>/usm/EventListener.do?app=rib-igf&family=ASNOut&type=ASNOutMod?interfaceType=ObManifest

For ALL of the targets listed above, include the following:

- Interface Protocol = REST Web Service
- Username = <username for your XXX account>
- Password = <password for your XXX account>

Note: If the account password expires or is changed, it needs to be changed here as well.

Other Configurations

There are a few other configurations you'll need to consider in WMS Cloud that are used in the integrations with RMFCS, SIOCS, and OROB. These include:

Sequence Counters

You will need to configure the sequence length for specific counters in the Sequence Counters tab in WMS Cloud to ensure the generated sequence numbers do not exceed the length supported by the integration to RMFCS. The following are the counter codes that need to be configured:

BOL Number

The sequence count used for generating BOL numbers is used in the integration of stock order shipments from the warehouse and mapped to the BOL number in RMFCS. It must be configured such that the combined prefix and sequence number does not exceed 17 characters in length that are allowed by the integration.

Inbound Shipment Number

The sequence counter used for generating shipment numbers is used in the integration of DC to DC shipments. It must be configured such that the combined prefix and sequence number do not exceed 30 characters.

Load and Parcel Manifests

The sequence counter used for generating load and parcel manifest numbers is mapped to the RTV external reference number in RMFCS. It is also used for mapping to the ASN number for outbound shipments from the warehouse. For both of these, the sequence must be configured such that the combined prefix and sequence number do not exceed 14 characters.

Decimal Support

RMFCS supports up to 4 decimal places for quantity and currency values. Hence, it must be ensured that WMS Cloud is also configured to support that many decimal places as well. This is done using the Companies view in WMS Cloud. You will need to configure both the Max Qty Decimal Precision and the Max Weight Volume Dimension Decimal Precision.

Next decimal tracking has to be enabled on the items that would be handled in decimal quantities. In the Items View, select the item and click on the edit icon. In the edit pane, check the Handle Decimal Qty check box.

Configure Integration Layer

Configure USM

In USM, URLs will need to be configured for your environment to allow the RIB to communicate with WMS Cloud. This configuration will be done by the Oracle Cloud Operations team, but you may be asked to help provide the URLs for this configuration. These are the two URLs that need to be configured:

- LogFire_Host_Url_Key – this is your link to the WMS Cloud application; configure this appropriately to allow USM to connect to the WMS Cloud application.
- RibLgf_host_UrlKey – this is the link to the RIB application for this integration; set this field in USM to enable it to connect with the RIB

Configure Static DVMs

Once the links to the end applications are configured, the static DVMs have to be configured with values from your specific implementation for company code and facility codes. These are mandatory values. The DVMs that are to be edited are:

- CompanyCode_dvm.LogFireIntegration – this is where the company code is to be set. The company code to use here can be found in the WMS Cloud Companies screen. The entry to be made in the DVM is "CompanyName" in the name column and your company code in the value column. Company code is case sensitive.
- FacilityCode_dvm.LogFireIntegration – this is where the facility codes are to be set - one record for each physical warehouse that you configured in WMS Cloud in the Warehouse conversion section. The entry to be made in the DVM is the warehouse ID in the FacilityId column, facility type in the FacilityType column and facility time zone in the FacilityTimeZone column. This should match exactly how you have configured your facilities in WMS Cloud.

Note: There is also a static DVM for country code, however this is not required for the integration so does not need a configuration.

More details about the configuration of the USM application can be found in the *Oracle Retail Integration Cloud Service Universal Service Mapper User Guide*, a link for which is provided in the Appendix C section of the document.

Configure RIB

When being sent from RMFCS to WMS Cloud, data passes through an application called RIB-TAFR (Transformation Addressing Filtering Routing). As part of the standard RIB configuration, the warehouse facility IDs need to be configured in the RIB in order for the TAFR logic to filter and route messages. This is done by the Oracle Cloud Operations team. Once you have your warehouse facilities set up in WMS Cloud, you will need to provide these IDs to the Oracle Cloud Operations team for them to do this configuration. More details can be found in the *Oracle Retail Integration Bus Operations Guide*.

Figure 5–4 RIB Warehouse Facility IDs

The screenshot shows the 'rib-laf: System Options' configuration page. The page title is 'rib-laf: System Options' and it includes a navigation menu with 'Home', 'Adapter Manager', 'Log Manager', 'RIB Logs', 'Manage Configurations', and 'RIB ServiceMonitor'. The page is refreshed on 'Mon Apr 22 2019 12:17:49 GMT+0530 (India Standard)'. The main content area is titled 'System Options' and contains a section for 'Rib Properties'. This section lists several 'facility_id' entries, each with a value of '1' in a text input field and a set of icons (edit, delete, refresh) to its right. The entries are:

Property Name	Value	Actions
facility_id_PROD 1	1	ⓘ ✖ ↻
facility_id_PROD 121232	1	ⓘ ✖ ↻
facility_id_PROD 2	1	ⓘ ✖ ↻
facility_id_PROD 3	1	ⓘ ✖ ↻
facility_id_PROD 822452885	1	ⓘ ✖ ↻
facility_id_PROD 716182531	1	ⓘ ✖ ↻
facility_id_PROD 725746721	1	ⓘ ✖ ↻
facility_id_PROD 725746731	1	ⓘ ✖ ↻
facility_id_PROD 882899294	1	ⓘ ✖ ↻

Configure RMFCS

The standard RIB messages used for WMS Cloud integration with RMFCS are generally the same as those that are used for integration with other solutions, such as SIOCS. However, for certain integrations, due to the way that WMS Cloud requires data to be sent in a different manner for modified data. In the standard RIB messages used for SIOCS, only the data elements that have changed are sent. For example, if an item description is updated, only the item ID and description that changed are included in the published modification. However, for WMS Cloud, the full item details need to be resent in the case of a modification or delete. To support this, the Publish Full Objects system option in RMFCS must be checked (Y) in order for the modified data to correctly update WMS Cloud.

Another configuration that must be done in RMFCS is to coordinate the inventory status codes that are used in RMFCS with the lock code used in receiving by WMS Cloud. Lock codes are used by WMS Cloud to "lock" some inventory on receipt until after it has been inspected or fully processed, prior to the put-away process. To allow the receipt to be processed by RMFCS, but have the inventory likewise be moved into an unavailable status in RMFCS during this process, the code PP must be configured into both solutions. Then you should also configure this lock code to be used for inbound shipments, if this is your business process. This is applicable for both PO and Transfer receipts.

Configure OROMS

Although OROMS does not connect directly to WMS Cloud, customer order details are integrated through RMFCS, necessitating coordination of codes used in both solutions. In particular, the Ship Via codes in OROMS, which identify the shipping company to be used for the customer order, need to be setup to match the Ship Via codes in WMS Cloud. For more details on how customer orders integrate to WMS Cloud from

OROMS, OROB, and RMFCS, see the *Merchandising and SIM Integration with OMS and OB* white paper found on My Oracle Support under ID 2088235.1.

Note: There is no special configuration required in SIOCS or OROB in order for it to receive messages from WMS Cloud. That is all managed through RICS.

Appendix A - Solution Overviews

Oracle Warehouse Management Cloud

Oracle Warehouse Management Cloud (WMS Cloud) is the industry's leading cloud-based inventory and warehouse management system. With innovative product features, mobile solutions and an easy-to-use interface, Oracle's WMS Cloud combines the speed and savings of the cloud with the best-of-breed warehouse management and fulfillment capabilities.

Retail Integration Cloud Service

The Oracle Retail Integration Cloud Service (RICS) is comprised of a suite of products that are cloud deployable for integration to Oracle Retail applications and on-premises or hybrid configurations of third-party applications. The integration products supported are the Oracle Retail Integration Bus (RIB), the Oracle Retail Service Backbone (RSB), and Oracle Retail Bulk Data Integration (BDI). It also contains a component called the Universal Service Mapper (USM), which allows for the definition, mapping, configuration, and deployment required to maintain a seamless integration in heterogeneous environments.

Retail Foundation Cloud Service

The Oracle Retail Foundation Cloud Service (RMFCS) is the market-leading merchandising solution for retailers of all sizes. This solution enables many of the best retailers in the world to better manage, control, and perform crucial day-to-day merchandising activities with ease. From new product introduction, to financial inventory valuation, it provides retailers with a complete end-to-end solution.

Retail Store Inventory and Operations Cloud Service

Oracle Retail Store Inventory and Operations Cloud Service (SIOCS) provides retailers with a comprehensive collection of automated and simple, predictable and repeatable processes supporting accurate store inventory with enterprise-wide visibility necessary to support supply chain and commerce-anywhere decisions.

Retail Order Broker Cloud Service

Oracle Retail Order Broker Cloud Service is a cloud service application that enables a retailer's order anywhere, fulfill from anywhere, to anywhere strategy with its view of

inventory across the enterprise and its rules-based shopping engine, ensuring margin optimization and reduced order fulfillment costs.

B

Appendix B - Outbound and Inbound Interfaces

Outbound from WMS Cloud

The following lists all the outbound interfaces from WMS Cloud available in USM, for integration into RMFCS or SIOCS, along with their interface names, template files, service definition files, orchestration files, supported message types, and payloads.

Note: These interfaces have the exact same Failure and Response templates. Namely:

- LogFireToRib_DefaultAllAction_ResponseDataMapping.template
 - LogFireToRib_DefaultAllAction_FailureResponseDataMapping.template
-
-

You will be able to see the details available in these templates in the USM screens to help with resolving any issues in the integration. See also the [Chapter 3, "Integration Errors"](#).

ASN Outbound

This integration will be used for shipments from the warehouse to a store or to another warehouse. It also will be used for customer orders that are shipped to the customer directly.

WMS Cloud Integrations

Service Definition

- LogFireToRibASNOutObLoad_ServiceMappingDef.json
- LogFireToRibASNOutObManifest_ServiceMappingDef.json

Orchestration File

- LogFireToRibASNOutObLoad_ServiceMappingOrchestration.smo
- LogFireToRibASNOutObManifest_ServiceMappingOrchestration.smo

ASN Out (ASNOutCre)

RIB Payload

- ASNOutDesc

Template Files (Request)

- LogFireToRibASNOutObLoad_HttpPost_RequestResponseDataMapping.template
- LogFireToRibASNOutObManifest_HttpPost_RequestResponseDataMapping.template

Inventory Adjustments

Any inventory adjustments that will increment or decrement inventory in the warehouse will be sent via this integration point. This includes removing inventory from stock completely or moving it to and from an available status. The integration here will map to one of two inventory status codes in RMFCS - Available to Sell (ATS) or Trouble (TRBL). Within RMFCS, you can configure the TRBL status code to map to either the applicable inventory status (see the *Oracle Retail Merchandising Foundation Inventory User Guide* for more information). The determination of which will be used will be based on the values in reference codes 11 and 12 in the WMS Cloud Inventory History. If reference code 11 is PAS, then if reference value 11 is Yes, the from disposition for the adjustment will be mapped to ATS; otherwise to TRBL. Similarly, if reference code 12 is CAS, then if reference value 12 is Yes, the to disposition in this interface will be mapped to ATS; otherwise to TRBL.

WMS Cloud Integrations

Service Definition

- LogFireToRibInvAdjust_ServiceMappingDef.json

Orchestration File

- LogFireToRibInvAdjust_ServiceMappingOrchestration.smo

Inventory Adjustment (InvAdjustCre)

RIB Payload

- InvAdjustDesc

Template Files (Request)

- LogFireToRibInvAdjstate_HttpPost_RequestDataMapping.template

Return to Vendor Shipments

This integration will be used when shipping inventory back to a supplier from the warehouse. All RTV shipments will use the inventory disposition code of ATS.

WMS Cloud Integrations

Service Definition

- LogFireToRibRTV_ServiceMappingDef.json

Orchestration File

- LogFireToRibRTV_ServiceMappingOrchestration.smo

RTV (RTVCre)

RIB Payload

- RTVDesc

Template Files (Request)

- LogFireToRibRTV_HttpPost_RequestDataMapping.template

Receiving

This integration will be used for receipts of purchase orders, transfers, or allocations into the warehouse. Both container level and detailed receipts will flow through this message to update RMFCS.

WMS Cloud Integrations

Service Definition

- LogFireToRibReceipt_ServiceMappingDef.json

Orchestration File

- LogFireToRibReceipt_ServiceMappingOrchestration.smo

Receipt (ReceiptMod)

RIB Payload

- ReceiptDesc

Template Files (Request)

- LogFireToRibReceipt_HttpPost_RequestDataMapping.template

Stock Order Status

This integration will be used to communicate updates for stock orders - which can be either a transfer or allocation. Status updates are based on certain activity codes in the Inventory History table in WMS Cloud and map to the RMFCS codes as follows:

Table B-1 Status Update Codes

WMS Cloud Code	Description	RMFCS Code	Description
10	Container Detail Packed	PP	Pick Pending

Table B-1 (Cont.) Status Update Codes

WMS Cloud Code	Description	RMFCS Code	Description
27	Order Cancellations	SD	Stock Decrease

WMS Integrations

Service Definition

- LogFireToRibSOStatus_ServiceMappingDef.json

Orchestration File

- LogFireToRibSOStatus_ServiceMappingOrchestration.smo

SO Status (SOStatusCre)

RIB Payload

- SOStatusDesc

Template Files (Request)

- LogFireToRibSOStatus_HttpPost_RequestDataMapping.template

Inbound to WMS Cloud

The following lists the inbound interfaces to interfaces used for integration into WMS Cloud from RMFCS or SIOCS, along with their interface names, template files, service definition files, orchestration files, supported message types, and payload name. Because of how WMS Cloud consumes data, for the following interface points, a full payload is used for sending updates from RMFCS, rather than just the data that changed: items, purchase orders, stock orders, vendors, and RTV requests, using the "FullRep" message type.

The following list of Interfaces have the exact same Failure and Response templates.

- RibToLogFire_DefaultAllAction_FailureResponseDataMapping.template
- RibToLogFire_DefaultAllAction_ResponseDataMapping.template

Store

This integration will send new and updated store information from RMFCS to WMS Cloud. If a store is deleted in RMFCS, that will also be communicated to WMS Cloud.

WMS Cloud Integrations

Service Definition

- RibToLogFireStores_ServiceMappingDef.json

Orchestration File

- RibToLogFireStores_ServiceMappingOrchestration.smo

Create and Modify (StoreCre)**RIB Payload**

- StoreDesc

Template Files (Request)

- RibToLogFireStores_StoreCre_RequestDataMapping.template

Delete (StoreDel)**RIB Payload**

- StoreRef

Template Files (Request)

- RibToLogFireStores_StoreDel_RequestDataMapping.template

Vendor

This integration will send new and updated supplier site information from RMFCS to WMS Cloud. If a supplier site is deleted, that will also be communicated to WMS Cloud.

WMS Cloud Integrations**Service Definition**

- RibToLogFireVendor_ServiceMappingDef.json

Orchestration File

- RibToLogFireVendor_ServiceMappingOrchestration.smo

Vendor Create (VendorCre) and Modify (VendorFulRep)**RIB Payload**

- VendorDesc

Template Files (Request)

- RibToLogFireVendor_VendorCre_RequestDataMapping.template

Vendor Delete (VendorDel)**RIB Payload**

- VendorRef

Template Files (Request)

- RibToLogFireVendor_VendorDel_RequestDataMapping.template

External Finisher

This integration will send new and updated external finisher information, including addresses, from RMFCS to WMS Cloud. If an external finisher or its address is deleted, that will also be communicated to WMS Cloud.

WMS Cloud Integrations

Service Definition

- RibToLogFirePartner_ServiceMappingDef.json

Orchestration File

- RibToLogFirePartner_ServiceMappingOrchestration.smo

Partner Create (PartnerCre PartnerDtlCre) and Modify (PartnerDtlMod, PartnerMod)

RIB Payload

- PartnerDesc

Template Files (Request)

- RibToLogFirePartner_PartnerCre_RequestDataMapping.template

Partner Delete (PartnerDel)

RIB Payload

- PartnerRef

Template Files (Request)

- RibToLogFirePartner_PartnerDel_RequestDataMapping.template

Partner Details Delete (PartnerDtlDel)

RIB Payload

- PartnerRef

Template Files (Request)

- RibToLogFirePartner_PartnerDtlDel_RequestDataMapping.template

Items

This integration will send new or updated items to WMS Cloud from RMFCS, including parent items, transaction level items, and reference items, as applicable. Only approved items are sent in this integration. For pack items, the component details for the pack are also integrated. See the [Items](#) section for key assumptions about items that are integrated to WMS Cloud.

Note: Item Delete is not currently supported in this integration.

WMS Cloud Integrations

Service Definition

- RibToLogFireItem_ServiceMappingDef.json

Orchestration File

- RibToLogFireItem_ServiceMappingOrchestration.smo

Item Create (ItemCre, ItemUpcCre, ItemBomCre) and Modify (ItemUpcMod, ItemBomMod, ItemFulRep)

RIB Payload

- ItemDesc

Template Files (Request)

- RibToLogFireItem_ItemCre_RequestResponseDataMapping.template
- RibToLogFireItem_ItemUpcCre_RequestResponseDataMapping.template
- RibToLogFireItem_ItemBomCre_RequestResponseDataMapping.template

ASN Inbound

This integration is used to map shipments inbound to a warehouse, which could be from a supplier or a store. Modifications to shipments or deletions of a shipment can also occur based on adjustments sent from a store or supplier.

WMS Cloud Integrations

Service Definition

- RibToLogFireASNIn_ServiceMappingDef.json

Orchestration File

- RibToLogFireASNIn_ServiceMappingOrchestration.smo

Create (ASNInCre or Modify (ASNInMod)

RIB Payload

- ASNInDesc

Template Files (Request)

- RibToLogFireASNIn_ASNInCre_RequestDataMapping.template

Delete (ASNInDel)

RIB Payload

- ASNInRef

Template Files (Request)

- RibToLogFireASNIn_ASNInDel_RequestDataMapping.template

Order

This interface is used to send new and updated purchase orders from RMFCS to WMS Cloud. Only approved orders with a warehouse as one of the destination locations will be sent to WMS Cloud. For more details about PO mapping rules, see the [Purchase Orders](#) section.

WMS Cloud Integrations

Service Definition

- RibToLogFireOrder_ServiceMappingDef.json

Orchestration File

- RibToLogFireOrder_ServiceMappingOrchestration.smo

PO Create (POCre) and Modify (POFulRep)

RIB Payload

- PODesc

Template Files (Request)

- RibToLogFireOrder_POCre_RequestDataMapping.template

PO Delete (PODel)

RIB Payload

- POREf

Template Files (Request)

- RibToLogFireOrder_PODel_RequestDataMapping.template

Stock Order

Stock orders can be either transfers or allocations, including customer order related transfers. These orders are sent from RMFCS to WMS Cloud when the warehouse is either the shipping location or the receiving location on the stock order. Only approved stock orders will be integrated.

WMS Cloud Integrations

Service Definition

- RibToLogFireStockOrder_ServiceMappingDef.json

Orchestration File

- RibToLogFireStockOrder_ServiceMappingOrchestration.smo

Stock Order Create (SOCre) or Modify (SOFulRep)

RIB Payload

- SODesc

Template Files (Request)

- RibToLogFireStockOrder_SOCre_RequestDataMapping.template

Stock Order Header Delete (SOHdrDel)**RIB Payload**

- SORef

Template Files (Request)

- RibToLogFireStockOrder_SOHdrDel_RequestDataMapping.template

RTV Requests

This integration will send return to vendor transactions initiated in RMFCS that are requested to be shipped from a warehouse.

WMS Cloud Integrations**Service Definition**

- RibToLogFireRTVReq_ServiceMappingDef.json

Orchestration File

- RibToLogFireRTVReq_ServiceMappingOrchestration.smo

Create RTV Request (RTVReqCre) or Modify (RTVReqFulRep)**RIB Payload**

- RTVReqDesc
- RTVReqRef

Template Files (Request)

- RibToLogFireRTVReq_RTVReqCre_RequestDataMapping.template

Delete RTV Request (RTVReqDel)**RIB Payload**

- RTVReqDesc
- RTVReqRef

Template Files (Request)

- RibToLogFireRTVReq_RTVReqDel_RequestDataMapping.template

Appendix C - Other Resources

WMS Cloud

For other documentation on WMS Cloud including links to user documentation, parcel carrier integration, and integration details, see document ID 2422433.2 on My Oracle Support and reference the Documentation tab.

Oracle Retail Integration Cloud Service (RICS)

For other documentation on RICS, including links to integration guides, USM and RIB documentation, and updates on the most recent releases, see the official product documentation page found here: http://docs.oracle.com/cd/E82085_01/index.html.

Oracle Retail Merchandising Foundation Cloud Service (RMFCS)

For access to the RMFCS operations and implementation guides, as well as all other documentation, see the official product documentation page found here: https://docs.oracle.com/cd/F11448_01/index.html.

Other Documentation References

For details on customer order integration between all the solutions covered in this document, see the white paper available on My Oracle Support document ID 2088235.1 titled Merchandising and SIM Integration with OMS and OB.

