Sterling Commerce
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Sterling Selling and Fulfillment Suite

Integration Guide

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Preface

This manual describes how the Sterling Multi-Channel Fulfillment Solution integrates with the Sterling Multi-Channel Selling Solution.

Intended Audience

This manual is intended for use by those who are responsible for implementing the Sterling Selling and Fulfillment Suite.

Structure

This manual contains the following sections:

Chapter 1, "Integration Overview"

This chapter discusses the integration in general terms and provides an overview of the functionalities that can be performed after the integration.

Chapter 2, "Configuration"

This chapter provides instructions for integrating the Sterling Multi-Channel Fulfillment Solution with the Sterling Multi-Channel Selling Solution.

Chapter 3, "Synchronization"

This chapter describes how the synchronization of customers and products is performed.

Chapter 4, "Order Management"

This chapter describes the order management functionality available in the integrated environment.

Chapter 5, "Availability"

This chapter describes the availability functionality that is enabled by using the integrated environment.

Appendix A, "Data Mapping"

This appendix provides information about the data mapping that takes place when moving information between the two systems.

Sterling Multi-Channel Fulfillment Solution Documentation

For more information about the Sterling Multi-Channel Fulfillment Solution® components, see the following manuals:

- *Sterling Multi-Channel Fulfillment Solution® Release Notes*
- *Sterling Selling and Fulfillment Suite® Release Notes*
- *Sterling Multi-Channel Fulfillment Solution® Installation Guide*
- *Sterling Multi-Channel Fulfillment Solution® Upgrade Guide*
- *Sterling Multi-Channel Fulfillment Solution® Configuration Deployment Tool Guide*
- *Sterling Multi-Channel Fulfillment Solution® Performance Management Guide*
- *Sterling Multi-Channel Fulfillment Solution® High Availability Guide*
- *Sterling Multi-Channel Fulfillment Solution® System Management Guide*
- *Sterling Multi-Channel Fulfillment Solution® Localization Guide*
- *Sterling Multi-Channel Fulfillment Solution® Customization Guide*
- *Sterling Multi-Channel Fulfillment Solution® Integration Guide*
- *Sterling Selling and Fulfillment Suite® Integration Guide*
- *Sterling Multi-Channel Fulfillment Solution® Product Concepts*

- *Sterling Warehouse Management System® Concepts Guide*
- *Sterling Multi-Channel Fulfillment Solution Platform® Configuration Guide*
- *Sterling Distributed Order Management® Configuration Guide*
- *Sterling Supply Collaboration® Configuration Guide*
- *Sterling Global Inventory Visibility® Configuration Guide*
- *Sterling Product Management® Configuration Guide*
- *Sterling Logistics Management® Configuration Guide*
- *Sterling Reverse Logistics® Configuration Guide*
- *Sterling Warehouse Management System® Configuration Guide*
- *Sterling Multi-Channel Fulfillment Solution Platform® User Guide*
- *Sterling Distributed Order Management® User Guide*
- *Sterling Supply Collaboration® User Guide*
- *Sterling Global Inventory Visibility® User Guide*
- *Sterling Logistics Management® User Guide*
- *Sterling Reverse Logistics® User Guide*
- *Sterling Warehouse Management System® User Guide*
- *Sterling Multi-Channel Fulfillment Solution Mobile Application® User Guide*
- *Sterling Multi-Channel Fulfillment Solution Analytics® Guide*
- *Sterling Multi-Channel Fulfillment Solution® Javadocs*
- *Sterling Multi-Channel Fulfillment Solution® Glossary*
- *Sterling Parcel Carrier Adapter® Guide*

For more information about the Sterling Multi-Channel Selling Solution® components, see the following manuals in the Sterling Multi-Channel Selling Solution® documentation set:

- *Sterling Multi-Channel Selling Solution Administration Guide*
- *Sterling Multi-Channel Selling Solution Reference Guide*
- *Sterling Multi-Channel Selling Solution Developer Guide*

- *Sterling Multi-Channel Selling Solution Overview Guide*
- *Sterling Multi-Channel Selling Solution Implementation Guide*
- *Sterling Multi-Channel Selling Solution Best Practices Guide*
- *Sterling Multi-Channel Selling Solution Tutorial Guide*
- *Sterling Multi-Channel Selling Solution Software Development Kit Guide*

Conventions

The following conventions may be used in this manual:

Convention	Meaning
. . .	An ellipsis represents information that has been omitted.
< >	Angle brackets indicate user-supplied input.
`mono-spaced text`	Mono-spaced text indicates a file name, directory path, attribute name, or an inline code example or command.
/ or \	Slashes and backslashes are file separators for Windows, UNIX, and Linux operating systems. The file separator for the Windows operating system is "\" and the file separator for UNIX and Linux systems is "/". The UNIX convention is used unless otherwise mentioned.
<INSTALL_DIR>	User-supplied location of the installation directory.
<YFS_HOME>	User-supplied location of the `Runtime` directory. This is only applicable for Releases 7.7, 7.9, and 7.11.
<YFS_HOME_OLD>	This is the `Runtime` directory of previously installed releases. This is only applicable for Releases 7.7, 7.9, and 7.11.
<YANTRA_HOME_OLD>	User-supplied location of the Sterling Multi-Channel Fulfillment Solution installation directory for previously installed releases. This is only applicable for Releases 7.7, 7.9, and 7.11.

1

Integration Overview

The Sterling Selling and Fulfillment Suite provides an integration between the Sterling Multi-Channel Fulfillment Solution and the Sterling Multi-Channel Selling Solution. This integrated environment provides a seamless way to manage orders, inventory availability, customers, and products from within the two component applications.

For more information about points of integration in the Sterling Selling and Fulfillment Suite, see Table 1–1.

Table 1–1 Integration Points in the Sterling Selling and Fulfillment Suite

Area of Integration	Component	Details
Synchronization	Items	When products are updated in either system, the updated product information is relayed to the other system in near-real-time. Items may be synchronized through a timed or 'batch' process. In this scenario, all changes made to products in one system are sent to the other system at a pre-defined time.
	Customers	When a new user is created in either system, they are also simultaneously synchronized in the other system. Customers may also be synchronized through a timed or 'batch' process. In this scenario, all changes made to products in one system are sent to the other system at a pre-defined time.

Table 1–1 Integration Points in the Sterling Selling and Fulfillment Suite

Area of Integration	Component	Details
Order Management	Order Integration	Orders placed in the Sterling Multi-Channel Selling Solution are communicated to the Sterling Multi-Channel Fulfillment Solution for processing.
	Order Details	The details of an order, when viewed in the Sterling Multi-Channel Selling Solution, are dynamically retrieved from the Sterling Multi-Channel Fulfillment Solution.
	Order Change and Cancellation	Order changes occurring in the Sterling Multi-Channel Selling Solution are communicated to the Sterling Multi-Channel Fulfillment Solution.
Availability	Store Availability	Store availability information is provided by the Sterling Multi-Channel Fulfillment Solution and displayed in the Sterling Multi-Channel Selling Solution.
	Estimated Delivery Date	Estimated delivery dates for Web-based orders in the Sterling Multi-Channel Selling Solution are calculated by retrieving information from the Sterling Multi-Channel Fulfillment Solution.
	Real-Time Availability	Availability information for specific items is provided from the Sterling Multi-Channel Fulfillment Solution to the Sterling Multi-Channel Selling Solution in real-time and on demand.

2

Configuration

The purpose of integrating the Sterling Multi-Channel Selling Solution and the Sterling Multi-Channel Fulfillment Solution is to enable the two solutions to exchange information.

To integrate the Sterling Multi-Channel Selling Solution and the Sterling Multi-Channel Fulfillment Solution, complete the following steps:

2.1 Installation Considerations

The invocation methods that are available to use during integration depend on whether the Sterling Multi-Channel Selling Solution and the Sterling Multi-Channel Fulfillment Solution are installed on the same application server, or on different application servers. The available invocation methods are:

- Asynchronous— The Sterling Multi-Channel Selling Solution can post messages to the JMS queue on the Sterling Multi-Channel Fulfillment Solution.
- Synchronous— Messages are posted to the HTTP API servlet.

For a matrix of the possible installation combinations, and the effect on synchronization events, see Table 2–1.

Table 2–1 Installation Combinations

Order Selling / Order Fulfillment	Apache Tomcat	BEA WebLogic	IBM WebSphere
Jboss	Synchronous	Synchronous	Synchronous
WebLogic	Synchronous	Asynchronous and Synchronous	Synchronous
WebSphere	Synchronous	Synchronous	Asynchronous and Synchronous

For more information regarding application server requirements in the Sterling Multi-Channel Selling Solution, see the *Sterling Multi-Channel Selling Solution Implementation Guide*.

For more information regarding application server requirements in the Sterling Multi-Channel Fulfillment Solution, see the *Sterling Multi-Channel Fulfillment Solution Installation Guide*.

2.1.1 Configure Services to Work in Synchronous Mode

Because JMS queues are not available in synchronous mode, the following new services must be created:

- ReceiveItemChangesSynchronous
- ReceiveCustomerChangesSynchronous

These services are similar to the ReceiveCustomerChanges and ReceiveItemChanges services provided by default, with the exception of being defined as a synchronous service, and having the JMS queue removed.

For information regarding the creation of these two new services, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

Note that, when defining the services, both services must be defined as synchronous. The services should also contain the same components as the ReceiveItemChanges and ReceiveCustomerChanges services, with the exception of the JMS Queue component. For more information regarding the ReceiveItemChanges service and the ReceiveCustomerChanges service, see Section 3.1.1.2 and Section 3.1.2.2, respectively.

Note: When running in synchronous mode, the appropriate configurations must be made to the Sterling Multi-Channel Selling Solution. These include setting the invocation mode to synchronous, and ensuring that the proper services are given. For more information about configuring the Sterling Multi-Channel Selling Solution for integration, see Section 2.4.1, "Configure the Sterling Multi-Channel Selling Solution for Synchronization"

2.1.2 Determine the Method of Synchronization

Several factors are involved in determining the synchronization method used in different areas. The two main methods that are available are:

- Batch— Changes are gathered and synchronized immediately using a process such as a cron job or agent.
- Real-time— Synchronization is initiated as a direct result of the change occurring. This happens on an individual basis.

Within these invocation methods, changes can be communicated in any of the following ways:

- Queue— Changes are posted to an internal or external JMS queue, and then picked up for processing. This is also referred to as asynchronous mode.
- Service call— Only available for synchronizations originating in the Sterling Multi-Channel Selling Solution. Changes are passed directly for processing to a service in the Sterling Multi-Channel Fulfillment Solution. This can occur in either synchronous or asynchronous mode.
- Direct API call— Only available for synchronizations originating in the Sterling Multi-Channel Selling Solution. Changes are sent directly to the appropriate Sterling Multi-Channel Fulfillment Solution API for processing. This is also referred to as synchronous mode.

Note: For information about the possible modes of synchronization, based on your application server combination, see Section 2.1, "Installation Considerations".

2.1.2.1 Orders

By default, orders can be synchronized as described in Table 2–2.

Table 2–2 Order Synchronization Possibilities

	Batch	Real-time
OS-OF	**Synchronous-**A cron job sends orders to the Sterling Multi-Channel Fulfillment Solution, even if the Sterling Multi-Channel Fulfillment Solution is offline. **Asynchronous**- *Not Applicable*	**Synchronous-**Call createOrder API **Asynchronous**-Via a queue
OF-OS	*Not Applicable*	*Not Applicable*

For instructions about configuring this synchronization, see Section 2.4.1.

Note: To enable asynchronous mode, complete the steps in Section 2.3.2 and Section 2.3.3.1, in addition to Section 2.4.1.

2.1.2.2 ATP

By default, availability information can be synchronized as described in Table 2–3.

Table 2–3 Availability Synchronization Possibilities

	Batch	Real-time
OS-OF	*Not Applicable*	**Synchronous-**Call to availability APIs

Table 2–3 Availability Synchronization Possibilities

	Batch	Real-time
OF-OS	*Not Applicable*	*Not Applicable*

For instructions about configuring synchronization, see Section 2.5.

2.1.2.3 Customers

By default, customers can be synchronized as described in Table 2–4.

Table 2–4 Customer Synchronization Possibilities

	Batch	Real-time
OS-OF	**Asynchronous**— The Sterling Multi-Channel Selling Solution cron job places the message into a queue. **Synchronous**-A Sterling Multi-Channel Selling Solution cron job invokes the Sterling Multi-Channel Fulfillment Solution ReceiveCustomerChanges service.	**Asynchronous**- The message is placed in a queue, where it is picked up in the Sterling Multi-Channel Fulfillment Solution by an integration server and passed to the ReceiveCustomerChanges service. **Synchronous**-Invokes the Sterling Multi-Channel Fulfillment Solution ReceiveCustomerChanges service.
OF-OS	**Asynchronous**- Changes are posted to a queue by the Sterling Multi-Channel Fulfillment Solution and picked up by the Sterling Multi-Channel Selling Solution. **Synchronous-** Synchronous mode can be enabled by creating custom services in the Sterling Multi-Channel Fulfillment Solution.	**Asynchronous-** Changes are posted to a queue by the Sterling Multi-Channel Fulfillment Solution and picked up by the Sterling Multi-Channel Selling Solution. **Synchronous-** Synchronous mode can be enabled by creating custom services in the Sterling Multi-Channel Fulfillment Solution.

For instructions about configuring this synchronization in the Sterling Multi-Channel Selling Solution, see Section 2.4.1.

For instructions about configuring this synchronization in the Sterling Multi-Channel Fulfillment Solution, see Section 2.3.2, Section 2.3.3.4, and Section 2.3.3.5.

2.1.2.4 Items

By default, items can be synchronized as described in Table 2–5.

Table 2–5 Item Synchronization Possibilities

	Batch	Real-time
OS-OF	**Asynchronous-** The Sterling Multi-Channel Selling Solution cron job places the message into a queue. **Synchronous**-Invokes the Sterling Multi-Channel Fulfillment Solution ReceiveItemChanges service.	*Not Applicable*
OF-OS	**Asynchronous**- Changes are posted to a queue by the Sterling Multi-Channel Fulfillment Solution and picked up by the Sterling Multi-Channel Selling Solution. **Synchronous-** Synchronous mode can be enabled by creating custom services in the Sterling Multi-Channel Fulfillment Solution.	**Asynchronous**- Changes are posted to a queue by the Sterling Multi-Channel Fulfillment Solution and picked up by the Sterling Multi-Channel Selling Solution. **Synchronous-** Synchronous mode can be enabled by creating custom services in the Sterling Multi-Channel Fulfillment Solution.

For instructions about configuring this synchronization in the Sterling Multi-Channel Selling Solution, see Section 2.4.1.

For instructions about configuring this synchronization in the Sterling Multi-Channel Fulfillment Solution, see Section 2.3.2, Section 2.3.3.2, and Section 2.3.3.3.

2.2 Install the Sterling Multi-Channel Fulfillment Solution, Release 8.0

Refer to the *Sterling Multi-Channel Fulfillment Solution Installation Guide*.

Prior to building your EAR, complete the steps described in sections Section 2.2.1 and Section 2.2.2.

2.2.1 Modify Customer Event Templates

Manual changes to the customer event template XML files are required to enable customer synchronization. To modify the customer event template XML files:

1. Navigate to the <OF_INSTALL_DIR>/repository/xapi/template/merged/event/ directory.
2. Locate the CUSTOMER_DEFINITION.AFTER_CREATE_CUSTOMER.xml, CUSTOMER_DEFINITION.AFTER_DELETE_CUSTOMER.xml, and CUSTOMER_DEFINITION.AFTER_MODIFY_CUSTOMER.xml files.
3. Copy the files mentioned in Step 2 to the <OF_INSTALL_DIR>/repository/xapi/template/merged/event/extn directory.
4. Modify the customer event templates listed in Step 2 to match the common XML provided in Appendix A.2.
5. Add the following attributes to the <Customer> element in the files mentioned in Step 2.
   - IsSyncRequired=""
   - MaxModifyTS=""
   - SyncTS=""

For more information about modifying template XML files, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

2.2.2 Install the Necessary Sterling Multi-Channel Selling Solution .jar Files

It is necessary to install Sterling Multi-Channel Selling Solution .jar files to enable the synchronization services in the Sterling Multi-Channel Fulfillment Solution to call Sterling Multi-Channel Selling Solution APIs. To install the Sterling Multi-Channel Selling Solution .jar files:

1. From your Sterling Multi-Channel Selling Solution, unjar the <OS_INSTALL _DIR>releases/debs-8.0/image/misc/cmgt-xmlClient-tool-dist.jar file to a temporary location on your machine.
2. Edit the properties of the xmlClient.properties file with the appropriate locations and users for each storefront. Each storefront

must have both synchronization and message information defined. Six properties must be defined for each storefront:

- SyncURL— The URL of the module in the Sterling Multi-Channel Selling Solution. This property is defined as `xmlClient.<STOREFRONT>.SyncURL=http://<IP_ADDRESS>:<PORT>/<DEPLOYMENT_NAME>/msg/<STOREFRONT>/sync.`
- SyncUser— Used to enable an administrator to initiate and configure product and user synchronizations. The typical user is an administrator who has full access to the controls for product and user-related data for the storefront, and has the ERP Administrator and Manager functions assigned. This property is defined as: `xmlClient.<STOREFRONT>.SyncUser=<ADMINISTRATOR_ID>`
- SyncPassword— The admin user's password. This property is defined as: `xmlClient.<STOREFRONT>.SyncPassword=<ADMINISTRATOR_PASSWORD>`
- CmgtURL— The URL of the storefront messaging service. This property is defined as: `xmlClient.<STOREFRONT>.CmgtURL=http://<IP_ADDRESS>:<PORT>/<DEPLOYMENT_NAME>/msg/<STOREFRONT>`
- CmgtUser— Used to enable a CSR to initiate pricing requests in the integrated environment. The typical user is a CSR who has the ability to initiate pricing requests on behalf of a customer and has the 'User', 'Manager', and 'Commerce' functions assigned. This property is defined as: `xmlClient.<STOREFRONT>.CmgtUser=<CSR_ID>`
- CmgtPassword— The CSR's password. This property is defined as: `xmlClient.<STOREFRONT>.CmgtPassword=<CSR_PASSWORD>`

Note: In the SyncURL and CmgtURL fields, the first instance of the <STOREFRONT> partner ID must match the capitalization of the storefront you are configuring. The second instance (in the URL section of the field) must be in lowercase.

3. Copy <temp>\xmlClient.properties to the <OF_INSTALL_DIR>\properties directory.
4. Install the Sterling Multi-Channel Selling Solution .jar files by entering the following commands:
   a. <OF_INSTALL_DIR>/bin/install3rdparty.cmd <vendor_name> <vendor_version> -j <temp>/cmgt-xmlClient-tool-2.0.0.jar -targetJVM AGENT
   b. <OF_INSTALL_DIR>/bin/install3rdparty.cmd <vendor_name> <vendor_version> -j <temp>/dependency/*.jar -targetJVM AGENT

Note: If you are running in synchronous, real-time mode, install these .jar files to the APP target, not the AGENT target.

2.3 Configure the Sterling Multi-Channel Fulfillment Solution for Integration

After the Sterling Multi-Channel Fulfillment Solution has been installed and deployed, several tasks must be performed to enable integration with the Sterling Multi-Channel Selling Solution.

2.3.1 Configure Events and Agents for Synchronization

It is necessary to configure both events and agents to ensure successful synchronization using real-time and batch modes.

Events are used to trigger a synchronization based on an action, such as a change to an item.

Agents are used to process records from JMS queues automatically, at preset intervals.

2.3.1.1 Configure Customer Events

Under the general process type, configure the following events for the Define Customer transaction, based on the steps below:

- AFTER_CREATE_CUSTOMER
- AFTER_MODIFY_CUSTOMER

- AFTER_DELETE_CUSTOMER

1. For each event listed above, select the event and choose .
2. From the Event Detail popup, check the Is Active? box.
3. With the Transaction Details screen still open, double-click to select the event.
4. Navigate to the Actions tab in the left-side panel.
5. Drag the CustomerSynchronization > Send Customer Changes action to the Event Handler panel.
6. Save the updated event by selecting .

2.3.1.2 Configure the Send Customer Changes Agent

To configure the Send Customer Changes agent, complete the following steps:

1. From the Transactions tab in the left-side panel, double-click the Send Customer Changes transaction.
2. Select the ON_SUCCESS event and choose .
3. From the Event Detail popup, check the Is Active? box.
4. Navigate to the Actions tab of the left-side panel.
5. Drag the CustomerSynchronization > Send Customer Changes action to the Event Handler panel.
6. Save the updated event by selecting

> **Note:** The Send Customer Changes agent is used when using the synchronous invocation method

For more information about the Send Customer Changes agent, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

2.3.1.3 Configure Item Events

Under the general process type, configure the following events for the Define Item transaction, based on the steps below:

- AFTER_CREATE_ITEM

- AFTER_MODIFY_ITEM
- AFTER_DELETE_ITEM

1. For each event listed above, select the event and choose .
2. From the Event Detail popup, check the Is Active? box.
3. With the Transaction Details screen still open, double-click to select the event.
4. Navigate to the Actions tab of the left-side panel.
5. Drag the appropriate action to the Event Handler panel, as shown Table 2–6.

Table 2–6 Item Synchronization Actions

Event	Action
AFTER_CREATE_ITEM	ItemSynchronization > Send Item Changes on Create
AFTER_MODIFY_ITEM	ItemSynchronization > Send Item Changes on Modify
AFTER_DELETE_ITEM	ItemSynchronization > Send Item Changes on Delete

6. Save the updated event by selecting .

2.3.1.4 Configure the Send Item Changes Agent

To configure the Send Item Changes agent, complete the following steps:

1. From the Transactions tab of the left-side panel, double-click the Send Item Changes transaction.
2. Select the ON_SUCCESS event and choose .
3. From the Event Detail popup, check the Is Active? box.
4. Navigate to the Actions tab of the left-side panel.
5. Drag the ItemSynchronization > Send Item Changes action to the Event Handler panel.
6. Save the updated event by selecting

For more information about agents, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

2.3.2 Configure JMS

The following queues must be created in your Sterling Multi-Channel Fulfillment Solution application server environment:

- CustomerSyncReceiveCustomerChangesQueue
- CustomerSyncQueue
- ItemSyncReceiveItemChangesQueue
- ItemSyncQueue
- CreateOrderQueue

In addition, one connection factory must be created:

- AGENT_QCF

For more information about creating JMS queues, see the documentation pertaining to your application server.

Note: The values listed above are the default values provided when installing the Sterling Multi-Channel Selling Solution.

Note: When using the JBoss application server, queue names must be specified as queue/<QUEUE_NAME>. Because of the limited field length in the Fulfillment Service Definition UI, queue names may need to be changed. If a change is necessary, the queue name must also be changed in the <COMERGENT_SDK_HOME>\projects\<STOREFRONT_NAME>\templates\WEB-INF\properties\Comergent.xml file.

2.3.3 Configure the Services Used During Integration

There are several services in the Sterling Multi-Channel Fulfillment Solution that are used to synchronize items and users with the Sterling Multi-Channel Selling Solution. These services are:

- OrderIntegration

- SendItemChanges
- ReceiveItemChanges
- SendCustomerChanges
- ReceiveCustomerChanges

2.3.3.1 Create a New Service for Order Integration

For information about creating a new service, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

To create a new service:

1. Create a new service with the information listed in Table 2–7.
2. Choose OK.

Table 2–7 Service Properties

Field	Value
Service Name	OrderIntegration
Service Group Name	DefaultGroup
This Service Is Invoked By an External System or from within the Sterling Multi-Channel Fulfillment Solution	In an Asynchronous Mode

To configure the newly created service:

1. Drag the Generic JMS object into the configuration window.
2. Drag the Components > API object into the configuration window.
3. Connect the objects as follows: Start > Generic JMS > API > End
4. Select the line connecting Generic JMS and API.
5. Enter the properties according to Table 2–8.
6. Select API.
7. Choose createOrder as API name.

8. Choose .

Table 2–8 New Service Properties

Field	Value
Runtime Tab	
Sub Service Name	`CreateOrderFromOS`
Queue Name	The name of the order queue created in Section 2.3.2.
Provider URL	The URL of the JMS server, for example, `t3://<IP_ADDRESS>:<PORT>`
Initial Context Factory	The application server you are using, for example, `Weblogic` or `Websphere`.
QCF Lookup	The name of the connection factory created in Section 2.3.2.
Transactional	Select this option.
Initial Threads	`1`
Server Tab	
Server Name	Create or select a server name
Exception Tab	
Alert Type	Enter an alert type to be given if an exception occurs during order creation.
Alert Queue Name	`DEFAULT (DEFAULT)`
Is Reprocessible	Select this option.

To start the integration server, run the following command:

```
<OF_INSTALL_DIR>\bin\startIntegrationServer.cmd <SERVER_NAME>
```

2.3.3.2 Configure the SendItemChanges Service

To configure the SendItemChanges Service:

1. In the left-side panel, select the ItemSynchronization > SendItemChanges.
2. Select the JMS Sender.

a. Set the Queue Name. The Queue Name is set to `ItemSyncQueue` by default.

b. Set the Provider URL to the local JMS Queue.

c. Set the QCF Lookup to `AGENT_QCF`.

3. Select the JMS Receiver.

a. Set the Queue Name. The Queue Name is set to `ItemSyncQueue` by default.

b. Set the Provider URL to the local JMS Queue.

c. Set the QCF Lookup to `AGENT_QCF`.

4. Choose .

Note: The Queue Name for the JMS Sender and the JMS Receiver must be the same.

For more information about the SendItemChanges service, see Section 3.1.1.1.

2.3.3.3 Configure the ReceiveItemChanges Service

To configure the ReceiveItemChanges Service:

1. In the left-side panel, select the ItemSynchronization > ReceiveItemChanges.
2. Select the JMS Receiver.

a. Set the Queue Name. The Queue Name is set to `ItemSyncReceiveItemChangesQueue` by default.

b. Set the Provider URL to the local JMS Queue.

c. Set the QCF Lookup to `AGENT_QCF`.

3. Choose .

For more information about the ReceiveItemChanges service, see Section 3.1.1.2.

2.3.3.4 Configure the SendCustomerChanges Service

To configure the SendCustomerChanges Service:

1. In the left-side panel, select the CustomerSynchronization > SendCustomerChanges.
2. Select the JMS Sender.
   a. Set the Queue Name. The Queue Name is set to `CustomerSyncQueue` by default.
   b. Set the Provider URL to the local JMS Queue.
   c. Set the QCF Lookup to `AGENT_QCF`.
3. Select the JMS Receiver.
   a. Set the Queue Name. The Queue Name is set to `CustomerSyncQueue` by default.
   b. Set the Provider URL to the local JMS Queue.
   c. Set the QCF Lookup to `AGENT_QCF`.
4. Choose .

> **Note:** The Queue Name for the JMS Sender and the JMS Receiver must be the same.

For more information about the SendCustomerChanges service, see Section 3.1.2.1.

2.3.3.5 Configure the ReceiveCustomerChanges Service

To configure the ReceiveCustomerChanges Service:

1. In the left-side panel, select the CustomerSynchronization > ReceiveCustomerChanges.
2. Select the JMS Receiver.
   a. Set the Queue Name. The Queue Name is set to `CustomerSyncReceiveCustomerChanges` by default.
   b. Set the Provider URL to the local JMS Queue.

c. Set the QCF Lookup to `AGENT_QCF`.

3. Choose .

For more information about the ReceiveItemChanges service, see Section 3.1.2.2.

2.3.4 Set Up Enterprise Properties

It is necessary to create organizations in the Sterling Multi-Channel Fulfillment Solution to match the storefronts created in the Sterling Multi-Channel Selling Solution.

1. Create a new enterprise with the following properties:

- The enterprise name should be the same as the External Partner ID in the Sterling Multi-Channel Selling Solution.

> **Note:** To find the External Partner ID:
>
> - Log in to the Sterling Multi-Channel Selling Solution as a storefront administrator.
> - Select View your Organizational Profile
> - Select the Detail tab.
> - Use the value in the External Partner ID text box.

- Administered by `DEFAULT`.
- Roles— `Seller, Enterprise`
- The organization maintains its own catalog, inventory, customers, and capacity.

For more information about creating enterprises, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

a. For the newly created enterprise, create the following:

- Four new payment types, CUSTOMER_ACCOUNT, CREDIT_CARD, Refund Check, OTHER. OTHER should be created as a Stored Value Card and should have the Charge Instead of Authorize option selected.

- A payment rule titled <organization_name>_DEFAULT with the following properties, At Collection, Settlement Required: Yes, Authorization Required: Yes
- Charge categories to match each pricing rule category in the Sterling Multi-Channel Selling Solution.

Note: It is recommended that you turn off the Validate Charge Name flag. For more information about the Validate Charge Name flag, see the *Sterling Distributed Order Management Configuration Guide*.

Note: New organizations do not have any status modification rules assigned by default. Status modification rules must be either created manually, or copied from the hub organization.

For more information about status modification rules, see the *Sterling Distributed Order Management Configuration Guide*.

For more information about creating payment types and payment rules, see the *Sterling Distributed Order Management Configuration Guide*.

b. Create a new ATP rule and set it as the default ATP rule for the enterprise.

For more information regarding the creation of ATP Rules and their necessary parameters, see the *Sterling Global Inventory Visibility Configuration Guide*.

2. Assign the payment rule created in step 2 to the organization created in step 1.

For more information about assigning payment rules, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

3. Ensure that the credit card types created in the Sterling Multi-Channel Selling Solution are also created in the Sterling Multi-Channel Fulfillment Solution. For more information about

creating credit card types, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4. Create line types to match the available line types in the Sterling Multi-Channel Selling Solution. For more information, see Table 2–9.

Table 2–9 Line Types

Line Type	Description
01	PRODUCT
02	TEXT
03	COUPON
04	EXTERNAL_PRODUCT

Note: If the catalog is maintained at the enterprise level, the `Is item valid for synchronization` condition in the SendItemChanges service must be enhanced so that and `ORGANIZATION_CODE=<CATALOG_ORGANIZATION>` is included in the condition.

Note: Product catalogs are owned by a global catalog organization. All enterprises in the Sterling Multi-Channel Fulfillment Solution map to this catalog organization. Inventory for products can be maintained by individual enterprises.

Note: All enterprise users who are Customer Service Representatives must be assigned to both the RegisteredUser and AnonymousUser partners.

Note: For each storefront that exists in the Sterling Multi-Channel Selling Solution, an equivalent enterprise must be created in the Sterling Multi-Channel Fulfillment Solution. Because there is no automatic synchronization of storefronts and enterprises, this must be completed manually. The only link between the two entities is the `External Partner ID` field in the Sterling Multi-Channel Selling Solution and the `OrganizationCode` field in the Sterling Multi-Channel Fulfillment Solution. These fields must be identical.

2.4 Install the Sterling Multi-Channel Selling Solution Release 8.0

Refer to the *Sterling Multi-Channel Selling Solution Implementation Guide* to complete this step.

Note: To configure the Sterling Multi-Channel Selling Solution for synchronization with the Sterling Multi-Channel Fulfillment Solution, see Section 2.4.1.

2.4.1 Configure the Sterling Multi-Channel Selling Solution for Synchronization

Two methods are available to enable the Sterling Multi-Channel Selling Solution for synchronizing orders, users, and products. These methods are:

- During installation
- After deployment

Configuring during installation is advantageous because the necessary properties need to be set only once. However, this method requires the project to be rebuilt to incorporate any changes. Using the second method, changes can be made to the integration properties any time, without having to rebuild the project.

This section describes both scenarios.

2.4.1.1 Configuring the Sterling Multi-Channel Selling Solution for Synchronization During Installation

This method requires the manual editing of a specific file located in the Sterling Multi-Channel Selling Solution installation directory, and must be completed during initial installation.

Configure the Comergent.xml File

In the Installing the Sterling Multi-Channel Selling Solution as a Full Release section in chapter 5 of the *Sterling Multi-Channel Selling Solution Implementation Guide*, replace the following steps with the information below:

- Add the following after step 6:

  a. Enter the command `sdk customize Comergent.xml` command.

  b. Edit the `<COMERGENT_SDK_HOME>\projects\<STOREFRONT_NAME>\templates\WEB-INF\properties\Comergent.xml` file according to Table 2–10.

  > **Note:** `<COMERGENT_SDK_HOME>` refers to the directory in which you have installed the Sterling Multi-Channel Selling Solution.

  c. Rebuild the project by running the `sdk merge` command.

Table 2–10 Comergent.xml Integration Properties

Parameter	Description
Order Synchronization	
OrderOFIntegration	This field determines if orders will be synchronized between the Sterling Multi-Channel Selling Solution and the Sterling Multi-Channel Fulfillment Solution. Value should be `true` to enable synchronization **Note:** This value can be edited only in the `Comergent.xml` file.
FulfillmentMessageVersion	This field determines the message version used for order synchronization.

Table 2–10 Comergent.xml Integration Properties

Parameter	Description
AsynchronousOrderCreation	This field determines if orders created in the Sterling Multi-Channel Selling Solution are created asynchronously in the Sterling Multi-Channel Fulfillment Solution. **Note:** This value can only be edited in the Comergent.xml file.
AsyncFullfillmentMessageVersion	This field determines the message version for asynchronous order creation.
Credit Card	
CreditCardEncryptionOption	This field determines if credit card information is encrypted prior to being written to a log or dispatched in an e-mail. Value should be On to enable synchronization.
Synchronization	
SyncMessageVersion	The message version to be used for synchronization. By default, this value is Sync_1.0.
SynchronousMsgServiceImpl	The message service implementation class to be used for synchronous invocation. By default, this value is com.comergent.msgService.FormPostMsgServiceImpl.
AsynchronousMsgServiceImpl	The message service implementation class to be used for asynchronous invocation. By default, this value is com.comergent.msgService.JMSMsgServiceImpl.
Product Synchronization	
SynchronizationOption	This field determines if the synchronization of products is enabled. Value should be On to enable synchronization.

Table 2–10 Comergent.xml Integration Properties

Parameter	Description
InvocationMode	This field specifies the mode of invocation from the Sterling Multi-Channel Selling Solution to the Sterling Multi-Channel Fulfillment Solution. Possible Values: • Synchronous— Product synchronization events invoke a specified product sync service in the Sterling Multi-Channel Fulfillment Solution. • Asynchronous— Product synchronization events are put into the JMS Queue.
SynchronousService	This field specifies the name of the service used for product synchronization. **Note:** When setting the invocation mode to Synchronous, this value must equal the service created in the Sterling Multi-Channel Fulfillment Solution.
CatalogOrganizationCode	This field specifies the catalog organization that is used for product synchronization. This organization should be the same organization that was created in Section 2.3.4. **Note:** All organizations that are synchronized must use the same catalog organization.
FailureEmailRecipients	This field is used to determine the e-mail addresses used to send notification messages when an error or exception occurs. Possible values: A comma separated list of e-mail addresses. **Note:** To enable e-mail messages to be sent, the SMTPHost element must be configured in the `Comergent.xml` file of each storefront. This can also be completed after installation by a storefront administrator. To configure SMTP information using the UI, see Section 2.4.1.2.
User Synchronization	
SynchronizationOption	This field is used to determine the if the synchronization of users is enabled. Value should be `On` to enable synchronization.
RealTimeSynchronization	This field is used to determine if real-time synchronization of users is enabled. Value should be `On` to enable synchronization.

Table 2–10 Comergent.xml Integration Properties

Parameter	Description
InvocationMode	This field specifies the mode of invocation from the Sterling Multi-Channel Selling Solution to the Sterling Multi-Channel Fulfillment Solution. Possible Values: • Synchronous— Product synchronization events invoke a specified product sync service in the Sterling Multi-Channel Fulfillment Solution. • Asynchronous— Product synchronization events are put into the JMS Queue.
SynchronousService	This field provides the name of synchronous service used during user synchronization. **Note:** This field is necessary only when RealTimeInvocationMode is set to synchronous.
FailureEmailRecipients	This field is used to determine the e-mail addresses used to send notification messages when an error or exception occurs. Possible values: A comma separated list of e-mail addresses. **Note:** To enable e-mail messages to be sent, the SMTPHost element must be configured in the `Comergent.xml` file of each storefront. This can also be completed after installation by a storefront administrator. For more information about SMTP configuration, see the *Sterling Multi-Channel Selling Solution Implementation Guide*.
JMS	
InitialContextFactory	This field is used to determine the initial context factory class for JNDI lookups.
QueueConnectionFactory	This field is used to determine the queue connection factory lookup name.
ProviderURL	This field is used to determine the URL of the JMS provider.
ProductSynchronizationQueue	This field is used to determine the JMS queue used for product synchronization.
UserSynchronizationQue	This field is used to determine the JMS queue used for user synchronization.

Table 2–10 Comergent.xml Integration Properties

Parameter	Description
OrderOFIntegrationQueue	This field is used to determine the JMS queue used for integrating orders with the Sterling Multi-Channel Fulfillment Solution.
HTTP	
URL	This field is used to determine the URL of the Sterling Multi-Channel Fulfillment Solution.
ContentType	This field is used to determine the format of messages sent to the Sterling Multi-Channel Fulfillment Solution.

2.4.1.2 Configure an SMTP Host for Each Storefront

To enable e-mail messages to be sent and received, each storefront created during the initial setup must have an SMTP host configured. To configure an SMTP host, complete the following steps:

1. Log in as a storefront administrator.
2. Select System Services.
3. Select Commerce Manager.
4. Enter a value for SMTP Host, SMTP Recipient, and SMTP Sender.

2.4.1.3 Configure the Sterling Multi-Channel Selling Solution for Synchronization After Deployment

Alternatively, changes can be made to the synchronization properties after deploying the Sterling Multi-Channel Selling Solution.

Product Synchronization

To configure product synchronization properties:

1. Launch the Sterling Multi-Channel Selling Solution admin tool by navigating to `http://<server>:<port>/Sterling/en/US/enterpriseMgr/admin`.

2. Log in as system administrator.

> **Note:** By default, the administrator login information is:
>
> username-admin
>
> password-admin

3. Select System Services.
4. Select Fulfillment.
5. Edit the applicable properties as described in Table 2–11.
6. Select Save All and Return to List.
7. Configure the Product Sync CRON job as follows:
   a. Navigate to the storefront administration page at `http://<server>:<port>/Sterling/en/US/enterpriseMgr/<storefront>`.
   b. Log in as an administrator.
   c. Select System Services.
   d. Select Job Scheduler under the System Administration section.
   e. Select the link from the Cron Job List column for Product Sync.
   f. Under Command Line Arguments, set the `NumProductsToBeSynched` value to a number slightly larger than your product catalog.
   g. Check the Active box.
   h. Optional Step. Set the Cron Job Schedule to meet your needs.
   i. Select Save All Changes.

> **Note:** Step 7 is an optional step. If you are using the synchronous/near-real-time invocation method, it is not necessary to configure the product synchronization cron job.

Table 2–11 Product Synchronization Properties

Property	Description
JMS Provider URL	The URL of the JMS provider. This is typically the server on which the Sterling Multi-Channel Fulfillment Solution resides.
Initial context factory class	This field is used to determine the initial context factory class for JNDI lookups. By default, this value is configured for Weblogic application servers.
Product synchronization queue name	This field is used to determine the JMS queue used for product synchronization. By default, this property is set to `ItemSynchReceiveItemChangesQueue`.
Catalog organization code to be used for Order Integration and Product synchronization	This field specifies which catalog organization is used for product synchronization. This organization should be the same organization that was created in Section 2.3.4.
Queue connection factory lookup name	This field is used to determine the queue connection factory lookup name. By default this property is set to AGENT_QCF.
Should Product Synchronization be turned ON or OFF?	This field determines whether product synchronization is enabled or not. **Value should be** On **to enable synchronization.**
Email Receipients for Product sync failure notification	This field is used to determine the e-mail addresses used to send notification messages when an error or exception occurs. **Possible values:** A comma separated list of e-mail addresses. **Note:** To enable e-mail messages to be sent, the SMTPHost element must be configured in the Comergent.xml file of each storefront. This can also be completed after installation by a storefront administrator. To configure SMTP information using the UI, see Section 2.4.1.2.
Synchronous Product synchronization service name	If product synchronization is configured to run in synchronous mode, specify the name of the synchronous service here.

Note: Please take note of the following:

- Products can be shared across storefronts and individual storefronts can add their own set of products.
- Product administration is controlled by the access policies at the category level.
- Entitlements and price lists are used to control what is being sold at the storefront. The supplier for a price list should be the the same as the storefront itself.
- Supplier is used for both inventory check and fulfillment.

User Synchronization

To configure user synchronization properties:

1. Launch the Sterling Multi-Channel Selling Solution admin tool by navigating to `http://<server>:<port>/Sterling/en/US/enterpriseMgr/admin`
2. Login as system administrator.

   Note: By default the administrator login information is:

   `username-admin`

   `password-admin`

3. Select System Service.
4. Select Fulfillment.
5. Edit the applicable properties as given in Table 2–12.
6. Select Save All and Return to List.
7. Configure the User Sync CRON job.
   a. Navigate to the storefront administration page at `http://<server>:<port>/Sterling/en/US/enterpriseMgr/<storefront>`.

b. Log in as an administrator.

c. Select System Services.

d. Select Job Scheduler under the System Administration section.

e. Select the link from the Cron Job List column for User Sync.

f. Under Command Line Arguments, set the `NumUsersToBeSynched` value to a number slightly larger than your total number of users.

g. Check the box for Active.

h. **Optional Step**. Set the Cron Job Schedule to meet your needs.

i. Select Save All Changes.

Note: Step 7 is an optional step. If you are using the synchronous/near-real-time invocation method, it is not necessary to configure the user synchronization cron job.

Table 2–12 User Synchronization Properties

Property	Description
What should be the mode of invocation for synchronizing User data in Real-time?	Select whether the invocation mode for Real-time user synchronization is Synchronous or Asynchronous.
Synchronous User synchronization service name	This value stores the name of the service used for synchronous user synchronization. This service should be the same as the one you created in Section 2.1.1.
User synchronization queue name	This field is used to determine the JMS queue used for user synchronization. By default, this property is set to `CustomerSynchReceiveCustomerChangesQueue`.
Sterling Order Fulfillment System URL	Enter the URL of the Sterling Multi-Channel Fulfillment Solution interop servlet, for example, `http://<IP_ADDRESS>:<PORT>/yantra/interop/InteropHttpServlet`

Table 2–12 User Synchronization Properties

Property	Description
Should User Synchronization be turned ON or OFF	This field determines whether user synchronization is enabled or not. Value should be ON to enable synchronization.
Should Realtime Synchronization of User data be turned ON or OFF?	This field determines whether real-time synchronization of users is enabled or not. Value should be ON to enable synchronization.
Email Recipients for User Sync failure notification	This field is used to determine the e-mail addresses used to send notification messages when an error or exception occurs. Possible values: A comma separated list of e-mail addresses. **Note:** To enable e-mail messages to be sent, the SMTPHost element must be configured in the `Comergent.xml` file of each storefront. This task can also be completed after installation by a storefront administrator. For more information about SMTP configuration, see the *Sterling Multi-Channel Selling Solution Implementation Guide*.

Order Synchronization

To configure order synchronization properties:

1. Launch the Sterling Multi-Channel Selling Solution admin tool by navigating to `http://<server>:<port>/Sterling/en/US/enterpriseMgr/admin`
2. Log in as system administrator.

> **Note:** By default, the administrator login information is:
>
> `username-admin`
>
> `password-admin`

3. Select System Service.
4. Select Fulfillment.
5. Edit the applicable properties as given in Table 2–13.

6. Select Save All and Return to List.

Table 2–13 Order Synchronization Properties

Property	Description
Message version to be used for Order integration	This field determines the message version used for order synchronization. This value should be `Sterling_Fulfillment`.
Asynchronous Message version to be used for Order integration	This field determines the message version for asynchronous order creation. This value should be `Sterling_Fulfillment_Async`.
Message version to be used for synchronization	This field determines the message version to be used for synchronization. This value should be `Sync_1.0`.
OF Order integration queue name	This field specifies the queue that is used for order integration with the Sterling Multi-Channel Fulfillment Solution. This queue should be the same as the order queue you created in Section 2.3.2.
Should credit card encryption/decryption be turned ON?	This field determines if credit card encryption and decryption are enabled.
Asynchronously Create Order at Sterling Fulfillment	This field is used to determine if the asynchronous invocation mode is used for order synchronization.

Note: The flags to enable or disable order integration and set the invocation mode can only be turned on or off by editing the `Comergent.xml` file, as noted in Section 2.4.1.1.

Synchronization

To configure synchronization properties:

1. Launch the Sterling Multi-Channel Selling Solution admin tool by navigating to `http://<server>:<port>/Sterling/en/US/enterpriseMgr/admin`

2. Log in as system administrator.

> **Note:** By default, the administrator login information is:
>
> username-admin
>
> password-admin

3. Select System Service.
4. Select Fulfillment.
5. Edit the applicable properties as given in Table 2–14.
6. Select Save All and Return to List.

Table 2–14 Synchronization Properties

Property	Description
Message version to be used for synchronization	This field determines the message version to be used for synchronization. This value should be `Sync_1.0`.
Synchronous message service implementation class	This field determines the message service implementation class to be used for synchronous invocation.
Asynchronous message service implementation class	This field determines the message service implementation class to be used for asynchronous invocation.
Content type for Sterling Fulfillment System	This field determines the content type used to exchange information with the Sterling Multi-Channel Fulfillment Solution. This value should be `text/xml`.

2.5 Configure Availability Integration

The integration of availability information requires setup in both systems. For more information about availability integration, see Chapter 5, "Availability".

2.5.1 Use a Common Fulfillment Type

Fulfillment types are used to define the custom requirements that enable you to determine sourcing and procurement locations based on logic that you provide.

In the Sterling Multi-Channel Fulfillment Solution, a common fulfillment type enables the Sterling Multi-Channel Selling Solution to receive availability information from the Sterling Multi-Channel Fulfillment Solution.

To use the a common Fulfillment Type for Store Fulfillment:

1. Log in to the Sterling Multi-Channel Selling Solution as an administrator.
2. Under the System Administration heading, choose Business Rules.
3. From the tree on the left-side, select Availability.
4. Under Store Fulfillment Type, enter the name of the fulfillment type that exists in the Sterling Multi-Channel Fulfillment Solution.
5. Choose Save.

3

Synchronization

The Sterling Selling and Fulfillment Suite provides easy synchronization of both customers and products or items between the Sterling Multi-Channel Selling Solution and the Sterling Multi-Channel Fulfillment Solution.

You can trigger synchronization of this data three ways: near real-time, on-demand, and batch. For more information about triggering methods for data synchronization, see Table 3–1, "Methods of Triggering Data Synchronization".

Table 3–1 Methods of Triggering Data Synchronization

Method	Description
Near real-time	Changes are communicated to the appropriate system as soon as they are processed. **Note:** This is applicable to both user and product synchronization.
On-demand	Occurs as a result of a customer manually triggering the synchronization from the Sterling Multi-Channel Selling Solution.
Batch	Occurs at a specified time and automatically determines which items or customers need to be synchronized.

3.1 Synchronization Architecture

There are several components that enable synchronization of data to occur between the Sterling Multi-Channel Selling Solution and the

Sterling Multi-Channel Fulfillment Solution. The synchronization process works in both directions through a system of services and APIs.

3.1.1 Item Synchronization Services in the Sterling Multi-Channel Fulfillment Solution

The Sterling Multi-Channel Fulfillment Solution has two main services for the synchronization of items. These services leverage APIs as well as other services in order to send or receive changes to items.

3.1.1.1 SendItemChanges Service

The sendItemChanges service is used to relay changes made to items in the Sterling Multi-Channel Fulfillment Solution to the Sterling Multi-Channel Selling Solution. This service is triggered as soon as an update or change to an item is made. For more information about the process flow of the sendItemChanges service, see Figure 3–1.

Figure 3–1 The SendItemChanges Service

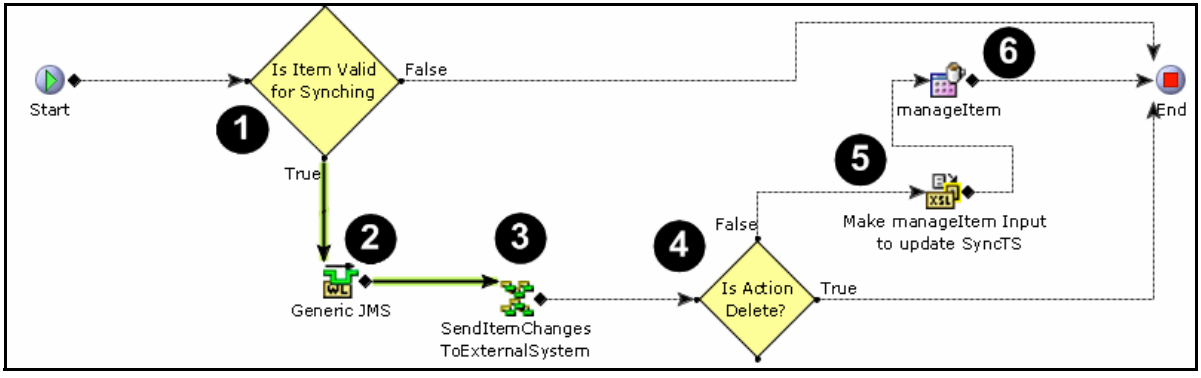

Table 3–2 The SendItemChanges Service

Step	Description
1 Is the item valid for synching?	If the item is valid for synchronization, the service continues; if it is not, the service ends. Items are deemed valid for synchronization if the ItemGroupCode is equal to PROD and the item is not a dynamic physical kit or a logical kit.
2 Generic JMS queue	The Generic JMS queue stores messages until they can continue through the service. **Note:** When configuring the SendItemChanges service, the Provider URL for both the JMS Sender and JMS Receiver must be manually configured. The queue name for both must also be set to `ItemSyncQueue`. For more information about configuring services, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide.*
3 sendItemChangesTOExternalSystem	This service contains modules that provide an XSL translation to create a common XML file for the item, and send the XML to the Order Selling System. For more information about the common XML file, see section Section 2.2.1.
4 Is the action a delete?	If the change being made to the item is deletion, the service ends. If it is not, the service continues.
5 Make manageItem input to SyncTS	An XSL translation takes place which adds a timestamp for when the synchronization took place. **Note:** SyncTS is the only column change that can occur in this XSL.
6 manageItem API	The item XML is passed to the manageItem API which commits the changes to the Sterling Multi-Channel Fulfillment Solution.

Note: For more information about the SendItemChanges service, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

3.1.1.2 ReceiveItemChanges Service

The receiveItemChanges service accepts changes made to items in the Sterling Multi-Channel Selling Solution and commits them to the Sterling Multi-Channel Fulfillment Solution, if running in near-real-time mode. If

batch mode is used, the service is called after the item synchronization cron job is run. For more information about the process flow of the receiveItemChanges service, see Figure 3–1.

Figure 3–2 The receiveItemChanges Service

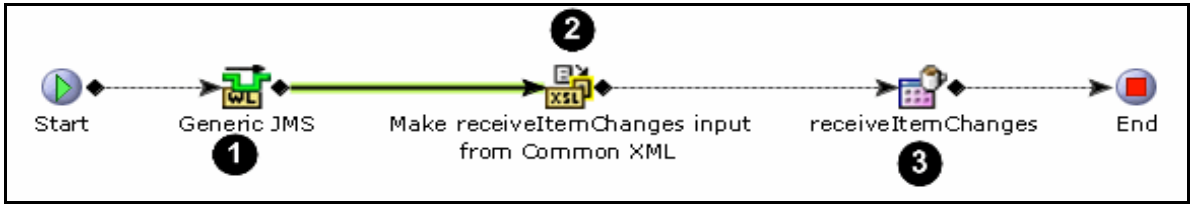

Table 3–3 The ReceiveItemChanges Service Explained

Step	Description
1 Generic JMS queue	The Generic JMS queue stores messages until they can continue through the service. **Note:** When configuring the ReceiveItemChanges service, the Provider URL for the JMS Receiver must be manually configured. The queue name must also be set to `ItemSyncReceiveItemChangesQueue`. For more information about configuring services, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide.*
2 Make receiveItemChanges input from common XML	The XSL translation takes the common XML from the Sterling Multi-Channel Selling Solution and removes all synchronization related data as well as transforms the XML into a format that can be read by the Sterling Multi-Channel Fulfillment Solution. **Note:** By default, items are deleted from the Sterling Multi-Channel Fulfillment Solution when a message for deletion is received from the Sterling Multi-Channel Selling Solution. This can be avoided by modifying the XSL translator in this step by changing `Action="Delete"` to `Action="Modify"` and placing the item into a custom status.
3 receiveItemChanges API	The receiveItemChanges API accepts the item XML from the Sterling Multi-Channel Selling Solution and invokes the functionality of the manageItem API.

3.1.2 Customer Synchronization Services in the Sterling Multi-Channel Fulfillment Solution

The Sterling Multi-Channel Fulfillment Solution has two main services for the synchronization of customers. These services leverage APIs as well as other services in order to send or receive changes to customers.

3.1.2.1 The SendCustomerChanges Service

The sendCustomerChanges service communicates changes made to customers in the Sterling Multi-Channel Fulfillment Solution to the Sterling Multi-Channel Selling Solution. For more information about the process flow of the sendCustomerChanges service, see Figure 3–3.

Figure 3–3 The SendCustomerChanges Service

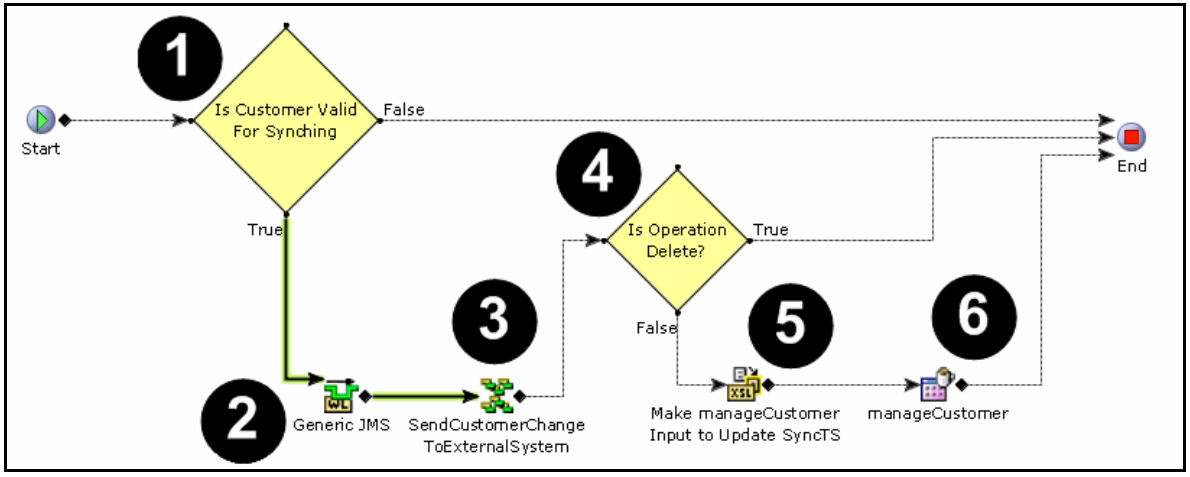

Table 3–4 The SendCustomerChanges Service Explained

Step	Description
1 Is the customer valid for synching?	If the customer is valid for synchronization, the service continues; if it is not, the service ends. Customers are deemed valid for synchronization if they are a consumer, have a user ID that is not blank, and have an IsSyncRequired flag set to 'Y'.
2 Generic JMS queue	The Generic JMS queue stores messages until they can continue through the service. **Note:** When configuring the sendCustomerChanges service, the URL for both the JMS Sender and JMS Receiver must be manually configured. The queue name for both must also be set to CustomerSyncQueue. For more information about configuring services, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide.*
3 sendCustomerChangesTOExternalSystem	This service contains modules that provide an XSL translation to create a common XML file for the customer, and send the XML to the Order Selling System.

Table 3–4 The SendCustomerChanges Service Explained

Step	Description
❹ Is the operation a delete?	If the change being made to the customer is deletion, the service ends. If it is not, the service continues.
❺ Make manageCustomer input to SyncTS	An XSL translation takes place which adds a timestamp for when the synchronization took place. **Note:** SyncTS is the only column change that can occur in this XSL.
❻ manageCustomer API	The customer XML is passed to the manageCustomer API, which commits the changes to the Sterling Multi-Channel Fulfillment Solution.

Note: For more information about the SendCustomerChanges service, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

3.1.2.2 The ReceiveCustomerChanges Service

The receiveCustomerChanges service accepts changes made to customers in the Sterling Multi-Channel Selling Solution and commits them to the Sterling Multi-Channel Fulfillment Solution. This service is triggered as soon as an update or change to an customer is made. For more information about the process flow of the receiveCustomerChanges service, see Figure 3–1.

Figure 3–4 The ReceiveCustomerChanges Service

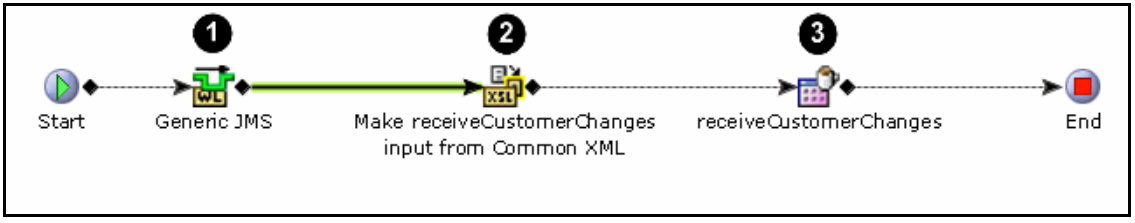

Table 3–5 The ReceiveCustomerChanges Service Explained

Step	Description
❶ Generic JMS queue	The Generic JMS queue stores messages until they can continue through the service. **Note:** When configuring the sendCustomerChanges service, the URL for both the JMS Sender and JMS Receiver must be manually configured. The queue name for both must also be set to CustomerSyncQueue. For more information about configuring services, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide.*
❷ Make receiveCustomerChanges input from common XML	The XSL translation takes the common XML from the Sterling Multi-Channel Selling Solution and removes all synchronization related data as well as transforms the XML into a format that can be read by the Sterling Multi-Channel Fulfillment Solution.
❸ receiveCustomerChanges API	The receiveCustomerChanges API accepts the item XML from the Sterling Multi-Channel Selling Solution and invokes the functionality of the manageItem API.

4

Order Management

The order management component of the Sterling Selling and Fulfillment Suite enables orders entered in the Sterling Multi-Channel Selling Solution to be sent to the Sterling Multi-Channel Fulfillment Solution for post processing. You can view orders and check statuses using either application.

The following functionalities of order management are enabled in this integration:

- Order Integration
- Order Details
- Order Cancellation
- Shipping Calculation
- Payment Processing

4.1 Order Integration

When an order is placed in the Sterling Multi-Channel Selling Solution, the order information is saved to the database and put into Order Submitted status. The order is then put through an XSL translation and sent to the Sterling Multi-Channel Fulfillment Solution by the configuration described in Chapter 2, "Configuration".

For information about the XSL translation that takes place during order integration, see Section A.3, "Order Translation Mapping".

> **Note:** Only sales orders are synchronized in the integrated environment.

4.1.1 Synchronous and Asynchronous Order Creation

Orders may be created in two ways:, synchronously and asynchronously. In synchronous mode, the createOrder API of the Sterling Multi-Channel Fulfillment Solution is called directly over HTTP using XML.

In synchronous mode, the Sterling Multi-Channel Selling Solution calls a service in the Sterling Multi-Channel Fulfillment Solution, which places the order in a JMS queue. The call to this service is placed over HTTP using XML.

Note: In high-volume ordering scenarios, asynchronous order creation should be used.

Note: Orders are not able to be viewed in the Sterling Multi-Channel Selling Solution until they have been communicated to the Sterling Multi-Channel Fulfillment Solution.

Some potential causes for a delay in orders becoming available for viewing may include:

- System resources are not able to keep up with a higher volume of orders.
- The Sterling Multi-Channel Fulfillment Solution being offline.

For more information about synchronous and asynchronous usage, see Section 2.1.

4.1.2 Pricing and Discounts

All order pricing tasks take place in the Sterling Multi-Channel Selling Solution. If any discounts are to be applied, they are sent to the Sterling Multi-Channel Fulfillment Solution as header charges, awards, or promotions.

Discounts can be applied to the order as a whole, or to individual line items.

4.2 Order Details

After an order is placed, its details are displayed in the Sterling Multi-Channel Selling Solution by obtaining information from the Sterling Multi-Channel Fulfillment Solution. This is done by using the getSalesOrderDetails API. Messages to and from the Sterling Multi-Channel Fulfillment Solution are mapped through the order mapping scheme described in Section A.3, "Order Translation Mapping".

4.3 Order Cancellation

All order change and cancellation capabilities are determined in the Sterling Multi-Channel Fulfillment Solution. Based on which capabilities are enabled, interface elements may be shown or hidden in the Sterling Multi-Channel Selling Solution. For example, when a customer views the details of an order they placed previously, the order details are retrieved from the Sterling Multi-Channel Fulfillment Solution. If, based on the retrieved information, the order can be cancelled by the user, a Cancel button will display in the Sterling Multi-Channel Selling Solution user interface.

4.4 Shipping Calculation

By default, all shipping estimates are completed in the Sterling Multi-Channel Selling Solution. Once calculated, these values are sent to the Sterling Multi-Channel Fulfillment Solution as part of the createOrder API call. However, this functionality can be customized to take place in either system.

4.5 Payment Processing

In the integrated system, payments are accepted by the Sterling Multi-Channel Selling Solution, and authorized and settled by either application, based on the payment type and payment rule used for the order. In this scenario, a payment gateway needs to be set up in the Sterling Multi-Channel Selling Solution. For information about setting up payment gateways, refer to Chapter 16 of the *Sterling Multi-Channel Selling Solution Implementation Guide*. For more information about setting up payment type setup, see the *Sterling Distributed Order Management User Guide*.

Note: If credit card synchronization is required, credit card information should be encrypted on both systems. In an integrated environment, only credit card numbers can be encrypted in both applications. To ensure that information can be read by both sides, the encryption algorithm used for credit card information should be the same.

For information regarding the implementation of credit card encryption in the Sterling Multi-Channel Fulfillment Solution, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

For information regarding the implementation of credit card encryption in the Sterling Multi-Channel Selling Solution, see the *Sterling Multi-Channel Selling Solution Implementation Guide.*

Note: Credit card types must exist in the Sterling Multi-Channel Selling Solution in order to be supported in the integrated environment.

Note: The Sterling Multi-Channel Selling Solution and the Sterling Multi-Channel Fulfillment Solution must have the same currencies set up for order integration to function properly.

For information regarding configuring currencies in the Sterling Multi-Channel Fulfillment Solution, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

For information regarding configuring currencies in the Sterling Multi-Channel Selling Solution, see *Sterling Multi-Channel Selling Solution Implementation Guide.*

Note: Multiple payment methods are not supported in an integrated environment.

Note: Credit card information being passed from the Sterling Multi-Channel Fulfillment Solution must be in the format MM/YYYY.

Note: Gift cards can be used in the integrated environment. However, both the Sterling Multi-Channel Selling Solution and the Sterling Multi-Channel Fulfillment Solution must use the same implementation for gift card processing.

5

Availability

As part of the Sterling Selling and Fulfillment Suite, information relating to the availability of products is passed from the Sterling Multi-Channel Fulfillment Solution to the Sterling Multi-Channel Selling Solution. This information includes:

- Store Availability— The amount of stock pertaining to a particular item that is available in a location.
- Real-Time Availability— An on-demand look at the availability of a selected product.
- Estimated Delivery Dates— An estimated delivery date calculated by the choice of carrier service, and the amount of time required for stock to be replenished, if necessary.

5.1 Store Availability

When a customer uses the new In Store Availability View in the Sterling Multi-Channel Selling Solution Web application, a call is made to the Sterling Multi-Channel Fulfillment Solution, and results are returned. The displayed results show the amount of the specified item available at each store, along with the address of each store.

The call to the Sterling Multi-Channel Fulfillment Solution uses the findInventory API. See Table 5–1 for the list of information passed to the findInventory API.

Table 5–1 Store Availability Data passed to the findInventory API

Field	Description
Storefront Key	The store from which the customer is requesting the availability information. **Note:** This value is also referred to as organization code in the Sterling Multi-Channel Fulfillment Solution.
SKU, Unit of Measure, Quantity	The line item SKU.
Fulfillment Type	The preconfigured fulfillment type that sources inventory only from a specific set of nodes that are stores. This sourcing rule can be configured based on your own business needs. For more information, see Section 2.5.1
Pickup Address	Contains zip code, country, city, and state.

5.2 Real-Time Availability

Product availability in the Sterling Multi-Channel Selling Solution is obtained on demand and in real time from the Sterling Multi-Channel Fulfillment Solution. Similar to store availability, which is described in Section 5.1, real-time availability makes a call to the findInventory API. See Table 5–2 for a list of information passed to the findInventory API.

Table 5–2 Real-Time Availability Data Passed to the findInventory API

Field	Description
SKU	The line item SKU.
Quantity	Quantity for which the availability is checked.
Supplier Business ID	The supplier selected for the line item.

Table 5–2 Real-Time Availability Data Passed to the findInventory API

Field	Description
Storefront Business ID	The storefront where availability information is being requested.
Unit Of Measure	The unit of measure of the product that is being checked. **Note:** Unit of measure (UOM) information used in the Sterling Multi-Channel Selling Solution must be manually added to the UOM Master of the Sterling Multi-Channel Fulfillment Solution.

5.3 Estimated Delivery Date

During the checkout process in the Sterling Multi-Channel Selling Solution, an estimated delivery date is displayed. This date is based on the information retrieved from the Sterling Multi-Channel Fulfillment Solution.

Estimated delivery dates are calculated by first finding the ship date, using the findInventory API. The resulting ship date is then passed to the getCarrierServiceOptionsForOrdering API, which is used to calculate the delivery date, based on the ship date and carrier service that is chosen.

See Table 5–3 for a list of information passed to the findInventory API.

Table 5–3 Estimated Ship Date Data Passed to the findInventory API

Field	Description
Storefront Key	The store at which the customer is requesting availability information. **Note:** This value is also referred to as organization code in the Sterling Multi-Channel Fulfillment Solution.
SKU, Unit of Measure, Quantity	The line item SKU.
ReqStartDate	The date on which the delivery should be completed.
Shipping Address	The ship-to address on the order header.

Table 5–3 Estimated Ship Date Data Passed to the findInventory API

Field	Description
Carrier Service Code	The method of shipping used. **Note:** Carrier service data must be kept in sync manually between the Sterling Multi-Channel Selling Solution and the Sterling Multi-Channel Fulfillment Solution.
ShipComplete and ShipLineComplete	An allocation rule to determine when orders should be shipped. **ShipComplete:** • Selling: All lines in the cart except for those designated as ShipLineComplete ship together. • Fulfillment: All lines in the order are shipped together. **ShipLineComplete:** • Selling: Individual lines are shipped completely. This is a line-level attribute. • Fulfillment: Individual lines are shipped completely. This is an order-level attribute.

A

Data Mapping

This appendix provides a more detailed description of the mapping that takes place during the synchronization of items, customers, and orders between the Sterling Multi-Channel Selling Solution and the Sterling Multi-Channel Fulfillment Solution.

A.1 Item Data Mapping

Table A–1 provides the mapping for elements and attributes related to item synchronization from the Sterling Multi-Channel Selling Solution and the Sterling Multi-Channel Fulfillment Solution.

The following common XML example includes the common data between the CMGT_PRODUCT and the YFS_ITEM tables, along with their related entities:

```
<Item Action="Create/Modify/Delete" ItemID="" UnitOfMeasure=""
OrganizationCode="" ShortDescription="" ExtendedDescription=""
BundleFulfillmentMode="" LeadTime="" MinOrderQuantity="" IsModelItem="" Model=""
ModelItemUnitOfMeasure="" KitCode="" ConfiguredModelKey="" IsConfigurable=""
IsPreConfigured="">
            <ItemInstructionList Reset="">
               <ItemInstruction InstructionText="" SeqNo=""
InstructionType="ORDERING"/>
            </ItemInstructionList>
            <Components Reset="">
<Component ComponentItemID="" ComponentOrganizationCode=""
ComponentUnitOfMeasure="" KitQuantity=" "/>
            </Components>
</Item>
```

Table A–1 Item Data Mapping

Attribute	Order Fulfillment Database Field	Order Selling Database Field	Comment
Item			
ItemID	YFS_ITEM.ITEM_ID	CMGT_PRODUCT.SKU_NAME	
UnitOfMeasure	YFS_ITEM.UOM	CMGT_PRODUCT.UNIT_OF_MEASURE_CODE	**Note:** The values in this field must be manually kept in synch between the two applications.
OrganizationCode	YFS_ITEM.ORGANIZATION_CODE	No mapping. Use static value "Default".	Assume that the catalog is maintained at the hub level.
ShortDescription	YFS_ITEM.SHORT_DESCRIPTION	CMGT_PRODUCT.NAME	This field is required to avoid errors.
Extended Description	YFS_ITEM.EXTENDED_DESCRIPTION	CMGT_PRODUCT.DESCRIPTION	
BundleFulfillmentMode	YFS_ITEM.BUNDLE_FULFILLMENT_MODE		This value should be based on the following: ▫ "01" for ShipTogether when the configurable item is a non-container only item. ▫ "02" for Ship Independently when the configurable item is a container only item.
LeadTime	YFS_ITEM.LEAD_TIME	CMGT_PRODUCT.LEAD_TIME	
MinOrderQuantity	YFS_ITEM.MIN_ORDER_QUANTITY	CMGT_PRODUCT.MINIMUM_ORDER_QUANTITY	
Model	YFS_ITEM.MODEL	CMGT_PRODUCT.PARENT_SKU_NAME	The existing MODEL field is used to store the parent SKU to represent the aggregate item. Do not confuse with CONFIGURED_MODEL_KEY of the configurable item.
ModelItemUnitOfMeasure	YFS_ITEM.MODEL_ITEM_UOM	CMGT_PRODUCT.UNIT_OF_MEASURE_CODE	This field stores the unit of measure of the parent SKU.
IsModelItem	YFS_ITEM.IS_MODEL_ITEM	CMGT_PRODUCT.COMPONENT_TYPE	The value stored in this field should be "Y" if the product is of the type "Aggregate".

Attribute	Order Fulfillment Database Field	Order Selling Database Field	Comment
KitCode	YFS_ITEM.KIT_CODE	CMGT_PRODUCT.COMPONENT_TYPE CMGT_PRODUCT.COMPONENT_SUB_TYPE	The value for this field is based on the following: n "PK" if the product is of the type "ASSEMBLY" and the CMGT_PRODUCT.COMPONENT_SUB_TYPE field indicates that the product is a physical kit. n "BUNDLE" if the product is of the type "ASSEMBLY" and the CMGT_PRODUCT.COMPONENT_SUB_TYPE field indicates that the product is a bundle. n "BUNDLE" if product is of the type "CONFIGURABLE"
ConfiguredModelKey	YFS_ITEM.CONFIGURED_MODEL_KEY	CMGT_PRODUCT.MODEL_KEY	
IsConfigurable	YFS_ITEM.IS_CONFIGURABLE	CMGT_PRODUCT.COMPONENT_TYPE	The value of this field should be "Y" if the product is of the type "CONFIGURABLE".
IsPreConfigured	YFS_ITEM.IS_PRE_CONFIGURED	CMGT_PRODUCT.PRE_CONFIG_FLAG	
ItemInstructionList/ItemInstruction			
InstructionText	YFS_ITEM_INSTRUCTION.INSTRUCTION_TEXT	For an Assembly Product : CMGT_ASSEMBLY_ITEM_LOCALE.NAME +"||"+ CMGT_ASSEMBLY_ITEM_LOCALE.DESCRIPTION For a Configurable Product: CMGT_CONFIG_LINE.NAME + "||" + CMGT_CONFIG_LINE.DESCRIPTION Where CMGT_CONFIG_LINE.VISABLE_FLAG = '0' and SKU_NAME is blank.	

Attribute	Order Fulfillment Database Field	Order Selling Database Field	Comment
InstructionType	YFS_ITEM_ INSTRUCTION.INSTRUCTION_TYPE	No direct mapping. Use the static value "ORDERING".	
SeqNo	YFS_ITEM_ INSTRUCTION.SEQ_NO	For an Assembly Product: CMGT_ASSEBLY_ ITEM.ITEM_NUMBER For a Configurable Product: CMGT_CONFIG_ LINE.ITEM_ID	
Components/Component			
ComponentItemID	YFS_KIT_ ITEM.COMPONENT_ ITEM_KEY Based on ComponentItemID,ComponentOrganizationCode, and ComponentUnitOfMeasure.	For a Configurable Product: CMGT_CONFIG_ LINE.SKU_NAME or //ConfiguratorBOM/LineItem/@SKU For an Assembly Product: CMGT_ASSEMBLY_ ITEM.SKU_NAME	
ComponentOrganizationCode	YFS_KIT_ ITEM.COMPONENT_IT Based on ComponentItemID, ComponentOrganizationCode, ComponentUnitOfMeasure	No mapping. Use the static value of "DEFAULT".	Assume that the catalog is maintained at the hub level.
ComponentUnitOfMeasure	YFS_KIT_ ITEM.COMPONENT_ ITEM_KEY Based on ComponentItemID, ComponentOrganizationCode, ComponentUnitOfMeasure	CMGT_PRODUCT.UNIT_ OF_MEASURE_CODE or //ConfiguratorBom/LineItem/@UnitOfMeasure. **Note**: This is a new attribute that has been added to the BOM.	Unit of measure of the config line (configurable) or part (assembly)
KitQuantity	YFS_KIT_ITEM.KIT_ QUANTITY	CMGT_CONFIG_ LINE.QUANTITY	

Note: Extended attributes can be provided under the /Item/@Extn element.

For more information about synchronizing extended tables, see the *Sterling Multi-Channel Selling Solution Developer Guide*.

Note: Product item statuses must be manually kept in sync between the Sterling Multi-Channel Selling Solution and the Sterling Multi-Channel Fulfillment Solution.

There are two scenarios in which statuses are updated during product item synchronization:

- A new product item is added to either the Sterling Multi-Channel Selling Solution or the Sterling Multi-Channel Fulfillment Solution. During synchronization, the product item is added, and the status updated to Held in the Sterling Multi-Channel Fulfillment Solution or In Creation in the Sterling Multi-Channel Selling Solution.
- If a product item is deleted in the Sterling Multi-Channel Fulfillment Solution, the status in the Sterling Multi-Channel Selling Solution is updated to Blocked. In addition, when that product item is retrieved in the UI of the Sterling Multi-Channel Selling Solution, text is displayed in the UI to indicated that this product has been deleted in the Sterling Multi-Channel Fulfillment Solution.
- If a product is deleted from the Sterling Multi-Channel Selling Solution, a message is sent to the Sterling Multi-Channel Fulfillment Solution. By default, items are removed from the database. This can be avoided by modifying the XSL translator in this step by changing `Action="Delete"` to `Action="Modify"` and placing the item into a custom status.

A.2 Customer Data Mapping

Table A–2 provides mapping for the attributes related to customer synchronization from the Sterling Multi-Channel Selling Solution and the Sterling Multi-Channel Fulfillment Solution.

The following common XML example includes the common data between the CMGT_USER_CONTACTS and the YFS_CUSTOMER tables, along with their related entities:

```
<Customer OrganizationCode="" Operation="" CustomerType="">
   <CustomerContactList >
      <CustomerContact DayFaxNo="" DayPhone="" EmailID=""
EveningFaxNo=""
EveningPhone="" FirstName="" LastName="" MobilePhone=""
Title="" UserID="">
         <CustomerAdditionalAddressList Reset="y" >
            <CustomerAdditionalAddress
CustomerAdditionalAddressID="" IsShipTo=""
IsBillTo="" IsSoldTo="" IsDefaultShipTo="" IsDefaultBillTo=""
IsDefaultSoldTo="">
               <PersonInfo AddressLine1="" AddressLine2=""
AddressLine3="" City="" Country=""
State="" ZipCode="" />
               </CustomerAdditionalAddress>
            </CustomerAdditionalAddressList>
            <CustomerPaymentMethodList Reset="Y">
               <CustomerPaymentMethod CreditCardExpDate=""
FirstName=""
MiddleName="" LastName="" CreditCardNo="" CreditCardType=""
PaymentType="" IsDefaultMethod="" />
            </CustomerPaymentMethodList>
      </CustomerContact>
   </CustomerContactList>
</Customer>
```

When creating a new user, the following attributes must be defined:

- UserID
- EmailID
- FirstName
- LastName

When adding or modifying an address for a user, the following attributes must be defined:

- AddressLine1
- City
- Country

Table A–2 Customer Data Mapping

Order Selling Database Field	Order Fulfillment Database Field
CMGT_USER_CONTACTS.USER_NAME	YFS_CUSTOMER_CONTACT.USER_ID
CMGT_USER_CONTACTS.LAST_NAME	YFS_CUSTOMER_CONTACT.LAST_NAME
CMGT_USER_CONTACTS.FIRST_NAME	YFS_CUSTOMER_CONTACT.FIRST_NAME
CMGT_USER_CONTACTS.TITLE_CODE	YFS_CUSTOMER_CONTACT.TITLE
CMGT_USER_CONTACTS.EMAIL_ADDRESS	YFS_CUSTOMER_CONTACT.EMAILID
CMGT_USER_CONTACTS.PAYMENT_TYPE	YFS_CUSTOMER_PAYMENT_METHOD.PAYMENT_TYPE
CMGT_USER_CONTACTS.PAYMENT_NUMBER	YFS_CUSTOMER_PAYMENT_METHOD.CREDIT_CARD_NO
CMGT_USER_CONTACTS.PAYMENT_EXPIRATION_DATE	YFS_CUSTOMER_PAYMENT_METHOD.CREDIT_CARD_EXP_DATE
CMGT_USER_CONTACTS.CREDIT_CARD_TYPE	YFS_CUSTOMER_PAYMENT_METHOD.CREDIT_CARD_TYPE
CMGT_USER_CONTACTS.CREDIT_CARD_HOLDER_FIRST_NAME	YFS_CUSTOMER_PAYMENT_METHOD.FIRST_NAME
CMGT_USER_CONTACTS.CREDIT_CARD_HOLDER_MIDDLE_NAME	YFS_CUSTOMER_PAYMENT_METHOD.MIDDLE_NAME
CMGT_USER_CONTACTS.CREDIT_CARD_HOLDER_LAST_NAME	YFS_CUSTOMER_PAYMENT_METHOD.LAST_NAME
CMGT_USER_CONTACTS.STOREFRONT_KEY	YFS_CUSTOMER.ORGANIZATION_CODE
CMGT_ADDRESS.ADDRESS1	YFS_PERSON_INFO.ADDRESS_LINE1
CMGT_ADDRESS.ADDRESS2	YFS_PERSON_INFO.ADDRESS_LINE2
CMGT_ADDRESS.ADDRESS3	YFS_PERSON_INFO.ADDRESS_LINE3
CMGT_ADDRESS.CITY	YFS_PERSON_INFO.CITY
CMGT_ADDRESS.POSTAL_CODE	YFS_PERSON_INFO.ZIP_CODE
CMGT_ADDRESS.STATE_CODE	YFS_PERSON_INFO.STATE
CMGT_ADDRESS.COUNTRY_CODE	YFS_PERSON_INFO.COUNTRY
CMGT_ADDRESS.SOLD_TO	YFS_CUSTOMER_ADDNL_ADDRESS.IS_SOLD_TO

Order Selling Database Field	Order Fulfillment Database Field
CMGT_ADDRESS.SHIP_TO	YFS_CUSTOMER_ADDNL_ADDRESS.IS_SHIP_TO
CMGT_ADDRESS.BILL_TO	YFS_CUSTOMER_ADDNL_ADDRESS.IS_BILL_TO
CMGT_ADDRESS.DEFAULT_SOLD_TO	YFS_CUSTOMER_ADDNL_ADDRESS.IS_DEFAULT_SOLD_TO
CMGT_ADDRESS.DEFAULT_SHIP_TO	YFS_CUSTOMER_ADDNL_ADDRESS.IS_DEFAULT_SHIP_TO
CMGT_ADDRESS.DEFAULT_BILL_TO	YFS_CUSTOMER_ADDNL_ADDRESS.IS_DEFAULT_BILL_TO
CMGT_PHONES.PHONE_TYPE_CODE	YFS_CUSTOMER_CONTACT.<table_name>
CMGT_PHONES.PHONE_NUMBER	**Note:** The <table_name> column is determined by the value of the CMGT_PHONES.PHONE_TYPE_CODE column. The customer phone number is then stored in this column. For more information about this mapping, see Table A–3,

Table A–3 Phone Type Mapping

Order Selling Phone Type	Order Fulfillment Database Column
Business	DAY_PHONE
Fax	DAY_FAX_NO
Other	EVENING_FAX_NO
Home	EVENING_PHONE
Mobile	MOBILE_PHONE
Note: Only the phone types mentioned in this table can be synched.	

Note: When entering a value for user title in the Sterling Multi-Channel Fulfillment Solution, the value should match one of the title values present in the Sterling Multi-Channel Selling Solution. By default, these values are:

- Mr.
- Ms.
- Dr.
- Mrs.

Note: Extended attributes can be provided under the /Item/@Extn element.

For more information about synchronizing extended tables, see the *Sterling Multi-Channel Selling Solution Developer Guide*.

A.3 Order Translation Mapping

When an order is placed in one application, and viewed in the other application, an XSL translation must take place. Table A–4provides information about how all of the fields on an order are mapped between the two applications.

Note: Because the Sterling Multi-Channel Selling Solution and the Sterling Multi-Channel Fulfillment Solution may have different column sizes, the input on an order must not exceed the smaller column size.

For more information about column sizes, see the *Sterling Multi-Channel Fulfillment Solution API Javadocs* and the *Sterling Multi-Channel Selling Solution Reference Guide*.

Table A–4 Order Translation Mapping

OS OrderField	OF Order Field / Attribute	Description
"Comergent"	Order/@EntryType	Hardcoded mapping in XSL that is used to specify that the order originated in the Sterling Multi-Channel Selling Solution.
OrderOFData/ShoppingCartKey	Order/References/Reference/@CartKey	Contains the key for the cart created in the Sterling Multi-Channel Selling Solution.
OrderOFData/StorefrontPartnerID	Order/@EnterpriseCode	This field specifies the organization ID from which the order was placed.
OrderOFData/SupplierPartnerID	Order/@SellerOrganizationCode	This field specifies the organization ID of the supplier on the order header.
OrderOFData/PaymentDetailsAuthorizationID	Order/PaymentMethods/PaymentMethod/PaymentDetails/@AuthorizationID	This field contains the authorization ID for credit card payments.
"OFUnlimitedCharges"	Order/PaymentMethods/PaymentMethod/PaymentDetails/@UnlimitedCharges	Ensure that `UnlimitedCharges=N` because maximum charge limit is passed in the payment method.
OrderOFData/TaxExemptFlag	Order/@TaxExemptFlag	This field specifies whether the order is tax exempt. It is used solely for this integration.
OrderOFData/AuthorizationExpirationDate	Order/PaymentMethods/PaymentMethod/PaymentDetails/@AuthorizationExpirationDate	This field specifies the expiration date for credit card authorization.
OrderOFData/Name	Order/@OrderName	This field specifies the name of the shopping cart.
OrderOFData/CurrencyCode	Order/PriceInfo/@Currency	This field specifies the currency that the order is placed in. For example, USD, GBP, EUR.
OrderOFData/PartnerKey	Order/References/Reference/@OwnersPartnerKey	This field specifies the partner key of the buyer user.

Table A–4 Order Translation Mapping

OS OrderField	OF Order Field / Attribute	Description
OrderOFData/CustomerType	Order/References/Reference/@CustomerType	This field specifies the customer type value listed in the shopping cart. For example, Government or General.
OrderOFData/CustomerTypeCode	Order/@PricingClassificationCode	This field specifies the code of the Customer Type listed in the shopping cart.
OrderOFData/SourceType	Order/@SourceType	If the cart was created from another object such as quote, this field specifies the object type.
OrderOFData/SourceKey	Order/@SourceKey	If the cart was created from another object such as quote, this field specifies the object key.
OrderOFData/StorefrontKey	Order/References/Reference/@StorefrontKey	This field specifies the key of the current storefront.
OrderOFData/OwnedBy	Order/References/Reference/@OwnerKey	This field specifies the key of the owner of the order.
OrderOFData/CreatedBy	Order/@EnteredBy	This field specifies the key of the user who created the order.
OrderOFData/ContactName	Order/@BillToID	This field specifies the ID of the user who placed the order.
OrderOFData/PartnerName	Order/References/Reference/@PartnerName	This field specifies the name of the buyer organization.
OFOrderData/OILHeaderList/OILHeader[1]/SupplierKey	Order/References/Reference/@SupplierKey	This field specifies the key of the supplier for whom the order is placed.
OFOrderData/OILHeaderList/OILHeader[1]/DeliveryDate	Order/@ReqDeliveryDate	This field stores a specific delivery date, if requested by the user who placed the order.
OFOrderData/OILHeaderList/OILHeader[1]/FirstName	Order/PersonInfoContact/@FirstName	This field specifies the first name of the buyer.
OFOrderData/OILHeaderList/OILHeader[1]/LastName	Order/PersonInfoContact/@LastName	This field specifies the last name of the buyer.

Table A–4 Order Translation Mapping

OS OrderField	OF Order Field / Attribute	Description
OFOrderData/OILHeaderList/OILHeader[1]/Memo	Order/Notes/Note/@NoteText	This field stores any specific shipping instructions.
"YC3_SHIPPING_INSTRUCTIONS"	Order/Notes/Note/@ReasonCode	If the memo field in the order header is not empty, provide the reason code as shipping instructions.
OFOrderData/OILHeaderList/OILHeader[1]/PONumber	Order/@CustomerPONo Order/PaymentMethods/PaymentMethod/@CustomerPONo	This field provides a purchase order number about the order. **Note:** This field is used in B2B scenarios.
OFOrderData/OILHeaderList/OILHeader[1]/ShipComplete	Order/@IsShipComplete	This field specifies if the customer wants the entire order to be shipped at once.
OFOrderData/OILHeaderList/OILHeader[1]/ShippingMethod	Order/@SCAC	This field specifies the shipping method to be used for the order. For example, UPS or FedEx. **Note:** The values in this field must be manually kept in synch between the two applications.
OFOrderData/OILHeaderList/OILHeader[1]/EmailAddress	Order/@CustomerEmailID Order/PersonInfoContact/@EmailID	This field specifies the e-mail address entered by the user who placed the order.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/BillOrderAddress/UserTitle	Order/PersonInfoBillTo/@Title	This field specifies the title of the user who placed the order. For example, Mr. or Mrs. **Note:** The values in this field must be manually kept in synch between the two applications.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/BillOrderAddress/FirstName	Order/PersonInfoBillTo/@FirstName	This field specifies the first name field in the user's address.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/BillOrderAddress/LastName	Order/PersonInfoBillTo/@LastName	This field specifies the last name field in the user's address.

Table A–4 Order Translation Mapping

OS OrderField	OF Order Field / Attribute	Description
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/BillOrderAddress/Address1	Order/PersonInfoBillTo/@AddressLine1	This field specifies the first Address line.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/BillOrderAddress/Address2	Order/PersonInfoBillTo/@AddressLine2	This field specifies the second Address line.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/BillOrderAddress/Address3	Order/PersonInfoBillTo/@AddressLine3	This field specifies the third Address line.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/BillOrderAddress/CompanyName	Order/PersonInfoBillTo/@Company	This field specifies the company that the user who placed the order belongs to.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/BillOrderAddress/City	Order/PersonInfoBillTo/@City	This field specifies the city of the bill-to address.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/BillOrderAddress/PostalCode	Order/PersonInfoBillTo/@ZipCode	This field specifies the zip code of the bill-to address.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/BillOrderAddress/State	Order/PersonInfoBillTo/@State	This field specifies the state of the bill-to address. **Note:** The values in this field must be manually kept in synch between the two applications.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/BillOrderAddress/Country	Order/PersonInfoContact/@Country Order/PersonInfoBillTo/@Country	This field specifies the country of the bill-to address.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/ShipOrderAddress/UserTitle	Order/PersonInfoShipTo/@Title	This field specifies the title of the user who placed the order. For example, Mr. or Mrs. **Note:** The values in this field must be manually kept in synch between the two applications.

Table A–4 Order Translation Mapping

OS OrderField	OF Order Field / Attribute	Description
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/ShipOrderAddress/FirstName	Order/PersonInfoShipTo/@FirstName	This field specifies the first name field in the user's address.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/ShipOrderAddress/LastName	Order/PersonInfoShipTo/@LastName	This field specifies the last name field in the user's address.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/ShipOrderAddress/Address1	Order/PersonInfoShipTo/@AddressLine1	This field specifies the first Address line.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/ShipOrderAddress/Address2	Order/PersonInfoShipTo/@AddressLine2	This field specifies the second Address line.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/ShipOrderAddress/Address3	Order/PersonInfoShipTo/@AddressLine3	This field specifies the third Address line.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/ShipOrderAddress/CompanyName	Order/PersonInfoShipTo/@Company	This field specifies the company that the user who placed the order belongs to.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/ShipOrderAddress/City	Order/PersonInfoShipTo/@City	This field specifies the city of the ship-to address.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/ShipOrderAddress/PostalCode	Order/PersonInfoShipTo/@Zip Code	This field specifies the zip code of the ship-to address.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/ShipOrderAddress/State	Order/PersonInfoShipTo/@State	This field specifies the state of the ship-to address. **Note:** The values in this field must be manually kept in synch between the two applications.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/ShipOrderAddress/Country	Order/PersonInfoContact/@Country Order/PersonInfoShipTo/@Country	This field specifies the country of the ship-to address.

Table A–4 Order Translation Mapping

OS OrderField	OF Order Field / Attribute	Description
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/SoldOrderAddress/UserTitle	Order/PersonInfoSoldTo/@Title	This field specifies the title of the user who placed the order. For example, Mr. or Mrs. **Note:** The values in this field must be manually kept in synch between the two applications.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/SoldOrderAddress/FirstName	Order/PersonInfoSoldTo/@FirstName	This field specifies the first name field in the user's address.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/SoldOrderAddress/LastName	Order/PersonInfoSoldTo/@LastName	This field specifies the last name field in the user's address.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/SoldOrderAddress/Address1	Order/PersonInfoSoldTo/@AddressLine1	This field specifies the first Address line.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/SoldOrderAddress/Address2	Order/PersonInfoSoldTo/@AddressLine2	This field specifies the second Address line.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/SoldOrderAddress/Address3	Order/PersonInfoSoldTo/@AddressLine3	This field specifies the third Address line.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/SoldOrderAddress/CompanyName	Order/PersonInfoSoldTo/@Company	This field specifies the company that the user who placed the order belongs to.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/SoldOrderAddress/City	Order/PersonInfoSoldTo/@City	This field specifies the city of the address.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/SoldOrderAddress/PostalCode	Order/PersonInfoSoldTo/@ZipCode	This field specifies the zip-code of the address.
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/SoldOrderAddress/State	Order/PersonInfoSoldTo/@State	This field specifies the state of the address. **Note:** The values in this field must be manually kept in synch between the two applications.

Table A–4 Order Translation Mapping

OS OrderField	OF Order Field / Attribute	Description
OFOrderData/OILHeaderList/OILHeader[1]/OILHeader/SoldOrderAddress/Country	Order/PersonInfoContact/@Country Order/PersonInfoSoldTo/@Country	This field specifies the country of the address.
OFOrderData/OILPaymentList/OILPayment[*]/CreditCardHolderFirstName	Order/PaymentMethods/PaymentMethod/@CreditCardName	The credit card holder first name, middle name and last name are concatenated into one string for the mapping.
OFOrderData/OILPaymentList/OILPayment[*]/CreditCardHolderMiddleName	Order/PaymentMethods/PaymentMethod/@CreditCardName	
OFOrderData/OILPaymentList/OILPayment[*]/CreditCardHolderLastName	Order/PaymentMethods/PaymentMethod/@CreditCardName	
OFOrderData/OILPaymentList/OILPayment[*]/PaymentTypeString	Order/PaymentMethods/PaymentMethod/@PaymentType	This field specifies the payment type. For example, credit card or customer account. **Note:** The values in this field must be manually kept in synch between the two applications.
OFOrderData/OILPaymentList/OILPayment[*]/CreditCardTypeString	Order/PaymentMethods/PaymentMethod/@CreditCartType	This field specifies the type of credit card being used. For example, Visa, or MasterCard. **Note:** The values in this field must be manually kept in synch between the two applications.
OFOrderData/OILPaymentList/OILPayment[*]/OrderPaymentNumber	Order/PaymentMethods/PaymentMethod/@CustomerAccountNo Order/PaymentMethods/PaymentMethod/@CreditCardNo	This field specifies the credit card or customer account number used in the order.
OFOrderData/OILPaymentList/OILPayment[*]/PaymentExpirationDate	Order/PaymentMethods/PaymentMethod/@CreditCardExpDate	This field specifies the credit card expiration date.

Table A–4 Order Translation Mapping

OS OrderField	OF Order Field / Attribute	Description
OFOrderData/OILPaymentList/OILPayment[*]/PhoneNumber	Order/PersonInfoContact/@DayPhone	This field specifies the contact phone number used for this payment structure.
OFOrderData/OILPaymentList/OILPayment[*]/PaymentAmount	Order/PaymentMethods/PaymentMethod/@MaxChargeAmount	This field specifies the amount to be charged to the selected payment type.
OFOrderData/OILPaymentList/OILPayment[*]/CreditCartBillOrderAddressList[1]/CreditCartBillOrderAddress/UserTitle	Order/PaymentMethods/PaymentMethod/PersonInfoBillTo@Title	This field specifies the title of the user who placed the order. For example, Mr. or Mrs. **Note:** The values in this field must be manually kept in synch between the two applications.
OFOrderData/OILPaymentList/OILPayment[*]/CreditCartBillOrderAddressList[1]/CreditCartBillOrderAddress/FirstName	Order/PaymentMethods/PaymentMethod/PersonInfoBillTo/@FirstName	This field specifies the first name field in the user's address.
OFOrderData/OILPaymentList/OILPayment[*]/CreditCartBillOrderAddressList[1]/CreditCartBillOrderAddress/LastName	Order/PaymentMethods/PaymentMethod/PersonInfoBillTo/@LastName	This field specifies the last name field in the user's address.
OFOrderData/OILPaymentList/OILPayment[*]/CreditCartBillOrderAddressList[1]/CreditCartBillOrderAddress/Address1	Order/PaymentMethods/PaymentMethod/PersonInfoBillTo/@AddressLine1	This field specifies the first Address line.
OFOrderData/OILPaymentList/OILPayment[*]/CreditCartBillOrderAddressList[1]/CreditCartBillOrderAddress/Address2	Order/PaymentMethods/PaymentMethod/PersonInfoBillTo/@AddressLine2	This field specifies the second Address line.
OFOrderData/OILPaymentList/OILPayment[*]/CreditCartBillOrderAddressList[1]/CreditCartBillOrderAddress/Address3	Order/PaymentMethods/PaymentMethod/PersonInfoBillTo/@AddressLine3	This field specifies the third Address line.
OFOrderData/OILPaymentList/OILPayment[*]/CreditCartBillOrderAddressList[1]/CreditCartBillOrderAddress/CompanyName	Order/PaymentMethods/PaymentMethod/PersonInfoBillTo/@Company	This field specifies the company that the user who placed the order belongs to.

Table A–4 Order Translation Mapping

OS OrderField	OF Order Field / Attribute	Description
OFOrderData/OILPaymentList/OILPayment[*]/CreditCartBillOrderAddressList[1]/CreditCartBillOrderAddress/City	Order/PaymentMethods/PaymentMethod/PersonInfoBillTo/@City	This field specifies the city of the bill-to address.
OFOrderData/OILPaymentList/OILPayment[*]/CreditCartBillOrderAddressList[1]/CreditCartBillOrderAddress/PostalCode	Order/PaymentMethods/PaymentMethod/PersonInfoBillTo/@ZipCode	This field specifies the zip-code of the bill-to address.
OFOrderData/OILPaymentList/OILPayment[*]/CreditCartBillOrderAddressList[1]/CreditCartBillOrderAddress/State	Order/PaymentMethods/PaymentMethod/PersonInfoBillTo/@State	This field specifies the state of the bill-to address. **Note:** The values in this field must be manually kept in synch between the two applications.
OFOrderData/OILPaymentList/OILPayment[*]/CreditCartBillOrderAddressList[1]/CreditCartBillOrderAddress/Country	Order/PaymentMethods/PaymentMethod/PersonInfoBillTo/@Country	This field specifies the country of the bill-to address.
OFOrderData/OrderExtension/OrderDate	Order/@OrderDate	This field specifies the date on which the order was placed.
OFOrderData/OrderExtension/OrderNumber	Order/@OrderNo	This field specifies the order number generated in the Sterling Multi-Channel Selling Solution.
OFOrderData/OrderExtension/ShippingCharges	Order/HeaderCharges/HeaderCharge/@ChargeCategory=""Shipping" Order/HeaderCharges/HeaderCharge/@ChargeName=""Shipping" Order/HeaderCharges/HeaderCharge/@ChargeAmount	This field specifies the cost of shipping in the order.
OFOrderData/OrderExtension/Tax	Order/HeaderTaxes/HeaderTax/@TaxName="SomeMadeUpName" Order/HeaderTaxes/HeaderTax/@Tax	This field specifies the total amount of tax in the order.

Table A–4 Order Translation Mapping

OS OrderField	OF Order Field / Attribute	Description
OFOrderData/LineItemList/LineItem[*]/ShippingMethod	Order/OrderLines/OrderLine/@SCAC	This field specifies the shipping method to be used for the order. For example, UPS or FedEx
OFOrderData/LineItemList/LineItem[*]/Memo	Order/OrderLines/OrderLine/Notes/Note/@NoteText	This field stores any specific shipping instructions.
OFOrderData/LineItemList/LineItem[*]/DeliveryDate	Order/OrderLines/OrderLine/@ReqDeliveryDate	The delivery date requested for the line item
OFOrderData/LineItemList/LineItem[*]/LineKey	Order/OrderLines/OrderLine/@OrderLineKey Order/OrderLines/OrderLine/BundleParentLine/@OrderLineKey Order/OrderLines/OrderLine/References/Reference/@LineKey	This field specifies the key for the current line.
OFOrderData/LineItemList/LineItem[*]/Quantity	Order/OrderLInes/OrderLine/@OrderedQty Order/OrderLines/OrderLIne/@KitQty	This field contains the quantity requested for each line item.
OFOrderData/LineItemList/LineItem[*]/ConfigurationKey	Order/OrderLines/OrderLine/@ConfigurationKey	This field contains the key given back by the configurator as part of the configuration data. This field can be used to go back to configurator for re-configuration.
OFOrderData/LineItemList/LineItem[*]/SKU	Order/OrderLines/OrderLine/Item/@ItemID	This field contains the SKU element of the line item structure.
OFOrderData/LineItemList/LineItem[*]/ParentLineKey	Order/OrderLines/OrderLine/References/Reference/@ParentLineKey	If the line is a minor line, then the parent line key will specify the key of the parent line.
OFOrderData/LineItemList/LineItem[*]/SpecialInstructionsFlag	Order/OrderLines/OrderLine/References/Reference/@SpecialInstructionsFlag	If the line item must be shipped completely, this flag is turned on.

Table A–4 Order Translation Mapping

OS OrderField	OF Order Field / Attribute	Description
OFOrderData/LineItemList/LineItem[*]/LineType	Order/OrderLine/@LineType	This field specifies the type of line item. For example, product, coupon, or non-validated.
OFOrderData/LineItemList/LineItem[*]/UnitOfMeasure	Order/OrderLines/OrderLine/Item/@UnitOfMeasure	This field specifies the UOM for this line item.
OFOrderData/LineItemList/LineItem[*]/Name	Order/OrderLines/OrderLine/Item/@ItemShortDesc	This field specifies the product name for this line item.
OFOrderData/LineItemList/LineItem[*]/OrderLineItemShipOrderAddress/UserTitle	Order/OrderLines/OrderLine/PersonInfoShipTo/@Title	This field specifies the title of the user who placed the order. For example, Mr. or Mrs. **Note:** The values in this field must be manually kept in synch between the two applications.
OFOrderData/LineItemList/LineItem[*]/OrderLineItemShipOrderAddress/FirstName	Order/OrderLines/OrderLine/PersonInfoShipTo/@FirstName	This field specifies the first name field in the user's address.
OFOrderData/LineItemList/LineItem[*]/OrderLineItemShipOrderAddress/LastName	Order/OrderLines/OrderLine/PersonInfoShipTo/@LastName	This field specifies the last name field in the user's address.
OFOrderData/LineItemList/LineItem[*]/OrderLineItemShipOrderAddress/Address1	Order/OrderLines/OrderLine/PersonInfoShipTo/@AddressLine1	This field specifies the first Address line.
OFOrderData/LineItemList/LineItem[*]/OrderLineItemShipOrderAddress/Address2	Order/OrderLines/OrderLine/PersonInfoShipTo/@AddressLine2	This field specifies the second Address line.
OFOrderData/LineItemList/LineItem[*]/OrderLineItemShipOrderAddress/Address3	Order/OrderLines/OrderLine/PersonInfoShipTo/@AddressLine3	This field specifies the third Address line.
OFOrderData/LineItemList/LineItem[*]/OrderLineItemShipOrderAddress/CompanyName	Order/OrderLines/OrderLine/PersonInfoShipTo/@Company	This field specifies the company that the user who placed the order belongs to.
OFOrderData/LineItemList/LineItem[*]/OrderLineItemShipOrderAddress/City	Order/OrderLines/OrderLine/PersonInfoShipTo/@City	This field specifies the city of the address.

Table A–4 Order Translation Mapping

OS OrderField	OF Order Field / Attribute	Description
OFOrderData/LineItemList/LineItem[*]/OrderLineItemShipOrderAddress/PostalCode	Order/OrderLines/OrderLine/PersonInfoShipto/@ZipCode	This field specifies the zip code of the address.
OFOrderData/LineItemList/LineItem[*]/OrderLineItemShipOrderAddress/State	Order/OrderLines/OrderLine/PersonInfoShipTo/@State	This field specifies the state of the address. **Note:** The values in this field must be manually kept in synch between the two applications.
OFOrderData/LineItemList/LineItem[*]/OrderLineItemShipOrderAddress/Country	Order/OrderLines/OrderLine/PersonInfoShipTo/@Country	This field specifies the country of the address.
OFOrderData/LineItemList/LineItem[*]/OrderLineItemExtension/OrderListPrice	Order/OrderLines/OrderLine/LinePriceInfo/@UnitPrice	This field specifies the list price of the line item in the order.
OFOrderData/LineItemList/LineItem[*]/PickupOptionsList/PickupOptions[1]/StoreId	Order/OrderLines/OrderLine/@ShipNode	The ID of the store from which the order can be picked up.
"PICK"	Order/OrderLines/OrderLine/@DeliveryMethod	If the pickup option is selected, this value is passed.
OFOrderData/LineItemList/LineItem[*]/PickupOptionsList/PickupOptions[1]/PickupDate	Order/OrderLines/OrderLine/@ReqDeliveryDate	If store pickup is used, this field stores the pickup date. If delivery is used, delivery date is stored here.
OFOrderData/OrderOLPDataList/OrderOLPData[*]/OLPCategory	Order/HeaderCharges/HeaderCharge/@ChargeCategory	This field specifies whether the charge category is Uplift or Discount.
OFOrderData/OrderOLPDataList/OrderOLPData[*]/OLPName	Order/HeaderCharges/HeaderCharge/@ChargeName	This field specifies the name of the adjustment.
OFOrderData/OrderOLPDataList/OrderOLPData[*]/OLPAmount	Order/HeaderCharges/HeaderCharge/@ChargeAmount	This field specifies the amount of adjustment.
OFOrderData/OrderOLPDataList/OrderOLPData[*]/OLPReference	Order/HeaderCharges/HeaderCharge/@Reference	This field specifies the description of the adjustment.

Table A–4 Order Translation Mapping

OS OrderField	OF Order Field / Attribute	Description
OFOrderData/OrderCouponDataList/OrderCouponData[*]/OLPCategory	Order/Promotions/Promotion/PromotionType Order/HeaderCharges/HeaderCharge/@ChargeCategory	This field specifies whether the charge category is Uplift or Discount.
"Y"	Order/Promotions/Promotion/@PromotionApplied	PromotionApplied is set to Y for each coupon in the cart.
OFOrderData/OrderCouponDataList/OrderCouponData[*]/OLPName	Order/Promotions/Promotion/PromotionId Order/Awards/Award/PromotionId Order/Awards/Award/AwardId	This field specifies the name of the coupon that was applied.
OFOrderData/OrderCouponDataList/OrderCouponData[*]/OLPAmount	Order/Awards/Award/AwardAmount Order/HeaderCharges/HeaderCharge/@ChargeAmount	This field specifies the amount of the coupon that was applied.
OFOrderData/OrderCouponDataList/OrderCouponData[*]/OLPReference	Order/Awards/Award/Description Order/HeaderCharges/HeaderCharge/@Reference	This field specifies the description of the coupon that was applied.
"ORDERING"	Order/OrderLines/OrderLine/Instructions/Instruction/InstructionType	This field specifies if the item instruction is a text item in the Sterling Multi-Channel Selling Solution.
OrderOFData/LineItemList/LineItem/ (LineName + Description)	Order/OrderLines/OrderLine/Instructions/Instruction/InstructionText	This field provides a description of the text item.
OrderOFData/LineItemList/LineItem/OrderLineItemExtension/OFPrimeLineNo	Order/OrderLines/OrderLine/Instructions/Instruction/SequenceNo	This field provides the sequence number of the instruction.

Note: When entering a value for user title in the Sterling Multi-Channel Fulfillment Solution, the value should match one of the title values present in the Sterling Multi-Channel Selling Solution. By default, these values are:

- Mr.
- Ms.
- Dr.
- Mrs.

Note: Extended attributes can be provided under the /Item/@Extn element.

For more information about synchronizing extended tables, see the *Sterling Multi-Channel Selling Solution Developer Guide*.

A.4 Item Mapping

During order and product synchronization, several items must be mapped from the Sterling Multi-Channel Selling Solution to the Sterling Multi-Channel Fulfillment Solution. For information about how this mapping occurs, see Table 5–4.

Table 5–4 Item Mapping

Order Selling Item	Order Fulfillment Item	Description
Assembly item	Physical Kit or Bundle	This is determined by the component type value of the assembly product in the Sterling Multi-Channel Selling Solution.
Configured product	Bundle	The major and minor line items of an order containing a configured item are synchronized. However, the configuration BOM is not. In place of the BOM, a configuration key is inserted, which contains information about the configured product.
Preconfigured product	Bundle	Similar to a configured product.
Non-validated product	Standard line item	A flag is set on the line item. Therefore it is not validated.
Coupons	Promotion or award	Coupons are mapped to three structures in a Sterling Multi-Channel Fulfillment Solution order-header charge, promotion, and award.