

# Oracle Retail Merchandising Cloud Services 23.1.201.0/Xstore Suite 22.0 Implementation Guide



Release 22.0

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Oracle Retail Merchandising Cloud Services 23.1.201.0/Xstore Suite 22.0 Implementation Guide, Release 22.0

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Oracle Retail Xstore Suite 22.0/Oracle Retail Merchandising Suite 23.0.101.0  
Implementation Guide

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# Preface

This implementation guide describes the implementation steps that you should take when integrating the Xstore Suite with the Merchandising applications.

## Audience

This Implementation Guide is intended for the integrators and implementation staff, as well as the retailer's IT personnel.

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- Oracle Retail Merchandising System documentation set
- Oracle Retail Price Management documentation set
- *Oracle Retail Xstore Suite Implementation and Security Guide*

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(Data Model documents can be obtained through My Oracle Support.)

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<b>Convention</b>	<b>Meaning</b>
<b>boldface</b>	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.

# 1

## Overview

This document describes integration between the Xstore suite of solutions and the Merchandising suite of solutions. For Merchandising, this document covers functionality supported in both the on premise and cloud service versions of the following products:

On Premise Solution	Cloud Service Solution
Oracle Retail Merchandising System (RMS)	Oracle Retail Merchandising Foundation Cloud Service (RMFCS)
Oracle Retail Sales Audit (ReSA)	Oracle Retail Merchandising Foundation Cloud Service (RMFCS)
Oracle Retail Pricing (RP)	Oracle Retail Pricing Cloud Service (RPCS)

For the Xstore Suite, this document covers functionality supported in the following products:

On Premise Solution	Cloud Service Solution
Oracle Retail Xstore Office	Oracle Retail Xstore Office Cloud Service (XOCS)
Oracle Retail Xstore Point of Service	NA

The integration of the Merchandising Suite and the Xstore Suite consists of two major data flows:

- Inbound: Merchandising and pricing information is consumed by Xstore Office where data is loaded into the Xcenter database and files are automatically distributed for data loading into Xstore databases.
- Point of Service transactions from Oracle Retail Xstore Point of Service flow to Xstore Office for transformation and distribution to the Merchandising Foundation Cloud Service Sales Audit module.

In combination, these data flows represent the round trip of data between the stores and headquarters. New items, other foundation data, and prices from headquarters are communicated to Xstore. Sales and returns from Xstore are communicated to Merchandising, where these transactions impact inventory. Merchandising further integrates summarized sales and inventory information from Xstore to other Oracle Retail applications, such as Planning and Analytics.

## Inbound: Integration Options with Xstore Office

The inbound Xstore Suite integration from Merchandising is achieved using platform specific integration interfaces. [Table 1-1](#) lists important details about the integration options available to the two Xstore Office V21 deployment topologies: Cloud vs On-Premise. The inbound Xstore Office integration interfaces are:

- RMFCS/RPCS web services – Xstore Office requests merchandising and pricing data directly from Merchandising and Pricing Cloud Services



- OCDS web services - Xstore Office requests merchandising and pricing data from OCDS, which is a data hub.
- RMFCS/RPCS flat file export – Merchandising and pricing data exported from RMFCS and RPCS can be imported into Xstore Office using momzip archive files.

**Table 1-1 Inbound Xstore Suite V22 Merchandising Integration Matrix**

Xstore Office	Merchandising and Pricing System Data		
	Direct Web Services	OCDS <sup>1</sup>	Flat File <sup>2</sup>
Cloud	Yes	Yes	Yes
On-Premise	Yes <sup>3</sup>	Yes	Yes

<sup>1</sup> OCDS is only available with MFCS V19

<sup>2</sup> RPCS flat file export does not support export of promotions

<sup>3</sup> OAuth credentials to be obtained from Oracle Retail Home

## Outbound: Integration Options with Xstore Office

The outbound Xstore Suite integration to the Merchandising Foundation Cloud Service Sales Audit module is achieved with two options.

- Using RTLog flat files generated by RTLog generator. Depending on Xstore suite and Sales Audit deployment topologies, different file delivery options are supported including SFTP, FTS, REST download, or publishing to file system folder.
- Using direct Sales Audit REST service integration. RTLog generator is not involved.

Table below lists important details about the integration options available to the two Xstore Office V21 deployment topologies: Cloud vs On-Premise.

**Table 1-2 Outbound Xstore Suite V22 Merchandising Integration Matrix**

Xstore Office	Merchandising Foundation Cloud Service Sales Audit				
	Sales Audit (REST)	SFTP	FTS	File Download (REST)	Publish to File System Folder
Cloud	Yes <sup>1</sup>	Yes <sup>2</sup>	Yes <sup>3</sup>	Yes	No
On-Premise	Yes <sup>4</sup>	No	Yes <sup>5</sup>	No	Yes

<sup>1</sup> XOCS integration with Sales Audit REST API only available in RMFCS V21+

<sup>2</sup> XOCS integration with SFTP is only available in RMFCS V19

<sup>3</sup> XOCS integration with FTS only available in RMFCS V21+

<sup>4</sup> Xstore Office On-Premise integration with Sales Audit REST API only available in RMFCS V21+.

. OAuth credentials to be obtained from Oracle Retail Home.

<sup>5</sup> Xstore Office On-Premise integration with FTS only available in RMFCS V21+

. OAuth credentials to be obtained from Oracle Retail Home.

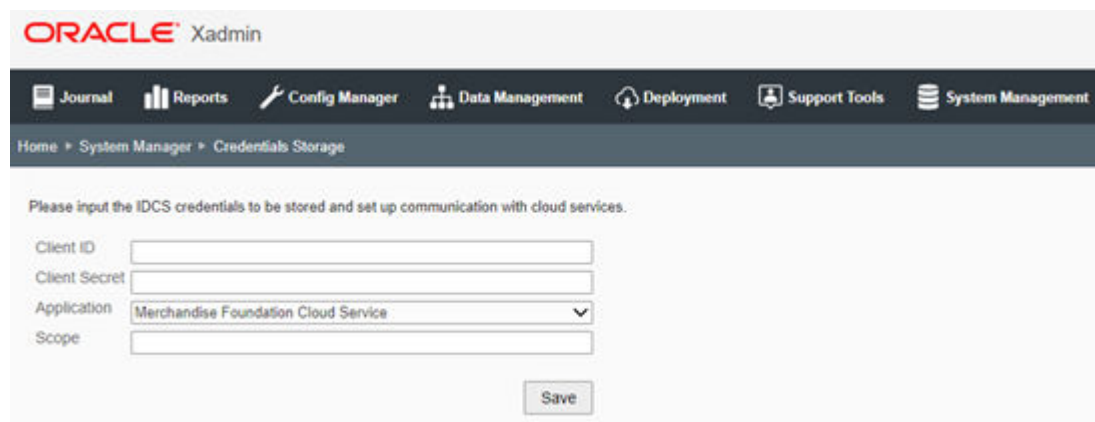
The details of the integration are covered in the remaining sections of this guide:

- [Data Flow from Merchandising to Xstore](#): This chapter describes the flow of data from the Merchandising applications to the Xstore Suite.
- [Transaction Flow from Xstore to Sales Audit](#): This chapter describes the flow of transactions from Xstore Point of Service to Sales Audit.
- [Webservice Integration Configuration](#): This chapter provides information on the configuration changes that can be made for the integration.
- [Integration Considerations](#): This chapter covers functional and technical points about the integration that need to be taken into consideration when implementing the integration.
- [RTLog Generator On-Premise](#): This chapter covers how to install, deploy, and configure the RTLog Generator application.
- [RTLog Generator Cloud](#): This chapter covers the RTLog Generator Cloud.
- [Appendix: Xstore to Sales Audit Mapping Details](#): This appendix provides tables that describe the mappings.
- [Appendix: Flat File Mapping](#): This appendix describe the flat file mapping.

## Xstore Office [On-Prem Only]: OAuth Credentials

The direct service MFCS integration, Sales Audit REST integration, and RTLog FTS integration require the use of OAuth client credentials in order for Xstore Office to communicate with MFCS/Sales Audit. Credentials should be obtained through the use of Oracle Retail Home. Once obtained, the Client ID, Client Secret, and Scope, should be submitted into Xstore Office using Xadmin's Credentials Manager.

**Figure 1-1 Credentials Storage**



ORACLE Xadmin

Journal Reports Config Manager Data Management Deployment Support Tools System Management

Home > System Manager > Credentials Storage

Please input the IDCS credentials to be stored and set up communication with cloud services.

Client ID

Client Secret

Application Merchandise Foundation Cloud Service ▼

Scope

Save

# 2

## Data Flow from Merchandising to Xstore

This chapter covers the data flow from Merchandising and Pricing to Xstore, where data can be consumed by Xstore Office for loading into the Xcenter database, and files distributed to Xstore for loading into the Xstore database.

The Xstore Suite can consume Merchandising and Pricing data in the following categories:

- Merchandise hierarchy
- Organizational hierarchy
- Store (including addresses)
- Dimension type (derived from item differentiator, or diff usage)
- Dimension value (derived from item diff usage)
- Items and Item Location
- Item UPC
- Value Added Tax (VAT) rules and item associations
- Related items
- Initial prices
- Price changes
- Promotions
- Clearance prices

### Conceptual Data Flow

This section describes the conceptual data flow for each of the inbound integration interfaces supported by the Xstore Suite.



**Note:**

Please refer to [Table 1-1](#) for data flow option availability with respect to hosting and versions.

### Using RMFCS/RPCS Direct Services

The Merchandising Foundation Cloud Service and Pricing Cloud Service expose a set of REST web services that allow Xstore Office to communicate directly with MFCS and RPCS.

Xstore Office leverages these interfaces to poll, at a regularly scheduled intervals, for updates (for example, additions, deletions, and modifications) of Merchandising and Pricing data used by the Xstore Suite. Xstore Office communicates requests for changes in data by directly calling the Merchandising and Pricing REST web services.

When changes to Merchandising and Pricing data are detected, Xstore Office generates .mnt files containing the commands to update Xstore Suite databases. When .mnt files are generated, they are automatically deposited into the Xstore Office auto-drop folder for data-loading and distribution.

- If any detected updates necessitate updating the Xcenter database then the appropriate .mnt file will be automatically dataloaded.
- If any detected updates necessitate updating the Xstore database then the appropriate .mnt files will be deployed to the store where they can be dataloaded either immediately or at store close.

## Using OCDS

Oracle Omnichannel Cloud Data Service (OCDS) is a data hub, enabling the merchandising applications to share information with the Oracle Retail Omnichannel applications.

OCDS is composed of three major components:

- BDI Batch Job Admin - Enables the flow of data into OCDS using the Oracle Bulk Data Integration (BDI) technology. Job Admin has a User Interface (UI) to support the management of BDI batch jobs.
- RIB Injector - Enables the flow of data into OCDS from the Oracle Retail Integration Bus (RIB).
- ORDS Web Services - Enables the data contained in OCDS to be accessed by Omnichannel applications, such as the Xstore Suite, through the use of RESTful web services.

[Figure 2-1](#) illustrates the major system components that make up OCDS, and the interactions of the applications major actors.

Figure 2-1 OCDS Component Diagram

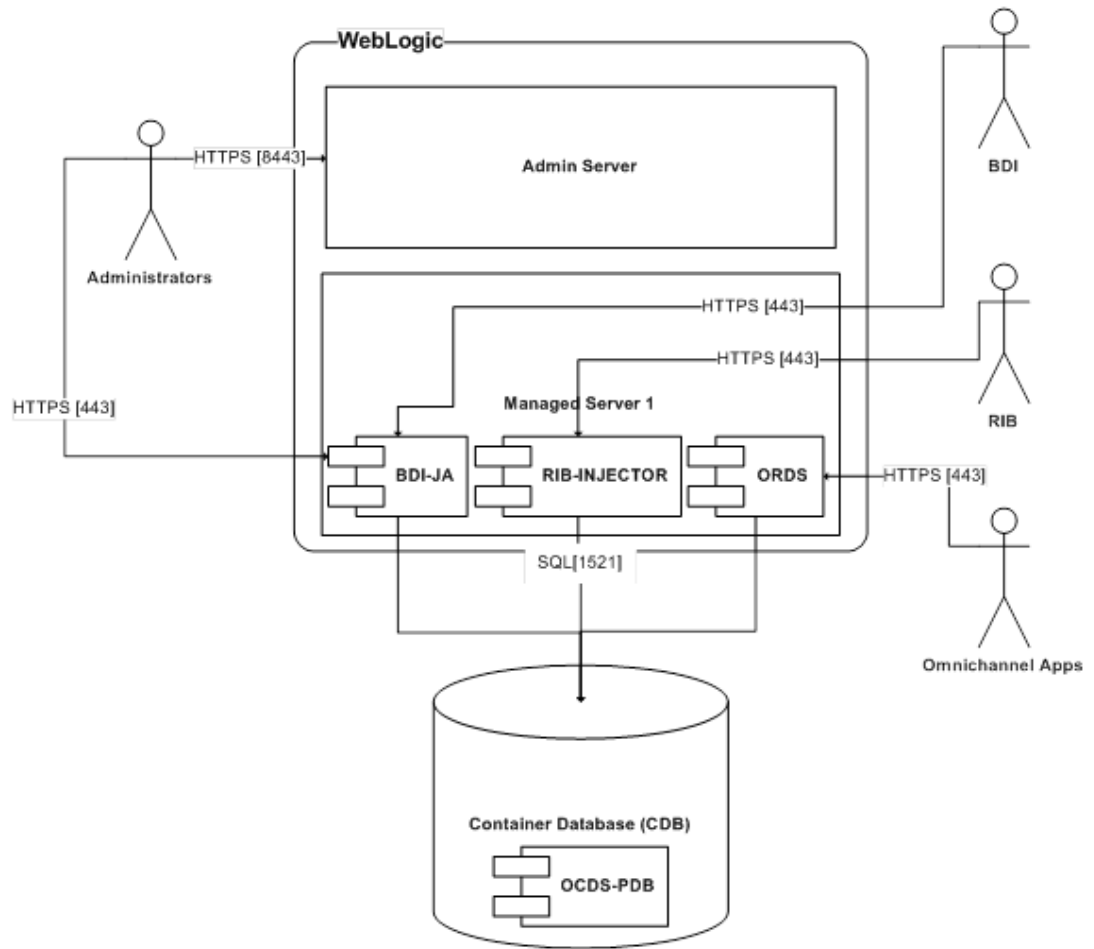
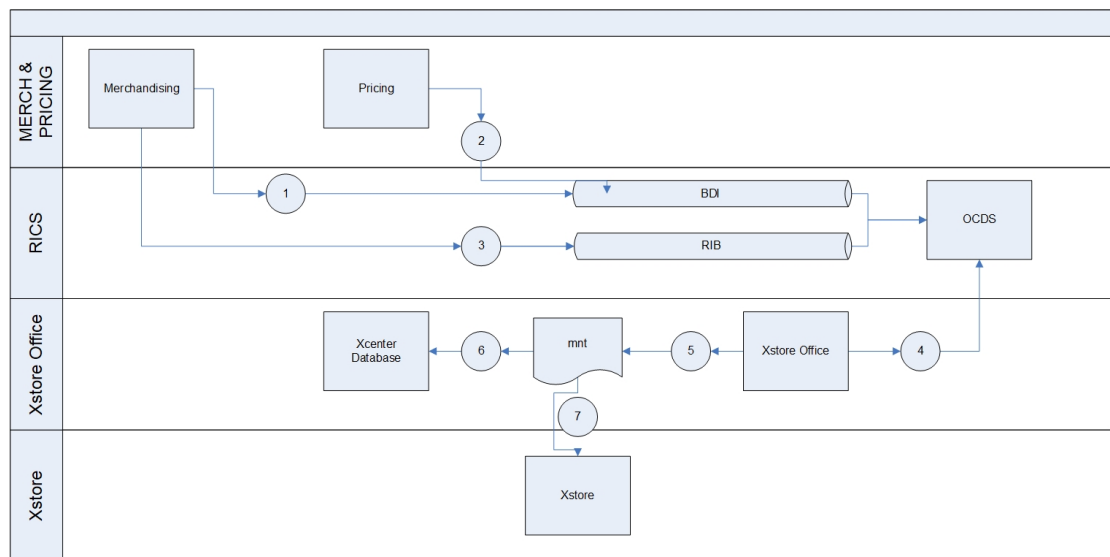


Figure 2-2 Conceptual Data Flow from Merchandising and Pricing to Xstore POS



The following steps describe the flow in [Figure 2-2](#).

1. OCDS receives an initial load of Merchandising foundation data using BDI as the data transport. For foundation data, this is generally a one-time push of data over BDI into OCDS. Incremental foundation data flows into OCDS from the RIB.

 **Note:**

It is important to understand that the receipt of Merchandising Foundation data using BDI will trigger Xstore Office to request a full refresh of all data from OCDS because Xstore Suite will detect that the system of record, OCDS, has been refreshed. Ideally, OCDS receives its initial load before the integration is established in Xadmin. If Xadmin has an active OCDS integration and OCDS needs to be refreshed, then the OCDS integration should be either paused or deleted until all BDI jobs have been completed successfully to refresh OCDS. Once all BDI jobs have completed to refresh OCDS, then the integration can be recreated or unpaused, allowing Xstore Office to request initial load to replace foundation data in Xcenter and Xstore databases.

2. OCDS starts to receive, on-going, regularly scheduled pricing and promotion data using BDI as the data transport.
3. OCDS starts to receive, on-going, near-real-time updates of Merchandising data using the RIB as the data transport.
4. Xstore Office starts polling OCDS, at a regularly scheduled interval, to check for updates (for example, additions, deletions, and modifications) of Merchandising and Pricing data used by the Xstore Suite. Xstore Office communicates requests for changes to OCDS data by calling the OCDS REST web services.
5. When changes to OCDS data are detected, Xstore Office generates .mnt files containing the commands to update Xstore Suite databases. When .mnt files are generated, they are automatically deposited into the Xstore Office auto-drop folder for data-loading and distribution.
6. If any detected OCDS updates necessitate updating the Xcenter database then the appropriate .mnt file will be automatically dataloaded.
7. If any detected OCDS updates necessitate updating the Xstore database then the appropriate .mnt files will be deployed to the store where they can be dataloaded either immediately or at store close.

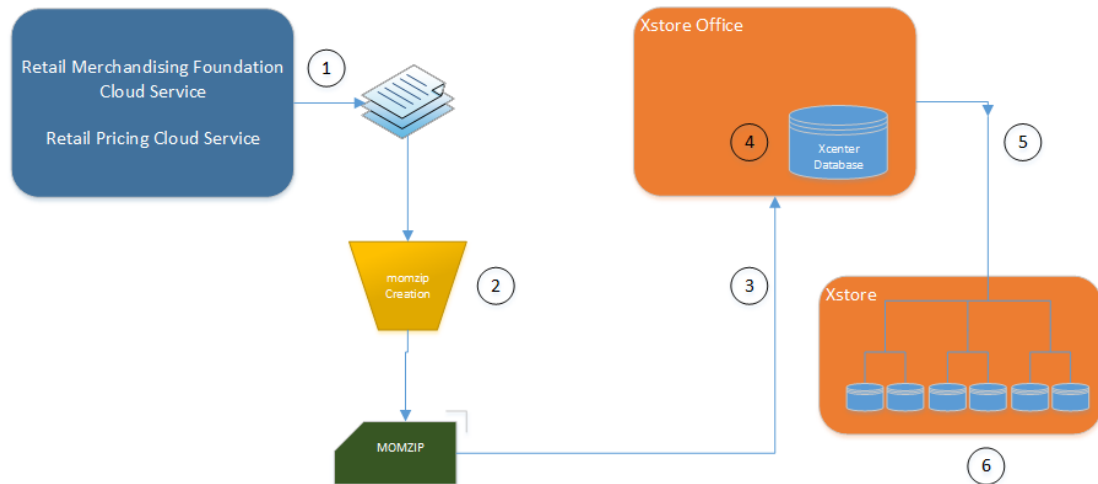
## Using Flat Files

 **Note:**

The flat file integration will be deprecated. For more information about this feature, see the *Oracle Retail Merchandising Cloud Services Deprecation Advisory* (Doc ID 2760721.1) on My Oracle Support. For new integrations, use the direct services.

The Merchandising Foundation Cloud Service and Pricing Cloud Service support the export of data into files that can be packaged for consumption by the Xstore Suite. [Figure 2-3](#) illustrates the data flow from the Merchandising applications to Xstore Office and Xstore.

**Figure 2-3 Conceptual Data Flow from Merchandising to Xstore Suite**



The following steps describe the flow in [Figure 2-3](#):

1. RMFCS/RPCS writes data to .dat files using a series of .ksh extract scripts. These scripts support both kill/fill (full) and delta processing. Many of these scripts also support creating files that apply either to all stores or store-specific files.

Use the kill/fill export option in the merchandising and pricing system's extract scripts to generate full-load files along with running the staging batch for every store and extracting the data using the standard batch processes to convert items, price, and other key data elements from the Merchandising solutions into Xstore.

The following merchandising batch jobs are used for the integration:

- nexport\_merchhier.ksh
- nexport\_orghier.ksh
- nexport\_stores.ksh
- nexport\_diffs.ksh
- nexport\_diffgrp.ksh
- nexport\_itemmaster.ksh
- nexport\_itemloc.ksh
- nexport\_itemvat.ksh
- nexport\_relitem.ksh
- nexport\_vat.ksh
- nexport\_stg\_purge.ksh

For more information, see the *Oracle Retail Merchandising System Operations Guide, Volume 1 - Batch Overviews and Designs*.

The following pricing batch jobs are used for the integration:

- RegularPriceChangePublishBatch
- ClearancePricePublishBatch

For more information, see the *Oracle Retail Price Management Operations Guide*.

2. The retailer's system integrator is responsible for packaging the extract .dat files in a zip-format archive file named using the file extension '.momzip'. The integration uses logic based on filenames so it is important to maintain the use of the file's name as generated.

 **Note:**

The momzip file must be scanned for viruses before delivery to Xstore Office for processing

3. Momzip files are delivered to Xadmin's auto-deploy file folder either by use of webservice API or direct file system access, as available per hosting type.
4. Xadmin periodically checks the auto-deploy directory for new Momzip files. The system automatically processes the dat-file contents of the momzip. For details on the set of Merchandising files targeted to corporate or stores, see "Merchandising File Consumption by Location".
5. If any RMFCS/RPCS extract files necessitate updating the Xcenter database then the appropriate .dat files will be automatically dataloaded.

If any RMFCS/RPCS extract files necessitate updating the Xstore database then the appropriate .dat files will be deployed to the store where they can be dataloaded either immediately or at store close.

## Xstore Office Deployments

Each of the types of integration discussed in this guide involve the delivery of merchandising and pricing data, in file format, to Xstore Office's auto-deploy folder. Xadmin polls the auto-deploy folder at a configured interval and automatically processes new files. The polling-interval is configurable, and is 15 minutes by default. For information on how to configure these settings, see the Oracle Retail Xstore Office User Guide.

Deployments of .mnt or .dat files, to be loaded at the store, are automatically created for either immediate or scheduled distribution. Each deployment status of the files is displayed in the Xstore Office Deployments screen ([Figure 2-1](#)).

Once a store is closed or when the retail period changes in a 24x7 configuration, Xenvironment of the lead register pulls down files scheduled for end-of-day and runs the Xstore DataLoader to import all the files deployed into the store primary database. Files scheduled for immediate dataloading are pulled down and dataloaded automatically.



Figure 2-4 Xstore Office Deployments

ID	Name	Type	Plan	Launch Date	Waves Complete	Status
10239	2_dimensionValue_1542664871	Auto Deploy	Single Wave	Nov 19, 2018	0 out of 1	Scheduled
10238	2_dimensionType_1542664869	Auto Deploy	Single Wave	Nov 19, 2018	0 out of 1	Scheduled
10237	5_price_1542664518136_STCF	Auto Deploy	Single Wave	Nov 19, 2018	0 out of 1	Scheduled
10236	5_price_1542664518788_STCF	Auto Deploy	Single Wave	Nov 19, 2018	1 out of 1	Complete
10235	5_price_1542664518288_STCF	Auto Deploy	Single Wave	Nov 19, 2018	0 out of 1	Scheduled
10234	5_price_1542664513686_STCF	Auto Deploy	Single Wave	Nov 19, 2018	0 out of 1	Scheduled
10233	4_itemLoc_1542664517424_ST	Auto Deploy	Single Wave	Nov 19, 2018	0 out of 1	Scheduled
10232	4_itemLoc_1542664515629_ST	Auto Deploy	Single Wave	Nov 19, 2018	0 out of 1	Scheduled
10231	4_itemLoc_1542664515492_ST	Auto Deploy	Single Wave	Nov 19, 2018	0 out of 1	Scheduled
10230	4_itemLoc_1542664513014_ST	Auto Deploy	Single Wave	Nov 19, 2018	0 out of 1	Scheduled
10229	3_item_1542664517312_STOR	Auto Deploy	Single Wave	Nov 19, 2018	0 out of 1	Scheduled
10228	3_item_1542664516522_STOR	Auto Deploy	Single Wave	Nov 19, 2018	0 out of 1	Scheduled
10227	3_item_1542664516263_STOR	Auto Deploy	Single Wave	Nov 19, 2018	0 out of 1	Scheduled
10226	3_item_1542664512950_STOR	Auto Deploy	Single Wave	Nov 19, 2018	0 out of 1	Scheduled
10225	5_price_1542663870810_STCF	Auto Deploy	Single Wave	Nov 19, 2018	0 out of 1	Scheduled
10224	5_price_1542663876679_STCF	Auto Deploy	Single Wave	Nov 19, 2018	1 out of 1	Complete

## Using RMFCS/RPCS Direct Services or OCDS

The .mnt files created by Xstore Office leverage an xml header to target when and where files are dataloaded.

For example, this header would appear in a store-specific file that is immediately downloaded and dataloaded.

```
<Header line_count="104" target_org_node="STORE:121" destination="XSTORE_ONLY"
apply_immediately="true" download_time="IMMEDIATE" />
```

Table 2-1 MNT Files

Filename Prefix	Store Specific	Destination	Downlaod Time
1_orgHier	No	ALL	STORE_CLOSE
2_dimensionType	No	ALL	STORE_CLOSE
2_dimensionValue	No	ALL	STORE_CLOSE
2_merchHier	No	ALL	STORE_CLOSE
2_retailLoc	No	ALL	STORE_CLOSE
2_vat	No	ALL	STORE_CLOSE
3_item	Yes	XSTORE_ONLY	STORE_CLOSE
3_itemCorp	No	XCENTER_ONLY	
3_itemUPC	Yes	XSTORE_ONLY	STORE_CLOSE
4_itemLoc	Yes	ALL	STORE_CLOSE
4_itemLocCorp	Yes	XCENTER_ONLY	
4_relatedItem	Yes	ALL	STORE_CLOSE
5_clrpc	Yes	ALL	IMMEDIATE
5_price	Yes	ALL	IMMEDIATE
5_promo	Yes	XSTORE_ONLY	STORE_CLOSE

**Table 2-1 (Cont.) MNT Files**

Filename Prefix	Store Specific	Destination	Downlaod Time
5_regp	Yes	ALL	IMMEDIATE

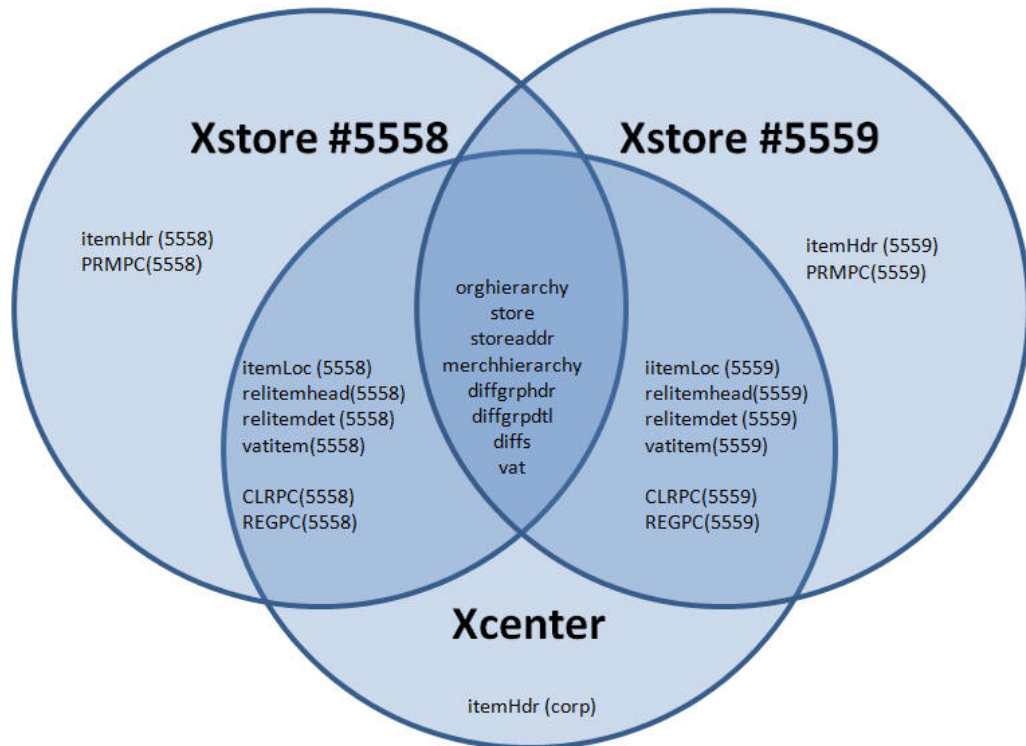
## Using Flat Files

The files produced by the extract programs containing data loaded into the Xcenter and Xstore databases comprise four data sets. A data file's targeted location is specified in its file name:

- Data loaded into Xcenter
- Data loaded into Xcenter and all stores
- Data loaded into one store
- Data Loaded into all stores

The figure below illustrates where files are dataloaded by type, using a two store chain example.

**Figure 2-5 File Distribution/Dataloading by Type**



## Xstore Dataloader

DataLoader is the Xstore component responsible for translating delimited files into instructions to modify the contents of an Xstore Suite database. It can consume .mnt

files generated by an Xstore Office integrated with OCDS and MFCS, or the .dat files extracted from Oracle Retail Merchandising and Pricing Cloud Systems.

The DataLoader interacts with Xstore Office, Xcenter, Xenvironment, and Xstore Point of Service to provide a complete automated solution for the propagation of foundation data changes to the centralized and store-level databases used in an enterprise Xstore deployment. Xstore data not supplied by an Oracle Merchandising/Pricing system can also be loaded by the DataLoader using its native .mnt format.

The DataLoader is designed to adapt flat files of data into relational data that Xstore can use. These flat files are referred to generically as data files within the DataLoader. Each field in a data file is delimited by a vertical bar (|) character. The DataLoader is configured to detect file types so it can process a data file's lines in distinct units of work appropriate for the type of file.

If a failure occurs during DataLoader processing of a data file, all SQL statements associated with the unit of work are rolled back and the error is logged. Processing continues with the next unit of work in the data file.

For more detailed information, see the following documents:

- Retail Reference Architecture
- *Oracle Retail Xstore Point of Service Host Interface Guide*

Both documents are available on My Oracle Support.

## Using RMFCS/RPCS direct services or OCDS

In these integration styles, Xstore Office communicates with a webservice endpoint to obtain merchandising and pricing data that is written into files using the dataloader's native .mnt file format.

Integrations with either provider can be established by using Xadmin's Integration Manager UI for an Organization. See the *Oracle Retail Xstore Office User Guide* or the *Oracle Retail Xstore Office Cloud Service User Guide* for details about configuring these integrations using Xadmin's Integration Manager.

## Using Flat Files

DataLoader is configured with a list of detectors to identify known file types that can be processed. Unknown file types are skipped and not processed. A Merchandising file detector is configured to identify all types of Merchandising data files and their meta data.

The detection is based solely on file names. Regular expressions are configured to perform pattern matching in file name to identify Merchandising file types and its meta-data including target store ID, fill type, timestamp, and line count:

- Merchandising file type detection  
A file name is matched against regular expressions configured to detect its Merchandising type. If no match is found, the file is not a Merchandising file type. The keys in the bean configuration are the Merchandising file types that Xstore/Xcenter care about.
- Target store detection  
Target store ID is used by DataLoader as well as Xstore Office to determine the deployment target of a Merchandising file.

A file name is matched against regular expressions configured to detect its target store ID. Not all Merchandising file types have a target store ID configured:

- If a store ID is not detected, the file is deployed to all stores and imported into Xcenter.
- If a store ID is detected and is corp, the file is imported into Xcenter only.
- If a store ID is detected and is not corp, it is deployed to the store. With the exception of Item Header batch, it is also imported into Xcenter.

- Timestamp detection

Timestamp is used by DataLoader to sort the files. For more details, see "File Sorting". A file name is matched against regular expressions configured to detect its timestamp.

- Line count detection

Line count is used by DataLoader to validate a file. If the number of lines in the file does not match the line count, a warning is logged.

## File Sorting

There are some data dependencies when importing .dat files into Xstore, such as related item detail that needs to be imported after the related item header. When DataLoader is called to import multiple Merchandising files in the same deployment, it applies sorting to the files before importing them.

A detector is configured to have a sorting strategy, which is used to sort all the files the detector detects. A Merchandising file sorting strategy bean is configured for the Merchandising file detector to perform sorting for all Merchandising files based on their file types. Files of the same Merchandising file type are sorted based on their timestamps. Out of the box the following sorting order is specified:

- Org Hierarchy
- Store
- Store Address
- Merchandise Hierarchy
- VAT
- Diff Group Head
- Diff Group Detail
- Diff
- Item Head
- Item Loc
- VAT Item
- Related Item Head
- Related Item Detail
- Regular Price Change
- Clearance Price Change
- Promotion Price Change

## File Loading Dependency

Although the sorting strategy configuration lists all Merchandising file types, not all file types have file loading dependencies. The actual dependencies are shown in [Table 2-2](#).

**Table 2-2 File Loading Dependency**

File Type	Depends on
VAT Item	Item Loc
Store Address	Store
Related Item Detail	Related Item Head, Item Loc
Item Loc	Item Head
Item Head	Diff, Diff Group Detail, Diff Group Head, Merchandise Hierarchy
Diff Group Detail	Diff Group Head
Diff	Diff Group Detail, Diff Group Head

## File Iteration and Transformation

DataLoader processes each file in the sorted order. It invokes a file iterator to process each file. A file iterator implements Java Iterator interface. During each iteration, it transforms flat file records into a list of IPersistable (DAO or SQLQuery) objects, and returns them.

A Merchandising file iterator is configured for each Merchandising file type. It processes lines between unit dividers as a data unit that should be transformed together:

- A single line iterator that expects each line in the file, other than FHEAD or FTAIL, is a data unit that gets transformed during each iteration. One and only one line in a unit is expected. An exception is raised if that is not the case.
- A multi-line iterator expects multiple lines to form a data unit that gets transformed together during each iteration. A unit may contain one or more lines. Out of the box, only promotion price change is configured to have a multi-line iterator.
- Unit dividers are lines that end a unit. They are configured as unit definitions for each Merchandising file type.

A Merchandising transformer is called to convert a unit of data from a flat file to a list of IPersistable (DAO or SQLQuery) objects. A transformer is configured for each Merchandising file type.

All Merchandising transformers implement the IMOMDataTransformer interface, which defines two APIs:

- The transform API is invoked by the iterator in each iteration. It does all the transformation to turn a unit of flat file data to a list of IPersistable objects to create, update, or delete foundation data records in database.
- The purgeData API is invoked once for a file by the iterator. It is only called if the file is for a full reload. It returns a list of IPersistable objects to remove all existing records sourced from Merchandising.

## Persisting into the Database

DataLoader saves IPersistable objects to database in batches. A batch contains a list of AtomicPersistables objects. The maximum number of AtomicPersistables objects in a batch is configurable. An AtomicPersistables is a container of a group of IPersistable objects that must all be persisted or rolled back together as a unit. All IPersistable objects returned in one iteration are grouped into one AtomicPersistable object.

DataLoader first attempts to persist and commit all IPersistable objects from all AtomicPersistables objects in a batch together. If it fails, it tries to persist and commit IPersistable objects from one AutomiPersistables at a time. The number of succeeded and failed records are written to summary.ini files.

## Phased Rollout of Stores

Retailers who are migrating an existing Xstore Suite implementation from a different source for merchandising foundation and pricing data may desire to exclude stores defined in their organization hierarchy during a phased rollout of the integration.

## Using RMFCS/RPCS direct services or OCDS

Xstore Office Integration Manager supports the use of Store Collections when configuring either integration method. By associating a Store Collection with an integration method a retailer can identify which stores require data from the integration system. This feature can facilitate a phased-store rollout of data to a subset of existing stores in Merchandising. An integration using a Store Collection will limit the creation and deployment of mnt files to only those stores defined by the Store Collection.

Adding another store to an existing integration will enable incremental changes to start flowing to the store. A manual refresh from Merchandising and Pricing through either integration method should be requested for the added store to seed it with a full set of foundation and pricing data.

## Using Flat Files

A momzip.properties file can be included in the root folder of the momzip file to prevent a .dat files from being dataloaded in Xcenter and to limit the creation of store deployments to only a subset of stores. By associating a Store Collection with the momzip's contents a retailer can identify which stores are eligible for targeting when creating deployments. This feature can facilitate a phased-store rollout of data to a subset of existing stores.

For example, the properties below are used to dataload Xcenter, but only result in deployment to stores that are members of the store collection XOstores.

```
dataload.xcenterEligibleFiles=true
```

```
deploy.storeCollection=XOstores
```

**Table 2-3 Flat File Properties**

Property	Description	Values	
		Possible	Default
dataload.xcenterEligible Files	Indicates if Xcenter is to dataloaded	true/false	true
deploy.storeCollection	If a value is present for this property, then deployments will only be created for stores specified by the store collection. If no value is present then no deployments will be created	The ID of an existing Xadmin store collection, or no value	null

 **Note:**

When the momzip.properties file does not contain a supported property key, or the key exists but has no value, then the key's default value is used.

## Manual Refresh of an Xstore Database

The typical integration's operational flow consists of a one-time initial load to seed Xstore Suite databases with data from the Oracle merchandising and pricing systems, followed by incremental updates to update Xstore Suite databases with changes made in the upstream systems. However, exceptions to this flow are expected and the integrations provide mechanisms to refresh databases on an as-need bases.

### Using RMFCS/RPCS direct services or OCDS

Both integration methods are designed to be fully automated; under normal conditions no manual steps are required to have Merchandising and Pricing data flow into a store database. However, Xadmin's Data Publisher can be used to regenerate and redeploy .mnt files with Merchandising and Pricing data to a store if exceptional circumstances necessitate the refreshing of an Xstore database.

Use of the Data Publisher to replenish one or more types of Merchandising and Pricing data at a store will result in the purging of all existing sourced data, followed by the loading of a full set of the most recent data.

When the integration is enabled in Xstore Office, the DataManager screen's "Data Publisher" option will include a "Data Source" drop down list, which includes the list options: "Omni Channel Data Service" and "Merchandise Foundation Cloud Service".



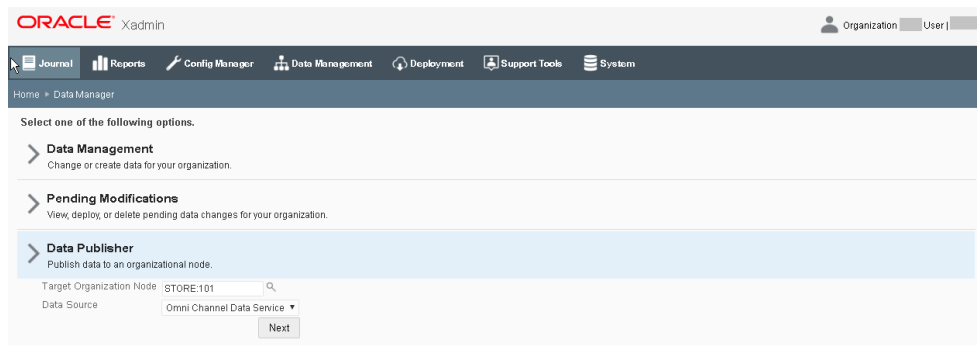
**Note:**

When you select the "Merchandise Foundation Cloud Service" option, Pricing is included.

To publish data to one or more stores:

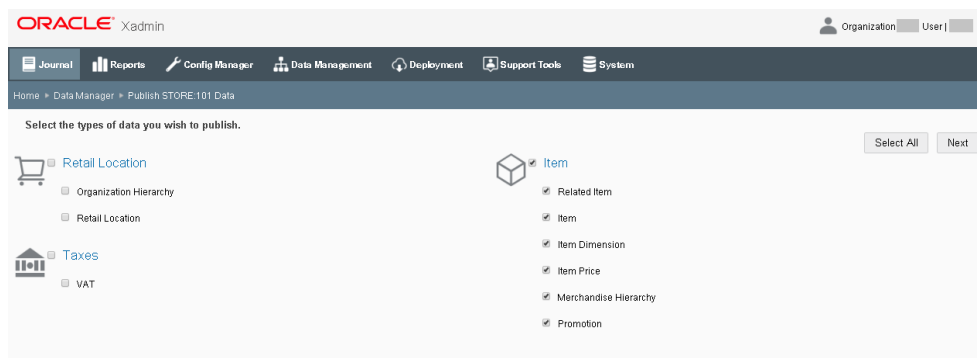
1. Choose the desired Organization Node for the target stores, select the integration, and click **Next**.

**Figure 2-6 Xstore Office - Data Publisher Option**



2. Choose the type of data you wish to publish, then click **Next**.

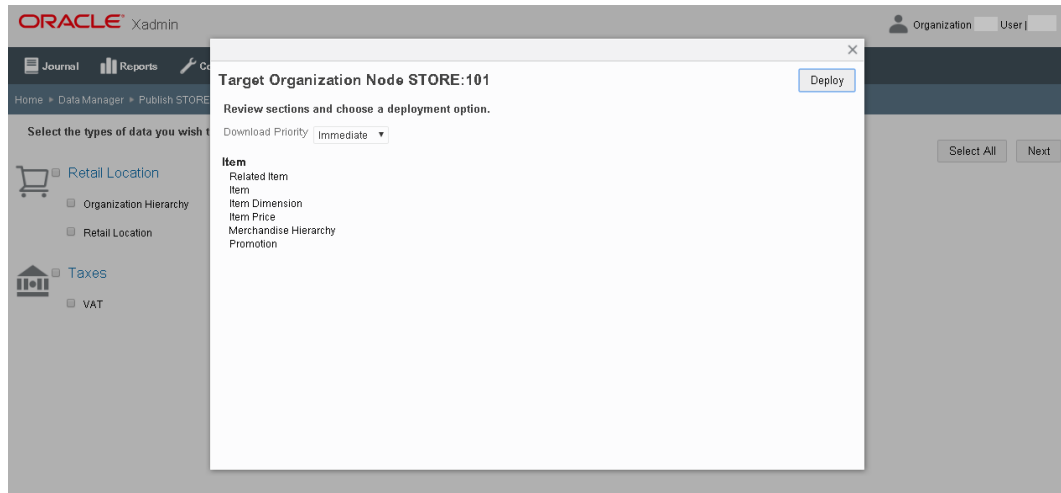
**Figure 2-7 Xstore Office - Data to Publish**



3. Select a Download Priority, Immediate or Store Close, and click **Deploy**.



Figure 2-8 Xstore Office - Target Organization Node Pop Up



## Using Flat Files

Kill/fill (full) files should be generated using the using .ksh extract scripts, packaged in a momzip archive file and targeted to only the stores where data is to be refreshed. Inclusion of a configured momzip.properties file can be used to limit dataloading to desired databases.

# 3

## Transaction Flow from Xstore to Sales Audit

Xstore is the source of Point of Sale (POS) transactions, including but not limited to the following:

- Sales
- Returns
- Voids
- Cash management transactions
- Many store activity transactions

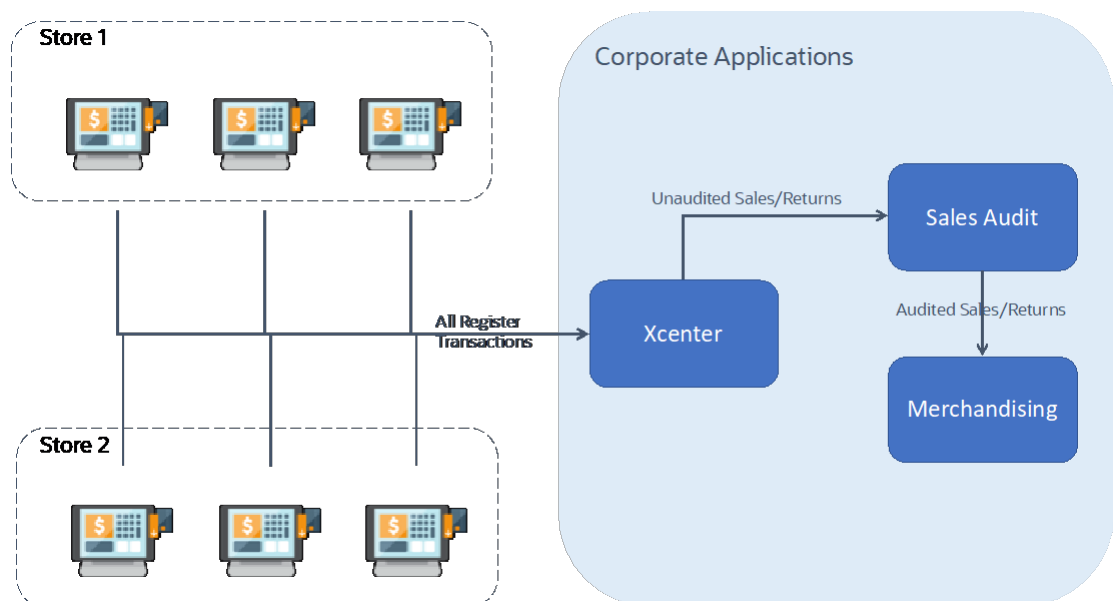
All transactions produced in Xstore are sent to Sales Audit. Sales Audit processing is primarily concerned with transactions that alter inventory or contain payment. Sales Audit loads other types of Xstore transactions (such as entering training mode, gift registry creation, and so on) into an OTHER transaction type for full visibility and to avoid gaps in the transactions sequence, but will not out of the box perform any audit functions on these OTHER types of transactions.

Sales Audit validates Xstore transactions that impact inventory (such as sales, returns, and customer orders) and exports the information to Merchandising to record the full financial and inventory impact.

### Conceptual Data Flow

Figure 3-1 illustrates the transaction flow from Xstore to Sales Audit.

**Figure 3-1 Xstore to Sales Audit Transaction Flow**



The following steps describe the flow shown in [Figure 3-1](#):

1. All Xstore registers replicate, or persist, all transactions to Xcenter. Note that this includes both customer related transactions (sale, return, void, and so on) and cash management/store operation transactions (paid in, no sale, change to training mode, and so on). Xcenter uses these transactions for activities such as cross location returns.

2. Xcenter broadcasts all transactions to Sales Audit in one of two ways.

In the form of RTLog files generated multiple times per day. This is the legacy approach. For more information, see [Technical Implementation - RTLog Files Integration](#).

Direct REST call to Sales Audit endpoint to post each incoming transaction. This is the new approach introduced since v21. For more information, see [Technical Implementation - Sales Audit REST Integration](#).

The broadcast system in Xcenter provides a means to transmit POSLog data to other systems. The data is transmitted just as Xcenter receives it from the registers through the replication system, which is approximately in real-time. The temporal ordering of the POSLog data is also preserved, just as it is with the replication system.

For more detailed information, see the following documents:

- Retail Reference Architecture available on My Oracle Support
  - *Oracle Retail Xstore Point of Service Technical Guide* available on My Oracle Support
  - *Oracle Retail Xstore Suite Implementation and Security Guide*
3. After successful totaling and auditing, Sales Audit sends all sale/return transactions to Merchandising, where the transactions impact perpetual inventory. For detailed information about `uploadsales_all.ksh`, see *Oracle Retail Merchandising Operations Guide, Volume 1 - Batch Overviews and Designs*.

 **Note:**

Integrating sales and returns data directly to Merchandising, bypassing Sales Audit, is not a supported integration.

## Technical Implementation - Sales Audit REST Integration

The technical implementation of the data from Xcenter/Xstore to Sales Audit consists of four main components:

- [Sales Audit REST Xstore Broadcaster](#)
- [Sales Audit REST Endpoints](#)
- [Scheduled Job to Query Sales Audit Rejected Transactions](#)
- [Xadmin UI to View and Republish Sales Audit Rejected Transactions](#)

## Sales Audit REST Xstore Broadcaster

Through Xadmin UI, create a broadcaster of type "Oracle Retail Sales Audit, REST Service" and specify Sales Audit REST endpoint as its endpoint url.

 **Note:**

The endpoint url is in the form `https://<host>:<port>/<tenancyId>`. Do not specify endpoint url with full service path like following: `https://<host>:<port>/<tenancyId>/ResaRestServices/services/private/ReSA/salesService`

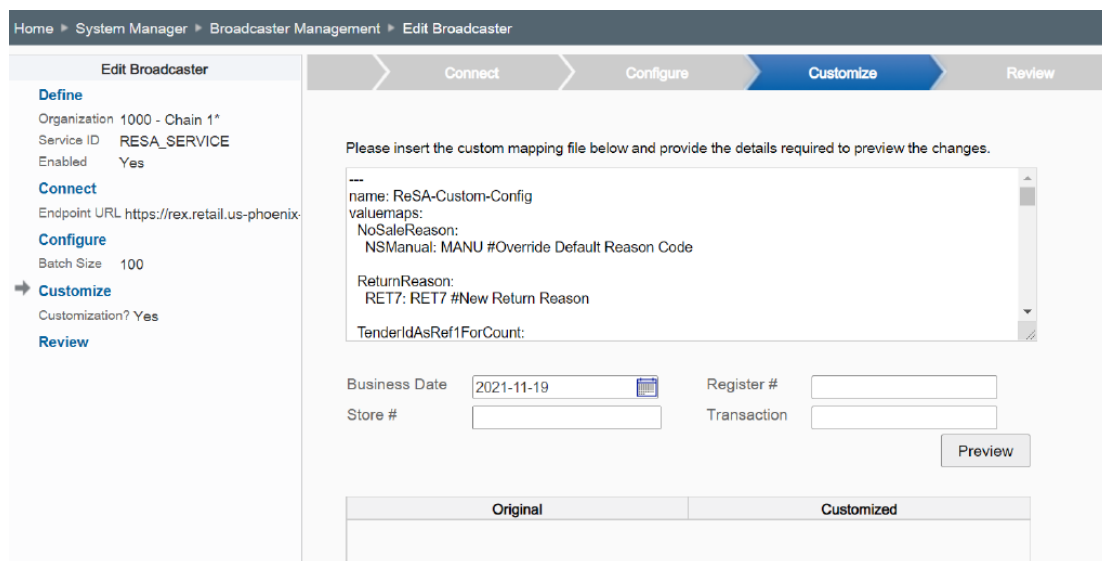
A Sales Audit REST broadcaster translates a transaction poslog xml to a JSON request, and posts it as payload to `ResaReSTServices/services/private/Resa/salesService` service. While out-of-box implementation of the translation is provided, the broadcaster gives a retailer the flexibility to customize the JSON request.

The broadcaster configuration wizard has a tab called Customize (see screen capture below). A user can provide custom mapping in yaml format to customize the JSON payload. A Preview feature is also provided to diff a transaction's JSON request with or without the custom mapping. Once the custom mapping passes the preview, a user can save it with the broadcaster configuration. After an initial delay of about 30 minutes, Xcenter will detect the mapping change and apply it to all transactions broadcasted out to Sales Audit.

 **Note:**

For more information on how to write custom mappings in yaml, see the *Oracle Retail Xstore Sales Audit REST Extension Guidelines* (Doc ID Doc ID 1994467.1) on My Oracle Support.

**Figure 3-2 Edit Broadcaster Screen - Customize Tab**



## Sales Audit REST Endpoints

Two Sales Audit REST services are used by Xcenter. ResaReSTServices/services/private/Resa/salesService: A POST service called by Xcenter broadcaster to post a transaction to Sales Audit. Its payload is the JSON representation of the transaction. A success response is returned if it passes initial validation and is accepted by Sales Audit.

ResaReSTServices/services/private/Resa/getRejectedTransactions: Once a transaction is accepted into Sales Audit, it is placed in staging tables. A batch process will generate the RTLOG file and the file will get consumed by saimptlog/saimptlogi batch. While generating RTLOG, if any validation fails, then that respective transaction will be moved to reject tables. Reject tables would act as the base for this Reject Query Service.

## Scheduled Job to Query Sales Audit Rejected Transactions

The Query Sales Audit Rejected Job is scheduled to run hourly in Xcenter if a broadcaster of type "Oracle Retail Sales Audit, REST Service" is enabled for at least one organization. The job iterates through each distinct Sales Audit REST endpoint configured across all organizations to query for rejected transactions through its ResaReSTServices/services/private/Resa/getRejectedTransactions service, and updates the rejected transactions' WORK\_STATUS column to "REJECTED" in Xcenter's poslog work item queue table TRN\_POSLOG\_WORK\_ITEM.

## Xadmin UI to View and Republish Sales Audit Rejected Transactions

To view rejected transactions, a new View Error Log button is introduced in Xadmin SystemTools > Publish PosLog Data. Once clicked, it displays all rejected or otherwise errored out transactions within the range of a user specified criteria for each broadcaster (See below for a screen capture of the UI). It provides error details, and allows a user to republish all or a subset of them once the underlying problem is fixed.

**Figure 3-3 POSLog Search - Sales Audit Rejected Transactions**

Trans #	Type	Register #	Store #	Date	Service Id	Last Update	Status	Error	<input type="checkbox"/>
6885	System Open	1	2324	Nov 19, 2021	RESA_REST_SERVICE	Nov 19, 2021	RESA_ERROR:... OR MORE TRANSACTION ARE ERROR OUT	("status":"ONE ...	<input checked="" type="checkbox"/>
6885	System Open	1	2324	Nov 19, 2021	XBR_1000	Nov 19, 2021	XBR_EXCEPTION	com.micros_reta...	<input checked="" type="checkbox"/>
6886	Session Control	1	2324	Nov 19, 2021	RESA_REST_SERVICE	Nov 19, 2021	RESA_ERROR:... OR MORE TRANSACTION ARE ERROR OUT	("status":"ONE ...	<input checked="" type="checkbox"/>
6886	Session Control	1	2324	Nov 19, 2021	XBR_1000	Nov 19, 2021	XBR_EXCEPTION	com.micros_reta...	<input checked="" type="checkbox"/>
6887	Session Control	1	2324	Nov 19, 2021	RESA_REST_SERVICE	Nov 19, 2021	RESA_ERROR:... OR MORE TRANSACTION	("status":"ONE ...	<input checked="" type="checkbox"/>

## Technical Implementation - RTLog Files Integration

The technical implementation of the data from Xcenter/Xstore to Sales Audit consists of three main components:

- [RTLog File Xstore Broadcaster](#)
- [Xstore RTLog Generator](#)
- [Sales Audit saimptlog/i](#)

### RTLog File Xstore Broadcaster

Through Xadmin UI, create a broadcaster of type "Oracle Retail Sales Audit, RTLog File" and specify RTLog generator url as its endpoint url.

### Xstore RTLog Generator

RTLog generator is a component that collects and aggregates broadcaster transactions and transforms them to the RTLog file format.

The on premise RTLog generator is packaged with Xstore, but is generally deployed in the same file system as Sales Audit.

For more information, see [RTLog Generator On-Premise](#).

### Sales Audit saimptlog/i

Sales Audit is the gateway for POS transactions to integrate to Oracle Retail Merchandising systems. There are two Sales Audit sub-processes that can upload POS files:

- saimptlogi.c is used when loading sales incrementally throughout the day from stores, instead of just once per day. It validates files and directly inserts the transactions into the Sales Audit tables. This includes (as necessary) creating errors for the auditors to research and correct.
- saimptlog.c is used for the once a day import of data from stores. It validates POS files and creates Sql\*Loader Files. This includes (as necessary) creating errors for the auditors to research and correct. A subsequent Sql\*Load process loads the transactions and errors into the Sales Audit tables.

saimptlog and saimptlogi are built with the same shared code and vary only in their approach to physically loading data into the database. The programs are collectively referred to as saimptlog/i.

There are a number of regular prerequisites in the Sales Audit batch schedule which must be completed before POS transactions can be loaded. For more information about supporting batch jobs, see *Oracle Retail Merchandising Operations Guide, Volume 1 - Batch Overviews and Designs*.

For more detailed information about saimptlog/i and the RTLog file format, see the following documents:

- *Oracle Retail Merchandising Operations Guide, Volume 1 - Batch Overviews and Designs*

# 4

## Webservice Integration Configuration

This chapter describes configuration options for the service integration, where Xstore Office calls Merchandising and Pricing services directly or through OCDS. This chapter does not apply to the flat file-based integration.

### Xstore Office: Direct Service Integration Communication

Configuration of the direct service integration involves self-service activities on both sides of the configuration. For Merchandising and POM configurations required for direct service integration from Merchandising and Pricing, see the sections Merchandising Configuration and POM Configuration below.



#### Note:

When these services are initialized, some services need a few hours for initial data processing before they can be used. It is recommended to enable these services a day in advance before Xstore Office starts subscribing

For Merchandising and POM configurations required for direct service integration from Merchandising and Pricing, see the sections [Merchandising Configuration](#) and [POM Configuration](#) below.

### Merchandising Configuration

To enable direct service integration, Oracle Retail Xstore Suite needs to be selected to have service based integration in the Integration section of System Options screen in Merchandising. For more information on System Options, refer to the *Oracle Retail Merchandising Foundation Cloud Service Implementation Guide*.

### POM Configuration

These services are operationalized by background processes that can be enabled and configured for running frequency in the Batch Administration screen of POM. For more information on these batch jobs, refer to the *Oracle Retail Merchandising Foundation Cloud Service Operations Guide*.

### Xstore Office Configuration

The direct service integration is set up through the Xadmin Integration Management feature and are stored in the Xstore Office database.

**Table 4-1 RMFCS Connection Configuration**

Fields	Description
Endpoint URL	A URL describing protocol, host name, and port of the Merchandising and Pricing Web Services. Example: <code>https://{hostname}:{port}</code>
Merchandising Chain ID(s)	A comma separated list of the chain ids in Merchandising containing stores in the Xstore Organization.

## Xstore Office: OCDS Integration Communication

Xstore Office requests changes to Merchandising and Pricing data in OCDS by calling the REST web services.

The properties for the OCDS integration are set up through the Xadmin Integration Management feature and are stored in the Xstore Office Cloud Service database.

**Table 4-2 OCDS Connection Configuration**

Fields	Description
Endpoint URL	A URL describing protocol, host name, and port of the OCDS Web Services. Example: <code>https://{hostname}:{port}</code>
Service Path Prefix	The root service path for OCDS. Example: <code>\ords\ocds\omnichannel</code>
OCDS Chain ID(s)	A comma separated list of the chain ids in the Merchandising system containing stores in the Xstore Organization.
Username	The username used to authenticate web service communication with OCDS.
Password	The password used to authenticate web service communication with OCDS.

## Xstore Office: Additional OCDS/MFCS Configuration Options

Xadmin Integration Management feature includes the following configuration options which appear in the configuration wizard for both OCDS and MFCS configurations.

**Table 4-3 Additional OCDS/MFCS Configuration Options**

Setting	Description
Timeout Connect	Number of seconds to wait for connection.
Timeout Read	Number of seconds to wait for completion of response data.



**Table 4-3 (Cont.) Additional OCDS/MFCS Configuration Options**

Setting	Description
Enabled Data Types	The types of data to be requested by Xstore Office. Once data starts flowing this selection should not be changed. Typically all data types are enabled unless not using VAT or (very uncommon) price/promotion.
Retain Job History	The number of days to retain Job History data in the Xadmin database.
Scheduled Job Interval Minutes	This is the frequency with which Xadmin requests data from OCDS/MFCS. The value should be greater than or equal to 30 minutes.
On Demand Job Interval Minutes	This is the maximum amount of time that will elapse between when an on-demand job is created and is executed. The value should be greater than or equal to 5 minutes.
Orphan Data Protection Offset Seconds	This is the minimum amount of time data must age before it can be visible to Xstore Office. The offset helps to prevent related-data from becoming orphaned due to system latency. The value should be greater than or equal to 30 seconds.
Records Per Request Limit	This specifies the number of records to request in webservice calls. If no limit is defined then MFCS/OCDS will determine the maximum number of records.
Retail Location: Till Accountability	This specifies if Retail Locations/Stores created from data are to use Till Accountability or not.
Retail Location: Default Locale	This specifies the Locale to use in Retail Locations created from data when a LANG_ISO_CODE is not defined for a location. This setting defines the value assigned to a Retail Location in the Xstore database if the store was not assigned a Locale in Merchandising
Item: Tax Group ID for non-taxable Items	This specifies the Tax Group ID assigned to non-taxable items created from MFCS/OCDS data.
Item: Include future date to determine VAT code with the greatest active date	This specifies if future date should be included to determine VAT code with the greatest active date.
VAT Rounding Code	Specifies how the system will round when calculating the tax amount.
VAT Rounding Digits	Specifies how many decimal places to round to when calculating the tax amount. The minimum rounding digit is 0 and the maximum rounding digit is 10.
VAT Rounding at Transaction Level	Specifies the ability to round at transaction level when calculating the tax amount.  When the calculated tax will be rounded at the transaction level.  When unchecked, the calculated tax is rounded at the line item level.

## Merchandising Chain to Xstore Organization Mapping

The Xstore Suite provides the opportunity to organize data by Organization, where centralized and store-level data can be isolated according to a retail organization structure.

The Merchandising Suite supports the use of one or more Chains, where a chain can be used to group various store formats.

The Integration in the On Premise and Cloud Xstore Office requires that at least one Merchandising Chain be mapped to an Xstore Organization. This configuration must not be changed once the mapping is established.

## Integration Database Tables

There are three database tables in the Xadmin database that are exclusively used for integration with Merchandising and Pricing for both integration methods described in this document. See the *Oracle® Retail Xstore Point-of-Service Software Database Dictionary* for complete details on these tables.

**Table 4-4 Integration Database Tables**

Table Name	Description
<b>OCDS_JOB_HISTORY</b>	When enabled in Xadmin, an integration job is executed by scheduled-interval or on-demand, to detect foundation data changes in integration service and extract them out into .mnt files. An entry in this table records the status, start/end time and other information of a job executed.
<b>OCDS_ON_DEMAND</b>	An entry in this table represents an on-demand job request. On-demand jobs can be system generated (as in the case of new store detection), or user generated (from the Xadmin UI).
<b>OCDS_SUBTASK_DETAILS</b>	An integration job executes a list of subtasks. Each subtask represents a foundation data area to detect and extract out changes. The table defines metadata for all subtasks. For a scheduled job, each and every active subtask is executed. For an on-demand job, a subset of subtasks specified for the job is executed.

The only table that requires seed data is the OCDS\_SUBTASK\_DETAILS; the other two tables will populate during operations of the integrations.

## Enabling and Disabling Data Types

Retailers can determine the types of data requested from the integration service by Xstore Office. For example, if VAT information is not needed, then the integration can be configured to prevent requests for VAT data.

In Xstore Office Service's Integration Manager, use the Configure tab when completing the wizard UI to establish the integration.

## Download: Immediate vs Store Close

The OCDS\_SUBTASK\_DETAILS table includes the column DOWNLOAD\_TIME, which specifies when .mnt files should be downloaded for data loading at the store. The column contains null for those Subtasks that only populate the Xcenter database. The out-of-the-box seed data is configured so that only Pricing data will flow to the store immediately.

## "NOT ON FILE" Items

The integration has been designed to not import items that represent an Xstore "NOT ON FILE" item. The integration compares Item Ids of item records in the Xstore Office database having the type code "NOT\_ON\_FILE" with item records in REST responses from the integration system so that it can skip records having the same item ID as an Xstore "NOT ON FILE" item.

# 5

## Integration Considerations

This chapter provides the considerations that should be accounted for when implementing these solutions to minimize errors in data movement between solutions, as well as to call out some functional differences in the solutions that may limit the use of functionality in one or the other solutions.

### Foundation Data

There are a number of basic data elements that are common between the Merchandising and store systems but which are not part of the integration. This is because they are generally a one-time set up at initial implementation with only infrequent updates afterward. However, because this data is foundational to how the solutions work, it is critical that they are set up properly. These data elements fall into a couple different categories:

- [Seed Data](#)
- [Transaction Details](#)
- [Currency Exchange Rates](#)



#### Note:

The volume of data used in the integration can provide operational challenges if the time required to import and deploy data to stores takes longer than desired. This is generally only a concern when number of items and number of stores are very large, and is mostly a concern when processing initial loads.

### Seed Data

Seed data refers to data that is loaded into both solutions on implementation by Oracle Retail provided install scripts. These are coordinated between solutions as part of the base installation, but if any updates are made in one solution to add or remove items, the corresponding change should be made in the other solution. Data elements that fall into this category are:

- Currency codes
- Country codes
- Units of measure

### Transaction Details

The mapping of transaction details from Xstore POSlog to Sales Audit RTLog depends on the mappings of valid values. These mappings are detailed in [Appendix: Xstore to Sales Audit Mapping Details](#). It is critical that the mappings are complete. If additional valid values are

configured for Xstore in the RTLogMappingConfig.xml, they must also be configured for Sales Audit for the appropriate code types.

Similar to seed data, some initial data is provided for the data entities in this category, but this is an area that is more commonly configured for retailers based on their specific business processes. On initial implementation, the configurations in both Xstore and Sales Audit should be made to be in synch, with any changes made post-implementation continuing to be made in both solutions. The entities in this category include:

- Transaction Types
- Tender Types
- Tender Total IDs
- Item Types
- Reason Codes
- Item Statuses
- Sales Types

See the [Appendix: Xstore to Sales Audit Mapping Details](#) for details on configuring and mapping these entities.

## Multi-Line Text

Use of multi-line descriptions in Merchandising for data flowing to the Xstore Suite must be avoided because it can result in data loading failures by Xstore's DataLoader. All text fields used in the integration are expected to be single-line.

## Currency Exchange Rates

Exchanges rates for currencies are not one of the things integrated between Merchandising and Xstore, as Merchandising is not considered the system of record for this information at a retailer - generally that comes from the financial solution. However, if you require currency exchange rates in Xstore, then it is expected that the same source of data used for exchange rates in Merchandising will also be used to load those rates into Xstore, in order to ensure both solutions are operating with the same information and to prevent a financial impact from occurring due to differences in the rates used. Tender exchange transactions that occur in Xstore, where a customer is given USD in exchange for CAD, will be mapped to the transaction type OTHER in Sales Audit.

## Stores

By default, Xstore is configured to allow four digit store IDs, but it can be configured to hold up to 5 digit store numbers in the SequenceConfig.xml. Although Merchandising can hold up to a 10 digit store ID, when integrating with Xstore, it is strongly recommended that only four or five digit location IDs are used. Custom modifications would be required to Xstore to support larger store IDs.

Additionally, latitude and longitude information that is used by Xstore to determine nearby stores for its inventory lookup function are not available as part of the integration from Merchandising. If you wish to use this functionality in Xstore, the

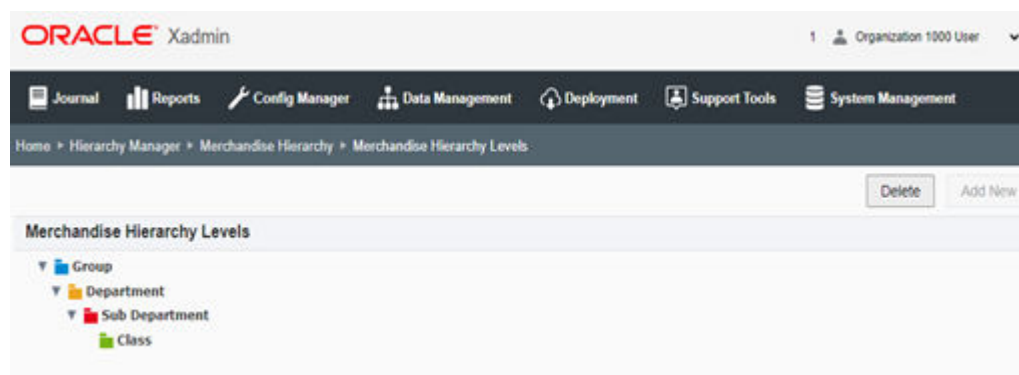
record type, RETAIL\_LOCATION\_COORDINATES, is available to DataLoader to populate the latitude and longitude of stores using the .mnt format.

All stores in Merchandising that you expect to get a sales file from Xstore should be set up to have Integrated Sales flag set to checked (Yes) as part of the store setup. Additionally, the store level attribute Unique Transaction Number should be set to Register for all Xstore integrated stores. These are both used by Sales Audit to know which stores to expect to receive files and how to audit the data in the files.

## Merchandise Hierarchy Levels

Xstore supports up to four levels of merchandise hierarchy. This means that up to four of the lowest level Merchandise Hierarchy Levels used by the Merchandising System can be mapped to the Xstore Suite Merchandise Hierarchy Levels. The default Merchandise Hierarchy Levels used by Xstore (Department, Sub Department, Class, Subclass ) do not match the bottom four levels of the merchandise hierarchy from Merchandising, which are Group, Department, Class, and Subclass. Retailers should use the Merchandise Hierarchy Level feature under Xadmin's Hierarchy Manager to configure the desired mapping. The most common mapping is either four levels (Group, Department, Class, and Subclass) or three levels (Department, Class, and Subclass). It is critical that this mapping is established before the integration is activated and any data is imported into the Xstore Suite from the Merchandising system. It is also critical that the Merchandise Hierarchy Levels are not changed once item data has been imported.

**Figure 5-1 Merchandise Hierarchy Levels**



## Merchandise Hierarchy Identifiers

Xstore requires the use of unique identifiers across all levels of the merchandise hierarchy. Merchandising does not have this requirement, so to create uniqueness the integration transforms keys imported from merchandising by appending a character representing the level as a suffix. An example would be Department 10 in Merchandising becomes Department 10D in Xstore.

Additionally in Merchandising, the ID displayed for Class and Subclass are not by themselves unique, these IDs are only unique in the context of their parents' ID. In Xstore, and some other Point Of Service systems, merchandise hierarchy IDs must be unique within the same level. Merchandising enables integration with Point Of Service systems having this requirement by also maintaining a unique key for Class and Subclass -- the unique key is held in the Merchandising tables for class and subclass. This unique value is not visible to

users of Merchandising. The Xstore Suite imports only the unique key for use in Class and Subclass identifiers.

## Items

This section lists considerations regarding items.

### Merchandise Items

Physical merchandise items should be mastered in Merchandising and use the integration described in this document to flow the data to Xstore. Xstore Office should not be used to create physical items in order to prevent errors when loading sales data into Sales Audit where the item being sold or returned cannot be identified and accounted for in Merchandising.

### Non-Merchandise Items

If using non-merchandise items, such as warranties, fees, and services, in Xstore, special attributes are required that are not available in Merchandising. Therefore to configure these items, the following approach is required:

1. Create the non-merchandise item in the Xstore Office UI, specifying the required attributes to control its behavior in Xstore.
2. Create an item in Merchandising with the same ID as that created in Xcenter. The item created in Merchandising should be set up as a non-merchandise item to prevent it from being re-exported to Xstore.

The creation of the item in Merchandising will prevent any errors from occurring in the auditing process. Any maintenance on the non-merchandise items should occur in Xstore Office going forward.



#### Note:

For more information on how non-merchandise items work between Sales Audit and Merchandising, see the *Oracle Retail Sales Audit Implementation Guide*.

To allow end users to create non-merchandise items, but be prevented from creating or editing merchandise items in Xstore, the `CFG_MERCH_ITEMS` privilege should not be granted to any users. The merch items option will still be on the screen, but it will not be accessible.

### Kit/Pack Items

Kits, or pack items in Merchandising, are items that contain multiple components but are sold as a single unit. As part of the standard item integration, Xstore does not import the component level information from Merchandising, so these items will appear as standard items in Xstore and the component details will not be available.

## Differentiators

Differentiators are used in Merchandising to define how a transaction level item (for example, SKU) differs from its parent (for example, style). For example, a differentiator might be a color, size, or flavor for an item. In Xstore, differentiators are called dimensions. Merchandising supports up to 4 differentiators/dimensions for items, while Xstore can support only three. It is strongly recommended that the 4th differentiator is not used when implementing Merchandising with Xstore, as it will be ignored in the integration.

Additionally, in Merchandising an item can be assigned differentiators without having a parent (style) associated with it. This could be used for hardline or grocery items to indicate the color or size of an item for reporting purposes, for example. However, in Xstore dimensions are primarily used to allow a user to determine the sellable SKU by entering a style ID and selecting the valid dimensions (usually color and size). Therefore, if an item does not have a parent, the dimensions sent from Merchandising will be ignored and will not be visible in Xstore.

## Product Restrictions

Product restrictions can be set up in Merchandising to indicate limitations on certain products. For example, a restriction may be set up to limit alcohol from being sold to customers under a certain age. Product restrictions are not currently supported in the integration to Xstore. Custom integration would be required to communicate this information from Merchandising to Xstore.

## Related Items

Merchandising has a concept of related items that can be used to define items that are substitutes for one another, or that could be used to cross-sell or up-sell to a customer when purchasing the main item. Substitute items from Merchandising are mapped to the Xstore substitute items to indicate items that may be substituted or offered in place of another item.

The cross-sell and up-sell types of related items are mapped to Xstore's Attached Items and configured as prompt-to-attach. Only transaction level related items are used by Xstore. Those created at the parent item level (for example, style) in Merchandising are ignored.

## Other Item Attribute Notes

The set of data entity attributes managed by the Xstore Suite and MFCS overlap but are not identical. Some data and fields supported by Xstore can not be obtained from Merchandising, and some data and attributes are imported but require transformation to bridge differences in the two systems. The following is not an exhausted list but does call out some key differences:

- Item Restocking - unlike Xstore, Merchandising does not have a flag that indicates whether an item is subject to an item restocking fee, nor the ability to define what an item's fee would be. Therefore, Xstore would not have the ability to prompt for a restocking fee during returns.
- Xstore can support prorated refunds for items, but to do so requires specific attributes sent for an item, which are not currently available in Merchandising. Therefore, this function would not be available in Xstore.



- Merchandising has the ability for retailers to extend the available item attribution by creating user defined attributes and custom flex attributes. Although included in the available data from Merchandising, these are currently not used by Xstore.
- Translated item descriptions are available from Merchandising as part of the integration but are not currently used by Xstore. Xstore uses the item level description (which is communicated in the primary Merchandising language) for Xoffice and the item/location level descriptions for the store in Xstore. If you have the requirement to send item descriptions in different languages to your stores, it is recommended that the item/location level description in Merchandising be updated to show the localized item description.
- Merchandising does not maintain a Quantity Scale item attribute that can be directly mapped to Xstore's itm\_item\_options.qty\_scale column.

## Tax

This section describes considerations regarding taxes.

### Value Added Tax (VAT)

Merchandising integration includes VAT rates and the regions in which the stores have been classified for companies with operations in geographies where this type of tax is applicable. For retailers that have operations in both VAT and non-VAT regions - such as stores in the US and Canada - non-VAT regions are configured as exempt in Merchandising and communicated as such to Xstore. For more information on configuration for VAT in Xstore, see the *Oracle Retail Xstore Technical Guide*.

When Merchandising sends VAT rate updates for an item, it also includes the active date for the rate to be applicable. Retailers sometimes enter new VAT rates in advance for future planning. However, Xstore currently does not support an active date for VAT code and will ignore the active date sent, which means any new codes will go into effect immediately. Therefore, it is recommended that retailers enter the VAT code changes in Merchandising only when needed.



#### Note:

Buying from a VAT store and returning to a non-VAT store (and vice versa) is not supported in Xstore.

### US Sales Tax

Merchandising does not provide US Sales tax information to Xstore; it is assumed that product tax groups are imported into Xstore from a third-party system using Xstore Point of Service DataLoader and .mnt files.

After loading Merchandising data, the following additional steps are required to configure sales tax using the .mnt file format:

1. Set up sales tax rules. To set up a simple rate based tax rule, use existing record types TAX\_LOCATION, TAX\_AUTHORITY, TAX\_GROUP, TAX\_GROUP\_RULE, and TAX\_RATE\_RULE to populate tax tables tax\_tax\_loc, tax\_tax\_authority, tax\_tax\_group, tax\_tax\_group\_rule, and tax\_tax\_rate\_rule. For more details on tax

rule configuration, see the TAXING section in the *Oracle Retail Xstore Point of Service Host Interface Guide* available on My Oracle Support.

2. Set up retail store and tax location mapping in table `tax_rtl_loc_tax_mapping` using existing record type `TAX_RETAIL_LOCATION_MAPPING`. For more details on this record type, see the TAXING section in the *Oracle Retail Xstore Point of Service Host Interface Guide* available on My Oracle Support.
3. `ITEM_TAX_GROUP` is used to update the item record in the `itm_item_options` table with sales tax group ID. This `.mnt` file has to be imported after the Merchandising data import. There is no built-in mechanism in DataLoader or Xstore Office to ensure this ordering. It has to be enforced by retailer manually.

 **Note:**

There is also a configuration of tax data that must be done in Sales Audit when using the US Sales Tax configuration. See [Appendix: Xstore to Sales Audit Mapping Details](#) for more details.

## Inventory

Inventory functionality in Xstore should be disabled when implemented with Merchandising. No inventory information is integrated between Xstore and Merchandising other than sales related data and it is assumed store inventory is managed in another application, such as Oracle Retail Store Inventory Management (SIM) or Store Inventory and Operations Cloud Service (SIOCS), which is also integrated with Merchandising. Therefore, when these systems are all part of a retailer's implementation, the `.sim` entry in the configuration path should be used in Xstore to turn off Xstore inventory functionality. Inventory integration outside of sales and returns between Merchandising and Xstore is not supported.

## Serialized Inventory

Merchandising supports the concept that an item can be a serialized item in one store, but not in another; however in Xstore, the designation for whether or not an item is serialized is held at the item level, so there is not any differentiation by store.

 **Note:**

Merchandising does not support serialized inventory at this time. It only flags items as being serialized or not.

**OCDS/MFCS:** Unlike Xstore, Merchandising does not have a non-store-specific serialized item flag, so the integration infers this information. Merchandising does have a `uinType` item-level field that is store-specific. XOCS uses this field to recognize an item as “a serialized item” when receiving item header data for a store. The Xstore Suite's serialized item flag attribute is stored in its `itm_item` table. This table is not a store-specific item attribute table, though the data maintained in the table could represent the assortment of a single store, or the assortment of all stores.

- A store's database's `itm_item` is populated by the results of requests from MFCS/OCDS for item data for a specific store. The response includes only items in that store's item-

assortment AND an item's store-specific uinType (if one exists). This allows Xstore to properly set the serialized item flag at the store in the itm\_item table

- – When Xcenter's database's itm\_item table is populated by the results of requests from MFCS/OCDS, item records represent the assortment in all stores and are stored at the \*:~ level. Since the context of this data is not specific to any one store the concept of a store-specific uinType doesn't apply, and the serialized item flag will be false.

**Flat File:** The serialized flag can vary by location for an item in Merchandising, the last location to be dataloaded by the integration code sets the item level serialized flag in the Xcenter database. Since a store database is populated with the item assortment for only for a single store, the serialized flag will be appropriate set.

## Customer Orders

When customer orders are initially captured in Xstore, the Xstore RTLog generator sets the Fulfillment order number in the RTLog to UNKNOWN, as the fulfillment order number is not known at the time the order is created, because information has not yet been sent to the order management system.

## In-Store Orders

Orders taken in the store on behalf of a customer that do not go through an Order Management System (OMS) for fulfillment will include only a customer order number, but not a fulfillment order number when it the transactions related to it are integrated to Sales Audit.

## Recognition of a Sale

For customer orders, Xstore can be configured to recognize a sale at either the time the order is place or at the time of pickup. Integration with Merchandising requires that this configuration be time of pickup, which corresponds to when inventory is decremented from the store, in order to prevent out of synch issues between actual store inventory and what is shown in Merchandising.

In order to configure this in Xstore, the following settings should be set to false (which is the default) under both <Layaway> and <SpecialOrder> in SystemConfig.xml (whose settings are also controllable in Xadmin):

```
<Layaway>
<BookAsSaleOnSetup dtype="Boolean">>false</BookAsSaleOnSetup>
<SpecialOrder>
<BookAsSaleOnSetup dtype="Boolean">>false</BookAsSaleOnSetup>
```

## Pricing

In both Merchandising and Pricing the data type for retail prices is NUMBER(20,4), but in Xstore, the standard is to use a data type of NUMBER(17,6). This applies to the following item prices:

- Selling Unit Retail (from Merchandising and Pricing)
- Manufacturer's Recommended Retail (from Merchandising)

If a Pricing retail value is over 17 digits, dataloading into Xstore will fail. Non-failing records from the same file will continue to be loaded.

## Multi-Unit Pricing

Pricing and Xstore have different approaches to multi-unit pricing. Xstore converts multi-unit prices to single price, but cannot accurately do this without rounding information which varies from store to store. As such, Pricing's regular price update information for multiple units is not supported in this integration.

## Promotions

There are certain features of promotions that are supported in Pricing that are not supported in Xstore. These features should be configured off in Pricing to prevent users from creating promotions that cannot be executed. These are the features that should be configured off:

### **Allow Reward List Exclusions on Transaction Offers**

This Pricing system option should be unchecked, as Xstore cannot support receiving reward list exclusions for transaction offers.

### **Allow Supplier Site and Brand for Offer Item Selection**

This Pricing system option should be unchecked, as Xstore does not have information about the brand or supplier for an item; therefore, adding or excluding items by this type of criteria on a promotion cannot be supported in the integration.

### **Pricing Application - Promotion Offer Distribution Rules (OFDR)**

Pricing allows users to define how the discount should be distributed to items on a customer's purchase by selecting a distribution rule as part of the promotional offer creation. However, Xstore always applies the discount to the "get" items on an offer. Therefore, this code should be configured to only allow the Get Items option to be selected by users. See also the *Oracle Retail Pricing Implementation Guide* for more details.

## Sales Audit

This section describes configurations that should be made in Sales Audit, as well as some limitations that exist.

First, in addition to configuring the store setup as described above, there are some Sales Audit system options that must be configured in a particular way when integrating with Xstore:

- Transaction Appended with Workstation ID – this should be set to unchecked (No); when checking for duplicate transactions from Xstore, Sales audit will look at the register field in the transaction, along with the transaction number.
- Credit Card Masking Character – this should be set to \* when integrating with Xstore, as that is how Xstore masks credit card numbers.
- Balancing Level - when integrated with Xstore, Sales Audit should be configured with a balancing level of Register and Xstore will always send the workstation ID as the register.

## Store Data Configuration

Sales Audit requires configuration to be set up for each store where you expect to import data. For all Xstore stores, you'll need to include two lines for each store configuration – one for Sales Import and one for Item Level Tax. Sales Import is the normal store sales import configuration, and the Item Level Tax configuration is used in validation of the import file to look for tax at the item level instead of the transaction level. This is how tax data will always be sent from Xstore, regardless of tax type.

## Register-level Balancing

Xstore workstation and Sales Audit register are equivalent concepts; however Sales Audit does not have an entity equivalent to the Xstore till, which means that Xstore cannot be configured for till-level balancing when integrated with Sales Audit.

## Sales Person

In Xstore, the sales person field length can be up to 60 characters in length, but Sales Audit only allows up to 10 characters. Retailers should, as a business process, not use Xstore sales person IDs with more than 10 characters.

Additionally, Xstore allows multiple sales associates at the line item level, however Sales Audit only supports one. Therefore only the transaction level sales associate is exported to Sales Audit.

## Tender Types

Xstore supports a tender type of Home Office Check, which is not supported by Sales Audit. Retailers using this integration should not use the Xstore Home Office Check tender type. See [Appendix: Xstore to Sales Audit Mapping Details](#), for more information on tender type mapping between solutions.

## Coupons

Bounce back coupon number length in Xstore can be 60 characters long, but Sales Audit only allows 40 characters. If retailers want to use the integration, they should as a business process, not use IDs with more than 40 characters.

For more Sales Audit related considerations and configurations, see [Appendix: Xstore to Sales Audit Mapping Details](#) in this document.

## File Format

The RTLOG file that is sent from Xstore to Sales Audit uses a version that does not include the following components in the file format:

- Transaction Header level:
  - Reference number 28-31
- Transaction Item level:
  - Fulfillment Location Type

- Fulfillment Location

For more information on how these fields are used in Sales Audit, see the *Oracle Retail Merchandising Operations Guide – Volume 1*.

## Employee IDs

A new employee can be created using the Employee Maintenance function in Xstore. By default, the employee ID is generated automatically based on the employee.seq, for example, 0219001000009. The first four digits are the store ID, the next three digits are the register ID, and the last six digits are the sequence ID. If this new employee is selected as a sales associate, an exception will be thrown in the RTLogGenerator, since the length of a sales person ID, defined in the RTLogFormatConfig file is ten, whereas the length of the auto generated employee ID is 13. In Sales Audit, an associate ID cannot be over ten characters long.

# 6

## RTLog Generator On-Premise

This chapter describes how to install, deploy, and configure the on-premise RTLog Generator application. The On Premise RTLog Generator application can be used with both the cloud or on premise Merchandising/Pricing applications.

RTLog Generator is a Java and XML based web application that exposes a Spring-JAXWS implemented SOAP web service. It is distributed as a web archive along with a configuration .zip file ready to be deployed on an Oracle WebLogic Server 14c.

This chapter uses Microsoft Windows path format as the example for paths.

### Configuration

The RTLog Generator application is shipped with a configuration .zip file (rtlog-gen-config.zip) which should be used to externally configure and extend the RTLog Generator's functionality.



#### Note:

Bounce the WebLogic server after making any configuration level changes.

Starting from release 20.0, the RTLog generator is shipped with one `rtlog-generator-config.zip`, which is used to integrate with Sales Audit and ReSA On-premise.

To set up the external configuration features:

1. Extract the configuration file's content into the `C:\<rtlog-generator-config>` directory if installing on Microsoft Windows or `/usr/local/<rtlog-generator-config>` on Linux OS. These directories are the default locations where the RTLog Generator application will look for the configuration files. These default locations can be overridden/changed by using one of the following ways:
  - Pass a JVM argument to the server startup script and bounce the server:  
`-Drtloggen.config.dir=C:\custom_directory>`

If the WebLogic domain is created with a Node manager, the same argument can be passed from the Administration Console in the Arguments field. See [Figure 6-1](#).

Figure 6-1 Administration Console Configuration Page

The screenshot shows the Oracle WebLogic Server Administration Console. The main content area is titled 'Settings for rtlog\_ManagedServer\_1' and has several tabs: Configuration, Protocols, Logging, Debug, Monitoring, Control, Deployments, Services, Security, and Notes. Under the 'Configuration' tab, there are sub-tabs: General, Cluster, Services, Keystores, SSL, Federation Services, Deployment, Migration, Tuning, Overload, Health Monitoring, and Server Start. The 'Server Start' tab is selected, showing configuration fields for Java Home, Java Vendor, BEA Home, Root Directory, and Class Path. Below these fields is the 'Arguments' section, which contains a list of JVM arguments. The argument '-Drtloggen.config.dir=C:/custom\_directory/' is highlighted with a red box.

- Specify the context-param field in the RTLog Generator WAR file. This requires opening up the WAR file and making the required changes. Update the web.xml file as shown in the following example:

```
<context-param>
  <param-name>rtlog.generator.config.home</param-name>
  <param-value>C:/<custom_directory></param-value>
</context-param>
```

Figure 6-2 Example of context-param Field Update

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <web-app xmlns="http://java.sun.com/xml/ns/javaee" xmlns:web="http://java.sun.com/xml/ns/javaee/web-
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://java.sun.com/xml/ns
  http://java.sun.com/xml/ns/javaee/web-app_3_0.xsd" version="3.0">
3   <!--<display-name>RTLOG-GENERATOR</display-name>
4   <!--<context-param>
5     <!--<param-name>contextConfigLocation</param-name>
6     <!--<param-value>/WEB-INF/classes/applicationContext.xml</param-value>
7   <!--</context-param>
8   <!--<!-- Customizable external location for RTLog config files-->
9   <!--<context-param>
10    <!--<param-name>rtlog.generator.config.home</param-name>
11    <!--<param-value>C:/custom_directory</param-value>
12  <!--</context-param>
13  <!--<!-- Customizable RTLog generator app_name. If not unspecified, it remains "rtlog-generator". This
14  <!--<context-param>
15    <!--<param-name>rtlog.generator.application.name</param-name>
16    <!--<param-value />
17  <!--</context-param>
18  <!--<!-- Customizable external log4j.xml file. Specify just the file name without any extension. By de
19  <!--<context-param>
20    <!--<param-name>rtlog.generator.config.log4j</param-name>
21    <!--<param-value />
22  <!--</context-param>
```

The JVM argument takes the precedence over the default location, that is, `C:<rtlog-gen-config>`. If either of the two does not exist, the context parameter



is used. If nothing is specified, the RTLog Generator application will fail on startup with error messages in the server logs.

2. Once the configuration file is extracted to the configured directory, verify the following files:

- `rtlogconfig.properties`:

This file contains the following properties (key value pairs):

- `processingDir`: This directory path specifies the location that RTLog Generator will use to build its RTLog files as it receives data from Xstore Office. This directory needs to be created manually.
- `resaFileDropDir`: This directory path specifies the destination for the RTLog files this system is producing. It should be configured to the location where Sales Audit is looking to receive the RTLog files. This directory needs to be created manually.
- `clusterNodeNumber`: This property should only be enabled when running in a clustered environment. For more information, see "[WebLogic Cluster Setup](#)".
- `deliveryTarget`: This property specifies the RTLog delivery target. The two possible values are `resa-cs` or `resa-onprem`. If `resa-cs` is specified, the RTLog files generated are in format compatible with Sales Audit; otherwise the files generated are in format compatible with ReSA On-premise.
- `spring.profiles.active`: This property is by default commented out. Uncomment it in the following two scenarios.
  - a. Enable FTS delivery of RTLog files.
    - \* Set it to `"fts,archive"` without quotes to send RTLog files to ReSA CFS object storage through FTS (File Transfer Service).
    - \* Set it to `"fts,zip,archive"` without quotes to send RTLog zip files to ReSA CFS object storage through FTS (File Transfer Service).
  - b. Set it to `"zip"` without quotes to zip up RTLog files placed in the directory specified by property `"resaFileDropDir"`.

Following is an example of the properties. No `spring.profiles.active` property is specified in this case.

```
processingDir = C:/RTLOG_Weblogic/Output/Store/RTLOGS
resaFileDropDir = C:/RTLOG_Weblogic/Output/ReSA
clusterNodeNumber = 1
deliveryTarget = resa-cs
-OR-
deliveryTarget = resa-onprem
```

Following is another example to enable zipping of RTLog files.

```
processingDir = C:/RTLOG_Weblogic/Output/Store/RTLOGS
resaFileDropDir = C:/RTLOG_Weblogic/Output/ReSA
clusterNodeNumber = 1
deliveryTarget = resa-cs
-OR-
deliveryTarget = resa-onprem
spring.profiles.active = zip
```

Additional properties and configuration have to be specified if FTS delivery of RTLog files is enabled. Skip this section if it is not enabled.

- `cloud.fts.endpointUrl`: This property specifies the ReSA FTS endpoint URL to deliver the RTLog files to.

 **Note:**

RTLog Generator supports two forms of RMS FTS endpoints.

- RMS Platform FTS wrapper API:** This API is the new FTS endpoint supported in RMS. The customer is advised to use this endpoint for FTS integration. Its URL takes the following format: `https://xxxx/xxxx/RmsPlatformServices/services/private/FTSWrapper`
- RMS FTS API (deprecated):** This API is deprecated but still supported in RMS. The customer is advised to switch to use the new platform FTS wrapper API. The deprecated API may no longer be available in RMS in the future. Its URL takes the following format: `https://xxxx/xxxx/RmsReSTServices/services/private/fts`

To invoke ReSA FTS endpoint URL secured in Oauth, IDCS client ID, secret, and scope are required. They are captured in Xcenter DB. The following properties must be specified for RTLog generator to request them through Xcenter on premise REST APIs.

- `xcenter.protocol`: http or https
- `xcenter.host`: Xcenter on premise host name
- `xcenter.port`: Xcenter on premise port
- `xcenter.db.user`: encrypted basic auth username for Xcenter on premise REST apis
- `xcenter.db.pwd`: encrypted basic auth password for Xcenter on premise REST apis
- `dtv.location.organizationId`: Xcenter organization id to request for IDCS client id/secret/scope
- `dtv.CustomerId`: customer ID used in decryption of username and password
- `dtv.CustomerId.salt`: salt used in decryption of username and password

Following is an example `rtlogconfig.properties` with FTS delivery enabled.

```
processingDir = C:/RTLOG_Weblogic/Output/Store/RTLOGS
resaFileDropDir = C:/RTLOG_Weblogic/Output/ReSA
clusterNodeNumber = 1
deliveryTarget = resa-cs
spring.profiles.active = fts,zip,archive
-OR-
spring.profiles.active = fts,archive
cloud.fts.endpointUrl=https://xxxx/xxxx/RmsPlatformServices/services/private/FTSWrapper
xcenter.protocol=https
xcenter.host=<xcenter onprem host>
```

```
xcenter.port=<xcenter onprem port>
xcenter.db.user=<encrypted xcenter onprem basic auth username>
xcenter.db.pwd=<encrypted xcenter onprem basic auth password>
dtv.location.organizationId=1000
dtv.CustomerId=xxx
dtv.CustomerId.salt=xxxx
```

Cipher Keys: for rtlog-generator to decrypt xcenter.db.user and xcenter.db.pwd, cipher keys must be copied from xcenter-config/res/keys to rtlog-generator-config/res/keys. This includes all key files of the following naming patterns.

- config.cip
- config.\*.cip (for example config.2022-02-07.cip)

Truststore: certificate to communicate to Xcenter must be placed in .truststore file under rtlog-generator/res/ssl

- Multiple log4jx.xml files: These files configure the logging levels for the RTLog Generator application.
  - rtlog-generator-log4j2.xml
  - rtlog-generator-log4j2-loggers.xml
  - rtlog-generator-log4j2-appenders.xml
- spring-scheduler.xml:

It is the most commonly modified file in the RTLog Generator application. It is used to configure the scheduled interval for publishing the RTLog files. In the case of trickle polling, the default interval should be 15 minutes, however, keeping a larger interval (at least greater than or equal to 15 minutes) is recommended as configuring with a smaller interval might affect the performance.

**Figure 6-3** spring-scheduler.xml Example

```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.springframework.org/schema/p"
  xmlns:task="http://www.springframework.org/schema/task" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.springframework.org/schema/beans
    http://www.springframework.org/schema/beans/spring-beans-3.0.xsd
    http://www.springframework.org/schema/task
    http://www.springframework.org/schema/task/spring-task-3.0.xsd">
  <task:scheduled-tasks scheduler="rtlogScheduler">
    <!-- To publish files once every 10 minutes = 600000 milliseconds 15 minutes = 900000 milliseconds
      1 hour = 3600000 milliseconds in fixed-delay below.
      It is not supported if fixed-delay is less than three second (3000 milliseconds). -->
    <task:scheduled ref="rtLogFilesPublisher" method="publishFilesToReSA" fixed-delay="900000" />
    <!-- You can also use "cron syntax". This simplistic example publishes files once every 5 minutes -->
    <!-- <task:scheduled ref="rtLogFilesPublisher" method="publishFilesToReSA" cron="0 */5 * * * ?"/> -->
  </task:scheduled-tasks> <task:scheduler id="rtlogScheduler" />
</beans>
```

### 3. Customization out of box configuration

To customize RTLogMappingConfig.xml and RTLogFormatConfig.xml, you can obtain your out-of-box version in the rtlog-generator.war file under WEB-INF\lib\config.jar\resources\resa-cs for Sales Audit integrations (deliveryTarget = resa\_cs) or WEB-INF\lib\config.jar\resources\resa-onprem for ReSA On-premise integrations (deliveryTarget = resa\_onprem).

Customized copies of RTLogMappingConfig.xml and RTLogFormatConfig.xml are placed in the configuration directory defaulting to C:\<rtlog-generator-config> on Microsoft Windows or /usr/local/<rtlog-generator-config> on Linux OS.

- RTLogFormatConfig.xml:

This file specifies the format of the RTLog record as specified by Sales Audit. You can modify this file.

- RTLogMappingConfig.xml:

The RTLog Generator application relies heavily on the XML-based mapping which provides extensibility and a way to maintain/upgrade features for the application. This file can be used to override all the field values for either mapping strategy:

- FieldMapperThenValueMapping:

The RecordValue attribute values as shown in the following example can be changed:

```
<MAP sourceField="tenderId" targetRecord="TransactionHeaderTotal"
targetField="ReferenceNumber1"
mappingStrategyOrder="FieldMapperThenValueMapping"
fieldMapper="trnHeaderTotalMapper">
  <VALUE_MAPPINGS handleNotFound="success"> <VALUE_MAPPING
sourceValue="GIFT_CERTIFICATE" RecordValue="GIFTCERT" />
  <VALUE_MAPPING sourceValue="HOUSE_ACCOUNT" RecordValue="HACCNT" />
  <VALUE_MAPPING sourceValue="ISSUE_STORE_CREDIT"
RecordValue="ISTCRDT" />
  <VALUE_MAPPING sourceValue="ISSUE_MERCHANDISE_CREDIT_CARD"
RecordValue="IMCCARD" />
  <VALUE_MAPPING sourceValue="ISSUE_XPAY_GIFT_CARD"
RecordValue="IXPAYGC" />
  <!--For e.g above given value can be changed as shown here.-->
  <VALUE_MAPPING sourceValue="ISSUE_XPAY_GIFT_CARD"
RecordValue="SAMPLE_IXPAYGC" />
  <VALUE_MAPPING sourceValue="MALL_CERTIFICATE"
RecordValue="MALLCERT" />
  <VALUE_MAPPING sourceValue="MERCHANDISE_CREDIT_CARD"
RecordValue="MCCARD" />
  <VALUE_MAPPING sourceValue="PAYPAL" RecordValue="PAYPAL" />
  <VALUE_MAPPING sourceValue="COUPON" RecordValue="QPON" />
  <VALUE_MAPPING sourceValue="ROOM_CHARGE" RecordValue="ROOMCHAG" />
  <VALUE_MAPPING sourceValue="RELOAD_XPAY_GIFT_CARD"
RecordValue="RXPAYGC" />
  <VALUE_MAPPING sourceValue="RELOAD_MERCHANDISE_CREDIT_CARD"
RecordValue="RMCCARD" />
  <VALUE_MAPPING sourceValue="STORE_CREDIT" RecordValue="STCRDT" />
  <VALUE_MAPPING sourceValue="XPAY_GIFT_CARD" RecordValue="XPAYGC" />
</VALUE_MAPPINGS>
</MAP>
```

- No mappingStrategyOrder and fieldMapper attributes are defined.

The RecordValue attribute values shown in the following example can be changed or a new value can be added:

```
<MAP sourceField="reason" targetRecord="TransactionHeader"
targetField="ReasonCode">
  <VALUE_MAPPINGS handleNotFound="nextMapping">
  <VALUE_MAPPING sourceValue="PI1" RecordValue="PI1"/>
  <VALUE_MAPPING sourceValue="PI2" RecordValue="PI2"/>
```

```

<VALUE_MAPPING sourceValue="PI3" RecordValue="PI3"/>
<VALUE_MAPPING sourceValue="PO1" RecordValue="PO1"/>
<VALUE_MAPPING sourceValue="PO2" RecordValue="PO2"/>
<VALUE_MAPPING sourceValue="PO3" RecordValue="PO3"/>
<VALUE_MAPPING sourceValue="PO4" RecordValue="PO4"/>
<VALUE_MAPPING sourceValue="PO5" RecordValue="PO5"/>
<VALUE_MAPPING sourceValue="SAMPLE" RecordValue="SAMPLE_VALUE"/>
</VALUE_MAPPINGS>
</MAP>

```

 **Note:**

For more information on how to customize the RTLog Generator, see the *Retail Xstore - RTLog Generator Extension Guidelines (Doc ID 2174095.1)* on <https://support.oracle.com>.

## Deployment

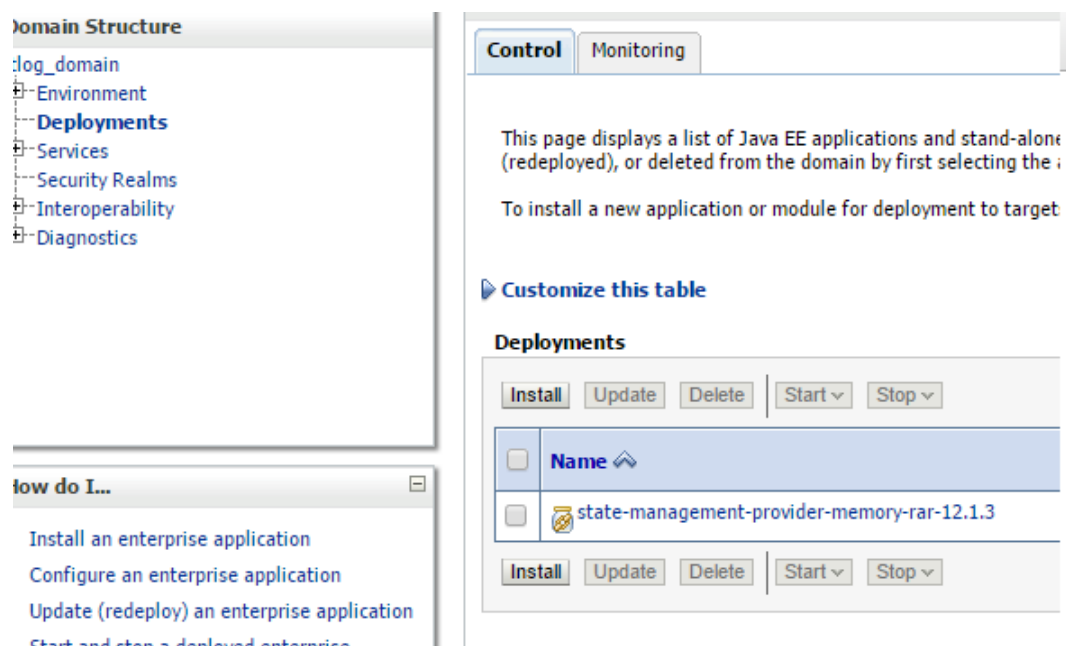
If you are deploying in a cluster, first set up a WebLogic cluster. For more information, see "[WebLogic Cluster Setup](#)".

This section covers the deployment in both a clustered and non-clustered environment.

To deploy the RTLog Generator application:

1. Log in to the WebLogic 12 Server Administration Console (<http://<hostName>:<port>/console>).
2. Click the Deployment link from the left navigation menu.
3. Click **Install**.

**Figure 6-4 Administration Console Control Page**



**Domain Structure**

- log\_domain
  - Environment
  - Deployments**
  - Services
  - Security Realms
  - Interoperability
  - Diagnostics

**How do I...**

- Install an enterprise application
- Configure an enterprise application
- Update (redeploy) an enterprise application
- Start and stop a deployed enterprise

**Control** | **Monitoring**

This page displays a list of Java EE applications and stand-alone (redeployed), or deleted from the domain by first selecting the i

To install a new application or module for deployment to target

[Customize this table](#)

**Deployments**

	Name	Install	Update	Delete	Start	Stop
<input type="checkbox"/>	state-management-provider-memory-rar-12.1.3	Install	Update	Delete	Start	Stop

- Navigate to the rtlog-generator.war file directory. Select the rtlog-generator.war option.

**Figure 6-5 Administration Console Install Application Assistant Page**

The screenshot shows the 'Install Application Assistant' page in the Oracle WebLogic Server Administration Console. The left sidebar contains a 'Domain Structure' tree with 'Deployments' selected. The main area has a breadcrumb trail: Home > Summary of Environment > Summary of Servers > Summary of Deployments. Below the breadcrumb is a search bar and a 'Back Next Finish Cancel' navigation bar. The main content area is titled 'Install Application Assistant' and contains a section 'Locate deployment to install and prepare for deployment'. This section includes a 'Path:' field, a 'Recently Used Paths:' list, and a 'Current Location:' list. The 'Current Location:' list shows several directories, with 'rtlog-generator.war' selected.

- Click **Next** and then **Finish**. Once deployed, RTLog Generator should be listed as one of the deployed applications as shown in [Figure 6-6](#).

**Figure 6-6 Administration Console Summary of Deployments**

The screenshot shows the 'Summary of Deployments' page in the Oracle WebLogic Server Administration Console. The page has a breadcrumb trail: Home > Summary of Environment > Summary of Servers > Summary of Deployments. Below the breadcrumb is a search bar and a 'Messages' section with two green checkmarks: 'All changes have been activated. No restarts are necessary.' and 'The deployment has been successfully installed.' The main content area is titled 'Summary of Deployments' and includes a 'Control' tab and a 'Monitoring' tab. Below the tabs is a 'Customize this table' link and a 'Deployments' table. The table has columns for 'Name', 'State', 'Health', and 'Type'. The table contains two rows: 'rtlog-generator' (Active, OK, Web Application) and 'state-management-provider-memory-rar-12.1.3' (Active, OK, Resource Adapter). Below the table are 'Install', 'Update', 'Delete', 'Start', and 'Stop' buttons.

Name	State	Health	Type
rtlog-generator	Active	OK	Web Application
state-management-provider-memory-rar-12.1.3	Active	OK	Resource Adapter

Once the deployment is complete, following are the next steps:

- To deploy on a cluster, see "[Deployment of the RTLog Generator Application on a Cluster](#)".

- To enable security for the RTLog Generator application, see "[Security Configuration](#)". When deploying in a non-clustered environment, continue at this section.

## WebLogic Cluster Setup



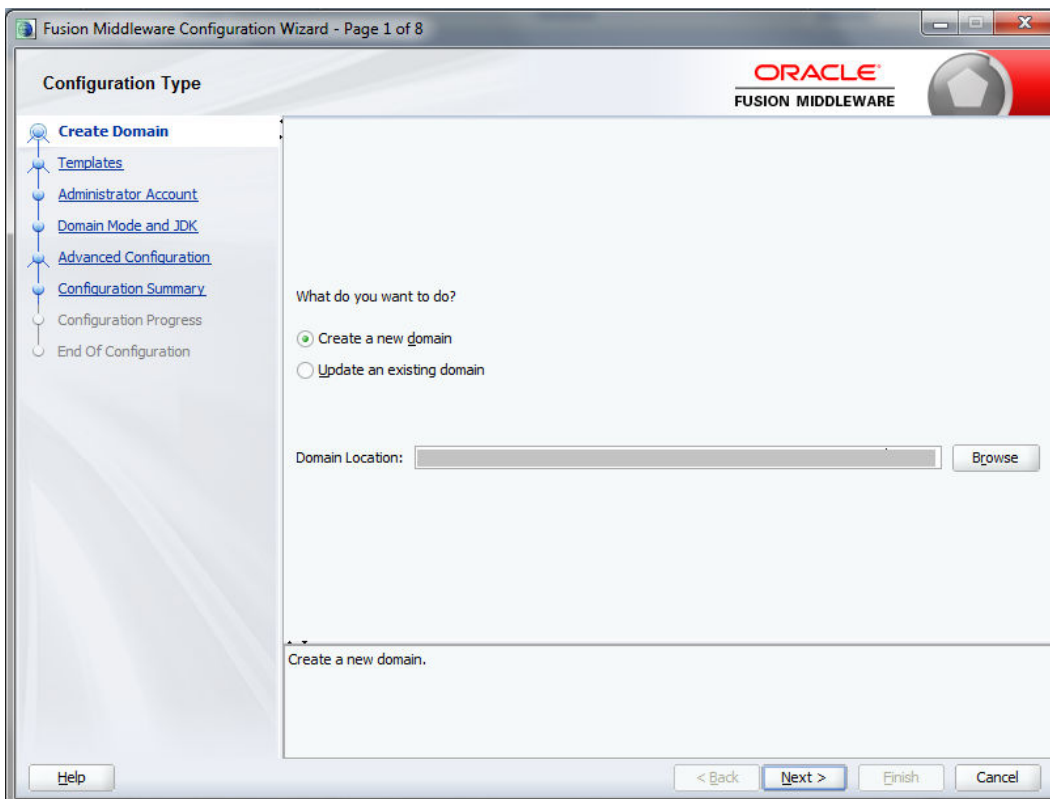
### Note:

WebLogic Server 14c must be installed on all the clustered machines and the exact same installed directory location must be used on all the machines.

To set up the cluster to use RTLog Generator:

1. Start the WebLogic configuration wizard on one machine where the Administration server needs to reside.
2. On the Configuration Wizard Configuration Type page, select **Create a new domain**. Enter or browse to the location for the domain. Click **Next**.

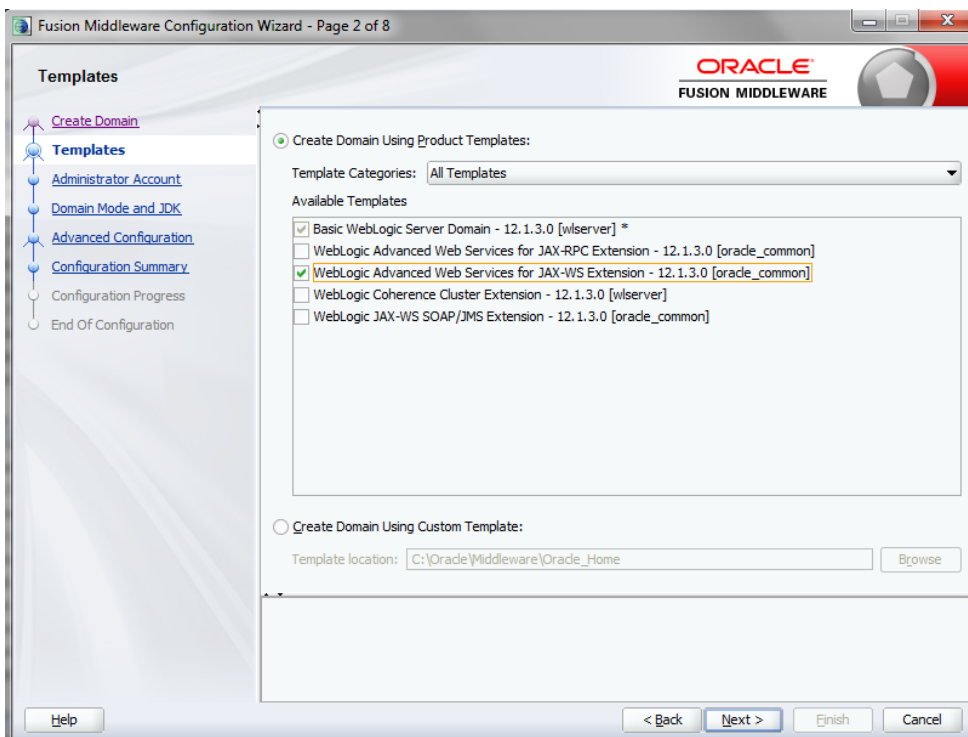
**Figure 6-7 Configuration Wizard Configuration Type Page**



3. On the Templates page, select the supported products and click **Next**. It is recommended to select the following:

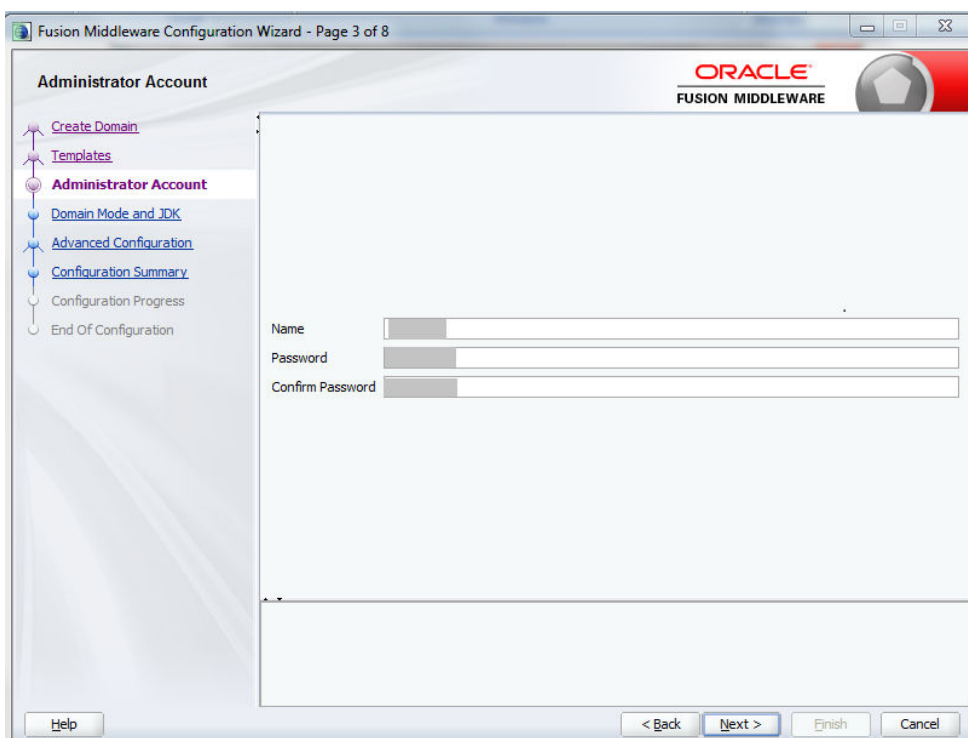
WebLogic Advanced Web Services for JAX-WS Extension

**Figure 6-8 Configuration Wizard Templates Page**



4. On the Administrator Account page, enter the Administrator user name and password. Enter the password a second time to confirm. Click **Next**.

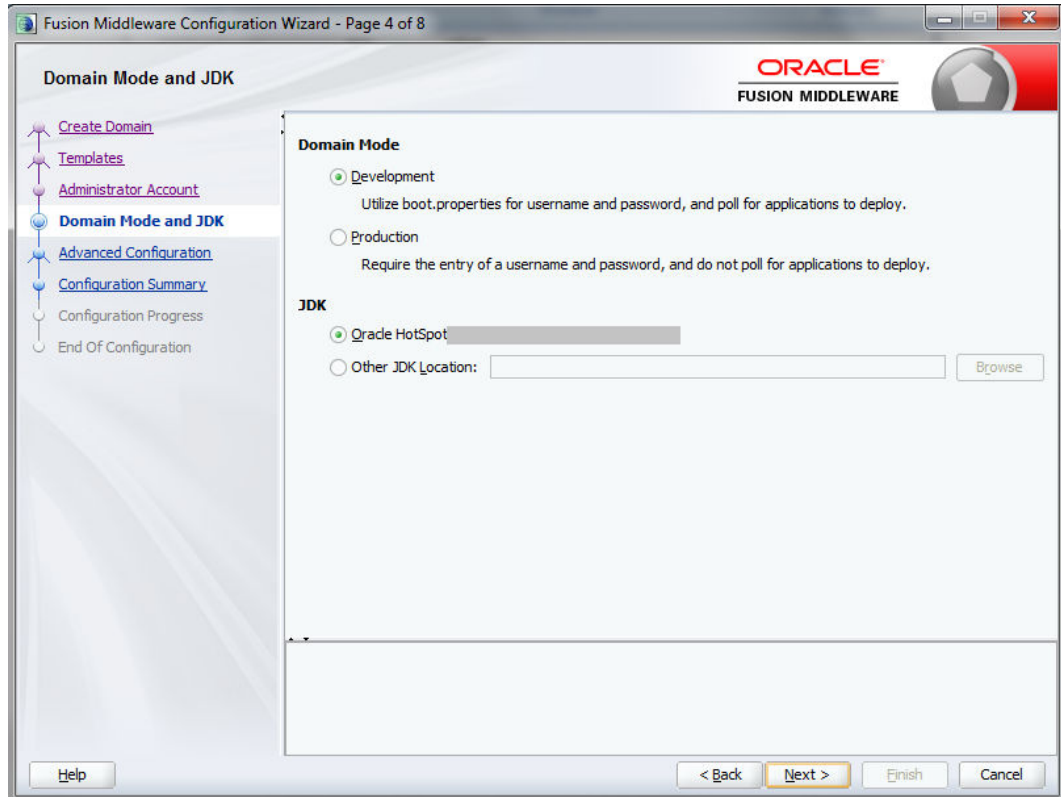
**Figure 6-9 Configuration Wizard Administrator Account Page**



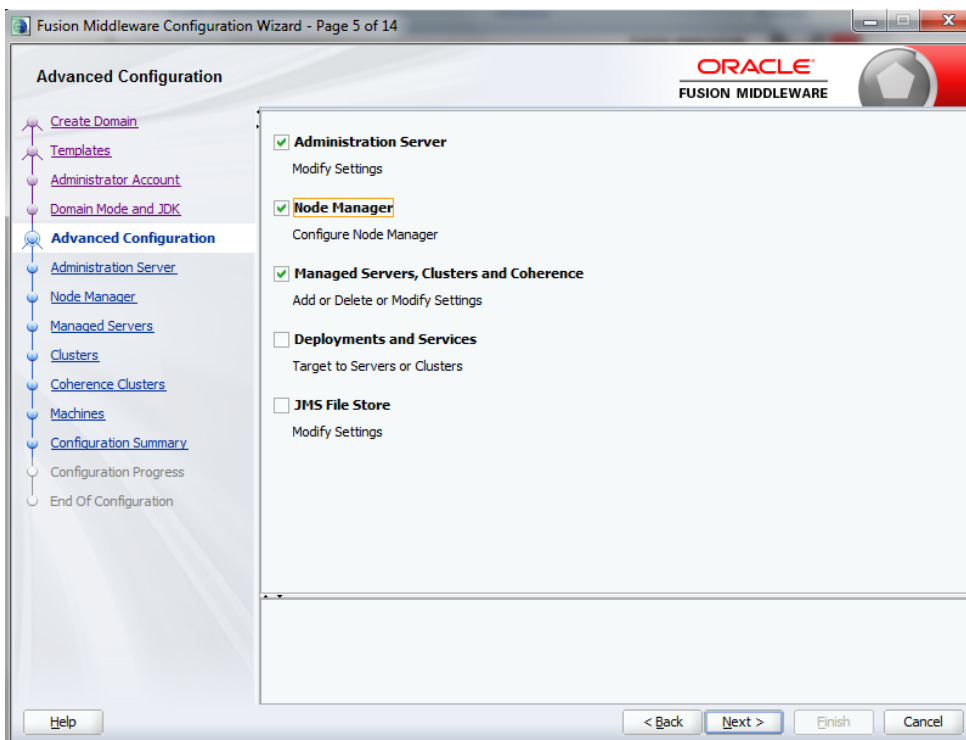


5. On the Domain Mode and JDK page, select either Development or Production mode. For production mode, you need to manually create the boot.properties file. Click **Next**.

**Figure 6-10 Configuration Wizard Domain Mode and JDK**



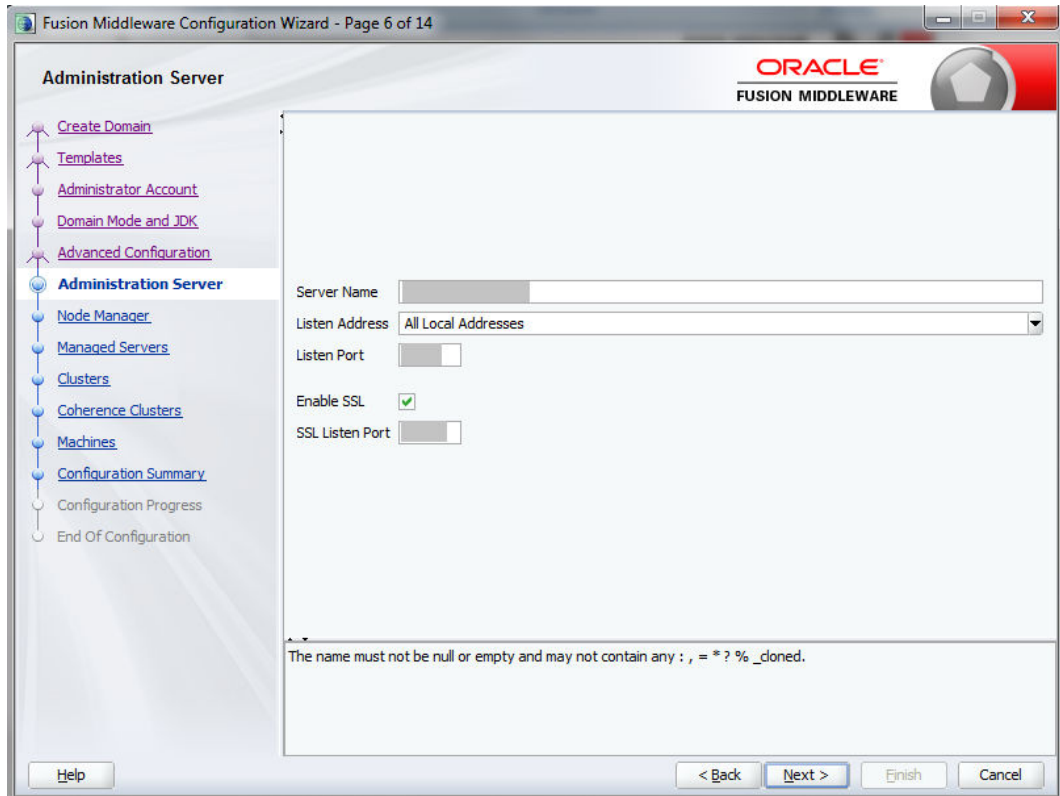
6. On the Advanced Configuration page, select the Administration Server, Node Manager, and Managed Servers, Clusters and Coherence options. Click **Next**.

**Figure 6-11 Configuration Wizard Advanced Configuration Page**

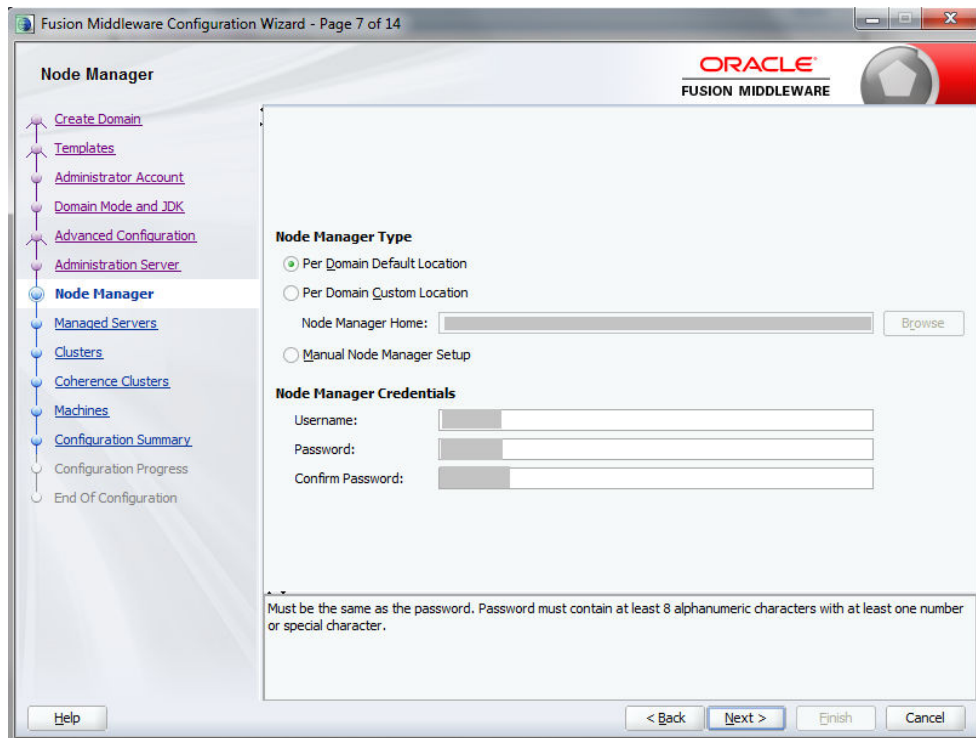
7. On the Administration Server page, enter the values to configure the administration server. The administrator server controls all the managed servers that are part of the cluster.

Enter the server name, select Enable SSL, and enter the listen ports. For the listen address, enter the Machine\_1 IP address. Machine\_1 will be part of the cluster and will have the administrator server running on it. Click **Next**.

Figure 6-12 Configuration Wizard Administration Server Page

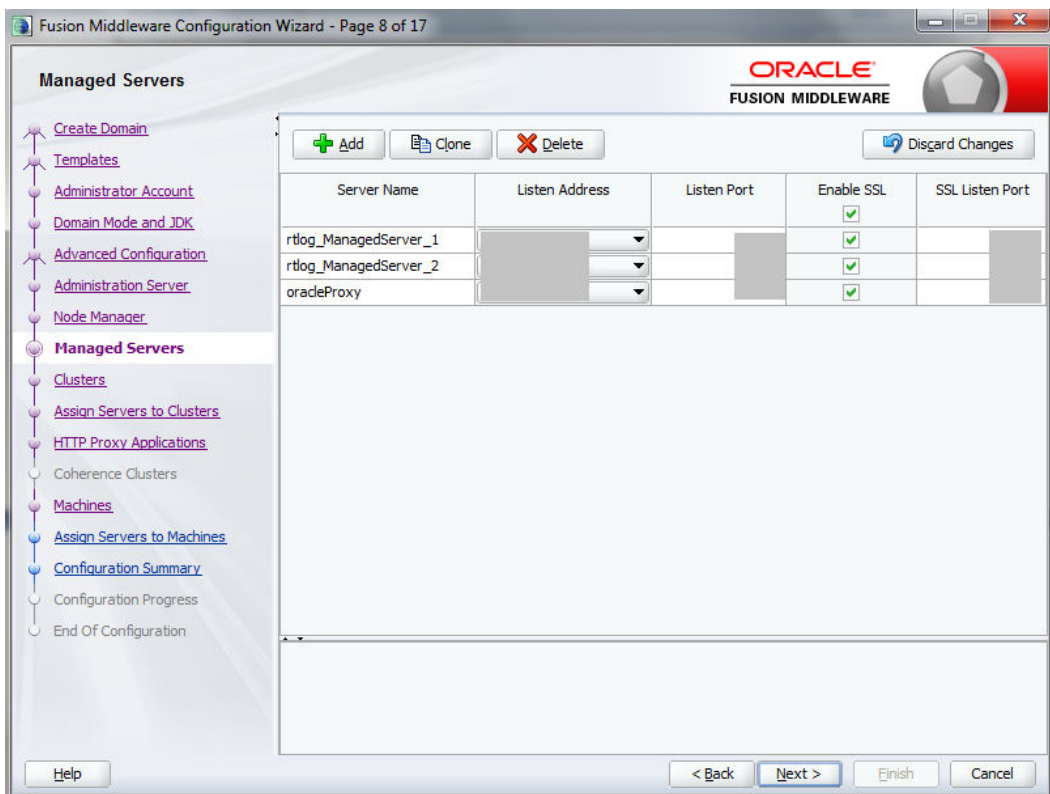


8. On the Node Manager page, do not change the default node manager settings. For the credentials, enter weblogic as the user name and enter the password. Click **Next**.

**Figure 6-13 Configuration Wizard Node Manager Page**

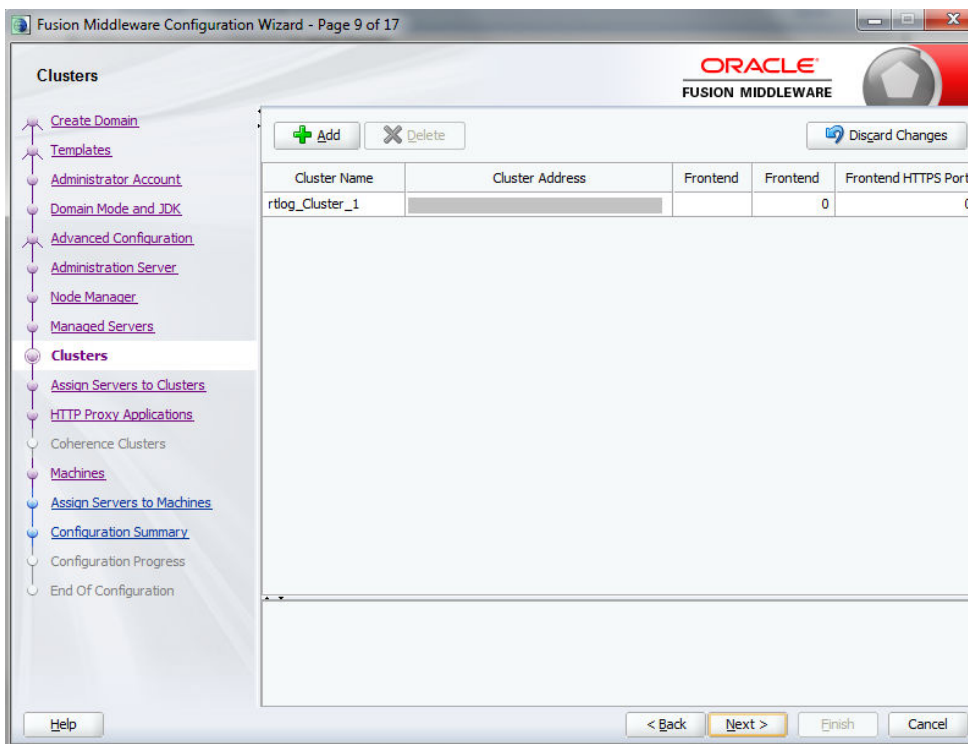
9. On the Managed Servers page, add and configure each managed server:
  - a. For the listen address, enter the IP address of the managed server. Do not select All local Addresses.
  - b. `rtlog_ManagedServer_1` will be running on `Machine_1` in this configuration. Enter the `Machine_1` IP address for the server.
  - c. `rtlog_ManagedServer_2` will be running on `Machine_2` in this configuration. Enter the `Machine_2` IP address for this server.
  - d. `oracleProxy` is running on `Machine_1`, but is not a part of the cluster. It is an Oracle proxy HTTP cluster servlet used for failover and load balancing purposes. Enter the `Machine_1` IP address for this server.
  - e. Enable SSL for all the managed servers.
  - f. Click **Next**.

Figure 6-14 Configuration Wizard Managed Servers Page



10. On the Clusters page, add and configure the cluster. Enter the cluster name followed by the cluster address, that is, IP address1:port1, IP address2:port2, so on. Click **Next**.

**Figure 6-15 Configuration Wizard Clusters Page**

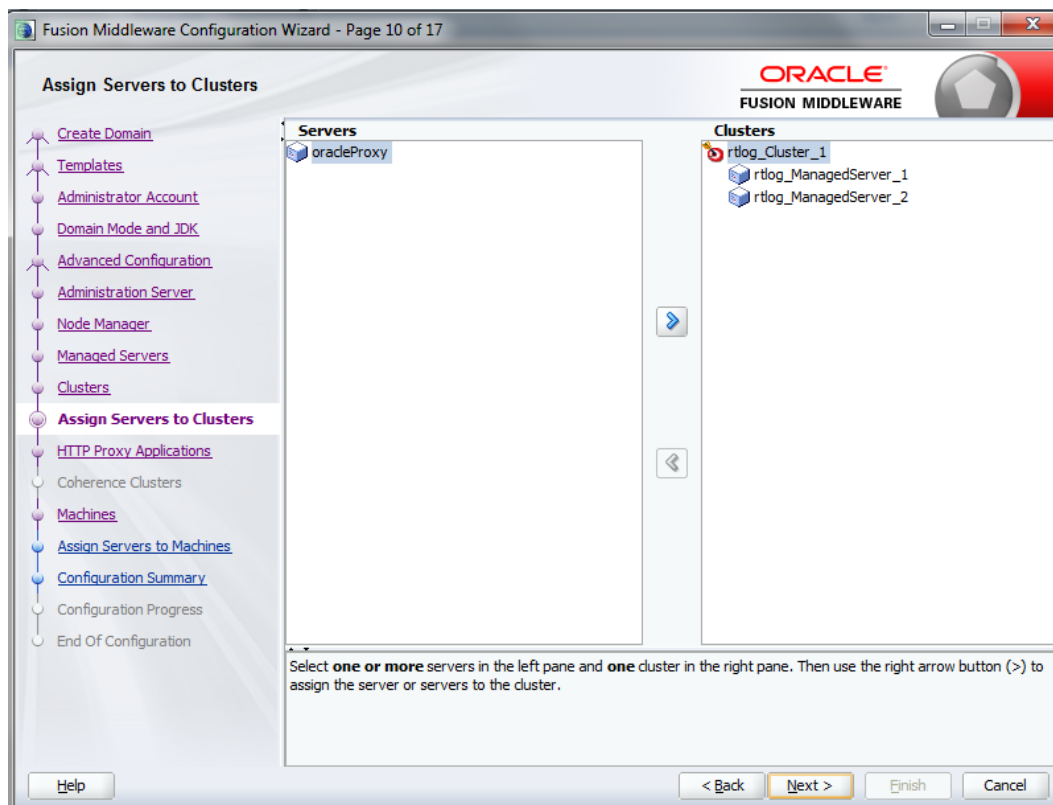


11. On the Assign Servers to Cluster page, assign the managed servers to the cluster. and click **Next**.

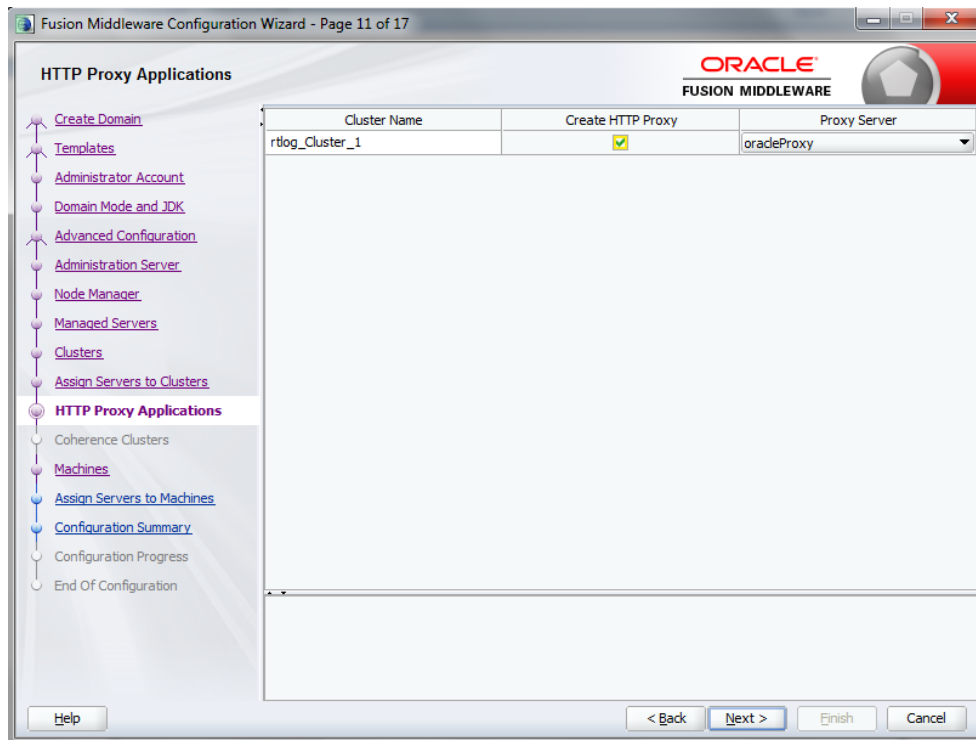
 **Note:**

Do not include the Oracle Proxy as part of the cluster.

Figure 6-16 Configuration Wizard Assign Servers to Clusters Page



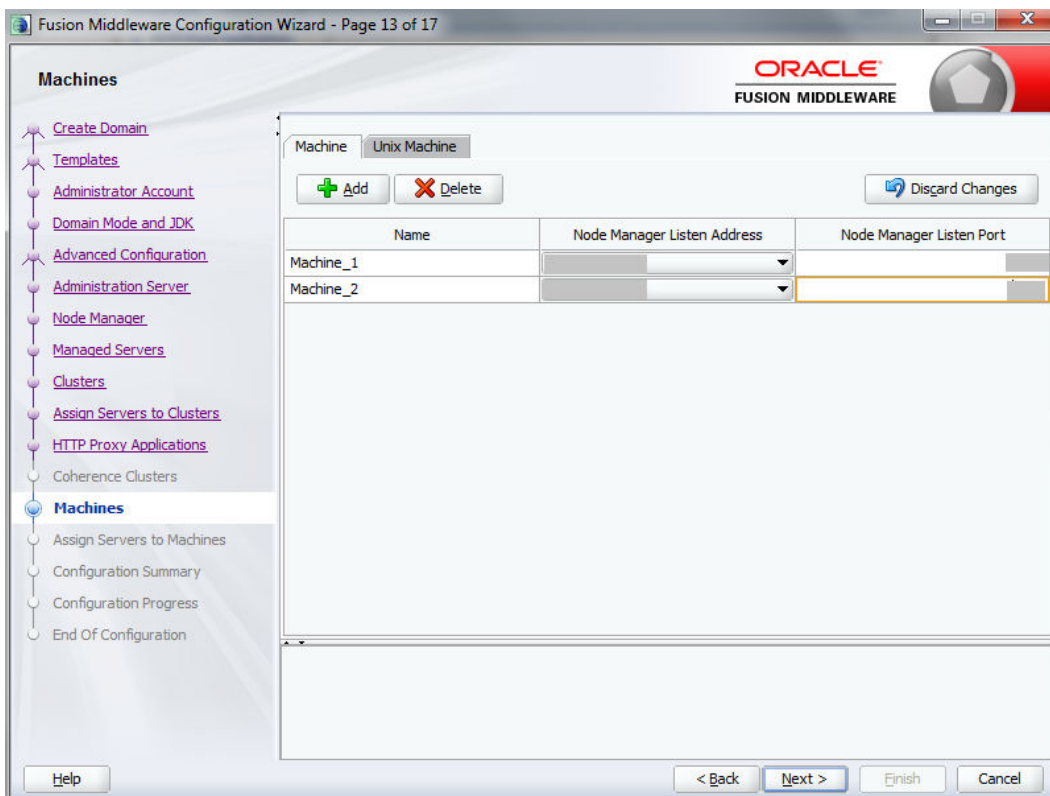
12. On the HTTP Proxy Applications page, select Create HTTP Proxy and then select the server from the drop-down list. By default, it should have already been selected. Click **Next**.

**Figure 6-17 Configuration Wizard HTTP Proxy Applications Page**

13. On the Machines page, add and configure each machine. To add Machine\_1 and Machine\_2, click **Add** and enter the respective IP addresses. This configuration is for setting up the Node managers on both the machines. Since these node managers are physically separated, you can select the same host. Click **Next**.

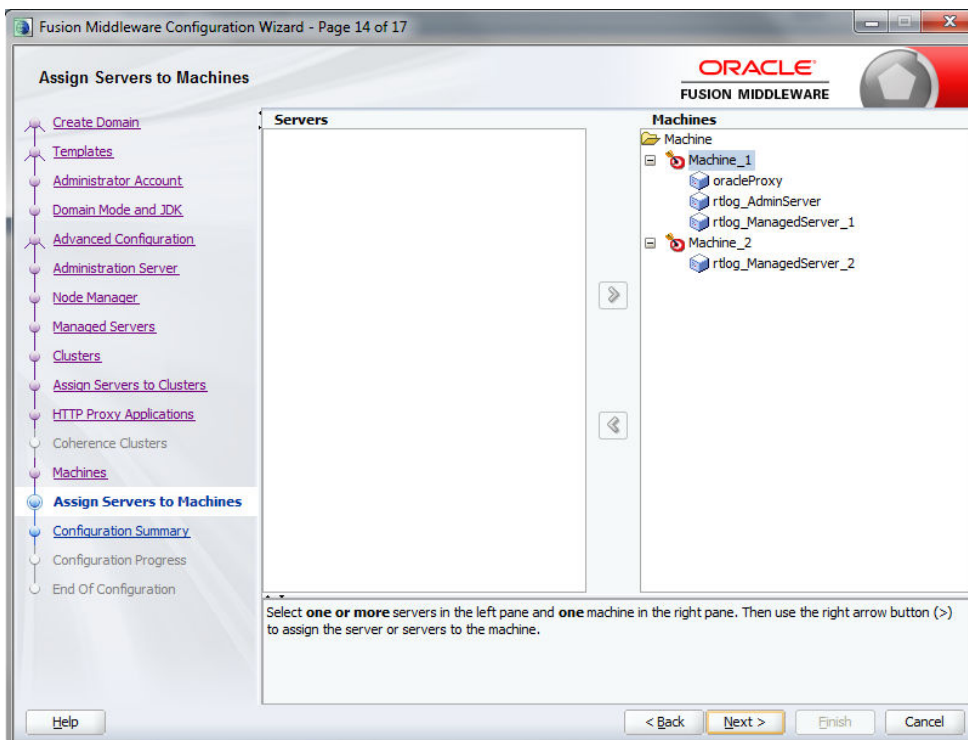


Figure 6-18 Configuration Wizard Machines Page



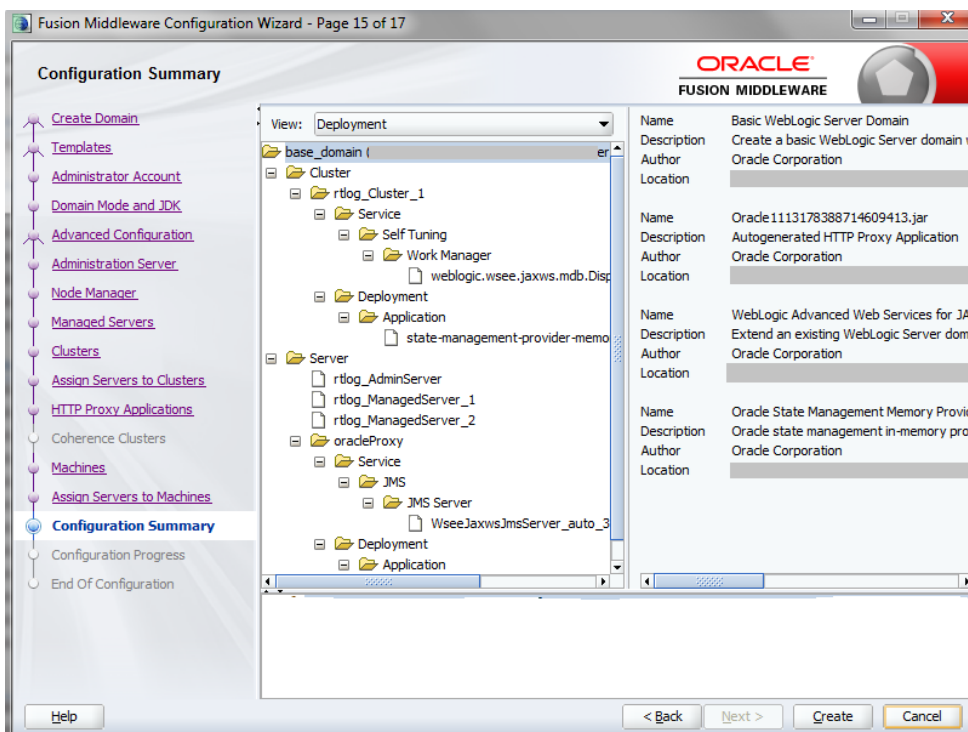
14. On the Assign Servers to Machines page, assign the servers to the machines. In this example, Oracle proxy (load balancer), Administration server, and one managed server are configured on Machine\_1. Another managed server is configured on Machine\_2. Click **Next**.

**Figure 6-19 Configuration Wizard Assign Servers to Machines Page**



15. On the Configuration Summary page, verify the selected configuration. Click **Create**. The domain is created.

**Figure 6-20 Configuration Wizard Configuration Summary Page**



To complete the configuration of the cluster:

1. Start and stop the node manager. You can find the start up script inside the newly created domain, that is, the `<rtlog_clust_domain>\bin` directory.
2. In the `nodemanager.properties` file, set `SecureListener=false`. This file is found in the `<rtlog_clust_domain>\nodemanager` directory.
3. Edit the `<rtlog_clust_domain>\config\config.xml` file. Use plain communication for the node managers by updating the communication type for the node managers as shown in the following example:

```
<machine>
  <name>Machine_1</name>
  <node-manager>
    <name>Machine_1</name>
    <nm-type>Plain</nm-type>
    <listen-address>xxx.x.xxx.xx</listen-address>
  </node-manager>
</machine>
<machine>
  <name>Machine_2</name>
  <node-manager>
    <name>Machine_2</name>
    <nm-type>Plain</nm-type>
    <listen-address>xxx.x.xxx.xxx</listen-address>
  </node-manager>
</machine>
```

4. If the `<rtlog_clust_domain>` is created with the production mode option:
  - a. Run `<rtlog_clust_domain>\startWeblogic.cmd` for the first time. This creates the servers folders under the domain. Enter the administration user name and password.
  - b. Create a folder named `security` under the `<rtlog_clust_domain>\servers\Admin` server.
  - c. Create the `boot.properties` file with the following entries under the `security` folder:

```
password=%admin_server_password%
username=%admin_server_username%
```

`%admin_server_password%` and `%admin_server_username%` are the administrator password and user name.

- d. After making these changes, if there are any running processes, shut down all the processes.
5. Pack the created domain:
  - a. Stop both the Node manager and Admin Server if not already stopped. Use the packing utility to pack the domain on the machine. This utility is found in the following location:

```
<WL_HOME>\wlserver\common\bin\pack.cmd
```

Run the following command:

```
pack.cmd -domain=<WL_HOME>\user_projects\domains\rtlog_cluster_domain -
template=<WL_HOME>\user_projects\domains\rtlog_cluster_domain\rtlog_cluster_d
omain.jar -template_name="RTLog C domain"
```

This command creates a jar named `rtlog_cluster_domain.jar` by packing the complete domain into it. Copy the `rtlog_cluster_domain.jar` to `Machine_2` and unpack it.

- b. Create a `<user_templates>` directory on the remote machine and copy the `rtlog_cluster_domain.jar` file to this location. Run the following command:

```
unpack.cmd -
template=<WL_HOME>\user_projects\domains\<user_templates>\rtlog_cluster_domain.jar -
domain=<WL_HOME>\user_projects\domains\rtlog_cluster_domain
```

- c. Start the Administration server and node manager on Machine\_1.
6. To enroll the remote (Machine\_2) node manager:
- a. Run the WebLogic scripting utility. This utility can be found at the following location: <WL\_HOME>\wlserver\common\bin\as\_wlst.cmd
  - b. Start the node manager on this machine, in this example, Machine\_2. The node manager must be started before connecting to the Machine\_1 Administration server.
  - c. Run the following command:  

```
connect ('adminServer_username', 'adminServer_password', 't3://Machine_1_IPAddress:Admin_server_unsecured_port')
```
  - d. Once the connect command shows the connection completed successfully, run the following command:  

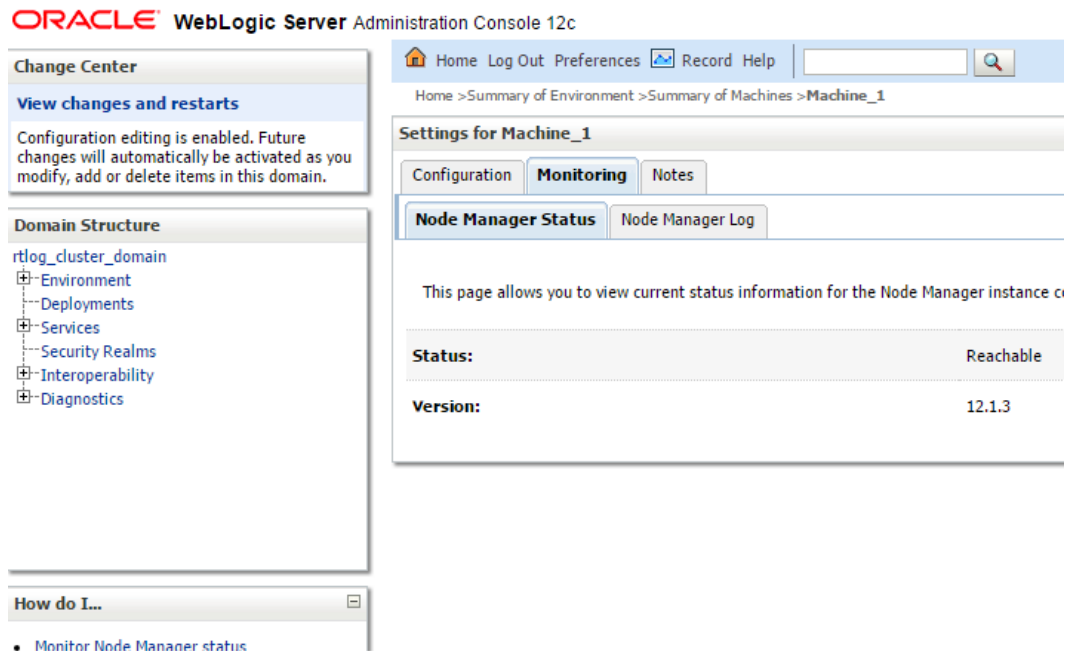
```
nmEnroll ('<WL_HOME>/user_projects/domains/<rtlog_cluster_domain>', '<WL_HOME>/user_projects/domains/<rtlog_cluster_domain>/nodemanager')
```
  - e. When the command completes successfully, run `exit ()`.

 **Note:**

Repeat Step 6 for all the remote machines that will be in the cluster on which managed servers will be running. This step used Machine\_2 as the example.

7. Log in to the Administration Server console and make sure all the node managers are reachable. This can be found under Machines. Repeat this step for all the clustered machines to ensure all of them are reachable.

**Figure 6-21 Administration Console Settings Page**



8. For each managed server, select the Server Start tab. In the Arguments text box, add the following if it does not already exist:

```
-Xms512m -Xmx512m -XX:CompileThreshold=8000 -XX:PermSize=512m -XX:MaxPermSize=512m
```

Figure 6-22 Administration Console Configuration Page

Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

**Domain Structure**

- rtlog\_cluster\_domain
  - Environment
  - Deployments
  - Services
  - Security Realms
  - Interoperability
  - Diagnostics

**How do I...**

- Configure startup arguments for Managed Servers
- Start Managed Servers from the Administration Console
- Shut down a server instance

**System Status**

Health of Running Servers

Failed	(0)
Critical	(0)
Overloaded	(0)
Warning	(0)
OK	(4)

**Settings for rtlog\_ManagedServer\_1**

Configuration Protocols Logging Debug Monitoring Control Deployments Serv

General Cluster Services Keystores SSL Federation Services Deployment Migra

Save

Node Manager is a WebLogic Server utility that you can use to start, suspend, shut down, and restart machine.

**Java Home:**

**Java Vendor:**

**BEA Home:**

**Root Directory:**

**Class Path:**

**Arguments:**

```
-Xms256m -Xmx512m -XX:CompileThreshold=8000 -XX:PermSize=128m -XX:MaxPermSize=256m
```

If you want to configure the non-default external RTLog configuration directory, include an additional JVM argument:

```
-Drtloggen.config.dir=C:/<rtlog-gen-config_1>/
```

**Note:**

The server-start arguments only work when you are using a NodeManager. If you do not have a NodeManager, specify the JVM argument in the start up scripts. You can also configure the same ext directory location in the RTLog Generator WAR's context-param. For more information, see "[Configuration](#)".

- Start all the managed servers including the Oracle proxy. [Figure 6-23](#) shows an example of the list of managed servers.

**Figure 6-23 Administration Console List of Servers**

Servers (Filtered - More Columns Exist)

New Clone Delete Showing 1 to 4 of 4

Name	Type	Cluster	Machine	State	Health	Listen Port
loadBalancerProxy	Configured		Machine_1	RUNNING	OK	
rtlog_AdminServer(admin)	Configured		Machine_1	RUNNING	OK	
rtlog_ManagedServer_1	Configured	rtlog_Cluster_1	Machine_1	RUNNING	OK	
rtlog_ManagedServer_2	Configured	rtlog_Cluster_1	Machine_2	RUNNING	OK	

New Clone Delete Showing 1 to 4 of 4

## Deployment of the RTLog Generator Application on a Cluster

To deploy the application:

1. Oracle proxy creates a web application by creating the web.xml and weblogic.xml files which can be found in the following directory:

```
<WL_HOME>\user_projects\domains\<rtlog_cluster_domain>\apps\OracleProxy4_rtlog_Cluster_1_oracleProxy\WEB-INF
```

You can modify the configurations provided in these two files and redeploy the application from the console by pointing it to this directory, that is, WEB-INF.

2. Navigate to the Administration Console home page and click Deployments in the left navigation menu. Figure 6-24 shows an example of the page before deploying the RTLog Generator application.

**Figure 6-24 Administration Console Deployments Page**

Deployments

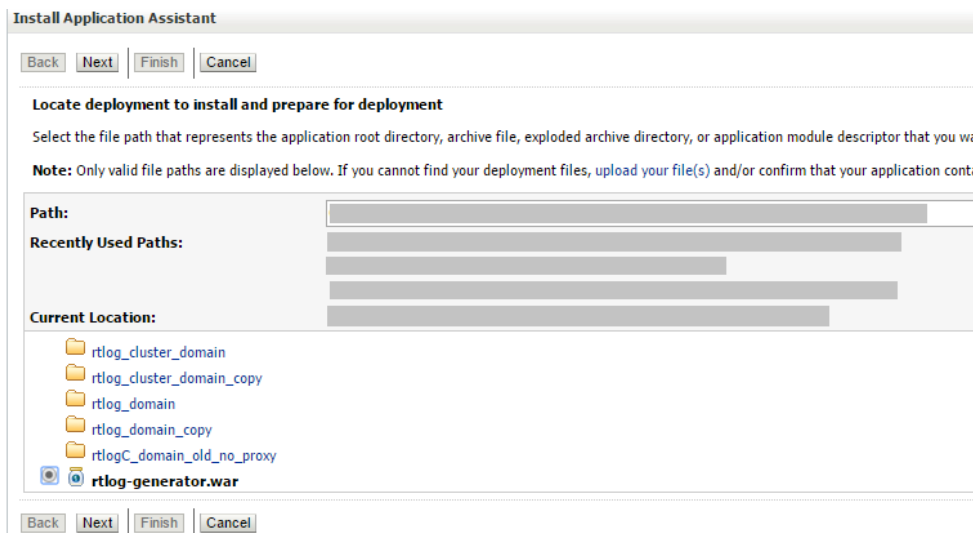
Install Update Delete Start Stop

Name	State	Health	Type
OracleProxy4_rtlog_Cluster_1_loadBalancerProxy	Active	OK	Web Application
state-management-provider-memory-rar-12.1.3	Active	OK	Resource Adapter

Install Update Delete Start Stop

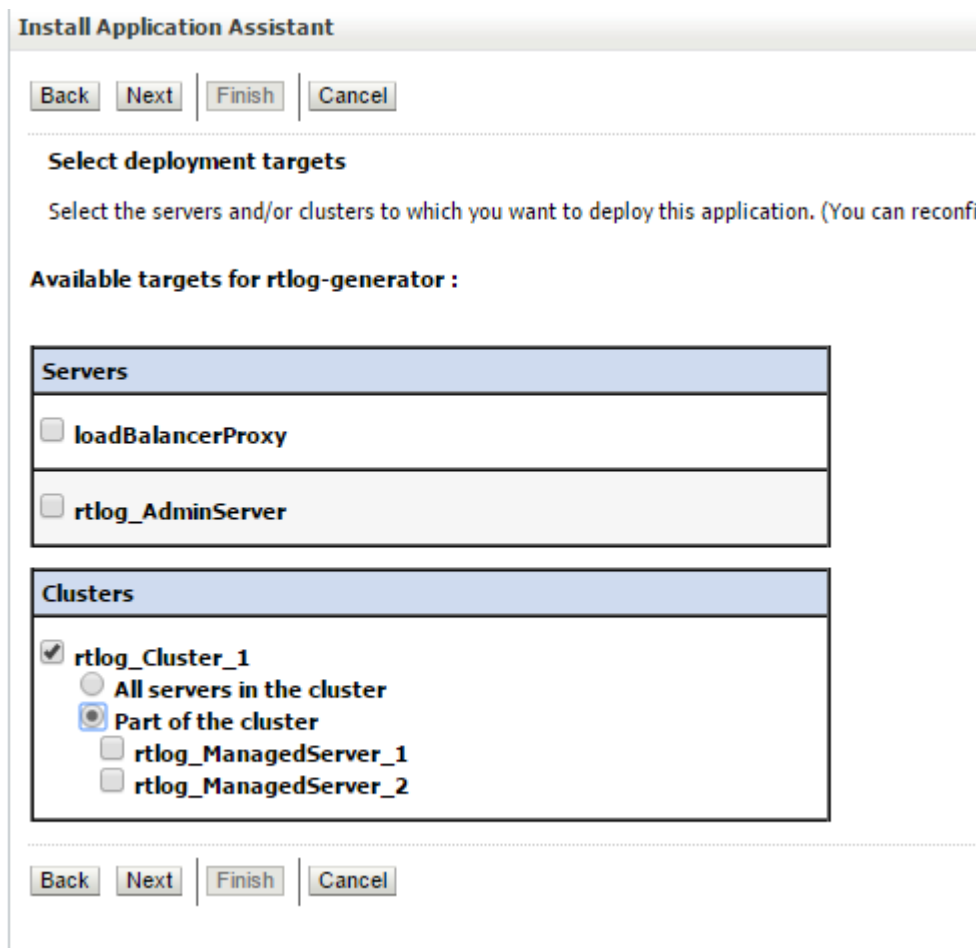
3. Click **Install**. The Install Application Assistant page appears. Select the path to the RTLog Generator WAR directory. Select the rtlog-generator.war option. Click **Next**.

**Figure 6-25 Administration Console Install Application Assistant Page**



4. Select only the managed servers and click **Next** to finish the deployment.

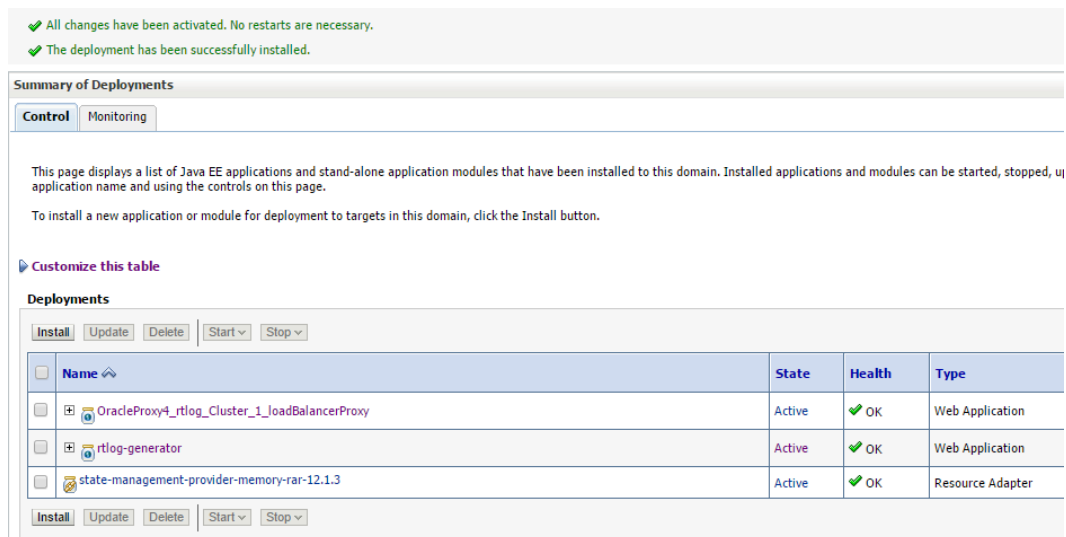
**Figure 6-26 Install Application Assistant Select Deployment Targets Page**





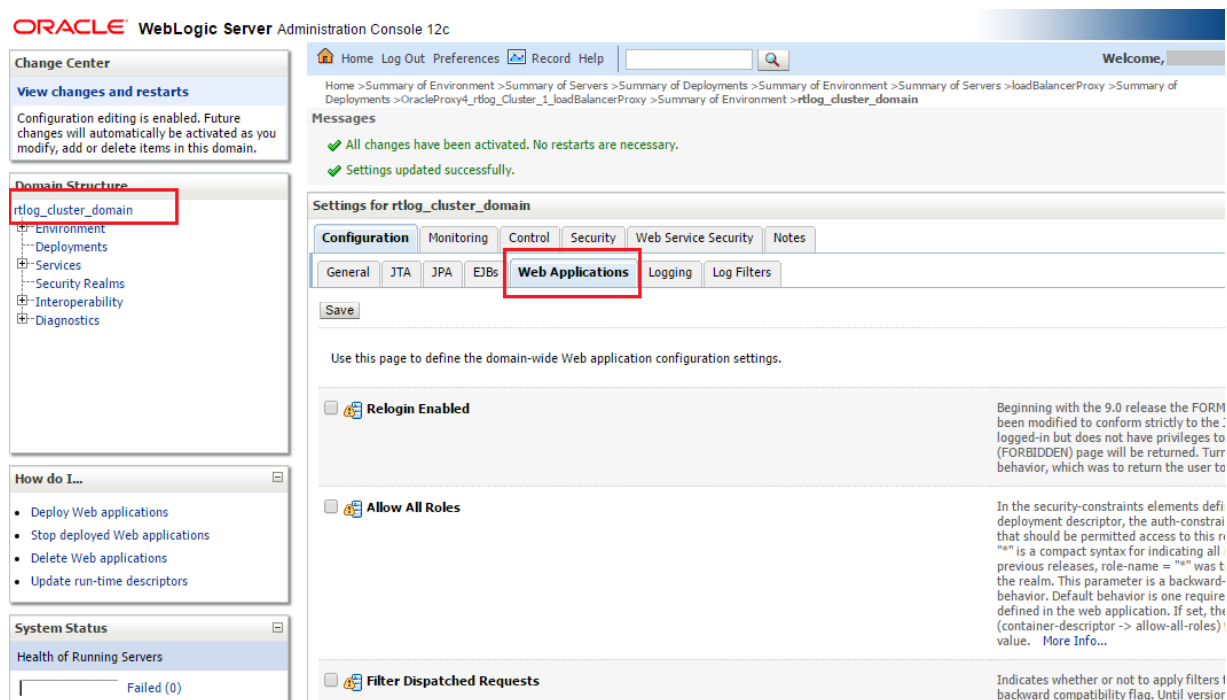
After it is successfully deployed, the RTLog Generator application appears in the Summary of Deployments page.

**Figure 6-27 Summary of Deployments Page**



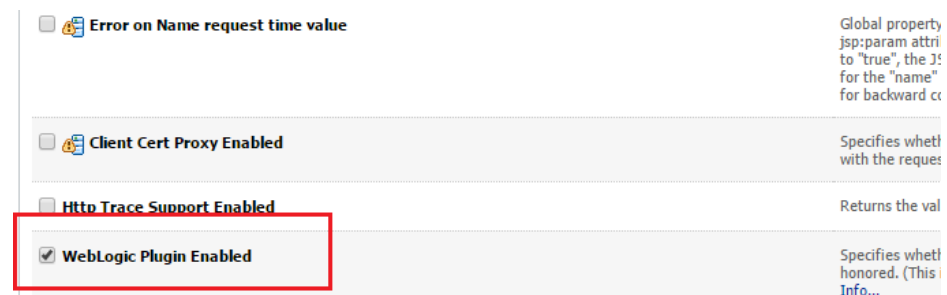
5. To enable container and transport level security, see "Security Configuration".
6. To enable the WebLogic Plugin Enabled parameter from the cluster domain:
  - a. Click the <rtlog\_cluster\_domain> link in the left navigation menu. Navigate to the Web Application tab.

**Figure 6-28 Administration Console Settings Page**



- b. Scroll down the page and select WebLogic Plugin Enabled. Click **Save**.

**Figure 6-29 WebLogic Plugin Enabled Parameter**



## Security Configuration

The RTLog Generator application is secured by leveraging two levels of security:

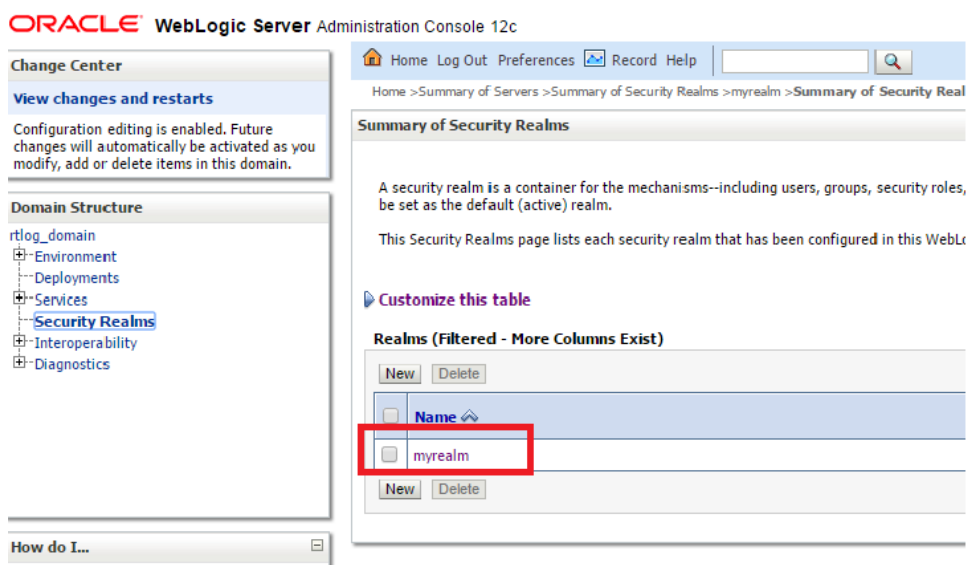
- Container level security: Basic HTTP authentication by setting up the security realm in WebLogic. To configure this security, see "[Container Level Security](#)".
- Transport level security: SOAP requests are sent over the secured protocol (HTTPS) by configuring the keystore/truststore in the WebLogic domain and importing the public certificate into Xstore Office's (client) truststore. To configure this security, see "[Transport Level Security](#)".

## Container Level Security

The following steps assume that a domain has been created with secure port (HTTPS) enabled. To configure container level security:

1. Start the WebLogic server and log in to Administration Console.
2. Click Security Realms in the left navigation menu.

**Figure 6-30 Administration Console Summary of Security Realms Page**



3. In the list of realms on the Summary of Security Realms page, select myrealm.
4. Select Users and Groups and then the Groups tab. To create a new group, click **New**. Enter a group name, for example RTLogUserGroup, and click **OK**.

**Figure 6-31 Create a New Group Page**

ORACLE WebLogic Server Administration Console 12c

Change Center  
View changes and restarts  
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

Domain Structure  
rtlog\_domain  
├ Environment  
├ Deployments  
├ Services  
├ Security Realms  
├ Interoperability  
└ Diagnostics

How do I...  
• Create groups  
• Modify groups  
• Delete groups

Home > Summary of Servers > Summary of Security Realms > myrealm > Summary of Security Realms > myrealm

### Create a New Group

OK Cancel

**Group Properties**  
The following properties will be used to identify your new Group.  
\* Indicates required fields

What would you like to name your new Group?  
**\* Name:**

How would you like to describe the new Group?  
**Description:**

Please choose a provider for the group.  
**Provider:**

OK Cancel

5. Select the Users tab and click **New**. Enter a user name and password and click **OK**.

**Figure 6-32 Create a New User Page**

ORACLE WebLogic Server Administration Console 12c

Change Center  
View changes and restarts  
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

Domain Structure  
rtlog\_domain  
├ Environment  
├ Deployments  
├ Services  
├ Security Realms  
├ Interoperability  
└ Diagnostics

How do I...  
• Create users  
• Modify users  
• Delete users  
• Create groups  
• Manage users and groups

System Status  
Health of Running Servers

Home > Summary of Servers > Summary of Security Realms > myrealm > Summary of Security Realms > myrealm > Users and Groups > rtlogwsuser > Users and G

### Create a New User

OK Cancel

**User Properties**  
The following properties will be used to identify your new User.  
\* Indicates required fields

What would you like to name your new User?  
**\* Name:**

How would you like to describe the new User?  
**Description:**

Please choose a provider for the user.  
**Provider:**

The password is associated with the login name for the new User.  
**\* Password:**   
**\* Confirm Password:**

OK Cancel

- In the list of users, click the newly created user.

**Figure 6-33 Users Page**

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area displays the 'Users' page for a security realm named 'myrealm'. A message at the top indicates 'User created successfully'. Below this, there are tabs for 'Users' and 'Groups'. A table lists several users, with 'rtloguser' highlighted by a red box. The table has columns for 'Name' and 'Description'.

Name	Description
OracleSystemUser	Oracle application software system user.
rtloguser	
rtlogws	rtlog webservice password (rtlogws123)
rtlogwsuser	
ssss	
weblogic	This user is the default administrator.

- Select the Groups tab. Assign this user to the same group created in Step 4.

**Figure 6-34 User Settings Page**

The screenshot shows the Oracle WebLogic Server Administration Console interface for the 'rtloguser' user settings. The 'Groups' tab is selected. The 'Parent Groups' section shows a list of available groups on the left and a 'Chosen' list on the right. 'RTLogUserGroup' is selected in the 'Chosen' list, highlighted by a red box.

Available	Chosen
<input type="checkbox"/> Administrators	<input checked="" type="checkbox"/> RTLogUserGroup
<input type="checkbox"/> AppTesters	
<input type="checkbox"/> CrossDomainConnectors	
<input type="checkbox"/> Deployers	
<input type="checkbox"/> Monitors	
<input type="checkbox"/> Operators	
<input type="checkbox"/> OracleSystemGroup	
<input type="checkbox"/> RTLogGenUsers	

- Enter the same user name and password created in Step 5 into Xstore Office's broadcaster configuration for the RTLog Generator Web service.

You should try the `MrJaxWsPortProxyFactoryBean` bean and create the encrypted values for the user name and password using the String Encryption Utility. For more information, see the *Oracle Retail Xstore Point of Service Implementation Guide*.

**Figure 6-35 Example of MrJaxWsPortProxyFactoryBean Update**

```
<bean id="ReSA_Broadcaster_jaxws_webllogic"
      class="com.micros_retail.xcenter.broadcast.MrJaxWsPortProxyFactoryBean" >

  <property name="endpointAddress" value="https://hostname:7002/rtlog-generator/service" />
  <property name="serviceInterface" value="com.micros_retail.xcenter.poslog.poslogobj.v2.PoslogObjReceiverApi" />
  <property name="wsdlDocumentUrl" value="classpath:wsdl/generic_poslog_object_v2/PoslogObjReceiverApiService.wsdl" />
  <property name="namespaceUri" value="http://v2.ws.poslog.xcenter.dtv/" />
  <property name="serviceName" value="PoslogObjReceiverApiService" />
  <property name="portName" value="PoslogObjReceiverApiPort" />
  <property name="customProperties" ref="jaxwsCustomProperties" />
  <property name="encryptedUsername" value=
  <property name="encryptedPassword" value=
</bean>
```

## Transport Level Security

To configure transport level security:

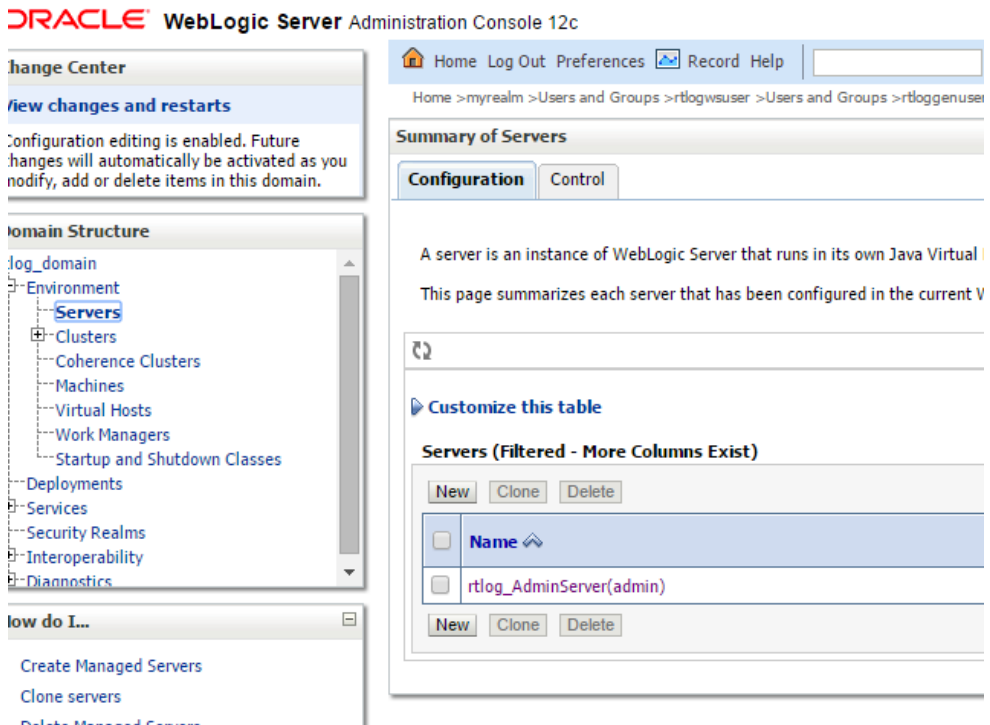
1. Create keystore.jks using a keytool utility. For information on keytool utilities, see the *Oracle Retail Xstore Point of Service Implementation Guide*.
2. Export the public certificate into a truststore.jks file. These files are needed to configure the custom key and trust store for Step 3.

### Note:

In a clustered environment, import all the public certificates into one truststore file and configure all the instances of the server, including HttpClusterServlet proxy, to use the same truststore file.

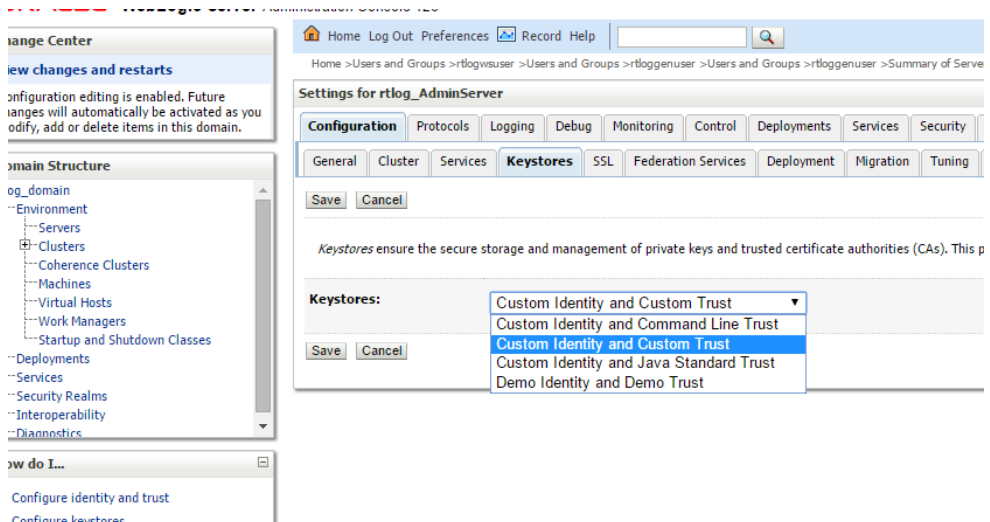
3. Log in to the WebLogic console. Click Environment and then the Servers link from the left navigations menu.

**Figure 6-36 Administration Console Servers Page**



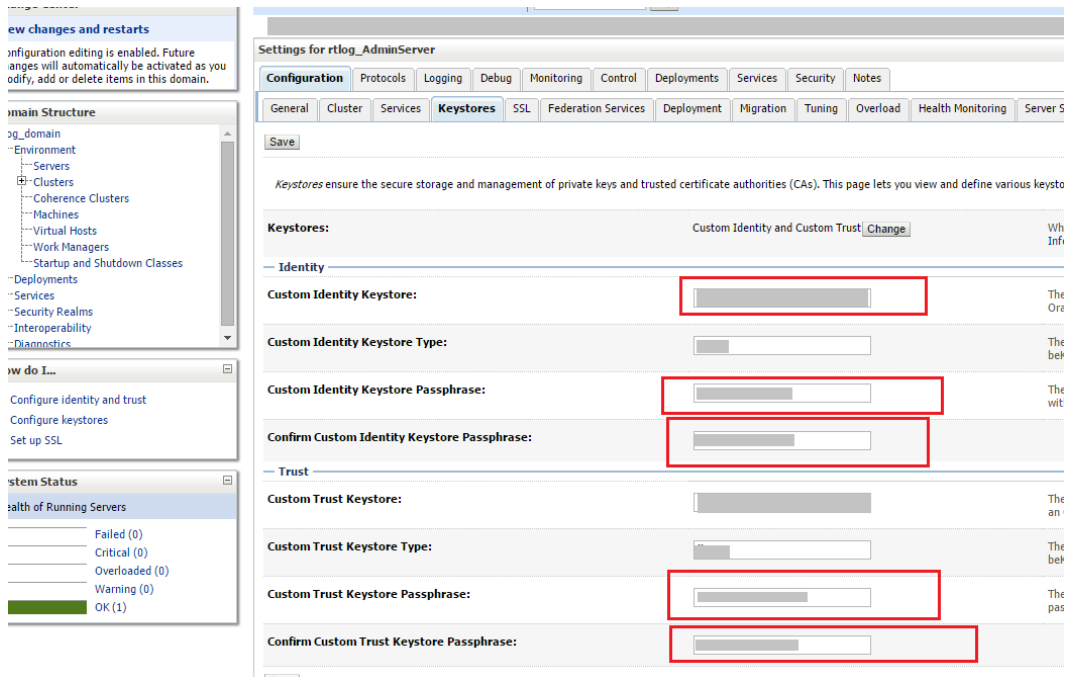
4. Click **Change**. Select Custom Identity and Custom Trust. Click **Save**.

**Figure 6-37 Keystores Settings**



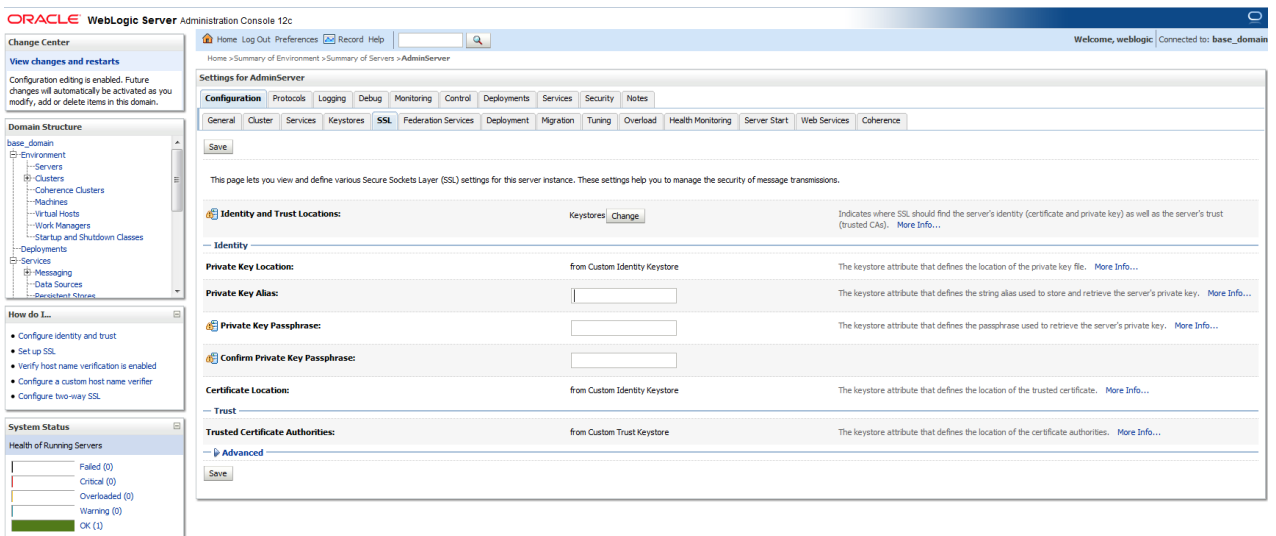
5. Click the linked name for the Administration Server. The page containing the settings for the Administration Server appears. Select the Keystores tab.

Figure 6-38 Settings for the Administration Server



6. Enter the path to keystore.jks, including the file name, and enter the custom Identity Keystore passphrase you created for the keystore. Repeat this for trustore.jks, but enter the appropriate passphrase for the truststore. For an example, see Figure 6-38.
7. Switch to the SSL tab. Enter the alias name and private keyphrase as created during the certificate generation. To save the changes, click **Save**.

Figure 6-39 Save Settings for Administration Server



 **Note:**

For a clustered environment, disable the non-SSL port for the HttpClusterServlet proxy.

## Complete the Security Configuration

Test both the container and transport level security using SOAPUI.

To set up the unlimited strength JCE files:

1. Download and install the correct version of the unlimited strength JCE files. For more information, see the *Oracle Retail Xstore Point of Service Implementation Guide*.
2. Configure Oracle WebLogic Server 14c with the Xstore suite of product's supported cipher suites. To configure it, update the `<domain>\<domain_name>\config\config.xml` file and add the following inside the ssl block:

```
<cipher suite>TLS_RSA_WITH_AES_128_GCM_SHA256</cipher suite>
<cipher suite>TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384</cipher suite>
<cipher suite>TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384</cipher suite>
<cipher suite>TLS_ECDH_ECDSA_WITH_AES_256_GCM_SHA384</cipher suite>
<cipher suite>TLS_ECDH_RSA_WITH_AES_256_GCM_SHA384</cipher suite>
<cipher suite>TLS_RSA_WITH_AES_256_GCM_SHA384</cipher suite>
```

3. Disable the schema validation in WebLogic by passing the JVM argument in the WebLogic startup script:  
-Dweblogic.configuration.schemaValidationEnabled=false
4. Xstore Office's RTLog Generator broadcaster end point should be configured to use the secured (HTTPS) URL for configuring the container level security section:

```
<property name="endpointAddress" value="https://<hostname>:7002/rtlog-generator/service" />
```

The `endpointAddress` property is defined at `xcenter-spring-beans.xml` under Xcenter external configuration directory `\xcenter-config`. There are two required modifications:

- Modify `broadcasterManager` bean in the file by uncommenting the line below.  
`<ref bean="ReSA_Broadcaster"/>`
- Configure `endpointAddress` of the `ReSA_Broadcaster_jaxws` bean.



# 7

## RTLog Generator Cloud

This chapter describes the RTLog Generator component of Xstore Office Cloud. The RTLog Generator Cloud application can be used with both the cloud or on premise Merchandising/ Pricing applications.

### RTLog Generator Cloud

This chapter describes how configure the RTLog Generator application deployed on cloud.

The RTLog Generator on cloud is a Java and XML based web application that exposes a Spring-JAXWS implemented SOAP web service and JAXRS implemented REST web services. It is usually deployed alongside the other Xstore Office Cloud applications.

### Configuration

The RTLog Generator cloud application can be configured in the following way.

Customize the RTLog Generator's mapping and format configuration via REST services.



#### Note:

For more information on how to customize the RTLog Generator, see the [Configuration](#) section in [RTLog Generator On-Premise](#) and the *Retail Xstore - RTLog Generator Extension Guidelines (Doc ID 2174095.1)* on <https://support.oracle.com>.

### Integration

This section describes the RTlog Generator Cloud integration.

### Updating Mapping Configuration

RTLog Generator Cloud application provides REST services to retrieve, update and delete the `RTLogMappingConfig.xml` file. All the three services point to the URL at

`https://<hostname>/rtlog-generator/rest/config/file/v1/RTLogMappingConfig`

If RTLog generator is deployed on cloud, its mapping configuration file `RTLogMappingConfig.xml` is not accessible to a user. To customize the mapping, restful APIs are provided to upload a customized `RTLogMappingConfig.xml` to override the default out-of-box one.

**Table 7-1 REST Services related to the RTLogMappingConfig.xml**

HTTP Protocol	Security Protocol	Response Type	Description
GET	OAuth2	application/xml	Returns the active RTLogMappingConfig.xml file. If the customer has not uploaded a customized configuration xml file yet, provides a copy of the default mapping configuration XML file that is provided with the deployment.
PUT	OAuth2	application/json	Customer submits the updated RTLogMappingConfig.xml file as the request body. Returns JSON that contains the number of bytes in the uploaded XML file.
DELETE	OAuth2	No content	If the customer has uploaded a configuration XML file previously, it will be deleted and HTTP 200 status is returned. If there is no customized RTLogMappingConfig.xml file active yet, HTTP 204 status is returned. The default RTLogMappingConfig.xml that is part of the deployment will resume being the active mapping configuration.

The examples below show how to retrieve and update the RTLogMappingConfig.xml.

#### **Example 7-1 Get active RTLogMappingConfig.xml - Get Current RTLog Mapping Configuration**

```
$ curl -H "Authorization: Bearer <token>" https://<rlog-generator-host>/rtlog-generator/rest/config/file/v1/RTLogMappingConfig" > RTLogMappingConfig.xml
```

#### **Example 7-2 Update RTLogMappingConfig.xml - Update the RTLog Mapping Configuration**

```
$ curl -H "Authorization: Bearer <token>" -X PUT -T "/path/to/mapping/file" https://<rlog-generator-host>/rtlog-generator/rest/config/file/v1/RTLogMappingConfig"
```

Similar to the example above, using the `-X` option with the value of `DELETE` will delete any customer uploaded mapping configuration XML file.

## Updating Format Configuration

RTLog Generator Cloud application provides REST services to retrieve, update and delete the `RTLogFormatConfig.xml` file. All the three services point to the URL at:

`https://<hostname>/rtlog-generator/rest/config/file/v1/RTLogFormatConfig`

If RTLog generator is deployed on cloud, its format configuration file `RTLogFormatConfig.xml` is not accessible to a user. A format configuration file defines the Sales Audit RTLog format, and in most cases is not up for customizations. However `RTLogFormatConfig.xml` file can be customized when:

- Customization has been done to Sales Audit to accept an enhanced RTLog format with additional fields
- A retailer has to integrate with an earlier version of Sales Audit which is not supported out of box, and it accepts a slightly different older RTLog format.

**Table 7-2 REST Services related to the `RTLogFormatConfig.xml`**

HTTP Protocol	Security Protocol	Response Type	Description
GET	OAuth2	application/xml	Returns the active <code>RTLogFormatConfig.xml</code> file. If the customer has not uploaded a customized configuration xml file yet, provides a copy of the default mapping configuration XML file that is provided with the deployment.
PUT	OAuth2	application/json	Customer submits the updated <code>RTLogFormatConfig.xml</code> file as the request body. Returns JSON that contains the number of bytes in the uploaded XML file.

**Table 7-2 (Cont.) REST Services related to the RTLogFormatConfig.xml**

HTTP Protocol	Security Protocol	Response Type	Description
DELETE	OAuth2	No content	If the customer has uploaded a configuration XML file previously, it will be deleted and HTTP 200 status is returned. If there is no customized RTLogFormatConfig.xml file active yet, HTTP 204 status is returned. The default RTLogMappingConfig.xml that is part of the deployment will resume being the active mapping configuration.

The examples below show how to retrieve and update the RTLogFormatConfig.xml.

**Example 7-3 Get active RTLogFormatConfig.xml - Get Current RTLog Format Configuration**

```
$ curl -H "Authorization: Bearer <token>"
https://<rlog-generator-host>/rtlog-generator/rest/config/file/v1/
RTLogFormatConfig" > RTLogFormatConfig.xml
```

**Example 7-4 Update RTLogFormatConfig.xml - Update the RTLog Format Configuration**

```
$ curl -H "Authorization: Bearer <token>" -X PUT -T "/path/to/format/file"
https://<rlog-generator-host>/rtlog-generator/rest/config/file/v1/
RTLogFormatConfig"
```

Similar to the example above, using the -X option with the value of DELETE will delete any customer uploaded format configuration XML file.

## Retrieving Published RTLog Files

RTLog Generator Cloud application provides three mechanisms to retrieve the published RTLog files.

- FTS (File Transfer Service) provides a way to deliver RTLog files to Sales Audit deployed as part of RMFCS v21.0 and later. By default it delivers RTLog files in compressed format (zip files). A deployment option is provided to turn off the compression. It puts RTLog files to object storage for Sales Audit to import. This service is not available for Sales Audit deployed in RMFCS v19.x.

A service request has to be filed by a retailer to setup RTLog Generator Cloud to use FTS.

FTS\_ENDPOINTURL is made available to the RTLog Generator Cloud deployment team by the Merchandising team.

 **Note:**

The RTLog Generator supports two forms of RMS FTS endpoints.

1. RMS Platform FTS wrapper API: This API is the new FTS endpoint supported in RMS. The customer is advised to use this endpoint for FTS integration. Its URL takes the following format: `https://xxxx/xxxx/RmsPlatformServices/services/private/FTSWrapper`
2. RMS FTS API (deprecated): This API is deprecated but still supported in RMS. The customer is advised to switch to use the new platform FTS wrapper API. The deprecated API may no longer be available in RMS in the future. Its URL takes the following format: `https://xxxx/xxxx/RmsReSTServices/services/private/fts`

- SFTP service provides a way to transfer RTLog files. This method is commonly used to post RTLog files to Sales Audit deployed on RMFCS v19. By default it delivers RTLog files in compressed format (zip files). A deployment option is provided to turn off the compression.

A service request has to be filed by a retailer to setup RTLog Generator Cloud to use SFTP.

- SFTP host and path are made available to the RTLog Generator Cloud deployment team by the retailer.
- SFTP connectivity utilizes public/private key based authentication. Once the key pair is generated, the public key has to be added to the SFTP server. If the SFTP server is hosted by Merchandising Cloud, the public key will be accessible to Merchandising Cloud deployment team to add to the SFTP server; if the SFTP server is hosted on premise, the public key will be handed over to the retailer to add to the SFTP server.
- REST service provides a way to download RTLog files in compressed format (zip files). This is the default delivery method. The REST service endpoint URL is `https://<hostname>/rtlog-generator/rest/rtlog/files/v1/published`

**Table 7-3 REST Services to download RTLog Files**

HTTP Protocol	Security Protocol	Response Type	Description
GET	OAuth2	application/octet - stream	Returns the oldest RTLog zip file stream, if available. The content-disposition response header contains the name of the attached zip file.  If no zip file is available, a HTTP 204 no content is returned.

**Example 7-5 Get Published RTLogs - OAuth2 token request**

```
$ curl -O -J -H "Authorization: Bearer <token>"
"https://<rtlog-generator-host>/rtlog-generator/rest/rtlog/files/v1/published"
```

It is recommended to have a programmable approach to acquire the OAuth2 token and utilizing the token to download the available published RTLog files compared to the command line tools shown as examples above.

## Security Configuration

RTLog Generator's web services are secured by requiring HTTPS protocol for transport layer security and require OAuth2 authentication for application level security. All of the Xoffice applications on cloud including the RTLog Generator have a valid OAuth Client (Application) registered with a specific tenant of the Oracle Identity Cloud Service.

OAuth2 authentication is a two-step process.

- Acquire a valid OAuth2 Bearer token using the IDCS Client Credentials.
- Provide the token value in the HTTP Authorization header for all of the web service requests until the token's validity is expired.

## Acquiring IDCS Token

In order to acquire a valid IDCS token, the following information is needed beforehand.

- IDCS tenant host information to build the URL for requesting a token
  - `https://<IDCS_TENANT_HOST>/oauth2/v1/token`
- `ClientID` and `ClientSecret` for the RTLog Generator Client App (that is Sales Audit).
- A command line utility or any software that can make HTTP requests with the ability to setup specific header values
  - "curl" in Linux environments
- Access to a command/utility to encode the credentials in base64 format.
  - "base64" command in Linux environments
  - "certutil" command in Windows environments

The following example shows how to request a token using the curl command line tool in a Linux environment. Ensure to replace the `clientID`, `clientSecret` and `IDCS_TENANT_HOST` with the appropriate values.

### Example 7-6 Request IDCS Oauth2 Token - OAuth2 Token Request

```
$ curl -i -H "Authorization: Basic $(echo -n clientID:clientSecret | base64)" -H
"Content-Type: application/x-www-form-urlencoded;charset=UTF-8" https://
<IDCS_TENANT_HOST>/oauth2/v1/token -d
"grant_type=client_credentials&scope=urn:opc:idm:__myscopes__"
```

You may generate Base64 encoded text of the "clientID:clientSecret" ahead of the request and use it directly in the curl command for the Basic Authorization header value. The following example shows the response that contains the token.

### Example 7-7 IDCS Oauth2 Token Response - OAuth2 Token Response

```
{"access_token": "<oauth2_token>",
"token_type": "Bearer",
"expires_in": 3600 }
```

The response above shows the token value and the expiration time in seconds. Usually, the token is a sequence of random characters of varying length up to a maximum of 16K.

## Provide IDCS Authentication

The following example shows how to provide the OAuth2 token while communicating with RTLog Generator REST services. The following example shows how to request the current active RTLogMappingConfig.xml file. Please make sure to replace the "<token>" with a valid OAuth2 token acquired in the last step and provide the correct RTLog Generator Host value.

### Example 7-8 Provide Oauth2 Token - Provide OAuth2 Token for REST Services

```
$ curl -i -H "Authorization: Bearer <token>" "https://<rlog-generator-host>/rtlog-generator/rest/config/file/v1/RTLogMappingConfig"
```

# A

## Appendix: Xstore to Sales Audit Mapping Details

The mapping from the Xstore POSLog format to the Sales Audit RTLog format is defined in the Xstore configuration file RTLogMappingConfig.xml. This appendix provides details on the following code types used by each of the applications that are used in this mapping:

- [Transaction Types](#)
- [Tender Types](#)
- [Tender Totals](#)
- [Item Types](#)
- [Sales Audit Reason Codes](#)
- [Item Status/and Sales Types](#)
- [Customer ID Types](#)
- [Sales Audit Tax Codes](#)
- [Reference Codes/Labels](#)
- [Sale Return Transaction](#)

### Transaction Types

Both Xstore and Sales Audit support a number of similar transactions types, but each solution uses different codes for these transaction types. The table below shows how the transaction types in Xstore map to the transaction types and sub-transaction types used in Sales Audit. See also the *Oracle Retail Sales Audit Implementation Guide* for more details on these codes.

**Table A-1 Transaction Type Mapping**

Xstore Transaction Type	Sales Audit Transaction Type TRAT	Sales Audit Sub-Transaction Type TRAS	Description
ACCOUNT_LOOKUP	OTHER	OTHER	ACCOUNT_LOOKUP transactions are passed from Xstore to Sales Audit for full visibility audit, but not otherwise implemented in Sales Audit.
BALANCE_INQUIRY	OTHER	OTHER	BALANCE_INQUIRY transactions are passed from Xstore to Sales Audit for full visibility audit, but not otherwise implemented in Sales Audit.
CREDIT_APPLICATION	OTHER	OTHER	CREDIT_APPLICATION transactions are passed from Xstore to Sales Audit for full visibility audit, but not otherwise implemented in Sales Audit.



**Table A-1 (Cont.) Transaction Type Mapping**

Xstore Transaction Type	Sales Audit Transaction Type TRAT	Sales Audit Sub-Transaction Type TRAS	Description
ESCROW	OTHER	OTHER	ESCROW transactions are passed from Xstore to Sales Audit for full visibility audit, but not otherwise implemented in Sales Audit.
EXCHANGE_RATE	OTHER	OTHER	EXCHANGE_RATE transactions are passed from Xstore to Sales Audit for full visibility audit, but not otherwise implemented in Sales Audit.
GNRIC	OTHER	OTHER	GNRIC transactions are passed from Xstore to Sales Audit for full visibility audit, but not otherwise implemented in Sales Audit.
INVENTORY_CONTROL	OTHER	OTHER	INVENTORY_CONTROL transactions are mapped from Xstore to Sales Audit for full visibility audit, but not otherwise implemented in Sales Audit.  Xstore should be configured so that inventory control transactions are not generated, and therefore not sent to Sales Audit.
INVENTORY_SUMMARY_COUNT	OTHER	OTHER	INVENTORY_SUMMARY_COUNT transactions are mapped from Xstore to Sales Audit for full visibility audit, but not otherwise implemented in Sales Audit.  Xstore should be configured so that inventory summary count transactions are not generated, and therefore not sent to Sales Audit.
MOVEMENT_PENDING	OTHER	OTHER	MOVEMENT_PENDING transactions are mapped from Xstore to Sales Audit for full visibility audit, but not otherwise implemented in Sales Audit.  Xstore should be configured so that inventory summary count transactions are not generated, and therefore not sent to Sales Audit.
NO_SALE	NOSALE	NOSALE	NA
POST_VOID	PVOID	VOID	NA
RETAIL_SALE (can be mapped to multiple Sales Audit transaction types depending on other conditions)	SALE	SALE	Regular transaction.
	NOSALE	SUSPND	Suspend transaction.
	VOID	CANCEL	Cancel transaction.
	VOID	CANCEL	Cancel orphaned transaction.
SESSION_CONTROL	OTHER	OTHER	Issue till.
	OTHER	OTHER	Assign till/assign till tender transfer.

Table A-1 (Cont.) Transaction Type Mapping

Xstore Transaction Type	Sales Audit Transaction Type TRAT	Sales Audit Sub-Transaction Type TRAS	Description
	OTHER	OTHER	Attach till.
	OTHER	OTHER	Remove till.
	OTHER	OTHER	Return till.
SYSTEM_CLOSE	CLOSE	CSTORE	Close store.
SYSTEM_OPEN	OPEN	OSTORE	Open store.
TENDER_CONTROL (can be mapped to multiple Sales Audit transaction types depending on other conditions)	OPEN	OTILL	Begin till count.
	CLOSE with TOTAL / OTHER	CTILL with CTILLT / OTHER	Till closing count (register accountability/till accountability).
	CLOSE and TOTAL	CTILL and CTILLT	Till reconcile. Each counted tender type has a corresponding TOTAL and CTILLT as a THEAD.
	PAIDIN	PITILL	Pay in.
	PAIDOU	POTILL	Pay out.
	OTHER	AUDIT	Till audit.
	PULL	PUTILL	Mid-day deposit. Place funds in store bank.
	OTHER	BANK	Bank deposit.
	LOAN	LOTILL	Till loan (cash transfer).
	PULL	PUTILL	Pick up till (cash pickup).
	OTHER	OTHER	Open store bank.
	OTHER	OTHER	Store bank reconcile.
TENDER_EXCHANGE	PAIDIN	PITILL	NA
TILL_CONTROL	OTHER	OTHER	NA
TIMECLOCK	OTHER	OTHER	Employee clock in.
	OTHER	OTHER	Employee clock out.
TRAINING_MODE_ENTRY	OTHER	NTRAIN	NA
TRAINING_MODE_EXIT	OTHER	XTRAIN	NA
WORKSTATION_CLOSE	CLOSE	CREG	NA
WORKSTATION_COMPLETE_REMOTE_CLOSE	CLOSE	CRGRC	NA
WORKSTATION_OPEN	OPEN	OREG	NA
WORKSTATION_START_REMOTE_CLOSE	OTHER	CRGRC	NA
GIFT_REGISTRY	OTHER	OTHER	Assign gift registry (register operation)
	OTHER	OTHER	Reissue gift registry (register operation)
RAIN_CHECK	OTHER	OTHER	Redeem rain check.
BATCH_CLOSE	OTHER	OTHER	Credit and debit settlement.

**Table A-1 (Cont.) Transaction Type Mapping**

Xstore Transaction Type	Sales Audit Transaction Type TRAT	Sales Audit Sub-Transaction Type TRAS	Description
REOPEN	REOPEN	NA	Used to reopen a previously closed store day in Sales Audit.

## Tender Types

In order to communicate the tender type used on transactions, a specific mapping is used between Xstore and Sales Audit. The details below outline how the tenders in Xstore map to the Sales Audit tender groups and types. See also the *Oracle Retail Sales Audit Implementation Guide* for information on configuration of tender types and tender type groups.

**Table A-2 Tender Type Mapping**

Xstore		Xstore POS Log Tender Group Type		Sales Audit RTLog	
Tender Type Code	Tender Type D	Tender Type	Tender ID	Tender Type Group	Tender Type ID
CURRENCY	USD_CURRENCY	Cash	USD_CURRENCY	CASH	If primary 1000, if alternate 1010.
	AUD_CURRENCY	Cash	AUD_CURRENCY	CASH	If primary 1000, if alternate 1010.
	CAD_CURRENCY	Cash	CAD_CURRENCY	CASH	If primary 1000, if alternate 1010.
	EUR_CURRENCY	Cash	EUR_CURRENCY	CASH	If primary 1000, if alternate 1010.
	GBP_CURRENCY	Cash	GBP_CURRENCY	CASH	If primary 1000, if alternate 1010.
CREDIT_CARD	VISA	CreditDebit	VISA	CCARD	3000
	MASTERCARD	CreditDebit	MASTERCARD	CCARD	3010
	AMERICAN_EXPRESS	CreditDebit	AMERICAN_EXPRESS	CCARD	3020
	DINERS_CLUB	CreditDebit	DINERS_CLUB	CCARD	3040
	DISCOVER	CreditDebit	DISCOVER	CCARD	3030
	JCB	CreditDebit	JCB	CCARD	3090
	DEBITCARD	CreditDebit	DEBITCARD	DCARD	8000
ACCOUNT	HOUSE_ACCOUNT	dtv:Account	HOUSE_ACCOUNT	CCARD	3120
	A new type of credit card	CreditDebit	A new type of credit card	CCARD	Map to UNKNW.
CHECK	CHECK	Check	CHECK	CHECK	If primary 2000, if foreign 2050.

Table A-2 (Cont.) Tender Type Mapping

Xstore		Xstore POS Log Tender Group Type		Sales Audit RTLog	
Tender Type Code	Tender Type D	Tender Type	Tender ID	Tender Type Group	Tender Type ID
TRAVELERS_CHECK	USD_TRAVELERS_CHECK	dtv:TravelersCheck	USD_TRAVELERS_CHECK	CHECK	If primary 2020, if foreign 2060.
	CAD_TRAVELERS_CHECK	dtv:TravelersCheck	CAD_TRAVELERS_CHECK	CHECK	If primary 2020, if foreign 2060.
VOUCHER	GIFT_CERTIFICATE	Voucher	GIFT_CERTIFICATE	VOUCH	If primary 4030, if foreign 4100.
	ISSUE_GIFT_CERTIFICATE	Voucher	ISSUE_GIFT_CERTIFICATE	VOUCH	If primary 4030, if foreign 4100.
	ISSUE_MERCHANDISE_CREDIT_CARD	Voucher	ISSUE_MERCHANDISE_CREDIT_CARD	VOUCH	4050
	ISSUE_STORE_CREDIT	Voucher	ISSUE_STORE_CREDIT	VOUCH	4050
	ISSUE_XPAY_GIFT_CARD	Voucher	ISSUE_XPAY_GIFT_CARD	VOUCH	4040
	MALL_CERTIFICATE	Voucher	MALL_CERTIFICATE	VOUCH	4060
	MERCHANDISE_CREDIT_CARD	Voucher	MERCHANDISE_CREDIT_CARD	VOUCH	4050
	RELOAD_MERCHANDISE_CREDIT_CARD	Voucher	RELOAD_MERCHANDISE_CREDIT_CARD	VOUCH	4050
	RELOAD_XPAY_GIFT_CARD	Voucher	RELOAD_XPAY_GIFT_CARD	VOUCH	4040
	STORE_CREDIT	Voucher	STORE_CREDIT	VOUCH	If primary 4050, if foreign 4090.
XPAY_GIFT_CARD	Voucher	XPAY_GIFT_CARD	VOUCH	4040	
COUPON	COUPON	ManufacturerCoupon	COUPON	QPON	5000
	ROOM_CHARGE	CreditDebit	ROOM_CHARGE	VOUCH	4050
CREDIT_CARD	PAYPAL	TBD	PAYPAL	PAYPAL	3075
HOME_OFFICE_CHECK	HOME_OFFICE_CHECK	NA	NA	Not supported in this solution. Home office check tenders should not be used in Xstore if it is integrated with Sales Audit.	

## Tender Totals

Sales Audit uses tender totals to compare the total amount of a tender reported from the store (Accounted For) with the amount that it should have reported (Accountable For) based on store activity in a day. Totals are fully customer configured in Sales Audit. However, when integrating with Xstore, a few specific totals are expected to be created to total tenders. The totals that should be created and their ID are outlined in the table below, along with the Xstore tender type used for the total.

**Table A-3 Total Tender ID Mapping**

Xstore		Sales Audit RTLog
TenderType	TenderID	Total ID
CURRENCY	USD_CURRENCY	CASH
	AUD_CURRENCY	CASHAC
	CAD_CURRENCY	CASHAC
	EUR_CURRENCY	CASHAC
	GBP_CURRENCY	CASHAC
TRAVELERS_CHECK	USD_TRAVELERS_CHECK	TCHECK
	AUD_TRAVELERS_CHECK	TCHECKAC
	CAD_TRAVELERS_CHECK	TCHECKAC
	EUR_TRAVELERS_CHECK	TCHECKAC
	GBP_TRAVELERS_CHECK	TCHECKAC
	MXN_TRAVELERS_CHECK	TCHECKAC
CREDIT_CARD	CREDIT_CARD	CCARD
VOUCHER	GIFT_CERTIFICATE	GIFTCERT
	MALL_CERTIFICATE	MALLCERT
	MERCHANDISE_CREDIT_CARD	MCCARD
	RELOAD_MERCHANDISE_CREDIT_CARD	RMCCARD
	RELOAD_XPAY_GIFT_CARD	RXPAYGC
	STORE_CREDIT	STCRDT
	XPAY_GIFT_CARD	XPAYGC
	ISSUE_XPAY_GIFT_CARD	IXPAYGC
	ISSUE_STORE_CREDIT	ISTCRDT
	ISSUE_MERCHANDISE_CREDIT_CARD	IMCCARD
ACCOUNT	HOUSE_ACCOUNT	HACCNT
COUPON	COUPON	COUPON

## Item Types

There are a number of different item types that are used in Xstore, and these all need to be mapped to item types used by Sales Audit. The table below outlines how the types in Xstore map to the Sales Audit item types.

**Table A-4 Item Type Mapping**

Xstore Item Type	Sales Audit Item Type	Description
Alteration	NMITEM	Non-Merchandise Item
Deposit	NMITEM	Non-Merchandise Item
dtv:GiftCertificate	GCN	Voucher
dtv:NonMerchandise	NMITEM	Non-Merchandise Item
dtv:Payment	NMITEM	Non-Merchandise Item
Fee	NMITEM	Non-Merchandise Item
ItemCollection	ITEM	Item
Service	NMITEM	Non-Merchandise Item
Stock	ITEM	Item
Warranty	NMITEM	Non-Merchandise Item

## Sales Audit Reason Codes

Xstore has a single set of reason codes, used both for reason codes, price override codes, and other modifications. Sales Audit separates these concepts into individual sets. Because reason codes can be mixed coming out of Xstore, Sales Audit has mapped some code values to multiple code types to avoid the possibility of errors.

For more information on each of these categories of reason codes, see the *Oracle Retail Sales Audit Implementation Guide*.

## Reason Codes

First is a general reason code that may be entered for specific transaction types to provide more information about the context of the transaction. This type of reason code is mapped to Xstore miscellaneous reason codes.

**Table A-5 Sales Audit Reason Codes**

Xstore Reason Code	Sales Audit Reason Code	Description
PV1	PV1	Cashier Error
PV2	PV2	Supervisors Discretion
PV3	PV3	Customer Satisfaction
NS1	NS1	Making Change

**Table A-5 (Cont.) Sales Audit Reason Codes**

Xstore Reason Code	Sales Audit Reason Code	Description
NS2	NS2	Employee Check Cashed
NS3	NS3	Petty Cash In
NS4	NS4	Petty Cash Out
NS5	NS5	Spiff/Bonus Out 1
CF1	CF1	Holiday Adjustment
CF2	CF2	Register Down
PAID_IN	PI1	Change from Paid Out
PAID_IN	PI2	Found Money
PAID_IN	PI3	Drawer Loan 1
PAID_IN	TENDEX	Tender exchange
PAID_OUT	PO1	Stocks
PAID_OUT	PO2	Delivery
PAID_OUT	PO3	Postage
PAID_OUT	PO4	Contractor Services
PAID_OUT	PO5	Store Incentives

## Return Reason Codes

Sales Audit return reason codes are used to provide the context of the return in Sales Audit. These map to the Xstore reason codes as follows:

**Table A-6 Return Reason Codes**

Xstore Reason Code	Sales Audit Reason Code	Description
RET1	RET1	Did not like
RET2	RET2	Better price somewhere else
RET3	RET3	Did not fit
RET4	RET4	Damaged
RET5	RET5	Exchange
RET6	RET6	Poor quality
RET41	RET41	Open box
RET42	RET42	Unusable
RET43	RET43	Repairable

## Discount Reason Codes

Used in Sales Audit to indicate the valid discount types for sales and return transaction, this table shows how these are mapped to the Xstore reason codes used for returns:

**Table A-7 Discount Reason Codes**

Xstore Reason Code	Sales Audit Reason Code	Description
DC1	S	Incorrect Label
DC2	MS	Manager Discretion
DC3	CP	Price Guarantee
DC4	D	Damage Adjustment
NEW_PRICE_RULE	NEWPRC	New Price Rule
DOCUMENT	DOC	Document
MANUFACTURER_COUPON	MCOUP	Manufacturer Coupon
REFUND_PRORATION	REFUND	Refund Proration
CALCULATED_WARRANTY_PRICE	CALWAR	Warranty Price

## Item Price Override Reason Codes

This grouping of reason codes is used to hold the valid price override reason codes that are expected by Sales Audit. These map to the reason codes used in Xstore as follows:

**Table A-8 Item Price Override Reason Codes**

Xstore Reason Code	Sales Audit Reason Code	Description
AR_PR_1	AR_PR_1	Insufficient Funds
AR_PR_2	AR_PR_2	Wrong Amount
AR_PR_3	AR_PR_3	Wrong Amount
AR_PR_4	AR_PR_4	Wrong Invoice
COMMENT	NEWPRC	Other - Enter Comments
PC1	S	Incorrect Label
PC2	MS	Supervisors Discretion
PC3	CP	Competitive Price Match
PC4	D	Damage Adjustment
BASE_PRICE_RULE	BSPRC	Base Price Rule
PROMPT_PRICE_CHANGE	PROMPT	Price Prompt
AUTHORIZED_AMOUNT	AUTHMT	Authorized Amount



## Item Status/and Sales Types

Valid values for item status in Sales Audit are:

V	Voided
S	Sale
R	Return
O	Other
ORI	Order Initiate
ORC	Order Cancel
ORD	Order Complete
LIN	Layaway Initiate
LCA	Layaway Cancel
LCO	Layaway Complete

Valid values for sales type in Sales Audit are:

R	Regular
I	In-Store Customer Order
E	External Customer Order

These two sets of codes are then mapped to the actions in Xstore as follows:

**Table A-9 Item Status/ and Sales Type Mapping**

Xstore Item	Xstore Action	Sales Audit Item Status	Sales Audit Sales Type
Regular Sale	Sale	S	R
	Return	R	R
	Void	S and V (two lines)	R
Layaway Item	Init	LIN	I
	Cancel	LCA	I
	Pickup	LCO	I
	Void	S and V (two lines)	I
Locate Order	Init	ORI	E
	Cancel	ORC	E
	Pickup	ORD	E
	Void when update or pickup	ORC	E
	Void when Init	S and V (two lines)	E
Special Order	Init	ORI	E
	Cancel	ORC	E
	Pickup	ORD	E

Table A-9 (Cont.) Item Status/ and Sales Type Mapping

Xstore Item	Xstore Action	Sales Audit Item Status	Sales Audit Sales Type
	Void when update or pickup	ORC	E
	Void when Init	S and V (two lines)	E
Work Order	Init	ORI	I
	Cancel	ORC	I
	Pickup	ORD	I
	Void when update or pickup	ORC	I
	Void when Init	S and V (two lines)	I
Pre-Sale	Init	ORI	I
	Cancel	ORC	E
	Pickup	ORD	E
	Void when update or pickup	ORC	E
	Void when Init	S and V (two lines)	E
On Hold	Init	ORI	I
	Cancel	ORC	I
	Pickup	ORD	I
	Void when update or pickup	ORC	I
	Void when Init	S and V (two lines)	I
Send Sale	Init	S	R
	Void when Init	S and V (two lines)	R

## Customer ID Types

Sales Audit has a set of codes that it uses for validating the various forms of identification that can be presented at the store for a transaction. However, Xstore always sends just one type - Customer ID or CUSTID. This customer ID type is part of the default Sales Audit implementation and should be configured to "Used" when implementing with Xstore.

## Sales Audit Tax Codes

When implementing using US Sales Tax for some or all stores, the tax code sent by Xstore will always be sent as TOTAX. This will be validated against the list of valid non-VAT tax codes in Sales Audit. This code is included in the initial Sales Audit configuration, but care should be taken not to remove or configure that code type off when integrating with Xstore.

## Reference Codes/Labels

Sales Audit has a flexible method of taking in reference fields from a POS at various levels of the transaction. These can be configured differently by transaction and sub-transaction type within Sales Audit. In general, these are not used in the base Xstore implementation without

customization with a couple of exceptions. The reference fields that Xstore uses are as follows:

- Reference Number 1 (Transaction Header) - for the Day Close (DCLOSE) transaction type, this field will contain the file counter for the end of day
- Reference Number 1 (Transaction Header) - for the Tender Total (TOTAL) transaction type, contains the tender ID/type
- Reference Number 3 (Transaction Header) - includes the employee ID if the sale was to an employee

For more on configuring reference fields in Sales Audit, see the *Oracle Retail Sales Audit Implementation Guide*.

## Sale Return Transaction

This section describes sale return transaction mappings.

### Transaction Header Mapping

This section describes mappings for the transaction header of sale return transactions. The transaction header format is defined at TransactionHeader RECODE\_FORMAT in the RTLogFormatConfig.xml file.

A sale return transaction can be mixed with a sale line item, return line item, special order pickup line item, special order payment, work order line item, and so on. In this case, the sale and return transaction type and sub transaction type are defined as SALE. The actual types of line lines are specified at line item level.

The field Salesperson in Transaction Header is matched to -1. It means there is no Salesperson available at transaction level. Instead the field Salesperson in line item is populated, since it is possible to have different sales people for different line items in the same transaction.

OriginalTransactionNumber and Orig\_reg\_no are only populated for post void transactions. Mapper PostVoidOriginalTransactionInfoMapper indicates the mapping logic.

### Line Item (ITEM) Mapping

This section describes mappings for line items of sale return transactions. The line item format is defined at TransactionItem RECODE\_FORMAT in the RTLogFormatConfig.xml file.

The line item will not be exported for suspended, cancelled and post void transactions. It is disabled in retailTrnDetailrExportabilityMapper.

It would be one or more line item records in a sale return transaction.

There are two kinds of item types, physical/merchandise item (ITEM) or non physical/non merchandise item (NMITEM). Non physical items are service fee, payment, work order item, and so on.

The Item id of a physical item is set to Item field; the Item id for a non physical item is set to NonMerchandiseItem field of the RTLog record.

The default value of the ItemStatus field is S, which is set in the RTLogFormatConfig.xml file. If the line item is return, the value is set to R. Return reason code mapping can be found in / retailTransaction/lineItems/return source field VALUE\_MAPPINGS.

The default value of SalesType for sale return line item is I (internal sale).

ItemVoidStatusMapper sets the void flag of the record to true if the line is voided. If a sale return line item record is voided, a clone of the sale return line item record will be created, the item status for the new record is set to "V". In this case the status of the two lines are "S" and "V" or "R" and "V". Sales Audit balances off a sale/return line with its voided line to zero.

## Item Discount (IDISC) Mapping and Round off Discount Mapping

This section describes mappings for item level discounts of sale return transactions. The item level discount format is defined at ItemDiscount RECODE\_FORMAT in the RTLogFormatConfig.xml file.

The item level discount will not be exported for suspended, cancelled and post void transactions. It is disabled in retailTrnDetailExportabilityMapper.

It would be zero or more item discount records for a line item.

If it is a Deal discount, the RMSPromotionType is mapped to 9999, otherwise it is mapped to 1004.

The discount type of ItemDiscount is mapped from reasonCode and discountReasonCode of RetailPriceModifierType Poslog object.

The values of DiscountReferenceNumber, PromoComponent and RMSPromotionType are mapped from PromotionIDMapper. If the retail price modifier is voided, DiscountReferenceNumber and PromoComponent are set to zero. If the retail price modifier is not voided and it is a deal promotion, it is mapped based on the following conditions:

- If it is an RPM promotion, DiscountReferenceNumber is set to RPM promotion id and PromoComponent is set to promotion component id.
- If it is not an RPM promotion, RMSPromotionType is set to 2000, DiscountReferenceNumber and PromoComponent are set to zero.

PromotionIDMapper implements this logic.

DiscountAmountMapper calculates unit discount amount for the ItemDiscount RTLog IDISC record and also sets roundedOffAmount to the RTLog record. The value of unit discount amount is the total discount amount divided by item quantity rounding by half up with unit discount scale. The value of roundedOffAmount is the difference between total discount amount and unit discount amount multiplies item quantity. Note that the roundedOffAmount is not a field of IDISC, therefore it is not going to be exported.

A round off discount record (ItemRoundedOffDiscount) is always created after a discount record (ItemDiscount) if the roundedOffAmount is not equal to zero. In a discount record, if the roundedOffAmount exists, a round off discount record will be cloned from the discount record, otherwise a new round off discount record will be created. The value of discount amount of a round off discount record is the round off amount of the corresponding discount record. The value of the quantity in a round off discount record is always set to zero. RoundedOffDiscountAmountMapper is specially used for this mapping.

The format of ItemRoundedOffDiscount record and ItemDiscount record are exactly the same, that is IDISC. The reason for adding a round off discount record is that Poslog uses discountAmount and RTLog uses UnitDiscountAmount. If a quantity of a line item is not one,

such as 3, the UnitDiscountAmount times 3 is not equal to discountAmount in Poslog. To balance it off, an extra discount line is introduced to set the round off amount to unit discount amount. It guaranties the total discount value is equal to sum of the two IDISC records.

## Item Level Tax Mapping

This section describes mappings for item level tax of sale return transactions. The item level tax format is defined at ItemGlobalTax RECODE\_FORMAT in the RTLogFormatConfig.xml file.

Tax lines will not be exported for suspended, cancelled and post void transactions. It is disabled in retailTrnDetailExportabilityMapper.

It would be one or more tax lines for one sale return line item. It depends on how many tax authorities are applied on this item.

RTLog requires four digits decimal for TaxRate in ItemGlobalTax record format. AmountMapper object sets the scale of tax rate to four to fit the need.

RTLog requires four digits decimal for TaxAmount in ItemGlobalTax record format. AmountMapper object sets the scale of tax amount to four to fit the need.

The value of TaxAmountSign field is P when tax amount is positive, N when tax amount is negative. It is done is SignMapper.

The RTLog Generator application supports either VAT or non VAT. It does not support both of them in the application instance. VAT and non VAT configurable settings can be found at the roundedOffTaxAmountMapper spring bean in the RTLogMappingBean.xml file.

TaxCode mappings are different for VAT and non VAT systems. If the RTLog Generator application is set to VAT, the tax group id maps to the tax code. If the RTLog Generator application is set to non VAT, the tax code is always "TOTAX". ItemTaxCodeMapper implements this logic.

The value of TotalTaxAmount is blank if the tax is voided. Otherwise, the value of TotalTaxAmount is the sum of the item taxes from all item tax authorities. It is implemented at ItemTotalTaxAmountMapper.

The value of TaxableIndicator of ItemGlobalTax is a flag to indicate the item has tax or not. If the TaxAmountSign amount sign is zero, the value of TaxableIndicator is set to N, otherwise it is set to Y.

## Tender Line Mapping

This section describes mappings for transaction tender of sale return transactions. The transaction tender format is defined at TransactionTender RECODE\_FORMAT in the RTLogFormatConfig.xml file.

The tender line will not be exported for suspended, cancelled and post void transactions. It is disabled in retailTrnTenderExportabilityMapper.

The actual mappings of transaction tender type group and tender type id (sub type) are listed on sourcePath "/transaction/lineItems/tender" in the RTLogMappingConfig.xml file.

There may be zero or more tender line items within one sale return transaction.

The tender type id is different for base currency and foreign currency and is also different for base traveler's check and foreign traveler's check. Object `tenderTypeIDMapper` is responsible for doing the actual currency and traveler's check mapping. If the tender type is currency or traveler's check, mapping value will be found from the mapper, the corresponding `VALUE_MAPPINGS` will be skipped. Otherwise, it will do the value mapping in the `VALUE_MAPPINGS`.

RTLog requires four digits decimal for `TenderAmount` in `TransactionTender` record format. Mapper `amountMapper` sets the scale of tender amount to four to fit the need.

The value of `TenderSign` field will be P when tender amount is positive, N when tender amount is negative. It is done in `SignMapper`.

There is a special tender line which is used for transaction rounded off amount. For detail information, refer to the next section.

## Rounded Off Amount

Transaction rounded amount is used to balance off a transaction. The amount comes from the following areas.

- Rounded amount from `roundedTotal@RetailTransactionType` Poslog object.
- Total tax amount from the sum of `amount@TaxType` of each tax `LineItem` of `RetailTransactionType` Poslog object.
- Total sale return line item tax amount from the sum of `amount@TaxType` of `SaleType` of `LineItem` of `RetailTransactionType` Poslog object.

Transaction rounded off amount = value of 1 + (value of 2 - value of 3).

RTLog exports line item taxes rather than exports transaction level taxes. The reason is that the payment amount in an order transaction includes a certain percentage of item price and tax amount. When doing a pickup, the transaction level tax is not zero, and the payment already includes the part of the tax. The total tax will be more than the value is supposed to be. The transaction will not balance off.

A special `RECORD_FORMAT` `TransactionTenderRoundedOff` is created for this purchase. The syntax of the format is exactly the same as the one for `TransactionTender`. The `TenderTypeGroup` is always set to `CASH` and `TenderTypeID` is always 1020. `TenderAmount` of `TransactionTenderRoundedOff` is the transaction rounded of amount, `TenderSign` is the transaction rounded of amount sign. `RoundedOffAmountMapper` accumulates the rounded amounts based on the algorithm above and sets the value and sign to `TenderAmount` and `TenderSign` fields.

This special tender line will not be exported for suspended, cancelled and post void transactions. It is disabled in `retailTrnDetailExportabilityMapper`. It will not be exported when the total rounded amount is zero.

# B

## Appendix: Flat File Mapping

This appendix describes the mapping from the RMS and RPM flat file format to the Xstore database format. Details are provided for the following mappings:

- [RMS Diff Group Detail](#)
- [RMS Diff Group Header](#)
- [RMS Diffs](#)
- [RMS Item Header](#)
- [RMS Item Location](#)
- [RMS Merchandise Hierarchy](#)
- [RMS Organizational Hierarchy](#)
- [RMS Related Item Detail](#)
- [RMS Related Item Header](#)
- [RMS Store](#)
- [RMS Store Address](#)
- [RMS VAT](#)
- [RMS VAT Item](#)
- [RPM Clearance Price](#)
- [RPM Regular Price](#)
- [RPM Promotions](#)

### RMS Diff Group Detail

[Table B-1](#) describes the RMS Diff Group Detail mapping.

**Table B-1 RMS Diff Group Detail Mapping**

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Family	Value is always DIFFGRPDTL. Data will always be present in this field.	Character	20	NA	NA	NA	NA	Ignored.

Table B-1 (Cont.) RMS Diff Group Detail Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
1	Type	Value is always FULL when the program is run in full mode.  If the program is run in delta mode, the type will vary based on the type of change (CRE, MOD, DEL). Valid values are:  DIFFGRPDTLCRE - Creation of diff group group header information.  DIFFGRPDTLMOD - Modification of diff group header information.  DIFFGRPDTLDEL - Deletion of diff group header information.  Data will always be present in this field.	Character	15	NA	NA	NA	NA	Determines action.
2	DiffGroup pId	This field holds the ID of the diff group.  Data will always be present in this field.	Character	10	rms_diff_ group_ detail	DIFF_GR OUP_ID	VARCHA R2(10 CHAR)	NA	NA
3	DiffId	This field holds a unique number ID for the diff.  Data will always be present in this field.	Character	10	rms_diff_ group_ detail	DIFF_ID	VARCHA R2(10 CHAR)	NA	NA
4	Display Seq	Optional sequence to describe the order in which diffs within the diff group should be displayed in user interfaces.  Data is optional in this field.	Character	4	rms_diff_ group_ detail	DISPLAY _SEQ	NUMBE R(4)	NA	NA
N A	NA	NA	NA	NA	rms_diff_ group_ detail	CREATE_ DATE	TIMESTA MP(6)	now()	NA
N A	NA	NA	NA	NA	rms_diff_ group_ detail	UPDATE_ DATE	TIMESTA MP(6)	now()	NA



## RMS Diff Group Header

Table B-2 describes the RMS Diff Group Header mapping.

**Table B-2 RMS Diff Group Header Mapping**

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Family	Value is always DIFFGRPHDR. Data will always be present in this field.	Character	20	NA	NA	NA	NA	Ignored.
1	Type	Value is always FULL when the program is run in full mode.  If the program is run in delta mode, the type will vary based on the type of change (CRE, MOD, DEL). Valid values are:  DIFFGRPHDRCRE - Creation of diff group group header information.  DIFFGRPHDRMOD - Modification of diff group header information.  DIFFGRPHDRDEL - Deletion of diff group header information.  Data will always be present in this field.	Character	15	NA	NA	NA	NA	Determines action.
2	DiffGroupld	This field holds a unique number ID for the differentiator group. As primary ID, DiffGroupld cannot be modified.  Data will always be present in this field.	Character	10	rms_diff_group_header	DIFF_GROUP_ID	VARCHAR2(10 CHAR)	NA	NA

Table B-2 (Cont.) RMS Diff Group Header Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
3	DiffGroupDesc	Description of the differentiator group (for example: Men's Shirt Sizes, Women's Shoe Sizes, Girls Dress Sizes, Shower Gel Scents, Yogurt Flavors, and so on). Data will always be present in this field in the DIFFGRPHDRCRE and DIFFGRPHDRMOD records.	Character	120	rms_diff_group_header	DIFF_GROUP_DESC	VARCHAR2(120 CHAR)	NA	NA
4	DiffTypeId	This field holds a value of the types of differentiators contained in this differentiator group including, but not limited to: S - size C - color F - flavor E - scent P - pattern Data will always be present in this field in the DIFFGRPHDRCRE and DIFFGRPHDRMOD records.	Character	6	rms_diff_group_header	DIFF_TYPE	VARCHAR2(6 CHAR)	NA	NA
5	DiffTypeDesc	Contains the description of the differentiator type. Data will always be present in this field in the DIFFGRPHDRCRE and DIFFGRPHDRMOD records.	Character	120	NA	NA	NA	NA	Ignored. It is already captured in the diff id tab.
NA	NA	NA	NA	NA	rms_diff_group_header	CREATE_DATE	TIMESTAMP(6)	NA	NA

Table B-2 (Cont.) RMS Diff Group Header Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
NA	NA	NA	NA	NA	rms_diff_group_header	UPDATE_DATE	TIMESTAMP(6)	NA	NA

## RMS Diffs

Table B-3 describes the RMS Diffs mapping.

Table B-3 RMS Diffs Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Family	Value is always DIFFS. Data will always be present in this field.	Character	20	NA	NA	NA	NA	Ignored.
1	Type	Value is always FULL when the program is run in full mode.  If the program is run in delta mode, the type will vary based on the type of change (CRE, MOD, DEL). Valid values are:  DIFFCRE - Creation of diff information.  DIFFMOD - Modification of diff information.  DIFFDEL - Deletion of diff information.  Data will always be present in this field.	Character	15	NA	NA	NA		Determines action.
2	DiffId	Contains the unique ID of the diff.  Data will always be present in this field.	Character	10	rms_diff_ids	DIFF_ID	VARCHAR2(10 CHAR)	NA	Also used to populate rms_diff_group_detail for the default Diff Group membership.

Table B-3 (Cont.) RMS Diff Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
3	DiffDesc	Contains the text description of the diff.  Data will always exist in this field for DIFFCRE and DIFFMOD.	Character	120	rms_diff_ids	DIFF_DESC	VARCHAR2(120 CHAR)	NA	NA
4	DiffType	Contains the type code for the diff. All diffs belong to one and only one type.  Data will always exist in this field for DIFFCRE and DIFFMOD.	Character	6	rms_diff_ids	DIFF_TYPE	VARCHAR2(6 CHAR)	NA	Also used to populate rms_diff_group_head for the default Diff Group.
5	DiffType Desc	Contains the description of the diff.  Data will always exist in this field for DIFFCRE and DIFFMOD.	Character	120	rms_diff_ids	DIFF_TYPE_DESC	VARCHAR2(120 CHAR)	NA	Also used to populate rms_diff_group_head for the default Diff Group.
6	Industry Code	Can optionally hold the unique code used by industry standards to identify the differentiator. For example, in the US, the National Retail Federation defines a standard Color and Size Codes that gives retailers, vendors, and manufacturers a common language for product color and size identification for EDI purposes. This supplements the information conveyed by UPC codes. For example, mens pants size combination 32x32 has an NRF code number 10492.	Character	10	NA	NA	NA	NA	Ignored.

Table B-3 (Cont.) RMS Diffs Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
7	Industry Subgroup	Can optionally hold a sub-grouping code used by industry standards to further identify the differentiator. For example, in the US, the National Retail Federation uses a subgroup for colors (for example, purple is defined as 500; dark purple represents a range from 501 to 509, medium purple represents a range from 510 to 519, bright purple represents a range from 520 to 529, and so on).	Character	10	NA	NA	NA	NA	Ignored.
NA	NA	NA	NA	NA	rms_diff_ids	CREATE_DATE	TIMESTAMP(6)	now()	NA
NA	NA	NA	NA	NA	rms_diff_ids	UPDATE_DATE	TIMESTAMP(6)	now()	NA

## RMS Item Header

Table B-4 describes the RMS Item Header mapping.

Table B-4 RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Family	Value is always ITEMS. Data will always be present in this field.	Character	20	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
1	Type	Value is always FULLHDR when the program is run in full mode.  In delta mode, valid values are: ITEMHDRCRE ITEMHDRMOD ITEMHDRDEL  Data will always be present in this field.	Character	15	NA	NA	NA	NA	Determines action.
2	Location	For corporate level files, this field holds the string CORPORATE. In location specific files, this field holds the numeric ID of the store of WH.	Character	10	itm_item, itm_item_ dimensio n_value, itm_item_ dimensio n_type	ORG_CO DE, ORG_VA LUE	VARCHA R(30)	***	Dimension Value and Dimension Type are only used for Style items.
3	Item	ID of the item. This field will always have data.	Character	25	itm_item, itm_item_ dimensio n_value, itm_item_ dimensio n_type	ITEM_ID, DIMENSI ON_SYS TEM	VARCHA R(60)	NA	DIMENSIO N_SYSTE M is populated with ItemID for Style items.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
4	ItemParent	ID of the parent of the item. ItemParents can be used as a mechanism to group items together. The ItemParent will also exist as an Item in another row. Data is optional in this field for many items.	Character	25	itm_item, itm_item_cross_ref	PARENT_ITEM_ID, ITEM_ID	VARCHAR(60)	NA	If the record represents a UPC item, an itm_item_cross_reference record is created. Otherwise, the parent is stored in itm_item.parent_item_id. If a UPC item, ItemParent is set in itm_item_cross_reference.item_id, and the item is stored in itm_item_cross_reference.manufacturer_upc.
5	ItemGrandparent	ID of the grandparent of the Item. ItemGrandparents can be used as a mechanism to group items together. The ItemGrandparent will also exist as an Item in another row. Data is optional in this field for many items.	Character	25	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
6	PackInd	This field indicates if the item is a pack. A pack is a type of item that acts as a collection of other items. Packs have a Y value. Regular items have an N value.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.
7	SimpleP ackInd	This field indicates if the pack item is a simple pack. A simple pack is a collection that consists of multiple of the same item (for example, 10 pack of the same item). Only simple packs have a Y value. Both complex packs (which consist of a mixture of different items) and regular items have an N value.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.



Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
8	ItemLevel	<p>Number indicating in which of the three levels the item resides. The item level determines if the item stands alone or if it is part of a family of related items.</p> <p>The concept is best explained with the following typical (although not exhaustive) examples.</p> <p>Staple items generally have a item level = 1. UPCs for staple items generally have an item level = 2 (and the staple item is the UPC's parent item).</p> <p>Fashion styles generally have an item level = 1. Fashion skus generally have an item level = 2. UPCs for fashion skus generally have an item level = 3.</p> <p>Valid values are 1, 2, and 3.</p> <p>This field will always have data.</p>	Number	1	NA	NA	NA	NA	Used to distinguish Item from Style, and UPC from Item.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
9	TranLevel	<p>Number indicating which of the three levels of transactions occur for the item's group. The transaction level is the level at which the items inventory is tracked in the system. The transaction level item will be inventoried, counted, transferred, shipped, and so on. Only one level of the hierarchy of an item family may contain transaction level items.</p> <p>The concept is best explained with the following typical (although not exhaustive) examples.</p> <p>Staple items generally have a TranLevel = 1. UPCs for staple items generally have a TranLevel = 1 (inventory transactions occur at the staple sku level; sales of the item roll up to the parent staple sku).</p> <p>Fashion styles generally have a TranLevel = 2 (the style itself is not sold/inventoried).</p> <p>Fashion skus generally have an TranLevel = 2 (the fashion sku is sold/inventoried).</p> <p>UPCs for fashion skus generally have a TranLevel = 2 (the</p>	Number	1	NA	NA	NA	NA	Used to distinguish Item from Style, and UPC from Item.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
		fashion sku is sold/ inventoried).							
	TranLev el (Continu ed)	There are some rare cases in vendor-managed inventory where the TranLevel equals 3.  Valid values are 1, 2, and 3.  This field will always have data.							
10	Inventor yInd	This indicator is used to determine if inventory is held for the item/item family. Inventory is not held (value = N) in some cases, such as:  Concession items that are sold by independent in location concessions.  Consignment items that are not owned by the retailer; financial and inventory processing occurs after the item is sold to a consumer.  Containers sold/ returned for deposit. Some items that are transformed for sale.  Valid values are Y and N.  This field will always have data for the ITEMHDCRE and ITEMHDRMOD records.	Character	1	itm_item	NOT_INV ENTORIE D_FLAG	NUMBE R(1,0)	NA	When N, then 1; otherwise 0.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
11	Diff1Level	This field describes whether the Diff1 information represents a Diff Group or Diff ID. A Diff Group is a collection of possible Diff IDs. When assigned to a parent item, the diffs in the diff group limit the possible diff IDs that can be assigned to a child of the parent item. Valid Values are GROUP and ID. Data is optional in this field for many items.	Character	6	NA	NA	NA	NA	Used to identify Style Item. When GROUP, DataLoader fetches RMS DIFF Group Details to create Dimension System information. When ID, DataLoader fetches the Default DIFF Group for the Diff1Type.
12	Diff1Type	This field contains the type of the Diff1 information. Valid values can be configured by the retailer. Common examples include: C - Color WS - Waist Sizes F - Flavor SC - Scent Note that these examples are not consistent or required. They are presented here simply to help explain the field. Data is optional in this field for many items.	Character	6	itm_item_dimension_type	DIMENSION	VARCHAR2(30 CHAR)	NA	Only used when Diff1Level is provided.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
13	Diff1	This field contains the ID of the Diff1 information. If the Diff1Level is GROUP, this field contains a Diff Group ID. If the Diff1Level is ID, it contains the ID of a diff (a size, color, and so on.)  This field is optional.	Character	10	itm_item	DIMENSI ON1	VARCHA R2(60 CHAR)	NA	NA
14	Diff2Level	This field describes whether the Diff2 information represents a Diff Group or Diff ID.  A Diff Group is a collection of possible Diff IDs. When assigned to a parent item, the diffs in the diff group limit the possible diff IDs that can be assigned to a child of the parent item.  Valid values are GROUP and ID.  Data is optional in this field for many items.	Character	6	NA	NA	NA	NA	Used to identify Style Item. When GROUP, DataLoader fetches RMS DIFF Group Details to create Dimension System information. When ID, DataLoader fetches the Default DIFF Group for the Diff2Type.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
15	Diff2Type	This field contains the type of the Diff2 information. Valid values can be configured by the retailer. Common examples include: C - Color WS - Waist Sizes F - Flavor SC - Scent Note that these examples are not consistent or required. They are presented here simply to help explain the field. Data is optional in this field for many items.	Character	6	itm_item_dimension_type	DIMENSION	VARCHAR2(30 CHAR)	NA	Only used when Diff2Level is provided.
16	Diff2	This field contains the ID of the Diff2 information. If the Diff1Level is GROUP, this field contains a Diff Group ID. If the Diff1Level is ID, it contains the ID of a diff (a size, color, and so on). Data is optional in this field for many items.	Character	10	itm_item	DIMENSION2	VARCHAR2(60 CHAR)	NA	NA

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
17	Diff3Level	This field describes whether the Diff3 information represents a Diff Group or Diff ID. A Diff Group is a collection of possible Diff IDs. When assigned to a parent item, the diffs in the diff group limit the possible diff IDs that can be assigned to a child of the parent item. Valid values are GROUP and ID. Data is optional in this field for many items.	Character	6	NA	NA	NA	NA	Used to identify Style Item. When GROUP, DataLoader fetches the RMS DIFF Group Details to create the Dimension System information. When ID, DataLoader fetches the Default DIFF Group for the Diff3Type.
18	Diff3Type	This field contains the type of the Diff3 information. Valid values can be configured by the retailer. Common examples include: C - Color WS - Waist Sizes F - Flavor SC - Scent Note that these examples are not consistent or required. They are presented here simply to help explain the field. Data is optional in this field for many items.	Character	6	itm_item_dimension_type	DIMENSION	VARCHAR2(30 CHAR)	NA	Only used when Diff3Level is provided.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
19	Diff3	This field contains the ID of the Diff3 information. If the Diff1Level is GROUP, this field contains a Diff Group ID. If the Diff1Level is ID, it contains the ID of a diff (a size, color, and so on). Data is optional in this field for many items.	Character	10	itm_item	DIMENSI ON3	VARCHA R2(60 CHAR)	NA	NA
20	Diff4Lev el	This field describes whether the Diff4 information represents a Diff Group or Diff ID. A Diff Group is a collection of possible Diff IDs. When assigned to a parent item, the diffs in the diff group limit the possible diff IDs that can be assigned to a child of the parent item. Valid values are GROUP and ID. Data is optional in this field for many items.	Character	6	NA	NA	NA	NA	Ignored.



Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
21	Diff4Type	This field contains the type of the Diff4 information. Valid values can be configured by the retailer. Common examples include: C - Color WS - Waist Sizes F - Flavor SC - Scent Note that these examples are not consistent or required. They are presented here simply to help explain the field. Data is optional in this field for many items.	Character	6	NA	NA	NA	NA	Ignored.
22	Diff4	This field contains the ID of the Diff4 information. If the Diff1Level is GROUP, this field contains a Diff Group ID. If the Diff1Level is ID, it contains the ID of a diff (a size, color, and so on). Data is optional in this field for many items.	Character	10	NA	NA	NA	NA	Ignored.
23	Dept	Number identifying the department in the merchandise hierarchy to which the item belongs. If the item has a parent, the item's department will be the same as that of its parent. This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Number	4	itm_item	MERCH_LEVEL_2 (or configured level)	VARCHAR2(60 CHAR)	NA	D is always appended to the value. The value is used to look up the parent from the loc_org_hierarchy to populate merch_level_1.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
24	Class	Number identifying the class in the merchandise hierarchy to which the item belongs.  If the item has a parent, the item's class will be the same as that of its parent.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Number	4	NA	NA	NA	NA	Ignored.
25	Unique Class	Number uniquely identifying the class node to which the item belongs.  Class ID is not unique in the level of the merchandise hierarchy. The combination of Dept/Class is unique, but requires the use of a composite key.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Number	10	itm_item	MERCH_LEVEL_3 (or configured level)	VARCHAR2(60 CHAR)	NA	C is always appended to the value.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
26	Subclas s	Number identifying the subclass in the merchandise hierarchy to which the item belongs. Subclass ID is not unique in the level of the merchandise hierarchy. The combination of Dept/Class/Subclass is unique. If the item has a parent, the item's class will be the same as that of its parent. This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Number	4	NA	NA	NA	NA	Ignored.
27	UniqueS ubclass	Number uniquely identifying the subclass node to which the item belongs. Subclass ID is not unique in the level of the merchandise hierarchy. The combination of Dept/Class/Subclass is unique, but requires the use of a composite key. This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records	Character	10	itm_item	MERCH_ LEVEL_4 (or configured level)	VARCHA R2(60 CHAR)	NA	S is always appended to the value.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
28	Status	Item life cycle status of the item.  For this release, this field always contains the character A as only approved items are exported.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.
29	ItemDesc	Long description of the item.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	250	com_translations	TRANSLATION	VARCHAR2(4000 CHAR)	NA	If Location is CORPORATE, the com_translations record is created using ItemDesc.
30	SecondaryItemDesc	Secondary description of the item.  Data is optional in this field.	Character	250	NA	NA	NA	NA	Ignored.
31	ShortDescription	Shortened item description.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	120	NA	NA	NA	NA	Ignored.
32	BrandName	This field contains the brand associated to an item.  Data is optional in this field.	Character	30	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
33	Mercha ndiseInd	<p>Indicates if the item is a merchandise item (Y, N).</p> <p>Merchandise items are generally physical items (things that must be shipped/received and of which there is an inventory). Non-merchandise items are often items which do not have inventory. Common examples include extra fees for service (extended warranties, alterations) or endlessly available items (downloads, in-app purchases of bonus content, subscriptions).</p> <p>All items, both merchandise and non-merchandise, are exported from RMS.</p> <p>This field will always have data for all records.</p>	Character	1	NA	NA	NA	NA	If N, then NON_PHYSICAL item so the record is skipped.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
34	Primary Reflteml nd	Indicates if the sub-transaction level item is designated as the primary sub-transaction level item.  For transaction level items and above, the value in this field will be N.  For sub-transaction level items, this field may be either Y (if the current record is a primary UPC) or N (if the current record is not the primary UPC).  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.
35	CostZon eGroupl d	Cost zone group associated with the item for ELC calculations.  Data is optional in this field.	Number	4	NA	NA	NA	NA	Ignored.
36	Standar dUOM	Unit of measure in which stock of the item is tracked at a corporate level.  Unit of measure may have to be manually synchronized between the systems as this is foundation data that is not currently bulk integrated out of Merchandising.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	4	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
37	UOMConvFactor	Conversion factor between an Each and the standard_uom when the standard_uom is not in the quantity class (such as if standard_uom = lb and 1 lb = 10 eches, this factor will be 10). This factor is used to convert sales and stock data when an item is retailed in eches, but does not have eches as its standard unit of measure. Data is optional in this field.	Number	20	NA	NA	NA	NA	Ignored.
38	Package Size	Holds the size of the product printed on any packaging (for example, 24 ounces). This field can be used for reporting purposes and to determine same sized and different sized items. Data is optional in this field.	Number	12	NA	NA	NA	NA	Ignored.
39	Package UOM	Holds the unit of measure associated with the package size. This field can be used for reporting purposes and to determine same sized and different sized items. Data is optional in this field.	Character	4	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
40	StoreOrdMulti	Merchandise shipped from the warehouses to the stores must be specified in this unit type. Valid values are: C = Cases; I = Inner; E = Eaches. This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.
41	ForecastInd	Indicates if sales forecasts will be produced for this item. Valid values are: Y, N. This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.
42	OriginalRetail	The original retail price of the item per unit. This field is stored in the primary currency of the Merchandising systems. Data is optional in this field.	Number	20	NA	NA	NA	NA	Ignored.
43	OriginalRetailCurrencyCode	The currency code of the OriginalRetail. Data is optional in this field.	Character	3	NA	NA	NA	NA	Ignored.
44	MfgRecRetail	Data is optional in this field.	Number	20	itm_item	LIST_PRICE	NUMBER(17,6)	NA	NA
45	MfgRecRetailCurrencyCode	The currency code of the MfgRecRetail. Data is optional in this field.	Character	3	NA	NA	NA	NA	Ignored.



Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
46	RetailLa belType	This field indicates any special label type associated with an item (that is, pre-priced or cents off). This field is used in RMS for reporting purposes only. Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.
47	RetailLa belValue	This field represents the value associated with the RetailLabelType. Data is optional in this field.	Number	20	NA	NA	NA	NA	Ignored.
48	ItemAgg regateIn d	This field holds an indicator of whether the retailer wants to aggregate inventory and sales for the item with the inventory and sales of other child items. For staple items, this indicator is N. For fashion items, this indicator may be Y. If this indicator is Y, the retailer may also define which diff positions should be aggregated into item/diff combinations. Aggregated sales and inventory planning data can be used for inventory decision making and other reporting. This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
49	Diff1Agg regateIn d	This field holds an indicator (Y/N) of whether the retailer wants to aggregate inventory and sales for the item by the first Diff defined for the item (such as Style/Color).  Aggregated sales and inventory planning data can be used for inventory decision making and other reporting.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.
50	Diff2Agg regateIn d	This field holds an indicator (Y/N) of whether the retailer wants to aggregate inventory and sales for the item by the first Diff defined for the item (such as Style/Waist Size).  Aggregated sales and inventory planning data can be used for inventory decision making and other reporting.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
51	Diff3Agg regateIn d	This field holds an indicator (Y/N) of whether the retailer wants to aggregate inventory and sales for the item by the first Diff defined for the item (such as Style/Inseam).  Aggregated sales and inventory planning data can be used for inventory decision making and other reporting.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.
52	Diff4Agg regateIn d	This field holds an indicator (Y/N) of whether the retailer wants to aggregate inventory and sales for the item by the first Diff defined for the item (such as Style/Pattern).  Aggregated sales and inventory planning data can be used for inventory decision making and other reporting.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
53	ItemNu mberType	<p>This field holds a code descriptor of the type of item number. Valid values for this field include, but are not limited to:</p> <p>ITEM - Oracle Retail Item Number            UPC-A - UCC12            UPC-AS - UCC12 with Supplement            UPC-E - UCC8            UPC-ES - UCC8 with Supplement            EAN8 - EAN/UCC-8            EAN13 - EAN/UCC-13            EAN13S - EAN/UCC-13 with Supplement            ISBN10 - SBN-10            ISBN13 -            ISBN-13NDC -            NDC/NHRIC -            National Drug Code            PLU - PLU            VPLU - Variable Weight PLU            SSCC - SSCC Shipper Carton            UCC14 - EAN/UCC-14            MANL - Manual</p> <p>This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.</p>	Character	6	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
54	FormatID	<p>This field holds the format ID that corresponds to the item's variable UPC. This value is only used for items with variable weight PLU/variable weight UPCs (ItemNumberType = VPLU). Valid values include, but are not limited to:</p> <p>A 1-4-6-1 B 1-5-5-1 C 1-4-6-1 D 1-5-5-1 E 2-4-5-1 F 2-4-5-1 G 2-5-4-1 H 2-5-5-1 I 2-4-6-1 J 2-4-6-1 K 2-5-5-1</p> <p>In the case of a type A, this means the total barcode will be at least 6 digits. The prefix of the barcode will be 1 digit in the first position. The item ID is 4 digits and will be in digits 2 to 5 of the barcode. The variable weight will start in digit 6 of the barcode and be at least 1 (possibly more digits).</p> <p>Data is optional in this field, and can only exist for the ItemNumberType = VPLU.</p>	Character	1	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
55	Prefix	This column holds the prefix for variable weight UPCs. The size of the prefix (1 or 2 digits) depends on the FormatID. The prefix is used to standardize variable weight UPCs. Data is optional in this field, and can only exist for the ItemNumberType = VPLU.	Number	2	NA	NA	NA	NA	Ignored.
56	RecHan dlingTe mp	Holds the temperature information associated with the item. Valid values include, but are not limited to: FRIDGE - Keep Refrigerated at 35°F/1.6°C FROZEN - Keep Frozen at 0°F/-18C ROOM - Keep at Room Temperature Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.
57	RecHan dlingSe ns	Holds the sensitivity information associated with the item. Valid values include, but are not limited to: AERO - Aerosol Container - flammable COMPUS - Combustible EXPLOD - Explosive FRAG - Fragile TOXIC - Toxic Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
58	Perisha bleInd	Grocery item attribute used to indicate whether an item is perishable. Valid values are Y and N.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.
59	WasteTy pe	Identifies the wastage type as either sales or spoilage wastage. Sales wastage occurs during processes that make an item saleable (for example, fat is trimmed off at customer request). Spoilage wastage occurs during the products shelf life (for example, evaporation causes the product to weigh less after a period of time).  Valid values are: SP - Spoilage SL - Sales  Wastage is not applicable to pack items.  Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.
60	WasteP ct	Average percent of wastage for the item over its shelf life. Used in inflating the retail price for wastage items.  Data is optional in this field.	Number	12	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
61	Default WasteP ct	Default daily wastage percent for spoilage type wastage items. This value defaults to all item locations and represents the average amount of wastage that occurs on a daily basis. Data is optional in this field.	Number	12	NA	NA	NA	NA	Ignored.
62	Constan tDimInd	This field will always have data.	Character	1	NA	NA	NA	NA	Ignored.
63	Contain sInnerIn d	Indicates that the dimensions of the product are always the same, regardless of the supplier. Valid values are Y and N. This field will always have data for the ITEMHDCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.
64	SellableI nd	Indicates if the item may be sold as a unit. If it is Y, the item will have its own unique unit retail. If it is N, the item will not have a unit retail. This field will always have data for the ITEMHDCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.



Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
65	Orderab leInd	<p>Indicates if the item may be ordered as a unit.</p> <p>Valid values are:</p> <p>Y - Yes, this item/ pack may be ordered from a single supplier.</p> <p>N - No, this item/ pack may not be ordered from a single supplier.</p> <p>Non-orderable items might be transformed or produced (in- house bakery items for example) by the retailer. Examples might include, but are not limited to:</p> <p>Ground beef item is not orderable because the retailer orders a side of beef and transforms it into ground beef.</p> <p>In-house bakery items are not orderable because the retailer produces them in house.</p> <p>This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.</p>	Character	1	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
66	PackType	<p>Indicates if a pack item is a vendor pack or a buyer pack.</p> <p>A vendor pack is a pack that the vendor or supplier recognizes and sells to the retailer. If the pack item is a vendor pack, communication with the supplier will use the vendor pack number.</p> <p>A buyer pack is a pack that a buyer has created for ease of use within the retail business. If the pack item is a buyer pack, communication with the supplier will explode the pack out to its component items.</p> <p>This field will only contain data if the item is a pack item. If the pack item is not orderable, this field must be NULL. Valid values are: V - Vendor, B - Buyer. Data is optional in this field.</p>	Character	1	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
67	OrderAs Type	Indicates if a pack item is receivable at the component level or at the pack level (for a buyer pack only). This field is required if a pack item is an orderable buyer pack. This field must be NULL if the pack is sellable only or a vendor pack. This field will only be available if the item is a pack item. Valid values are:  E - Eaches (component level) P - Pack (buyer pack only) Data is optional in this field.	Character	1	NA	NA	NA	NA	Ignored.
68	ItemSer viceLev el	Default shipping option for consumers. Valid values include, but are not limited to: 2DAY - Second Day GRND - Ground OVRNT - Overnight POVRNT - Priority Overnight Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.
69	GiftWra pInd	This field contains a value of Y if the item is eligible to be gift wrapped. If not explicitly defined, this field defaults to N.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
70	ShipAloneInd	This field contains a value of Y if the item must be shipped alone to consumers. If not explicitly defined, this field defaults to N.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.
71	ItemXformInd	This field contains a value of Y if the item is associated with an item transformation. The item will either be the sellable item or orderable item in the transformation process. Transformations include a side of beef (orderable transformation item) cut into steaks/ground beef and so on (sellable transformation items).  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.
72	CatchWeightInd	Indicates whether the item should be weighed when it arrives at a location. Valid values for this field are Y and N.  This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	itm_item	MEASURE_REQ_FLAG	NUMBER(1,0)	NA	If Y, then 1.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
73	CatchW eightType	This field holds the catch weight type for a simple pack catch weight item. The value is based on the component items order_type and sale_type.  2 - order_type = Variable Weight, sale_type = Loose Weight  4 - order_type = Variable Weight, sale_type = Variable Weight Each  Data is optional in this field and will only exist for catch weight, simple pack items.	Character	1	NA	NA	NA	NA	Ignored.
74	CatchW eightOrd erType	This field holds a code that indicates how catch weight items are ordered. Valid values are: F - Fixed weight V - Variable weight  Data is optional in this field and will only exist for catch weight items.	Character	6	NA	NA	NA	NA	Ignored.
75	CatchW eightSal eType	This field holds a code that indicates how catch weight items are sold in store locations. Valid values are: V - variable weight each L - Loose weight  Data is optional in this field and will only exist for catch weight items.	Character	6	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
76	CatchW eightUO M	UOM for Catchweight Items. Data is optional in this field and will only exist for catch weight items.	Character	4	NA	NA	NA	NA	Ignored.
77	Depositl temType	This is the deposit item component type. A NULL value in this field indicates that this item is not part of a deposit item relationship. Valid values include: E - Contents A - Container Z - Crate T - Returned Item (Empty bottle) P - Complex pack (with deposit items) The Returned Item is flagged only to enable these items to be mapped to a separate GL account if required. Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.
78	Contain erItem	This field holds the container item number for a contents item. This field is only populated and required if the DepositItem Type is E. It will hold an item number that has a DepositItem Type of A. Data is optional in this field.	Character	25	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
79	DepositInPricePerUOM	This field indicates if the deposit amount is included in the price per UOM calculation for a contents item ticket. This value is only required if the DEPOSIT_ITEM_TYPE = E. Valid values are: I - Includes deposit amount E - Excludes deposit amount Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.
80	SOHInquiryAtPackInd	This field indicates if stock on hand inquiries from downstream systems should be allowed at the pack level for this item. It defaults to N for non-pack items. This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.
81	NotionalPackInd	If this indicator is Y, SIM and other downstream systems should track pack inventory at the pack level. If the indicator is N, SIM and other downstream systems track inventory at the component level. It defaults to N for non-pack items. This field will always have data for the ITEMHDRCRE and ITEMHDRMOD records.	Character	1	NA	NA	NA	NA	Ignored.

Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
82	Comments	Holds any free-form comments associated with the item. Data is optional in this field.	Character	2000	NA	NA	NA	NA	Ignored.
NA	NA	NA	NA	NA	itm_item	MERCH_LEVEL_1	VARCHAR2(60 CHAR)	NA	Populated by looking up the parent of the merch_level_2 value in loc_org_hierarchy.
NA	NA	NA	NA	NA	itm_item	ITEM_TYPCODE	VARCHAR2(30 CHAR)	STANDARD	NA
NA	NA	NA	NA	NA	itm_item	DESCRIPTION	VARCHAR2(254 CHAR)	NA	Contains synthesized Translation key following the pattern: "+item: [ITEM ID]:description". Key maps to the com_translation record populated from RMS ItemLoc.
NA	NA	NA	NA	NA	itm_item	NAME	VARCHAR2(254 CHAR)	NA	Contains synthesized Translation key following pattern: "+item: [ITEM ID]:description". Key maps to com_translation record populated from RMS ItemLoc.



Table B-4 (Cont.) RMS Item Header Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
NA	NA	NA	NA	NA	itm_item, itm_item_ dimensio n_value, itm_item_ dimensio n_type	ORGANI ZATION_I D	NUMBE R(10,0)	\${dtv.locat ion.org anizatio nId}	Always uses default value.
NA	NA	NA	NA	NA	itm_item, itm_item_ dimensio n_value, itm_item_ dimensio n_type	CREATE_ DATE	TIMESTA MP(6)	now()	Not set when Type =ITEMHDR MOD.
NA	NA	NA	NA	NA	itm_item, itm_item_ dimensio n_value, itm_item_ dimensio n_type	CREATE_ USER_ID	VARCHA R2(30 CHAR)	DATALO ADER	Not set when Type =ITEMHDR MOD.
NA	NA	NA	NA	NA	itm_item, itm_item_ dimensio n_value, itm_item_ dimensio n_type	UPDATE_ DATE	TIMESTA MP(6)	now()	Not set when Type =FULLHDR .
NA	NA	NA	NA	NA	itm_item, itm_item_ dimensio n_value, itm_item_ dimensio n_type	UPDATE_ USER_ID	VARCHA R2(30 CHAR)	DATALO ADER	Not set when Type =FULLHDR .

## RMS Item Location

Table B-5 describes the RMS Item Location mapping.

Table B-5 RMS Item Location Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Family	Value is always ITEMLOC. Data will always be present in this field.	Character	20	NA	NA	NA	NA	Ignored.
1	Type	Value is always FULLITEMLOC when the program is run in full mode. In delta mode, valid values are: ITEMLOCCRE ITEMLOCMOD ITEMLOCDEL Data will always be present in this field.	Character	15	NA	NA	NA	NA	Determines action.
2	LocType	This field indicates whether the location is a Store or Warehouse. Valid values are: S - Store W - Warehouse E - External Finisher Data will always be present in this field.	Character	1	itm_item_options	LEVEL_CODE	VARCHAR2(30 CHAR)	STORE	If not S, entire record is ignored.
3	Location	This field holds the numeric ID of the store or WH. Data will always be present in this field.	Number	10	itm_item_options	LEVEL_VALUE	VARCHAR2(30 CHAR)	NA	NA
4	Item	ID of the item. Data will always be present in this field.	Character	25	itm_item_options	ITEM_ID	VARCHAR2(60 CHAR)	NA	NA
5	ItemParent	ID of the parent of the item. Item parent does not vary by location, but is included in this feed as a denormalized convenience for downstream systems. Data is optional in this field for many items.	Character	25	NA	NA	NA	NA	Ignored, obtained from ItemHdr feed.

Table B-5 (Cont.) RMS Item Location Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
6	ItemGrandparent	ID of the grandparent of Item. Item grandparent does not vary by location, but is included in this feed as a denormalized convenience for downstream systems. Data is optional in this field for many items.	Character	25	NA	NA	NA	NA	Ignored, obtained from ItemHdr feed.
7	InitialUnitRetail	Initial Unit Retail of the item in the item's standard unit of measure. Data is optional in this field for some type of items. Data is only included in this field for the ITEMLOCCRE and FULLITEMLOC records. After initial item creation, unit retail and other pricing information should come from RPM. If this program is run in full mode and produces FULLITEMLOC records, a full extract from RPM of pricing should also be performed to update all price records.	NA	NA	NA	NA	NA	NA	Ignored.

Table B-5 (Cont.) RMS Item Location Mapping

P os	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
8	SellingUnitRetail	Data is optional in this field for some type of items. Data is only included in this field for the ITEMLOCCRE and FULLITEMLOC records.  After initial item creation, unit retail and other pricing information should come from RPM. If this program is run in full mode and produces FULLITEMLOC records, a full extract from RPM of pricing should also be performed to update all price records.	Number	20	itm_item_prices	PRICE	NUMBER(17,6)	NA	When non-null, a Regular Price Event record will be created in itm_item_prices.
9	CurrencyCode	Currency Code of retail values.  This field should be populated for the ITEMLOCCRE and FULLITEMLOC records that have InitialUnitRetail and SellingUnitRetail values.	NA	NA	NA	NA	NA	NA	Ignored.
10	SellingUnitOM	Data is optional in this field for some type of items. Data is only included in this field for the ITEMLOCCRE and FULLITEMLOC records.	Character	4	itm_item_options	UNIT_OF_MEASURE_CODE	VARCHAR2(30 CHAR)	NA	NA
11	TaxableItem	Indicates if the item is taxable at the location.  This field will always have data for FULLITEMLOC, ITEMLOCCRE, and ITEMLOCMOD.	Character	1	itm_item_options	TAX_GROUP_ID	VARCHAR2(60 CHAR)	0	If N, then 0, or configured value, (dataloader-beans.xml).

Table B-5 (Cont.) RMS Item Location Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
12	LocalItemDesc	<p>Contains the local description of the item. This may be the same as the primary description of the item, a regional description of the item (jimmies versus sprinkles in the US or roll versus bap versus cob versus bun in the UK), or a value in a local language (Overlay dress - true black knit at US stores versus Lagenkleid - Strick, tiefschwarz at stores in Germany).</p> <p>The intent is that this string is appropriate to print this description on signage/receipts at this location.</p> <p>This field will always have data.</p>	Character	250	com_translations	TRANSLATION	VARCHAR2(4000 CHAR)	NA	<p>If translated, ItemDescriptionsEnabled is true (see data-loader-beans.xml), and then com_translations record is created using ItemDesc. It is recommended that translated ItemDescriptionsEnabled be set to false when loading Xcenter because non-local descriptions are used in translation records when loading ItemHdr.</p>

Table B-5 (Cont.) RMS Item Location Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
13	LocalSh orDesc	<p>May contain an abbreviated local description of the item. This may be the same as the primary abbreviated description of the item, an abbreviation of regional description of the item, or an abbreviation in a local language.</p> <p>The intent is that this string is appropriate to print this description on signage/receipts at this location.</p> <p>Data is optional in this field.</p>	Character	120	NA	NA	NA	NA	Ignored.
14	Ti	<p>Number of shipping units (cases) that make up one tier of a pallet of this item for this location. A location may use a local pallet configuration if there are special space or receiving configurations that make typical pallets impractical.</p> <p>Multiply TI by HI to get the total number of cases for a pallet.</p> <p>Data is optional in this field.</p>	Number	12	NA	NA	NA	NA	Ignored.

Table B-5 (Cont.) RMS Item Location Mapping

P os	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
15	Hi	Number of tiers that make up a complete pallet (height). A location may use a local pallet configuration if there are special space or receiving configurations that make typical pallets impractical.  Multiply TI by HI to get the total number of cases for a pallet.  Data is optional in this field.	Number	12	NA	NA	NA	NA	Ignored.
16	StoreOr derMulti ple	Contains the multiple in which the item needs to be shipped from a warehouse to the location.  This field will always have data for FULLITEMLOC, ITEMLOCCRE, and ITEMLOCMOD.	Character	1	NA	NA	NA	NA	Ignored.
17	Status	Current status of item at the location. Valid values are: A - Active, item is valid and can be ordered and sold. I - Inactive, item is valid, but cannot be ordered or sold. C - Discontinued, item is valid and sellable, but no longer orderable .D - Delete, item is pending delete and cannot be ordered or sold.This field will always have data for FULLITEMLOC, ITEMLOCCRE, and ITEMLOCMOD.	Character	1	itm_item_ options	ITEM_AV AILABILIT Y_CODE, STOCK_ STATUS	VARCHA R2(30 CHAR, VARCHA R2(60 CHAR)	NA	If itemLoc:sta tus=A or C, the item_availa bility_code is Available. If itemLoc:sta tus=I or D, the item_availa bility_code is NA. If itemLoc:sta tus=C, the stock_statu s is DISCONTI NUED. Otherwise, stock_statu s is null.

Table B-5 (Cont.) RMS Item Location Mapping

P os	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
18	DailyWastePct	Average percentage lost from inventory on a daily basis due to natural wastage. Data is optional in this field.	Number	12	NA	NA	NA	NA	Ignored.
19	MeasureOfEach	Size of an each in terms of the uom_of_price, for example, 12 oz. This information can be used in ticketing and display to consumers. Data is optional in this field.	Number	12	NA	NA	NA	NA	Ignored.
20	MeasureOfPrice	Size to be used on the ticket in terms of the uom_of_price. For example, if the user wants the ticket to have the label print the price per ounce, this value would be 1. If the user wants the price per 100 grams, this value would be 100. Used in ticketing. Data is optional in this field.	Number	12	NA	NA	NA	NA	Ignored.
21	UomOfPrice	Unit of measure that is used on the ticket for this item. Data is optional in this field.	Character	4	NA	NA	NA	NA	Ignored.



Table B-5 (Cont.) RMS Item Location Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
22	Primary Variant	This field is used to address sales of PLUs (that is, above transaction level items) when inventory is tracked at a lower level (that is, UPC). This field only contains a value for items one level higher than the transaction level. Valid choices are any transaction level item that is a child of this item. In order to select a transaction level item as the primary variant, the item/location relationship must exist at the transaction level. When a transaction level item is specified as a primary variant for an item higher than the transaction level, an extra pos_mods record will be written. Both the transaction level item (that is, UPC) and the higher than transaction level item (that is, PLU) will be sent to the POS to allow the store to sell the PLU. The information sent for the PLU will be the same information sent for the transaction level item (that is, UPC). Data is optional in this field.	Character	25	NA	NA	NA	NA	Ignored.

Table B-5 (Cont.) RMS Item Location Mapping

P os	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
23	Primary CostPac k	This field contains an item number that is a simple pack containing the item in the item column for this record. If populated, the cost of the future cost table will be driven from the simple pack and the deals and cost changes for the simple pack. Data is optional in this field.	Character	25	NA	NA	NA	NA	Ignored.
24	Primary Supplier	Numeric identifier of the supplier who will be considered the primary supplier for the specified item/loc. The supplier/origin country combination will determine the value of the unit cost field on item_loc. If the supplier is changed and ELC = N, the unit cost field on item_loc will be updated with the new supplier's cost. Data is optional in this field.	Number	10	NA	NA	NA	NA	Ignored.
25	Primary OriginC ountry	Contains the identifier of the origin country which will be considered the primary country for the specified item/location. Data is optional in this field.	Character	3	NA	NA	NA	NA	Ignored.

Table B-5 (Cont.) RMS Item Location Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
26	Receive AsType	This column determines whether the stock on hand for a pack component item or the buyer pack itself will be updated when a buyer pack is received at a warehouse. Valid values are Each or Pack.  Data is optional in this field.	Character	1	NA	NA	NA	NA	Ignored.
27	Inbound HandlingDays	This field indicates the number of inbound handling days for an item at a warehouse type location.  Data is optional in this field.	Number	2	NA	NA	NA	NA	Ignored.

Table B-5 (Cont.) RMS Item Location Mapping

P os	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
28	Source Method	This value is used to specify how the ad-hoc PO/TSF creation process should source the item/location request. If the value is Warehouse, the process will attempt to fill the request by creating a transfer from the warehouse in the source_wh field. If this warehouse does not have enough inventory to fill the request, a purchase order will be created for the item/location's primary supplier. For warehouses, it is used by Oracle Retail Allocation to determine the valid sources and destinations for warehouse to warehouse allocations. Data is optional in this field.	Character	1	NA	NA	NA	NA	Ignored.

Table B-5 (Cont.) RMS Item Location Mapping

P os	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
29	Source Wh	This value is used by the ad-hoc PO/ Transfer creation process to determine from which warehouse to fill the stores request. It is also used by the Allocation process to support warehouse to warehouse allocations. A value is required in this field if the sourcing method is Warehouse. Data is optional in this field.	Number	10	NA	NA	NA	NA	Ignored.
30	UinType	This column contains the unique identification number (UIN) used to identify the instances of the item at the location. Data is optional in this field.	Character	6	NA	NA	NA	NA	Used to determine a Serialized Item. If empty, itm_item.serialized_item_flag is set to 0. Otherwise, itm_item.serialized_item_flag is set to 1.
31	UinLabel	This column contains the label for the UIN when displayed in SIM. Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.
32	Capture TimeInProc	This column indicates when the UIN should be captured for an item during transaction processing. Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.

Table B-5 (Cont.) RMS Item Location Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
33	ExtUinInd	This Yes/No indicator indicates if the UIN is being generated in the external system.  This field will always have data for FULLITEMLOC, ITEMLOCCRE, and ITEMLOCMOD.	Character	1	NA	NA	NA	NA	Ignored.
34	IntentionallyRangedInd	Determines if the location is ranged intentionally by the user for replenishment/selling (Y) or incidentally ranged (N) by the RMS programs when the item is not ranged to a specific location on the transaction.  This field will always have data for FULLITEMLOC, ITEMLOCCRE, and ITEMLOCMOD.	Character	1	NA	NA	NA	NA	Ignored.
35	Costing Location	Numeric identifier of the costing location for the franchise store. This field may contain a store or a warehouse.  Data is optional in this field.	Number	10	NA	NA	NA	NA	Ignored.
36	Costing LocType	This field holds the type of costing location in the CostingLocation field.  Data is optional in this field.	Character	1	NA	NA	NA	NA	Ignored.

Table B-5 (Cont.) RMS Item Location Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
37	Launch Date	Holds the date that the item should first be sold at the location; in the human readable format DD-MON-YYYY.  Data is optional in this field.	Character	12	NA	NA	NA	NA	Ignored.
38	QtyKey Options	Determines whether the qty key on a POS should be used for this item at the location. Valid values include, but are not limited to: R - Required P - Prohibited O - Optional Data is optional in this field.	Character	6	itm_item_options	PROMPT_FOR_QUANTITY_FLAG, FORCE_QUANTITY_OF_ONE_FLAG	NUMBER(1,0)	NA	PROMPT_FOR_QUANTITY_FLAG - 1 if R, otherwise 0. FORCE_QUANTITY_OF_ONE_FLAG - 1 if P, otherwise 0.
39	Manual PriceEntry	Determines whether the price can/should be entered manually on a POS for this item at the location. Valid values include, but are not limited to: R - Required P - Prohibited O - Optional Data is optional in this field.	Character	6	itm_item_options	PROMPT_FOR_PRICE_FLAG	NUMBER(1,0)	NA	1 if R, otherwise 0.

Table B-5 (Cont.) RMS Item Location Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
40	Deposit Code	Indicates if a deposit is associated with this item at the location. Deposits are not subtracted from the retail of an item uploaded to RMS, and so on. This kind of processing is the responsibility of the client and should occur before sales are sent to Sales Audit and RMS. Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.
41	FoodStampInd	Indicates whether the item is approved for food stamps at the location. This indicator does not impact processing in Sales Audit and RMS. Data is optional in this field.	Character	1	itm_item_options	FOODSTAMP_ELIGIBLE_FLAG	NUMBER(1,0)	NA	1 if Y, otherwise 0.
42	WicInd	Indicates whether the item is approved for WIC at the location. This indicator does not impact processing in Sales Audit and RMS. Data is optional in this field.	Character	1	NA	NA	NA	NA	Ignored.



Table B-5 (Cont.) RMS Item Location Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
43	ProportionalTarePct	Holds the value associated for the packaging in items sold by weight at the location. The proportional tare is the proportion of the total weight of a unit of an item that is packaging (that is, if the tare item is bulk candy, this is the proportional of the total weight of one piece of candy that is the candy wrapper).  Data is optional in this field.	Number	12	NA	NA	NA	NA	Ignored.
44	FixedTareValue	Holds the value associated for the packaging in items sold by weight at the location. Fixed tare is the tare of the packaging. This value is fixed, regardless of how much of the item is sold (that is, if the tare item is bulk candy, this is weight of the bag and twist tie).  Data is optional in this field.	Number	12	NA	NA	NA	NA	Ignored.
45	FixedTareUom	Holds the unit of measure value associated with the tare value.  Data is optional in this field.	Character	4	NA	NA	NA	NA	Ignored.
46	RewardEligible	Holds whether the item is legally valid for various types of bonus point/award programs at the location.  Data is optional in this field.	Character	1	NA	NA	NA	NA	Ignored.

Table B-5 (Cont.) RMS Item Location Mapping

P os	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
47	NatlBrandCompItem	Holds the nationally branded item to which the current item should be compared. Data is optional in this field.	Character	25	NA	NA	NA	NA	Ignored.
48	ReturnPolicy	Holds the return policy for the item at the location. Retailers may configure any number of return policies. Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.
49	StopSaleInd	Indicates that sale of the item should be stopped immediately at the location (that is, in case of recall, and so on). Data is optional in this field.	Character	1	itm_item_options	ITEM_AVAILABILITY_CODE	VARCHAR2(30 CHAR)	NA	If stopSaleInd=Y, item_availability_code is RECALL. Otherwise, see the itemLoc:status mapping.
50	ElectMarketingClub	Holds the code that represents the marketing clubs to which the item belongs at the location. Retailers may configure any number of marketing clubs. Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.
51	ReportCode	Code to determine which reports the location should run. Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.

Table B-5 (Cont.) RMS Item Location Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
52	ReqShelfLifeOnSelection	Holds the required shelf life for an item on selection in days. This field is not required. Data is optional in this field.	Number	4	NA	NA	NA	NA	Ignored.
53	ReqShelfLifeOnReceipt	Holds the required shelf life for an item on receipt in days. Data is optional in this field.	Number	4	NA	NA	NA	NA	Ignored.
54	IBShelfLife	Holds the Investment Buy-specific shelf life for the item/location in days. Data is optional in this field.	Number	4	NA	NA	NA	NA	Ignored.
55	StoreReorderableInd	Indicates whether the store may reorder the item. This field is required to be either Y - yes or N - no. The field defaults to N. Data is optional in this field.	Character	1	NA	NA	NA	NA	Ignored.
56	RackSize	Indicates the rack size that should be used for the item. This field is not required. Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.
57	FullPalletItem	Indicates whether a store must reorder an item in full pallets only. This field is required to be either Y - yes or N - no. The field defaults to N. Data is optional in this field.	Character	1	NA	NA	NA	NA	Ignored.

Table B-5 (Cont.) RMS Item Location Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
58	InStoreMarketBasket	Holds the in-store market basket code for this item/location combination. Data is optional in this field.	Character	6	NA	NA	NA	NA	Ignored.
59	StorageLocation	Holds the current storage location or bin number for the item at the location. Data is optional in this field.	Character	7	NA	NA	NA	NA	Ignored.
60	AltStorageLocation	Holds the preferred alternate storage location or bin number for the item at the location. Data is optional in this field.	Character	7	NA	NA	NA	NA	Ignored.
61	ReturnableInd	This field contains a value of Yes when the item can be returned to the location. Data is optional in this field.	Character	1	itm_item_options	NOT_RETURNABLE_FLAG	NUMBER(1,0)	NA	1 if N, otherwise 0.
62	RefundableInd	This field contains a value of Yes when the item is refundable at the location. Data is optional in this field.	Character	1	NA	NA	NA	NA	Ignored.
63	BackOrderInd	This field contains a value of Yes when the item can be back-ordered to the location. Data is optional in this field.	Character	1	NA	NA	NA	NA	Ignored.

Table B-5 (Cont.) RMS Item Location Mapping

P os	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
64	Mercha ndiseInd	Note that the MerchandiseInd does not vary by locations (items are not physical entities in one location and fees in another). The MerchandiseInd is denormalized to the item/location level because it is a common use case for some downstream systems to care only about physical or non-physical items. This field is denormalized to assist those systems in their filtering logic. All items, both merchandise and non-merchandise, are exported from RMS. This field will always have data for all records.	Character	1	NA	NA	NA	NA	If N, then NON_PHYSICAL item so record is skipped.
65	Clearan celInd	A flag indicating if the item is in clearance price or regular price. "Y" for clearance price and "N" for regular price.							
	NA	NA	NA	NA	itm_item, itm_item_ options	ORGANIZ ATION_ID	NUMBE R(10,0)	\$ {dtv.loc ation.org nizationl d}	Always uses default value.
	NA	NA	NA	NA	itm_item, itm_item_ options	CREATE_ DATE	TIMESTA MP(6)	now()	Not set when Type =ITEMLOC MOD.
	NA	NA	NA	NA	itm_item, itm_item_ options	CREATE_ USER_ID	VARCHA R2(30 CHAR)	DATALO ADER	Not set when Type =ITEMLOC MOD.

**Table B-5 (Cont.) RMS Item Location Mapping**

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
	NA	NA	NA	NA	itm_item, itm_item_options	UPDATE_DATE	TIMESTAMP(6)	now()	Not set when Type =FULLITE MLOC.
	NA	NA	NA	NA	itm_item, itm_item_options	UPDATE_USER_ID	VARCHAR2(30 CHAR)	DATALOADER	Not set when Type =FULLITE MLOC.

## RMS Merchandise Hierarchy

Table B-6 describes the RMS Merchandise Hierarchy mapping.

**Table B-6 RMS Merchandise Hierarchy Mapping**

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Family	Value is always MERCHHIERARCHY.	Character	20	ITM_MERCH_HEIRARCHY	NA	NA	NA	No need to store this information. This information is only consumed by the transformer to determine the feed type.

Table B-6 (Cont.) RMS Merchandise Hierarchy Mapping

P os	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
1	Type	<p>Value is always FULL when the program is run in full mode.</p> <p>If the program is run in delta mode, the type will vary, and be composed of the entity (DIVISION, GROUP, DEPT, CLASS, SUBCLASS) and the type of change (CRE, MOD, DEL). Examples include:</p> <p>DIVISIONCRE DIVISIONMOD DIVISIONDEL GROUPCRE GROUPMOD GROUPDEL DEPTCRE DEPTMOD DEPTDEL CLASSCRE CLASSMOD CLASSDEL SUBCLASSCRE SUBCLASSMOD SUBCLASSDEL</p> <p><b>Note:</b> Deleting a node of the merchandise hierarchy is unusual, and can only be done if no items are associated with the node.</p>	Character	15	ITM_MER CH_HEIR ARCHY	NA	NA	NA	No need to store this information. This information is only consumed by the transformer to determine the action type.

Table B-6 (Cont.) RMS Merchandise Hierarchy Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
2	HierarchyLevel	Value is always DIVISION, GROUP, DEPT, CLASS, SUBCLASS. This field cannot be null.  This information identifies the level of the merchandise hierarchy that is described by this record.  It is not possible to modify a HierarchyLevel on an existing record.	Character	10	ITM_MERCH_HIERARCHY	level_code	VARCHAR2(30 CHAR)	NA	level
3	HierarchyNodeid	HierarchyNodeid is only unique within a HierarchyLevel (meaning it is possible, for example, that there is both a DIVISION 1 and a GROUP 1 in the full merchandise hierarchy).  It is not possible to modify HierarchyNodeid on an existing record.	Number	10	ITM_MERCH_HIERARCHY	heirarchy_id	VARCHAR2(60 CHAR)	NA	heirarchy id+first letter of hierarchy level.
4	HierarchyNodeName	Name of the organizational hierarchy entity. This field cannot be null.  Description data is only sent in the primary integration language of the system.  HierarchyNodeName can be modified.	Character	150	ITM_MERCH_HIERARCHY	description	VARCHAR2(254 CHAR)	NA	node name



Table B-6 (Cont.) RMS Merchandise Hierarchy Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
5	ParentLevel	Level of the organizational hierarchy above the current node. Both ParentLevel and ParentId should be evaluated to correctly traverse the hierarchy. It is not possible to modify ParentLevel on an existing record.	Character	10	ITM_MERCH_HEIRARCHY	NA	NA	NA	This ID is used to validate the parent child relationship. It is not persisted into the database, but plays a key role in the parent child relationship validation of the merchandise hierarchy.
6	ParentId	ID of the level of the organizational hierarchy above the current node. Both ParentLevel and ParentId should be evaluated to correctly traverse the hierarchy. ParentId can be modified, meaning it is possible to change the division to which a group belongs.	Number	10	ITM_MERCH_HEIRARCHY	parent_id	VARCHAR2(60 CHAR)	NA	parent heirarchy id

Table B-6 (Cont.) RMS Merchandise Hierarchy Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
7	GrandparentMerchDisplayId	<p>Only populated for SUBCLASS entities. For subclasses, this column holds the department ID used for display purposes in RMS (department is the grandparent of subclass).</p> <p>Note that in RMS, dept, class, and subclass display IDs are combined to form a composite unique key. Every department can have a class 1. Every class in Department 1000 can have a subclass 1. Looking only at the display IDs, all three values are required for uniqueness.</p>	Number	4	NA	NA	NA	NA	NA

Table B-6 (Cont.) RMS Merchandise Hierarchy Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
8	parentMerchDisplayId	<p>Only populated for CLASS and SUBCLASS entities.</p> <p>For classes, this column holds the department ID used for display purposes in RMS (department is the parent of class).</p> <p>For subclasses, this column holds the class ID used for display purposes in RMS.</p> <p>Note that in RMS, dept, class, and subclass display IDs are combined to form a composite unique key. Every department can have a class 1. Every class in Department 1000 can have a subclass 1. Looking only at the display IDs, all three values are required for uniqueness.</p>	Number	4	NA	NA	NA	NA	NA

**Table B-6 (Cont.) RMS Merchandise Hierarchy Mapping**

P os	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
9	merchDi splayId	<p>Only populated for DEPARTMENT, CLASS, and SUBCLASS entities.</p> <p>For departments, this column holds the department display ID.</p> <p>For classes, this column holds the class display ID.</p> <p>For subclasses, this column holds the subclass display ID.</p> <p>Note that in RMS, dept, class, and subclass display IDs are combined to form a composite unique key. Every department can have a class 1. Every class in Department 1000 can have a subclass 1. Looking only at the display IDs, all three values are required for uniqueness.</p>	Number	4	NA	NA	NA	NA	NA
	NA	NA	NA	NA	ITM_MER CH_HEIR ARCHY	CREATE_ DATE	TIMESTA MP(6)	NA	NA
	NA	NA	NA	NA	ITM_MER CH_HEIR ARCHY	CREATE_ USER_ID	VARCHA R2(30 CHAR)	NA	NA
	NA	NA	NA	NA	ITM_MER CH_HEIR ARCHY	UPDATE_ DATE	TIMESTA MP(6)	NA	NA
	NA	NA	NA	NA	ITM_MER CH_HEIR ARCHY	UPDATE_ USER_ID	VARCHA R2(30 CHAR)	NA	NA

## RMS Organizational Hierarchy

Table B-7 describes the RMS Organizational Hierarchy mapping.

**Table B-7 RMS Organizational Hierarchy Mapping**

<b>P o s</b>	<b>RMS Field Name</b>	<b>RMS Description</b>	<b>RMS Field Type</b>	<b>RMS Max Width</b>	<b>Xstore Table</b>	<b>Xstore Column</b>	<b>Xstore Data Type</b>	<b>Xstore Default Value</b>	<b>Xstore Comment</b>
0	Family	Value is always ORGHIERARCHY.	Character	20	NA	NA	NA	NA	Ignored.

Table B-7 (Cont.) RMS Organizational Hierarchy Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
1	Type	<p>Value is always FULL when the program is run in full mode.</p> <p>If the program is run in delta mode, the type will vary, and be composed of the entity (COMP, CHAIN, AREA, REGION, DISTRICT, STORE, WH) and the type of change (CRE, MOD, DEL). Examples include: COMPCRE - Creation of a Company node. COMPMOD - Modification of a Company node. CHAINCRE - Creation of Chain node. CHAINMOD - Modification of a Chain node. CHAINDEL - Delete of Chain node. AREACRE - Creation of an Area node. AREAMOD - Modification of Area node. AREADEL - Delete of Area node. REGIONCRE - Creation of Region node. REGIONMOD - Modification of Region node. REGIONDEL - Delete of Region node. DISTRICTCRE - Creation of District node.</p>	Character	15	NA	NA	NA	NA	Determines action.

Table B-7 (Cont.) RMS Organizational Hierarchy Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
	Type (Continued)	<p>DISTRICTMOD - Modification of District node.</p> <p>DISTRICTDEL - Delete of a District node.</p> <p>STORECRE - Creation of a Store node.</p> <p>STOREMOD - Modification of Store node.</p> <p>STOREDEL - Delete of Store node.</p> <p>WHCRE - Creation of WH node.</p> <p>WHMOD - Modification of WH node.</p> <p>WHDEL - Delete of WH node.</p> <p><b>Note:</b> Deletion of Company node is not allowed.</p>	NA	NA	NA	NA	NA	NA	NA
2	HierarchyLevel	<p>Value is always COMPANY, CHAIN, AREA, REGION, DISTRICT, STORE, or WAREHOUSE. This field cannot be null.</p> <p>This information identifies the level of the organizational hierarchy that is described by this record.</p> <p>It is not possible to modify a HierarchyLevel on an existing record.</p>	Character	10	loc_org_hierarchy	org_code	VARCHAR2(30 CHAR)	NA	For the root COMPANY node, the column is hard-coded as "***".

Table B-7 (Cont.) RMS Organizational Hierarchy Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
3	HierarchyNodeI	This information identifies the node of the organizational hierarchy that is described by this record. This field cannot be null.  HierarchyNodeI is only unique within a HierarchyLevel (meaning it is possible, for example, that there is both a DISTRICT 1 and a REGION 1 in the full organizational hierarchy).  It is not possible to modify HierarchyNodeI on an existing record.	Number	10	loc_org_h ierarchy	org_code	VARCHA R2(60 CHAR)	NA	For the root COMPANY node, the column is hard-coded as "*" .
4	HierarchyNodeName	Name of the organizational hierarchy entity. This field cannot be null.  Description data is only sent in the primary integration language of the system.  HierarchyNodeName can be modified.	Character	150	loc_org_h ierarchy	descriptio n	VARCHA R2(254 CHAR)	NA	NA



Table B-7 (Cont.) RMS Organizational Hierarchy Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
5	ParentLevel	<p>Level of the organizational hierarchy above the current node. Both ParentLevel and ParentId should be evaluated to correctly traverse the hierarchy.</p> <p>ParentLevel is null for the COMPANY, but will exist for all other hierarchy levels. Warehouses always have the COMPANY node as their ParentLevel.</p> <p>It is not possible to modify ParentLevel on an existing record.</p>	Character	10	loc_org_hierarchy	parent_code	VARCHAR2(30 CHAR)	NA	<p>For the root COMPANY node, the column is hard-coded as null.</p> <p>For the second level CHAIN node, the column is hard-coded to "**".</p>
6	ParentId	<p>ID of the level of the organizational hierarchy above the current node. Both ParentLevel and ParentId should be evaluated to correctly traverse the hierarchy.</p> <p>ParentId is null for the COMPANY, but will exist for all other hierarchy levels. Warehouses always have the COMPANY node ID as their ParentId.</p> <p>ParentId can be modified, meaning it is possible to change the REGION ID that a DISTRICT ID belongs to (but a DISTRICT will always belong to a REGION as it is not possible to change the ParentLevel).</p>	Number	10	loc_org_hierarchy	parent_value	VARCHAR2(60 CHAR)	NA	<p>For the root COMPANY node, the column is hard-coded as null.</p> <p>For the second level CHAIN node, the column is hard-coded to "**".</p>

Table B-7 (Cont.) RMS Organizational Hierarchy Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
7	MgrName	<p>Manager of the current node of the hierarchy.</p> <p>MgrName is null for the COMPANY, and is optional for CHAIN, AREA, REGION, DISTRICT, and WAREHOUSE. It will always exist for STORE in Cre and Mod records.</p> <p>MrgName can be modified.</p>	Number	10	loc_org_hierarchy	level_mgr	VARCHAR2(254 CHAR)	NA	NA
8	CurrencyCode	<p>Currency of the current node of the hierarchy.</p> <p>CurrencyCode is null for the COMPANY and optional for CHAIN, AREA, REGION, DISTRICT, and WAREHOUSE. It will always exist for STORE in Cre and Mod records.</p> <p>CurrencyCode can be modified for a CHAIN, AREA, REGION, and DISTRICT. It cannot be modified for a STORE or Warehouse.</p>	Character	3	NA	NA	NA	NA	Ignored.
NA	NA	NA	NA	NA	loc_org_hierarchy	level_order	NUMBER(10,0)	NA	0 - COMPANY 10 - CHAIN 20 - AREA 30 - REGION 40 - DISTRICT 1000 - STORE 2000 - Warehouse

**Table B-7 (Cont.) RMS Organizational Hierarchy Mapping**

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
N A	NA	NA	NA	NA	loc_org_h ierarchy	sort_order	NUMBE R(10,0)	NA	Always set to 0.
N A	NA	NA	NA	NA	loc_org_h ierarchy	inactive_fl ag	NUMBE R(1,0)	NA	Use default 0.
N A	NA	NA	NA	NA	loc_org_h ierarchy	ORGANIZ ATION_ID	NUMBE R(10,0)	\$ {dtv.locat ion.orga nizationI d}	Always uses default value.
N A	NA	NA	NA	NA	loc_org_h ierarchy	CREATE_ DATE	TIMESTA MP(6)	now()	Not set when Type represents UPDATE.
N A	NA	NA	NA	NA	loc_org_h ierarchy	UPDATE_ DATE	TIMESTA MP(6)	now()	Not set when Type represents CREATE.
N A	NA	NA	NA	NA	loc_rtl_loc	UPDATE_ USER_ID	VARCHA R2(30 CHAR)	DATALO ADER	Always set.

## RMS Related Item Detail

Table B-8 describes the RMS Related Item Detail mapping.

**Table B-8 RMS Related Item Detail Mapping**

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Family	Value is always ITEMS. Data will always be present in this field.	Character	20	NA	NA	NA	NA	Ignored.

Table B-8 (Cont.) RMS Related Item Detail Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
1	Type	Value is always FULLRELITEMDET when the program is run in full mode. If the program is run in delta mode, the type will vary based on the type of change (CRE, MOD, DEL). Valid values are: RELITEMDETCRE RELITEMDETMOD RELITEMDETDEL Data will always be present in this field.	Character	15	NA	NA	NA	NA	Determines Action. RelationshipType is looked up from rms_related_item_head by RelationshipId, Location, and OrganizationId.
2	RelationshipID	Unique identifier for each relationship header. Data will always be present in this field.	Number	10	itm_substitute_items, itm_attached_items	EXTERNAL_ID	VARCHAR2(60 CHAR)	NA	NA
3	RelatedItem	Item ID of the related item Data will always be present in this field.	Character	25	itm_substitute_items, itm_attached_items	ATTACHED_ITEM_ID, SUBSTITUTE_ITEM_ID	VARCHAR2(60 CHAR)	NA	NA
4	Location	For corporate level files, this field holds the string CORPORATE. In location specific files, this field holds the numeric ID of the store of WH. Data will always be present in this field.	Character	10	itm_substitute_items, itm_attached_items	LEVEL_VALUE	VARCHAR2(60 CHAR)	NA	NA

Table B-8 (Cont.) RMS Related Item Detail Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
5	Priority	Priority is only defined if the relationship is of the type SUBS at the related item header level. In the case of multiple related substitute items, this column could be used (optionally) to define relative priority. If there are multiple substitute items, it is possible not to define a priority, in which case all possible substitutions have the same relative priority. Data is optional in this field.	Number	4	NA	NA	NA	NA	Ignored.
6	StartDate	Optional start date that the item should be used in the relationship in DD-MON-YYYY format. If defined, this date indicates the first date the item should be offered as an upsell, substitute, or cross sell. Data is optional in this field.	Character	11	itm_substitute_items, itm_attached_items	BEGIN_DATE_TIME	TIMESTAMP(6)	NA	NA
7	EndDate	Optional end date that the item should be used in the relationship; in DD-MON-YYYY format. If defined, this date indicates the last date the item should be offered as an upsell, substitute or cross sell. Data is optional in this field.	Character	11	itm_substitute_items, itm_attached_items	END_DATE_TIME	TIMESTAMP(6)	NA	NA

Table B-8 (Cont.) RMS Related Item Detail Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
N A	NA	NA	NA	NA	itm_substitute_items, itm_attached_items	ORGANIZATION_ID	NUMBER(10,0)	\${dtv.location.organizationId}	Always uses default value.
N A	NA	NA	NA	NA	itm_substitute_items, itm_attached_items	CREATE_DATE	TIMESTAMP(6)	now()	Not set when Type =RELITEM DETMOD.
N A	NA	NA	NA	NA	itm_substitute_items, itm_attached_items	CREATE_USER_ID	VARCHAR2(30 CHAR)	DATALOADER	Not set when Type =RELITEM DETMOD.
N A	NA	NA	NA	NA	itm_substitute_items, itm_attached_items	UPDATE_DATE	TIMESTAMP(6)	now()	Not set when Type =FULLRELI TEMDET.
N A	NA	NA	NA	NA	itm_substitute_items, itm_attached_items	UPDATE_USER_ID	VARCHAR2(30 CHAR)	DATALOADER	Not set when Type =FULLRELI TEMDET.
N A	NA	NA	NA	NA	itm_attached_items	PROMPT_TO_ADD_FLAG	NUMBER(1,0)	TRUE	Configurable in dataloader-beans.xml.
N A	NA	NA	NA	NA	itm_attached_items	PROMPT_TO_ADD_MSG_KEY	VARCHAR2(254 CHAR)	_commonAttachedItemsPrompt	Configurable in dataloader-beans.xml.

## RMS Related Item Header

Table B-9 describes the RMS Related Item Header mapping.

**Table B-9 RMS Related Item Header Mapping**

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Family	Value is always ITEMS. Data will always be present in this field.	Character	20	NA	NA	NA	NA	Ignored.
1	Type	Value is always FULLRELITEMHDR when the program is run in full mode. If the program is run in delta mode, the type will vary based on the type of change (CRE, MOD, DEL). Valid values are: RELITEMHEADCRE RELITEMHEADMOD RELITEMHEADDEL Data will always be present in this field.	Character	15	NA	NA	NA	NA	Determines action. MOD will move records between itm_substitute_items and item_attached_items when the modified record represents a relationship type change between CRSL/UPSL and SUBS.
2	RelationshipID	Unique identifier for each relationship header. Data will always be present in this field.	Number	20	rms_relat ed_item_ head	RELATIO NSHIP_I D	NUMBE R(20,0)	NA	Used as externalid in itm_substitute_items and item_attached_items records.
3	Item	Item for which the relationships are defined. Data will always be present in this field.	Character	25	rms_relat ed_item_ head	ITEM	VARCHA R2(25 CHAR)	NA	When SUBS, this is the primaryItem. When CRSL/UPSL, this is the soldItem.

Table B-9 (Cont.) RMS Related Item Header Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
4	Location	For corporate level files, this field holds the string CORPORATE.  In location specific files, this field holds the numeric ID of the store of WH.  Data will always be present in this field.	Character	10	rms_relat ed_item_ head	LOCATIO N	VARCHA R2(10 CHAR)	NA	Used as levelValue in itm_substitute_items and item_attached_items records.
5	Relation shipName	Name given to the relationship.  Data will always be present in this field for the RELITEMHEADCRE and RELITEMHEADMOD records, but will not be present for RELITEMHEADDEL records.	Character	255	rms_relat ed_item_ head	RELATIO NSHIP_N AME	VARCHA R2(255 CHAR)	NA	Ignored.
6	Relation shipType	Describes the type of relationship. Valid values are:  CRSL Cross Sell SUBS Substitution UPSL Up Sell  Data will always be present in this field for the RELITEMHEADCRE and RELITEMHEADMOD records, but will not be present for RELITEMHEADDEL records.	Character	6	rms_relat ed_item_ head	RELATIO NSHIP_T YPE	VARCHA R2(6 CHAR)	NA	Determines the .type of Xstore related item. SUBS = Xstore Substitute Items, CRSL/ UPSL = Xstore Attached Items.



Table B-9 (Cont.) RMS Related Item Header Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
7	MandatoryInd	<p>This field indicates whether the relationship should be mandatory.</p> <p>For example, an item such as a laptop may have a mandatory cross sell relationship. The related items could be power cords for the US, UK, Mainland Europe, India, and so on. When the laptop is sold, it should be mandatory that one of the related power cords also be selected. Note that Merchandising/ Sales Audit do not validate that the mandatory related item is also sold.</p> <p>Generally, only cross sell relationships are mandatory. Substitution and upsell relationships can be defined as mandatory, but in those cases, the definition of mandatory is at the discretion of the client and generally means that substitution or upsell must, as business process, be offered to consumers.</p> <p>Data will always be present in this field for the RELITEMHEADCR E and RELITEMHEADMO D records, but will not be present for</p>	Character	1	rms_relat ed_item_ head	MANDAT ORY_IND	VARCHA R2(1 CHAR)	NA	No logic is based on this data.

**Table B-9 (Cont.) RMS Related Item Header Mapping**

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
		RELITEMHEADDEL records.							
NA	NA	NA	NA	NA	rms_related_item_head	ORGANIZATION_ID	NUMBER(10,0)	{dtv.location.organizationid}	Always uses default value.
NA	NA	NA	NA	NA	rms_related_item_head	CREATE_DATE	TIMESTAMP(6)	now()	Not set when Type =ITEMHDR MOD.
NA	NA	NA	NA	NA	rms_related_item_head	UPDATE_DATE	TIMESTAMP(6)	now()	Not set when Type =FULLRELI TEMHDR
NA	NA	NA	NA	NA	item_item_options	ATTACHED_ITEMS_FLAG	NUMBER(1,0)	NA	Set to 1 when CRSL or UPSL, otherwise 0 for Item.
NA	NA	NA	NA	NA	item_item_options	SUBSTITUTE_AVAILABLE_FLAG	NUMBER(1,0)	NA	Set to 1 when SUBS, otherwise 0 for Item.

## RMS Store

Table B-10 describes the RMS Store mapping.

**Table B-10 RMS Store Mapping**

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Family	Value is always STORES. Data will always be present in this field.	Character	20	NA	NA	NA	NA	Ignored.

Table B-10 (Cont.) RMS Store Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
1	Type	Value is always FULL when the program is run in full mode.  If the program is run in delta mode, the type will vary based on the type of change (CRE, MOD, DEL). Valid values are: STORECRE - Creation of an Area node STOREMOD - Modification of Area node STOREDEL - Delete of Area node Data will always be present in this field.	Character	15	NA	NA	NA	NA	Determines action.
2	StoreId	Contains the unique ID of the store. Data will always be present in this field.	Number	10	loc_rtl_loc , tax_rtl_loc_tax_mapping	STORE_NBR, RTL_LOC_ID	NUMBER(10,0)	NA	NA
3	StoreName	Contains the full name of the store. Data will always be present in this field for creation and modification records.	Character	150	loc_rtl_loc	DESCRIPTION	VARCHAR(254)	NA	NA
4	StoreName10	Contains a shortened, no more than 10 character name, for the store. Data will always be present in this field for creation and modification records.	Character	10	loc_rtl_loc	STORE_NAME	VARCHAR(254)	NA	NA
5	StoreNameAbbr	Contains an abbreviation for the store name. Data will always be present in this field for creation and modification records.	Character	3	NA	NA	NA	NA	Ignored.

Table B-10 (Cont.) RMS Store Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
6	StoreNameSec	Contains an secondary name for this store. Data in this field is optional.	Character	150	NA	NA	NA	NA	Ignored.
7	StoreClassId	Contains the code letter indicating the class of which the store is a member. Valid values are A, B, C, D, E, and X. Data will always be present in this field for creation and modification records.	Character	1	NA	NA	NA	NA	Ignored.
8	StoreClassDesc	Contains the description of the store class. Data will always be present in this field for creation and modification records.	Character	250	NA	NA	NA	NA	Ignored.
9	Manager	Contains the name of the store manager. Data will always be present in this field. for creation and modification records.	Character	120	loc_rtl_loc	STORE_MANAGER	VARCHAR(254)	NA	NA
10	OpenDate	Contains the date on which the store opened. Data will always be present in this field for creation and modification records. Format is YYYYMMDD.	Date	8	NA	NA	NA	NA	Ignored.
11	CloseDate	Contains the date on which the store closed. Data in this field is optional. Format is YYYYMMDD.	Date	8	NA	NA	NA	NA	Ignored.

Table B-10 (Cont.) RMS Store Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
12	AquireDate	Contains the date on which the store was acquired. Data in this field is optional. Format is YYYYMMDD.	Date	8	NA	NA	NA	NA	Ignored.
13	RemodeIDate	Contains the date on which the store was last remodeled. Data in this field is optional. Format is YYYYMMDD.	Date	8	NA	NA	NA	NA	Ignored.
14	FaxNumber	Contains the fax number for the store. Data in this field is optional.	Character	20	loc_rtl_loc	TELEPHONE_2	VARCHAR(32)	NA	Optional fax number.
15	PhoneNumber	Contains the phone number for the store. Data in this field is optional.	Character	20	loc_rtl_loc	TELEPHONE_1	VARCHAR(32)	NA	Optional phone number.
16	Email	Holds the email address for the location. Data in this field is optional.	Character	100	loc_rtl_loc	EMAIL_ADDRESS	VARCHAR(254)	NA	Optional email address.
17	TotalSqFeet	Contains the total square footage of the store. Data in this field is optional.	Number	8	NA	NA	NA	NA	Ignored.
18	SellingSqFeet	Contains the total square footage of the stores selling area. Data in this field is optional.	Number	8	NA	NA	NA	NA	Ignored.
19	LinearDistance	Holds the total merchandisable space of the location. Data in this field is optional.	Number	8	NA	NA	NA	NA	Ignored.
20	VatRegion	Contains the number of the Value Added Tax region in which this store is contained. Data in this field is optional.	Number	4	tax_rtl_loc_tax_mapping	taxLocationId	VARCHAR2(60)	NA	NA

Table B-10 (Cont.) RMS Store Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
21	VatIncl nd	Indicates whether Value Added Tax will be included in the retail prices for the store. Valid values are Y or N. Data in this field is optional.	Character	1	NA	NA	NA	NA	Ignored.
22	StockHo ldingIn	This column indicates whether the store can hold inventory. Data will always be present in this field for creation and modification records.	Character	1	NA	NA	NA	NA	Ignored.
23	Channel Id	Contains the channel with which the store is associated. Data in this field is optional.	Number	4	NA	NA	NA	NA	Ignored.
24	Channel Name	Contains the name of the channel. Data in this field is optional.	Character	120	NA	NA	NA	NA	Ignored.
25	StoreFo rmat	Contains the number indicating the format of the store. Data in this field is optional.	Number	4	NA	NA	NA	NA	Ignored.
26	StoreFo rmatNa me	Contains the description of the format of the store (for example, mall, standalone, city express, and so on). Data in this field is optional.	Character	60	NA	NA	NA	NA	Ignored.
27	MallNa me	Contains the name of the mall in which the store is located. Data in this field is optional.	Character	120	NA	NA	NA	NA	Ignored.

Table B-10 (Cont.) RMS Store Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
28	District	Contains the number of the district in which the store is a member. Data will always be present in this field. for creation and modification records. Further organizational hierarchy information is available in the Organizational Hierarchy Extract.	Number	10	NA	NA	NA	NA	Ignored.
29	Transfer Zone	NA	Number	4	NA	NA	NA	NA	Ignored.
30	Default Wh	Contains the number of the warehouse that may be used as the default for creating cross-dock masks.	Number	10	NA	NA	NA	NA	Ignored.
31	StopOrd erDays	Contains the number of days before a store closing when the store will stop accepting orders. This column is used when the store_close_date is defined.	Number	3	NA	NA	NA	NA	Ignored.
32	StartOr derDays	Contains the number of days before the store_open_date that the store will begin accepting orders. Data will always be present in this field. for creation and modification records.	Number	3	NA	NA	NA	NA	Ignored.

Table B-10 (Cont.) RMS Store Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
33	CurrencyCode	This field contains the currency code under which the store operates. Data will always be present in this field. for creation and modification records.	Character	3	loc_rtl_loc	CURRENCY_ID	VARCHAR(3)	NA	ISO Currency Code.
34	StoreLangISOC code	This column identifies the language to be used for the given store. Data will always be present in this field for creation and modification records.	Character	6	NA	NA	NA	NA	Ignored.
35	TranNo Generate	Contains the level at which unique POS transaction numbers are generated. If the store has one sequence number that is used for all registers, then the value in this column will be S (Store). Otherwise, the store has unique sequence numbers for each register and the value in this column will be R (Register).  Data will always be present in this field for creation and modification records.	Character	6	NA	NA	NA	NA	Ignored.
36	IntPOSInd	Indicates whether or not the POS system at the store is integrated. Data will always be present in this field for creation and modification records.	Character	1	NA	NA	NA	NA	Ignored.



Table B-10 (Cont.) RMS Store Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
37	DunsNu mber	This field holds the Dun and Bradstreet (D&B) number to identify the store. A D&B number is a unique identification number for each physical location of a business. A DUNS number may be issued to any business worldwide, and is required by many credit reporting, national government, and trade organizations. Data in this field is optional.	Character	9	NA	NA	NA	NA	Ignored.
38	DunsLoc	Legacy, generally not used. Data in this field is optional.	Character	4	NA	NA	NA	NA	Ignored.
39	SisterSt ore	This field holds a store number which is used to relate the current store to the historical data of an existing store. Data in this field is optional.	Number	10	NA	NA	NA	NA	Ignored.
40	TsfEntit yId	Data in this field is optional.	Number	10	NA	NA	NA	NA	Ignored.
41	OrgUnitI d	Column contains the organizational unit ID value. Data in this field is optional.	Number	15	NA	NA	NA	NA	Ignored.

Table B-10 (Cont.) RMS Store Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
42	AutoRcv	This column indicates whether the client is allowing automatic receipt for the store. Valid values are Y (Yes), N (No), and D (System Default). Default value should be D. Data will always be present in this field for creation and modification records.	Character	1	NA	NA	NA	NA	Ignored.
43	Remerc hInd	Identifies stores that are undergoing a significant re-merchandising effort. Defaults to N. Other values may be present if AIP is integrated with RMS. Data will always be present in this field for creation and modification records.	Character	1	NA	NA	NA	NA	Ignored.
44	StoreTy pe	This indicates whether a particular store is a franchise (F) or company store (C). Data will always be present in this field for creation and modification records.	Character	6	NA	NA	NA	NA	Ignored.
45	WFCust omer	Numeric ID of the customer. Data in this field is optional.	Number	10	NA	NA	NA	NA	Ignored.
46	Timezo ne	Indicates the time zone of the store. For example, America/New_York. Data will always be present in this field for creation and modification records.	Character	64	NA	NA	NA	NA	Ignored.

Table B-10 (Cont.) RMS Store Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
47	Custom erOrder LocInd	This column determines whether the location is a customer order location. If the indicator is Y, the location can be used by OMS for sourcing/ fulfillment or both. Otherwise, it cannot be used. It is used only for the company stores.	Character	1	NA	NA	NA	NA	Ignored.
NA	NA	NA	NA	NA	loc_rtl_loc	STORE_ NBR	VARCHA R(254)	NA	Always RMS StoreId.
NA	NA	NA	NA	NA	loc_rtl_loc , tax_rtl_lo c_tax_ma pping	ORGANIZ ATION_ID	NUMBE R(10,0)	\${dtv.loc ation.org anization Id}	Always uses the default value.
NA	NA	NA	NA	NA	loc_rtl_loc	LOCATIO N_TYPE	VARCHA R(60)	STORE	Value can be configured in dataloader- beans-xml. If not configured, then null.
NA	NA	NA	NA	NA	loc_rtl_loc	use_till_a ccountabil ity_flag	NUMBE R(1,0)	FALSE	Value can be configured in dataloader- beans-xml.
NA	NA	NA	NA	NA	loc_rtl_loc	CREATE_ DATE	TIMESTA MP(6)	now()	Not set when Type = STOREMO D.
NA	NA	NA	NA	NA	loc_rtl_loc	CREATE_ USER_ID	VARCHA R2(30 CHAR)	DATALO ADER	Not set when Type = STOREMO D.
NA	NA	NA	NA	NA	loc_rtl_loc	UPDATE_ DATE	TIMESTA MP(6)	now()	Always set.

Table B-10 (Cont.) RMS Store Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
NA	NA	NA	NA	NA	loc_rtl_loc	UPDATE_USER_ID	VARCHAR2(30 CHAR)	DATALOADER	Always set.

## RMS Store Address

Table B-11 describes the Store Address mapping.

Table B-11 RMS Store Address Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Family	Value is always STORES. Data will always be present in this field.	Character	20	NA	NA	NA	NA	Ignored.
1	Type	Value is always FULL when the program is run in full mode.  If the program is run in delta mode, the type will vary based on the type of change (CRE, MOD, DEL). Valid values are:  STOREDTLCRE Creation of store address information.  STOREDTLMOD Modification of store address information.  STOREDTLDEL Deletion of store address information.  Data will always be present in this field.	Character	15	NA	NA	NA	NA	Determines action.  FULL, STOREDTLCRE, and STOREDTL MOD are all interpreted as updates to an existing loc_rtl_loc record.  STOREDTL DEL results in the setting of all non-PK address mapped fields with an empty string.
2	StoreId	Contains the unique ID of the store.  Data will always be present in this field.	Number	10	loc_rtl_loc	RTL_LOC_ID	NUMBER(10,0)	NA	NA

Table B-11 (Cont.) RMS Store Address Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
3	AddrType	Contains the code used to identify the address type. Data will always be present in this field.	Character	2	NA	NA	NA	NA	Must match the configurable AddrType code, otherwise record is ignored.
4	AddrTypeDesc	Description of the address type code. Common examples include:  01 - Business, 02 - Postal, 03 - Returns, 04 - Order, 05 - Invoice, 06 - Remittance  Optional.	Character	20	NA	NA	NA	NA	Ignored.
5	PrimaryAddrInd	Indicates whether the address is the primary address for the address type. Valid values are Y and N. Data will always be present in this field.	Character	1	NA	NA	NA	NA	If not Y, the entire record is ignored.
6	Add1	Contains the first line of the address. Data will always be present in this field for STOREDTLCRE and STOREDTLMOD.	Character	240	loc_rtl_loc	ADDRESS1	VARCHAR2(254 CHAR)	NA	NA
7	Add2	Contains the second line of the address. Optional.	Character	240	loc_rtl_loc	ADDRESS2	VARCHAR2(254 CHAR)	NA	NA
8	Add3	Contains the third line of the address. Optional.	Character	240	loc_rtl_loc	ADDRESS3	VARCHAR2(254 CHAR)	NA	NA
9	City	Contains the name of the city that is associated with the address. Data will always be present in this field for STOREDTLCRE and STOREDTLMOD.	Character	120	loc_rtl_loc	CITY	VARCHAR2(30 CHAR)	NA	NA

Table B-11 (Cont.) RMS Store Address Mapping

Po s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
10	County	Contains the county name for the location. Optional.	Character	250	NA	NA	NA	NA	NA
11	State	Contains the state abbreviation for the address. Optional.	Character	3	loc_rtl_loc	STATE	VARCHA R2(30 CHAR)	NA	NA
12	Country	Contains the country where the address exists, using ISO 3166-1 alpha-2. Data will always be present in this field for STOREDTLCRE and STOREDTLMOD.	Character	3	loc_rtl_loc	COUNTR Y	VARCHA R2(254 CHAR)	NA	NA
13	PostCod e	Contains the postal code name for the location. Optional.	Character	30	loc_rtl_loc	POSTAL_ CODE	VARCHA R2(30 CHAR)	NA	NA
14	Jurisdic tionCode	Contains the tax jurisdiction code for the location. Optional.	Character	10	NA	NA	NA	NA	Ignored.
15	Contact Name	Contains the name of the contact person at this address. Optional.	Character	120	NA	NA	NA	NA	Ignored.
16	Contact Phone	Contains a phone number of the contact person at this address. Optional.	Character	20	NA	NA	NA	NA	Ignored.
17	Contact Fax	Contains a fax number of the contact person at this address. Optional.	Character	20	NA	NA	NA	NA	Ignored.
18	Contact Email	Contains an email for the contact person at this address. Optional.	Character	100	NA	NA	NA	NA	Ignored.
NA	NA	NA	NA	NA	loc_rtl_loc	ORGANIZ ATION_ID	NUMBE R(10,0)	\$ {dtv.loc ation.org nizationl d}	Always uses default value.
NA	NA	NA	NA	NA	loc_rtl_loc	UPDATE_ DATE	TIMESTA MP(6)	now()	NA

Table B-11 (Cont.) RMS Store Address Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
NA	NA	NA	NA	NA	loc_rtl_loc	UPDATE_USER_ID	VARCHAR2(30 CHAR)	DATALOADER	NA

## RMS VAT

Table B-12 describes the RMS VAT mapping.

Table B-12 RMS VAT Mapping

Pos	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Family	Value is always VAT. Data will always be present in this field.	Character	20	NA	NA	NA	NA	Ignored.
1	Type	Value is always FULL when the program is run in full mode.  If the program is run in delta mode, the type will vary based on the type of change (CRE, MOD, DEL). Valid values are:  VATCRE - Creation of VAT information.  VATMOD - Modification of VAT information.  VATDEL - Deletion of VAT information.  Data will always be present in this field.	Character	15	NA	NA	NA	NA	Determines action.
2	VatRegion	ID of the VAT region. Stores are assigned to a VAT region (if VAT is used in RMS).  This field will always have data.	Number	4	tax_tax_loc, tax_tax_authority, tax_tax_group_rule, tax_tax_rate_rule	TAX_LOC_ID, TAX_AUTHORITY_ID	VARCHAR2(60 CHAR)	NA	Use RMS VAT region ID as the tax authority ID in Xstore.

Table B-12 (Cont.) RMS VAT Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
3	VatRegionName	This field contains the alphanumeric identification for the VAT code.  Valid values include, but are not limited to: S - Standard C - Composite Z - Zero E - Exempt  This field will always have data.	Character	120	tax_tax_loc, tax_tax_authority	NAME, DESCRIPTION	VARCHAR(254)	NA	Use RMS VAT region name as the tax authority name in Xstore.
4	VatCode	This field contains the description of the VAT Code. This field will always have data in the VATCRE and VATMOD records.	Character	6	tax_tax_group, tax_tax_group_rule, tax_tax_rate_rule	TAX_GROUP_ID	VARCHAR(60)	NA	NA
5	VatCodeDesc	This field contains the description of the VAT Code. This field will always have data in the VATCRE and VATMOD records.	Character	120	tax_tax_group, tax_tax_group_rule	NAME, DESCRIPTION	VARCHAR(254)	NA	For the root COMPANY node, the column is hard-coded as null.  For the second level CHAIN node, the column is hard-coded to "".
6	ActiveDate	This field is the date the VAT code is active for the VAT region, in human readable format DD-MON-YYYY.  This field will always have data.	Character	12	tax_tax_rate_rule	PERCENTAGE	NUMBER(8,6)	NA	NA
7	VatRate	VAT rate for the VAT code/VAT region.  This field will always have data in the VATCRE and VATMOD records.	Number	20	tax_tax_rate_rule	EFFECTIVE_DATE TIME	TIMESTAMP(6)	NA	NA



Table B-12 (Cont.) RMS VAT Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
N A	NA	NA	NA	NA	tax_tax_g roup_rule	TAX_TYP CODE	VARCHA R(30)	VAT	Always uses default value.
N A	NA	NA	NA	NA	tax_tax_g roup_rule	TAX_RUL E_SEQ_ NBR	NUMBE R(10,0)	1	Always uses default value. The assumption is that there can only be one tax rule per VAT region/VAT code combination .
N A	NA	NA	NA	NA	tax_tax_g roup_rule	TAXED_A T_TRANS _LEVEL_ FLAG	NUMBE R(1,0)	TRUE	A configuratio n spring loaded by the transformer. The out-of- box default is TRUE.

Table B-12 (Cont.) RMS VAT Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
	NA	NA	NA	NA	tax_tax_r ate_rule	EXPR_D ATETIME	TIMESTA MP(6)	NA	<p>This has to be derived by the integration layer.</p> <p>During a CRE/FULL, if there is a subsequent rate rule as sorted by effective date, expire this rate rule by setting its expiration date to be 1 millisecond less than the effective date of the subsequent rate rule; otherwise do not expire this rate rule by setting its expiration date to NULL.</p> <p>During a CRE/FULL, if there is a prior rate rule as sorted by effective date, expire the prior rate rule by setting its expiration date to be 1 millisecond less than this effective date.</p>

Table B-12 (Cont.) RMS VAT Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
NA	NA	NA	NA	NA	NA	EXPR_D ATETIME (Continued)	NA	NA	During a DEL, if there is a prior rate rule as sorted by effective date, extend the prior rate rule by setting its expiration date to be the expiration date of this rate rule.
NA	NA	NA	NA	NA	tax_tax_r ate_rule	TAX_RUL E_SEQ_ NBR	NA	1	Always uses the default value. The assumption is that there can only be one tax rule per VAT region/VAT code combination.
NA	NA	NA	NA	NA	tax_tax_r ate_rule	TAX_RAT E_RULE_ SEQ	NUMBE R(10,0)	NA	This has to be derived by the integration layer. For a newly created VAT rate, its sequence number is one after the maximum rate rule sequence number in the table.

Table B-12 (Cont.) RMS VAT Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
NA	NA	NA	NA	NA	tax_tax_au thority	ROUNDI NG_COD E	VARCHA R(30)	HALF_U P	A configuratio n spring loaded by the transformer. The out-of- box default is HALF_UP.
NA	NA	NA	NA	NA	tax_tax_au thority	ROUNDI NG_DIGI TS_QUA NTITY	NUMBE R(10,0)	2	A configuratio n spring loaded by the transformer. The out-of- box default is 2.
NA	NA	NA	NA	NA	tax_tax_lo c, tax_tax_au thority, tax_tax_g roup, tax_tax_g roup_rule, tax_tax_r ate_rule	EXTERN AL_SYST EM	VARCHA R(30)	RMS	Always uses the default value.
NA	NA	NA	NA	NA	tax_tax_lo c, tax_tax_au thority, tax_tax_g roup, tax_tax_g roup_rule, tax_tax_r ate_rule	ORG_CO DE	VARCHA R(30)	*	Always uses the default value.
NA	NA	NA	NA	NA	tax_tax_lo c, tax_tax_au thority, tax_tax_g roup, tax_tax_g roup_rule, tax_tax_r ate_rule	ORG_VA LUE	VARCHA R(60)	*	Always uses the default value.

Table B-12 (Cont.) RMS VAT Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
NA	NA	NA	NA	NA	tax_tax_lo c, tax_tax_a uthority, tax_tax_g roup, tax_tax_g roup_rule, tax_tax_r ate_rule	ORGANIZ ATION_ID	NUMBE R(10,0)	\$ {dtv.locat ion.orga nizationI d}	Always uses the default value.
NA	NA	NA	NA	NA	tax_tax_lo c, tax_tax_a uthority, tax_tax_g roup, tax_tax_g roup_rule, tax_tax_r ate_rule	CREATE_ DATE	TIMESTA MP(6)	now()	Not set when Type represents UPDATE.
NA	NA	NA	NA	NA	tax_tax_lo c, tax_tax_a uthority, tax_tax_g roup, tax_tax_g roup_rule, tax_tax_r ate_rule	UPDATE_ DATE	TIMESTA MP(6)	now()	Not set when Type represents CREATE.

## RMS VAT Item

Table B-13 describes the RMS VAT Item mapping.

### Note:

Do not import a .dat file containing multiple VATITEM records with the same item ID. More than one record for the same item ID could result in an undesired outcome.

**Table B-13 RMS VAT Item Mapping**

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Family	Value is always VATITEM. Data will always be present in this field.	Character	20	NA	NA	NA	NA	Ignored.
1	Type	Value is always FULL when the program is run in full mode.  If the program is run in delta mode, the type will vary based on the type of change (CRE, MOD, DEL). Valid values are:  VATITEMCRE - Creation of VAT Item information. VATITEMMOD - Modification of VAT Item information. VATITEMDEL - Deletion of VAT Item information.  Data will always be present in this field.	Character	15	NA	NA	NA	NA	Determines actions.
2	Item	ID of the item.  Data will always be present in this field.	Character	25	itm_item_options	item_id	VARCHAR(60 CHAR)	NA	NA
3	VatRegion	ID of the VAT region. Stores are assigned to a VAT region if VAT is used in RMS.  Additional information about VAT Regions is stored in RMS, but is not integrated out of the system. VAT region information may need to be synchronized to downstream systems as a manual process.  This field will always have data.	Number	4	NA	NA	NA	NA	Ignored.

Table B-13 (Cont.) RMS VAT Item Mapping

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
4	ActiveDate	Date that the VAT rate becomes active, in DD-MON-YYYY format.  This field will always have data in the VATITEMCRE and VATITEMMOD records.	Character	11	NA	NA	NA	NA	Ignored.
5	VatType	The field describes what the VAT rate applies to: C - Cost values R - Retail values B - Both Cost and Retail values  This field will always have data.	Character	1	NA	NA	NA	NA	Record ignored when VatType=C.
6	VatCode	This field contains the alphanumeric identification for the VAT code.  Valid values include, but are not limited to: S - Standard C - Composite Z - Zero E - Exempt  If additional VAT Codes are defined in RMS, the VAT code information may need to be synchronized to downstream systems as a manual process.  This field will always have data.	Character	6	itm_item_options	tax_group_id	VARCHAR(60)	NA	Column tax_group_id is set to null if Type is VATITEMDEL.  Column tax_group_id is unchanged when VatType is C.  Otherwise, column tax_group_id is set to the value of the VatCode.
7	VatRate	VAT rate for the item/VAT region.  This field will always have data in the VATITEMCRE and VATITEMMOD records.	Number	20	NA	NA	NA	NA	Ignored.

**Table B-13 (Cont.) RMS VAT Item Mapping**

P o s	RMS Field Name	RMS Description	RMS Field Type	RMS Max Width	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
8	Reverse VatInd	Indicates if the item is subject to reverse charge VAT at the VAT region. VAT reversal can apply to invoices on some items in some VAT regions. Valid values are Y and N. This field will always have data in the VATITEMCRE and VATITEMMOD records.	Character	1	NA	NA	NA	NA	Ignored.
NA	NA	NA	NA	NA	itm_item_options	UPDATE_USER_ID	VARCHAR2(30 CHAR)	DATALOADER	NA
NA	NA	NA	NA	NA	itm_item_options	UPDATE_DATE	TIMESTAMP(6)	now()	NA

## RPM Clearance Price

The following tables describe the RPM Clearance Price mapping.

[Table B-14](#) describes the Clearance Price FDETL record mapping. FDETL records are interpreted as Create or Update events.

**Table B-14 RPM Clearance Price FDETL Record Mapping**

P o s	RPM Field Name	RPM Description	RPM Field Type	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Record Descriptor	File Detail Marker (1 per clearance create/modify)	Char(5)	NA	NA	NA	NA	Used to determine unit type.
1	Line Id	Unique line identification	Number(10)	NA	NA	NA	NA	Ignored.
2	Event Type	CRE = Create, MOD = Modify	Char(3)	NA	NA	NA	NA	Used to determine the action type.
3	Id	Clearance identifier	Number(15)	itm_item_prices	EXTERNAL_ID	VARCHAR2(60 CHAR)	NA	NA
4	Item	Item identifier	Char(25)	itm_item_prices	ITEM_ID	VARCHAR2(60 CHAR)	NA	NA



Table B-14 (Cont.) RPM Clearance Price FDETL Record Mapping

P o s	RPM Field Name	RPM Description	RPM Field Type	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
5	Effective Date	Clearance Effective Date (YYYYMMDDHH24MISS)	Date	itm_item_prices	EFFECTIVE_DATE	TIMESTAMP(6)	NA	NA
6	Selling Retail	Selling retail with price change applied	Number(20,4)	itm_item_prices	PRICE	NUMBER(17,6)	NA	NA
7	Selling Retail UOM	Selling retail unit of measure	Char(4)	NA	NA	NA	NA	Ignored
8	Selling Retail Currency	Selling retail currency	Char(3)	NA	NA	NA	NA	Ignored (assumed to be base Currency).
9	Reset Clearance ID	Clearance reset identification	Number(15)	NA	NA	NA	NA	Used to detect clearance reset. Clearance reset is when this value exactly matches the ID field's value.
NA	NA	NA	NA	itm_item_prices	ORGANIZATION_ID	NUMBER(10,0)	\${dtv.location.organizationid}	Always uses default value.
NA	NA	NA	NA	itm_item_prices	PROPERTY_CODE	VARCHAR2(60 CHAR)	NA	CLEARANCE_PRICE when Clearance event, or REGULAR_PRICE when Clearance Reset event.
NA	NA	NA	NA	itm_item_prices	CREATE_DATE	TIMESTAMP(6)	now()	Not set when EventType = Mod.

**Table B-14 (Cont.) RPM Clearance Price FDETL Record Mapping**

P o s	RPM Field Name	RPM Description	RPM Field Type	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
NA	NA	NA	NA	itm_item_prices	CREATE_USER_ID	VARCHAR2(30 CHAR)	DATALOADER	Not set when EventType = Mod.
NA	NA	NA	NA	itm_item_prices	UPDATE_DATE	TIMESTAMP(6)	now()	Always set.
NA	NA	NA	NA	itm_item_prices	UPDATE_USER_ID	VARCHAR2(30 CHAR)	DATALOADER	Always set.
NA	NA	NA	NA	itm_item_prices	EXTERNAL_SYSTEM	VARCHAR2(60 CHAR)	RPM-CLRPC	NA

Table B-15 describes the Clearance Price FDELE record mapping. FDELE records are interpreted as Delete events.

**Table B-15 RPM Clearance Price FDELE Record Mapping**

P o s	RPM Field Name	RPM Description	RPM Field Type	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Record Descriptor	File Detail Delete Marker (1per clearance delete)	Char(5)	NA	NA	NA	NA	Used to determine unit type.
1	Line Id	Unique line identification	Number(10)	NA	NA	NA	NA	Ignored.
2	Id	Clearance identifier	Number(15)	itm_item_prices	EXTERNAL_ID	VARCHAR2(60 CHAR)	NA	NA
3	Item	Item identifier	Char(25)	itm_item_prices	ITEM_ID	VARCHAR2(60 CHAR)	NA	NA
	NA	NA	NA	itm_item_prices	ORGANIZATION_ID	NUMBER(10,0)	\$(dtv.location.organizationId)	Always uses default value.
	NA	NA	NA	itm_item_prices	EXTERNAL_SYSTEM	VARCHAR2(60 CHAR)	RPM-CLRPC	NA

## RPM Regular Price

The following tables describe the RPM Regular Price mapping.

Table B-16 describes the Regular Price FDETL record mapping. FDETL records are interpreted as Create or Update events.

**Table B-16 RPM Regular Price FDETL Record Mapping**

Po s	RPM Field Name	RPM Description	RPM Field Type	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Record Descriptor	File Detail Marker (1 per price change create or modify)	Char(5)	NA	NA	NA	NA	Type of event.
1	Line Id	Unique line identification	Number(1 0)	NA	NA	NA	NA	Ignored.
2	Event Type	CRE = Create, MOD = Modify	Char(3)	NA	NA	NA	NA	Used by the transforme r to determine the type of event.
3	Id	Price change identifier	Number(1 5)	itm_item_pr ices	EXTERNAL _ID	VARCHAR 2(60 CHAR)	NA	NA
4	Item	Item identifier	Char(25)	itm_item_pr ices	ITEM_ID	VARCHAR 2(60 CHAR)	NA	NA
5	Effective Date	Effective Date of the price change (YYYYMMDDHH24 MISS)	NA	itm_item_pr ices	EFFECTIV E_DATE	TIMESTAM P(6)	NA	NA
6	Selling Unit Change Ind	Indicates whether the selling unit retail changed with this price event (0 = no change, 1 = changed).	Number(1 )	NA	NA	NA	NA	This field need not be persisted in the Xstore database. This field is used in transforme r logic.
7	Selling Retail	Selling retail with price change applied	Number(2 0,4)	itm_item_pr ices	PRICE	NUMBER(1 7,6)	NA	NA
8	Selling Retail UOM	Selling retail unit of measure	Char(4)	itm_item	UNIT_OF_ MEASURE _CODE	VARCHAR 2(30 BYTE)	NA	Ignored.
9	Selling Retail Currency	Selling retail currency	Char(3)	NA	NA	NA	NA	Ignored (assumed to be base Currency).
10	Multi-Unit Change Ind	Did multi-unit retail change with this price event (0 = no change, 1 = changed)	Number(1 )	NA	NA	NA	NA	NA

Table B-16 (Cont.) RPM Regular Price FDETL Record Mapping

Po s	RPM Field Name	RPM Description	RPM Field Type	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
11	Multi-Units	NA	Number(1 2,4)	NA	NA	NA	NA	NA
12	Multi-Unit Retail	Number of multi- units	Number(2 0,4)	NA	NA	NA	NA	NA
13	Multi-Unit UOM	Multi-Unit Retail unit of measure	Char(4)	NA	NA	NA	NA	NA
14	Multi-Unit Currency	Multi-Unit Retail Currency	Char(3)	NA	NA	NA	NA	NA
NA	NA	NA	NA	itm_item_pr ices	ORGANIZA TION_ID	NUMBER(1 0,0)	{dtv.locat ion.orga nizationI d}	Always uses the default value.
NA	NA	NA	NA	itm_item_pr ices	PROPERT Y_CODE	VARCHAR 2(60 CHAR)	NA	REGULAR _PRICE will be the value.
NA	NA	NA	NA	itm_item_pr ices	CREATE_D ATE	TIMESTAM P(6)	now()	Current time stamp. Not set when the event type =MOD.
NA	NA	NA	NA	itm_item_pr ices	CREATE_U SER_ID	VARCHAR 2(30 CHAR)	DATALO ADER	This is the user ID stored in the database. Not set when event type = Mod.
NA	NA	NA	NA	itm_item_pr ices	UPDATE_D ATE	TIMESTAM P(6)	now()	Current time stamp. Field value only set when event type=MOD .

**Table B-16 (Cont.) RPM Regular Price FDETL Record Mapping**

Pos	RPM Field Name	RPM Description	RPM Field Type	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
NA	NA	NA	NA	itm_item_prices	UPDATE_USER_ID	VARCHAR2(30 CHAR)	DATALOADER	DATALOADER will be the user ID stored in the database. Set only when the event type=MOD.
NA	NA	NA	NA	itm_item_prices	EXTERNAL_SYSTEM	VARCHAR2(60 CHAR)	RPM-REGPC	NA

Table B-17 describes the Regular Price FDELE record mapping. FDELE records are interpreted as Delete events.

**Table B-17 RPM Regular Price FDELE Record Mapping**

Pos	RPM Field Name	RPM Description	RPM Field Type	Xstore Table	Xstore Column	Xstore Data Type	Xstore Default Value	Xstore Comment
0	Record Descriptor	File Detail Delete Marker (1per price change delete)	Char(5)	NA	NA	NA	NA	Used by the transformer to determine the unit type.
1	Line Id	Unique line identification	Number(10)	NA	NA	NA	NA	Ignored.
2	Id	Price change identifier	Number(15)	itm_item_prices	EXTERNAL_ID	VARCHAR2(60 CHAR)	NA	NA
3	Item	Item identifier	Char(25)	itm_item_prices	ITEM_ID	VARCHAR2(60 CHAR)	NA	NA
NA	NA	NA	NA	itm_item_prices	ORGANIZATION_ID	NUMBER(10,0)	\${dtv.location.organizationid}	NA
NA	NA	NA	NA	itm_item_prices	EXTERNAL_SYSTEM	VARCHAR2(60 CHAR)	RPM-CLRPC	NA

## RPM Promotions

Table B-18 describes the RPM Promotions mapping.

**Table B-18 RPM Promotions Record Mappings**

RPM Record Name	RPM Field Name	RPM Field Type	RPM Default Value	RPM Description	Xstore Table	Xstore Field	Xstore Comment
FHEAD	Record Descriptor	Char(5)	FHEAD	File head marker	NA	NA	NA
	Line ID	Number(10)	1	Unique line identifier	NA	NA	NA
	File Type	Char(5)	PROMO	Promotions	NA	NA	NA
	Export Timestamp	Number(10)		System clock timestamp (YYYYMMDDHHMIS S)	NA	NA	NA
	Format Version	Char(5)	1.0	File Format Version	NA	NA	NA
	Location	Number(10)		Location identifier	NA	NA	NA
	Location Type	Char(1)		S = Store, W = Warehouse	NA	NA	NA
TIMBPE	Record Descriptor	Char(5)	TIMPBE	Promotion (transaction head). Defines an action associated with a promotion.	NA	NA	NA
	Line ID	Number(10)		Unique line identifier	NA	NA	NA
	Event Type	Char(3)		CRE = Create, MOD = Modify	NA	NA	NA
TPDTL	Record Descriptor	Char(5)	TPDTL	Promotion Detail Component. Defines a new component.	NA	NA	Ignored.
	Line ID	Number(10)		Unique line identifier	NA	NA	Ignored.
	Promo ID	Number(10)		Promotion identifier	prc_deal	deal_id (partially)	NA
	Promo Comp ID	Number(10)		Promotion Component Id	prc_deal	deal_id (partially)	NA
	Promo Name	Char(160)		Promotion Header Name	NA	NA	Ignored.
	Promo Desc	Char(640)		Promotion Header Description	NA	NA	Ignored.
	Promo Comp Desc	Char(160)		Promotion Component Name	prc_deal	description	NA

Table B-18 (Cont.) RPM Promotions Record Mappings

RPM Record Name	RPM Field Name	RPM Field Type	RPM Default Value	RPM Description	Xstore Table	Xstore Field	Xstore Comment
	Promo Type	Number(2)		Valid values: 0 = Multi-Buy Promotion 1 = Simple Promotion 2 = Threshold Promotion 3 = Finance Promotion (formerly tied to a value of 6) 4 = Transaction Promotion	NA	NA	Determines structure of resulting deal
	Promo Comp Detail ID	Number(10)		Promotion Component Detail identifier	prc_deal	deal_id (partially)	NA
	Date Start	Date		Start Date of Promotion Component Detail (YYYYMMDDHH24MISS)	prc_deal	effective_date	NA
	End Date	Date		End Date of Promotion Component Detail (YYYYMMDDHH24MISS)	prc_deal	end_date	NA
	Apply to Code	Number(1)		Holds the Apply to Code for the promotion detail. Determines if the promotion is applied to regular retail only (no clearances in effect), clearance retail only (only when a clearance is in effect), or both regular and clearance retail.  Valid values: 0 = Regular Only 1 = Clearance Only 2 = Regular and Clearance	prc_field_test	NA	ApplyTo is mapped to an additional field test (PRICE BETWEEN X Y).
	Discount Limit	Number(3)		The number of times that the promotion can be applied to a transaction.	prc_deal	iterationCap	NA

Table B-18 (Cont.) RPM Promotions Record Mappings

RPM Record Name	RPM Field Name	RPM Field Type	RPM Default Value	RPM Description	Xstore Table	Xstore Field	Xstore Comment
	Apply Order	Number(1)		Application Order of the Promotion	NA	NA	Ignored.
	Threshold ID	Number(6)		Threshold identifier	NA	NA	Ignored.
	Customer Type ID	Number(10)		Customer Type identifier	NA	NA	Ignored.
	Threshold Qualification Type	Number(1)		The qualification type for the threshold. Will only be populated for threshold promotions. Valid values are 0 for item level and 1 for threshold level.	NA	NA	Ignored.
TPGRP	Record Descriptor	Char(5)	TPGRP	Promotion Detail Group	NA	NA	Ignored.
	Line ID	Number(10)		Unique line identifier	NA	NA	Ignored.
	Group ID	Number(10)		Group Number	prc_deal_item	ordinal	Mapped structurally, not by value.
TGLIST	Record Descriptor	Char(5)	TGLIST	Promotion Group List. Defines an item list.	NA	NA	Ignored.
	Line ID	Number(10)		Unique line identifier	NA	NA	Ignored.
	List ID	Number(10)		List identifier	NA	NA	Ignored.
	Reward Application	Number(1)		How this reward is applied to the promotion detail.	NA	NA	Not mapped directly, but rather used to determine whether an action from the underlying TPDS record should be used.
	Description	Char(120)		Description	NA	NA	Ignored.
	Price Range Min	Number(20, 4)		Contains price range promotion minimum valid retail value.	prc_deal_field_test	NA	Mapped to an additional field test (PRICE BETWEEN X Y).



Table B-18 (Cont.) RPM Promotions Record Mappings

RPM Record Name	RPM Field Name	RPM Field Type	RPM Default Value	RPM Description	Xstore Table	Xstore Field	Xstore Comment
	Price Range Max	Number(20,4)		Contains price range promotion maximum valid retail value.	prc_deal_filed_test	NA	Mapped to an additional field test (PRICE BETWEEN X Y).
TLITM	Record Descriptor	Char(5)	TLITM	Promotion Group List. RPM defines lists by providing SKUs of eligible items.	NA	NA	Ignored.
	Line ID	Number(10)		Unique line identifier	NA	NA	Ignored.
	Item ID	Char(25)		Transaction Item Identifier	prc_deal_filed_test	value1	Mapped as SKU EQUAL field test.
TPDSC	Record Descriptor	Char(5)	TPDSC	Discount Detail for List. Defines a discount to apply to a preceding list of items.	NA	NA	Ignored.
	Line ID	Number(10)		Unique line identifier	NA	NA	Ignored.
	Change Type	Number(2)		Change Type Valid values: -1 = No Change 0 = Percent Off 1 = Amount Off 2 = Fixed Price	prc_deal_item	action	Type of action: AMOUNT_OFF > CURRENCY_OFF PERCENT_OFF > PERCENT_OFF FIXED_PRICE > NEW_PRICE
	Change Amount	Number(20,4)		Change Amount	prc_deal_item	action_arg	Discount amount when Change Type is AMOUNT_OFF or FIXED_PRICE. Negated for AMOUNT_OFF.

Table B-18 (Cont.) RPM Promotions Record Mappings

RPM Record Name	RPM Field Name	RPM Field Type	RPM Default Value	RPM Description	Xstore Table	Xstore Field	Xstore Comment
	Change Currency	Char(3)		Change Currency	NA	NA	Ignored.
	Change Percent	Number(20,4)		Change Percent	prc_deal_item	action_arg	Discount amount when Change Type is PERCENT_OFF. Negated.
	Change Selling UOM	Char(4)		Change Selling UOM	NA	NA	Ignored.
	Qual Type	Number(2)		Qualification Type	NA	NA	Affects where the Qual Value goes.
	Qual Value	Number(2)		Qualification Value	prc_deal_item	min_qty / max_qty or min_item_total	Target field is picked based on the Qual Type value. PRC_DEAL_ITEM.max_qty either gets the same value or receives some big number depending on the deal type.
	Change Duration	Number(20,4)		Change Duration	NA	NA	Ignored.
TPISR	Record Descriptor	Char(5)	TPISR	This record type is ignored for now.	NA	NA	Ignored.
	Line ID	Number(10)		Unique line identifier	NA	NA	Ignored.
	Item ID	Char(25)		Transaction Item Identifier	NA	NA	Ignored.
	Selling Retail	Number(20,4)		Selling retail of the item	NA	NA	Ignored.
	Selling UOM	Char(4)		Selling UOM of the item	NA	NA	Ignored.
	Effective Date	Date		Effective Date of the selling retail - YYYYMMDDHH24MISS	NA	NA	Ignored.

Table B-18 (Cont.) RPM Promotions Record Mappings

RPM Record Name	RPM Field Name	RPM Field Type	RPM Default Value	RPM Description	Xstore Table	Xstore Field	Xstore Comment
	Selling Retail Currency	Char(3)		Selling retail currency	NA	NA	Ignored.
TPCDT	Record Descriptor	Char(5)	TPCDT	Credit Detail	NA	NA	Ignored.
	Credit Detail ID	Number(10)		Credit Detail Identifier	NA	NA	Ignored.
	Line ID	Number(10)		Unique line identifier	NA	NA	Ignored.
	Credit Type	Char(40)		Credit Type	NA	NA	Ignored.
	binNumberFrom	Number(10)		Bin Number From	NA	NA	Ignored.
	binNumberTo	Number(10)		Bin Number To	NA	NA	Ignored.
	Commission Rate	Number(10)		Commission Rate	NA	NA	Ignored.
	Comments	Char(160)		Comments	NA	NA	Ignored.
TPCIL	Record Descriptor	Char(5)	TPCIL	Cancel Item Loc	NA	NA	Ignored.
	Line ID	Number(10)		Unique line identifier	NA	NA	Ignored.
	Promo ID	Number(10)		Identifier of the promotion	NA	NA	Ignored.
	Promo Comp ID	Number(10)		Promotion Component Identifier	NA	NA	Ignored.
	Promo Comp Detail ID	Number(10)		Promotion Component Detail identifier	NA	NA	Ignored.
	Item ID	Char(25)		Transaction Item Identifier for item	NA	NA	Ignored.
	Cancellation Date	Date		Cancellation effective date - YYYYMMDDHH24MISS	NA	NA	Ignored.
TTAIL	Record Descriptor	Char(5)	TTAIL	Transaction Tail	NA	NA	NA
	Line ID	Number(10)		Unique line identifier	NA	NA	NA
FPDEL	Record Descriptor	Char(5)	FPDEL	Delete Promotion	NA	NA	NA
	Line ID	Number(10)		Unique line identifier	NA	NA	NA
	Promo ID	Number(10)		The ID of the promotion	NA	NA	NA
	Promo Comp ID	Number(10)		Promotion Component Identifier	NA	NA	NA

**Table B-18 (Cont.) RPM Promotions Record Mappings**

RPM Record Name	RPM Field Name	RPM Field Type	RPM Default Value	RPM Description	Xstore Table	Xstore Field	Xstore Comment
	Promo Comp Detail ID	Number(10)		Promotion Component Detail identifier	NA	NA	NA
	Group ID	Number(10)		Group Number	NA	NA	NA
	List ID	Number(10)		List identifier	NA	NA	NA
	Item ID	Char(25)		Transaction Item Identifier for item	NA	NA	NA
FTAIL	Record Descriptor	Char(5)	FTAIL	File tail marker	NA	NA	NA
	Line ID	Number(10)		Unique line identifier	NA	NA	NA
	Number of lines	Number(10)		Number of lines in the file not including FHEAD and FTAIL	NA	NA	NA