

Oracle® Retail Merchandising-SIOCS Implementation Guide



G56162-01
May 2026



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, MySQL, and NetSuite 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

Send Us Your Comments

Preface

1 Introduction

Merchandising and SIOCS Integrations	1
--------------------------------------	---

2 Integration Architecture

Merchandising to SIOCS – Initial Data Load	1
Merchandising to SIOCS – Transactions and Foundation Deltas	1
Sales Audit to SIOCS	2
SIOCS to Merchandising	2
Integration Components Description	3
Merchandising	3
Database Views	3
Integration Change Log (ICL) Tables	3
Import Tables	4
Consume Jobs	4
SIOCS	5
Import Tables	5
Consume Jobs	5

3 Integration Errors

Merchandising	1
SIOCS	1

4 Integration Configurations

Merchandising System Configuration	1
------------------------------------	---

A Appendix – Interface Details

Merchandising to SIOCS	A-1
Sales Audit to SIOCS	A-4
SIOCS to Merchandising	A-4

B Appendix – Avoiding Duplicate Processing

C Appendix – Routing External Originating Transaction to SIOCS

Purchase Order Shipments	C-1
Warehouse to Store Shipments	C-1
Stock Order Status	C-1
Fulfillment Orders	C-2

D Appendix – SIOCS to Merchandising Data Processing Using Background Engine

Send Us Your Comments

Oracle welcomes customers' comments and suggestions on the quality and usefulness of this document.

Your feedback is important, and helps us to best meet your needs as a user of our products. For example:

- Are the implementation steps correct and complete?
- Did you understand the context of the procedures?
- Did you find any errors in the information?
- Does the structure of the information help you with your tasks?
- Do you need different information or graphics? If so, where, and in what format?
- Are the examples correct? Do you need more examples?

If you find any errors or have any other suggestions for improvement, then please tell us your name, the name of the company who has licensed our products, the title and part number of the documentation and the chapter, section, and page number (if available).

Note

Before sending us your comments, you might like to check that you have the latest version of the document and if any concerns are already addressed. To do this, access the Online Documentation available on the Oracle Help Center (OHC) site. It contains the most current Documentation Library plus all documents revised or released recently.

Send your comments to us using the email address: retail-doc_us@oracle.com

Please give your name, address, electronic mail address, and telephone number (optional).

If you need assistance with Oracle software, then please contact your support representative or Oracle Support Services.

If you require training or instruction in using Oracle software, then please contact your Oracle local office and inquire about our Oracle University offerings. A list of Oracle offices is available on our Web site at <http://www.oracle.com>.

Preface

This guide outlines the information you need to know about Oracle Retail [Product Name]Cloud Service new or improved functionality in this update, and describes any tasks you might need to perform for the update. Each section includes a brief description of the feature, the steps you need to take to enable or begin using the feature, any tips or considerations that you should keep in mind, and the resources available to help you.

Audience

This document is intended for the users and administrators of the Oracle Retail [Product Name] Cloud Service.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL:

<https://support.oracle.com>

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Oracle Help Center (docs.oracle.com)

Oracle Retail Product documentation is available on the following website <https://docs.oracle.com/en/industries/retail/html>

Comments and Suggestions

Please give us feedback about Oracle Retail Help and Guides. You can send an e-mail to: retail-doc_us@oracle.com

Oracle Retail Cloud Services and Business Agility

Oracle Retail (Product Name) Cloud Service is hosted in the Oracle Cloud with the security features inherent to Oracle technology and a robust data center classification, providing significant uptime. The Oracle Cloud team is responsible for installing, monitoring, patching, and upgrading retail software.

Included in the service is continuous technical support, access to software feature enhancements, hardware upgrades, and disaster recovery. The Cloud Service model helps to free customer IT resources from the need to perform these tasks, giving retailers greater business agility to respond to changing technologies and to perform more value-added tasks focused on business processes and innovation.

Oracle Retail Software Cloud Service is acquired exclusively through a subscription service (SaaS) model. This shifts funding from a capital investment in software to an operational expense. Subscription-based pricing for retail applications offers flexibility and cost effectiveness.

1

Introduction

This document provides an overview of the integration between Oracle Retail Merchandising¹ and Oracle Retail Store Inventory Operations Cloud Service (SIOCS). Merchandising and SIOCS get installed on separate schema on the same database and have direct database integration. This direct method does not require integration middleware and covers most of the integration points between Merchandising and SIOCS.

For data flowing from Merchandising to SIOCS, Merchandising has database views for each data entity which are queried periodically by SIOCS for new foundation data, new transactional data and changes to foundation and transactional data. Merchandising has change log tables for each entity which is used by SIOCS to identify and query changed data points.

For transactions owned by SIOCS and required by Merchandising, SIOCS writes new and changed transactions into respective staging tables which are consumed by Merchandising through periodic polling.

Merchandising and SIOCS Integrations

From Merchandising to SIOCS	
Address	Price History
Allocations	Purchase Orders
ASNs ¹	Receiver Unit Adjustments
Codes	Return to Vendor Requests
Delivery Slots	Stores
Differentiator Types	Store Inventory
Differentiators	Transfers
Item Locations	UOM Classes and Conversion
Items	User Defined Attributes
Merchandise Hierarchy	Vendors
Partners	Warehouses
Purchase Order Shipment	Stock Order Status
Warehouse to Store Shipment	
From Pricing to SIOCS	
Clearances and Clearance Resets	Price Changes

¹ Merchandising publishes Advanced Shipping Notification (ASN) for only shipments shipped using Merchandising screens.

¹ Oracle Retail Merchandising refers to the group of cloud services consisting of Retail Merchandising Foundation Cloud Service (RMFCS), Sales Audit, Retail Pricing Cloud Service (RPCS), Retail Invoice Match Cloud Service (ReIMCS) and Allocation Cloud Service.

From Sales Audit to SIOCS

Audit Revision to Sales/Return Transaction

From SIOCS to Merchandising

Direct Store Delivery Receipts

Return to Vendor

Fiscal Documents

Stock Order Receipt

Inventory Adjustments

Stock Order Status

Inventory Requests

Stock Count Schedule

Outbound ASNs

Stock Count Results

Purchase Order Receipts

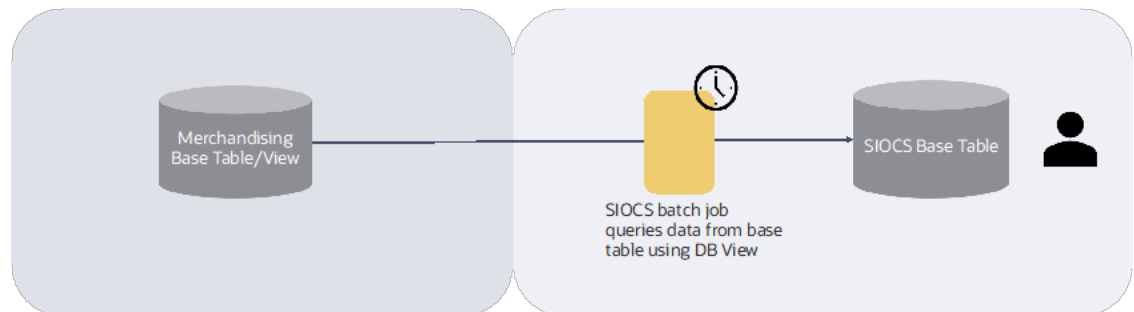
Store Order Review

2

Integration Architecture

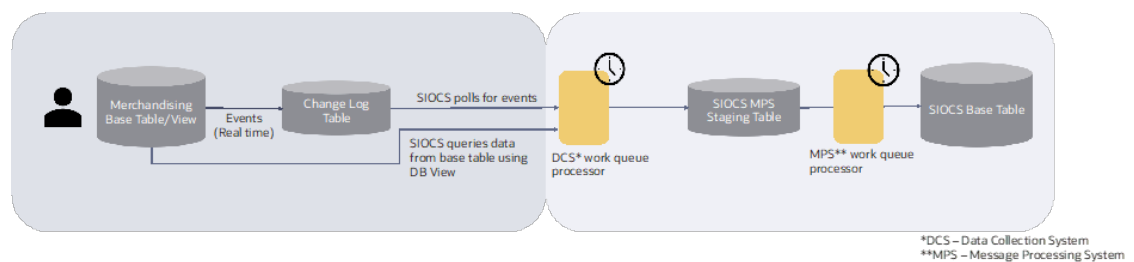
This section explains the different components that are used to make the whole integration work seamlessly.

Merchandising to SIOCS – Initial Data Load



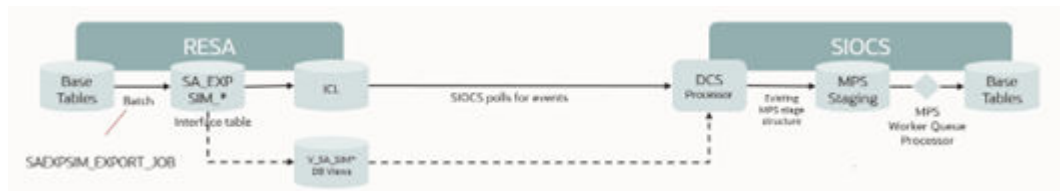
For initial data load and on-demand seeding for new store setup, SIOCS batch processes query MFCS database views. Filter logic in the view called by SIOCS uses business logic that directly loads data into the SIOCS base tables. For further details on initial data seeding, refer to the 'Data Seeding from Merchandising Foundation Cloud Service' chapter of the SIOCS Administration Guide on the [Oracle Help Center](#).

Merchandising to SIOCS – Transactions and Foundation Deltas



For transactions and foundation deltas, Merchandising data is replicated asynchronously into SIOCS. SIOCS queries Merchandising and Pricing database tables/views for data refresh and changes to foundation and transactional data. Identification of changes happens through periodic polling of Integration Change Log (ICL) tables. Events published to the ICL tables follows the same filter criteria as the older integration method (RIB publish). Merchandising database views work as the integration contract.

Sales Audit to SIOCS

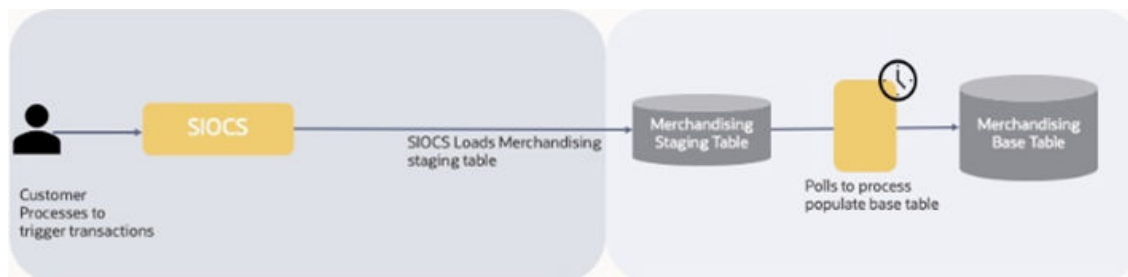


The delta publication related to audit revisions to sales or return transactions from Sales Audit is implemented through `saexpsim.pc`, which creates `SIMT_***` files that get consumed by SIOCS using the Retail Sales Audit Import Batch. This involves the POM jobs `SAEXPIM_JOB`, `SAEXPIM_POST_JOB`, and `RESA2SIM_JOB`.

With the updated direct database integration, another set of POM jobs (`SAEXPIM_EXPORT_JOB`, `SAEXPIM_EXPORT_POST_JOB`, `SAEXPIM_EXPORT_CYCLE_JOB`, and `SAEXPIM_EXPORT_POST_CYCLE_JOB`) have been added with the same business logic to extract the revised sales from Sales Audit, then load this data into the interface tables. The new job exists in both the nightly and cyclic flows, and has the same dependency as the existing file export jobs. It will be loaded as disabled in POM during installation and will require customer action to enable them. SIOCS queries the ICL table to extract the sales revision details.

The related purge job (`SAEXPIM_EXPORT_PURGE_JOB`) will purge the historically published revised sales from interface tables after 90 days (configuration maintained in the `EXPIM_EXPORT_PURGE_DAYS` column of the `SA_SYSTEM_OPTIONS` table). This job is enabled by default.

SIOCS to Merchandising



For sending transactions to Merchandising, SIOCS populates Merchandising import staging tables through asynchronous fire-and-forget publish. Merchandising polls for new messages through batch jobs and processes them through consume business logic that is also used by the service-based integrations. Additionally, there is a user interface-based review mechanism in Merchandising to help troubleshoot integration errors. Stock Count Schedule and Results are not processed during the entire duration of the nightly batch window.

Integration Components Description

Merchandising

Database Views

- Merchandising has database views that are used to expose Merchandising data for SIOCS to query. Each merchandising entity has a view with a name prefixed with V_RMS_SIM. These database views are owned by Merchandising specifically for the use of SIOCS. Read access is provided to SIOCS to call these views via synonyms and is used for both initial data seeding and delta changes.
- The views serve as an integration contract between Merchandising and SIOCS. The view queries filter rows and include columns based on SIOCS's need.
- See details of entities published from Merchandising and used by SIOCS in the appendix.

Integration Change Log (ICL) Tables

- ICL tables are used to capture data changes (insert/update/deletes) in base Merchandising tables. For example, when an item is created or updated, the ICL table for Item contains the item number along with time of change and the type of database operations (insert, update or delete).
- The data change capture to ICL table uses functional filter criteria used previously (RIB publish). For example, the capture of item changes to ICL table happens only after an item is approved.
- Merchandising inserts into the ICL tables for incremental changes only. The consuming application (SIOCS) is responsible for deleting processed records from these tables.
- SIOCS processes the data based on ICL record create time and the type of database operation (insert, update or delete).
- Merchandising database triggers insert into the ICL tables. An entry for SIOCS is made when SIOCS and Merchandising are configured to use the direct database integration method.

The following is the typical ICL table structure:

Column Name	Datatype	Mandatory	Comments
ICL_ID	RAW(16)	yes	Default value - SYS_GUID
ICL_CONSUMER	VARCHAR2(10)	yes	SIOCS, and so on; one record for each target app that needs the change
ICL_CHANGE_TYPE	VARCHAR2(1)	yes	I (insert), U (update), D (delete)
ICL_TABLE_NAME	VARCHAR2(30)	yes	Merchandising source table that changed; for example: ADDR, ITEM_MASTER

Column Name	Datatype	Mandatory	Comments
ICL_CREATE_TIMESTAMP	TIMESTAMP(6) WITH TIME ZONE	yes	The timestamp in DBTIMEZONE when the record was created in this ICL table.
ICL_CREATE_ID	VARCHAR2(254)	yes	User ID of the user who created the record in this ICL table.
ICL_TRANSACTION_ID	VARCHAR2(120)	yes	Transaction ID of the transaction in which the record was committed in the source table. It's populated through dbms_transaction.local_transaction_id.
ICL_PROCESSED_IND	VARCHAR2(1)	yes	Indicates whether the record has been processed by the consuming application. The consuming application updates this to I (in-progress) or Y (processed). Default value is No.
<ENTITY SPECIFIC COLUMNS>			Source table to identify the entity that has changed. For example: for item_master, this will contain ITEM. For orders, the table will contain ORDER_NO, ITEM, LOCATION. Not all key columns in an ICL table are populated. Key columns are populated depending on the entity that was changed.

Import Tables

Merchandising has import tables that are populated by SIOCS with data to be interfaced to Merchandising. These tables are data entity specific and have a prefix SIM_RMS. They have specific columns that are published by SIOCS in addition to standard columns to be used for traceability, error handling and metadata driven processing.

Consume Jobs

These jobs poll the SIM RMS import tables for entries ordered by timestamp and can be scheduled as required by the retailer. These jobs prepare the data for processing. Successful processing moves data into import history tables.

SIOCS

Import Tables

SIOCS ICL Staging Tables

ICLS_CLEARANCE
ICLS_ITEM_LOC
ICLS_ITEM_LOC_CFA
ICLS_PRICE_CHANGE

Consume Jobs

ICL table data is managed and consumed by DCS work types. When a record is removed from the ICL tables, it is written to the MPS_STAGED_MESSAGE table or supporting ICLS table. Then, the MPS work types activate and do final processing of the MPS message.

Data Collection System (DCS) Work Types – Data collection system work types is a series of worker threads based on data categories that manage the collection of ICL table and input into the message processing system. These work types are administrated by the DCS Work Type screen (See the *EICS Administration Guide*).

Message Processing System (MPS) Work Types – Message processing system work types are a series of worker threads based on data categories that manage the processing of business data messages in the staged message table. These work types can be administrated by the MPS Work Type screen (See the *EICS Administration Guide*).

MPS Staged Messages – Stages messages are stored within the mps_staged_message table and processed using MPS work types. This screen allows the user to monitor and manage a singular staged message. (See the *EICS Administration Guide*).

3

Integration Errors

Merchandising

For data flow from SIOCS to Merchandising, a user interface-based review mechanism in Merchandising called Inbound Data Errors is available to help troubleshoot integration errors. When errors are encountered while publishing transaction data from SIOCS to Merchandising using direct database integration, the system will automatically retry the processing ten times for every failure (including locking failures) prior to presenting it to the user on the Inbound Data Errors screen for review and reprocessing in Merchandising for manual review and to allow the user to take further action.

The error handling for this integration is at an individual transaction level and only the bad transactions are rejected. Such rejected transactions are available in the Inbound Data Errors screen. In this screen, post review of the error, the user has the choice of:

- Keep the message in error status to be reviewed later (no action).
- Fix the underlying data that caused the error, such as status errors or code config mismatch. Then retry the transaction processing through an asynchronous process.
- Ignore the error in cases when no data fix is possible and needs to be handled externally, such as manually adjusting inventory.

Source Reference Number	Message Family	Status	Error Description	Number of Attempts	Last Reprocess Attempted By	Input Data
783	Inventory Adjustment Pub...	Error	Invalid Date. Inventory Adjustment Date cannot be later than tomorrow's date.	0	RMSBATCHUSER1	
65001	RTV	Error	Quantity must be greater than zero when creating a new RTV detail	0	RMSBATCHUSER1	
403	PO Receiving	Error	Receipts are not allowed against orders in Worksheet or Submitted status. ...	0	RMSBATCHUSER1	
522	Stock Order Receiving	Error	Shipment does not exist for BOL 345, To Loc 1119, From Loc 1101.	0	RMSBATCHUSER1	
30003	ASN Outbound	Error	A shipment already exists with the Bill of Lading number 201.	0	RMSBATCHUSER1	
35001	ASN Outbound	Error	A shipment already exists with the Bill of Lading number 203.	0	RMSBATCHUSER1	
30004	ASN Outbound	Error	A shipment already exists with the Bill of Lading number 202.	0	RMSBATCHUSER1	
15004	RTV	Error	External Reference Number/RTV Id must be provided.	0	RMSBATCHUSER1	
15001	RTV	Error	External Reference Number/RTV Id must be provided.	0	RMSBATCHUSER1	

SIOCS

Monitoring of integration occurs in four main places in SIOCS:

Integration Dashboard – This application screen displays information about the current state of integration flows (See the *EICS Administration Guide*).

DCS Work Types – This application screen displays information about DCS work types responsible for integration and contain an error state and message on any DCS work type that has experienced a system error that prevents the thread from processing (See the *EICS Administration Guide*).

MPS Work Types – This application screen displays information about MPS work types responsible for integration and contain an error state and message on any MPS work type that has experienced a system error that prevents the thread from processing (See the *EICS Administration Guide*).

MPS Staged Messages – This application screen displays information about integration MPS staged messages and contains the process status of specific data and any potential errors that occurred processing that data. (See the *EICS Administration Guide*).

4

Integration Configurations

New environments are provisioned with the direct database integration method enabled by default between SIOCS and MFCS.

Merchandising System Configuration

Direct database integration method between Merchandising and SIOCS is governed by the following indicators.

- **SIOCS ICL Indicator¹** – Indicates whether SIOCS gets data from the Merchandising applications through ICL (integration change log) tables. If set to Yes (Y), integration through RIB is disabled and ICL tables are populated. It is defaulted to N. This should be set in sync with the corresponding indicator in SIOCS as part of implementation. There is no user interface option for this and can be managed through a service request to Oracle.
- **Inbound Data History Months** – Specifies the number of months the archived inbound transactions will remain in the import history tables and can be set through the System Options screen. All history dated later than this is automatically removed by a batch process.
- **Inbound Data Unprocessed Error Days** – Specifies the number of days the inbound data error records are retained in the inbound staging and error logging tables and can be set through the System Options screen.
- **Route External ASN-In to SIOCS** – This indicates whether a vendor shipment of purchase orders (that is, ASNIN) from an external system will be passed on to SIOCS from MFCS or not. If set to Y, MFCS will write an ICL_RMS_ASNIN record for SIOCS to process.
- **Route External ASN-Out to SIOCS** – This indicates whether a warehouse to store a shipment of stock orders (that is ASNOUT) from a Warehouse system will be passed on to SIOCS from MFCS or not. If set to Y, MFCS will write an ICL_RMS_SHIPMENT record for SIOCS to process.
- **Route External Stock Order Status to SIOCS** – This indicates whether a Stock Order Status change from a Warehouse system will be passed on to SIOCS from MFCS or not. If set to Y, MFCS will write an ICL_RMS_TRANSFER or ICL_RMS_ALLOC record for SIOCS to process.

SIOCS Configuration

The dataflow from Merchandising into SIOCS is managed by DCS and MPS work types. The appropriate DCS & MPS work types must be enabled by the Retailer. For Work Type details, refer to the "MPS Work Type" and "DCS Work Type" sections in the *Oracle® Retail Enterprise Inventory Cloud Service Administration Guide*. Dataflow from SIOCS to MFCS occurs directly without the need to manage work types.

¹ SIOCS_ICL_IND in PRODUCT_CONFIG_OPTIONS table

A

Appendix – Interface Details

Merchandising to SIOCS

Interface	Change Log Table	Merchandising View/s	SIOCS Staging Table	SIOCS DCS Work Type
Address	ICL_RMS_ADDR	V_RMS_SIM_ADDR	MPS_STAGED_MES SAGE	Address
Allocations	ICL_RMS_ALLOC	V_RMS_SIM_ALLOC_HEADER V_RMS_SIM_ALLOC_DETAIL	MPS_STAGED_MES SAGE	Allocation
ASNs	ICL_RMS_SHIPMENT	V_RMS_SIM_SHIPMENT V_RMS_SIM_SHIPSKU V_RMS_SIM_SHIPSKU_UIN	MPS_STAGED_MES SAGE	Shipment
ASN-IN	ICL_RMS_ASNIN	V_RMS_SIM_ASNIN_CT N V_RMS_SIM_ASNIN_DE SC V_RMS_SIM_ASNIN_IT EM V_RMS_SIM_ASNIN_PO V_RMS_SIM_ASNIN_UI N	MPS_STAGED_MES SAGE	VendorDelivery
Fiscal Document Based ASNIN	ICL_RFM_ASNIN	V_RFM_ASNIN_CT N V_RFM_ASNIN_DESC V_RFM_ASNIN_ITEM V_RFM_ASNIN_PO V_RFM_ASNIN_UIN	MPS_STAGED_MES SAGE	FiscalShipment
Fiscal Documents	ICL_RMS_FDG		MPS_STAGED_MES SAGE	FiscalDocument
Clearances and Clearance Resets	RPM_ICL_PRICE_EVENT_PAYLOAD	RPM_SIM_CLEARANCE_V	MPS_STAGED_MES SAGE ICLS_CLEARANCE	ItemPrice
Codes		V_RMS_SIM_CODE_HEADER V_RMS_SIM_CODE_DETAIL		N/A
Delivery Slots		V_RMS_SIM_DELIVERY_SLOT		N/A

Interface	Change Log Table	Merchandising View/s	SIOCS Staging Table	SIOCS DCS Work Type
Differentiator Types	ICL_RMS_DIFF_TYPE	V_RMS_SIM_DIFF_TYPE	MPS_STAGED_MES SAGE	DiffType
Differentiators	ICL_RMS_DIFF_IDS	V_RMS_SIM_DIFF	MPS_STAGED_MES SAGE	Diff
Item Locations	ICL_RMS_ITEM_LOC ICL_RMS_REPL_ITEM_LOC	V_RMS_SIM_ITEM_LOC V_RMS_SIM_ITEM_LOC_CFA_EXT V_RMS_SIM_REPL_ITEM_LOC V_RMS_SIM_STORE_ITEM	MPS_STAGED_MES SAGE ICLS_ITEM_LOC ICLS_ITEM_LOC_CFA	ItemLocation ItemReplenishment
Items	ICL_RMS_ITEM_MASTER ICL_RMS_ITEM_IMAGE ICL_RMS_ITEM_SUPPLIER ICL_RMS_ITEM_SUPP_CTRY ICL_RMS_ITEM_SUPP_CTRY_DIM ICL_RMS_ITEM_SUPP_MANU_CTRY ICL_RMS_ITEM_SUPP_UOM ICL_RMS_ITEM_TICKET ICL_RMS_RELATED_ITEM ICL_RMS_RELATED_ITEM	V_RMS_SIM_ITEM_MASTER V_RMS_SIM_ITEM_MASTER_CFA_EXT V_RMS_SIM_ITEM_MASTER_TL V_RMS_SIM_ITEM_IMAGE V_RMS_SIM_ITEM_SUPPLIER V_RMS_SIM_ITEM_SUPP_CFA_EXT V_RMS_SIM_ITEM_SUPP_COUNTRY V_RMS_SIM_ITEM_SUPP_CTRY_DIM V_RMS_SIM_ITEM_SUPP_MANU_CTRY V_RMS_SIM_ITEM_SUPP_UOM V_RMS_SIM_ITEM_SUPP_CTRY_DIM V_RMS_SIM_ITEM_SUPP_MANU_CTRY V_RMS_SIM_ITEM_SUPP_UOM V_RMS_SIM_RELATED_ITEM_DETAIL V_RMS_SIM_RELATED_ITEM_HEAD V_RMS_SIM_PACKITEM V_RMS_SIM_RELATED_ITEM_HEAD V_RMS_SIM_RELATED_ITEM_DETAIL	MPS_STAGED_MES SAGE	Item Related Item ItemImage ItemTicket SupplierItemCountry SupplierItemCountryDim SupplierItemCountryManufacture SupplierItemUom
Merchandise Hierarchy	ICL_RMS_DEPS ICL_RMS_CLASS ICL_RMS_SUBCLASSES	V_RMS_SIM_MERCH_HIER	MPS_STAGED_MES SAGE	Department Class Subclass
Partners	ICL_RMS_PARTNER	V_RMS_SIM_EXTERNAL_FINISH	MPS_STAGED_MES SAGE	Partner

Interface	Change Log Table	Merchandising View/s	SIOCS Staging Table	SIOCS DCS Work Type
Price Changes	RPM_ICL_PRICE_EVENT_PAYLOAD	RPM_SIM_PRICE_CHANGE_V	MPS_STAGED_MES SAGE ICLS_PRICE_CHANGE	ItemPrice
Price History	NONE	V_RMS_SIM_PRICE_HIST	MPS_STAGED_MES SAGE ICLS_CLEARANCE	N/A
Purchase Orders	ICL_RMS_ORDER	V_RMS_SIM_ORDHEAD V_RMS_SIM_ORDHEAD_CFA_EXT V_RMS_SIM_ORDLOC V_RMS_SIM_ORDLOC_CFA_EXT	MPS_STAGED_MES SAGE	PurchaseOrder
Receiver Unit Adjustments	ICL_RMS_RCV_UNIT_ADJ	V_RMS_SIM_RCV_UNIT_ADJ	MPS_STAGED_MES SAGE	ReceiverUnitAdjustment
Return to Vendor Requests	ICL_RMS_RTV	V_RMS_SIM_RTV_HEAD V_RMS_SIM_RTV_DETAIL V_RMS_SIM_RTV_HEAD_CFA_EXT	MPS_STAGED_MES SAGE	VendorReturn
Stores	ICL_RMS_STORE	V_RMS_SIM_STORE	MPS_STAGED_MES SAGE	Store
Store Inventory		V_RMS_SIM_STORE_ITEM_SOH		N/A
Transfers	ICL_RMS_TRANSFER	V_RMS_SIM_TSFDETAIL V_RMS_SIM_TSFHEAD V_RMS_SIM_TSFHEAD_CFA_EXT V_RMS_SIM_TSFZONE V_RMS_SIM_ORDCUST_DETAIL	MPS_STAGED_MES SAGE	Transfer
UOM Classes and Conversion		V_RMS_SIM_UOM_CLASSES V_RMS_SIM_UOM_CONVERSION		N/A
User Defined Attributes	ICL_RMS_UDA ICL_RMS_UDA_ITEM_DATE ICL_RMS_UDA_ITEM_FF ICL_RMS_UDA_ITEM_LOV	V_RMS_SIM_UDA V_RMS_SIM_UDA_ITEM_DATE V_RMS_SIM_UDA_ITEM_FF V_RMS_SIM_UDA_ITEM_LOV V_RMS_SIM_UDA_VALUES	MPS_STAGED_MES SAGE	Uda

Interface	Change Log Table	Merchandising View/s	SIOCS Staging Table	SIOCS DCS Work Type
Vendors	ICL_RMS_SUPPLIER	V_RMS_SIM_SUPS V_RMS_SIM_SUPS_CFA_EXT V_RMS_SIM_PARTNER_ORG_UNIT	MPS_STAGED_MES SAGE	Supplier
Warehouses	ICL_RMS_WH	V_RMS_SIM_WH	MPS_STAGED_MES SAGE	Warehouse

Sales Audit to SIOCS

Interface	Change Log Table	Merchandising View/s	SIOCS Staging Table	SIOCS DCS Work Type
Audit Revision to Sales/Return Transaction	ICL_SA_REVISED_SALES	V_SA_SIM_REVISED_SALES_HEAD V_SA_SIM_REVISED_SALES_DETAIL	MPS_STAGED_MES SAGE	SalesAudit

SIOCS to Merchandising

Entity	Merchandising Import Table	Merchandising Consume Job
Direct Store Delivery Receipts	SIM_RMS_DSD_RECEIPT SIM_RMS_DSD_RECEIPT_DETAIL	SIM_RMS_IMPORT_DSD_RECEIPT_ADHOC_JOB
Fiscal Documents	SIM_RMS_FDG_DTL SIM_RMS_FDG_ETT SIM_RMS_FDG_EXT SIM_RMS_FDG_HDR SIM_RMS_FDG_REF SIM_RMS_FDG_TEXT	SIM_RMS_FDG_ADHOC_JOB
Inventory Adjustments	SIM_RMS_INV_ADJ	SIM_RMS_IMPORT_INV_ADJ_ADHOC_JOB
Inventory Requests	SIM_RMS_INVENTORY_REQUEST SIM_RMS_INVENTORY_REQUEST_DETAIL	SIM_RMS_IMPORT_INVENTORY_REQUEST_ADHOC_JOB
Outbound ASNs	SIM_RMS_ASNOUT SIM_RMS_ASNOUT_DISTRO SIM_RMS_ASNOUT_CARTON SIM_RMS_ASNOUT_ITEM	SIM_RMS_IMPORT_ASNOUT_ADHOC_JOB
PO Receipts	SIM_RMS_PO_RECEIPT SIM_RMS_PO_RECEIPT_DETAIL	SIM_RMS_IMPORT_PO_RECEIPT_ADHOC_JOB

Entity	Merchandising Import Table	Merchandising Consume Job
Return to Vendor	SIM_RMS_RTV	SIM_RMS_IMPORT_RTV_ADHOC_JOB
	SIM_RMS_RTV_DETAIL	
	SIM_RMS_RTV_CFA	
Store Order Review	SIM_RMS_STORE_ORDER_REVIEW	SIM_RMS_IMPORT_STORE_ORDER_REVIEW_ADHOC_JOB
	SIM_RMS_STORE_ORDER_REVIEW_ITEM	
Stock Order Receipts	SIM_RMS_STOCK_ORDER_RECEIPT	SIM_RMS_IMPORT_STOCK_ORDER_RECEIPT_ADHOC_JOB
	SIM_RMS_STOCK_ORDER_RECEIPT_DETAIL	
Stock Order Status	SIM_RMS_STOCK_ORDER_STATUS	SIM_RMS_IMPORT_STOCK_ORDER_STATUS_ADHOC_JOB
	SIM_RMS_STOCK_ORDER_STATUS_DETAIL	
Stock Count Results	SIM_RMS_STOCK_COUNT_RESULT	SIM_RMS_IMPORT_STOCK_COUNT_RESULT_JOB
	SIM_RMS_STOCK_COUNT_RESULT_DETAIL	
Stock Count Schedule	SIM_RMS_STOCK_COUNT_SCHEDULE	SIM_RMS_IMPORT_STOCK_COUNT_SCHEDULE_ADHOC_JOB
	SIM_RMS_STOCK_COUNT_SCHEDULE_STORE	
	SIM_RMS_STOCK_COUNT_SCHEDULE_PROC	

The Merchandising import jobs should be scheduled using POM scheduler to run at regular frequency throughout the day. The alternate approach is to use Merchandising Background Engine. Refer to [Appendix – SIOCS to Merchandising Data Processing Using Background Engine](#) for details.

In addition to the specific entity jobs mentioned in the table above, the following two jobs purge history tables and clean up old ignored errors:

1. SIM_RMS_PURGE_JOB
2. SIM_RMS_HISTORY_PURGE_JOB

B

Appendix – Avoiding Duplicate Processing

In a hybrid integration topology where SIOCS and Merchandising are integrated using direct database integration and Retail Integration Cloud Service (RICS) is used to integrate with external systems such as Oracle Warehouse Management Cloud Service, there may be scenarios where the same transaction that is processed using the direct database integration can also be processed through the RIB.

To avoid duplicate transaction processing, RIB messages have a field to identify the source application. SIOCS populates this field with a value of 'SIM' whereas Merchandising populates this field with a value of 'RMS' when publishing to RIB. This field helps to identify the source application for the message and, in a direct database integration configuration between Merchandising and SIOCS, Merchandising discards RIB messages with source application of 'SIM'. Similarly, SIOCS discards RIB messages with source application of 'RMS'.

C

Appendix – Routing External Originating Transaction to SIOCS

There are some transactions originating from supplier (Purchase Order Shipments) or Warehouse Management Systems (Warehouse to Store Shipments or Stock Order Status) that must be subscribed to by both Merchandising and SIOCS. Merchandising and SIOCS provides their own ReST services to consume this information, and the caller invokes both Merchandising and SIOCS services.

With Direct DB integration, this integration pattern is simplified, and the client can choose to only call the Merchandising ReST Service and Merchandising will route the message to SIOCS if the system option to route the message is enabled. The client should not call a SIOCS-specific ReST Service if routing is done through Merchandising.

Purchase Order Shipments

System Option: ROUTE_EXT_ASNIN_TO_SIOCS_IND

Merchandising ReST Service:

- MerchIntegrations/services/inventory/shipmentsAndReceipts/inboundAsn/manage
- MerchIntegrations/services/inventory/shipmentsAndReceipts/inboundAsn/delete

SIOCS ReST Service:

- Import ASN Delivery (/dsds/imports)
- Import ASN Cancel Delivery (/dsds/imports/cancel)

Warehouse to Store Shipments

System Option: ROUTE_EXT_ASNOUT_TO_SIOCS_IND

Merchandising ReST Service:

- MerchIntegrations/services/inventory/shipmentsAndReceipts/outboundAsn/create

SIOCS ReST Service:

- Import ASN Delivery (/tsfdeliveries/imports)

Stock Order Status

System Option: ROUTE_EXT_SOSTATUS_TO_SIOCS_IND

Merchandising ReST Service:

- MerchIntegrations/services/inventory/stockOrders/status/manage

SIOCS ReST Service:

- Import Transfer (/transfers/import)

- Delete Transfer Import (/transfers/import/{externalTransferId})

Fulfillment Orders

System Option:ROUTE_EXT_FULFILORD_TO_SIOCS_IND

Merchandising ReST Service:

- MerchIntegrations/services/customerOrders/fulfillmentOrder/create
- MerchIntegrations/services/customerOrders/fulfillmentOrder/cancel

SIOCS ReST Service:

- /fulfillmentorders/import

D

Appendix – SIOCS to Merchandising Data Processing Using Background Engine

In addition to scheduling batch jobs using POM batch scheduler, Merchandising additionally provides a Background Engine that specializes in running few types of micro-batch processes requiring 24/7 executions at a high frequency. For micro-batch processes that relies on polling queues every few seconds or minutes, the background engine provides a lightweight solution compared to POM batch scheduler. SIOCS to MFCS import jobs are supported by the Background Engine and background engine should be used instead of POM to consume the transaction from SIOCS. If the SIOCS to MFCS data process jobs are enabled to be run through the background engine, the corresponding jobs in POM jobs should be disabled. Please refer to the reference paper “Publish APIs - Customer Enablement Overview” in [KB157214](#) for additional information on Background Engine.

To enable the jobs to run through the background engine, Merchandising spreadsheet upload/download functionality should be used for a Template type of “Administration” and a Template of “Background Process Configure”. The following two parameter should be configured for the SIOCS to MFCS batch names:

- **BACKGROUND_RUN_FLAG** – Takes a value of Y or N. To enable a job to run using the background engine, set the value to “Y”.
- **BACKGROUND_RUN_INTERVAL_SECOND** – This defines the interval in seconds between consecutive execution. On completion of the execution of a job, the engine will wait for this interval seconds before invoking the next run.

Entity	Batch Name (Merch_Batch_Params)
Direct Store Delivery Receipts	SIM_RMS_IMPORT_DSD_RECEIPT_SQL
Fiscal Documents	SIM_RMS_IMPORT_FDG_SQL
Inventory Adjustments	SIM_RMS_IMPORT_INVADJ_SQL
Inventory Requests	SIM_RMS_IMPORT_INVENTORY_REQUEST_SQL
Outbound ASNs	SIM_RMS_IMPORT_ASNOUT_SQL
PO Receipts	SIM_RMS_IMPORT_PO_RECEIPT_SQL
Return to Vendor	SIM_RMS_IMPORT_RTV_SQL
Stock Order Receipts	SIM_RMS_IMPORT_STOCK_ORDER_RECEIPT_SQL
Stock Order Status	SIM_RMS_IMPORT_STOCK_ORDER_STATUS_SQL
Stock Count Schedule	SIM_RMS_IMPORT_STOCK_COUNT_SCHEDULE_SQL
Stock Order Review	SIM_RMS_IMPORT_STORE_ORDER_REVIEW_SQL

Note

The Purge jobs and Stock Count Results import job are not supported in the background engine. These must be configured in POM only.