Sterling Commerce
An IBM Company

Sterling Call Center and Store

Implementation Guide

Release 8.0

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Preface

This manual explains the Sterling Call Center and Store® applications and the Reference Implementation provided along with them. This manual also contains information about the various processes and solutions offered by Sterling Call Center and Store.

Intended Audience

This manual is intended to provide assistance to individuals who need to configure Sterling Call Center and Store and implement the features relevant to their business needs.

Structure

This manual contains the following sections:

Chapter 1, "Introduction"

This chapter explains the customer order management business challenges and how Sterling Call Center and Store assists you in solving them.

Chapter 2, "Navigating in the Configurator"

This chapter discusses how to navigate in the Sterling Call Center and Store Configurator.

Chapter 3, "Reference Implementation"

This chapter discusses the Sterling Call Center and Store reference implementation.

Chapter 4, "Common Configurations"

This chapter provides a brief overview of the common configurations that are needed for Sterling Call Center and Store.

Chapter 5, "Extending and Customizing the Application"

This chapter explains the process of extending and customizing Sterling Call Center and Store.

Chapter 6, "Implementing the Sterling Call Center Features"

This chapter discusses how to implement the Sterling Call Center features.

Chapter 7, "Implementing the Sterling Store Features"

This chapter discusses how to implement the Sterling Store features.

Chapter 8, "Summary of Components"

This chapter discusses the new components available for the existing Sterling Multi-Channel Fulfillment Solution customers.

Chapter 9, "Performance Tuning"

This chapter explains the steps you need to take to fine-tune Sterling Call Center and Store for optimal performance.

Chapter 10, "Integrating with the Sterling Multi-Channel Selling Solution"

This chapter explains how to integrate Sterling Call Center and Store with the Sterling Multi-Channel Selling Solution.

Appendix A, "Localizing the Application"

This appendix explains the process of localization in Sterling Call Center and Store.

Documentation

For more information about the Sterling Call Center and Store components, see the following manuals:

- *Sterling Call Center and Store Release Notes*
- *Sterling Call Center and Store Installation Guide*
- *Sterling Call Center and Store Concepts*

- *Sterling Call Center and Store Implementation Guide*

- *Sterling Call Center and Store User Guide*

- *Sterling Call Center and Store Upgrade Guide*

- *Sterling Call Center and Store Analytics Guide*

- *Sterling Call Center and Store Javadocs*

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

- *Sterling Multi-Channel Fulfillment Solution^{TM} Release Notes*

- *Sterling Selling and Fulfillment Suite^{TM} 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^{TM} System Concepts Guide*

- *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*

- *Sterling Distributed Order Management^{TM} Configuration Guide*

- *Sterling Supply Collaboration Configuration Guide*

- *Sterling Global Inventory Visibility^{TM} Configuration Guide*

- *Sterling Product Management^{TM} Configuration Guide*
- *Sterling Logistics Management Configuration Guide*
- *Sterling Reverse Logistics^{TM} 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 Mobile Application User Guide*
- *Sterling Multi-Channel Fulfillment Solution Analytics^{TM} Guide*
- *Sterling Multi-Channel Fulfillment Solution Javadocs*
- *Sterling Multi-Channel Fulfillment Solution Glossary*
- *Sterling Parcel Carrier Adapter Guide*

For a description of the various documents in the Sterling Call Center and Store documentation set, see the Sterling Call Center and Store documentation home page at:

`<INSTALL_DIR>/documentation/YCD_doc_home.html`

`<INSTALL_DIR>` is the directory where Sterling Call Center and Store and the Sterling Multi-Channel Fulfillment Solution are installed.

Conventions

The following conventions may be used in this manual:

Convention	Meaning
. . .	Ellipsis represents information that has been omitted.
< >	Angle brackets indicate user-supplied input.

Convention	Meaning
`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 Sterling Multi-Channel Fulfillment Solution installation directory and Sterling Call Center and Store installation directory. This is only applicable for Release 8.0.
<ANALYTICS_HOME>	User-supplied location of the Sterling Call Center and Store Analytics installation directory. **Note:** This convention is used only in the *Sterling Call Center and Store Analytics Guide*.
<COGNOS_HOME>	User-supplied location of the Cognos installation directory. **Note:** This convention is used only in the *Sterling Call Center and Store Analytics Guide*.

Notes: The Sterling Call Center and Store documentation set uses the following conventions in the context of the product name:

- Sterling Customer Order Management PCA is used for Release 7.5 and earlier

- Sterling Call Center and Store is used for Release 8.0

The Sterling Multi-Channel Fulfillment Solution documentation set uses the following conventions in the context of the product name:

- is used for Releases 7.9 and 7.11

- Sterling Multi-Channel Fulfillment Solution is used for Release 8.0

1

Introduction

Sterling Call Center and Store provides solutions to the challenges found in typical customer order management business scenarios.

Sterling Call Center and Store presents multi-channel order management solutions by providing:

- A user interface to handle call center order modifications.

- A user interface to handle store walk-in order modifications.

1.1 Sterling Call Center and Store Flow

Orders go through a wide range of statuses throughout their fulfillment cycles. Orders are processed by transactions that perform modifications to the orders and their related entities such as shipments, invoices, and returns. These transactions also determine how an order moves from one status to the next. Additionally, an order in a particular status can go through a condition to determine which transaction should process it next.

An order's flow throughout its fulfillment cycle is represented graphically by a pipeline. The pipeline determines the statuses that an order can be in, which transactions process it, and which conditions it must go through in order to be fulfilled. As part of the reference implementation, a pipeline condition is set up utilizing the application's pipelines for the following process types:

- Order Fulfillment

- Outbound Shipment

- Reverse Logistics

For more information about defining process type pipelines, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

The `Sterling Call Center and Store Sales Order Fulfillment` pipeline is used to process orders of the `Sales Order` document type within Sterling Call Center and Store.

Orders in this pipeline can be processed by the following types of transactions:

- Create
- Schedule
- Release
- Ship
- Return
- Close
- Purge

1.1.1 Create

The first step in fulfilling an order is capturing it. Orders can be captured by using either the Create Order task of the Sterling Call Center and Store application or from a Web portal or an external order entry system. The data of the orders is passed to the createOrder API and processed through the `Create Draft Order` and `Create Order` transactions. Both transactions have the same end results since the order is either dropped into `Created`, `Reserved`, or `Back Ordered` status before they are picked up by the `Schedule` transaction. However, using the Create Draft Order transaction places the order into one of two intermediate statuses, either `Draft Order Created` or `Draft Order Reserved`, where most of the order's attributes can still be modified.

Once the order is ready to be processed, it can be confirmed, through the `Confirm Draft Order` transaction.

The next step is for the order to be scheduled for delivery.

1.1.2 Schedule

The scheduling process schedules an order so that it can be delivered to the customer. Important shipment attributes such as delivery dates and ship nodes are determined at that point.

The `Schedule` transaction attempts to process orders in the following statuses: `Reserved`, `Back Ordered`, `Unscheduled`, and `Created`. If the orders in `Back Ordered` or `Reserved` status cannot be processed by the `Schedule` transaction, they wait a predefined time interval before being reprocessed. For more information about transactions, see the *Sterling Distributed Order Management Configuration Guide*.

If orders in `Created` status cannot be scheduled because of insufficient inventory, they are dropped into the `Back Ordered` status and wait to be reprocessed.

If the `Schedule` transaction is successful, but the specified ship node on the order line does not have enough inventory for the shipment and needs to procure its inventory from another node, the creation of a chained order is required. The order is dropped into `Awaiting Chained Order Creation` status where once it is processed by the `Chained Order Create` transaction, it waits to be processed for shipment.

If chained order creation is not required, the order is dropped into the `Scheduled` status. If the ship node is a drop-ship node, the next step for the order is creating a chained order.

1.1.3 Release

After Sterling Call Center and Store has determined one or more ship nodes that can be utilized to ship the ordered merchandise, those nodes are notified with all the relevant information necessary to send the shipment. This is the Release process.

The `Release` transaction takes orders that are in `Scheduled` status and sends the notification to the nodes. Occasionally, the `Schedule` transaction's inventory picture and the actual inventory picture at the nodes can get out of synch. When this happens, the `Release` sends a notification to a node asking for inventory that does not actually exist. The node then notifies Sterling Call Center and Store that it cannot fulfill the order due to insufficient inventory, and the order gets backordered from the node. The order is then dropped into `Back Ordered From Node`

status, and waits to be reprocessed by the `Schedule` transaction at a later time.

If the node has successfully received the release and it has inventory available, the order can be shipped.

1.1.4 Ship

The shipment-related transactions use the information included in the release sent to the warehouse to plan for shipments as efficiently as possible.

When several shipments are going to the same location and can be grouped within the same loads, they can be consolidated together to minimize cost while still meeting the promised delivery dates. If shipment consolidation is required, shipments must be consolidated together before the actual shipment, as represented in the pipeline by the `Consolidate To Shipment` transaction.

Orders can be included in or removed from existing shipments before the actual shipment occurs, with the `Include Order In Shipment` and `Remove Order From Shipment` transactions.

At this point, an order can be considered complete and, in time, is closed and purged from the system. However, if the customer decides to return the merchandise they received, the order's life cycle continues.

1.1.5 Return

Once the customer has received a shipment, they may find that there is something wrong with the merchandise. For example, some items in the order may be the wrong color, or may have been damaged in transit. The `Include In Return` transaction creates a return order that must be shipped back to a warehouse to be examined.

After a return is created, it must be received and processed by the warehouse. The return's life cycle is handled by the `Reverse Logistics` pipeline. The `Sterling Call Center and Store Sales Order Fulfillment` pipeline listens to the status of the return and updates the status of the order accordingly.

Therefore, when a return is received, the order goes to `Return Received` status through the `Receive Return` listener transaction.

Similarly, if the return is cancelled in the `Reverse Logistics` pipeline, the order goes back to `Shipped` status through the `Remove From Return` listener transaction.

Finally, if after the return was received it is unreceived and sent back to the customer, the return is placed back into `Return Created` status through the `Unreceive Return` listener transaction.

1.1.6 Close

Once an order has reached the status of `Shipped`, `Cancelled`, or `Return Received`, it can be closed by the `Close Order` transaction. By default, closed orders are not searchable in the Sterling Multi-Channel Fulfillment Solution Consoles unless explicitly specified on the Search screen.

1.1.7 Purge

After orders have been in a final status like `Shipped`, `Return Received` or `Cancelled` for a specified time, they are purged, which means that the records for those orders are moved from the regular database tables to the history tables. History orders can be reopened at any time, but are by default not searchable in the Sterling Multi-Channel Fulfillment Solution Consoles unless explicitly specified on the Search screen.

2

Navigating in the Configurator

This chapter discusses the layout of the Sterling Call Center and Store Configurator, the various actions that you can perform throughout the application, and the important concepts you need to be aware of before using the application.

2.1 Starting the Sterling Call Center and Store Configurator

To access the Sterling Call Center and Store Configurator:

1. Point your browser to
   `http://<hostname>:<portnumber>/yantra/console/login.jsp`

   Here,

   - `hostname` is the computer name or IP address of the computer where the Sterling Multi-Channel Fulfillment Solution is installed.

   - `portnumber` is the listening port of the computer where the Sterling Multi-Channel Fulfillment Solution is installed.

   The browser displays the Sign In window.

2. Enter your login ID and password and click Sign In. The Sterling Multi-Channel Fulfillment Solution Consoles Home Page is displayed.

3. From the menu bar, choose Configuration > Launch Sterling Call Center and Store Configurator. The Sterling Call Center and Store Configurator opens in a new window.

2.2 The Sterling Call Center and Store Configurator Layout

The Sterling Call Center and Store Configurator is a graphical user interface that you can use to configure different aspects of the Sterling Multi-Channel Fulfillment Solution. The different configurations are defined by logical groupings that can be accessed from the Sterling Call Center and Store Configurator's main screen.

Each logical grouping focuses on a particular aspect of the Sterling Call Center and Store Configurator and contains rules, common codes, and settings necessary for the Sterling Call Center and Store to work in a real-world business setting.

The Sterling Call Center and Store Configurator displays groupings by way of an information tree. To expand each grouping, click ⊞ located next to the group's name. When a group expands, each specific configuration associated with that group is displayed.

Next to each specific configuration, there is an icon, which indicates the user as to the progress of the configuration. When the cursor is placed over the icon, the current status of the configuration is displayed in a pop-up window.

Table 2–1   Task Icons

Task Icon	Description
	This icon indicates that the task is not complete.
	This icon indicates that the task is complete.
	This icon indicates that the task is currently locked.

When you select a group that you want to configure, the Sterling Call Center and Store Configurator tree expands to display the available configuration rules for the selected group. Select a configuration that is not yet completed or still in progress. For certain configurations, under applications you can tweak some advanced configurations. To tweak these advanced configurations, select the Advanced Configuration hyperlink.

To view and change the configurations for a different enterprise organization, click the Load Configuration For Enterprise hyperlink. An organization may not be able to modify all the rules within the Sterling Call Center and Store Configurator based on the ownership of the individual configurations. For example, the installation level rules can be only modified by the Hub organization. Additionally, one Enterprise organization may inherit rules from another Enterprise. In such situations, the configuration can be only modified by the Enterprise that owns the organization, and not by the Enterprise that inherits the configuration. If the organization inherits a configuration from another organization, a hyperlink is displayed next to the configuration's name enabling the user to override the ownership of that configuration. If the organization has previously overridden the ownership, a hyperlink is displayed next to the configuration's name enabling the user to provide ownership back to the organization from where it was originally inheriting.

2.2.1 Using the Online Help

To access the Sterling Call Center and Store Configurator's Online Help, select Help > Online Help.

2.2.2 Troubleshooting Errors

You can view the description and cause of any error raised in the Sterling Call Center and Store Configurator, and the action to perform to overcome the error.

To view the Sterling Call Center and Store Configurator system error descriptions:

1. From the menu bar, select Help > Troubleshooting. The Error Search screen is displayed.

2. Enter the applicable search criteria and choose . A list of error codes and their descriptions is displayed.

3. Choose to view the cause of the error and the action to perform to troubleshoot the error.

2.2.3 Using Special Characters

In the Sterling Call Center and Store Configurator, there may be instances where you need to use special characters during data entry. The Sterling Multi-Channel Fulfillment Solution reserves key words and special characters that can be used internally. For information about using and handling special characters, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

3

Reference Implementation

The Reference Implementation installation scripts set up configuration data in order to demonstrate the Sterling Call Center and Store features.

The Sterling Multi-Channel Fulfillment Solution is configured by modules that reflect different aspects of the product. When configuring Sterling Call Center and Store for Reference Implementation, the following modules are impacted:

- Platform
- Product Management
- Distributed Order Management
- Inventory Synchronization
- Customer Management

3.1 Platform

The Sterling Call Center and Store Reference Implementation includes sample organizations in a customer order scenario. In this example, there is a company called XYZ Corporation, which has a company called XYZ-Online serving as the online business channel. Additionally, XYZ-Online owns a node modeled as a basic distribution center. There is another company called XYZ-Retail serving as the retail business channel and having two stores, XYZ S1 and XYZ S11.

Table 3–1 describes the organization model.

Table 3–1   Organizations

Organization Code	Organization Name	Role
XYZ-CORP	XYZ Corporation	Enterprise
XYZ-ONLINE (Inherited from XYZ-CORP)	XYZ Online	Enterprise, Seller
XYZ-DC	XYZ Distribution Center	Node
XYZ-RETAIL	XYZ Retail	Enterprise, Seller

XYZ-CORP has sourcing rules and Sales Order document Type rules configured.

XYZ-ONLINE is configured to inherit configuration from the XYZ-CORP organization. Figure 3–1 illustrates the structure of Sterling Call Center and Store.

Figure 3–1   Participant Model
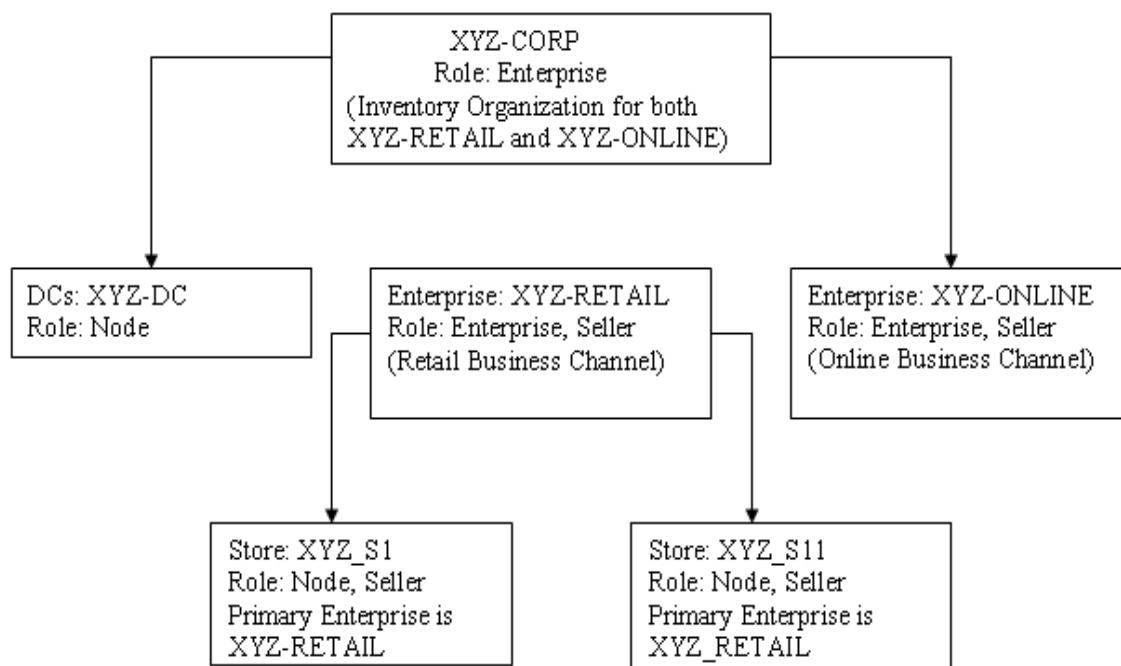
In this figure:

1. XYZ-CORP is the enterprise serving as the inventory organization for both XYZ-ONLINE and XYZ-RETAIL enterprises.

2. XYZ-ONLINE is the enterprise for online business.

    DC is the Application Consoles node owned by XYZ-CORP.

3. XYZ-RETAIL is the enterprise for retail business.

    *   DC is the Application Consoles node owned by XYZ-CORP.

    *   XYZ_S1 and XYZ_S11 nodes are stores modeled as Seller organizations.

Organizations for the Sterling Call Center Application

When orders are created for the Sterling Call Center application, use the following organizations:

- Enterprise Code of the order must be XYZ-CORP

- Seller Organization Code must be XYZ-ONLINE

Organizations for the Sterling Store Application

When orders are created for the Sterling Store application, use the following organizations:

- Enterprise Code of the order must be XYZ-RETAIL

- Seller Organization Code for the order must be the store organization code

3.1.1 User Groups for a Call Center

The Sterling Call Center and Store Reference Implementation includes the following sample user groups for a customer order scenario.

Table 3–2   User Groups for a Call Center

User Group	Users	Description
CSR-GROUP	csr-XYZ	Call Center Representative
CSR-LEAD-GROUP	csrlead-XYZ	Call Center Representative Lead

3.1.2 User Groups for a Store

The Sterling Store application includes the following sample user groups for a store order scenario.

Table 3–3   User Groups for a Store

User Group	Users	Description
STORE-MANAGER	xyzs1admin, xyzs11admin	Store Manager
STORE-CSR	xyzs1csr, xyzs11csr	Store Customer Sales Representative

3.1.3 Exception Types and Queue Types

The following exception types and queue types are provided:

Exception Types

- Verify Address
- Duplicate Order
- Payment Failure
- Order Cancel
- Price Match
- Reship
- Backorder Notice
- Fraud Check Notice
- FTC Notification
- UI Exception
- Agent Exception

Queue Types

- Verify Address
- Fraud Queue
- Duplicate Order
- Customer Notification
- Payment Declined
- Payment Hard Declined
- Payment Service Unavailable
- Payment Authorization Retry Limit Reached
- Validate Price Match
- Reship Items

3.2 Product Management

In this setup, XYZ-CORP is the inventory and catalog organization for XYZ-ONLINE and XYZ-RETAIL organizations.

Table 3–4 describes the inventory items defined by the XYZ-CORP organization.

Table 3–4   XYZ-CORP Items

Item ID	Description	Shipping Allowed	Pick up Allowed	Delivery Allowed
TV0001A5F21	34″ Widescreen LCD HDTV	May be	Yes	Yes
DVP6723040	Progressive-Scan DVD Player	May be	No	Yes
SP5700BL	Home Theater Speaker System	Yes	Yes	Maybe
URV800CV	15-Device Universal Remote	Yes	Yes	Maybe
AOE4357	AOE Computer Game	No	Yes	Maybe
URV800CVCA	Universal Remote Case	Yes	Yes	Maybe
ALKAA15V	Alkaline Battery AA size 1.5 Volts	Yes	Yes	No
PSLS3C3S	Polo Short Sleeved Model Shirt	Yes	Yes	Yes

Note: The fulfillment methods for stylized items listed in Table 3–11 are the same as its model item PSLS3C3S.

Table 3–5 provides a list of UOMs that are defined for XYZ-CORP.

Table 3–5   Item UOMs

UOM	Description
CASE	Case
EACH	Each

Table 3–6 provides a list of delivery service items that are defined for XYZ-CORP. These delivery items are associated with the items mentioned in Table 3–4.

Table 3–6   Delivery Service Items

Item ID	Description	Unit Of Measure
Home_Delivery	Home Delivery	UNIT
Home_Return	Home Return	UNIT

Table 3–7 provides a list of delivery service units of measure that are defined for XYZ-CORP.

Table 3–7   Delivery Service Units Of Measure

Unit Of Measure	Description
HR	Hour
UNIT	Unit

Table 3–8 provides a list of provided service items and their units of measure that are defined for XYZ-CORP.

Table 3–8   Provided Service Items

Item ID	Description	Unit Of Measure
PSTV0001A5F21	Installation for TV0001A5F21	HR
PSELECREP	Repair of Electronic Items	HR

Table 3–9 provides a list of bundle items and fulfillment mode and Table 3–10 provides the list of components for the bundle item DRF804SET that are defined for XYZ-CORP.

Table 3–9   Bundle Items

Item ID	Description	Bundle Fulfillment Mode
RDRF804SET	Black Round Dining Room Furniture Set	Ship Independent

Table 3–10   Component List for DRF804SET

Item ID	Description	UOM	Quantity
DTRND804	Black Round Dining Table	EACH	1
DFBDC804	Diamond Fossil Back Dining Chair	EACH	6
FSBR804	Fossil Stone Baker's Rack	EACH	1

Table 3–11 provides a list of stylized items that are defined for XYZ-CORP.

Table 3–11   Stylized Items for model item PSLS3C3S

Item ID	Description
PSLS3C3SREGLB	Regular Large Black Polo Shirt
PSLS3C3SREGLG	Regular Large Grey Polo Shirt
PSLS3C3SREGLR	Regular Large Red Polo Shirt
PSLS3C3SREGMB	Regular Medium Black Polo Shirt
PSLS3C3SREGMG	Regular Medium Grey Polo Shirt
PSLS3C3SREGMR	Regular Medium Red Polo Shirt
PSLS3C3SREGSB	Regular Small Black Polo Shirt
PSLS3C3SREGSG	Regular Small Grey Polo Shirt
PSLS3C3SREGSR	Regular Small Red Polo Shirt
PSLS3C3STALXLB	Tall Extra Large Black Polo Shirt
PSLS3C3STALXLG	Tall Extra Large Grey Polo Shirt
PSLS3C3STALXLR	Tall Extra Large Red Polo Shirt

3.3 Distributed Order Management

XYZ-ONLINE has a scheduling rule inherited from XYZ-CORP, named SYSTEM, that does not assume infinite inventory after the lead time.

Under Financials, XYZ-ONLINE has a default Payment Rule configured, identical to the rule provided for the DEFAULT Enterprise. Additionally, the Credit Card, Pre-paid, Check, Refund Check, Customer Account, Other Payment Method, and Stored Value Card payment types are configured.

3.3.1 Common Configuration Data for Call Center and Store Scenarios

In addition to the data provided as part of the base Sterling Multi-Channel Fulfillment Solution installation, the following configurations are added for the XYZ-CORP and XYZ-RETAIL organizations:

Note Reasons

- Called Customer

- Wrong Item Received

- Customer Called

- Schedule and Release Information

- Issue Refund Now Information

- Increase Line Quantity Information

- Return Order Cancellation Information

- Change Return Address

- Change Return Method

- Change Service Appointment

- Called Issuing Bank

- Marketing Opt-In

- Cleared Held Order

- Return Policy Overridden

- Backorder Information

- Hold Information

- New Item Information

- Order Entry

- Fulfillment Options Change Information

- Delivery Appointment Change Information

- Delivery Instructions Change Information

- Order Cancellation Information

- Return Information

- Order Address Change Information

- Reship Information

- Price Match Information

- Customer Appeasement Information

- New Promotion Information

- Payment Change Information

- FTC Notification

- Shipment Confirmation Information

- Add Modify Charges

- Create Alert Information

Configuration for System Generated Notes

Refer Table 3–12 for the system generated note configuration provided as part of reference implementation for XYZ-CORP and XYZ-RETAIL organizations.

Table 3–12   Reference Implementation for System Generated Notes

Event	Description	XSL File	Note Type
Hold Created	The system generates notes when a hold is created.	YCD_Log_Note_On_Hold_Status_Change_8.0.xsl.sample	YCD_HOLD_INFO
Hold Resolved	The system generates notes when a hold is resolved.	YCD_Log_Note_On_Hold_Status_Change_8.0.xsl.sample	YCD_HOLD_INFO
Hold Rejected	The system generates notes when a hold is rejected.	YCD_Log_Note_On_Hold_Status_Change_8.0.xsl.sample	YCD_HOLD_INFO
Back Ordered	The system generates notes if an order is back ordered while scheduling or releasing.	YCD_Log_Note_On_Back_Order_8.0.xsl.sample	YCD_BACKORDER_INFO
On Shipment Confirmation	The system generates notes when a shipment is confirmed.	YCD_Log_Note_On_On_Shipment_Confirmation_8.0.xsl.sample	YCD_CONFIRM_SHIPMENT
Appointment Execution Failure	The system generates notes if an appointment fails.	YCD_Log_Note_On_On_Appointment_Failure_8.0.xsl.sample	YCD_DELIVERY_APPT
Appointment Execution Success	The system generates notes if an appointment is completed.	YCD_Log_Note_On_On_Appointment_Completion_8.0.xsl.sample	YCD_DELIVERY_APPT
Alert Created	The system generates notes when an alert is created.	YCD_Log_Note_On_Create_Exception_8.0.xsl.sample	YCD_CREATE_ALERT

Modification Reasons

- Cancel – Address Undeliverable
- Cancel – Customer Requested

- Cancel – Duplicate Order
- Cancel – FTC Auto Cancel
- Cancel – Item No Longer Available
- Customer – Address Change
- Customer – Consent to Delay
- Customer – Level of Service Change
- Payment Change – Credit Card Over Limit
- Payment Change – Order Over Settled
- Payment Change – Order Under Settled
- Fulfillment – Alternate Ship Node

Hold Types

- Duplicate Order
- Fraud Check
- Address Verification

Sales Order Charge Categories

- Discount
- Handling
- Personalization
- Shipping
- Customer Appeasement
- Price Match

Return Order Charge Categories

- Discount
- Handling
- Personalization
- Shipping

Sales Order Charge Names

- Discount
- Handling
- Personalization
- Shipping
- Customer Appeasement
- Price Match

Return Order Charge Names

- Discount
- Handling
- Personalization
- Shipping

Order Types

- Regular
- Gift Order
- Exchange Order

Fulfillment Types

- Fulfillment Type for Return
- Fulfillment Type for Product Sourcing
- Store Fulfillment
- More Store Search

Cancel Reasons

- Change of Mind
- Cheaper Price Found
- Late/Failed Delivery
- Unacceptable Delivery Time Promised
- Product No Longer Available
- Fraudulent Order
- Address Undeliverable

- Duplicate Order
- Other

Appeasement Reasons

- Late Shipment
- Damaged Item
- Bad Phone Experience
- Bad Delivery Experience
- Bad Online Experience

Instruction Types

- Delivery

Return Reasons

- Damaged Items
- Change Of Mind
- Lower Price Found
- Missing Parts
- Loose Parts
- Cargo Damaged
- Other

Scheduling Failure Reasons

- Parent line is not scheduled
- Shipment date of child line is before requested delivery date of the parent line
- Shipment date of child line is before appointment date of the parent line
- Line is constrained not to finish before a date
- Line must complete before date specified on post sequence line
- Line must complete before appointment date specified on post sequence line

- Line must complete before cancel date specified on post sequence line
- Constraining line is remaining to schedule
- Constraining line not ready for scheduling
- Line must wait for completion of constraining line
- Order level failure of dates
- Date beyond maximum allowed
- Fill quantity not remaining
- Fill quantity not available
- No more left to schedule
- Work order has multi appointment
- Service line can not be scheduled
- Product delivered as part of work order
- Line cannot be scheduled due to ship complete constraint
- Some quantity not available
- Quantity not available for scheduling yet
- Appointment before constraint date
- Appointment is in the past
- Cancel date is in the past
- Constraints do not allow scheduling
- An appointment date needed for scheduling
- No delivery service attached
- Not part of the work order
- parent line had failures hence child line cannot be scheduled
- Conflicting constraints
- Confirm assignment rejected
- Parent line not complete
- Parent line not scheduled

- There is no product line present for delivery
- Will wait for procurement
- Unmet transaction dependency
- Dependency constraint
- Delivery service constraint
- Inventory constraint
- Date constraint
- Capacity not available
- Other constraint
- Order line on hold

Price Match Statuses

- Price Match Approved
- Price Match Rejected
- Price Match Pending

Competitor Statuses

- Competitor Approved
- Competitor Rejected
- Competitor Pending

Return Note Reasons

- Return Order Cancellation Information
- Change Return Address
- Change Return Method
- Change Service Appointment
- Issue Refund Now Information
- Return Policy Overridden
- Wrong Item Received

Return Cancellation Reasons

- Change Of Mind

- Others

3.3.2 Additional Configuration Data for a Call Center Scenario

In addition to the common configurations data, the following configurations are added for the call center scenario:

Reship Reasons

This set up is provided for the XYZ-CORP organization.

- Missing Item

- Missing Container

- Wrong Item

- Cargo Loss

- Damaged or Defective

Resource Pools

- XYZ-DC_RES_POOL: This resource pool is given for XYZ-DC node.

Payment Types

The set up is provided for XYZ-ONLINE enterprise.

- Credit Card

- Check

- Pre-paid

- Stored Valued Card

- Refund Check

- Customer Account

- Other Payment Method

Payment Rules

The set up is provided for XYZ-ONLINE enterprise.

- XYZ-ONLINE_DEFAULT

3.3.3 Additional Configuration Data for a Sterling Store Scenario

In addition to the common configuration data that is provided, the following configurations are added for the Sterling Store scenario:

Note Reasons

- Undo-Pick Information
- Backroom-Pick Shortage Information
- Customer Verification Information

Payment Type

The set up is provided for the XYZ-RETAIL organization and each store.

- Credit Card
- Check
- Pre-paid
- Stored Valued Card
- Refund Check
- Customer Account
- Other Payment Method

Payment Rules

The set up is provided for the XYZ-RETAIL organization and each store.

- XYZ-RETAIL_DEFAULT

Resource Pools

- XYZ_S1_RES_POOL: This resource pool is given for XYZ_S1 store.
- XYZ_S11_RES_POOL: This resource pool is given for XYZ_S11 store.

3.3.4 Sample Orders

To demonstrate various features of Sterling Call Center and Store, the following types of orders are provided as a part of the transaction data:

- Demonstration1
- Demonstration2

- Demonstration3
- Demonstration4
- Demonstration5

3.3.4.1 Demonstration1

An order of type demonstration1 is used to demonstrate the following scenarios for both product and service items:

- Order Summary
  - A few items in the completed status and a few in the incomplete status
  - Support for different fulfillment methods such as pickup, shipment, and delivery
  - High priority notes at the header level
  - Line level notes
  - Alerts that exist on the order
- Price match
- Customer appeasement
- Increase line quantity
  - Quantities of a few items can be increased
  - Quantities of a few items cannot be increased
- Add coupon code—A discount on the order total
- Change shipping address
- Add items
- Change payment method
- Gift Options

3.3.4.2 Demonstration2

An order of type demonstration2 is used to demonstrate the following scenarios for both product and service items:

- Initiate Return/In store Returns:

- A few non-returnable items on a returnable order
- A few partial/fully returnable items
- A pre-configured return policy that makes a few items non-returnable
- Return order item that requires a pickup appointment

- Track an item
  - A few shipped items
  - A hyperlink to the tracking number
- Adding an item—Addition of items is not allowed
- Cancel order—Cancellation of items is not allowed
- Open Box Items—Indicator for the open box items
- Alternate Item ID

3.3.4.3 Demonstration3

An order type of demonstration3 is used to demonstrate the following scenarios for both product and service items:

- View payment details—Some refunds, multiple payment methods
- Returns/Exchanges views—A few items returned, refunded, and exchanged

3.3.4.4 Demonstration4

An order of type demonstration4 is used to demonstrate the following scenarios:

- Cancel Order
  - Non-cancellation of a few items
  - Partial/Full cancellation of a few items
  - Cancellation of a few pickup and delivery items that are in or beyond the "Included in Shipment" status

3.3.4.5 Demonstration5

An order of type demonstration5 is used to demonstrate the following scenarios for both product and service items:

- Change Fulfillment Options
  - Changing of fulfillment options from pickup to delivery and take an appointment for the new delivery line
  - Changing of fulfillment options from delivery to pickup
- Change Delivery Appointment/Instructions
  - Changing of appointments is not allowed
  - Delivery items with multiple appointments and the ability to change any one appointment
  - Adding delivery instructions
4. Fulfillment Summary
  - Different fulfillment options
  - Level of Services
  - Items with or without availability
5. Reservations—Items with or without availability

3.3.5 Sample Payment Methods

Table 3–13 provides a few sample credit card numbers supported in Sterling Call Center and Store.

Table 3–13   Sample Credit Card Numbers

Credit Card Type	Description	Sample Card Number
VISA	Visa	4561235642315415
AMEX	Amex	3471265413987218
CARTE_BLANCHE	Carte Blanche	36897541586340
DISCOVER	Discover	6011218943526543
JCB	JCB	213116874316851
MASTERCARD	Master Card	5421332132165462

3.3.6 Sample Promotion Codes

Sterling Call Center and Store supports the following reference implementation promotion codes:

- FREESHIP—This promotion is applied to an order if the order total is greater than $100.

- SALEONTV—This promotion is applied to an order line that has the "TV0001A5F21" Item ID.

3.4 Inventory Synchronization

XYZ-CORP is configured as an Inventory Organization. Therefore, an ATP rule, named XYZ-CORP-DEFAULT, has been specified. This is identical to the rule supplied for the DEFAULT Enterprise.

3.4.1 Resource Pools

Sterling Call Center and Store provides the following resource pools as part of the reference implementation:

Table 3–14   Resource Pools

Resource Pool ID	Ship Node
XYZ-DC_RES_POOL	XYZ-DC
XYZ_S1_RES_POOL	XYZ_S1
XYZ_S11_RES_POOL	XYZ_S11
XYZ-DC_PS_RES_POOL	XYZ_DC
XYZ_S1_PS_RES_POOL	XYZ_S1
XYZ_S11_PS_RES_POOL	XYZ_S11

A service slot group, called A is defined for XYZ-CORP. The resource pools specified in Table 3–14 use the service slot group A.

Table 3–15 describes the service slots defined for the slot group A.

Table 3–15   Service Slots Defined for Slot Group A

Service Slot Description	Start Time	End Time
Morning	08:00:00	12:00:00
Afternoon	13:00:00	17:00:00

The following calendar names are provided as part of the Sterling Store reference implementation:

- Calendar_XYZ_S1—This is defined for the XYZ_S1 store.

- Calendar_XYZ_S11—This is defined for the XYZ_S11 store.

3.4.2 Inventory Adjustments

The inventory is made available for each store and distribution center. For XYZ_S1 and XYZ_S11 stores, and XYZ_DC distribution center, the inventory is available for various items as described in Table 3–16.

Table 3–16   Available Inventory

Item	Quantity
TV0001A5F21	1000
DVP6723040	1000
SP5700BL	1000
URV800CV	1000
AOE4357	1000

Note: The inventory for all stylized items listed in Table 3–11 is zero.

3.5 Customer Management

Sterling Call Center and Store provides the following consumer contact as part of the reference implementation for XYZ-CORP organization:

Table 3–17   Consumer Contact

Field	Value
First Name	John
Last Name	Doe
E-mail ID	jdoe@example.com
User ID	jdoe@example.com
Day Phone	1234567890

Sterling Call Center and Store provides the following business contacts as part of the reference implementation for XYZ-CORP organization:

Table 3–18   Business Contacts

Field	Value	Value
First Name	Joe	Jane
Last Name	Smith	Green
E-mail ID	jsmith@example.com	jgreen@example.com
User ID	jsmith@example.com	jgreen@example.com
Day Phone	9876543210	9886543210

4

Common Configurations

This chapter provides a brief overview of the common configurations that are needed for Sterling Call Center and Store. For more information about configuring each of these components, references to the appropriate Sterling Multi-Channel Fulfillment Solution documents have been provided.

4.1 Creating a New Enterprise Organization

An Enterprise represents an organization that owns and controls all the transactions in Sterling Call Center and Store. An Enterprise in Sterling Call Center and Store controls the flow of documents, such as a sales order, and is considered as the owner of the document.

To create a new Enterprise:

1. From the Sterling Call Center and Store Configurator screen, select the Create A New Enterprise hyperlink. The Create Organization pop-up screen is displayed.

2. Enter information in the applicable fields.

3. Click 🖫. The new Enterprise is created.

4. Click the Load Configuration For Enterprise hyperlink. The Organization pop-up screen is displayed.

5. Choose the Enterprise organization from the Organization drop-down list.

4.2 Configuring Initial System Setup

Sterling Call Center and Store provides advanced system setups that allow you to configure system-wide elements such as locales and units of measure. These will typically be configured once during the start of an implementation.

4.2.1 Defining Units of Measure for Quantity

You can define units of measure for quantity. For more information about defining the units of measure for quantity, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.2.2 Defining Units of Measure for Service Quantity

You can define units of measures for service quantity. For more information about defining units of measure for service quantity, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.2.3 Defining Units of Measure for Dimension

You can define units of measure for dimension. For more information about defining units of measure for dimension, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.2.4 Defining Units of Measure for Volume

You can define units of measure for volume. For more information about defining units of measure for volume, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.2.5 Defining Units of Measure for Weight

You can define units of measure for weight. For more information about defining units of measure for weight, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.2.6 Defining Units of Measure for Time

You can define units of measure for time. For more information about defining units of measure for time, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.2.7 Configuring Installation Rules

You can set up rules that need to be defined when the application is installed. This may include rules that determine how inventory items are identified and consolidated, provide flexibility in drop shipping orders, and provide capability to encrypt primary payment type attributes. For more information about defining installation rules, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.2.8 Defining Locales

You can define locales that enable businesses to associate them to multiple organizations and users. For more information about defining locales, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.2.9 Defining Countries

You can set up common codes for country codes used when setting up locales. This common code identifies the country that the locale is located in. For more information about defining country codes, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.2.10 Defining Languages

You can set up common codes for language definitions used when setting up locales. This common code identifies the language used in the locale. For more information about defining language codes, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.2.11 Defining Date Formats

You can set up common codes for date formats used when setting up locales. This common code format identifies the format how date is entered at a locale. For more information about defining date formats,

see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.2.12 Defining Time Formats

You can set up common code formats for time formats used when setting up locales. This common code format identifies how time is entered at a locale. For more information about defining time formats, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.2.13 Defining Date and Time Formats

You can set up common code formats for date and time formats used when setting up locales. This common code format identifies the format how dates with time are entered at a locale. For more information about defining date/time formats, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.2.14 Defining Currencies

Currency definitions define symbols of each currency and indicate Euro currency membership and expiration date, if applicable. For more information about defining currency definitions, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.2.15 Configuring Currency Conversions

Currency conversion enables you to set up exchange rates from one currency to another. These exchange rates are used to translate between currencies used by organizations as defined by their locale. For more information about defining currency conversions, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.3 Configuring an Enterprise Profile

An Enterprise represents the organization that owns and controls all the transactions in Sterling Call Center and Store. An Enterprise in Sterling Call Center and Store controls the flow of documents, such as a sales order, and is considered the owner of the document. Most business rules and fulfillment processes for an order are defined by the Enterprise. On a sales order, the Enterprise is also assigned the role of the Seller

organization in most cases. However, in some cases, if a higher level organizational unit wants to control and enforce business rules or document flow of all its subsidiaries, that organizational unit is assigned an Enterprise role and its subsidiary organizations are assigned Seller and Buyer roles.

Even though most business rules are controlled by the Enterprise, pricing rules are always controlled by the Seller organization in both sales and purchase situations. For more information about defining enterprise attributes, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

If implementing an enterprise to be used by the Sterling Multi-Channel Selling Solution integration, the Account with Hub attribute must be populated with the Sterling Multi-Channel Selling Solution application's StoreFront skin name. This is used when punching out to the Sterling Multi-Channel Selling Solution application from within the Sterling Call Center and Store applications. For more information, see "Callback Mechanism to Login for Sterling Multi-Channel Selling Solution" on page 470.

4.4 Managing the Supply Chain Network Model

You can define your complete catalog of product items including items, categories, and classifications. Use this configuration when the product items are maintained within the Sterling Multi-Channel Fulfillment Solution.

4.4.1 Defining Shipping Nodes and Stores

You can define ship nodes from where products are shipped and delivered. You can create node types and classify them. For more information about creating node types, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.4.2 Defining Carriers

You can define carriers for your business. To define a carrier, create a carrier as the role for an organization and define the carrier attributes. For more information about defining carrier attributes, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.4.3 Defining Vendors

You can define vendors for your business. A vendor can be a seller organization, shipping node, or both. To define a vendor, choose Seller as the role for an organization and configure the seller attributes. For more information about defining seller attributes, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.4.4 Configuring the Fulfillment Network Model

You can configure the fulfillment network model to describe the relationship between various supply chain participants. For more information about configuring the fulfillment network model, see the *Sterling Distributed Order Management Configuration Guide*.

4.4.5 Defining Region Match Preferences

As an advanced configuration, you can specify the level at which addresses can be matched with regions for each country. For more information about defining region match preferences, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.4.6 Configuring Region Levels

A region level classifies regions into distinct categories. As an advanced configuration, you can specify region levels such as Country, State, County, City, and so forth, based on the levels at which you want to aggregate your regions, and define the address field that corresponds to a region level. Region levels also provide the capability to create a region hierarchy. For more information about defining region levels, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.4.7 Configuring Region Schemas

A region schema is the complete hierarchical set of regions that define a given geography. As an advanced configuration, you can configure a region as a specific territory. For example, you can define a region for a state, city, or town. For more information about defining region schemas, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.4.8 Defining Node Types

As an advanced configuration, you can define node types to allow a user to classify nodes into various categories. For more information about defining node types, see the *Sterling Distributed Order Management Configuration Guide*.

4.5 Managing Products and Categories

Sterling Call Center and Store provides you with the capability to manage all products and services through catalogs and catalog organizations.

4.5.1 Configuring Units of Measure

You can configure standard units of measure to associate with your items and locales. For more information about configuring units of measure, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.5.2 Managing Products

You can define product items that you sell. For more information about defining product items, see the *Sterling Product Management Configuration Guide*.

4.5.3 Defining Product Categories

You can use product categories to browse for similar products. For more information about defining categories, see the *Sterling Product Management Configuration Guide*.

4.5.4 Defining Types of Product Classifications

You can define the types of product classification that you require. To define the types of product classification, define a classification definition and associate an item attribute with it. For more information about defining classification definitions, see the *Sterling Product Management Configuration Guide*.

4.5.5 Defining Classification Values

You can define various values for a classification type in a classification hierarchy. For more information about defining a classification hierarchy, see the *Sterling Product Management Configuration Guide*.

4.5.6 Defining Alternate Identifications for an Item

As an advanced configuration, you can specify the types of alternate identification for an item. For more information about defining item alias types, see the *Sterling Product Management Configuration Guide*.

4.5.7 Defining Association Types for an Item

As an advanced configuration, you can specify the association types for an item. For more information about defining item association types, see the *Sterling Product Management Configuration Guide*.

4.5.8 Configuring Display of Model Items

As an advanced configuration, you can configure the display of model item attributes.

To configure display of model items:

1. From the Sterling Call Center and Store Configurator, select Manage Products and and Categories.

2. Select the Advanced Configurations link.

3. Select Configure Display of Model Items.

4. Select the appropriate option. For field value descriptions, see Table 4–1.

5. Click 🖫 to save your changes.

Figure 4−1   Configure Display of Model Items

Table 4−1   Display of Style Items

Field	Description
Display With Radio Buttons	Select this option to display the attributes of the model item with radio buttons.
Display With List Boxes	Select this option to display the attributes of the model item with list boxes.
Preview	Based on the option chosen, a preview of the Style Items pop-up is displayed.

4.5.9 Configuring Item Search Options

As an advanced configuration, you can configure the item search options. This configuration enables you to integrate the Item Search screen with the Sterling Multi-Channel Selling Solution's Item Search screen.

To configure item search options:

1. From the Sterling Call Center and Store Configurator, select Manage Products and Categories.
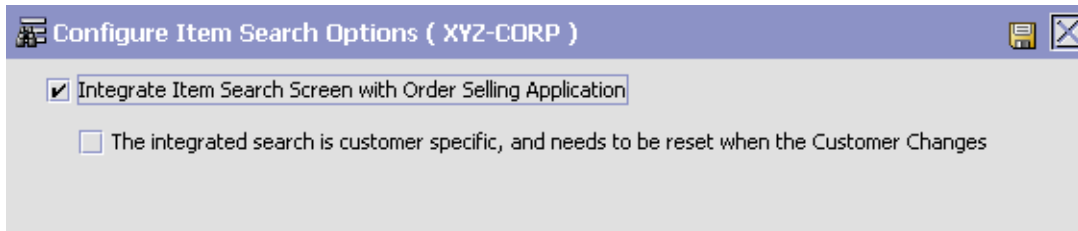
2. Select the Advanced Configurations link.

3. Select Configure Item Search Option.

4. Select the appropriate option. For field value descriptions, see Table 4–2.

5. Click 🖫 to save your changes.

Figure 4–2   Configure Item Search Options

Table 4–2   Item Search Options

Field	Description
Integrate Item Search Screen with Order Selling Application	Select this option to integrate the item search screen with the Order Selling application.
The integrated search is customer specific, and needs to be reset when the customer changes	Select this option if the search screen needs to be reset when the customer changes in the integrated mode. This option is enabled only if you select the Integrate Item Search Screen with Order Selling Application option.

4.6 Configuring Delivery and Installation

In addition to shipped products, Sterling Call Center and Store provides the capability to manage the execution of delivery services and provided services.

Delivery Services are billable services that are directly associated with a product on a sales order or a return order. For example, the delivery of a high-definition television.

Provided Services are billable services that are offered to enhance the life or usability of a product associated with a sales order. For example, the application of fabric protection on a sofa or installation service for a home theater system.

Delivery Services and provided services are also defined as items by the Catalog Organization and are available to all organizations that share that Catalog Organization.

4.6.1 Defining Slot Groups

All delivery and installation promises are made against a time slot. You can define these slots against which appointment promises are made. For more information about defining slot groups, see the *Sterling Global Inventory Visibility Configuration Guide*.

4.6.2 Defining Service Skills

You can define a master list of service skills that can be associated to services offered. For more information about defining service skills, see the *Sterling Product Management Configuration Guide*.

4.6.3 Defining Delivery Service UOM Master

Units of measure are the various units a delivery service can be offered in. For more information about defining master units of measure, see the *Sterling Product Management Configuration Guide*.

4.6.4 Defining Delivery Service Types

Delivery service types are used to determine the capacity UOM and complexity level of delivery services. For more information about defining delivery service types, see the *Sterling Product Management Configuration Guide*.

4.6.5 Defining Options Offered with Delivery Services

You can define a master list of options that are offered with various delivery services. For more information about defining delivery service options, see the *Sterling Product Management Configuration Guide*.

4.6.6 Defining Delivery Services

You can define the delivery services offered. For more information about configuring delivery services, see the *Sterling Product Management Configuration Guide*.

4.6.7 Defining Installation Service UOM Master

You can configure the units of measure an installation service can be offered in. For more information about defining master units of measure, see the *Sterling Product Management Configuration Guide*.

4.6.8 Defining Installation Service Types

Provided service types are used to determine the capacity UOM and complexity level of provided services. For more information about defining service types, see the *Sterling Product Management Configuration Guide*.

4.6.9 Configuring Options Offered with Installation Services

You can define a master list of options that are offered with various installation services. For more information about defining provided service options, see the *Sterling Product Management Configuration Guide*.

4.6.10 Defining Installation Services

You can define various installation services offered. For more information about defining provided service items, see the *Sterling Product Management Configuration Guide*.

4.6.11 Defining Address-Related Questions

You can define a list of questions that helps in understanding the physical characteristics of a customer's location. For more information about configuring questions, see the *Sterling Distributed Order Management Configuration Guide*.

4.6.12 Defining Types of Capacity and Service Classifications

You can configure product-level control parameters for setting up capacity and service association rules. You can choose the applicable product classifications to use for the purpose of capacity and service association. For more information about defining classifications, see the *Sterling Product Management Configuration Guide*.

4.6.13 Configuring Sourcing Rules for Delivery

You can configure a set of sourcing rules that helps identify the location from where deliveries should be made for a given customer address. For more information about defining sourcing rules for delivery service items, see the *Sterling Distributed Order Management Configuration Guide*.

4.6.14 Defining Node Groups for Installation Services

You can create a group of nodes that can be used when determining sourcing for installation services. This configuration is similar to configuring node groups for shipping products. For more information about defining distribution groups, see the *Sterling Distributed Order Management Configuration Guide*.

4.6.15 Defining Sourcing Rules for Installation

You can define a set of sourcing rules that helps identify the location from where installation services should be made for a given customer address. For more information about defining sourcing rules for provided service items, see the *Sterling Distributed Order Management Configuration Guide*.

4.6.16 Defining Resource Pools

Resource pools represent sets of resources that provide the services. For more information about defining resource pools, see the *Sterling Warehouse Management System Configuration Guide*.

4.6.17 Configuring Service Supervisors

You can configure the supervisor that is associated with a node for a given seller organization. For more information about configuring service

supervisors, see the *Sterling Distributed Order Management Configuration Guide*.

4.6.18 Configuring Capacity Rules

As an advanced configuration, you can configure rules that affect capacity like setting the default capacity reservation expiration time. For more information about defining capacity rules, see the *Sterling Global Inventory Visibility Configuration Guide*.

4.6.19 Defining Service Complexity Levels

As an advanced configuration, you can define service complexity levels for provided service items and delivery service items. For more information about defining service complexity levels, see the *Sterling Product Management Configuration Guide*.

4.6.20 Configuring Additional Capacity

As an advanced configuration, you can configure additional capacity for a delivery service type and region level combination. For more information about defining additional capacity, see the *Sterling Product Management Configuration Guide*.

4.6.21 Selecting Region Usage for Resource Pools

As an advanced configuration, you can select the region schema that is used when defining the specific regions that a resource pool can service. For more information about defining region usage for resource pools, see the *Sterling Global Inventory Visibility Configuration Guide*.

4.6.22 Configuring the Service Appointment Calendar View

You can configure the default view of the appointment calendar and display it.

To configure the default view of the appointment calendar:

1. From the Sterling Call Center and Store Configurator > Configure Delivery and Installation > Advanced Configuration, select Configure Delivery Appointment Calendar View.

2. Choose the appropriate options. For field value descriptions, see Table 4–3.

3. Click 🖫 to save your changes.

Figure 4–3   Configure Delivery Appointment Calendar View

Table 4–3   Delivery Appointment Calendar View

Fields	Description
Capacity Information	
Limit Users to View Capacity for a Maximum of <number_of_days> Days	Check this box and enter the maximum number of days you want to allow the users to view the capacity information. • If you check this box, the user can view the capacity information for the specified number of days. • If you uncheck this box, the user can view the capacity information for an infinite number of days or until the future capacity is unavailable.
Calendar Display	
Monthly View	Choose this option if you want the calendar to display the monthly view.

Table 4–3   Delivery Appointment Calendar View

Fields	Description
Display View for <number_of_weeks> Weeks	Choose this option and enter the number of weeks to display in the calendar. You may enter any number between 1 and 6. The default value is 0.
Default Appointment Calendar View	
Select Slot First, Then Choose the Day	Choose this option if you want to select the slot before selecting the day for service appointments.
Select Day First, Then Choose a Slot	Choose this option if you want to select the day before selecting a slot for service appointments.
Preview	
Based on the option chosen, a preview of the appointment calendar displays.	

4.7 Defining Customers

This configuration allows you to define B2B customers and consumers. These customers and consumers place orders with your business. This configuration provides additional information about the customers such as their appointment slot preferences, additional contact information, and answers to address questions, and so forth.

4.7.1 Configuring Customer Rules

You can configure customer classifications that can be associated to customers as well as the slot group to use for defining customer slot preferences. For more information about defining customer rules, see the *Sterling Distributed Order Management Configuration Guide*.

4.7.2 Configuring Contact Types

You can configure the contact types when specifying the contact information of a customer on work order notes. For more information about defining contact types, see the *Sterling Distributed Order Management Configuration Guide*.

4.7.3 Defining Customer Definitions

You can define the B2B customers and consumers that place orders with your business. For more information about defining customer definitions, see the *Sterling Distributed Order Management Configuration Guide*.

4.7.4 Configuring Customer Type Rules

You can configure the default customer search screen to be used while identifying a customer.

To configure customer type rules:
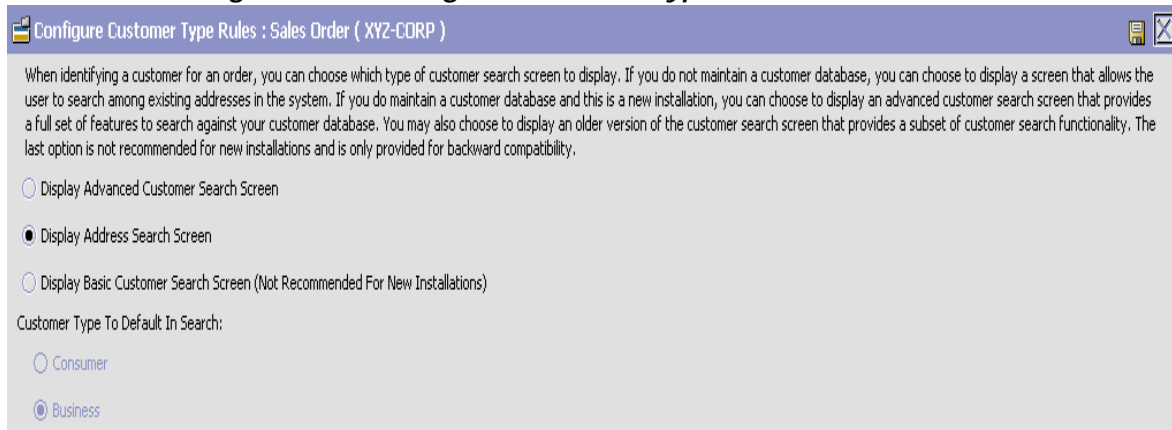
1. From the Sterling Call Center and Store Configurator, select Define Customers.

2. Under Define Customers, select Advanced Configuration.

3. Select Configure Customer Search Rules.

4. Enter information in the applicable fields. For field value descriptions, see Table 4–4.

5. Click 🖫 to save your changes.

Figure 4–4   Configure Customer Type Rules

Table 4–4   Customer Type Rules

Field	Description
Display screen which performs advanced customer search	Select this option to use the advanced customer search screen.
Display screen which performs address search	Select this option to use the address search screen.
Display screen which performs basic customer search	Select this option to use the basic customer search screen.
Customer Type to Default in Search	Select one of the following as default customer type: Consumer or Business. This option is enabled only if you select the basic or advanced customer search screens.

4.8 Configuring Order Promising Rules

To ensure that all customer orders are fulfilled accurately and efficiently, Sterling Call Center and Store provides rich order promising functionality.

4.8.1 Selecting Complexity Level Required for Sourcing Rules

You can determine how to make sourcing decisions at a high level. For more information about defining basic sourcing configuration, see the *Sterling Distributed Order Management Configuration Guide*.

4.8.2 Defining Fulfillment Types

Fulfillment types define the rules for making accurate customer order promises. For more information about defining fulfillment types, see the *Sterling Distributed Order Management Configuration Guide*.

4.8.3 Defining Order Sourcing Classifications

This provides another control parameter that can be used when setting up sourcing rules. For more information about defining order sourcing

classifications, see the *Sterling Distributed Order Management Configuration Guide*.

4.8.4 Defining Types of Sourcing and Procurement Classifications

You can configure product-level control parameters for setting up sourcing and procurement rules. In this configuration, you choose which product classifications should be used for the purposes of sourcing and procurement. For more information about defining classifications, see the *Sterling Product Management Configuration Guide*.

4.8.5 Defining Scheduling Rules

Scheduling rules control when an order is scheduled and what constraints should be applied when scheduling an order. For more information about defining scheduling rules, see the *Sterling Distributed Order Management Configuration Guide*.

4.8.6 Configuring Landed Cost Computation Rules

Sterling Call Center and Store provides highly advanced optimization algorithms that can use landed cost computations to select shipping nodes that minimize the cost. For more information about configuring landed cost optimization, see the *Sterling Distributed Order Management Configuration Guide*

4.8.7 Configuring Rules for Determining Forwarding/Transfers

You can set up rules that control how product transfers should be handled between two nodes. For more information about defining forwarding/transfer rules, see the *Sterling Distributed Order Management Configuration Guide*.

4.8.8 Defining Node Groups

You can define sets of nodes that represent a logical group. The logical group can then be used in your sourcing rules. For more information about defining distribution groups, see the *Sterling Distributed Order Management Configuration Guide*.

4.8.9 Configuring Sourcing Rules

You can configure sourcing rules to determine the node, external organization, or group of nodes to use to ship a product. For more information about defining sourcing rules for product items, see the *Sterling Distributed Order Management Configuration Guide*.

4.8.10 Defining Node Groups for Transfers or Procurement

You can create a group of nodes that can be used when determining sourcing for transfers or procurements. This configuration is similar to configuring node groups for shipping products. For more information about defining distribution groups, see the *Sterling Distributed Order Management Configuration Guide*.

4.8.11 Configuring Sourcing Rules for Transfers or Procurement

You can configure rules to determine the nodes from where a transfer or procurement can be made to a given shipping node when enough inventory is not available in the shipping node. For more information about defining procurement rules, see the *Sterling Distributed Order Management Configuration Guide*

4.8.12 Configuring Transit Time Computation Rules

You can specify how transit time is calculated for the order scheduling operation. For more information about defining logistics attributes, see the *Sterling Distributed Order Management Configuration Guide*.

4.8.13 Configuring Miscellaneous Scheduling and Reservation Rules

As an advanced configuration, you can configure miscellaneous scheduling and reservation rules. These rules control the behavior of order reservation and scheduling. For more information about defining fulfillment rules, see the *Sterling Distributed Order Management Configuration Guide*.

4.8.14 Selecting Region Schema used for Order Promising

As an advanced configuration, you can select the region schema used for order promising. Regions provide a geography level control parameter in sourcing rules. For more information about defining sourcing region selection, see the *Sterling Distributed Order Management Configuration Guide*.

4.8.15 Overriding Promising Parameters for Individual Items

As an advanced configuration, you can override promising parameters for individual items, such as minimum notification time. For more information about defining item level controls, see the *Sterling Distributed Order Management Configuration Guide*.

4.8.16 Overriding Promising Parameters for Individual Nodes

As an advanced configuration, you can override promising parameters, such as minimum notification time, at the ship node level. For more information about defining node level controls, see the *Sterling Distributed Order Management Configuration Guide*.

4.9 Configuring Payment Handling

Sterling Call Center and Store can be used to carry out critical payment-related processes during order management processing, and enables you to integrate with external payment processing systems such as CyberSource® or Chase™ Paymentech. Payment processing involves payment authorization, settlement, and invoicing.

4.9.1 Configuring Basic Rules for Payment Handling

You can configure general rules for payment handling. For more information about defining additional payment rules, see the *Sterling Distributed Order Management Configuration Guide*.

4.9.2 Configuring Payment Rules

You can configure payment rules to determine how authorizations and charges are handled at a high level. For more information about defining payment rules, see the *Sterling Distributed Order Management Configuration Guide*.

4.9.3 Defining Payment Types

You can define various tender types that your business accepts. For more information about defining payment types, see the *Sterling Distributed Order Management Configuration Guide*.

4.9.4 Defining Credit Card Types

This configuration allows the configuring of different credit card types.

To configure credit card types:
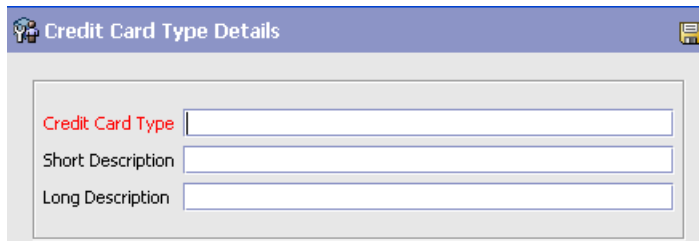
1. From the Sterling Call Center and Store Configurator, select Configure Payment Handling.

2. Under Configure Payment Handling, select Define Credit Card Types.

3. Click ➕ to add new credit card types.

4. Enter information in the applicable fields. For field value descriptions, see Table 4–5.

5. Click 💾 to save your changes.

Figure 4–5   Credit Card Type Details

Table 4–5   Credit Card Type Details

Field	Description
Credit Card Type	Enter the type of the credit card.
Short Description	Enter a short description of the credit card type.
Long Description	Enter a long description of the credit card type.

4.9.5 Configuring Payment Failure Rules

This is an advanced configuration that allows you to configure payment failure rules.

To configure payment failure rules:

1. From the Sterling Call Center and Store Configurator screen, select Configure Payment Handling.

2. Under Configure Payment Handling, select the Advanced Configurations link under Configure Payment Rules.

3. Select Configure Payment Failure Rules.

4. Enter information in the applicable fields. For field value descriptions, see Table 4–6.

5. Click 💾 to save your changes.

Figure 4–6   Payment Failure Rules
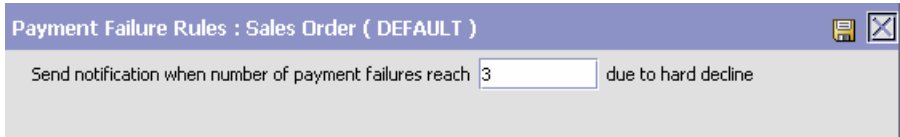
Table 4–6   Payment Failure Rules

Field	Description
Send notification when number of payment failures reach <n> due to hard decline	Enter the number of payment failures to be reached before notification is sent out.

4.9.6 Payment Processing Rules Determination

This is an advanced configuration that allows you to configure the payment processing rules at the enterprise level or seller organization. For more information about payment processing rules determination, see the *Sterling Distributed Order Management Configuration Guide*.

4.9.7 Configuring Advanced Credit Card Rules

This configuration allows the configuring of different credit card rules.

To configure credit card rules:

1. From the Sterling Call Center and Store Configurator, select Configure Payment Handling.

2. Under Configure Payment Handling, select the Advanced Configurations link.

3. Select Configure Advanced Credit Card Rules.

4. Enter information in the applicable fields. For field value descriptions, see Table 4–7.

5. Click 🖫 to save your changes.

Figure 4–7   Advanced Credit Card Rules
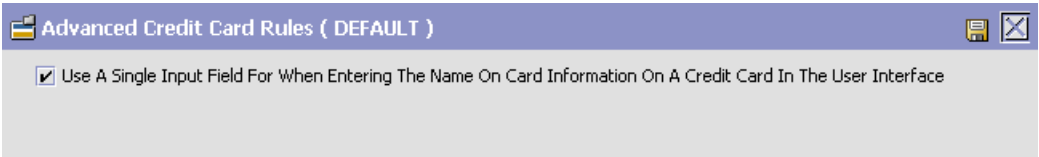
Table 4–7   Credit Card Rules

Field	Description
Use A Single Input Field For When Entering The Name On Card Information On A Credit Card In the User Interface.	Check this box to use a single field for displaying or entering card name.

4.10 Configuring Order Administration

Once an order is captured it needs to be modified at various points throughout its life-cycle. For example, the customers may decide to have their order shipped to their work address instead of their home address, or a payment method that was declined could be replaced with another method. Also, if an order encounters a processing error, a CSR Lead may need to give a credit to a customer in order to keep the customer satisfied.

Sterling Call Center and Store understands the typical modifications that are frequently made to the orders, and provides a task-based call center user interface to perform these modifications.

Sterling Call Center and Store also provides configurable rules to control how and when modifications can be performed.

The following tasks are available under Configure Order Administration:

4.10.1 Configuring Order Entry Rules

Sterling Call Center and Store provides an Order Entry Controller Wizard that enables you to configure the Order Entry user interface and the configuration choices for your order entry process.

To access the Order Entry Controller Wizard:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Under Configure Order Administration, select Configure Order Entry Rules. The Order Entry Rules screen displays the current configuration choices for order entry.

Figure 4–8   Order Entry Rules, Summary

3. To change the current or default order entry configuration, click Change Configuration. As you make decisions, the wizard displays information in two panels: the left panel displays the current decision choices you can make and the right panel displays a summary of all of the configuration choices you have made.

Figure 4–9   Order Entry Rules, Display First Screen

4. Select which screen you want to use to start the order entry task. To display the customer identification screen first during order entry, select the Show Customer Identification Step First option. To display the Item Entry screen first during order entry, select the Show Item Entry Step First option.

    You are then prompted to indicate the type of customer search screen to be displayed when identifying customers.

Figure 4–10   Order Entry Rules, Display Customer Search

5. Select the Display Advanced Customer Search Screen option to display the advanced customer search screen.

6. Select the Display Address Search Screen option to display the address search screen.

7. Select the Display Basic Customer Search Screen option to display the basic customer search screen.

   You are then prompted to indicate the type of customer search you want to perform when identifying customers.

Figure 4–11   Order Entry Rules, Enable Customer Type Search

By default, Sterling Call Center and Store searches for both consumer customers and business customers when performing a search using the existing addresses. On this screen you can indicate whether you want to include or exclude business customers from searches using the existing addresses.

Select the Enable Business Customer Search box, to enable search for business customers.

8. Select Consumer to search for consumer customers by default. Select Business to search for business customers by default.

Figure 4–12   Order Entry Rules, Display Item Entry

On this screen you can choose to display the large order entry screen. It is designed to handle large numbers of order lines.

9. Select the Always display large order entry screen option to always display the large order entry screen.

10. Select the Display large order entry screen when the number of order lines is option and enter the number of order lines after which the large order entry screen needs to be displayed. If the number of order lines exceeds the preconfigured number and if more order lines are added to the order, the large order entry screen is displayed.

11. Select Never display large order entry screen, to not display the large order entry screen.

You are then prompted to indicate the fulfillment methods that need to be displayed and also the default fulfillment method for items on the order.

Figure 4–13   Order Entry Rules, Delivery and Shipping Fulfillment Options

12. Select the Display Shipping and Delivery Fulfillment Options Separately box to display delivery and shipping as separate fulfillment options in the Sterling Call Center and Store screens.

Choose any one of the following options when entering items on an order:

- If you want to enable pickup as the default option, choose the 'Default Pickup' option.

- If you want to enable shipping as the default option, choose the 'Default Shipping' option.

- If you want to enable delivery as the default option, choose the 'Default Delivery' option. This option is enabled only if you check the Show Delivery as Separate Fulfillment Method box.

You are then prompted to choose the columns to be displayed in the line entry screens.

Figure 4–14   Order Entry Rules, Display of Columns

13. Check the boxes of the appropriate columns you want to display in the user interface for order line entries.

Figure 4–15   Order Entry Rules, Display Related Items

14. You can now configure to display the related items as a panel on the line entry screen or as a separate pop-up.

    - Select A Panel On The Line Entry Screen option to display the related items as a panel.

    - Select A Pop-up Window option to display the related items as a pop-up window.

    You are then prompted to configure the item association types that you want to display on the Order Entry screen.

15. To configure item associations rules and relationship types:

- Select the Show in UI box to display the product items for that association type in the related items panel or pop-up.

- Select the Check Inventory box to perform availability checks for the associated product item. If the inventory for the associated item is not available, the associated item will not be displayed in the related items panel or pop-up. If the check box is not selected, the associated item will be displayed in the panel or popup regardless of whether the inventory is available or not.

- Select the relationship type to be used when adding product items as related items.

  To configure relationship type for a service association, select the relationship type to be used when adding provided services as related services.

16. Click the Finish button to close the Order Entry Controller wizard and save your settings.

4.10.2 Defining Hold Types

An order can be put on hold for multiple reasons. In this configuration, a user can define various types of holds that can be associated to an order. For more information about defining hold types, see the *Sterling Distributed Order Management Configuration Guide*.

When a new hold type is defined, an exception type with the same name as the hold type should be created. This enables the Remove Hold screen in the Sterling Call Center and Store user interface to display links to the associated alerts that have been raised when an order goes on hold if there are any associated alerts for that event.

4.10.3 Configuring Price Match Rules

This configuration allows you to control the criteria that determines when a price match can be performed on an item in an order.

To configure price match rules:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Under Configure Order Administration, select Price Match Rules.

3. Enter information in the applicable fields. For field value descriptions, see Table 4–8.

4. Click 🖫 to save your changes.

Figure 4–17 Price Match Rules

Table 4–8 Price Match Rules Details

Field	Description
Maximum Number Of Days After The Order Line Was Created To Allow Price Match	Enter the maximum number of days after an order date to allow price matching of an item.
Maximum No Hassle Unit Price Difference	Enter the maximum unit price difference for an order to qualify for no hassle price matching.
Maximum No Hassle Unit Price Difference (%)	Enter the maximum unit price difference percentage for an order to qualify for no hassle price matching.
Maximum No Hassle Line Quantity	Enter the maximum item quantity for an order to qualify for no hassle price matching.
Default Number Of Days For Price Matches To Expire	Enter the default number days allowed to pass before a price match expires.
Price Match Percentage Applied	Enter the price match percentage applied to an order.

Table 4–8   Price Match Rules Details

Field	Description
Charge Category Representing Shipping Charges To Default On The Price Match Worksheet	Select the default charge category to be used in the price match work sheet from the drop-down list.
Price Match Recorded As	Select one of the following: Change in Order Line's Unit Price or Discount Charge on Order Line.
Charge Category	Select the charge category as Price Match from the drop-down list.
Charge Name	Select the charge name from the drop-down list.

4.10.4 Configuring Price Match Statuses

You can configure the list of statuses allowed for price match.

To configure price match status:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Under Configure Order Administration, select Advanced Configuration.

3. Select Configure Price Match Statuses.

4. Enter information in the applicable fields. For field value descriptions, see Table 4–11.

5. Click 💾 to save your changes.

Figure 4–18 Price Match Status Details

Table 4–9 Price Match Status

Field	Description
Price Match Status	Indicates the status for the price match.
Short Description	Enter a short description of the price match status.
Long Description	Enter a more detailed description of the price match status.

> **Note:** The statuses available for a price match record are APPROVED, REJECTED and PENDING. You cannot add a new status for a price match record.

4.10.5 Configuring Competitor Statuses

You can configure the list of statuses allowed for a competitor.

To configure competitor status:
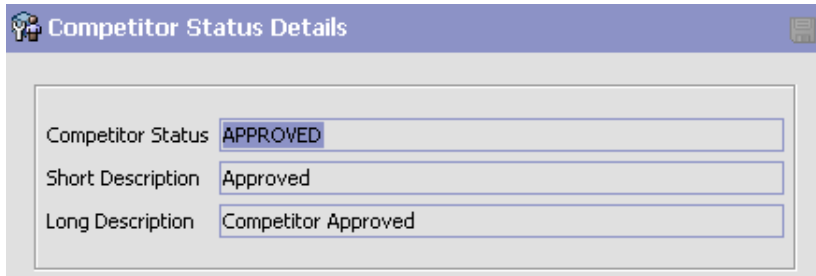
1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Under Configure Order Administration, select Advanced Configuration.

3. Select Configure Competitor Statuses.

4. Enter information in the applicable fields. For field value descriptions, see Table 4–11.

5. Click 🖫 to save your changes.

Figure 4−19   Competitor Status Details

Table 4−10   Competitor Status

Field	Description
Competitor Status	Indicates the status of the competitor.
Short Description	Enter a short description of the competitor status.
Long Description	Enter a more detailed description of the competitor status.

Note: The statuses available for a competitor record are APPROVED, REJECTED and PENDING. You cannot add a new status for a competitor record.

4.10.6 Configuring Order Modification Rules

You can configure the types of modifications allowed on an order or an order line when it is in a given status. For more information about defining modification rules, see the *Sterling Distributed Order Management Configuration Guide*.

4.10.7 Configuring Work Order Modification Rules

Work orders are created for performing delivery and installation services. For more information about defining modification rules, see the *Sterling Distributed Order Management Configuration Guide*.

4.10.8 Defining Appeasement Reasons

This configuration provides a list of reason codes that are available during the customer appeasement process.

To configure appeasement reasons:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Under Configure Order Administration, select Define Appeasement Reasons.

3. Enter information in the applicable fields. For field value descriptions, see Table 4–11.

4. Click 🖫 to save your changes.

Figure 4–20   Appeasement Reason Details
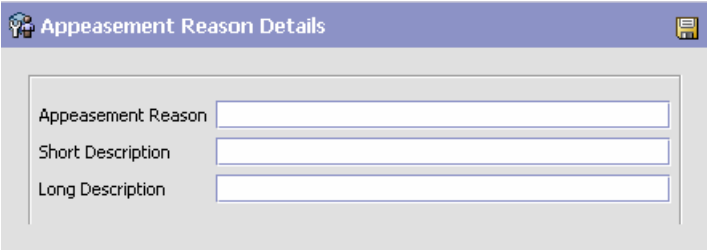
Table 4–11   Appeasement Reason Details

Field	Description
Appeasement Reason	Enter a name for the appeasement reason.
Short Description	Enter a short description of the appeasement reason.
Long Description	Enter a more detailed description of the appeasement reason.

4.10.9 Defining Cancellation Reasons

This configuration provides a list of reason codes that are available during the cancellation process.

To configure cancellation reasons:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Under Configure Order Administration, select Cancellation Reasons.

3. Enter information in the applicable fields. For field value descriptions, see Table 4–12.

4. Click 🖫 to save your changes.

Figure 4–21   Cancel Reason Details
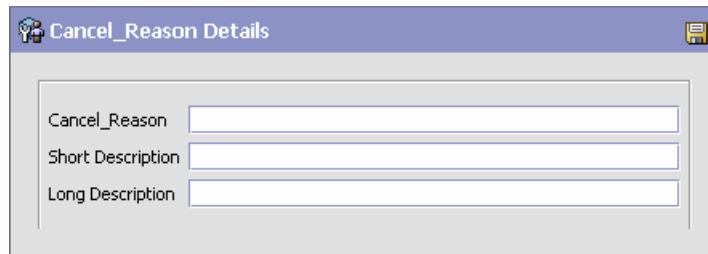
Table 4–12   Cancellation Reason Details

Field	Description
Cancellation Reason	Enter a name for the cancellation reason.
Short Description	Enter a short description of the cancellation reason.s
Long Description	Enter a more detailed description of the cancellation reason.

4.10.10 Defining Reship Reasons

This configuration provides a list of reason codes that are available during the reship process.

To configure reship reasons:
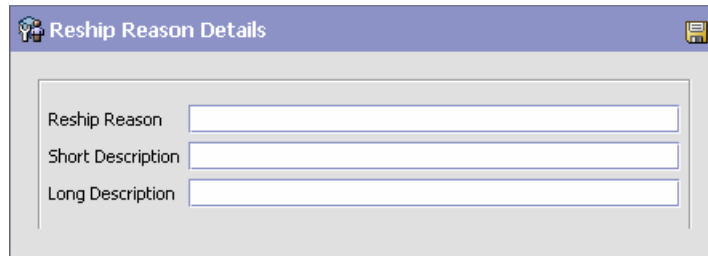
1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Under Configure Order Administration, select Reship Reasons.

3. Enter information in the applicable fields. For field value descriptions, see Table 4–13.

4. Click 🖫 to save your changes.

Figure 4–22   Reship Reason Details

Table 4–13   Reship Reason Details

Field	Description
Reship Reason	Enter a name for the reship reason.
Short Description	Enter a short description of the reship reason.
Long Description	Enter a more detailed description of the reship reason.

4.10.11 Defining Price Override Reasons

This configuration provides a list of reason codes that are available for price override.

To configure price override reasons:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Under Configure Order Administration, select Define Price Override Reasons.

3. Enter information in the applicable fields. For field value descriptions, see Table 4–14.

4. Click 🖫 to save your changes.

Figure 4–23   Price Override Reasons Details

Table 4–14   Price Override Reasons Details

Field	Description
Price Override Reasons	Enter a name for the price override reason.
Short Description	Enter a short description of the price override reason.
Long Description	Enter a more detailed description of the price override reason.

4.10.12 Defining Charge Override Reasons

This configuration provides a list of reason codes that are available for charge override.

To configure charge override reasons:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Under Configure Order Administration, select Define Charge Override Reasons.

3. Enter information in the applicable fields. For field value descriptions, see Table 4–15.

4. Click 🖫 to save your changes.

Figure 4–24   Charge Override Reasons Details

Table 4–15   Charge Override Reason Details

Field	Description
Charge Override Reasons	Enter a name for the charge override reason.
Short Description	Enter a short description of the charge override reason.
Long Description	Enter a more detailed description of the price override reason.

4.10.13 Configuring Open Box Options

The open box items are defect items that were returned by the customers. Such items are put on display and sold at a discounted price. You can define how an enterprise handles open box items.

To configure the handling options for open box items:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Select Configure Open Box Options.

3. Enter information in the applicable fields. For field value descriptions, see Table 4–16.

4. Click 🖫 to save your changes.

Figure 4–25   Configure Open Box Options

Table 4–16   Configure Open Box Handling Options

Fields	Description
Allow Addition of Open Box Items to Orders	Check this box if you want to allow users to add open box items to an order.
Tag Identifier for Open Box ID	Select the appropriate tag attribute from the drop-down list that identifies the open box items. **Note:** This option is available only if you check the 'Allow Addition of Open Box Items to Orders' box.
Product Class for Open Box Items	Select the appropriate product class from the drop-down list for the open box items.
Fulfillment Methods Supported for Open Box Items:	Check the boxes of the appropriate fulfillment method for open box items. • Pickup—indicates to pick up open box items at a store. • Shipping—indicates to ship open box items. • Delivery—indicates to deliver open box items.

4.10.14 Defining Order Note Types and Configuring Automatic Note Logging

Sterling Call Center and Store provides an Order Notes Wizard that enables you to define note types and configure automatic note logging.

To access this wizard:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Select Define Note Types and Configure Automatic Note Logging. The Order History Notes Wizard screen displays the current configuration choices for order notes.

Figure 4–26   Order History Notes, Summary
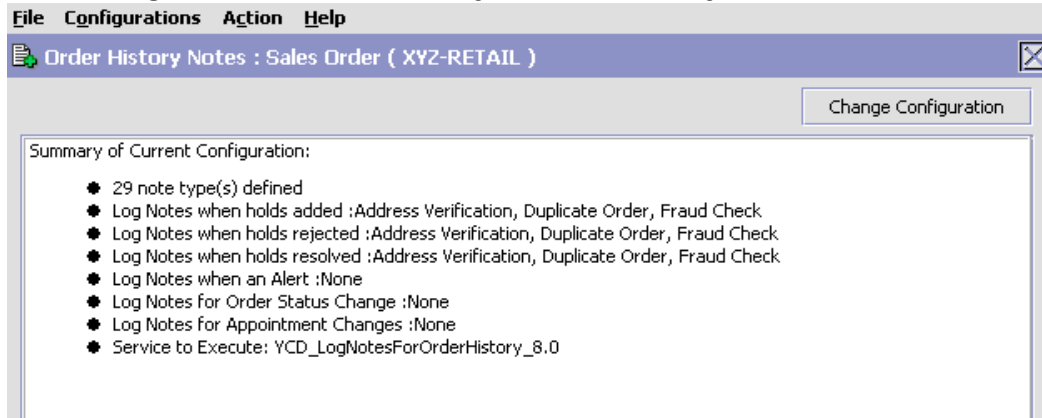
3. To change the current or default order entry configuration, click Change Configuration. As you make decisions, the wizard displays information in two panels: the left panel displays the current decision choices you can make and the right panel displays a summary of all of the configuration choices you have made.

Figure 4–27   Order History Notes, Note Reasons
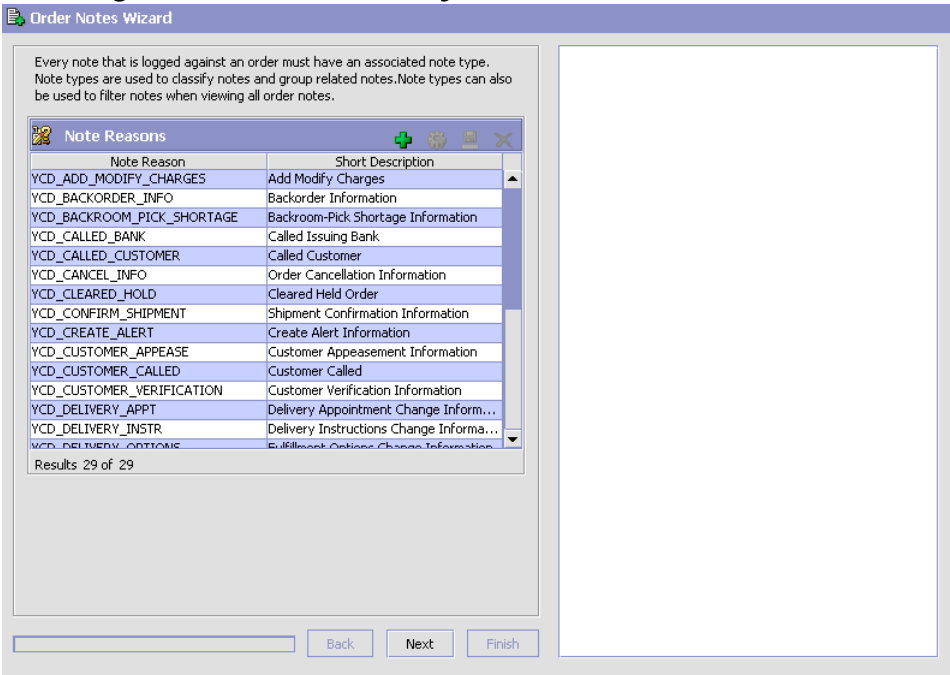
4. This screen displays all the note types that have been configured. To add a note type:

- Click ✚ to add a new note type.

- Enter information in the applicable fields. For field value descriptions, see Table 4–17.

- Click 💾 to save your changes.

Table 4–17   Note Types

Field	Description
Note Reason	Enter a name for the Note Reason.
Short Description	Enter a short description of the Note Reason.
Long Description	Enter a more detailed description of the Note Reason.

After configuring the note types, you are prompted to choose when you want notes to be automatically logged.

Figure 4–28   Order History Notes, Added Hold Types

5. Check the boxes of the hold types for which the note has to be automatically logged when the hold is added. Select the note type from the drop-down list. Enter the XSL translation file to be used.

Figure 4–29   Order History Notes, Resolved Hold Types

6. Check the boxes of the hold types for which the note has to be automatically logged when the hold is resolved. Select the note type from the drop-down list. Enter the XSL translation file to be used.

Figure 4–30   Order History Notes, Rejected Hold Types

7. Check the boxes of the hold types for which the note has to be automatically logged when the hold is rejected. Select the note type from the drop-down list. Enter the XSL translation file to be used.

Figure 4–31   Order History Notes, Alert Related Logging

8. On this screen you can enable notes to be automatically logged when an alert is raised against an order by checking the A new alert is raised against an order box. Select the note type from the drop-down list. Enter the XSL translation file to be used.

Figure 4–32   Order History Notes, Order Status Change

You can configure to log notes automatically when the status of an order is changed.

9. Check the Any order line quantity is backordered box to log notes automatically when the order status is changed to backorder. Select the note type from the drop-down list. Enter the XSL translation file to be used.

10. Check the Any order line quantity is shipped box to log notes automatically when the order status is changed to shipped. Select the note type from the drop-down list. Enter the XSL translation file to be used.

Figure 4–33   Order History Notes, Appointment Related Action

You can configure to log notes automatically when an appointment related action takes place.

11. Check the An appointment is completed box to log notes automatically when an appointment is completed. Select the note type from the drop-down list. Enter the XSL translation file to be used.

12. Check the An appointment is failed box to log notes automatically when an appointment fails. Select the note type from the drop-down list. Enter the XSL translation file to be used.

Figure 4–34   Order History Notes, Service To Execute
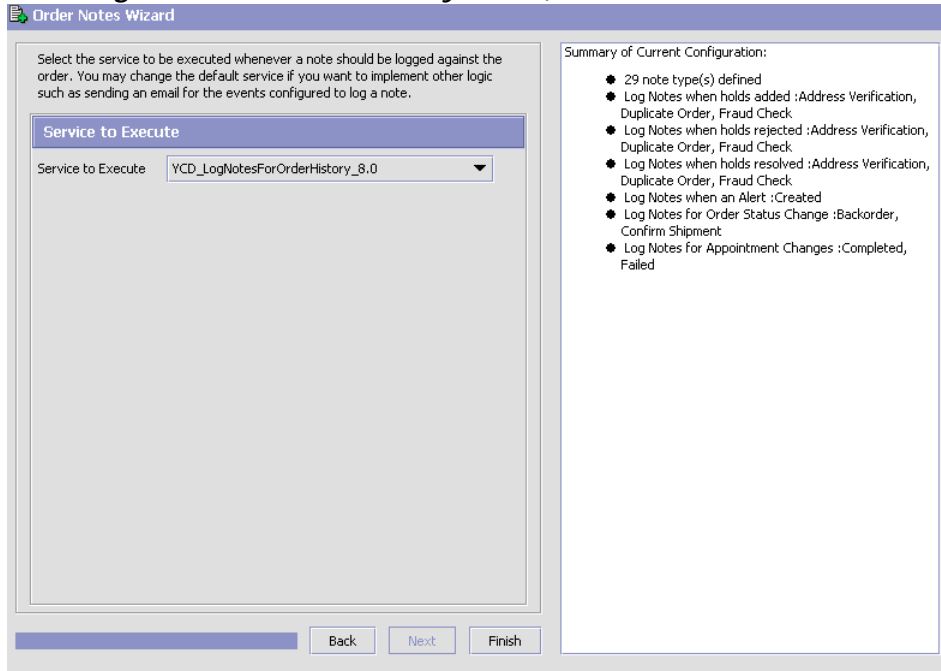
13. On this screen you can select a service that will be executed when a note is logged against an order. Choose the service to be executed from the drop-down list.

14. Click the Finish button to close the Order Notes Wizard and save your settings.

4.10.15 Defining Order Types and Line Types

As an advanced configuration, you can define order types and line types. Orders and order lines can be categorized into multiple types such as urgent, high priority, or normal.

For more information about defining order types, see the *Sterling Distributed Order Management Configuration Guide*.

For more information about defining lines, see the *Sterling Distributed Order Management Configuration Guide*.

4.10.16 Configuring Order Validations Required

You can control the levels of validation required for an order. For more information about configuring a document's order validation, see the *Sterling Distributed Order Management Configuration Guide*.

4.10.17 Configuring Alternate Item Identifier Display

As a part of advanced configuration, you can configure to use alternate item identifiers for the same item.

To configure alternate item identifier display:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Select Advanced Configurations.

3. Select Configure Alternate Item Identifier Display.

4. Enter information in the applicable fields. For field value descriptions, see Table 4–18.

5. Click 💾 to save your changes.

Figure 4–35   Configure Alternate Item Identifier

Table 4–18   Configure Alternate Item Identifier Display

Field	Description
Store Alternate Item IDs on Order Lines	Select this box if you want to store the alternate item identifiers on the Sterling Call Center and Store user interface.
	This will allow you to scan the alternate item identifier and enhance the system to store and display.
Item Alias to Use for Alternate Item ID	Select the appropriate item alias for the alternate item ID that identifies the original item from the drop down list. For more information about defining item alias types, see the *Sterling Product Management Configuration Guide*.
	You can select the item alias only if the 'Store Alternate Item IDs on Order Lines' in the Sterling Call Center and Store user interface rule is enabled.

4.10.18 Configuring Add Line Rules

This is an advanced configuration that allows you to control the number of days (post order creation) after which line additions are not allowed.

To add line rules:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Select the Advanced Configurations link.

3. Select Add Line Rules.

4. Enter information in the applicable fields. For field value descriptions, see Table 4–19.

5. Click 🖫 to save your changes.

Figure 4–36   Add Line Rules

Table 4–19   Add Line Rules

Field	Description
Maximum number of days after order date to allow adding an order line	Enter the maximum number of days after an order date to allow the adding of an order line.

4.10.19 Configuring Available Gift Options

This is an advanced configuration that enables you to configure the gift options provided in the Sterling Call Center and Store screens.

To configure the gift options:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Select the Advanced Configurations link.

3. Select Configure Available Gift Options.

4. Choose the available gift option rules that you want to configure. For field value descriptions, see Table 4–20.

5. Click 🖫 to save your changes.

Figure 4–37   Configure Available Gift Options

Table 4–20   Available Gift Options

Field	Description
Items Being Shipped	Check this box to indicate that the items that have a fulfillment method of "Shipment" can be gift items.
Items Being Picked Up	Check this box to indicate that the items that have a fulfillment method of "Pickup" can be gift items.
Items Being Delivered	Check this box to indicate that the items that have a fulfillment method of "Delivery" can be gift items.

Note: When configuring gift options, ensure that you configure the "Change Mark For" and "Gift Flag Modifications" modification types in the Sterling Multi-Channel Fulfillment Solution Configurator.

4.10.20 Configuring Address Verification Rules

This is an advanced configuration that allows you to control the system behavior when the address verification system is not available.

To configure address verification rules:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Select the Advanced Configurations link.

3. Select Address Verification Rules.

4. Check the Keep the order on hold when the address verification system is down box.

5. Click ![save icon] to save your changes.

Figure 4–38   Address Verification Rules

Address Verification Rules : Sales Order (DEFAULT)

☑ Keep order on hold when address verification system is down
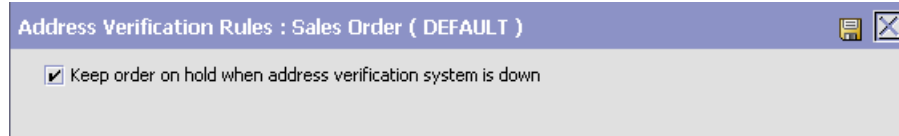
4.10.21 Configuring Country and State Display Rules

You can configure how the country and state entry fields display on certain screens in Sterling Call Center and Store.

Configuring the State Drop-Down Menu

In Sterling Call Center and Store, the country drop-down menu contains a list of all the countries. This drop-down menu can be hidden if your enterprise accommodates only one country.

If you want a drop-down menu of states to be displayed in Sterling Call Center and Store, create a region schema that adheres to the following standards:

- The first level of regions must be countries.

- The second level of regions must be states.

- The region level names must be "Country" and "State".

This new region schema can then be selected from the "Region Schema to Use for State Selection" in this configuration.

In Sterling Call Center and Store, when a country is selected from the Country drop-down menu the system finds the corresponding region within the configured region schema representing that country. All child regions with a region level of "State" are shown in the State drop-down menu. If no region level of "State" is found, the State drop-down menu changes to a text field to enable you to type in the name of the state manually.

To configure the country and state display:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.
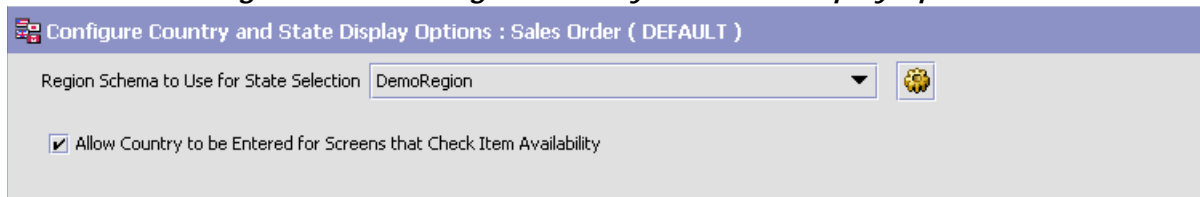
2. Select the Advanced Configurations link.

3. Select Configure Country and State Display Options.

4. Enter information in the applicable fields. For field value descriptions, see Table 4–21.

5. Click 🖫 to save your changes.

Figure 4–39   Configure Country and State Display Options

Table 4–21   Configure Country and State Display Options

Field	Description
Region Schema to Use for State Selection	Select a region schema to use for the State drop-down menu.
Allow Country to be Entered for Screens that Check Item Availability	Check this box to allow the Country drop-down menu to display on screens that check for item availability. **Note**: The Country drop-down menu always displays in the Address Panel.

4.10.22 Defining Instruction Types

As an advanced configuration, you can define a master list of instruction types. For more information about configuring a document's instruction types, see the *Sterling Distributed Order Management Configuration Guide*.

4.10.23 Defining Custom Modification Types

As an advanced configuration, the system categorizes all order modifications into modification type. All rules for controlling modifications are associated to these modification types. For more information about defining custom modification types, see the *Sterling Distributed Order Management Configuration Guide*.

4.10.24 Configuring which Modifications Trigger Re-pricing

As an advanced configuration, you can identify modification types that must trigger order re-pricing. For more information about defining modifications impacting pricing, see the *Sterling Distributed Order Management Configuration Guide*.

4.10.25 Defining Charge Categories and Names

As an advanced configuration, you can define various charge categories and names that are associated to an order. For more information about defining charge definitions, see the *Sterling Distributed Order Management Configuration Guide*.

As part of the Sterling Multi-Channel Selling Solution integration, to use the Order Pricing rules, you must configure the OSDISCOUNT and UPLIFT charge categories.

> **Note:** For the Sterling Multi-Channel Selling Solution integration, it is recommended that the Charge Name validation be disabled. Otherwise, all the Coupon Names created in the application will need a corresponding Charge Name in Sterling Call Center and Store.

4.10.26 Configuring Transaction Specific Rules

As an advanced configuration, you can configure transaction specific rules. This is a miscellaneous set of rules that are associated to specific business transaction. For more information about defining transaction rules, see the *Sterling Distributed Order Management Configuration Guide*.

4.10.27 Configuring Availability Check and Reservation Options

You can specify when availability checks and item reservations occur.

To configure the availability check and reservation options:

1. From the Sterling Call Center and Store Configurator, select Order Administration.
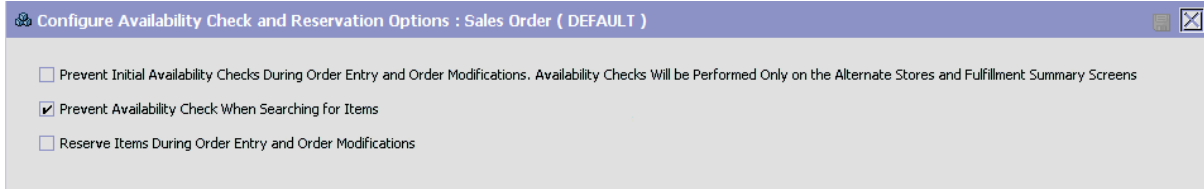
2. Select Advanced Configurations.

3. Select Configure Availability Check and Reservation Options.

4. Check the appropriate box to configure the availability check and reservation options. For field value descriptions, see Table 4–22.

5. Click 🖫 to save your changes.

Figure 4–40   Configure Availability Check and Reservation Options

Table 4–22   Availability Check and Reservation Options

Field	Description
Prevent Initial Availability Checks During Order Entry and Order Modifications. Availability Checks Will Be Performed Only on the Alternate Stores and Fulfillment Summary Screens	Check this box to perform an availability check in the Alternate Stores and Fulfillment Summary screens.
Prevent Availability Check When Searching for Items	Check this box to prevent an availability check when searching for an item.
Reserve Items During Order Entry and Order Modifications	Check this box to reserve items when entering or modifying an order.

> **Note:** The Inventory Check Required Rule is independent of the Prevent Initial Availability Checks During Order Entry Configuration. For more information about the Inventory Check Required Rule, see Section 4.10.1, "Configuring Order Entry Rules".

4.10.28 Defining Unit of Measure Display Rules

This is an advanced configuration that enables you to define which units of measure should be displayed in the Sterling Call Center and Store screens. Based on this configuration, either the transaction UOM or the inventory UOM is displayed.

To define the unit of measure display values:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Select the Advanced Configurations link.

3. Select Define Sterling Call Center and Store Unit Of Measure Display Rules.

4. Choose the applicable Unit Of Measure display rules. For field value descriptions, see Table 4–23.

5. Click 🖫 to save your changes.

Figure 4–41   Unit of Measure Display Rules
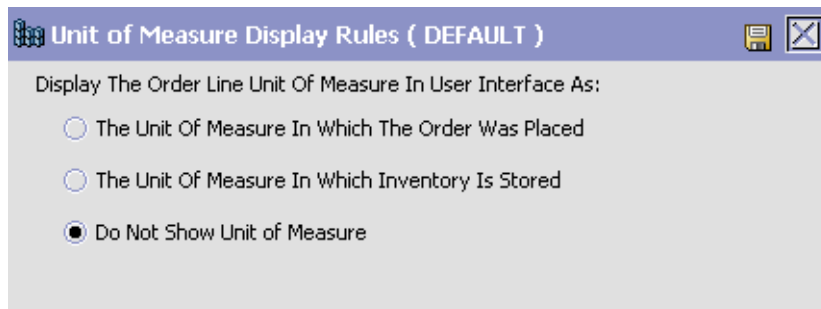
Table 4–23   Unit of Measure Display Rules

Field	Description
The Unit Of Measure In Which The Order Was Placed	Choose this option to display the order line UOM in the Sterling Call Center and Store user interface as it is specified on the order.
The Unit Of Measure In Which Inventory Is Stored	Choose this option to display the order line UOM in the Sterling Call Center and Store user interface as it is maintained for the item in inventory.
Do Not Show Unit of Measure	Choose this option to not display the UOM of an order line in Sterling Call Center and Store.

4.10.29 Configuring Print Options

You can specify when an order invoice is printed.

To configure order invoice print options:

1. From the Sterling Call Center and Store Configurator, select Order Administration.

2. Select Advanced Configurations.

3. Select Configure Print Options.

4. Select the appropriate radio button to configure when an order is printed. For field value descriptions, see Table 4–24.

5. Click 🖫 to save your changes.

Figure 4–42   Configure Print Options
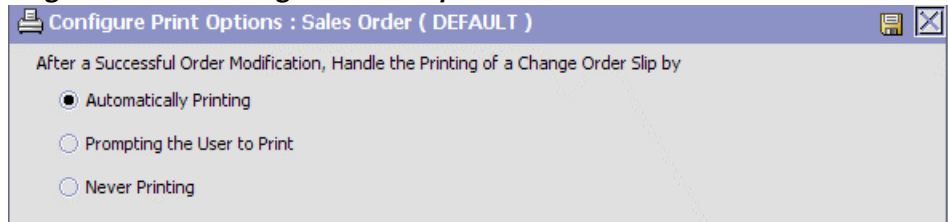
Table 4–24   Configure Print Options

Field	Description
Automatically Printing	Choose this option to automatically print a change order slip after each order.
Prompting the User to Print	Choose this option to prompt the user to print a change order slip after every order modification.
Never Printing	Choose this option to never prompt the user and never automatically print a change order slip.

4.10.30 Configuring User Interface Payment Handling

You can specify whether external payments are external to the call center, store, or external to both.

To configure external payment options:

1. From the Sterling Call Center and Store Configurator, select Order Administration.

2. Select Advanced Configurations.

3. Select Configure User Interface Payment Handling.

4. Check the appropriate box to specify if payment is handled externally to the call center or the store user interface. For field value descriptions, see Table 4–25.

5. Click 🖫 to save your changes.

Figure 4–43   Configure Payment Options
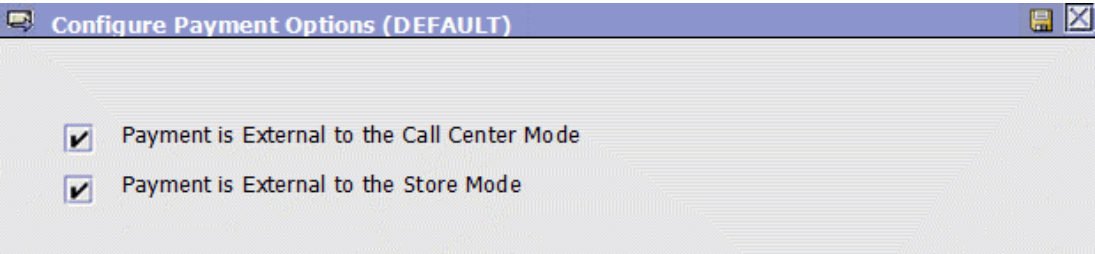
Table 4–25   Payment Handling Options

Field	Description
Payment is External to the Call Center	Select this box to specify that Sterling Call Center and Store handles payments externally to the Call Center. When this option is selected, Sterling Call Center and Store does not prompt the user to enter payment information when creating or modifying an order at the call center. It is assumed that the payment is handled in the store or by an external system such as a point-of-sale system. **Note:** If you check this box, ensure to check the "Payment is External to the Store" box.
Payment is External to the Store	Select this box to specify that Sterling Call Center and Store handles payments externally to the Store. When this option is selected, Sterling Call Center and Store does not prompt the user to enter payment information when creating or modifying an order in the store. It is assumed that the payment is handled at the call center or by an external system such as a point-of-sale system.

> **Note:** If payment is handled externally, ensure to remove permissions for the Add Payment, View Payment Details, and Change Payment Method tasks.

4.10.31 Configuring Special Order Modification Rules

You can configure to allow cancellation or modification of fulfillment options for delivery and pickup order lines that are beyond the released status.

To configure the modification rules for delivery and pickup lines that are released:

1. From the Sterling Call Center and Store Configurator, select Order Administration.

2. Under Order Administration, select Advanced Configurations.

3. Select Configure Special Order Modification Rules.

4. Check the appropriate box to allow modification or cancellation. For more field value descriptions, see Table 4–26.

5. Click 🖫 to save your changes.

Figure 4–44   Configure Special Order Modification Rules

Table 4–26   Configure Special Order Modification Rules

Field	Description
Order Lines Being Picked Up	
Allow Modification of Fulfillment Options For Pickup Lines after Release	Check this box to enable the modification of fulfillment options for pickup lines after they are released.
Allow Cancellation of Pickup Lines after Release	Check this box to enable the cancellation of pickup lines after they are released.
Order Lines Being Delivered	
Allow Modification of Fulfillment Options for Delivery Lines after Release	Check this box to allow modification of fulfillment options for delivery lines that are released.
Allow Cancellation of Delivery Lines after Release	Check this box to allow cancellation of delivery lines that are released.

4.10.32 Configuring Information Recorded During Level of Service Selection

You can configure to enable users to record committed dates when the user selects the level of service.

To enable users to record committed dates:

1. From the Sterling Call Center and Store Configurator, select Order Administration.

2. Select Advanced Configurations.

3. Select Configure Information Recorded During Level of Service Selection. For field value descriptions, see Table 4–27.

4. Click 🖫 to save your changes.

Figure 4–45   Configure Information Recorded During Level of Service Selection
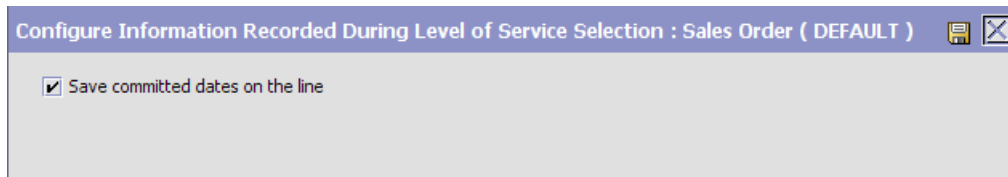
Table 4–27   Configure Information Recorded During Level of Service Selection

Field	Description
Save committed dates on the line	Check this box to use the committed date for the order.

4.10.33 Configuring Line Relationship Types

As an advanced configuration, you can define the line relationship types for an item. In the Sterling Multi-Channel Fulfillment Solution, ensure that you select the Consider For Sorting box available in the Line Relationship Type Details window. For more information about defining a line relationship type, see the *Sterling Distributed Order Management Configuration Guide*.

4.10.34 Configuring FTC Compliance

You can tailor the FTC Compliance feature to meet the demands of your customized business processes.

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

    2. Under Order Administration, select Advanced Configuration.

    3. Select Configure FTC Compliance Settings.

    4. Enter information in the applicable fields. For field value descriptions, see Table 4–28.

    5. Click 🖫 to save your changes.

Figure 4–46   FTC Compliance

Table 4–28   Configure FTC Compliance Settings

Field	Description
Default First Promise Date (days)	Enter the number of days after the order date that the first promise date will be set to, if no promise date has been given to the customer. This value must be a positive integer that is less than 30.
Default Cancel Date (days)	Enter the number of days after first promise date to set the cancel date to, when a delay is found. This delay can be more than 30 days or an indefinite delay. The cancel date is the date when the order will be automatically cancelled if the customer does not respond. This value must be a positive integer that is less than 5.

Table 4–28   Configure FTC Compliance Settings

Field	Description
Process Buffer Time (hours)	Enter the number of hours by which to extend the promise date in order to consider process constraints, such as small carrier or warehouse processing delays that cannot be taken into account in advance. If a shipment is delayed within this configured value of hours, no notification will be sent. If, at any time, the delay becomes greater than this configured value, a notification will be sent. This value must be less than 72 hours.
Cancel Reason Code	Enter the cancellation reason code that will be used when a line is cancelled in order to comply with FTC regulations.

4.10.35 Configuring External User Interface Rules

You can configure the default URL that should be used within the Sterling Call Center and Store user interface.

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Under Order Administration, select Advanced Configuration.

3. Select Configure External User Interface URL.

4. Enter the external user interface URL that should be used.

5. Click 💾 to save your changes.

Figure 4–47   External User Interface Rules
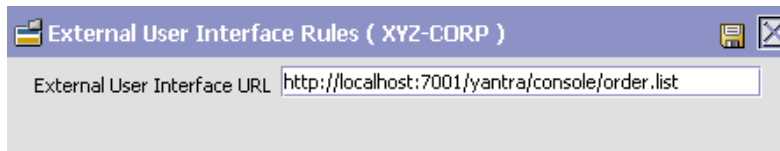
4.10.36 Configuring Bundle Components Display

You can configure if the bundle components need to be displayed on the Order Summary, Return Summary and Shipment Summary screens.

To configure the display of bundle components:

1. From the Sterling Call Center and Store Configurator, select Configure Order Administration.

2. Select the Advanced Configurations link.

3. Select Configure Bundle Components Display.

4. Enter information in the applicable fields. For field value descriptions, see Table 4–29.

5. Click 🖫 to save your changes.

Figure 4–48   Bundle Component Display
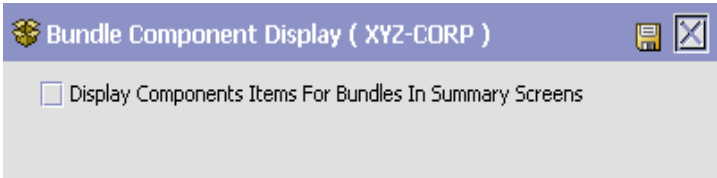
Table 4–29   Bundle Components Display

Field	Description
Display Component Items For Bundles In Summary Screens	Check this box to display bundle components on the Order Summary, Return Summary and Shipment Summary screens.
	By default, this option is unchecked for all enterprises.

4.11 Configuring Store Pickup Administration

This configuration enables you to indicate if your enterprise allows store pickup.

4.11.1 Configuring Store Pickup Rules

This configuration enables you to select the default settings when searching for alternate stores to fulfill an order.

To configure store pickup rules:

1. From the Sterling Call Center and Store Configurator, select Configure Store Pickup Administration.

2. Select Configure Store Pickup Rules.

3. Select the appropriate options for the store pickup rules. For field value descriptions, see Table 4–30.

4. Click 🖫 to save your changes.

Figure 4–49   Store Pickup Rules

Table 4–30   Store Pickup Rules

Field	Description
Allow Pickup	Select this box to allow users to see store pickup options in Sterling Call Center and Store.
Distance Radius to Consider When Finding Nearby Stores	Enter a number to determine the radius to consider when finding nearby stores.
Distance Radius to Consider When Finding More Stores	Enter a number to determine the radius to consider when finding more stores.
Distance UOM	Select from the drop-down list the unit of measurement to use when defining the distance radius.

Table 4−30   Store Pickup Rules

Field	Description
Standard Search Fulfillment Type	Select the standard search fulfillment type from the drop-down list. When this option is selected, Sterling Call Center and Store will use this fulfillment type when searching for item availability in the Alternate Stores Search screen. This fulfillment type is used in a sourcing rule that determines the correct set of nodes to consider. For example, you may specify a fulfillment type that corresponds to a sourcing rule representing all nodes of the type 'store'. This ensures that all store nodes are considered when searching for alternate stores.
Extended Search Fulfillment Type	Select the extended search fulfillment type from the drop-down list. When this option is selected, Sterling Call Center and Store will use this fulfillment type when performing an extended stores search in the Alternate Store Search screen. This fulfillment type is used in a sourcing rule that determines the correct set of nodes to consider for an extended store search. For example, you may specify a fulfillment type that corresponds to a sourcing rule representing all nodes of type 'store', including distribution centers that allow customer pickup.

4.11.2 Configuring Verification Criteria

This configuration enables you to specify the customer verification criteria in the Customer Pick task.

To configure verification criteria:

1. From the Sterling Call Center and Store Configurator, select Configure Store Pickup Administration.

2. Select Advanced Configurations.

3. Select Configure Verification Criteria.

4. Enter information in the applicable fields. For field value descriptions, see Table 4−30.

5. Click 🖫 to save your changes.

Figure 4−50   Customer Verification Type Details

Table 4−31   Store Pickup Rules

Field	Description
Customer Verification Type	Indicates the customer verification type.
Short Description	Enter a short description of the customer verification type.
	This literal will be displayed on the custoemr pick and backroom pick screens. If you want mnemonics to appear for these literals when displayed on the screen, prefix the character which should appear as a mnemonic with the "&".
Long Description	Enter a more detailed description of the customer verification type.

4.12 Configuring Outbound Logistics

Sterling Call Center and Store Logistics Management provides the capabilities for managing and executing inbound and outbound delivery processes. It accepts, stores and then manages the execution of a delivery plan accounting for complex, multi-step, multi-leg, and multi-mode movement of goods, including practices such as merge-in-transit, continuous movement, lane optimization and cross-docking. It coordinates all activities among all parties in the delivery chain, and pro-actively monitors events and notifies participants when deviations have occurred. Shipment and delivery records are tied to the original sales or purchase orders for management of dependencies among orders and shipments. It provides post-delivery reconciliation of

performance, comparing actual vs. promised, SLA metric analysis, participant performance, and so forth.

4.12.1 Defining Carriers

You can define carriers that control logistics for your business. To define a carrier, you have to choose Carrier as the role for an organization and configure the carrier attributes.

For more information about assigning the organization's roles and participant associations, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

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

4.12.2 Defining Carrier Services

You can set up codes to identify different carrier services a carrier uses to ship orders. For more information about configuring cross application carrier services, see the *Sterling Logistics Management Configuration Guide*.

4.12.3 Defining Types of Routing Guide Classifications

You can configure product-level control parameters for setting up routing rules. You can choose which product classifications to use for the purpose of routing guides. For more information about defining classification definitions, see the *Sterling Product Management Configuration Guide*.

4.12.4 Configuring Outbound Constraints

You can configure outbound constraints that describe conditions that control how shipping is done. These include whether certain items can be shipped together, whether to use Economic Shipping Parameters, and how routing is performed. For more information about defining outbound constraints, see the *Sterling Distributed Order Management Configuration Guide*.

4.12.5 Defining Shipment Modes

You can define shipment modes to indicate how an order is being shipped. For more information about defining shipment modes, see the *Sterling Distributed Order Management Configuration Guide*.

4.12.6 Configuring Outbound Shipment Modification Rules

You can configure the types of modifications allowed on a shipment or shipment line when it is in a given status. For more information about configuring outbound shipment modification rules, see the *Sterling Logistics Management Configuration Guide*.

4.13 Configuring Business Process Models and Monitoring Rules

The life-cycle of an order is long and complex. It starts with accurately capturing the customer's order into a system and then accurately fulfilling the order through delivery. After the customer receives their shipment, the order may need to be returned and the merchandise inspected to determine whether or not it can be repaired and placed back into inventory.

Orders go through a wide range of statuses throughout their fulfillment cycles. Orders are processed by transactions that perform modifications to the orders and their related entities such as shipments, invoices, and returns. These transactions also determine how an order moves from one status to the next. Additionally, an order in a particular status can go through a condition to determine which transaction should process it next.

An order's flow throughout its fulfillment cycle is represented graphically by a pipeline. The pipeline determines the statuses that an order can be in, which transactions process it, and which conditions it must go through in order to be fulfilled.

4.13.1 Configuring Order Fulfillment Process

You can configure transactions, statuses, pipelines, and services associated with the order fulfillment process. For more information about defining process type pipelines, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.13.2 Configuring Shipping Process

You can configure transactions, statuses, pipelines, and services associated with the shipping process for an order. For more information about configuring an order document's shipment-specific components, see the *Sterling Distributed Order Management Configuration Guide*.

4.13.3 Configuring Delivery and Installation Process

You can configure transactions, statuses, pipelines, and services associated with the delivery and installation process for an order. For more information about defining a value-added services process model, see the *Sterling Distributed Order Management Configuration Guide*.

4.13.4 Configuring Return Fulfillment Process

You can configure transactions, statuses, pipelines, and services associated with the return fulfillment process. For more information about defining process type details, see the *Sterling Reverse Logistics Configuration Guide*.

4.13.5 Configuring Receipt Process

You can configure transactions, statuses, pipelines, and services associated with the receipt process. For more information about defining process type details, see the *Sterling Reverse Logistics Configuration Guide*.

4.13.6 Defining Order Milestones

You can define milestones for the fulfillment process of a sales order. For more information about defining milestones, see the *Sterling Distributed Order Management Configuration Guide*.

4.13.7 Defining Order Monitoring Events

You can define your own monitoring events for the fulfillment process of a sales order. You can also control which event to raise when an alert is detected by the order monitor. For more information about defining monitoring events, see the *Sterling Distributed Order Management Configuration Guide*.

4.13.8 Defining Milestones for Returns

You can define milestones for the fulfillment process of a return order. For more information about defining milestones, see the *Sterling Reverse Logistics Configuration Guide*.

4.13.9 Defining Monitoring Events for Returns

You can define monitoring events for the fulfillment process of a return order. You can also control which event to raise when an alert is detected by the return order monitor. For more information about defining monitoring events, see the *Sterling Reverse Logistics Configuration Guide*.

4.13.10 Configuring Transactions and Events for Inventory, Item, and UI

As an advanced configuration, you can configure transactions, events, and services associated to miscellaneous processes in Sterling Call Center and Store, including inventory, item, and UI related processes. For more information about defining transactions, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.14 Configuring Inventory Synchronization

When promising orders to customers, it can be challenging to offer them an exact inventory picture across all nodes. The inventory that is used to promise orders is not necessarily on-hand. It could be in transit or a purchase order could have just been placed and the retailer may feel comfortable with using a certain percentage of that future supply to fulfill the future demand.

4.14.1 Configuring Inventory Related Rules

You can configure rules associated with inventory availability, monitoring, and costing. For more information about configuring inventory rules, see the *Sterling Global Inventory Visibility Configuration Guide*.

4.14.2 Configuring Supply and Demand Types

As an advanced configuration, you can define various supply and demand types. For more information about defining supply types, demand types, and considerations, see the *Sterling Global Inventory Visibility Configuration Guide*.

4.14.3 Configuring Availability Safety Factors

As an advanced configuration, you can specify safety factors to apply to each supply type when using them for answering availability questions. For more information about the inventory availability safety factor, see the *Sterling Global Inventory Visibility Configuration Guide*.

4.14.4 Configuring how Supply and Demand are Changed with Order Status

As an advanced configuration, you can control the movement of quantity in different supply and demand types as an order progresses through its life-cycle. The status inventory types are used to associate statuses with specific supply and demand types according to the organization. For more information about defining status inventory types, see the *Sterling Distributed Order Management Configuration Guide*.

4.14.5 Configuring Inventory Node Type Rules

As an advanced configuration, you can configure inventory node type rules. These rules allow for the configuration of inventory level node type rules to determine whether to apply on-hand and future safety factors to inventory. For more information about configuring inventory node type rules, see the *Sterling Global Inventory Visibility Configuration Guide*.

4.15 Configuring Pricing

This configuration allows you to define price lists. If you use an external pricing engine, you can skip this configuration entirely.

4.15.1 Defining Price Lists

You can specify the prices of your items. Pricing can be defined based on quantity ordered and/or region. For more information about price lists, see the *Sterling Distributed Order Management Configuration Guide*.

4.15.2 Defining Price Programs

Price programs are sets of price lists with effective start and end dates. An order is associated to a price program and when the system is pricing an order, it looks through the price lists associated to the order's price program and calculates the appropriate price. For more information about price programs, see the *Sterling Distributed Order Management Configuration Guide*.

4.15.3 Selecting Region Schema for Pricing Definition

As an advanced configuration, you can select the region schema for pricing. Sterling Call Center and Store supports pricing based on geography. For more information about defining pricing by region, see the *Sterling Distributed Order Management Configuration Guide*.

4.16 Configuring Returns Administration

Sterling Call Center and Store Reverse Logistics delivers condition-based returns processing, including execution and management of associated processes, such as exchange orders, refurbishment and repair requests, and return disposition. With chained order capability, Reverse Logistics can link multiple returns or repair requests to original sales orders, providing repair life-cycle tracking. It manages reverse inventory tracking back to the appropriate node based upon appropriate business rules. It handles return receipts, disposition, and initiates the crediting process.

4.16.1 Configuring Return Order Modification Rules

You can configure the modification rules for a return order to allow users to perform modifications on a return order that is in a particular status. For more information about defining modification rules, see the *Sterling Reverse Logistics Configuration Guide*.

4.16.2 Defining Return Reasons

This configuration provides a list of reason codes that are available during the return process.

To configure return reasons:

1. From the Sterling Call Center and Store Configurator, select Configure Return Administration.

2. Under Configure Return Administration, select Define Return Reasons.

3. Enter information in the applicable fields. For field value descriptions, see Table 4–32.

4. Click 🖫 to save your changes.

Figure 4–51   Return Reasons Details
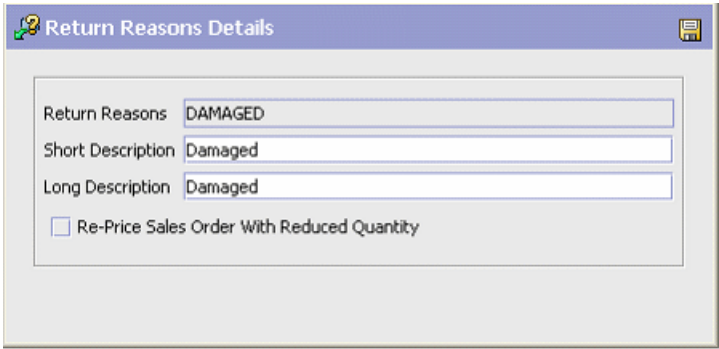
Table 4–32   Return Reason Details

Field	Description
Return Reasons	Enter a name for the return reason.
Short Description	Enter a short description of the return reason.
Long Description	Enter a more detailed description of the return reason.
RE-price Sales Order	Check this to reprice the sales order with the reduced qty.

4.16.3 Defining Charge Override Reasons

This configuration allows the users to define charge override reasons.

To configure charge override reasons:

1. From the Sterling Call Center and Store Configurator, select Configure Return Administration.

2. Under Configure Return Administration, select Define Charge Override Reasons. For field value descriptions, see Table 4–33.

3. Enter information in the applicable fields.

4. Click 🖫 to save your changes.

Figure 4–52   Charge Override Reasons Details

Table 4–33   Charge Override Reasons Details

Field	Description
Charge Override Reasons	Enter the name of the charge override reasons.
Short Description	Enter a short description of the charge override reason.
Long Description	Enter a more detailed description of the charge override reason.

4.16.4 Defining Receiving Disposition Codes

This configuration provides a list of receiving disposition codes that are available during the return process.

To configure receiving disposition codes:

1. From the Sterling Call Center and Store Configurator, select Configure Return Administration.

2. Under Configure Return Administration, select Define Return Reasons.

3. Enter information in the applicable fields. For field value descriptions, see Table 4–34.

4. Click 📥 to save your changes.

Figure 4–53   Disposition Details
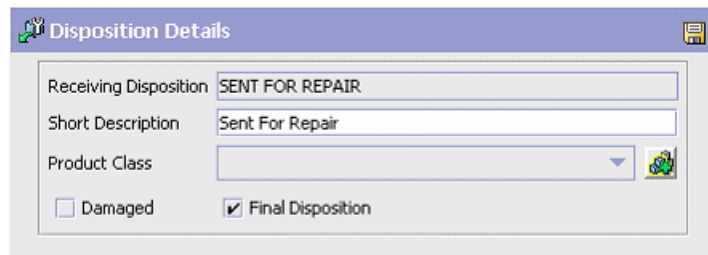
Table 4–34   Disposition Details

Field	Description
Receiving Disposition	Enter a name for the receiving disposition.
Short Description	Enter a short description of the receiving disposition.
Product Class	Select a product class for the receiving disposition.
Damaged	Check this box to indicate that the disposition is for damaged items.
Final Disposition	Check this box to indicate that the disposition is a final disposition.

4.16.5 Configuring Rules for Wrongly Shipped Items

This configuration enables you to define reship reasons for wrongly shipped items and whether a customer can return unknown items that were wrongly shipped.

To configure rules for wrongly shipped items:

1. From the Sterling Call Center and Store Configurator, select Configure Return Administration.

2. Under Configure Return Administration, select Configure Rules for Wrongly Shipped Items.

3. Enter Information in the applicable fields. For field value descriptions, see Table 4–35.

4. Click 🖫 to save your changes.

Figure 4–54   Rules for Wrongly Shipped Items
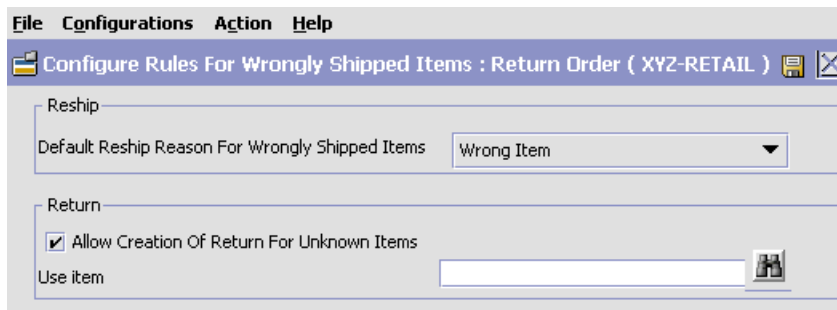
Table 4–35   Wrongly Shipped Items Details

Field	Description
Drop-down list for Default Reship Reason for Wrongly Shipped Items	Select among the reship reasons displayed in the drop-down list. See Section 4.10.10, "Defining Reship Reasons" for more information.
Check box for Allow Creation of Return for Unknown Items	Select this check box to enable a CSR to return unknown items.
Use Item field	Enter the temporary item ID that will be used to identify unknown items until these items can be identified during receiving.

4.16.6 Configuring Return Entry Rules

This configuration provides a list of return entry rules that are available during the return process.
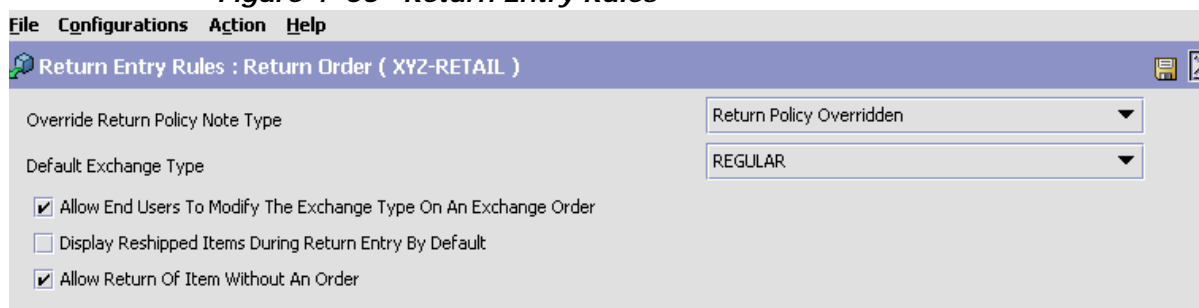
To configure return entry rules:

1. From the Sterling Call Center and Store Configurator, select Configure Return Administration.

2. Under Configure Return Administration, select Configure Return Entry Rules.

3. Select the applicable fields or check boxes. For descriptions, see Table 4–36.

4. Click 🖫 to save your changes.

Figure 4–55   Return Entry Rules

<u>F</u>ile <u>C</u>onfigurations <u>A</u>ction <u>H</u>elp

🗇 **Return Entry Rules : Return Order (XYZ-RETAIL)**   🖫 ⊠

Override Return Policy Note Type | Return Policy Overridden   ▼ |

Default Exchange Type | REGULAR   ▼ |

☑ Allow End Users To Modify The Exchange Type On An Exchange Order

☐ Display Reshipped Items During Return Entry By Default

☑ Allow Return Of Item Without An Order

Table 4–36   Return Entry Rules Details

Field/Check Box	Description
Override Return Policy Note Type	The note type used when overriding the return policy. The default is Return Policy Overidden, which, when enabled, allows users to override the return policy. For more information about configuring return note reasons, see Section 4.16.7, "Defining Return Note Reasons".
Default Exchange Type	This specifies what your enterprise defaults to as the exchange type: REGULAR, ADVANCED, or PREPAID. The default exchange type for the enterprise is REGULAR.
Allow End Users to Modify the Exchange Type on an Exchange Order	Enables users to access and change the Exchange Type.

Table 4–36   Return Entry Rules Details

Field/Check Box	Description
Display Reshipped Items During Return Entry by Default	When this check box is selected, reshipped lines are displayed when the screen loads.
Allow Return of Items without an Order	Enables customers to return items without an order. When this check box is selected, the Items without an order tab is displayed on the line selection screen.

4.16.7 Defining Return Note Reasons

This configuration provides a list of note reasons that are available during the return process.

To define return notes reasons:
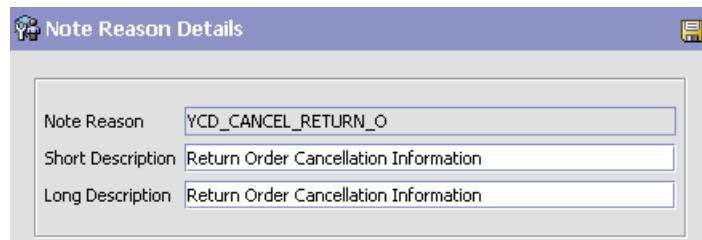
1. From the Sterling Call Center and Store Configurator, select Configure Return Administration.

2. Under Configure Return Administration, select Define Return Note Reasons.

3. Enter information in the applicable fields. For field value descriptions, see Table 4–37.

4. Click 🖫 to save your changes.

Figure 4—56   Note Reason Details

Table 4—37   Return Note Reasons

Field	Description
Note Reason	Enter a name for the note reason.
Short Description	Enter a short description of the note reason
Long Description	Enter a more detailed description of the note reason.

4.16.8 Defining Return Cancellation Reasons

This configuration provides a list of cancellation reasons that are available during the return process.

To configure return cancellation reasons:
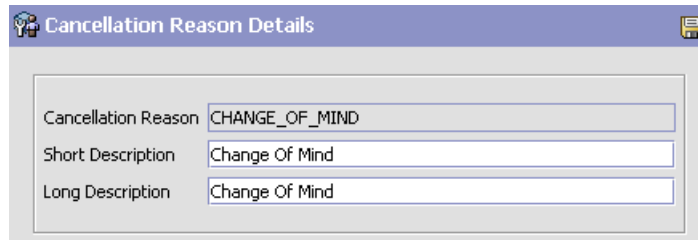
1. From the Sterling Call Center and Store Configurator, select Configure Return Administration.

2. Under Configure Return Administration, select Define Return Cancellation Reasons.

3. Enter information in the applicable fields. For field value descriptions, see Table 4—38.

4. Click 🖫 to save your changes.

Figure 4–57   Cancellation Reason Details

Table 4–38   Return Cancellation Reasons

Field	Description
Cancellation Reason	Enter a name for the cancellation reason.
Short Description	Enter a short description of the cancellation reason
Long Description	Enter a more detailed description of the cancellation reason.

4.16.9 Defining Return Types and Return Line Types

As an advanced configuration, you can define return types and return line types. Return orders and lines can be categorized into multiple types such as exchange and credit. This configuration allows you to define a valid list of return types, line types, and other codes that help in this categorization. For more information about configuring a document's attributes, see the *Sterling Distributed Order Management Configuration Guide*.

4.16.10 Configuring Return Receipt Handling

As an advanced configuration, you can define rules to determine how return receipts must be handled. For more information about defining receipt preferences, see the *Sterling Reverse Logistics Configuration Guide*.

4.16.11 Defining Charge Categories and Names

As an advanced configuration, you can define charge definitions that can be associated with orders and invoices by creating charge categories. For

more information about defining charge definitions, see the *Sterling Reverse Logistics Configuration Guide*.

4.16.12 Configuring Extraneous Item/Wrong Item Rules

This configuration provides line types for extraneous items and for wrongly shipped items.

To configure extraneous and wrong item rules:

1. From the Sterling Call Center and Store Configurator, select Configure Return Administration.

2. Under Configure Return Administration, select Advanced Configurations.

3. Select Configure Extraneous Item/Wrong Item Rules.

4. Enter information in the applicable fields. For field value descriptions, see Table 4–39.

5. Click 📳 to save your changes.

Figure 4–58   Extraneous Item/Wrong Item Line Type

File Configurations Action Help		
🔊 Extraneous Item/Wrong Item Rules : Return Order (XYZ-RETAIL)		📳 ⊠
Line Types To Be Used For Extraneous Items	ExtraneousLine	▼ ➕
Line Types To Be Used For Wrongly Shipped Items	WrongShippedLine	▼ ➕
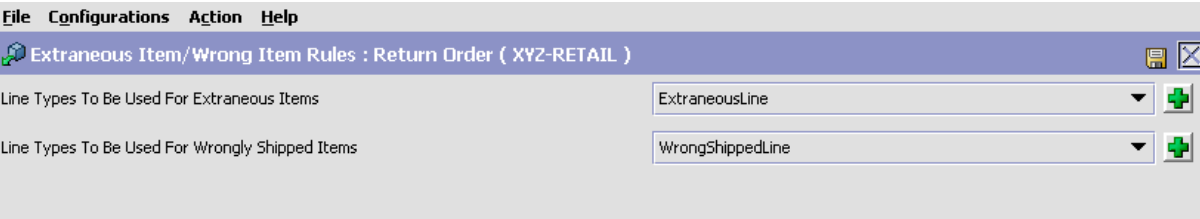
Table 4–39   Extraneous Item/Wrong Item Line Type Details

Field	Description
Line Types to Be Used For Extraneous Items	Define a line type for extraneous returns, as shown in Figure 4–58.
Line Types to Be Used For Wrongly Shipped Items	Define a line type for wrongly shipped items in the pop-up window similar to the one shown in Figure 4–58.

4.17 Configuring Alert Management

Sterling Call Center and Store's Supply Chain Event Management provides fully integrated event configuration, status and event monitoring, and alert handling capabilities. It provides the underlying mechanism for setting and monitoring conditions or events that drive transactional activity within the critical supply chain processes such as fulfillment, inventory management, and purchasing. The event engine enables processes to be modeled and managed based upon events occurring rather than within a pre-defined, hard-coded application procedure. Exceptions can be handled automatically as well as through configurable exception consoles with full tracking, automatic escalation and resolution with complete audit history.

4.17.1 Defining Alert Types

You can classify the different alerts or exceptions that are raised by the system. For more information about defining exception types, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.17.2 Defining Alert Queues

You can define alert queues that can be used to group related alerts. Users can subscribe to one or more queues and can process alerts from their subscribed queues. For more information about configuring alert queues, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.17.3 Configuring User Alert Notifications

This configuration enables you to notify users about an alert. An alert message hyperlink is displayed when an alert is raised. On clicking the link, the Alert Tree screen is displayed.

> **Note:** To notify users about alerts raised in their respective queues, ensure that the queues to which the user is subscribed are audited

To configure the user alert notifications:

1. From the Sterling Call Center and Store Configurator, select Configure Alert Management.

2. Under Configure Alert Management, select Configure User Alert Notifications.

3. Choose the appropriate button to indicate users about alert notifications. For field value descriptions, see Table 4–40.

4. Click 🖫 to save your changes.

Figure 4–59   Configure User Alert Notifications

Table 4–40   User Alert Notifications

Field	Description
Notify User Whenever an Alert is Assigned to the Current User	Select this to notify the current user that an alert assigned.
	If this option is chosen, you must set the time interval (in minutes) for Sterling Call Center and Store to search for new alerts. The default time is set to 5 minutes.
Notify Users Whenever an Alert is Added to a Queue the User is Subscribed To	Select this to notify users about an alert added to a queue to which that user is subscribed.
	If this option is chosen, you must set the time interval (in minutes) for Sterling Call Center and Store to search for new alerts. The default time is set to 5 minutes.
	By default, this option is selected.

Table 4–40   User Alert Notifications

Field	Description
Never Notify Users About Alerts	Select this if you do not want to notify users about alerts.
Search Alerts only for store logged in	Select this option to search alerts only for the store logged in
Polling Interval in Minutes	Enter the polling interval in minutes to poll for new alerts for which users need to be notified. The polling interval should be a valid number between 1 and 99,999.

4.18 Configuring User Security

Security Management enables you to ensure that each user accesses only the information that is appropriate for carrying out their tasks. A user is limited to access only those resources to which they have permission.

4.18.1 Defining User Roles

You can define different user roles or user groups for your organization. For more information about defining user groups, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.18.2 Defining Users

This configuration enables you to define users for your organization.

Defining Users for a Call Center

Table 4–41 provides the menu description for call center users.

Table 4–41   Menus for Call Center Users

Users	Menu Description
All Users	Sterling Call Center Menu

Defining Users for a Store

Table 4–42 provides the menu description for store users.

Table 4–42   Menus for Store Users

Users	Menu Description
Store CSR (for stores having some location)	Default Store CSR Menu
Store Admin (for stores having some location)	Default Store Menu
No Location Store User	Default No Location Store Menu

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

4.18.3 Configuring Data Security

As an advanced configuration, you can define data security groups and associate users to them. You cannot associate one user to multiple data security groups. For more information about defining data security groups, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

Sterling Call Center and Store enables users to log in from one store to another store. To provide this capability, configure the data security group, which provides access to specific nodes and adds users to that data security group. For more information about defining data security groups, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.19 Configuring System Administration

The System Management module enables you to manage integration and agent servers, view the properties of your application servers, enable database caching, and increase trace log output for APIs, user exits, services, and agents.

The System Management module provides features to administer and monitor various components that make up Sterling Call Center and Store. The System Management Console provides a complete picture of Sterling Call Center and Store while it is running. Additionally, the health monitor agent can alert system administrators when a problem happens

such as an application server going down or an agent server not processing tasks.

4.19.1 Configuring System Purge Criteria

You can define the parameters to be used when purging system-related records from Sterling Call Center and Store. For more information about defining purge criteria, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.19.2 Configuring Sales Order Purge Criteria

You can define the parameters to be used when purging sales order-related records from Sterling Call Center and Store. For more information about configuring a document's purge criteria, see the *Sterling Distributed Order Management Configuration Guide*.

4.19.3 Configuring Work Order Purge Criteria

You can define the parameters to be used when purging work order-related records from Sterling Call Center and Store. For more information about defining purge criteria, see the *Sterling Warehouse Management System Configuration Guide*.

4.19.4 Configuring Return Order Purge Criteria

You can define the parameters to be used when purging return order-related records from Sterling Call Center and Store. For more information about configuring a document's purge criteria, see the *Sterling Reverse Logistics Configuration Guide*.

4.19.5 Defining Agent Criteria Groups

You can configure the agent criteria groups that classify the nodes. This is a node level configuration that indicates whether the agent is handling high or low volume data. For more information about defining agent criteria groups, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.19.6 Defining Initial Context Factory Codes

You can configure additional initial context factory codes to define the class providing an initial context implementation for the application server to enable remote java clients to connect. For more information about defining initial context factory codes, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.19.7 Defining View Servers

You can view a list of configured servers for agents and services. You can specify server parameters like monitor start time and idle wait time. For more information about viewing the list of configured servers, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.19.8 Configuring Health Monitor Rules

You can configure parameters for monitoring the health of your Sterling Call Center and Store. For more information about defining health monitor rules, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.19.9 Configuring Pagination Rules

As an advanced configuration, you can configure rules that determine the display of the pagination panel. You can configure to allow search on history records and also if the total number of records for a search criteria should be displayed.

To configure the pagination rules:

1. From the Sterling Call Center and Store Configurator, select System Administration.

2. Select the Advanced Configurations link.

3. Select Configure Pagination Rules.

4. Choose the appropriate options. For field value descriptions, see Table 4–43.

5. Click 📁 to save your changes.

Figure 4–60   Pagination Rules

Table 4–43   Pagination Rules

Field	Description
Automatically Search For History Orders When No Non-History Orders Have Been Found In the Order Search Screen	Select this option to search for history records when non-history records are not found in the Order Search screen.
Never Display The Total Number Of Records	Select this option not to display the total number of records.
Always Display The Total Number Of Records	Select this option to display the total number of records.
Allow The User To Request The Display The Total Number Of Records	Select this option to allow to user to request for the display the total number of records.

4.20 Extending and Customizing the Application

The user interfaces within Sterling Call Center and Store can be customized to meet your specific business needs. For more information about customizing the application, see Chapter 5, "Extending and Customizing the Application".

4.20.1 Configuring User Exit Management

You can configure user exits to enable business logic extensions to the various transactions. The transactions invoke user exits so that you may plug-in custom logic by implementing these pre-defined user exits. For more information about defining user exit implementations, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.20.2 Customizing the Application Menus

You can define menus to allow users to view them after logging into the application. For more information about defining menus, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.20.3 Defining Extended Application Resources

You can define new resources that you can use to enable your extended components that are permission-controlled. When you create a resource, you can grant or revoke permission to this resource through the user role configuration. For more information about defining resources, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

The reference implementation provided by Sterling Call Center and Store provides transactional and configurational data to demonstrate the functionality of all the features that are introduced in Sterling Call Center and Store. Additionally, you can use the data provided in the reference implementation as a starting point for your implementation of Sterling Call Center and Store. Although the data provided needs to be used exactly as it is given, it helps you understand how to configure Sterling Call Center and Store to suite your business needs.

4.20.4 Defining Themes

You can define new color themes that are used in the Sterling Multi-Channel Fulfillment Solution Console and the Sterling Multi-Channel Fulfillment Solution Configurator screens. For more information about defining themes, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.20.5 Defining Custom Common Code Types

You can configure custom common code types for your application. Common codes are values that enable a user to choose from options rather than having to enter the data manually. For more information about defining custom common code types, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.20.6 Defining Custom Common Codes

You can configure common code values for the custom common code types for your application. For more information about defining custom common code values, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.20.7 Defining Custom Error Codes

You can define custom error codes and the descriptions to be used along with the default error codes. For more information about defining custom error codes, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.21 Configuring Store-Specific Tasks

Sterling Call Center and Store enables you to configure specific tasks for a store belonging to a particular Enterprise.

4.21.1 Defining Store Users

You can define the user of a store belonging to the Enterprise. A user is a single person assigned with a certain task, such as Hub Administrator or store manager, depending on what role the user plays in the organization. For more information about defining users, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.21.2 Configuring Store Devices

You can configure store devices such as printers, weighing scale, and so forth. For more information about defining a device type, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.21.3 Configuring Store Print Documents

You can configure the print documents pertaining to a store such as receiving worksheet, cycle count worksheet, and so forth. For more information about defining print documents, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.21.4 Configuring Return Order Receiving Preferences

You can configure the return order receiving preferences pertaining to a store. For more information about defining receiving preferences, see the *Sterling Warehouse Management System Configuration Guide*.

4.21.5 Configuring Data Security

As an advanced configuration, you can control access to data by the users. If a user is not associated with a data security group, the user is considered to have default access. For more information about defining data security groups, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

4.21.6 Configuring Barcodes

As an advanced configuration, you can configure barcodes which are machine-readable symbols comprising black-and-white patterns of bars and stripes, or in some cases checkerboard-like grids. Bits of information are encoded within barcodes. This data is read by barcode scanners, and is often used in conjunction with databases. For more information about defining barcodes, see the *Sterling Warehouse Management System Configuration Guide*.

4.21.7 Configuring Backroom Pick Rules

As an advanced configuration, you can specify if the shipment should move to the `Ready for Backroom Pick` status in the shipment pipeline.

To configure a backroom pick rule:

1. From the Sterling Call Center and Store Configurator, select Store-Specific Tasks.

2. Select the Advanced Configuration link.

3. Select Configure Backroom Pick Rules. The Load Store Configuration pop-up screen is displayed. Select the store from the drop-down list and click OK. The Backroom Pick Required screen is displayed.

4. Select the Backroom Pick Required check box if if the shipment should move to `Ready for Backroom Pick` status in the shipment pipeline.

5. Click ![save icon] to save your changes.

Figure 4–61   Backroom Pick Required
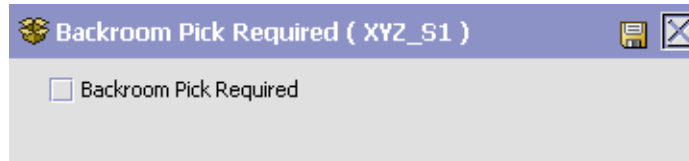
5

Extending and Customizing the Application

The user interfaces within Sterling Call Center and Store can be customized to meet your specific business needs. Tools are provided to help you make customizations for the following:

- Order Entry Screens Customization

- Extending Actions

- Shared Tasks

- User Interface Customization

- Address Panel Customization

- Opening New Related Tasks in the Order Editor

5.1 Order Entry Screens Customization

This section explains how to:

- Replace the existing order entry screens with customized screens.

- Customize the create order navigation panel.

Replacement of the Existing Order Entry Screens with Customized Screens

You can replace the following order entry screens with customized screens:

- Customer Identification: Shipping Address screen—This screen creates or updates an order with the shipping address by calling the createOrder or changeOrder API respectively.

- Customer Identification: Billing Address screen—This screen updates an order with the billing address by calling the changeOrder API.

- Order Line Entry screen—This screen creates or updates an order with new order lines by calling the createOrder or changeOrder API respectively.

- Payment Confirmation: Simple Payment Confirmation screen—This screen updates the order with new payment methods and the amount to be charged against each payment method. You can confirm the order by calling the confirmDraftOrder API.

- Payment Confirmation: Return and Exchange Payment Confirmation screen—This screen updates an order with new payment methods and the amounts to be charged against each payment method for return and exchange orders. You can confirm the exchange order by calling the confirmDraftOrder API.

Navigation Panel (Create Order) Customization

Sterling Call Center and Store enables you to customize the Create Order Navigation panel in an extension plug-in. The extension plug-in must register a new metadata XML with the Sterling Call Center and Store plug-in. The metadata XML must adhere to the following structure:

```
<?xml version="1.0" encoding="UTF-8"?>
<BreadCrumbs>
 <WizardEntity Sequence="" id="" Impl=""  Category=""/>
</BreadCrumbs>
```

You can register the metadata XML during the start up of the extension plug-in by invoking the following static method:

```
YCDOrderEntryUtils.registerNavigationPanelMetaData(Element
navigationPanelMetaDataToRegister)
```

5.2 Add Lines To Order Screens Customization

This section explains how to customize the add lines to order navigation panel.

Navigation Panel (Add Lines To Order) Customization

Sterling Call Center and Store enables you to customize the Add Lines To Order Navigation panel in an extension plug-in. The extension plug-in

must register a new metadata XML with the Sterling Call Center and Store plug-in. The metadata XML must adhere to the following structure:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<BreadCrumbs>
<WizardEntity Sequence="" id="" Impl="" Category=""/>
</BreadCrumbs>
```

You can register the metadata XML during the start up of the extension plug-in by invoking the following static method:

```
YCDOrderEntryUtils.registerNavigationPanelMetaDataForAddLinesT
ask(ElementnavigationPanelMetaDataToRegister)
```

5.3 Extending Actions

In order to extend the actions in the Order Search, Item Search and Appointment screens, in Sterling Call Center and Store, the Sterling RCP provides the following action classes:

- Order Search screen

  ```
  com.yantra.pca.ycd.rcp.tasks.orderSearch.actions.YCDViewOrd
  erDetailsAction
  ```

- Item Search screen

  ```
  com.yantra.pca.ycd.rcp.tasks.itemSearch.actions.YCDItemView
  Details
  ```

- Appointment screen

  ```
  com.yantra.pca.ycd.rcp.tasks.common.delivery.actions.YCDApp
  ointmentPageRefreshCalendarAction
  ```

  On invoking the above action, the calendar on the Appointment screen is reloaded. This action considers the input namespace "WorkOrderAppointmentOptionsInput" when fetching the capacity information for the Appointment Calendar.

These action classes are not displayed on the Sterling RCP Extensibility Tool. For more information about customizing screens, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

5.4 Shared Tasks

This section explains the various shared tasks that are registered with
Sterling Call Center and Store. For more information about shared tasks,
see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

5.4.1 Address Panel Shared Task

Sterling Call Center and Store provides the Address Verification screen as
a shared task. This shared task is used to open the Address Verification
screen as a pop-up window or dialog box in any user interface (UI) that
references Sterling Call Center and Store.

The following is the input XML for the Address Panel task:

```
<PersonInfo AVSMode="" AddressLine1="" AddressLine2="" AddressLine3=""
AddressLine4="" AddressLine5="" AddressLine6="" AlternateEmailID="" Beeper=""
City="" Company="" Country="" DayFaxNo="" DayPhone="" Department="" EMailID=""
EveningFaxNo="" EveningPhone="" FirstName="" HttpUrl="" JobTitle="" LastName=""
Latitude="" Longitude="" MiddleName="" MobilePhone="" OtherPhone="" PersonID=""
PersonInfoKey="" State="" Suffix="" Title="" ZipCode="" />
```

The following is the output XML for the Address Panel task:

```
 <PersonInfo AVSMode="" AddressLine1="" AddressLine2="" AddressLine3=""
AddressLine4="" AddressLine5="" AddressLine6="" AlternateEmailID="" Beeper=""
City="" Company="" Country="" DayFaxNo="" DayPhone="" Department="" EMailID=""
EveningFaxNo="" EveningPhone="" FirstName="" HttpUrl="" JobTitle="" LastName=""
Latitude="" Longitude="" MiddleName="" MobilePhone="" OtherPhone="" PersonID=""
PersonInfoKey="" State="" Suffix="" Title="" ZipCode="" />
```

The name space used for the output XML is "PersonInfo".

5.4.2 Order Notes Shared Task

Sterling Call Center and Store provides the Order Notes screen as a
shared task. This shared task is used to open the Order Notes screen as
a pop-up window or dialog box in any UI that references Sterling Call
Center and Store.

The following is the input XML for the Order Notes task:

```
<Order OrderHeaderKey="" Status=""/>
```

The following is the output XML for the Order Notes task:

```
<Notes>
        <Note ContactReference="" ContactType="" ContactUser=""
            NoteText="" Priority="" ReasonCode=""/>
    </Notes>
```

The name space used for the output XML is "Note".

5.4.3 Service Appointment Calendar Shared Task

Sterling Call Center and Store provides the Service Appointment Calendar screen as a shared task. This shared task is used to view the calendar or select an appointment from the calendar.

The following is the input XML for the Service Appointment Calendar task:

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Change Delivery Appointment Shared Task Input XML-->
<WorkOrder EnterpriseCode="" Timezone="" WorkOrderKey=""
PreferredResourcePoolId="" PreferredServiceResourceId="" CurrentApptSeq="">
    <WorkOrderAppointments>
        <WorkOrderAppointment PromisedApptStartDate="" PromisedApptEndDate=""
        ApptSeq=""/>
    </WorkOrderAppointments>
    <SuggestedAppointment ApptStartTimeStamp="" ApptEndTimeStamp=""/>
</WorkOrder>
```

The following is the output XML for the Service Appointment Calendar task:

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Change Delivery Appointment Shared Task Output XML-->
<SuggestedAppointment ApptEndTimestamp="" ApptStartTimestamp=""/>
```

The name space used for the output XML is "CurrentAppointment".

5.5 User Interface Customization

This section explains the user interface customizations supported by Sterling Call Center and Store.

5.5.1 Special Themes

This section describes the special themes needed when implementing Sterling Call Center and Store.

5.5.1.1 Mandatory Fields

In Sterling Call Center and Store, certain screens have mandatory fields. You can customize the display of mandatory fields by creating a custom theme and modifying the entry in your custom theme. For more information about user interface themes, see Section A.1, "User Interface Themes".

5.5.1.2 Smileys

Sterling Call Center and Store uses emoticons. Each of these emoticons are configured by defining a theme starting with a "Smiley" string. For instance, you can display the (sad) emoticon by using the "SmileySad" theme.

5.5.2 Display of Day Panels in the Service Appointment Calendar

You can use the post command on the getWorkOrderAppointmentOptions API to override the default view of the day panels. You can modify the output template of the getWorkOrderAppointmentOptions API by adding the following elements at the root level:

```
<DateDisplays>
  <DateDisplay Date="<date>" ThemeName="<theme name>" StringDisplay="<string to
display>"/>
</DateDisplays>
```

The value of the `ThemeName` attribute should be a valid theme name as found in the theme files being used in the client application. This theme will be applied to the day panels that appear in the calendar. This enables you to change the display of the day panel, including the background color. The value of the `StringDisplay` attribute will be displayed as it is inside each day panel. This enables you to display any string inside each day panel.

For more information about customizing an output template, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

5.6 Address Panel Customization

Sterling Call Center and Store uses a common address panel when displaying the addresses in the following screens.

- Un-verified and verified addresses on the Alert Details screen for Alerts of type 'Address Verification'

- Ship To Address in Change Order Address

- Pickup Address on Return Fulfillment Summary

- Ship to address on Shipment Details

- Bill To address on Customer Pick

- Store Address on Line Summary

- Bill To Address and Ship To Address on Order Summary

- Bill To address on Invoice Details

- Store Address on Procurement Order Summary

- Bill To Address and Ship To Address on Return Order Summary

- Ship To address on Track an Item

If you customize the panel on any of these screens, the customizations will take effect in all the screens. For example, if you hide a control on the bill to address panel of the Order Summary screen, the control will also be hidden in the other screens displaying address.

5.7 Opening New Related Tasks in the Order Editor

Sterling Call Center and Store provides an Order Editor in which you can open new related tasks by specifying the following:

- Editor ID

  `com.yantra.pca.ycd.rcp.editors.YCDOrderEditor`

- Input

  ```
  <Order CustomerFirstName=" " CustomerLastName=" "
  DocumentType=""    EnterpriseCode=""    OrderHeaderKey="" OrderNo=" "
  SellerOrganizationCode=""    isHistory=" ">
      <PriceInfo Currency=" " />
  </Order>
  ```

For more information about using the Order Editor, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

6

Implementing the Sterling Call Center Features

This chapter describes the call center features supported by Sterling Call Center and Store.

6.1 Item Inquiry

A user may want to search for product items or service items and view the details pertaining to them, such as fulfillment methods, availability, promotions, associations, and price. An enterprise may want to model items based on distinct attributes such as style, size and color, and enable users to search and view the details of the stylized items.

6.1.1 Searching and Viewing the Details of an Item

Call center representatives may frequently receive questions from customers about specific items, including their fulfillment methods, specifications, availability, or price.

6.1.1.1 Solution

The Item Inquiry task enables users to search for product and service items and view their details. Based on the search criteria entered, a list of items is displayed. The user can view additional information such as fulfillment methods, availability, price, promotions, and specifications for each item.

Sterling Call Center and Store provides two ways to search for items:

- Quick Access—The user can enter the item ID, description and manufacturer's name and search for the item.

- Advanced Item Search—The user can enter more restrictive search criteria to search for the item.

If the search criteria results in a single record, the Item Details screen is displayed. If the search criteria results in multiple records being retrieved, the Search and List screen is displayed.

This section explains the Item Inquiry process and the solution offered by Sterling Call Center and Store.

Item Information Retrieval

When a user scans item ID using the barcode scanner, the translateBarCode API is used to translate and validate the barcode of the item. If alternate item identifiers are entered or scanned, the translateBarCode API is called to retrieve the original item information for the scanned alternate item identifiers. For more information about alternate item identifiers, see Section 6.3, "Alternate Item Identifier". The getCompleteItemList API retrieves a list of items based on the input criteria. This item list includes additional information such as UOMs, fulfillment methods, pricing, and promotions.

The user can search for products, services, or both products and services in the Item Search screen. When searching for services, or both products and services, the results display both independent and non-independent services. Non-independent services cannot be added to an order from the Item Inquiry screens.

The getItemUOMList is used to get the list of UOMs for the item.

Sterling Call Center and Store provides a configuration to display Delivery and Shipping as separate fulfillment methods. It also provides a configuration to never show the Pickup fulfillment method if the enterprise does not support Pickup. These configurations are verified when displaying the fulfillment methods in the Preview panel of the Item Search screen and the Item Details panel of the Item Details screen.

The YFSGetPromotionsForItemList user exit is called to retrieve and display the promotion details on the Item Details screen.

Item Availability Retrieval

The findInventory API is called to display the availability of product items and the capacity of service items.

You can disable availability checks in the Item Search screen to avoid frequent inventory requests on your inventory system.

You can inquire about an item's availability in the Item Detail screen even when the default availability check is disabled. The display of the Country drop-down list on this availability panel is based on the rule to allow country entry. If you have configured region schemas for displaying states, the availability panel displays a drop-down list of states.

Displaying Item Images

You can display the item images along with the item details in Sterling Call Center and Store. These images can reside on different servers and can be retrieved when needed. You can configure the servers to fetch the item images, and the protocol to be used when fetching the item images. The Item Search screen requires an image to be 32 X 32 pixels in size in order to be configured on the image server. The Item Details screen requires an image that is 180 X 180 pixels in size in order to be configured on the image server.

Pagination

Sterling Call Center and Store supports smart retrieval of record sets in the Item Search screen.

For more information about pagination, see Section 6.17, "Pagination".

Integration with the Sterling Multi-Channel Selling Solution

If the configuration rule for integrated search is enabled, the Item Search screen is replaced by the Sterling Multi-Channel Selling Solution's Item browser. From the Item browser, the user will be able to search for items in the context of the customer and add them to the customer's order. For more information about item entitlement, see Section 10.4, "Item Entitlement".

The YFSGetExternalPricesForItemListUE user exit is implemented if pricing is retrieved from an external system. The Sterling Multi-Channel Selling Solution integration provides an implementation to retrieve item pricing. For more information about the provided YFSGetExternalPricesForItemListUE implementation, see Section 10.1, "Pricing Integration Using the Sterling Multi-Channel Selling Solution".

6.1.1.2 End-User Impact

This section lists the end-user impact of this feature:

- The user will see item images if the image server is configured.

- In the Item Search screen and Item Details screen, the user will see Shipping and Delivery as separate fulfillment methods based on the configuration.

- In the Item Search screen and Item Details screen, the user will see pickup as a fulfillment method based on the configuration.

- The user will see the item availability information based on the check for availability configuration rule.

- When checking for availability, the user will see the country and states drop-down list based on the configuration.

6.1.1.3 Implementation

This section explains the steps to implement for this feature.

- Sterling Call Center and Store allows you to configure the store pickup rules. For more information about configuring the store pickup rules, see Section 4.11.1, "Configuring Store Pickup Rules".

- Sterling Call Center and Store allows you to configure availability checks and reservation options. For more information about configuring availability checks and reservation options, see Section 4.10.27, "Configuring Availability Check and Reservation Options".

- Sterling Call Center and Store allows you to configure the server to fetch the images.

  Define entries such as name, protocol, base URL, in the `locations.ycfg` file. The Item Search screens within Sterling Call Center and Store are designed for small item images that are 32 X 32 pixels in size and large item images that are 180 X 180 pixels in size. It is strongly recommended that your images conform to these sizes for ideal display within the screens. For more information about configuring the connection settings to fetch images from the server, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

- As part of the Sterling Multi-Channel Selling Solution factory setup, the YCD_Item_List_Pricing_8.0 service is provided as an implementation for the YFSGetExternalPricesForItemListUE. This user exit will retrieve pricing information for items that exist in both the Sterling Multi-Channel Selling Solution and Sterling Call Center and Store, created through Item Synchronization. For more information about the Integration Pricing logic, see Section 10.1, "Pricing Integration Using the Sterling Multi-Channel Selling Solution".

6.1.1.4 Reference Implementation

This section lists the default values provided for this feature.

- The default YFSGetExternalPricesForItemListUE user exit and the YFSGetPromotionsForItemList implementation accepts all the items provided as part of the reference implementation. For more information about the items provided as the reference implementation, see Section 3.2, "Product Management".

- The default YFSGetPromotionsForItemListUE user exit implementation accepts the following promotions:

- Buy two get one free

- 20% discount on all accessories

- 24 months no interest

- The Prevent Availability Check When Searching for Items rule is defaulted to "Y".

- The Allow Country to be Entered for screens that check Item Availability rule is defaulted to "Y".

6.1.2 Handling Styles for an Item

Some retailers sell products that come in different variations, such as different styles, sizes, and colors, for example, a T-shirt may be sold in three different sizes, 10 different colors, and "v-neck" and "regular neck" styles.

6.1.2.1 Solution

Sterling Call Center and Store enables an enterprise to model items based on style, size, and color. It also enables users to search and view the details of stylized items.

This section explains the Item Inquiry process for stylized items and solution offered by Sterling Call Center and Store.

Configuring the Product Catalog

Sterling Call Center and Store provides the configuration to define an item as a model item in the Product Catalog. If an item is marked as a model item, you can define its child items. Child items are those items that share common attributes with the model item, for example, if the model item is a Short-sleeved Polo shirt, possible child items will be Small Red Short-sleeved Polo Shirt and Medium Red Short-sleeved Polo Shirt.

You can define a Classification Purpose called Distinct Attributes to define the set of attributes that identify a child item.

When defining stylized items for a Model item, Sterling Call Center and Store assumes that the fulfillment method and associations of the child items are the same as those of the Model item.

Sterling Call Center and Store assumes that Model Items cannot be marked as configured items. Also, it is assumed that configured items do not contain Model Items as components.

Item-Style Information Retrieval

Sterling Call Center and Store provides the functionality to search for Model items and Stylized items in the Item Search screen.

Sterling Call Center and Store provides the Item Style pop-up window which displays information about the availability and various styles for a Model item. The getCompleteItemList API is called to retrieve the distinct attributes for a Model item.

The getItemUOMList API is used to get the list of UOMs for the item. The YCDOverrideDeliveryMethodUE user exit is called to determine the list of available fulfillment methods for the item.

Delivery and Shipping are displayed as separate fulfillment methods based on the configuration for Order Entry Rules.

You can also configure the Sterling Call Center and Store user interface to never show the Pickup fulfillment method if the enterprise does not support the Pickup fulfillment method based on the configuration for Store Pickup Rules.

Style Items pop-up window

Sterling Call Center and Store provides a Style Items pop-up window that the CSRs can use to browse and select different combinations of style items. The item styles can be displayed as buttons or as lists, based on the configuration rule, for displaying the stylized items. For more information about configuring the display of Model items, see Section 4.5.8, "Configuring Display of Model Items". If the item style pop-up window is configured to display styles as buttons, the images for the the buttons should be defined on an image server.

You can configure the order in which attribute values are displayed on the item style pop-up screen. For example, if you have configured Size as a distinct attribute for a stylized item and this attribute can take the values L, M, S and XL, you can configure that the values appear in the order S, M, L and XL on the style item pop-up.

If a distinct atttribute value is not specified for some stylized items but is specified for all other stylized items, Sterling Call Center and Store displays a literal "None" for the stylized item for which the distinct attribute value is not defined. The display of this literal is bundle controlled. For example, if you have configured Size and Color as distinct attributes and have forgotten to specify the Color for one of the stylized items, the literal "None" will be displayed on the style item pop-up screen for the item.

Item Availability Retrieval

Sterling Call Center and Store provides the functionality to retrieve availability information for a stylized item. The getFulfillmentOptionsForLines API is called to display the availability.

Sterling Call Center and Store provides a panel to check for availability if a Ship To address is not entered. The display of the Country drop-down list on this availability panel is based on the rule to allow Country entry. If you have configured region schemas to display states, the availability panel displays a drop-down list of states. For more information about configuring region schemas, see Section 4.10.21, "Configuring Country and State Display Rules".

Displaying Item Images and Style, Size, and Color Images

You can display item images along with the item details in the Item Styles pop-up window. These images may reside on different server and can be retrieved when needed.

You can configure the server to fetch the item images and the protocol to be used when fetching the item images. Additionally, you can also configure to display images for style, size, and color in the Item Styles pop-up window, if item styles are displayed as buttons.

6.1.2.2 End-User Impact

This section lists the end-user impact for this feature.

- When searching for items, if the user enters a complete or partial Model Item ID in the search criteria of the Item Search screen, the corresponding Model item will be displayed in the search results.

- In the Style Items pop-up screen, the user will see Shipping and Delivery as separate fulfillment methods based on the configuration for Order Entry Rules.

- In the Style Items pop-up window, the user will see pickup as a fulfillment method based on the configuration for Store Pickup Rules.

- When checking for availability in the Style Items pop-up window, the user will see Country and States drop-down list based on the configuration for country display and region schemas.

- In the Style Items pop-up window, the user will see item styles as buttons or as lists based on the configuration rule for display of style items.

- In the Style Items pop-up window, if images are configured for Distinct Attributes, the buttons display the configured images. If images are not configured, the buttons display the attribute values.

- In the Style Items pop-up window, the user will see a message "No styles are defined for this item" if no child items are associated with the Model Item.

- In the Style Items pop-up window, the user will see a message "Styles are not configured for this item" if the Model item is not associated with any classification definition with the purpose code "Distinct Attributes".

- In the Style Items pop-up window, the user will see a message "There is a configuration error with the setup for the Style Items, because of which we cannot display the options." if the same attribute values are defined for two or more item stylized items . For example, if you have configured Size and Color as distinct attributes for items

Item1, Item2, and Item3, and the attribute values are as below, the user will see the error message because Item1 and Item2 have the same attribute values for Size and Color.

Table 6–1   Sample Stylized Items

Item ID	Color	Size
Item 1	Red	S1
Item 2	Red	S1
Item 3	Red	S2

- If you have configured model items as components of a bundle item, while adding these bundle items item to the order, the error message "Cannot include a bundle item with a model item as a component" is displayed on the Add Items screen.

6.1.2.3 Implementation

This section explains the steps to implement for this feature.

- Define the Model items and Child items in the Product Catalog. Define attributes that uniquely define the Child items. The fulfillment methods and associations defined for the Child item should be the same as those defined for the model item. For more information about defining Model items and child items, see the *Sterling Product Management Configuration Guide*.

- To classify Child items:
    1. Create a new classification specifying the item attribute for the classification.
    2. Create a new Classification Purpose. Specify the Classification provided in Step 1 as the Classificaton Definition to bind. Specify "Distinct Attributes" as the purpose description.
    3. Define a Classification Hierarchy for the item attribute specified in Step 1. Associate the classifcation hierarchy with item attribute groups and attribute values which uniquely define the stylized items. For more information about defining classifications, see the *Sterling Product Management Configuration Guide*

- Add entries in the resource bundle and the possible values that can be returned for the distinct attributes of a stylized item. Configure the

order in which attribute values are displayed on the Style Items pop-up screen by specifying the appropriate value for the resource bundle entries. For example, if you have configured Size as a distinct attribute for an item and this attribute takes the values L, M, S and XL, you can configure that the values appear in the order S, M, L and XL, by providing bundle keys for these attributes as below. Note that the alphabetical order of the bundle keys correspond to the order in which the attributes are to be shown.

- Size_S1_Small=S
- Size_S2_Medium=M
- Size_S3_Large=L
- Size_S4_Extra_Large=XL

For more information about resource bundles, see Section A.2.1, "Resource Bundles".

- Sterling Call Center and Store allows you to configure the server to fetch the item images.

  Define entries such as name, protocol, and base URL in the `locations.ycfg` file. The Style Size pop-up window is designed for medium-sized images that are 64 X 64 pixels in size. It is strongly recommended that your images conform to this size for ideal display within the screens. For more information about configuring connection settings to fetch images from the server, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

- To display item styles as buttons or as lists, see Section 4.5.8, "Configuring Display of Model Items".

- To configure images for item style, size, and color, define a new config in the `locations.ycfg` file with the Name set to "STYLE_ITEM" (see the following example below)

```
<Config Name="STYLE_ITEM"
  Protocol = "http"
  BaseUrl = "127.0.0.1"
  PortNumber  = "80"
  ApiUrl = "/COMImages/$param1$.jpg"
  DefaultApiUrl = "/COMImages/404.jpg">
</Config>
```

The names of the images on the server should adhere to the following convention:

```
<Attribute Name>_<Attribute Value>
```

For example, if you have configured Color as a distinct attribute and this attribute can take the value Red, the corresponding image on the server should be Color_Red.jpg. For more information about configuring the connection settings to fetch images from the server, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

- You can configure whether Delivery and Shipping are to be shown as separate fulfillment methods in the Item Style pop-up window. For more information about configuring the display of model items, see Section 4.5.8, "Configuring Display of Model Items".

- Sterling Call Center and Store allows you to configure the store pick up rules. For more information about configuring the store pick up rules, see Section 4.11.1, "Configuring Store Pickup Rules".

6.1.2.4 Reference Implementation
This section describes the default values provided for this feature.

- Model Item Polo Short Sleeved Shirt with attributes Supersize (Regular and Tall), Size (S, M, L, and XL) and Color (Red, Grey, and Black) is provided as part of reference implementation for the XYZ-CORP organization. The attribute values provided for each of the attributes are:

Table 6–2   Attributes and Values

Attribute	Value
Supersize	Regular
	Tall

Table 6–2   Attibutes and Values

Attribute	Value
Size	S M L XL
Color	Red Grey Black

The resource bundle entries provided for the attribute values for Size are:

Table 6–3   Resource Bundle Entries

S	Size_S1_Small
M	Size_S2_Medium
L	Size_S3_Large
XL	Size_S4_Extra_Large

- Sterling Call Center and Store provides the following items as part of reference implementation: PSLS3C3SREGLB, PSLS3C3SREGLG, PSLS3C3SREGLR, PSLS3C3SREGMB, PSLS3C3SREGMG, PSLS3C3SREGMR, PSLS3C3SREGSB, PSLS3C3SREGSG, PSLS3C3SREGSR, PSLS3C3STALXLB, PSLS3C3STALXLG, PSLS3C3STALXLR.

- The Classification Purpose for Distinct Attributes is bound to the Itemtype attribute. The Classification Values have the following hierarchy: Style Item > Mens Apparel > T-Shirt. The Distinct Attributes Class, Colorcode, and Sizecode are defined for Mens Apparel. These are defined for the XYZ-CORP organization.

- The Prevent Availability Check When Searching for Items rule is defaulted to "Y" for XYZ-CORP and XYZ-RETAIL organizations.

- The item style display rule is configured to display the button view for the XYZ-CORP and XYZ-RETAIL organizations.

6.2 Configured Items

In some retail environments may fulfill orders comprising of configured items. A configured item is a group of items which are related such as a computer which comprises of the processor, keyboard, mouse, and monitor. Configured items are also referred to as bundles.

6.2.1 Solution

Sterling Call Center and Store allows you to configure the bundle fulfillment mode. That is, whether bundle components should be shipped together or independently. For more information about configuring bundle fulfillment mode, see the *Sterling Product Management Configuration Guide*.

Bundles are supported in the following flows:

- Order Creation
- Add Multiple Items to an Order
- Change Fulfillment Options
- Change Gift Options
- Price Match
- Reship
- Cancel Order
- Change Service Instructions
- Change Service Appointments
- Return Line Selection

Sterling Call Center and Store allows you to configure if bundle components should be displayed on the following screens:

- Order Summary
- Shipment Summary
- Return Summary

Sterling Call Center and Store assumes that Configured Items do not contain Model Items as components.

> **Note:** If you have configured model items as components of a bundle item, while adding these model items as components of a bundle item to the order, the error message "Cannot include a bundle item with a model item as a component" is displayed.

6.2.2 End-User Impact

The user will be able to see the bundle parent and components, if the bundle item is configured as ship independent. The user will only see the bundle parent if the bundle item is configured as ship together.

Based on the configuration for display of bundle components, the user will be able to see the bundle components in the following screens:

- Order Summary
- Shipment Summary
- Return Summary

6.2.3 Implementation

This section explains the configurations for bundles.

- Sterling Call Center and Store allows you to configure bundle items as ship together or ship independent. For more information about configuring bundle items as ship together or ship independent, see Section 4.5.2, "Managing Products".

- Sterling Call Center and Store allows you to configure the display of bundle components on the Order Summary, Return Summary and Shipment Summary screens. For more information about configuring the display of bundle components, see Section 4.10.36, "Configuring Bundle Components Display".

6.2.4 Reference Implementation

This section explains the reference implementation provided as part of bundles.

- As part of reference implementation Sterling Call Center and Store provides RDRF804SET bundle parent item and DTRND804, DFBDC804, and FSBR804 bundle component items.

- The bundle item RDRF804SET is configured as Ship Independent.

- The Display Component Items For Bundles In Summary Screens rule is set to not display bundle component items.

6.3 Alternate Item Identifier

In some retail environments, the enterprise may use a different item identifier than what has been configured in the enterprise's global catalog. These enterprises use this alternate item identifier to scan and search for product or service items in the user interface. The alternate item identifiers are supported for product and service items.

6.3.1 Solution

Sterling Call Center and Store allows you to configure the item alias for alternate item identifiers. For more information about configuring item aliases for alternate item identifiers, see Section 4.10.17, "Configuring Alternate Item Identifier Display".

The user can scan or enter the alternate item identifiers in the Sterling Call Center and Store application console.

The translateBarCode API is called on the following screens to retrieve the original item information for the scanned alternate item identifiers.

- Item Inquiry screen

- Create Order—Add Items screen

- Backroom Pick and Customer Pick screens

The getCompleteItemList API is called on the Large Order Entry Screen to retrieve the original item information for the scanned alternate item identifiers.

> **Note:** Barcode translation takes place only when you press the TAB key after scanning the item barcode. The scanner must be configured to send out a TAB message immediately after scanning the barcode. This configuration may change based on the device.

Sterling Call Center and Store also provides the ability to store an alternate item identifier on an order line.

6.3.2 End-User Impact

You can scan the alternate item identifiers into all item entry fields throughout the user interface.

6.3.3 Implementation

If you want to use the alternate item ID instead of the original item ID, configure the:

- Store Alternate Item IDs on Order Lines rule.

- Rule to set the item alias for alternate item identifiers.

  For more information about configuring the rules to display the alternate item identifier, see Section 4.10.17, "Configuring Alternate Item Identifier Display".

- Barcode translation for an item alias configured for an alternate item identifier. For more information about defining barcodes, see the *Sterling Warehouse Management System Configuration Guide*.

> **Note:** To display the item alias on all screens, you must set the display attributes for the item. To set the display attributes, configure the item attributes and modify the resource bundle key. For more information about configuring item display attributes, see Section 6.4, "Item Display Options Configuration".

6.3.4 Reference Implementation

The reference implementation items are associated with the alternate item identifiers. The following implementations are defined for the XYZ Corp organization:

* When configuring an item, you can specify the alternate item identifier in the Item Alias field.

* If you configure the Alternate Item ID rule, the alternate item identifier gets stamped on the order line.

6.4 Item Display Options Configuration

You may want to display certain item attributes to different enterprises as the description in Sterling Call Center and Store user interface. For example, one retailer may consider the item attributes 'ItemID' and 'Item Description' to be the most important attributes, while a different retailer may consider 'ItemID' and 'Manufacturer' to be the most important attributes to display in the user interface.

6.4.1 Solution

Sterling Call Center and Store enables you to configure which item attributes are displayed throughout the user interface. This is done by first configuring the item attributes associated with the item and then editing the resource bundle key.
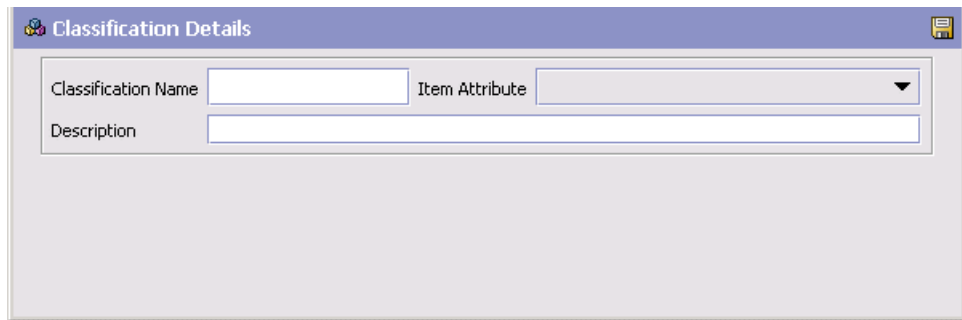
6.4.2 End-User Impact

The end user sees the primary item attributes you configure, in the format you specify, throughout the Sterling Call Center and Store user interface.

6.4.3 Implementation

To configure which item attributes are available for display:

1. Create a new classification and associate it with the classification purpose "Display Attributes". For more information about defining classifications, see the *Sterling Product Management Configuration Guide*.

   a. From the Sterling Call Center and Store Configurator, select Manage Products and Categories.

   b. Under Manage Products and Categories, select Define Types of Product Classification. The Classification Definitions tab is displayed.

   c. Choose ➕. The Classification Details pop-up window is displayed.
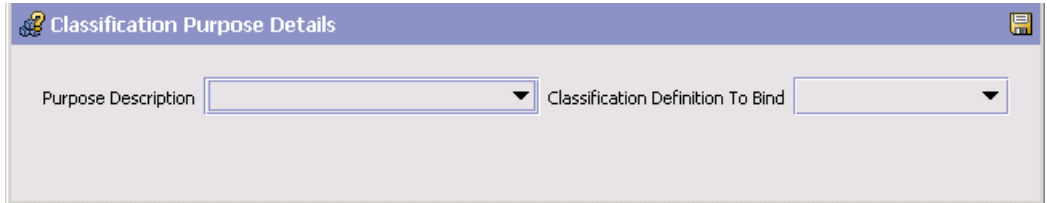
   d. In Classification Name, enter the name of the classification.

   e. From the Item Attribute drop-down list, select the item attribute you want to associate with the classification.

   > **Note:** The item attributes in the drop-down may display with underscores or without spacing. Disregard this.

   f. In Description, enter a brief description of the classification.

   g. Choose 💾.

   h. From Classification Definition window, select the Classification Purposes tab.

i. Choose ➕. The Classification Purpose Details pop-up window is displayed.

j. Choose the "Item Display Attributes" classification purpose from the Purpose Description drop-down menu.

> **Note:** You cannot assign more than one classification definition to a classification purpose.

k. Choose the classification definition that you want to bind a classification purpose to from the Classification Definition To Bind drop-down menu.

l. Choose 💾.

m. Define a Classification Hierarchy for the new classification and associate it with the item attribute groups and attribute values. For more information about defining classifications, see the *Sterling Product Management Configuration Guide*.

If you have configured item aliases for alternate item identifiers, ensure that the item alias attribute is included in the classification hierarchy details. For more information about alternate item identifiers, see Section 6.3, "Alternate Item Identifier".

2. Modify the resource bundle.

Sterling Call Center and Store uses resource bundle keys to display item information on all screens. The resource bundle keys define the formatting and sequencing of the item attributes you choose when configuring the classification values.

To allow new or modified item attributes to display on a screen in Sterling Call Center and Store, you must edit the ItemDisplay bundle keys.

To edit the ItemDisplay bundle keys:

a. From the Sterling Call Center and Store root directory > Plugins, select the `plugins\com.yantra.pca.ycd.rcp_1.0.0` folder.

b. Select the `com.yantra.pca.ycd_format_bundle.properties` file located in the `com.jar` file.

c. In the `com.yantra.pca.ycd_format_bundle.properties` file, search for the following bundle keys:

   – ItemDisplayConfigurationForLineDisplay

   – ItemDisplayConfigurationForLineDisplayNoAttributeList

   – ItemShortDescDisplayConfiguration

   – ItemShortDescDisplayConfigurationNoAttributeList

   – ItemIDDisplayConfiguration

   – ItemIDDisplayConfigurationNoAttributeList

You can modify the value that appears to the right side of the equal sign ("=") in these bundle entries. The right side can contain any formatting characters, such as dashes, semicolons, and so forth. The right side can also contain place holders for the item attributes that you have made available through the configuration in the following format: {x}, where 'x' is an integer representing the index of the item attribute you want to display.

For example, a classification has the following item attributes:

Item Attribute	Description	Is Key Attribute
ShortDescription	ShortDescription	☐
ColorCode	ColorCode	☐
UnitOfMeasure	UnitOfMeasure	☐
ItemID	ItemID	☐

The place holders are available in the same sequence as the display attributes. In this example, the following place holders are available for use in the resource bundle:

```
#{0}-ShortDescription
 {1}-ColorCode
 {2}-UnitOfMeasure
 {3}-ItemID
```

The resource bundle can be changed from this:

```
ItemIDDisplayConfiguration={3},{2},{0}
```

which displays the item ID, the unit of measure, and the short description in the Sterling Call Center and Store user interface, to this:

```
ItemIDDisplayConfiguration={3},{0},{2}
```

which displays the item ID, the short description, and the unit of measure in the Sterling Call Center and Store user interface.

6.4.4 Reference Implementation

None.

6.5 Alternate Store Pickup Locations Search

While creating an order, the customer may want to know the stores at which the items are available. In such situations, call center and store representatives may need to retrieve the availability information for the requested items.

6.5.1 Solution

Sterling Call Center and Store provides a way to search across stores to determine which ones have items available for pickup.

This section explains the Alternate Store Pickup Locations Search task and the solution offered by Sterling Call Center and Store.

The Alternate Stores screen displays a list of items and nearby stores where the item is available. You can configure which stores should be displayed in this screen. The getSurroundingNodeList API is called to retrieve the list of surrounding nodes. The findInventory API is called to retrieve the inventory availability information

Store Pickup Rules

You can configure the following store pick rules which are used to retrieve results for the Alternate Store Pickup Locations Search.

- Distance To Consider When Finding Nearby Store

- Distance To Consider When Finding More Store

- Distance UOM

- Standard Search Fulfillment Type

- Extended Search Fulfillment Type

For more information configuring these rules, see Section 4.11.1, "Configuring Store Pickup Rules".

Availability Information Retrieval

The display of the country drop-down list on the availability panel is based on the rule to allow country entry. If you have configured region schemas for display of states, the availability panel displays a drop-down list for states. For more information about configuring region schemas, see Section 4.10.21, "Configuring Country and State Display Rules".

6.5.2 End-User Impact

Based on the configuration to display country and state drop down lists, the end-user will see country and state drop down lists in the Alternate Stores screen.

6.5.3 Implementation

This section explains the configurations for the alternate store pickup locations search task.

- Sterling Call Center and Store allows you to configure Store Pickup rules. For more information about configuring the store pickup rules, see Section 4.11.1, "Configuring Store Pickup Rules".

- Sterling Call Center and Store allows you to configure the display of country and state drop down lists. For more information about configuring the display of country and state drop down lists, see Section 4.10.21, "Configuring Country and State Display Rules".

6.5.4 Reference Implementation

This section explains the reference implementation provided as part of alternate store pickup locations search task.

- The default value for 'Distance Radius to Consider When Finding Nearby Stores' is 25 for XYZ-CORP organization.

- The default value for 'Distance Radius to Consider When Finding More Stores' is 50.

- The default value for 'Distance UOM' is Mile.

- The default value for 'Standard Search Fulfillment Type' is Fulfillment Type for Product Sourcing.

- The default value for 'Extended Search Fulfillment Type' is Fulfillment Type for Product Sourcing.

6.6 Order Capture

For orders to be fulfilled within Sterling Call Center and Store, the relevant data must be captured from the Sterling Call Center and Store user interface, a Web portal, or other external order entry systems. This involves accurately storing all the information relevant to an order internally, and after that is done, ensuring that the information captured is valid, and can be processed.

This section describes the following:

- Order Creation
- Capturing Orders through Other Channels
- Order Delay
- Order Validation

6.6.1 Order Creation

Sterling Call Center and Store receives the order-related data entered through customer order channels such as a retailer Web site, and stores them internally for them to be processed. Call center agents and store representatives can also create orders.

6.6.1.1 Solution

The create order task enables the user to identify a customer and create an order for that customer. The user can enter multiple order lines for an order, modify the fulfillment options and appointments, and confirm the payment information as requested by the customer. Sterling Call Center and Store provides a set of rules for the create order task. You can use these rules to configure the order creation task to meet your specific requirements.

Using the Customer Screen Sequence and Line Entry Sequence rules, you can switch the order of the Customer Identification and Add Line steps. For more information about Configuring the Customer Screen Sequence and Line Entry Sequence rules, see Figure 4–9.

If you create an order for a contact who does not have a User ID, that contact's payment methods will not be visible when you reach the payment confirmation screen. For more information about creating a contact, see Section 6.14.1, "Create Consumer".

In the Sterling Call Center and Store, you cannot create an order for an anonymous customer whose record was created in the Sterling Multi-Channel Selling Solution. You must create the customer in the Sterling Call Center and Store.

The steps involved in the order creation process in Sterling Call Center and Store are:

1. Identifying a Customer
2. Adding Items to an Order
3. Changing the Fulfillment Options
4. Viewing the Service Fulfillment Summary
5. Changing Service Appointments
6. Viewing Pickup and Shipping Fulfillment Summary
7. Viewing and Confirming Payment Details

Identifying a Customer

This section explains the customer identification step in the create order task, and the solution offered by Sterling Call Center and Store.

- Identifying or Searching for a Customer
- Skipping the Customer Identification step

Identifying or Searching for a Customer
Sterling Call Center and Store provides the functionality to search for a customer based on three options:

- Advanced Customer Search
- Search Based on Address
- Basic Customer Search

Advanced Customer Search
The Advanced Customer Search screen is recommended if the user wants to place orders for the customers maintained by Sterling Call Center and Store. This screen provides a full set of features to search against your database. Using the Advanced Customer Search option in Order Entry rules enables you to use of the more detailed information displayed by the Advanced Customer Search screen as well as associating additional addresses and payment methods back to the customer. Use the Advanced Customer Search screen if you want to access the customers created in the Sterling Call Center and Store. All customer information is obtained through a getCustomerList API call.

When searching a customer master database, you can enable the search for business customers by configuring the Business Customers Enabled rule. You can also configure the default customer type when searching for a customer. For more information about configuring the display of the Customer Identification screen, see Figure 4–10.

A user can enter a new address or modify an existing address in the Customer Identification screen. For more information about the Address Search screen, see Section 6.6.4.2, "Address Verification".

When creating a customer from the Advanced Customer Search screen, the Create Customer wizard is loaded in a dialog box. Section 6.14, "Customer Creation" contains more information about this task.

When a new address is added or modified using the Advanced Customer Search screen, the new address is saved against the selected customer record through a manageCustomer API call.

The Advanced Customer Search screen contains validations to ensure that the end user enters enough information for a search. If this screen is extended to contain additional fields, these validations are not performed. This enables you to create validations based on the fields that you added. For more information about customizing screens, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

Search Based on Address

If you do not maintain a customer database, you can choose to display Address Search screen which allows a user to search among the existing addresses in the system.

The getPersonInfoList API is called to retrieve the addresses based on the search criteria entered. The getConsumerDetails API is used to retrieve the details of the consumer associated with the address. If a consumer corresponding to the address is not found, and if corporate users are enabled for the corresponding enterprise, the system attempts to find a corporate user associated with the address.

If the Customer Identification screen is the first screen in the create order flow, this screen calls the createOrder API. Otherwise, the changeOrder API is called to save the address on the order.

The user can enter a new address or modify an existing address in the Address Search screen. For more information about the Address Search screen, see Section 6.6.4.2, "Address Verification".

The Address Entry screen performs the necessary validations to ensure that the end user enters enough information for a search. If this screen is extended to contain additional fields, these validations are not performed. This enables you to create validations based on the fields that you added. For more information about customizing screens, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

Basic Customer Search

The Basic Customer Search screen is not recommended for new installations. It is only provided for backward compatibility.

Sterling Call Center and Store provides a configuration to enable searches based on customer types. You can also configure the default customer type to be used when searching for a customer. For more information about configuring the customer types, see Figure 4–11.

The getCustomerList API is used to retrieve the details of the business customer or consumer customer. If Customer Identification screen is the first screen in the create order flow, this screen calls the createOrder API. Otherwise, the changeOrder API is called to save the address on the order.

The user can enter a new address or modify an existing address in Customer Identification screen. For more information about the Address Search screen, see Section 6.6.4.2, "Address Verification".

The Basic Customer Search screen contains validations to ensure that the end user enters enough information for a search. If these screens are extended to contain additional fields, these validations are not performed. This enables you to create validations based on the fields that you added. For more information about customizing screens, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

Skipping the Customer Identification step

The user has the option of skipping the customer identification step.

- If the user is using the Default Address Entry/Search screen, the user will be prompted to enter the billing address before the completion of the order capture.

- If the user is using one of the Customer Search screens, the Customer Search screen is displayed again before the completion of the order capture completion. At this point, the user can either search for or create a customer for use on the order, or can enter a billing address. In such a situation, no customer record will be associated to the order.

Adding Items to an Order

This section explains the item entry step in the create order task, and the solution offered by Sterling Call Center and Store. Adding items to an order comprises of the following tasks:

- Alternate Views for the Add Items Screen

- Identifying Items

- Adding Or Deleting Lines From An Order

- Alternate Item Identifiers

- Integrated Item Search

- Adding Stylized Items or Modifying an Item's Style

- Adding Bundle Items

- Adding Related Items

- Displaying the Fulfillment Methods

- Checking for Availability

- Disabling Pickup from Store for all Items

Alternate Views for the Add Items Screen

Sterling Call Center and Store provides the functionality to search for items based on two options:

- Large Order Item Entry (with a table that is designed to handle a large number of items)

- Add items (with panels for each order line)

Sterling Call Center and Store provides a Large Order Item Entry screen that is designed to handle a large number of items. You can choose to either display this screen always, or when the number of order lines exceeds a preconfigured number. You can also opt to never display this screen. If your enterprise fulfills orders with a large number of order lines, it is recommended to use the Large Order Item Entry screen. For more information about configuring the display of this screen, see Figure 4–12. If you choose to display this screen, it screen is displayed when performing the following tasks:

- Create Order

- Add Lines to Order

- Change Item Style

- Return Entry: Add Exchange items

Identifying Items

If you have configured to display the Add Items screen with panels, when the user scans item ID using the barcode scanner, the translateBarCode API is used to translate and validate the barcode of the item. If alternate item identifiers are entered or scanned, the translateBarCode API is called to retrieve the original item information for the scanned alternate

item identifiers. For more information about alternate item identifiers, see Section 6.3, "Alternate Item Identifier". The getCompleteItemList API is called to retrieve descriptions, price, accessories, and units of measure for the item.

If you have configured to display the Large Order Entry screen, when the user scans item ID using the barcode scanner, the getCompleteItemList API is used to translate and validate the barcode of the item. If alternate item identifiers are entered or scanned, the getCompleteItemList API is called to retrieve the original item information for the scanned alternate item identifiers. For more information about alternate item identifiers, see Section 6.3, "Alternate Item Identifier". The getCompleteItemList API is used to retrieve descriptions, price, accessories, and units of measure for the item.

Sterling Call Center and Store does not allow users to add items which are always tag controlled to an order.

Display Of Columns In The Add Items screen

You can configure whether line quantity, UOM, line price and line total columns need to be displayed on the Add Items screens. For more information about configuring the columns to be displayed, see Figure 4–14.

Adding Or Deleting Lines From An Order

If the add items screen is the first screen in the create order flow, this screen calls the createOrder API. Otherwise, the changeOrder API is called to add lines to the order. The changeOrder API is also called to delete existing lines on the order.

Sterling Call Center and Store assumes that the status modification rules allow addition of lines to cancelled orders. If the status modification rules do not allow addition of lines to cancelled orders, the user will not be able to add new lines to the order and remove all existing lines at the same time.

Alternate Item Identifiers

Sterling Call Center and Store allows you to configure the item alias for alternate item identifiers (IDs). For more information about alternate item identifiers, see Section 6.3, "Alternate Item Identifier".

Integrated Item Search

If the configuration rule for integrated search is enabled, the Sterling Multi-Channel Selling Solution's Item browser is launched instead of the Sterling Call Center and Store's Item Search screen. For more information about configuring an integrated item search, see Section 4.5.9, "Configuring Item Search Options".

From the Item browser, a user will be able to search for items in the context of the customer and add them to the customer's order. For more information about integrated searches, see Section 10.2, "Signing into Sterling Multi-Channel Selling Solution".

If a user keys in an Item ID directly into the Item field, this Item ID will be validated against the item entitlement in the Sterling Multi-Channel Selling Solution based on the customer's product entitlement from the order. If the customer information is not present in the order, the anonymous customer will be used.

If a user does not have entitlement to an item but the customer does, the user can see the item, but cannot add it to an order. An attempt to add the item to an order will cause an Invalid Item error. For more information about item entitlement, see Section 10.4, "Item Entitlement".

> **Note:** In integrated mode, invalid items cannot be used, that is, Sterling Call Center and Store supports only those items that exist in the catalog as valid items.

For more information about integrated item search, see Section 10.5, "Integrated Item Search".

Adding Stylized Items or Modifying an Item's Style

A user can add a stylized item or modify an item's style based on the user permissions and order status modification rules. For more information about changing an item's style, see Section 6.9.29, "Change an Item's Style".

Adding Bundle Items

When adding items to an order, if the user enters a Bundle Parent Item ID, all the components items will be added as different order lines to the order along with the bundle parent item.

If the bundle item is configured as Ship Together, the user will see only the bundle parent line. If the bundle item is configured as Ship Independent, the user will see all the component items for bundle items already saved on the order. Note that for bundle items which are just added and not saved on the order, the user will not see all the component items even if the bundle item is configured as ship independent. For more information about bundles, see Section 6.2, "Configured Items".

When the Sterling Call Center and Store is integrated with the Sterling Multi-Channel Selling Solution, Sterling Call Center and Store provides a link to:

• Reconfigure bundle items

• Configure items that are not preconfigured.

When this link is selected, the Sterling Multi-Channel Selling Solution's Item browser is launched from within the Sterling Call Center and Store user interface. For more information about launching the Sterling Multi-Channel Selling Solution from within Sterling Call Center and Store, see Section 10.2, "Signing into Sterling Multi-Channel Selling Solution".

Adding Related Items

Sterling Call Center and Store provides a way to display and add associated items to an order line. When a user views the associated items for an item on the order, you can control the way the related items are displayed (as a pop-up or a panel at the bottom of the screen). For more information about configuring the display of related items, see Figure 4–15. If you have configured to display the Large Order Entry screen, Sterling Commerce recommends to display the related items screen as a pop-up.

Sterling Call Center and Store allows you to configure associations for items. For more information about associations, see the *Sterling Product Management Configuration Guide*.

You can define the line relationship types to be used when linking two related lines together. The relationship types defined should support

sorting. This ensures that the order lines displayed in Sterling Call Center and Store are ordered based on the relationship type. For more information about line relationship types, see the *Sterling Distributed Order Management Configuration Guide*.

After the associations and line relationship types are defined, you can specify the line relationship type to be used when related product items are added to an order. For more information about specifying relationship types for associated product items, see Figure 4–16. The getAssociationRelationshipListAPI is called to retrieve information.

Sterling Call Center and Store provides a configuration to specify the line relationship type to be used when related service items are added to the order. For more information about specifying relationship types for associated service items, see Figure 4–16.

You can configure which associated items appear in the related items pop-up window or panel. For more information about specifying which items appear, see Figure 4–16. The getAssociationRelationshipListAPI is called to retrieve information about which associated items need to be displayed in the Related Items panel.

You can specify whether inventory checks should be performed for associated items. For more information about configuring inventory checks for associated items, see Figure 4–16. If inventory for associated item is not available and the inventory check required rule is enabled, the associated item is not displayed on the UI. The getAssociationRelationshipListAPI is called to retrieve information about which associated items need to be displayed in the related items panel.

When the related items are added to the order, the fulfillment methods for the related items are the same as the parent item. If the related item does not support the fulfillment method, the fulfillment option of the related item is set to the default fulfillment method. When you select the parent item to modify the fulfillment option, the related lines associated with it are also selected for modification.

Displaying the Fulfillment Methods

The getCompleteItemList API is called to retrieve the fulfillment methods that are applicable to the item. Based on the configuration, Delivery and Shipping may be displayed as separate fulfillment methods. You can also configure the default fulfillment method. For more information about

configuring Delivery and Shipping as separate fulfillment methods, see Figure 4–13.

The YCDOverrideDeliveryMethodUE user exit is used to override the fulfillment methods defined in the catalog. This user exit provides the ability to override the logic of enabling a fulfillment method. The default implementation is not provided, and you can use your own implementation for this user exit.

Checking for Availability

Sterling Call Center and Store provides a panel to check for availability if the Ship To address is not present in the order. The display of the Country drop-down list on this availability panel is based on the rule to allow country entry. If you have configured region schemas for displaying states, the availability panel displays a drop-down list for states. For more information about country display and configuring region schemas, see Section 4.10.21, "Configuring Country and State Display Rules".

The getFulfillmentOptionsForLines API is used to determine the availability for product items, bundle items, and related items. The findInventory API is used to determine whether a location is serviceable for a Provided Service Item.

A user can disable the availability checks when the inventory is maintained externally because the user is aware of the inventory availability details. This aids in better performance and pace in capturing the order.

If the Prevent Initial Availability Checks During Order Entry and Order Modifications rule is disabled or set to "N", the availability check will not be performed, and the calls to getFulfillmentOptionsForLines, findInventory, or its derivation APIs will be eliminated on the Line Entry screen. For more information about configuring availability checks and reservations, see Section 4.10.27, "Configuring Availability Check and Reservation Options".

Disabling Pickup from Store for all Items

You can configure the user interface to never show the Pickup fulfillment method if the enterprise does not support that fulfillment method. For more information about configuring store pickup rules, see Section 4.11.1, "Configuring Store Pickup Rules". If you have configured the UI to never display the pickup fulfillment method, Sterling Call Center

and Store assumes that you will not set the default fulfillment method for order lines as pickup.

Changing the Fulfillment Options

When a customer requests a change in the fulfillment options for an item, you can modify the fulfillment options as requested, for example, a customer may request the delivery of ordered items, but later decide to pick up the items from a store. In such situations, the user can modify the fulfillment options for the items or a provided service line. For more information about changing the fulfillment options, see Section 6.9.21, "Change Fulfillment Options".

Viewing the Service Fulfillment Summary

After adding items to the order using the changeOrder API, if you choose the Delivery option, the generateWorkOrder API is used to create the delivery lines and generate work orders. For more information about service fulfillment summary, see Section 6.9.20, "Service Fulfillment Summary".

Changing Service Appointments

The user can change the delivery appointment for the customer, if applicable. The items are reserved based on the configuration. For more information about service appointments, see Section 6.9.19, "Change Service Appointments".

Viewing Pickup and Shipping Fulfillment Summary

The Fulfillment Summary screen provides the complete scenario of how the pickup and ship order lines are fulfilled. The items are reserved based on the configuration. For more information about fulfillment summary, see Section 6.9.22, "Fulfillment Summary".

Viewing and Confirming Payment Details

The Payment Confirmation screen displays the summary of the payments to be made for an order. For more information about adding or modifying payment methods in an order, see Section 6.9.2, "Change Payment Method".

Sterling Call Center and Store can be used to carry out critical payment-related processes during order management processing. It also

enables you to integrate with external payment processing systems such as CyberSource$^{®}$ or Chase^{TM} Paymentech. For more information about integrating with external systems for payment handling, see Section 4.10.30, "Configuring User Interface Payment Handling".

6.6.1.2 End-User Impact

Depending on how you configure the order entry rules, the end users will see different behavior in the user interface:

- The user will see either the Customer Identification screen or the Add Item screen as the first screen in the order creation flow based on the Customer Screen Sequence and Line Entry Sequence rule.

- The user will see the Advanced Customer Search screen or the Address Search screen or Basic Customer Search screen based on the configuration.

- Users can search for customers based on the customer type if the configuration for Customer Type Search is enabled, and the default Customer Type during search is Business.

- The user will see either the Item Entry screen or the Large Order Item Entry screen based on the configuration.

- The user will see Shipping and Delivery as separate fulfillment methods based on the configuration.

- The user will see only the set of columns that you configure on the Add Line screen.

- The user will see the related items as a panel in the Add Line screen or as a pop-up window, based on the configuration.

- The user will see item associations that are configured as Show in UI. The user will see the availability for the associated items based on the inventory check for associated items.

- When checking for availability, the user will see Country and States drop-down list based on the configuration.

6.6.1.3 Implementation

This section explains the configurations for the create order task.

- Sterling Call Center and Store allows you to configure the order entry rules. For more information about this, see Section 4.10.1, "Configuring Order Entry Rules".

- Sterling Call Center and Store allows you to configure the display of model items. For more information about this, see Section 4.5.8, "Configuring Display of Model Items".

- Sterling Call Center and Store allows you to configure external payment options. For more information about this, see Section 4.10.30, "Configuring User Interface Payment Handling".

- Sterling Call Center and Store allows you to configure the integrated search rule. For more information about this, see Section 4.5.9, "Configuring Item Search Options".

- To add relationships between lines, you need to configure the association types to be displayed on the user interface. For more information about association types, see Figure 4–16. You should also configure a Relationship Type to be used with the Association Type. Ensure that the Consider for Sorting box is selected when defining line relationship types. For more information about configuring relationship types, see Section 4.10.33, "Configuring Line Relationship Types".

- Sterling Call Center and Store allows you to configure the store pickup rules. For more information about this, see Section 4.11.1, "Configuring Store Pickup Rules".

- Sterling Call Center and Store allows you to configure availability checks and reservation options. For more information this, see Section 4.10.27, "Configuring Availability Check and Reservation Options".

- Sterling Call Center and Store allows you to configure the order statuses for which addition of new order lines is allowed. Ensure that the status modification rules allow addition of lines to cancelled order. For more information about this, see Section 4.10.6, "Configuring Order Modification Rules".

- Implement the YCDOverrideDeliveryMethodUE user exit, if the delivery method defined in the catalog has to be overridden.

- This task is permission-controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

- Notes entered for this task are saved on the order with the YCD_ORDER_ENTRY note type.

- Enable notes for all status modifications of an order. This is how Sterling Call Center and Store records status changes. See Section 4.10.14, "Defining Order Note Types and Configuring Automatic Note Logging" for more information.

6.6.1.4 Reference Implementation

This section explains the reference implementation provided for the create order task.

- The Customer Identification step is configured to be the first step in the create order task.

- By default, the Advanced Customer Search screen is displayed for customer identification.

- By default, the customer type search is enabled, and the default customer type during search is Business.

- By default, the Add Items screen is displayed for item entry.

- By default, Shipping and Delivery are displayed as separate fulfillment options, and the default fulfillment method is Delivery.

- By default, the following columns are displayed in the line entry step:
  - Unit of Measure
  - Line Quantity
  - Line Price
  - Line Totals

- By default, related items are displayed as a pop-up window.

- The Allow Country to be Entered for screens that check Item Availability rule is defaulted to "Y".

- As part of reference implementation, Sterling Call Center and Store provides permissions to create an order to all user groups.

6.6.2 Capturing Orders through Other Channels

Sometimes an enterprise may have orders captured through other channels. If this order is to be processed in Sterling Call Center and Store, additional fields should be passed to the createOrder API.

6.6.2.1 Solution

The information that can be passed on to Sterling Call Center and Store to process an order can be divided into the following groups:

- Address Information

- Customer Information

- Item and Line Information

- Pricing and Payment Information

- Fulfillment Information

- Additional Order Information

Address Information

The following address information fields can be passed on to Sterling Call Center and Store:

Table 6—4   Address Information fields

Field	Description
Ship To Address	The address to which the order is being shipped.
Bill To Address	The address to which the bill for the order is sent.
Is Address Verified Flag	This flag indicates whether the address has been verified by an external address verification system. For more information about address verification, see Section 6.6.4.2, "Address Verification".
All Addresses Verified Flag	This flag indicates whether all addresses on the order have been verified by an external address verification system. For more information about address verification, see Section 6.6.4.2, "Address Verification".

Customer Information

The following customer information fields can be passed at the `<Order>` level on to Sterling Call Center and Store by calling the createOrder API or changeOrder API:

Table 6–5   Customer Information fields

Field	Description
Customer ID	The identifier of the customer on the order. This field maps to the Bill To ID field in the database.
Special Care Flag	This flag indicates whether this is a special care customer.
IP Address	The IP address of the computer from which the order was placed. This field is referred to as SourceIPAddress in the input XML to the APIs.
Customer Phone Number	The daytime phone number of the customer who placed the order. This attribute can be passed at the order header level, and if not, it is defaulted to the customer daytime phone number of the bill-to address. This field is referred to as CustomerPhoneNo in the input XML to the APIs.
Customer First Name	The first name of the customer who placed the order. This attribute can be passed at the order header level, and if not, it is defaulted to the customer first name of the bill-to address. This field is referred to as CustomerFirstName in the input XML to the APIs.
Customer Last Name	The last name of the customer who placed the order. This attribute can be passed at the order header level, and if not, it is defaulted to the customer last name of the bill-to address. This field is referred to as CustomerLastName in the input XML to the APIs.
Customer E-Mail ID	The e-mail ID of the customer who place the order. This attribute can be passed at the order header level, and if not, it is defaulted to customer e-mail ID of the bill-to address. This field is referred to as CustomerEMailID in the input XML to the APIs.

Item and Line Information

The following item and line information fields can be passed on to Sterling Call Center and Store:

Table 6–6   Item and Line Information fields

Field	Description
Item ID	The identifier of the item on an order line.
Quantity	The quantity of the item ordered on an order line.
Item Promised Date	The shipping date displayed by the front-end system. Typically, retailer web sites display next to an item 'usually ships within 24 hours', or 'usually ships within 1-3 business days'. That projected date is the Item Promised Date.
Line Dependencies and Relationships	The relationships, if any, that exist between certain order lines. For example, an order may require all of its order lines to be shipped together. That relationship would be defined here.

Pricing and Payment Information

The following pricing and payment information fields can be passed on to Sterling Call Center and Store:

Table 6–7   Pricing and Payment Information fields

Field	Description
Payment Method	The payment method used on the order.
Price	The price for an item.
Charges	The amount of charges applied to the order.
Taxes	The tax amount applied to the order.
List of Promotions Applied to the Order	The list of possible promotions that can be used on the order. For example, free shipping on orders above $20, or a 10% discount on a specific category of goods.

Fulfillment Information

The following fulfillment information fields can be passed on to Sterling Call Center and Store:

Table 6–8   Fulfillment Information fields

Field	Description
Carrier Service Level	The type of service used to ship the order. For example, a customer could want a next day air delivery, or a standard delivery that would take 5 business days, depending on how much they are willing to spend. This attribute helps Sterling Call Center and Store select a carrier for the order.
Fulfillment Option	The fulfillment mode of the order: • Ship To Home • Delivery • Store Pick-up

Additional Order Information

The following additional order information fields can be passed on to Sterling Call Center and Store:

Table 6–9   Additional Order Information fields

Field	Description
Order Date	The date on which the order was initially placed.
Channel	The channel through which the order was entered. For example, this could be a web portal, a mail order, or a phone call.
Enterprise Code	The enterprise code on the order.

6.6.2.2 End-User Impact

None.

6.6.2.3 Implementation

None.

6.6.2.4 Reference Implementation

None.

6.6.3 Order Delay

A customer may want to modify an order after it has been captured, for example to add quantity to a line, or change a ship-to address. Once an order is scheduled, most of its attributes can no longer be changed. Therefore, it is necessary to delay the scheduling of an order for a certain amount of time in case a customer wants to make a change to their order.

6.6.3.1 Solution

To solve this business requirement, an order should be prevented from being scheduled until a certain number of hours has elapsed after order capture. In that time period, the order can be modified. Therefore, all orders should be delayed at order capture time to allow for these last minute modifications.

The length of the delay depends on your specific business practices.

6.6.3.2 End-User Impact

An order is modifiable by a customer service representative for a certain amount of time, during which the order is not picked up by the scheduling agent.

6.6.3.3 Implementation

When calling the createOrder API to initially capture an order from a front-end system into Sterling Call Center and Store, set the `EarliestScheduleDate` attribute in the input XML to a date that corresponds to the current time + the number of hours that the order should be delayed for.

For more information about the createOrder API, see the *Sterling Multi-Channel Fulfillment Solution Javadocs.*

6.6.3.4 Reference Implementation

None.

6.6.4 Order Validation

When an order is captured by Sterling Call Center and Store, it needs to be verified as a valid order that can be paid for, sent to the correct

address, and is the order that the customer meant to enter in the front-end system.

The order validation process includes:

- Duplicate Order Validation
- Address Verification
- Fraud Check

6.6.4.1 Duplicate Order Validation

When placing an order on the front-end system, a customer may inadvertently click the Submit button twice, thereby creating two duplicate orders. To avoid this scenario, every order that is captured must be checked against orders with similar attributes.

6.6.4.1.1 Solution

When a draft order is confirmed, or an order is created, the YCD_DUPLICATE_ORDER hold is applied to the order. The hold prevents any transaction from processing the order, and is processed by the Duplicate Order agent, which is derived from the Process Order Hold Type base transaction.

Details for the Duplicate Order agent are described below:

Attributes

Table 6–10   Duplicate Order Agent Attributes

Attribute	Value
Base Transaction ID	PROCESS_ORDER_HOLD_TYPE
Base Document Type	0001 (Sales Order)
Base Process Type	ORDER_FULFILLMENT (Order Fulfillment)
Abstract Transaction	Yes
APIs Called	checkDuplicateOrder

Criteria Parameters

Table 6–11   Duplicate Order Agent Criteria Parameters

Parameter	Description
Action	This field is used internally by Sterling Call Center and Store. The only valid value is Get. Please do not modify this field.
Number of Records to Buffer	Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000.
CollectPendingJobs	If this parameter is set to "N", the agent does not collect information on the pending jobs for this time-triggered transaction. This pending job information is used to monitor the agent in the System Management Console.
	By default, CollectPendingJobs is set to Y. It can be helpful to set it to N if one particular time-triggered transaction is performing a significant amount of getPendingJobs queries, and the overhead cost is too high.
Next Task Queue Interval	The number of hours to wait before attempting to check for duplicate orders again. If not set, the default value is 5 hours from the current time.

Statistics Tracked
None.

Pending Job Count
The number of orders that need to be checked for duplicates.

Events Raised
The following events are raised by this time-triggered transaction:

Table 6–12   Events Raised by the Duplicate Order Agent

Transaction/Event	Key Data	Data Published	Template Support?
ON_DUPLICATE_ORDER	OrderHeaderKey, OrderNo	VERIFY_ADDRESS.0001 .VERIFY_ADDRESS_FAILED.0001.xml	Yes
ON_HOLD_TYPE_STATUS_CHANGE	modifyOrder_dbd .txt	PROCESS_ORDER_HOLD_TYPE.ON_HOLD_TYPE_STATUS_CHANGE.xml	Yes
ON_SUCCESS	modifyOrder_dbd .txt	PROCESS_ORDER_HOLD_TYPE.ON_SUCCESS.xml	Yes

The Duplicate Order agent calls the YFSProcessOrderHoldTypeUE user exit, which is implemented as the YCD_ProcessCustOrdMgmtHolds_1.0 service as illustrated in Figure 6–1.

Figure 6–1   The YCD_ProcessCustOrdMgmtHolds_1.0 Service
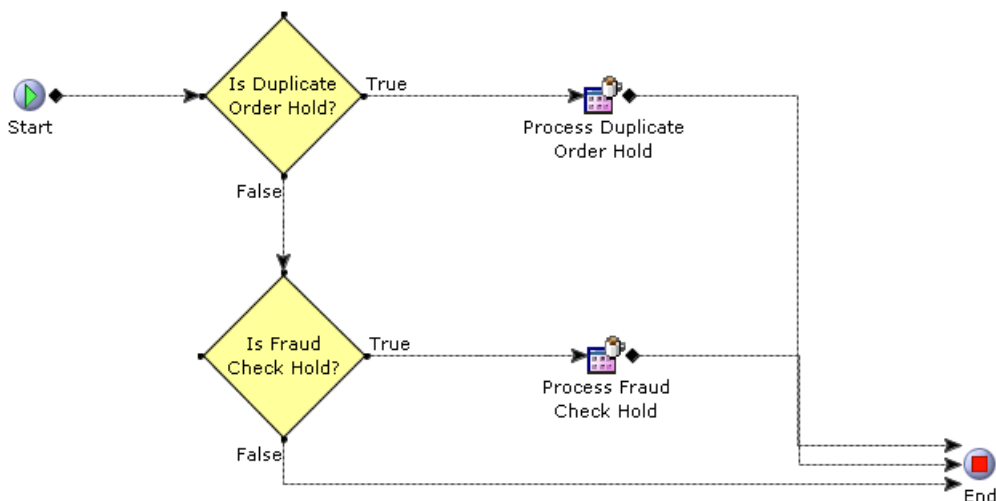
In this case, the processDuplicateOrderHold custom API is called, which in turn calls the checkDuplicateOrder API, which finally calls the YCDProcessDuplicateOrderCheckUE user exit.

The user exit takes the following file as its input XML:

`<INSTALL_DIR>/repository/xapi/template/merged/userexit/process DuplicateOrderCheck.0001.xml`

The XML is then passed on to the YCD_ProcessDuplicateOrderCheck_1.0 service as illustrated in Figure 6–2.

Figure 6–2   The YCD_ProcessDuplicateOrderCheck_1.0 Service
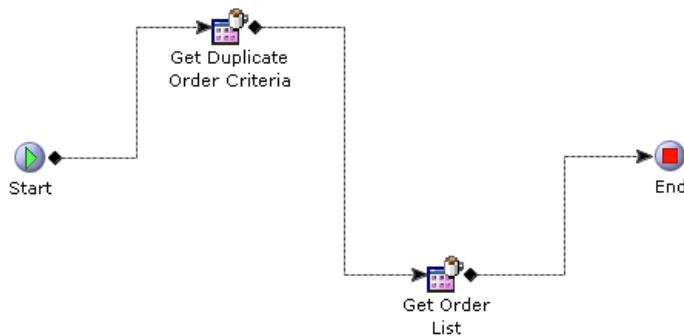
In this service, the getOrderList API is called using the output of the getDuplicateOrderCriteria custom API as input. If more then one record is returned by the getOrderList API call, then the order is a potential duplicate.

By default, the criteria for a duplicate order are the following:

- Bill To ID: if the identifier of the customer on the orders is identical.

- Total Amount: if the total amount on the orders are within $5 of each other.

- Order Date: if the timestamp on the orders are within 20 seconds of each other.

- Enterprise Code: if the enterprise code on the orders is identical.

- IP Address: if the IP address of the customer on the orders is identical.

In that case, the ON_DUPLICATE_ORDER event is raised by the Duplicate Order agent, which invokes the YCD_DuplicateOrderAlert_1.0 service through the YCDOnDuplicateOrder action. The YCD_DuplicateOrderAlert_1.0 service sends an alert to the Duplicate Order queue, which is monitored by default by the user.

6.6.4.1.2 End-User Impact

The user is notified through an alert of possible duplicate orders. They must either cancel the order if it is a duplicate, or remove the Duplicate Order hold if it is a valid order.

6.6.4.1.3 Implementation

To use this feature, you should ensure that the YCD_DUPLICATE_ORDER hold type is implemented for the enterprise that performs your duplicate order checks. Because the hold type provided by Sterling Call Center and Store is for the DEFAULT Enterprise, your Enterprise should either inherit its configuration from DEFAULT, or have a copy of this hold type implemented.

In the YCD_DuplicateOrderAlert_1.0 service, the alert sent to the Duplicate Order queue uses the following XSL by default:

```
<INSTALL_DIR>/repository/xapi/template/merged/exception_console/YCD_DuplicateOrderAlert.xsl.sample
```

This XSL should be copied to a file named YCD_DuplicateOrderAlert.xsl, customized as needed, and its path and name should be specified in the Template Name field of the Alert properties.

You can save it to another directory, but using the standard directory structure supplied by the Sterling Multi-Channel Fulfillment Solution helps ensure consistency.

You can customize all services and user exits to adapt to changing business needs. You can also customize the getDuplicateOrderCriteria custom API to return the exact set of criteria that you use to determine whether an order is duplicate.

6.6.4.1.4 Reference Implementation

None.

6.6.4.2 Address Verification

When a customer defines or changes an address, it needs to be verified as being a valid address. You may want to verify addresses on the order for any of the following reasons:

- To ensure that the order is shipped to an address that actually exists and that the user has entered it correctly

- To ensure that the ship-to address is not a known fraudulent address

- To ensure that the address is stored in Sterling Call Center and Store as a standardized address that all carrier services can understand and process

Sterling Call Center and Store has an understanding of when such validations should occur.

6.6.4.2.1 Solution

Sterling Call Center and Store provides a user interface to capture an address for the order.

There may be various scenarios like order capture or change of order address which mandate address verification. Sterling call center and store provides an address verification agent to verify addresses on the order.

Address Capture

Sterling Call Center and Store provides a user interface to capture an address for the order. This screen can be launched as a Shared Task. For more information about shared tasks, see Section 5.4, "Shared Tasks". When an address is entered or modified, the verifyAddress API is called to verify the address.

The user will have an option to override the validation, if they feel that the provided address is right despite an address verification failure. If an address validation fails and the AVS returns multiple addresses, the end user can select an address from a list, or choose none and override the validation.

UI Verification of Phone Number and E-Mail Address

Sterling Call Center and Store validates e-mail address and phone numbers on the address capture screens. These fields are validated in the plug-in using the YRCDataFormatter extension point. For more information about custom data formatting, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

Sterling Call Center and Store checks that each phone number and e-mail address entered is valid.

The phone number validation logic verifies that there are either ten or eleven digits entered in the field.

Once a phone number has been validated, Sterling Call Center and Store removes all non-digit characters from the phone number field and formats it: *(###) - ### - ####*.

> **Note:** Sterling Call Center and Store will only validates phone numbers located in the United States. The validation logic can be extended in the extension behavior class to work with other countries, if required. For more information about creating extension behavior, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

Sterling Call Center and Store validates e-mail addresses using the following criteria:

- The first character must be a letter.

- There is an ampersand (@) and at least one period (.) following the ampersand.

- There is at least one character before the ampersand.

- There is at least one character between the ampersand symbol and the period.

- There are between two to four characters after the period.

- There are no spaces in the e-mail address.

If any of these validations fail, Sterling Call Center and Store displays an error message to notify the user of the incorrect field.

Address Verification

When the order is initially captured by Sterling Call Center and Store using the createOrder API, the customer's ship-to and bill-to addresses should be validated. Address validation, however, could have already been completed by the front-end system for some or all of the addresses on the order. For example, the bill-to address is often validated by the credit card authorization process. The ship-to address could also have been validated up front.

Sterling Call Center and Store keeps track of which addresses have already been verified. Each address record maintains the IsAddressVerified flag with the value Y if the address has been recognized as being valid. If all the addresses on the order are valid, the AllAddressesVerified flag is set to Y, at the order header level.

During order capture, if the AllAddressesVerified flag is passed as "Y" in the input XML of the createOrder API, Sterling Call Center and Store does not attempt to verify any addresses on the order unless one of them is changed.

If the `AllAddressesVerified` flag is passed as `N` in the input XML of the `createOrder API`, Sterling Call Center and Store places the order on the address verification hold. The hold type applied to orders that have failed address verification is `YCD_VERIFY_ADDRESS`. By default, this hold type is defined for the DEFAULT Enterprise. If your implementation defines a different Enterprise to perform the address verification, you should either ensure that your configuration is inherited from the DEFAULT Enterprise, or that you create a copy of the `YCD_VERIFY_ADDRESS` hold type for your Enterprise. Orders on the address verification hold cannot be scheduled or released.

The Address Verification agent processes the address verification hold by trying to validate all addresses with `IsAddressVerified` set to `N`.

End users are notified of the addresses that have failed verification through alerts. When all the addresses on an order are verified, the associated alerts are closed automatically.

Address Verification User Exit
The user exit allows Sterling Call Center and Store to interact with the AVS and modify the order for which the AVS was called appropriately.

The YCDVerifyAddressWithAVSUE user exit is called from the verifyAddress API. The user exit returns an XML output, which is same as the verifyAddress API output. For more information about the YCDVerifyAddressWithAVSUE user exit, see the *Sterling Multi-Channel Fulfillment Solution Javadocs.*

The value of the `AVSReturnCode` attribute returned by the user exit can have the following values:

• VERIFIED if the address is valid.

- FAILED if the address is not valid.

- AVS_DOWN if the AVS system could not be connected with.

Address Verification Agent

The Address Verification agent picks up orders that are placed on the address verification hold. For each address in an order that needs to be validated, the agent calls the verifyAddress API, which in turn calls the YCDVerifyAddressWithAVSUE user exit to interact with the AVS.

If the AVS confirms that all addresses are valid, the agent removes the hold on the order. If the address is invalid, the agent rejects the hold.

When an address is not valid, the AVS returns multiple possible close matches if it can. The agent handles this situation in the same way as if the AVS had indicated an invalid address: it rejects the hold on the order and raises an alert. The agent does not reprocess the order unless an address is changed manually.

In the event that the AVS is not online, the agent can be configured to either remove the hold from the order and process it, or reject it, to be reprocessed by the agent at a later time.

The time interval between the agent rejecting a hold and reprocessing that hold is configurable.

The flow chart in Figure 6–3 illustrates the behavior of the Address Verification agent:

Figure 6–3   The Address Verification Agent
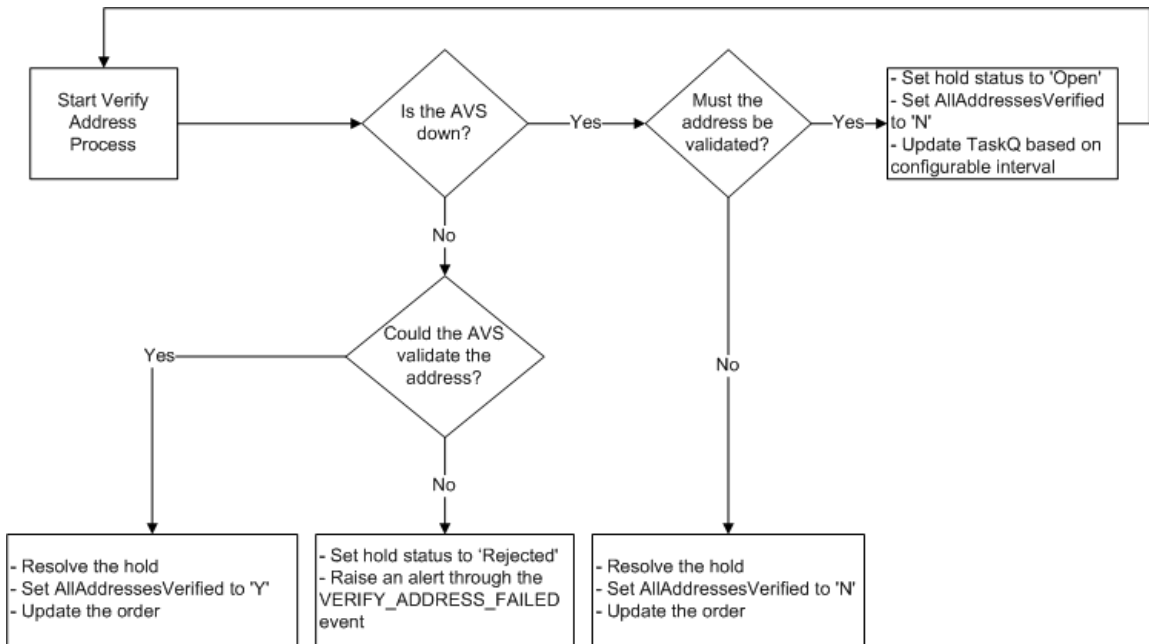
The details for the address verification agent are as follows:

Attributes

Table 6–13   Address Verification Agent Attributes

Attribute	Value
Base Transaction ID	PROCESS_ORDER_HOLD_TYPE
Base Document Type	0001 (Sales Order)
Base Process Type	ORDER_FULFILLMENT (Order Fulfillment)
Abstract Transaction	No
APIs Called	verifyAddress

Criteria Parameters

Table 6–14   Address Verification Agent Criteria Parameters

Parameter	Description
Action	This field is used internally by Sterling Call Center and Store. The only valid value is Get. Please do not modify this field.
Number of Records to Buffer	Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000.
CollectPendingJobs	If this parameter is set to N, the agent does not collect information on the pending jobs for this time-triggered transaction. This pending job information is used to monitor the agent in the System Management Console. By default, CollectPendingJobs is set to Y. It can be helpful to set it to N if one particular time-triggered transaction is performing a significant amount of getPendingJobs queries, and the overhead cost is too high.
Next Task Queue Interval	The number of hours to wait before attempting to process an address again. This value is used in conjunction with the MUST_VERIFY_ADDRESS rule. If not set, the default value is 5 hours from the current time.

Statistics Tracked
None.

Pending Job Count
The number of orders that need to have addresses verified.

Events Raised
The following events are raised by this time-triggered transaction:

Table 6—15   Events Raised by the Address Verification Agent

Transaction/Event	Key Data	Data Published	Template Support?
VERIFY_ADDRESS_FAILED	OrderHeaderKey, OrderNo	VERIFY_ADDRESS.0001 .VERIFY_ADDRESS_FAILED.001.xml	Yes

6.6.4.2.2 End-User Impact

The user will be notified using alerts if the address verification agent is configured to raise alerts.

6.6.4.2.3 Implementation

To use the address verification feature, the following steps need to be completed:

- Implement the YCDVerifyAddressWithAVSUE user exit to verify the address with AVS.

- Configure the address verification agent:

  To configure the behavior of the agent when the AVS is not online, see Section 4.20, "Extending and Customizing the Application".

  > **Warning:**   The Sterling Call Center and Store Rules home page is not permission controlled. Be sure to disable access to this page when Sterling Call Center and Store is deployed into a production environment.

  To configure the amount of time that the agent should wait before attempting to reprocess an address that could not be verified can be configured in the Sterling Multi-Channel Fulfillment Solution Configurator. For more information about configuring agent criteria parameters, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

- If your configuration does not inherit from the DEFAULT Enterprise, create a copy of the YCD_VERIFY_ADDRESS hold type for your Enterprise.

- To validate the address and phone numbers entered on the address capture user interface, extend the YRCDataFormatter extension point.

6.6.4.2.4   Reference Implementation

Sterling Call Center and Store provides reference implementation for the YCDVerifyAddressWithAVSUE user exit. If you pass the value "AMES POND DR" to the PersonInfo/@AddressLine1 attribute, the user exit returns a set of three matches for the address.

6.6.4.3 Fraud Check

Your business may maintain a list of known fraudulent IP addresses, or a list of customers that have placed fraudulent orders in the past. Orders should be validated by specific fraud checks at order capture time, and fraud analysts should be notified of the failures.

6.6.4.3.1   Solution

The fraud check mechanisms are very specific to business needs and practices. Because of this, Sterling Call Center and Store provides a general framework for fraud checks.

All orders are placed on the `YCD_FRAUD_CHECK` hold upon order creation or draft order confirmation. This hold prevents any transaction from processing the order, and is processed by the Fraud Check agent once the Duplicate Order hold has been resolved. For more information about duplicating an order validation, see Section 6.6.4.1, "Duplicate Order Validation". The Fraud check agent is derived from the Process Order Hold Type base transaction.

The details of the Fraud Check agent are as follows:

Attributes

Table 6–16   Fraud Check Agent Attributes

Attribute	Value
Base Transaction ID	PROCESS_ORDER_HOLD_TYPE
Base Document Type	0001 (Sales Order)
Base Process Type	ORDER_FULFILLMENT (Order Fulfillment)

Table 6−16   Fraud Check Agent Attributes

Attribute	Value
Abstract Transaction	Yes
APIs Called	checkFraudOnOrder

Criteria Parameters

Table 6−17   Fraud Check Agent Criteria Parameters

Parameter	Description
Action	This field is used internally by Sterling Call Center and Store. The only valid value is Get. Do not modify this field.
Number of Records to Buffer	Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000.
CollectPendingJobs	If this parameter is set to N, the agent will not collect information on the pending jobs for this time-triggered transaction. This pending job information is used for monitoring the agent in the System Management Console. By default, CollectPendingJobs is set to Y. It can be helpful to set it to N if one particular time-triggered transaction is performing a significant amount of getPendingJobs queries, and the overhead cost is too high.
Next Task Queue Interval	The number of hours to wait before attempting to process an order for fraud check. If not set, the default value is 5 hours from the current time.

Statistics Tracked
None.

Pending Job Count
The number of orders that need to be checked for fraud.

Events Raised
The following events are raised by this time-triggered transaction:

Table 6–18   Events Raised by the Fraud Check Agent

Transaction/Event	Key Data	Data Published	Template Support?
ON_FRAUDULENT_OR DER	OrderHeaderKey, OrderNo	FRAUD_CHECK.0001.O N_FRAUDULENT_ORDE R.0001.xml	Yes
ON_HOLD_TYPE_STA TUS_CHANGE	modifyOrder_dbd .txt	PROCESS_ODER_HOLD _TYPE.ON_HOLD_TYPE _STATUS_CHANGE.xml	Yes
ON_SUCCESS	modifyOrder_dbd .txt	PROCESS_ORDER_HOL D_TYPE.ON_SUCCESS. xml	Yes

The Fraud Check agent calls the YFSProcessOrderHoldTypeUE user exit, which is implemented as the YCD_ProcessCustOrdMgmtHolds_1.0 service as illustrated in Figure 6–4.

Figure 6–4   The YCD_ProcessCustOrdMgmtHolds_1.0 Service
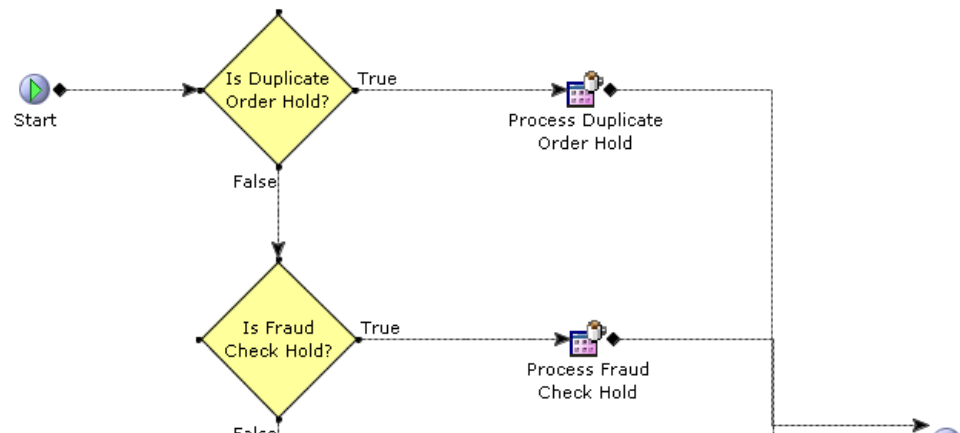
In this case, the processFraudCheckHold custom API is called, which in turn calls the checkFraudOnOrder API, which finally calls the YCDProcessFraudCheckOnOrderUE user exit.

The user exit takes the following file as its input XML:

```
<INSTALL_DIR>/repository/xapi/template/merged/userexit/process
OrderFraudCheck.0001.xml
```

If the user exit returns a message to the agent that indicates possible fraud, the ON_FRAUDULENT_ORDER event is raised, and the YCDFraudCheckAlert_1.0 service is invoked through the YCDOnFraudulentOrder action.

The YCD_FraudCheckAlert_1.0 service sends an alert to the Fraud Queue queue, which is monitored by the Fraud Analyst user.

If the user exit returns a message indicating that the order is not fraudulent, the agent will automatically resolve the hold. The processFraudCheckHold API, on the other hand, will not.

6.6.4.3.2 End-User Impact

When an order fails the fraud check, an alert is sent to the queue monitored by the Fraud Analysts. After analyzing the order, the Fraud Analyst either cancels it if it turns out to be fraudulent, or removes the hold so that it can be processed normally.

6.6.4.3.3 Implementation

To use this feature, you should ensure that the YCD_FRAUD_CHECK hold type is implemented for the Enterprise that performs the fraud checks. Since the hold type provided by Sterling Call Center and Store is for the DEFAULT Enterprise, your Enterprise should either inherit its configuration from the DEFAULT Enterprise, or have a copy of this hold type implemented.

In the YCD_FraudCheckAlert_1.0 service, the alert sent to the Fraud Check queue uses the following XSL by default:

```
<INSTALL_DIR>/repository/xapi/template/merged/exception_consol
e/YCD_FraudCheckAlert.xsl.sample
```

This XSL should be copied to a file named YCD_FraudCheckAlert.xsl, customized as needed, and its path and name should be specified in the Template Name field of the Alert properties.

You can save it to another directory, but using the standard directory structure supplied by the Sterling Multi-Channel Fulfillment Solution helps ensure consistency.

All of these services can be customized as needed to fit your business needs, as well as the user exits.

The YCDProcessFraudCheckOnOrderUE user exit should return the response code of the fraud check in the `FraudCheckResponseCode` attribute, at the `Order` element level. This attribute value should be 'FAILED' if the fraud check failed, and 'SUCCESS' if the fraud check succeeded. Additionally, a `FraudCheckResponseMessage` element should be returned under the `Order` element. For more information about the YCDProcessFraudCheckOnOrderUE user exit, see the *Sterling Call Center and Store Javadocs*.

6.6.4.3.4   Reference Implementation

None.

6.7 Order Inquiry

Customers often enquire information about orders they have placed. For example shipment information. In such situations, Sterling Call Center and Store needs to respond to order inquiries by publishing information about the orders captured internally to the external systems.

6.7.1 Solution

Sterling Call Center and Store provides user interface tasks which enables users to search for orders.

This section explains the Order Search task and the solution offered by Sterling Call Center and Store.

Sterling Call Center and Store provides two ways to search for orders:

- Quick Access—The user can enter the order number, customer's phone number or customer's e-mail ID and search for the order.

- Advanced Order Search—The user can enter more restrictive search criteria to search for the order.

If the search criteria results in a single record, the Order Summary screen is displayed. If the search criteria results in multiple records being retrieved, the Search and List screen is displayed.

The search results can be sorted in ascending or descending order based on following Order By options:

- Order Number

- Order Date

- Customer Last Name

After an order has been captured, the detailed information about the order, shipments, containers, and the return orders associated with that order can be retrieved.

Sterling Call Center and Store user interface (UI) allows users to search and view the orders that are purged into their corresponding history tables. When these purged orders are accessed through the UI, they are restored to the non-history tables by calling the restoreOrder API.

Sterling Call Center and Store provides the getCompleteOrderDetails API, which retrieves the list of orders that match the search criteria. For more information about the getCompleteOrderDetails API, see the *Sterling Call Center and Store Javadocs*.

The getCompleteOrderDetails API can return the OverallStatus attribute for orders and order lines. This attribute's value is based on the YFSGetOverallStatusUE user exit. For more information about APIs and user exits, see the *Sterling Multi-Channel Fulfillment Solution Javadocs*.

Sterling Call Center and Store assumes that that the Create Shipments For Products Being Delivered In Addition To Work Order check box is selected in the Sterling Multi-Channel Fulfillment Solution Configurator, to view order lines that have Delivery as a fulfillment method and are already delivered. This is defined as part of the process type's primary information. For more information about defining a process type's primary information, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

Pagination

Sterling Call Center and Store supports smart retrieval of record sets in the Order Search screen. You can configure if history records need to be automatically fetched while retrieving records. For more information about configuring pagination rules, see Section 4.19.9, "Configuring Pagination Rules".

For more information about pagination, see Section 6.17, "Pagination".

6.7.2 End-User Impact

Based on the configuration to search for history orders, the end user will see history orders or recent orders in the search results.

In Order Search and Return Order Search tasks, the user sees the Order By pull-down window, which allows for sorting returned data by Order Number, Order Date, or Customer Last Name.

6.7.3 Implementation

This section explains the configurations for the order inquiry task.

- Implement the YFSGetOverallStatusUE user exit to return the `OverallStatus` attribute for orders and order lines.

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.7.4 Reference Implementation

Sterling Call Center and Store provides permissions to search for orders to all users as part of reference implementation.

6.8 Order Monitoring

After the orders have been captured, validated, paid for, and their processing has begun, they need to be monitored to ensure that customers are notified when the order is about to ship, or whether the promised delivery dates are going to be met.

Currently, Sterling Call Center and Store supports the following aspects of order monitoring:

- Federal Trade Commission Compliance

- Shipment Notification

- Order Cancellation Notification

6.8.1 Federal Trade Commission Compliance

The United States Federal Trade Commission (FTC) defines rules that retailers must follow when dealing with customer orders. One of these rules deals with mail or telephone order merchandise.

This rule states that:

- A notification must be sent to a customer if the promised ship date cannot be met and that a new promised ship date will be given to the customer.

- If the customer does not respond to the notification that is sent the first time the merchandise is delayed, the retailer can assume that the customer accepts the delay.

- If the merchandise is delayed more than once and the customer does not respond to these notifications, the retailer must cancel the order.

- If the retailer is unable to give a promise date and the customer can accept an indefinite delay, notifications do not have to be sent to the customer notifying them of delays.

In retail scenarios, ship dates should be calculated based on business advertising. For example, if a Web site states that items that are on-hand are shipped within ten days, the promised ship date should be ten days after the date of the order capture. If a time frame is not advertised by the retailer, the FTC stipulates that an order must be shipped within 30 days of the order capture.

If it becomes apparent that the ship date will not be met, a second ship date must be calculated. This date cannot be more than 30 days after the first ship date. A notification should be sent to the customer, informing them about the shipment failure, along with the next ship date. If, for any reason, the notice cannot be received by the customer, the order is expected to be cancelled by the end of the day corresponding to the first ship date.

A second ship date has been calculated, and if, before that date, it becomes apparent that the order will not be completely delivered on time, a notification should be sent to the customer, stating that the ship date is unknown, and that the order should be cancelled on the second ship date.

> **Note:** When a customer has an e-mail set on the order, notification e-mails will be sent directly to them. In all cases, an alert will be raised. This alert can be resolved when a response is received from the customer or automatically, if the alert is raised for the first delay.

6.8.1.1 Solution

Sterling Call Center and Store monitors orders from end-to-end to assist you in abiding by this FTC regulation. To do this, five dates are used to determine whether a delay occurred, if yes, the type of delay, whether a notification is required, and finally, notify the customer accordingly. The dates are:

- Expected ship date

- First promised date

- Current promised date

- Next promised date

- Cancel date

Calculation of Dates
First Promised Date

When an order is created, the first promised date should be set by the application creating the order. This can be done by passing the OrderDate element of the order line, with the DateTypeId as YCD_FTC_FIRST_PROMISE_DATE, and the ActualDate, that is, the date the merchandise will ship on. If the first promised date is not passed, Sterling Call Center and Store will default this date to OrderDate + a fixed number of days that can be configured. When orders are created within Sterling Call Center and Store, the first promised date is set to the reservation date (see Section 4.10.34, "Configuring FTC Compliance"). If reservations are not turned on in Sterling Call Center and Store, the same logic that is used to determine the reservation date will be used to determine the first promised date. This date will remain untouched unless it is reset through the UI. If the order is changed in a way that results in the ship date being changed, this date can be updated to the new first promised date. This will be determined by the application making the change. When the first promised date is passed in the input

to the createOrder API or changeOrder API, all the dates will be reset to reflect the new promised date:

```
<OrderDates>
    <OrderDate ActualDate="20050807"
    DateTypeId="YCD_FIRST_PROMISED_DATE"/>
</OrderDates>
```

> **Note:** If a line has multiple expected ship dates, the highest ship date will be used. This means that the customer is being told that the entire quantity on this line will be shipped by this date. Some quantity may be shipped earlier, but the shipment will be completed by this date.

Current Promised Date

The current promised date will be set to the first promised date whenever the first promised date is passed as input to the createOrder API or changeOrder API. When a delay is accepted, the current promise date is set to the next promised date given to the customer.

> **Note:** This is handled by one of the order monitors shipped with Sterling Call Center and Store and the Alert Details screens in Sterling Call Center and Store. If there are any custom screens that will resolve FTC notifications or accept delays, they will have to set the FTC promised date on the order line. To accomplish this, pass the OrderDate Element in the input to changeOrder API, with the DateTypeId attribute set to YCD_FTC_PROMISED_DATE.

Next Promised Date

The next promised date is always handled through back-end logic and should never be set by the UI. When the order monitor runs, if a delay is found, the next promised date will be set to the maximum ship date for the corresponding line. In case of an indefinite delay, the next promised date will be set to a high date.

Cancel Date

The cancel date is always handled through back-end logic and should never be set by the UI. When the order monitor runs, if it is determined that the order has to be cancelled because action is not taken by the customer, the cancel date will be set. If the delay is greater than 30 days or if it is an indefinite delay, Sterling Call Center and Store will set the cancel date to the current promise date + the fixed number of days. This value can be configured in the Configuring FTC Compliance screen in the Sterling Call Center and Store Configurator (see Section 4.10.34, "Configuring FTC Compliance"). In cases where the delay is less than 30 days, and at least one delay has already been sent to the customer, the cancel date will be set to the current promise date + the process buffer.

Notifications
Backorder/Indefinite Notifications

When a quantity on an order line is backordered, an indefinite notification is sent to the customer, informing them of the backorder. Because the inventory picture changes often, no notification will be sent to the customer for more than the configured time before the promised date. This allows time for rescheduling so that the order will not be delayed.

If the order is backordered from node, a notification will not be sent. Instead, Sterling Call Center and Store will wait for the scheduler to run again in order to determine either another node or whether it needs to back order, in which case, Sterling Call Center and Store will send the indefinite notification to the customer.

The monitor rules used to catch these scenarios are:

```
IF Order
  meets condition Indefinite FTC Notification Is Needed? and has not reached YCD
unreachable Milestone 48 elapsed hours before Actual Current FTC Promise Date
THEN
   raise Create Indefinite FTC Delay Email.


IF Order
  meets condition Indefinite FTC Notification Is Needed? and has not reached YCD
unreachable Milestone 120 elapsed hours before Actual Current FTC Promise Date
THEN
   raise Create Indefinite FTC Delay Alert.
```

> **Note:** In compliance with this FTC regulation, if the customer accepts an indefinite delay, they will not be notified again until the shipment is shipped.

First Delay Notifications

When a quantity on an order line is delayed beyond the process buffer and within 30 days of the promised date, and where the promised date has not already been delayed, a first delay notification will be sent to the customer. The notification is sent a configured number of hours before the promised date. By default, this is 48 hours for orders with e-mail addresses and 120 hours for orders without e-mail addresses. This is achieved by defining the monitoring rules that raise events when a line does not have its entire quantity shipped or cancelled. The monitor rules that are used to handle these scenarios are described in the next paragraph. These events are consolidated at the order level. Therefore, the customer is notified only once for all the lines on the same order with the same promised date and same type of delay. Notes will also be added to each order line, stating that the customer has been notified by e-mail, or that the customer should be notified by a CSR about the order not being shipped on time.

Each line, with the applicable quantity, is included in the notice to the customer, along with a second promised delivery date. The notice informs the customer that the order is not likely to be shipped by the first promised date. It will also state that if the customer does not reply, it will be assumed that the delay is acceptable and therefore approved.

```
IF Order
  meets condition First FTC Notification Is Needed? and has not reached Order
line completely shipped or cancelled 48 elapsed hours before Actual First FTC
Promise Date
THEN
   raise Send First FTC Delay Email.

IF Order
  meets condition First FTC Notification Is Needed? and has not reached Order
line completely shipped or cancelled 120 elapsed hours before Actual First FTC
Promise Date
THEN
   raise Create First FTC Delay Alert.
```

Next Delay Notifications

As with the first FTC notification, the next delay notification is defaulted to send notifications if the lines have not been completely shipped or cancelled 48 hours before the promised date when the customer has an e-mail address, and 120 hours before the promised date if they do not. The next delay notifications are the same as the first delay notifications with the following exceptions:

- The notification states that if the customer does not explicitly request the order to remain open, it will be cancelled by the cancel date.

- The monitor rule will retrigger to catch the additional delays.

In the event that the customer requests to keep the order open and accepts the delay, and if there are further delays, the customer will continue to be notified of these delays.

The monitor rules that handle these scenarios are:

```
IF Order
  meets condition Next FTC Notification Is Needed? and has not reached Order
line completely shipped or cancelled 48 elapsed hours before Actual Current FTC
Promise Date
THEN
   raise Send FTC Delay Email.
```

```
IF Order
  meets condition Next FTC Notification Is Needed? and has not reached Order
line completely shipped or cancelled 120 elapsed hours before Actual Current FTC
Promise Date
THEN
   raise Create FTC Delay Alert.
```

Automatic Acceptance

When first delay notifications are sent, if the customer does not respond by the promised date, the delay is automatically accepted and the open alert is automatically closed. This is achieved by defining a monitor rule that runs on the promised date if the line has not been completely shipped or cancelled. These events will be consolidated at the order level. No notification will be sent to the customer. However, a note will be logged on the order line, stating that it was automatically accepted because the customer did not respond.

The monitor rule that is used to handle this scenario is:

```
IF Order
  has not reached Order line completely shipped or cancelled within 1 elapsed
hours of Actual First FTC Promise Date
THEN
    raise Auto Resolve FTC Alerts.
```

> **Note:** If the promised date given to the customer is the same day the order is taken, and if, later in the day, it is found that it will not ship on that day, a notification will be sent and the delay will be automatically accepted at the same time. However, this complies with the FTC regulations, and if the customer does not agree to the delay, they can cancel their order any time.

Auto Cancellation Notice

When a next delay notification or indefinite delay notification is sent, and the customer does not respond by the cancel date, the order lines will be cancelled and the corresponding alert will be closed. This is achieved by defining a monitor rule that will run on the cancel date if the line has not been completely shipped or has been cancelled. These events will be consolidated at the order level. The customer will be sent a notice that the order lines were cancelled, and notes will be put on the order line, stating that the lines were cancelled because the customer did not respond.

The monitor rule that is used to handle this scenario is:

```
IF Order
  has not reached Order line completely shipped or cancelled within 1 elapsed
hours of Actual YCD FTC CCANCEL DATE
THEN
    raise FTC Cancel Lines.
```

6.8.1.2 End-User Impact

Alerts will be raised whenever a customer needs to be notified, regardless of whether an e-mail was sent to the customer or not. If an e-mail was sent, the alert description will state that the e-mail was sent.

In the event that the customer has not provided an e-mail address, the user should contact the customer, either by phone or mail, and inform

them of the problem with the order. The user should not resolve the alert until the customer has responded to the notification with either acceptance or cancellation.

6.8.1.3 Implementation

The services called by Sterling Call Center and Store to send notifications to customers can be customized as needed.

To run the monitor for FTC compliance, you must use the order monitor template that is located in <INSTALL_DIR>\template\monitor. If you have not previously extended this template, rename the sample file ORDER_MONITOR_EX.001.xml.sample to ORDER_MONITOR_EX.001.xml. If you have already extended this template, you must include the contents of the sample file in your extended template.

Notes entered for this task are saved on the order with YCD_FTC_NOTIFICATION note type.

Services

The following services are present in the Sterling Call Center and Store Configurator in the Platform Module under the Sales Order document type:

- YCD_FTC_AUTO_RESOLVE – This service is used to resolve the FTC notification alert, and update the dates on the order lines being delayed. It is invoked by the YCD_FTC_Auto_Resolve monitor event. This service invokes the FTCHandler custom API with the arguments listed in Table 6–19. For details about how this custom API can be customized, see the corresponding section. Figure 6–5 illustrates this service.

Table 6–19   YFC_FTC_AUTO_RESOLVE arguments for FTCHandler

Fields	Description
FTCDelayType	AutoResolve
NoteText	YCD_FTC_AUTO_RESOLVE_NOTE_TEXT

- YCD_FTC_CANCEL_ORDER_LINES – This service is used to cancel the order lines if the customer has not responded to the notifications and resolved the FTC notification alert. It is invoked by the YCD_FTC_Cancel_Lines monitor event. This service invokes the

FTCHandler custom API with the arguments listed in Table 6–20. For details about how this custom API can be customized see the corresponding section. The only difference between this service and the YCD_FTC_AUTO_RESOLVE service are the arguments passed to the FTCHandler. Figure 6–5 illustrates this service.

Table 6–20   YCD_FTC_CANCEL_ORDER_LINES arguments for FTCHandler

Fields	Description
FTCDelayType	CancelLines
NoteText	YCD_FTC_CANCEL_LINES_NOTE_TEXT

Figure 6–5   The YCD_FTC_AUTO_RESOLVE and YCD_FTC_CANCEL_ORDER_LINES Services.

- YCD_FTC_DELAY_ALERT – This service is used to update the order dates and send a notification to the customer. It is invoked by the YCD_FTC_Delay_Alert monitor event. This service invokes the FTCHandler custom API with the arguments listed in Table 6–21. For details about how this custom API can be customized, see the corresponding section. Figure 6–6 illustrates this service.

Table 6–21   YCD_FTC_DELAY_ALERT arguments for FTCHandler

Fields	Description
FTCDelayType	NextFTCDelay
NoteText	FTC_Delay_Alert_Note_Text

- YCD_FTC_FIRST_DELAY_ALERT – This service is used to update the order dates and send a notification to the customer. It is invoked by the YCD_FTC_First_Delay_Alert monitor event. This service invokes the FTCHandler custom API with the arguments listed in Table 6–22. For details about how this custom API can be customized, see the corresponding section. The only difference between this service and the YCD_FTC_DELAY_ALERT service are the arguments passed to the FTCHandler custom API. Figure 6–6 illustrates this service.

Table 6–22   YCD_FTC_FIRST_DELAY_ALERT arguments for FTCHandler

Fields	Description
FTCDelayType	FirstFTCDelay
NoteText	FTC_First_Delay_Alert_Note_Text

- YCD_FTC_INDEFINITE_DELAY_ALERT – This service is used to update the order dates and send a notification to the customer. It is invoked by the YCD_FTC_Indefinite_Delay_Alert monitor event. This service invokes the FTCHandler custom API with the arguments listed in Table 6–23. For details about how this custom API can be customized, see the corresponding section. The only difference between this service and the YCD_FTC_DELAY_ALERT service are the arguments passed to the FTCHandler custom API. Figure 6–6 illustrates this service.

Table 6–23   YCD_FTC_INDEFINITE_DELAY_ALERT arguments for FTCHandler

Fields	Description
FTCDelayType	IndefiniteFTCDelay
NoteText	FTC_Indefinite_Delay_Alert_Note_Text

Figure 6–6   YCD_FTC_DELAY_ALERT, YCD_FTC_FIRST_DELAY_ALERT, and YCD_FTC_INDEFINITE_DELAY_ALERT Services.
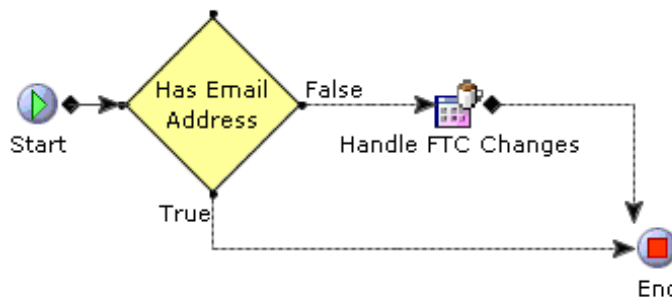
- YCD_FTC_DELAY_EMAIL – This service is used to update the order dates and send a notification to the customer. It is invoked by the YCD_FTC_Delay_Email monitor event. This service invokes the FTCHandler custom API with the arguments listed in Table 6–24. For

details about how this custom API can be customized, see the corresponding section. Figure 6–7 illustrates this service.

Table 6–24   YCD_FTC_DELAY_EMAIL arguments for FTCHandler

Fields	Description
FTCDelayType	FirstFTCDelay
NoteText	FTC_First_Delay_Email_Alert_Note_Text

- YCD_FTC_INDEFINITE_DELAY_EMAIL – This service is used to update the order dates and send a notification to the customer. It is invoked by the YCD_FTC_Indefinite_Delay_Email monitor event. This service invokes the FTCHandler custom API with the arguments listed in Table 6–25. For details about how this custom API can be customized, see the corresponding section. The only difference between this service and the YCD_FTC_DELAY_EMAIL service are the arguments passed to the FTCHandler custom API. Figure 6–7 illustrates this service.

Table 6–25   YCD_FTC_INDEFINITE_DELAY_EMAIL arguments for FTCHandler

Fields	Description
FTCDelayType	IndefiniteFTCDelay
NoteText	FTC_Indefinite_Delay_Email_Alert_Note_Text

Figure 6–7   YCD_FTC_DELAY_EMAIL, YCD_FTC_FIRST_DELAY_ EMAIL, and YCD_FTC_INDEFINITE_DELAY_ EMAIL Services.
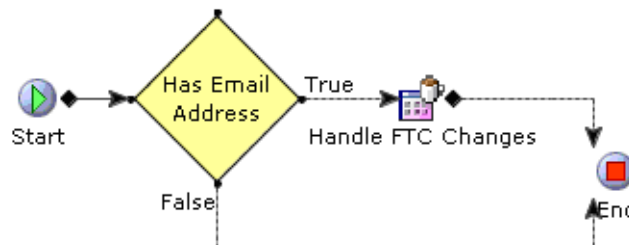
- YCD_FTC_SEND_NOTIFICATION – This service determines what type of notification is needed, and determines what the notification should

state. This service is invoked by the custom API FTCHandler. This is used in all the services described until now. Figure 6–8 illustrates this service.

Figure 6–8   YCD_FTC_SEND_NOTIFICATION Service.
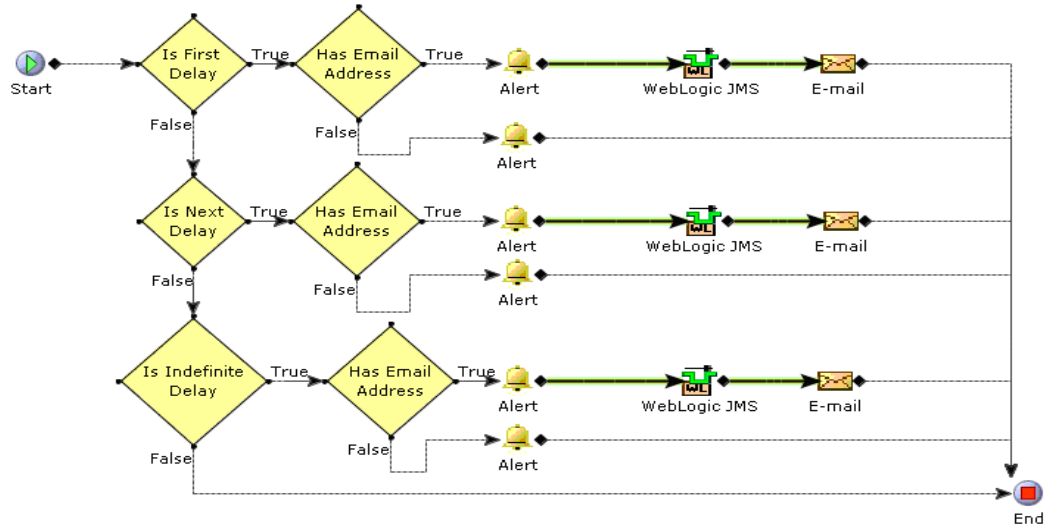
- • YCD_SetOrderDefaults_2.0 and
  YCD_SetOrderDefaultsOnChange_2.0—These two services are invoked as the beforeCreateOrderUE and beforeChangeOrderUE user exits, respectively, that are called by the createOrder API and changeOrder API. For more information about user exits and APIs, see the *Sterling Multi-Channel Fulfillment Solution Javadocs*. These services are used, in part, to set the promised delivery dates. Under the Arguments tab of the Set Order Promised Dates component in both the services, configure the advertised promised date that is used to calculate the first promised delivery date and how many days after the first promised date the second promised date is set to by default (this value cannot exceed 30). Figure 6–9 illustrates this service.

*Figure 6–9   The YCD_SetOrderDefaults_2.0 and
YCD_SetOrderDefaultsOnChange_2.0 Services*
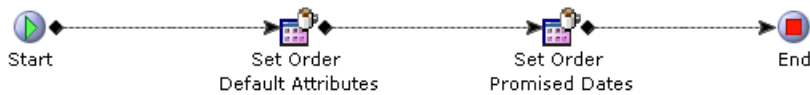
Depending on the service you are configuring, you may have to configure the Alert or E-mail sender components.

FTCHandler Custom API

This custom API contains important parts of the logic for the FTC compliance feature. This custom API determines what type of delay is being sent, what the note text should contain, and what service should be used to send notifications to a customer by the three arguments. These three arguments are described here.

- DelayType – This argument tells the custom API about what it needs to do to the order. It can resolve alerts by accepting or cancelling the lines, and get all the lines on the order with the same delay type and promised date, and invoke the notification service with that list of lines. The possible values for this argument are:

    - IndefiniteFTCDelay

    - NextFTCDelay

    - FirstFTCDelay

    - AutoResolve

    - CancelLines

- NoteText – This argument will set the bundle key that will be used to set the note text on the order lines when they are changed.

- NotificationService – This argument will specify the name of the service that will run when it is determined that a notification needs to be sent. If this argument is not passed, it will be defaulted to YCD_FTC_SEND_NOTIFICATION.

    This service will also close the FTC Notification alerts for the corresponding lines if the DelayType argument is passed as AutoResolve or CancelLines.

Monitor Rules

The monitor rules can be customized to notify the customer of delays, either earlier than or later than what is configured by default. By default, all the notifications are sent to the customer, at the most, 120 hours before the date, if they have not provided an e-mail address. If they have provided an e-mail address, the notification is sent, at the most, 48 hours before the date. This can be changed by going to the corresponding rule and changing the time component to suit your business requirements better. For more information about modifying the monitor rules, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

Configuring the Alert Component

If the service raises an alert, the alert component must be configured accordingly. In particular, set the Alert Queue Name field to the queue where the alert must be sent, which, by default, is set to the Customer Notification queue. Additionally, specify the XSL used for the template of the alert, in the Template Name field.

For more information about default XSLs, see Section , "Configuring Templates".

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

Configuring the E-mail Component

If the service sends an e-mail notification, the e-mail component must be configured accordingly. In particular, set the E-mail Server field to the ID of the mail server user to send the notifications. Additionally, specify the XSL used for the template of the e-mail, in the Template Name field.

For more information about the default XSLs, see Section , "Configuring Templates".

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

Configuring Templates

The XSL components are used to convert the output XMLs into HTML messages that are sent to the customers through the e-mail components of the services. By default, the names of all the XSL files are provided by Sterling Call Center and Store with a .sample extension. Copy these to

create a new XSL file without the .sample extension, customize your XSL files as needed, and update the Template Name field of the E-mail Sender components of the relevant services.

The following XSLs are used as templates of the notification e-mail components in the default implementation of this feature:

- <INSTALL_DIR>/repository/xapi/template/merged/email/ycd/YCD_FTC_ First_Delay_notification.xsl.sample: This XSL formats the HTML message that is sent by e-mail to the customer to inform them that the order has been delayed for the first time.

- <INSTALL_DIR>/repository/xapi/template/merged/email/ycd/YCD_FTC_ Delay_Notification.xsl.sample: This XSL formats the HTML message that is sent by e-mail to the customer to inform them that the order has been delayed again.

- <INSTALL_DIR>/repository/xapi/template/merged/email/ycd/YCD_FTC_ Indefinite_Notification.xsl.sample: This XSL formats the HTML message that is sent by e-mail to the customer to inform them that the order will be delayed and a new date cannot be determined.

- <INSTALL_DIR>/repository/xapi/template/merged/exception_console/Y CD_CancelOrderNotification.xsl.sample: This XSL formats the HTML message that is sent to the user so that they can inform the customer of the auto cancellation alert if they do not have an e-mail address.

You can save it to another directory, but using the standard directory structure supplied by the Sterling Multi-Channel Fulfillment Solution helps ensure consistency.

Implementation at the Enterprise Level

By default, the FTC feature is configured at the hub level. If you want this configuration to be at the enterprise level, you have two options:

- Copy the existing pipeline and monitor rules to the enterprise level.

- Create your own pipeline and monitor rules from scratch.

Copying the Existing Hub-Level Pipeline to the Enterprise Level

Following is the recommended process for moving the configuration to the enterprise level:

1. From the Sterling Call Center and Store Configurator, load the configuration for the enterprise the pipeline is to be copied to.

2. Select Configure Business Process Models and Monitoring Rules.

3. Under Configure Business Process Models and Monitoring Rules, select Configure Order Fulfillment Process. If the dependent task list pop-up window is displayed, you can click the Ignore Lock icon and enter the configuration.

4. In the Pipelines tab, click the Sterling Call Center and Store Sales Order Fulfillment pipeline.

5. Click 🖫 . The process modeling dialog box is displayed.

6. Enter the new pipeline ID and click OK.

> **Note:** Order monitors and monitor events are automatically copied along with the pipeline.

Creating a pipeline

This process involves creating each monitor rule and monitor event manually. For this reason, it is recommended that you copy the existing pipeline. You can always change the pipeline after it is copied. If you still want to create your own pipeline, follow these steps:

1. From the Sterling Call Center and Store Configurator, load the configuration for the enterprise the pipeline is to be copied to.

2. Select Configure Business Process Models and Monitoring Rules.

3. Under Configure Business Process Models and Monitoring Rules, select Configure Order Fulfillment Process. If the dependent task list pop-up window is displayed, click the Ignore Lock icon and enter the configuration.

4. In the Pipelines tab, click the Sterling Call Center and Store Sales Order Fulfillment Pipeline.

5. Select the pipeline that you created.

6. Create nine monitor rules that are configured in exactly the same manner as those configured at the hub level. For more information about how to create monitor rules, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

7. From the Sterling Call Center and Store Configurator, select Configure Business Process Models and Monitoring Rules.

8. Under Configure Business Process Models and Monitoring Rules, select Define Order Monitoring Events. If the dependent task list pop-up window is displayed, click the Ignore Lock icon and enter the configuration.

9. Create nine monitor events that are configured in exactly the same manner as those configured at the hub level. For more information about how to create monitor events, see the *Sterling Distributed Order Management Configuration Guide*. The events should point to the same services that the hub-level monitor events point to. If you do not want to use the default services, make copies of the default services and point the monitor events to these services.

6.8.2 Shipment Notification

When an order ships out of a warehouse, it is important that the customers are notified of the shipment as a confirmation that everything is going well with the order.

6.8.2.1 Solution

Sterling Call Center and Store provides a shipment notification agent that sends an e-mail to the customer containing all shipments for a given day. For each shipment entry in the YFS_SHIPMENT table, the NOTIFICATION_SENT flag is maintained, which indicates whether the notification for that shipment has been sent to the customer.

One consolidated notification is sent for all shipments in a given day that the customer has not been notified. The shipment notification does not contain line item details if the shipment is not packed in a container.

To achieve this, the Shipment Notification time-triggered transaction is defined at the Sales Order document type level. The transaction reads task queue entries, and if some shipments qualify for notification, the sEND_NOTIFICATION event is raised, which calls the YCD_ShipmentNotificationEmail_1.0 service, that is responsible for sending an e-mail to the customer.

The details of the shipment notification agent are as follows:

Attributes

Table 6–26   Shipment Notification Agent Verification Agent Attributes

Attribute	Value
Base Transaction ID	SHIPMENT_NOTIFICATION
Base Document Type	0001 (Sales Order)
Base Process Type	ORDER_FULFILLMENT (Sales Order)
Abstract Transaction	None
APIs Called	None

Criteria Parameters

Table 6–27   Shipment Notification Agent Criteria Parameters

Parameter	Description
Action	This field is used internally by Sterling Call Center and Store. The only valid value is Get. Do not modify this field.
Number of Records to Buffer	Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000.
CollectPendingJobs	If this parameter is set to "N", the agent does not collect information on the pending jobs for this time-triggered transaction. This pending job information is used to monitor the agent in the System Management Console. By default, CollectPendingJobs is set to "Y". It can be set to "N" if one particular time-triggered transaction is performing a significant amount of getPendingJobs queries, and the overhead cost is too high.

Statistics Tracked
None.

Pending Job Count
The number of orders for which a shipment notification has to be sent.

Events Raised

The following events are raised by this time-triggered transaction:

Table 6–28   Events Raised by the Shipment Notification Agent

Transaction/Event	Key Data	Data Published	Template Support?
SEND_NOTIFICATION	order_dbd.txt	SHIPMENT_NOTIFICATION.SEND_NOTIFICATION.0001.xml	Yes

6.8.2.2 End-User Impact

None.

6.8.2.3 Implementation

When the Shipment Notification agent raises the SEND_NOTIFICATION event, the XML used as input to the YCD_ShipmentNotificationEmail_1.0 service is in:

```
<template>/event/SHIPMENT_NOTIFICATION.SEND_NOTIFICATION.0001.
xml
```

> **Note:**   Sterling Commerce recommends that the Shipment Notification agent be run once a day, at the end of the day.

You can customize the YCD_ShipmentNotificationEmail_1.0 service as needed. By default, this service checks whether the customer has an e-mail address, and if that is the case sends the e-mail using the E-mail Sender component. Figure 6–10 illustrates YCD_ShipmentNotificationEmail_1.0 service.

Figure 6–10   The YCD_ShipmentNotificationEmail_1.0
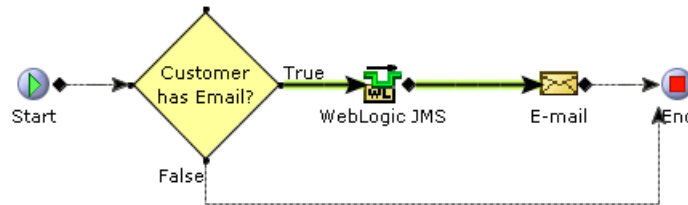
You must specify the e-mail server and e-mail server listener port in the properties of the E-mail Sender component. In the Body Template field, specify XSL used to generate the HTML message that is sent to the customer. By default, the XSL used is in the following file:

```
<INSTALL_DIR>/repository/xapi/template/merged/email/YCD_Shipme
ntNotification.xsl.sample
```

Copy this XSL file, remove the `.sample` extension, customize it as needed, and specify it in the Body Template field of the E-mail Sender component.

You can save it to another directory, but using the standard directory structure supplied by the Sterling Multi-Channel Fulfillment Solution helps ensure consistency.

For more information about service builder nodes and parameters, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

6.8.3 Order Cancellation Notification

You may cancel the orders for various reasons: when a customer does not want the order that is placed, by mistake, a duplicate is created, or the payment methods on the order turn out to be fraudulent. As soon as you cancel the order, make sure you send a notification to the customer.

6.8.3.1 Solution

Sterling Call Center and Store provides a service that handles e-mail notification when an order is successfully cancelled.

When an order is cancelled through the changeOrder API, the ON_CANCEL event is raised, which invokes the YCD_CancelOrderNotification_1.0 service through the YCDOnCancel action.

Before sending the notification, the service attempts to close all open alerts on the order if all order lines in that order have been cancelled. A notification is sent to the customer if they have an e-mail address defined. Otherwise, an alert is sent to the user to indicate that the user must inform the customer about the order cancellation.

Orders that are automatically cancelled when promised delivery dates are not met can be notified to the customer using this feature. For more information about order cancellation due to passed promised delivery dates, see Section 6.8.1, "Federal Trade Commission Compliance". The message sent to the customer depends on the reason, either an automatic cancellation or a regular cancellation. Figure 6–11 illustrates the YCD_CancelOrderNotification_1.0 service.

Figure 6–11 YCD_CancelOrderNotification_1.0 Service
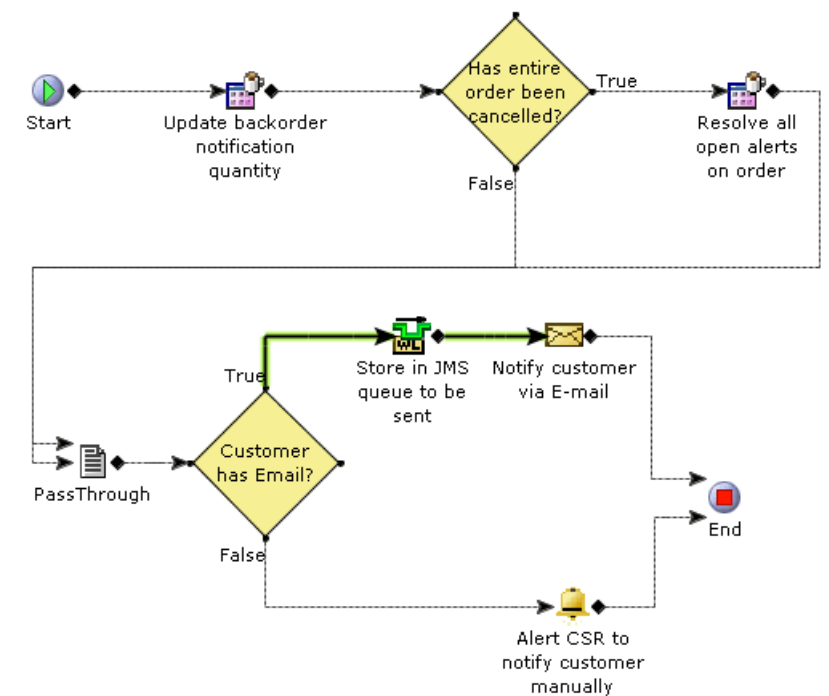
This service calls the getOrderDetails API to retrieve the relevant order information, and passes it on to an e-mail service that will send the information to the customer, in html format, converted by an XSL.

Although the solution above is provided with Sterling Call Center and Store, you may need to enhance the service to account for the e-mail service being potentially down. The suggested solution is instead if calling the getOrderDetails API, pass on the output XML of the ON_SUCCESS event to a queue of your choice (for example, a JMS queue), and check to see if the e-mail server is up. If it is down, leave the notification in the queue, and try to reprocess it at a later time. If it is up, call the XSL to convert the XML in the queue to HTML, and send the e-mail to the customer.

6.8.3.2 End-User Impact

If an ordered is cancelled and the customer does not have an e-mail address defined, an alert is sent to the `Customer Notification` queue. By default, the user monitors this queue and informs the customer about cancellation.

6.8.3.3 Implementation

Unless you do not want to use this feature, ensure that the `ON_CANCEL` event is active in the Change Order transaction, and that the `YCDOnCancel` action invokes the YCD_CancelOrderNotification_1.0 service.

By default, this feature is turned off because the ON_SUCCESS event is disabled. If you want to use this feature, enable the ON_SUCCESS event for the Confirm Draft Order and Create Order transactions in the Sterling Multi-Channel Fulfillment Solution Configurator, for the Consumer Direct Order Fulfillment document type.

The template used by the E-mail Sender component of the service to format the output XML of the getOrderDetails API into an HTML that is e-mailed to the customer is found in the following file:

`<INSTALL_DIR>/repository/xapi/template/merged/email/YCD_Cancel OrderNotification.xsl.sample`.

Copy this file, name it `CancelOrderNotification.xsl`, customize it as needed, and specify the XSL used to generate the HTML message in the Body Template field of the service's E-mail Sender component.

You can save it to another directory, but using the standard directory structure supplied by the Sterling Multi-Channel Fulfillment Solution helps ensure consistency.

6.9 Order Maintenance

The user can modify orders that are created and captured in Sterling Call Center and Store. For example, customers may call the user to change the payment type or bill-to address on their order, or to cancel the order because they are dissatisfied with a late shipment. Therefore, it is very important to maintain orders.

Sterling Call Center and Store provides the following order maintenance features:

- Resolve Holds
- Change Payment Method
- Add Line
- Add Multiple Items to an Order
- Change Gift Options
- Customer Appeasement
- Price Match
- Competitor Search
- Price Match Search
- Create or Modify a Competitor Record
- Create or Modify a Price Match Record
- Reship
- Add or Modify Charges
- Add Coupon
- Cancel Order
- Track an Item
- Order Notes
- Change Service Instructions
- Change Service Appointments
- Change Fulfillment Options
- Fulfillment Summary

- Reservations

- Increase Order Line Quantity

- Schedule and Release an Order

- View Procurement Orders

- Change Order Address

- Launch Sterling Multi-Channel Fulfillment Solution Consoles

- Change an Item's Style

6.9.1 Resolve Holds

In some retail environments, holds are automatically applied to an order during order modifications. Call center and store representatives may need to manually resolve these holds applied on orders and order lines.

6.9.1.1 Solution

Sterling Call Center and Store enables the users to resolve holds applied to an entire order or to just certain order lines.

It also provides the ability to control which users can resolve which types of holds. A user cannot manually put an order on hold within the Sterling Call Center and Store user interface.

The getCompleteOrderDetails API is called to retrieve the details of the hold. The changeOrder API is called to update the status of the hold, after the hold is resolved.

6.9.1.2 End-User Impact

A user can resolve holds on an order or an order line if that user belongs to a user group that has permissions to resolve holds. Once the hold on the order is resolved, the user can modify the order or order line.

6.9.1.3 Implementation

This section explains the configurations for the resolve holds task.

- To resolve holds on an order or order line, configure the following rules to grant permissions:

    - Any User Can process this Hold

> > – Users Belonging To The Following User Groups Can Process This
> >   Hold
>
> > For more information about hold types, see the *Sterling Distributed
> > Order Management Configuration Guide*.
>
> - Notes entered for this task are saved on the order with
>   YCD_HOLD_INFO note type.
>
> - This task is permission controlled. Sterling Call Center and Store
>   allows you to assign permissions to user groups for this task.

6.9.1.4 Reference Implementation

As part of reference implementation, Sterling Call Center and Store
provides permissions to resolve holds to all user groups.

6.9.2 Change Payment Method

Sterling Call Center and Store supports different types of payment. This
section explains the change payment method process.

Adding or Changing a Payment Method

Different payment types can be used to pay for an order. Sometimes, a
customer may want to add a new payment method or change the
existing payment method.

Credit Card Validation

All credit cards follow a pattern in their number depending on their type.
For example, the first two digits of all MasterCard credit cards are
between 51 and 55, and the total length of a MasterCard card number is
16. An American Express card number has either 34 or 37 as its first two
digits, and has a total length of 15.

Additionally, all numbers of a credit card follow a pattern, which can be
validated with Luhn's algorithm. However, this algorithm only ensures
that the given credit card number is a valid number. It does not ensure
that it exists in any bank database.

It is useful to run this validation every time a new credit card number is
added to save payment processing validations, which will fail every time
against an invalid number.

Displaying Credit Card Name

Sterling Call Center and Store enables you to configure whether a text field or multiple text fields should be used for entering credit card name. For more information about displaying credit card name, see Section 4.9.7, "Configuring Advanced Credit Card Rules".

> **Note:** Sterling Call Center and Store does not allow you to retrieve sensitive payment information such as credit card number, SVC number, customer's account number.

Customer Context Ordering

Once in the context of a customer, the user will be presented with any payment methods previously saved against the customer. These payment methods will be available in the Payment Confirmation screen. If a default payment method was previously defined, this payment method will be pre-populated with the order amount and selected. If the customer wants to use another payment method, the default payment method must be unselected.

6.9.2.1 Solution

The credit card number is validated as follows:

1. Prefix and Length Validation

2. Luhn's Algorithm

Prefix and Length Validation

Table 6–29 specifies the exact numbers to prefix for a card number of a specific card type, and how many digits the card number must contain. For example, American Express cards all start with either 34 or 37 as their first digits, and contain 15 digits.

> **Note:** The JCB credit card type has two entries in
> Table 6–29. This is due to the fact that a JCB card can
> follow the prefix system listed in the table.

Table 6–29   Credit Card Types

Credit Card Type	Prefix	Length
American Express	34, or 37	15
MasterCard	51 through 55	16
Visa	4	13 or 16
Diners Club and Carte Blanche	36, 38, or 300 through 305	14
Discover	6011	16
JCB	2123 or 1800	15
JCB	3	16

When a credit card type is selected and a credit card number is entered in the Sterling Multi-Channel Fulfillment Solution Consoles, the system validates the number prefixed and the length. If both are valid, the system executes the Luhn's algorithm.

Luhn's Algorithm

Luhn's algorithm determines whether or not a credit card number is valid. For a given credit card number:

1. Double the value of every other digit from right to left, beginning with the second to last digit.

2. Add the digits of the results of Step 1 to the remaining digits in the credit card number.

3. If the result mod 10 is equal to 0, the number is valid. If the result mod 10 is not equal to 0, the validation fails.

Example

A credit card of type Visa is added with the number 4624 7482 3324 9080.

This credit card number starts with 4, as it should be in all Visa cards. It also has 16 digits, which is valid for a Visa card. Now, execute Luhn's algorithm:

a. Double the value of every other digit from right to left, beginning with the second to last digit.

46**2**4 **7**4**8**2 **3**3**2**4 **9**0**8**0:

- $8*2 = 16$
- $9*2 = 18$
- $2*2 = 4$
- $3*2 = 6$
- $8*2 = 16$
- $7*2 = 14$
- $2*2 = 4$
- $4*2 = 8$

b. Add the digits of the results of the previous step to the remaining digits in the credit card number.

- The digits of the result of Step a amount to the following:
- $1+6+1+8+4+6+1+6+1+4+4+8 = 50$
- The remaining digits in the credit card number amount to the following:
- $6+4+4+2+3+4+0+0 = 23$
- The sum of the two sub results is:
- $23+50 = 73$

c. If the result mod 10 is equal to 0, the number is valid. If the result mod 10 is not equal to 0, the validation fails.

73 mod 10 is 3, therefore the card number is not valid.

A Visa credit card of number 4624 7482 3324 9780, on the other hand, passes the validation.

In the Action field:

- To activate a payment method, select Activate from the drop-down list.

- To suspend a payment method for charge, select Suspend for Charge from the drop-down list.

- To suspend a payment method for charge and refund, select Suspend For Charge And Refund from the drop-down list.

If you want to add new payment method, click Add Payment Method.

> **Note:** You cannot override validation for the credit card types listed in Table 6–29. If you are configuring new credit card types, then validation for those credit card types should be implemented in the YCDValidateCreditCardInfoUE user exit.

6.9.2.2 End-User Impact

After you enter the credit card number, click Save. The system validates the credit card number.

6.9.2.3 Implementation

This section explains the configurations for the change payment method task.

- Sterling Call Center and Store allows you to configure different credit card types. For more information about configuring different credit card types, see Section 4.9.4, "Defining Credit Card Types".

- If you configure a credit card type other than the credit card types listed in Table 6–29, implement the YCDValidateCreditCardInfoUE user exit.

- Notes entered for this task are saved on the order with YCD_PAYMENT_CHANGE note type.

- Adding a new payment method—While adding a new payment method to order, while in the context of a customer, the user will be provided with the option to save the payment method against the customer record. This will occur when the user confirms the order. This functionality is available only when an order is placed in the context of a customer. If no customer is selected, the option to save this information will not be available.

> **Note:** The status modification rule PAYMENT_METHOD is called to determine if the payment method can be changed on an order.

> **Note:** The credit card address will not be saved against the customer payment record.

6.9.2.4 Reference Implementation

This section explains the reference implementation provided for the change payment method task:

- The following are the default payment types that are configured:
  - Credit Card
  - Pre-paid
  - Check
  - Refund Check
  - Customer Account
  - Stored Value Card
  - Other Payment Method
- Sterling Call Center and Store supports the following pre-defined credit card types:
  - American Express
  - Master Card
  - Visa
  - Diners Club
  - Carte Blanche
  - Discover
  - JCB
- Sterling Call Center and Store provides a reference implementation of YCDValidateCreditCardInfoUE user exit which fails the validation for

the following credit card numbers: 7890123456789012, 8901234567890123, and 9012345678901234. For all other credit card numbers, the validation succeeds.

6.9.3 Add Line

After placing an order, a customer may want to add new product or service items to the order, if the customer has forgotten to place the order for product or service items earlier, or if it was unavailable at the time of placing the initial order.

6.9.3.1 Solution

Sterling Call Center provides an add line task which the user can use to add order lines to the existing order. This section explains the complete process of adding a new order line to an existing order.

> **Note:** If you are running in integrated mode, adding items to an order will trigger an order reprice from the Sterling Multi-Channel Selling Solution. For more information on this repricing logic, see Section 10.2, "Signing into Sterling Multi-Channel Selling Solution".

Validating Whether A New Item Can Be Added

Sterling Call Center and Store allows you to validate whether the user can add a new order line to an existing order based on the following criteria:

- Order Age—You can configure the number of days after an order is created to allow the addition of new order lines to an existing order.

- Order Modification rule—You can configure the order statuses for which the add line action is allowed.

Searching For An Item To Be Added

The getCompleteItemList API is called that retrieves a list of items based on the input criteria. The list of items includes additional information such as pricing, availability and promotions.

Sterling Call Center and Store does not allow users to add items which are always tag controlled to an order.

Choosing The Fulfillment Option And Quantity

If an item is available that can be added to an order line, choose the required quantity and the delivery option. The getFulfillmentOptionsForLines API is used to obtain the available fulfillment options, which include delivery, shipping, and pickup options for a set of new or existing order lines. The customer can also view details about the nearby stores from where the customer can pick the item.

The getSurroundingNodeList API is called that provides a list of stores within a specified radius, from where the item can be picked up. To configure the radius for stores from where the items can be picked up, the following rules are considered:

- Distance To Consider rule—You can configure the distance from the current location for stores from where the customer can pick the items.

- UOM To Consider rule—You can configure the UOM for the distance of stores from the current location.

If the user enters the delivery address and selects the 'ship to' carrier service code, the getFulfillmentOptionsForLines API is used to determine the availability of 'delivery address' and 'carrier service' the user has input.

> **Note:** If the getFulfillmentOptionsForLines API determines that both delivery and shipping are allowed, the fulfillment method is given the preference and the UI displays the fulfillment method as "Available to Deliver".

To display the carrier service information, the Y_ANY carrier organization must be implemented with the associated carrier services.

Choosing Accessories

The getCompleteItemList API is used to determine the accessories for an item. The user can select fulfillment options and the quantity for each of the selected accessories.

Choosing A Delivery Appointment

After adding the items to an order using the changeOrder API, the generateWorkOrder API is used to create any delivery lines (if the chosen delivery option is 'Delivery'), and generate work orders for the delivery lines.

The user can change appointment for any generated work order, if necessary.

Configuring Reasons For Overriding Item Price

The item prices can be overridden during the Add Line process using the YCD_PRICEOVERRIDE common code. You can configure reasons such as substitution, price adjustment, and price match to allow override.

6.9.3.2 End-User Impact

The user will not be able to add new order lines to an existing order after the configured amount of days are passed. Addition of order lines to an order also depends on the status of the order. Addition of order lines is done through the status modification rules. The modification types performed for the Add Line process include:

- Add Line

- Associate Delivery Line With Product Line

- Change Appointment

6.9.3.3 Implementation

This section describes how to configure the Add Line rule:

1. Log in to the Sterling Call Center and Store Configurator. For more information about logging in to the application, see Section 2.1, "Starting the Sterling Call Center and Store Configurator".

2. From the Sterling Call Center and Store Configurator, select Configure Order Administration > Advanced Configurations > Add Line Rules.

3. In the Maximum Number Of Days After Order To Allow Adding An Order Line field, enter the number of days allowed to add an order line.

4. From the Sterling Multi-Channel Fulfillment Solution Configurator, select Configure Order Administration > Configure Order Modification Rules > Add Line > Order.

5. Select the order statuses for which the add line action is allowed.

6. From the Sterling Call Center and Store Configurator, select Order Promising > Store Pickup Rules.

   - Check The Enterprise Allows Pickup From Store Fulfillment box to indicate that an item is available for pick up.

   - In Distance To Consider When Finding Nearby Stores field, enter the appropriate distance.

   - In Distance UOM, enter the appropriate UOM for the distance.

7. Click Save.

To define the Y_ANY carrier service.

1. From the Sterling Call Center and Store Configurator, select Configure Outbound Logistics > Define Carriers > Roles and Participation > Carrier Attributes > Parcel Services.

2. Define the Y_ANY carrier service. For more information about defining carrier services, see the *Sterling Logistics Management Configuration Guide*.

Notes entered for this task are saved on the order with YCD_NEW_ITEM_INFO note type.

6.9.3.4 Reference Implementation
This section explains the default values that are provided to configure rules to add an order line.

- The maximum number of days allowed after an order is created to allow addition of new order lines to an existing order is 30.

- If pickup from a store is allowed for the items of the order, the distance radius to consider when finding nearby stores is 25 miles.

The following reasons are configured in the YCD_PRICEOVERRIDE common code:

- Substitution

- Price Adjustment

- Price Match

All rules for the Add Line task are defined for the "XYZ-ONLINE" organization.

As part of the reference implementation provided by Sterling Call Center and Store, the Order Repricing user exit is enabled when additional items are added to the Order.

6.9.4 Add Multiple Items to an Order

After placing an order, a customer may want to add more of an item, new items or service items to the order.

6.9.4.1 Solution

Sterling Call Center and Store provide a task to add multiple items to an order. This section explains the solution offered by Sterling Call Center and Store for the process of adding multiple items to an order.

Validating Whether New Items Can Be Added

Sterling Call Center and Store validates if new order lines can be added to an existing order based on the following configurations:

- Order Age—The number of days after an order is created to allow the addition of new order lines to an existing order.

- Order Modification rule—The order statuses for which permit addition of lines to an order.

Adding Items to the Order

This section explains the item entry step in the add multiple items task and the solution offered by Sterling Call Center and Store.

The user cannot change any of the existing order lines. For more information about adding new order lines, see Section , "Adding Items to an Order".

Adding or Deleting Lines from an order

The changeOrder API is called to add lines to the order. The changeOrder API is also called to delete existing lines on the order.

Sterling Call Center and Store assumes that the status modification rules allow addition of lines to cancelled orders. If the status modification rules do not allow addition of lines to cancelled orders, the user will not be able to add new lines to the order and remove all existing lines at the same time.

Changing Fulfillment Options

The user can modify the fulfillment options for the items added. For more information about changing fulfillment options, see Section 6.9.21, "Change Fulfillment Options".

Viewing Service Fulfillment Summary

After adding items to the order using the changeOrder API, if you choose the Delivery option, the generateWorkOrder API is used to create the delivery lines and generate work orders. For more information about service fulfillment summary, see Section 6.9.20, "Service Fulfillment Summary".

Changing Service Appointments

The user can change the delivery appointment for the customer, if applicable. The items are reserved based on the configuration. For more information about service appointments, see Section 6.9.19, "Change Service Appointments".

Viewing Pick up and Shipping Fulfillment Summary

The Fulfillment Summary screen provides the complete scenario of how the order is configured and fulfilled. The items are reserved based on the configuration. For more information about fulfillment summary, see Section 6.9.22, "Fulfillment Summary".

Viewing and Confirming Payment Details

Due to the addition of items, the payment information changes, and the system displays the updated payment details. To make additional payments, the user must select the payment method.

Sterling Call Center and Store can be used to carry out the critical payment related processes during order management processing and enables you to integrate with external payment processing systems such as CyberSource or Chase Paymentech. For more information about

integrating with external systems for payment handling, see
Section 4.10.30, "Configuring User Interface Payment Handling".

6.9.4.2 End-User Impact

When the user adds related items to an order, the fulfillment method is
defaulted to the fulfillment method of the parent item.

The user will not be shown certain columns in the order line entry screen
if the user has configured not to display.

The user will be able to add bundle items to the order.

Depending on how you configure the order entry rules, the end users will
see different behavior in the user interface:

- The user will see either the Item Entry screen or Large Order Item
  Entry screen based on the configuration.

- The user will see Shipping and Delivery as separate fulfillment
  methods based on the configuration to display Shipping and Delivery
  as separate fulfillment methods.

- The user will only see the set of columns that you configure on the
  Add Line screen.

- The user will see related items as a panel on the Add Line screen or
  as a pop-up window based on the configuration, .

- The user will see item associations which are configured as show in
  UI. The user will see availability for associated items based on the
  inventory check for associated items.

6.9.4.3 Implementation

This section explains the configurations for the add lines to order task.

- Sterling Call Center and Store allows you to configure the Order Age
  beyond which new lines cannot be added. For more information about
  configuring the add line rule, see Section 4.10.18, "Configuring Add
  Line Rules".

- Sterling Call Center and Store allows you to configure the order
  statuses for which addition of new order lines is allowed. Ensure that
  the status modification rules allow addition of lines to cancelled order.
  For more information about configuring the order statuses for

modification, see Section 4.10.6, "Configuring Order Modification Rules".

- Sterling Call Center and Store allows you to configure the store pick up rules. For more information about configuring the store pick up rules, see Section 4.11.1, "Configuring Store Pickup Rules".

- Sterling Call Center and Store allows you to configure rules for adding lines to the order. For more information about configuring order entry rules, see Section 4.10.1, "Configuring Order Entry Rules".

- Sterling Call Center and Store allows you to configure the display of model items. For more information about configuring the display of model items, see Section 4.5.8, "Configuring Display of Model Items".

- Sterling Call Center and Store allows you to configure external payment options. For more information about configuring external payment options, see Section 4.10.30, "Configuring User Interface Payment Handling".

- Sterling Call Center and Store allows you to configure the integrated search rule. For more information about configuring integrated search, see Section 4.5.9, "Configuring Item Search Options".

- To add relationships between lines, you need to configure the association types to be displayed on the user interface. For more information about association types, see Figure 4–16. You also need to configure a Relationship Type to be used with the association type. For more information about configuring relationship types, see Section 4.10.33, "Configuring Line Relationship Types".

- Sterling Call Center and Store allows you to configure availability checks and reservation options. For more information about configuring availability checks and reservation options, see Section 4.10.27, "Configuring Availability Check and Reservation Options".

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.9.4.4 Reference Implementation

This section explains the reference implementation provided for the add lines to order task.

- By default, the Maximum number of days after order date to disallow adding an order line rule is set to 30 days.

- By default, the Add Items screen is displayed for item entry.

- By default, Shipping and Delivery are displayed as separate fulfillment options and the default fulfillment method is Delivery.

- By default, the following columns are displayed in the line entry step:
  - Unit of Measure
  - Line Quantity
  - Line Price
  - Line Totals

- By default, related items are displayed as a pop-up window.

- As part of reference implementation, Sterling Call Center and Store provides permissions to add lines to an order to all user groups.

6.9.5 Change Gift Options

A customer may want to place an order for some gift items. In such situations, you can configure the available gift options to ensure that the selected items are marked as gift items.

6.9.5.1 Solution

Sterling Call Center and Store user interface provides two screens to change gift options.

To change gift option for pick up and shipping lines, the Fulfillment Summary screen is used. For more information about changing gift options for pick up and shipping lines, see Section , "Marking Items as Gifts". To change gift options of delivery lines, the Delivery Fulfillment Summary screen is provided. For more information about changing gift options for delivery lines, see Section , "Marking Delivery Lines As Gift Items".

You can configure which of the fulfillment methods allow gift options to be recorded in the user interface.

The getCompleteOrderDetails API is called to get details of the order lines marked for a gift recepient. The changeOrder API is called to record the gift option on the order.

Handling Bundle Items

If the bundle item is configured as ship independent, gift options can be changed for all the component items. If the bundle item is configured as ship together, then if the gift option for bundle parent is changed, the gift option will be changed for all the components items. For more information about bundles, see Section 6.2, "Configured Items".

6.9.5.2 End-User Impact

Depending on the configuration, the user can enter gift options for product items, bundle items which are being shipped, picked up, or being delivered.

6.9.5.3 Implementation

This section explains the configurations for the change gift options task.

- You can configure the gift options for the following items:

    - Items being Picked Up

    - Items being Shipped

    - Items being Delivered

    For more information about configuring the available gift options, see Section 4.10.19, "Configuring Available Gift Options".

- Sterling Call Center and Store allows you to configure the order statuses for which changing gift options is allowed. For more information about configuring the order statuses for modification, see Section 4.10.6, "Configuring Order Modification Rules".

- If you want to modify permissions for this task, you must also modify permissions for the following actions:

    - Mark Shipping Lines As a Gift actions

    - Enter Gift Recipient Info

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.9.5.4 Reference Implementation

This section explains the reference implementation provided as part of the change gift options task.

- The Items being Picked Up, Items being Shipped, and Items being Delivered rules are set to "Y" for XYZ-ONLINE and XYZ-RETAIL organizations.

- As part of reference implementation, Sterling Call Center and Store provides permissions to change gift options to all user groups.

6.9.6 Customer Appeasement

Sometimes you may have to appease the customer when a customer reports of not being satisfied with any of the services provided. For instance, a customer may report problems faced when placing an order online or report of receiving a damaged item. In such situations, you need to perform the appeasement task to make amends for the bad experiences.

6.9.6.1 Solution

This section explains the customer appeasement process and the solution offered by Sterling Call Center and Store.

Selecting Appeasement Reasons

The customers may call a user to report various reasons for which a user needs to perform an appeasement action on the customer's order. The appeasement may apply to the entire order or only some of the items in the order. The getCommonCodeList API is invoked, which retrieves all common codes that match the input criteria. The reasons for appeasement are configured using the YCD_APPEASEMENT_RSN common code. You can configure reasons such as damaged item, bad phone experience and so forth to enable the appeasement action.

Selecting An Appeasement Offer

The YCDGetAppeasementOffersUE user exit returns the appeasement offers. This user exit provides an option to plug in custom logic to retrieve appeasement offers. The offers provided depend on the selected appeasement reason and order total details. For example, you can provide 10% discount on the current order. Using the

YCDGetAppeasementOffersUE user exit, you can implement different appeasement offers, if applicable.

If the appeasement applies to the current order, the recordInvoiceCreation API is called which creates a CREDIT_MEMO invoice for the appeasement. If the selected appeasement offer applies for future orders, the YCDSendFutureOrderCustomerAppeasementUE user exit is invoked. This user exit implementation has the responsibility (like informing the promotion engine) to apply the appeasement on future orders of the same customer.

6.9.6.2 End-User Impact
None.

6.9.6.3 Implementation
This section explains the configurations for this feature.

- You can configure to provide a list of reason codes that are available during the customer appeasement process. For more information about defining appeasement reasons, see Section 4.10.8, "Defining Appeasement Reasons".

- Notes entered for this task are saved on the order with YCD_CUSTOMER_APPEASE note type.

6.9.6.4 Reference Implementation
This section explains the various factory setups that need to be configured:

1. Create a new charge category called CUSTOMER_APPEASEMENT and describe it as Customer Appeasement. This is billable.

2. Create a new charge name called CUSTOMER_APPEASEMENT and describe it as Customer Appeasement.

3. Configure the following appeasement reasons as common codes:

   - Late Shipment

   - Damaged Items

   - Bad Delivery Experience

   - Bad Online Experience

- Bad Phone Experience

4. The default implementation of the YCDGetAppeasementOffersUE user exit returns the following offers:

   - FLAT_AMOUNT_ORDER (if the offer provides a flat amount discount. The discount is applied only at the order header level)

     - A flat discount of $10 is returned.

   - PERCENT_ORDER (if the offer provides a percentage discount on the current order. The discount is applied at both order and order line level).

     - A discount of 10% is returned on the order.

   - PERCENTAGE_FUTURE_ORDER (if the offer provides a percentage discount on the future order).

     - A discount of 5% for the future order is returned.

   - VARIABLE_AMOUNT_ORDER (if the offer allows the user to enter the discount amount. The discount is applied only at the order header level).

     - This is a flat discount and the amount is entered by the user.

5. The default implementation of the YCDSendFutureOrderCustomerAppeasementUE user exit does not return any offer because it is the implementation of the logic to send the future order appeasement offer to the promotion engine.

This set up is provided for "XYZ-CORP" organization.

6.9.7 Price Match

A customer may sometimes find that an item is available for a cheaper price at a different retailer. In such situations, the call center or store associate can investigate the customer's claims and perform the necessary price match action.

6.9.7.1 Solution

Sterling Call Center and Store provides user interfaces for maintaining a list of price match details, competitor details, and for recording price match information against an order line. Users can perform the price

match task, all the while ensuring the user acts in accordance with the price match policies.

This section explains the Price Match process and the solution offered by Sterling Call Center and Store.

Validating If An Item Can Be Price Matched

Sterling Call Center and Store provides the ability to determine which items can be price matched. In the Price Match Line Selection screen, the YCDCanPriceMatchBePerformedUE user exit is called to determine which items can be price matched. By default, the logic provided in the default implementation user exit considers the price match window rule. This rule specifies the exact time period beyond which the user cannot perform a price match. For example, you can use this rule if you have a 15 day guaranteed price period. You can, however, provide a different validation logic by creating your own implementation for this user exit. However, even after the YCDCanPriceMatchBePerformedUE user exit determines that a price match cannot be performed, the user can still perform the price match if the user has permissions.

Handling Bundle Items

The Price Match Line Selection screen does not allow users to price match bundle component items. For more information about bundles, see Section 6.2, "Configured Items".

Searching For A Competitor

When the customer reports that a competitor is selling an item at a cheaper price, the call center or store representative can search whether the competitor already exists in the database. If the competitor does not exist and if the user has the permissions to create a competitor, the user can create the competitor and proceed with the price match. If the user does not have the permissions to create a competitor, price match cannot be performed.

The getCompetitorList API is called to get the list of competitors and the manageCompetitor API is called to create a competitor. For more information about creating a competitor, see Section 6.9.10, "Create or Modify a Competitor Record".

Checking For Prior Price Matches

When the user selects the item to perform a price match and then selects the competitor, the system checks for prior price matches performed for that item. If prior price matches are found, the user can choose from a list of prior-approved price matches. This allows the user to apply the price match quickly without having the user to waste time in investigating the price match. The getPriceMatchList API is called to get the list of prior price matches.

Price Match Worksheet Calculation

If the user cannot find a prior-approved price match or if the user wants to manually enter the field values, the user can enter the competitor's price, charges and discounts and modify the existing shipping charges and discounts in the Price Match Worksheet. Discounts can be modified at the order header level and line level. For more information about adding discounts, see Section 6.9.13, "Add or Modify Charges".

If a customer requests for a price match that is less than a previously rejected price match, the price match is rejected. If a customer requests for a price match that is higher than a previously approved price match, the price match is approved.

The Refund Amount Per Unit From Price Match is calculated by applying the price match percentage defined for the competitor to the difference between the competitor total price and existing total price.

Defaulting Specific Charges For A Price Match

An enterprise can configure which of the order line charges needs to be taken into consideration as shipping charge when performing a price match. Depending on the configuration, the specific order line charge is defaulted on the Price Match Worksheet.

Checking For "No Hassle" Criteria

If none of the prior price matches can be used to approve or disapprove the customer's requested price match, the system will perform a "No Hassle" price match check to verify if the price match can be given to the customer without a CSR or store representative having to investigate the customer's price match claims manually.

The checkNoHassleCriteria API is used to validate the price match.

Sterling Call Center and Store allows you to configure the following "No Hassle" rule:

- Maximum No Hassle Unit Price Difference—According to this rule, the price match action is allowed for items whose price difference falls within the configured range.

- Maximum No Hassle Unit Price Difference Percentage—This is the maximum percentage price difference rule that allows to price match an item. The maximum percentage difference between the current item's price and the competitor's price can be configured to disallow the price match action if this difference is exceeded.

- Maximum No Hassle Line Quantity—The maximum ordered item quantity should not exceed a certain limit if price match is to be allowed. When a user performs the "No Hassle" price check, the system compares the price match information against the rules that have been configured using the checkNoHasslePriceMatch API. By default, this API considers only the rules mentioned above. You can implement different "No Hassle" logic by implementing the checkNoHasslePriceMatchUE user exit.

If the system determines that the requested price match falls within the "No Hassle" criteria, it allows the user to apply the price match to the order.

If the requested price match does not fall within the "No Hassle" criteria, the user should either manually investigate the price match by viewing the competitor's Web site or sales flyers, or can create a follow-up alert for this price match request that is to be investigated later. In the latter scenario, the user should inform the customers that they will be contacted later about the price match request.

Overriding Disallowed Price Matches
If, despite a price match not being allowed because of non-compliance with the "No Hassle" criteria, users can still perform the price match if they have the necessary permissions. They can also specify an expiration date for the price match.

Recording A Price Match On An Order Line
When a user performs a new price match, the system saves the new price match information. Whether an absolute price match or a possible price match, the changeOrder API is called to apply the price match. The

Price Match Recorded As enterprise rule is used to determine the way in which to apply the price match. The user can record price match as a charge in the unit price, or apply with the charge category as discount. The charge name is according to the Price Match Charge Name rule.

Creation Of Alerts

If a price match is not allowed because of non-compliance with "No Hassle" criteria, the price match is placed in `Pending` status, and an alert is raised. The managePriceMatch API is called to create a price match record. The createException API is used to create an alert of the type YCD_PRICE_MATCH. The alert is assigned to the YCD_PRICE_MATCH queue. For more information about the creation of alerts, see Section 6.18, "Alert and Queue Management".

Approval Of Pending Price Matches

Sterling Call Center and Store provides two ways in which to approve the pending price matches:

- Alert Details screen—The user can approve the price match records that are in `Pending` status from the Alert Details screen. For more information about searching for alerts and viewing alert details, see Section 6.18, "Alert and Queue Management".

- Price Match Details screen—The user can approve the price match records that are in `Pending` status from the Price Match Details screen. For more information about viewing price match details, see Section 6.9.11, "Create or Modify a Price Match Record".

A user with the necessary permissions to search for alerts can view the alerts generated for price matches that are in `Pending` status. The Alert Details screen displays the list of order lines on which the price match was attempted, by calling the getOrderLinesForPriceMatch API. The user can either approve or deny the price match.

If the price match is approved, the managePriceMatch API is called to change the price match status and the changeOrder API is called to apply the price match on those order lines on which price match is possible.

If the price match is denied, the managePriceMatch API is called to change the price match status, and the order lines are not updated.

Viewing and Confirming Payment Details

The Payment Confirmation screen displays the summary of the payment impact on the order as a result of the price match. If payment is configured to be handled outside Sterling Call Center and Store, the Payment Confirmation screen is not displayed.

Purging Of Price Match Records

In order to minimize the number of unused price match records in the database, Sterling Call Center and Store provides a price match purge agent. If the number of days that have elapsed after the price match expiry date is greater than the configured number of retention days, the agent moves the price match records to the price match history table. If a price match record is still present in the YFS_ORDER_LINE_PRICE_MATCH table, the price match record cannot be purged. In such situations, the price match record will be purged only after the record is purged from the YFS_ORDER_LINE_PRICE_MATCH table.

For more information about configuring the agent criteria details, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

The price match purge retention days can be configured using the Sterling Call Center and Store Configurator.

Purging Of Price Match History Records

Sterling Call Center and Store also provides the price match history purge agent that purges the price match history records from the YFS_PRICE_MATCH_H table.

For more information about configuring the agent criteria details, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

The price match history purge retention days can be configured using the Sterling Call Center and Store Configurator.

6.9.7.2 End-User Impact

Based on the rules to check the "No Hassle" criteria, the user will be able to either allow or disallow price matches.

6.9.7.3 Implementation

This section explains the configurations for the price match task.

- Sterling Call Center and Store allows you to configure the criteria that determines when a price match can be performed on an item in an order. For more information about configuring price match rules, see Section 4.10.3, "Configuring Price Match Rules".

- Sterling Call Center and Store allows you to specify the retention days for price match records and price match history records through purge rules. For more information about configuring the price match purge retention days and price match history purge retention days, see Section 4.19.1, "Configuring System Purge Criteria".

- Implement the YCDCanPriceMatchBePerformedUE user exit to verifies if an item can be price matched.

- Implement the checkNoHasslePriceMatchUE user exit to validate if the price match satisfies the "No Hassle" criteria rule.

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

- Sterling Call Center and Store allows you to provide permissions to users to override and perform price matches for items that do not satisfy the price match window rule.

- Sterling Call Center and Store allows you to provide the necessary permissions to users to override and perform price matches for items that do not satisfy the "No Hassle" criteria rules.

- Sterling Call Center and Store allows you to provide the necessary permissions to specific users to create competitors.

- If you are providing the necessary permissions to perform a price match, you should also provide permissions for the following tasks:

  - Create Price Match

  - Search Competitor

  - Search Price Match

  - Search for Alerts

- Notes entered for this task are saved on the order with YCD_PRICE_MATCH note type.

6.9.7.4 Reference Implementation

This section lists the default values that are provided as a part of the reference implementation to configure the rules to perform price match for an item.

- The Maximum Number of Days after Order Line Was Created to Allow Price Match rule is set to 14 days.

- The Maximum No Hassle Unit Price Difference rule is set to $100.

- The Maximum No Hassle Unit Price Difference (%) rule is set to 25%.

- The Maximum No Hassle Line Quantity rule is set to 10.

- The Default Number of Days for Price Matches to Expire rule is set to 30 days.

- The Price Match Percentage Applied rule is set to 100%.

- The Charge Category Representing Shipping Charges To Default On The Price Match WorkSheet rule is not set by default.

- The Price Match Recorded As rule is set to Change In Order Line's Unit Price.

- Sterling Call Center and Store provides permissions to record price match to all the user groups as part of reference implementation.

- Sterling Call Center and Store provides permissions to override the price match window rule to the CSR lead user group and store managers as part of reference implementation.

- Sterling Call Center and Store provides the necessary permissions to override the "No Hassle" criteria rules to CSR lead user group and store managers as part of reference implementation.

All the rules for price match are defined for the XYZ-CORP and XYZ-RETAIL organizations.

6.9.8 Competitor Search

The call center and store representatives may have to search for existing competitors when performing a price match. Also, a retailer may want to maintain a list of valid competitors for whom a price match can be performed.

6.9.8.1 Solution

Sterling Call Center and Store provides a user interface that enables users to search, and edit competitor records. When performing a price match, the user can verify if the competitor already exists in the database. Competitors can be defined for each enterprise.

The getCompetitorList API is called to retrieve a list of existing competitors.

If competitor records exist on an external database, the getCompetitorListUE user exit is called to retrieve a list of existing competitors.

Sterling Call Center and Store provides the following common codes for competitor statuses. The getCommonCodeList API is called to retrieve the descriptions for the competitor statuses.

- Approved—This status is used for approved competitors. Price matches can be performed for these competitors.

- Pending—This status is used for competitors for whom approval is pending. Price matches can be performed for these competitors only after they are approved.

- Rejected—This status is used for rejected competitors. Price matches cannot be performed for these competitors.

Pagination

Sterling Call Center and Store supports the smart retrieval of record sets in the Competitor Search screen.

For more information about pagination, see Section 6.17, "Pagination".

6.9.8.2 End-User Impact

None.

6.9.8.3 Implementation

This section lists the configurations for the competitor search task:

- To retrieve competitor records from external systems, implement the getCompetitorListUE user exit.

- The Competitor Search task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.9.8.4 Reference Implementation

Sterling Call Center and Store provides the necessary permissions to search for competitors to all the user groups as part of reference implementation.

6.9.9 Price Match Search

The call center and store representatives may have to search for existing price matches when performing a price match.

6.9.9.1 Solution

Sterling Call Center and Store provides a user interface which enables users to search and edit the existing price match records. During the price match process, a user may want to search for an existing price match. Based on the search criteria entered, a list of price matches is displayed. Based on the configuration, alternate item identifiers are used to display the items in the price match search results.

The getPriceMatchList API is called to retrieve a list of existing price matches.

If the price match records exist on an external database, the getPriceMatchListUE user exit is called to retrieve the list of existing price matches.

> **Note:** If the price match records exist on an external database, Sterling Commerce assumes that the competitor records also exist on an external database and the getCompetitorListUE user exit is called to retrieve a list of existing competitors.

Sterling Call Center and Store provides the following common codes for price match statuses. The getCommonCodeList API is called to retrieve the descriptions for the price match statuses.

- Approved—This status is used for approved price matches. These price matches can be applied to order lines.

- Pending—This status is used for price matches for which approval is pending. These price matches should be approved before they can be applied to order lines.

- Rejected—This status is used for rejected price matches. These price matches cannot be applied to order lines.

Pagination

Sterling Call Center and Store supports the smart retrieval of record sets in the Price Match Search screen.

For more information about pagination, see Section 6.17, "Pagination".

6.9.9.2 End-User Impact

None.

6.9.9.3 Implementation

This section lists the configurations for the price match search task.

- Implement the getPriceMatchListUE user exit to retrieve price match records from external systems.

- This price match search task is permission controlled. Sterling Call Center and Store allows you to assign the necessary permissions to user groups for this task.

6.9.9.4 Reference Implementation

Sterling Call Center and Store provides the necessary permissions to search for price matches to all the user groups as part of reference implementation.

6.9.10 Create or Modify a Competitor Record

If a competitor record does not already exist in the database, the call center and store representatives may need to create a new competitor, when performing a price match. CSR leads and Store leads may want to modify an existing competitor record, for example, a CSR lead may want to change the status of a competitor from `Pending` to `Approved`.

6.9.10.1 Solution

Sterling Call Center and Store provides a user interface task to create a new competitor if that competitor does not already exist in the database. It also allows you to modify an existing competitor record.

The getCompetitorDetails API is called to retrieve details about a competitor. The manageCompetitor API is called to create a new competitor or update an existing competitor.

If the competitor records exist on an external database, the getCompetitorDetailsUE user exit is called to retrieve the details of existing competitors. The manageCompetitorUE user exit is called to create a new competitor or update an existing competitor.

Sterling Call Center and Store provides the following common codes for competitor statuses. The getCommonCodeList API is called to retrieve the descriptions for the competitor statuses.

- Approved
- Pending
- Rejected

6.9.10.2 End-User Impact

None.

6.9.10.3 Implementation

The create or modify competitor record task is permission controlled. Sterling Call Center and Store allows you to assign the necessary permissions to user groups for this task.

6.9.10.4 Reference Implementation

Sterling Call Center and Store provides the necessary permissions to create or modify a competitor record to the CSR lead user group and store managers as part of reference implementation.

6.9.11 Create or Modify a Price Match Record

If a price match does not exist for a selected item and competitor, the call center and store representatives may need to create a new price match record. CSR leads and Store leads may want to modify an existing

price match record, for example, a CSR lead may want to change the status of a price match from `Pending` to `Approved`.

6.9.11.1 Solution

Sterling Call Center and Store provides a user interface task to create a new price match, if the price match does not already exist in the database. It also allows users to modify the existing price match records.

This section explains the process of creating and modifying price match records and the solution offered by Sterling Call Center and Store.

Adding Items To A Price Match

When selecting items for price match, a user can search for items based on Item ID or Alternate Item ID. The getCompleteItemList API is called to retrieve details of the item.

Integrated Item Search

When a user clicks the Search icon when selecting items to price match, if the configuration rule for integrated search is enabled, the Sterling Multi-Channel Selling Solution's Item browser is launched instead of the Sterling Call Center and Store Item Search screen. From the Item browser, the user can search for items and select the correponding items for price match. For more information about integrated search, see Section 10.5, "Integrated Item Search".

Retrieving Details Of The Price Match

The getPriceMatchDetails API is called to display the details of an existing price match. The getPriceMatchDetailsUE user exit is invoked if the price match records exist on an external database. The getOrderLinesForPriceMatch API is called to retrieve the order lines related to the price match.

Creating A Price Match

The managePriceMatch API is called to create a price match record. The managePriceMatchUE user exit is invoked if the price match records exist on an external database.

Modifying A Price Match

The managePriceMatch API is called to modify a price match. The managePriceMatchUE user exit is invoked if the price match records exist on an external database. When a price match is approved, the changeOrder API is called to apply the price match to the corresponding order lines. The Price Match Recorded As enterprise rule is called to determine the way in which to apply the price match. The user can record price match as a charge in the unit price, or apply with the charge category as discount. The charge name is according to the Price Match Charge Name rule.

Sterling Call Center and Store provides the following common codes for price match statuses. The getCommonCodeList API is called to retrieve the following descriptions for the price match statuses:

- Approved
- Pending
- Rejected

6.9.11.2 End-User Impact

None.

6.9.11.3 Implementation

The create or modify a price match record task is permission controlled. Sterling Call Center and Store allows you to assign the necessary permissions to user groups for this task.

6.9.11.4 Reference Implementation

Sterling Call Center and Store provides the necessary permissions to create or modify a price match record to the CSR lead user group and store managers as part of reference implementation.

6.9.12 Reship

A customer may report that the item ordered is either not received or damaged in transit. In such situations, the item may need to be reshipped or the customer has to be refunded for the shipment.

6.9.12.1 Solution

A user would typically reship a shipment when the system indicates that an item has been shipped but the customer claims of not having received it. This section explains the complete Reship process.

Tracking An Item

Reship of an item is possible if it is in the `Shipped` status. If the item is in `Delivered` status, it cannot be reshipped. This is because an order line can be reshipped only if a shipment has been created for it; when a delivery line is delivered without a shipment, it cannot logically be reshipped. Therefore, the user must first track the item and investigate the current status of the item to determine whether reship is possible or not.

Configuring Reasons For Reship

The reasons for reshipping an item are configured using RESHIP_REASON common code. You can configure reship reasons such as missing items, missing container, wrong item and so forth to allow performing reship action.

Validating That An Item Can Be Reshipped

Before reshipping an item, you must ensure that the following conditions are met:

- The order line must have enough available quantity that has not already been reshipped.

- The reship of an item is allowed only after certain number of elapsed days. This is to ensure that sufficient time is allowed for the item to reach the customer. For example, we can configure the MINIMUM_RESHIP_WINDOW as 5 days to ensure that a reship is possible only after 5 days after placing an order.

The validity of the item to be reshipped is checked using the validateReship API. The validateReship API validates that the order lines passed as input are valid for being reshipped. You may implement other validations using the validateReshipUE user exit, if applicable.

If the item is not valid for reshipping, but needs to be reshipped, the user can override the reship validation, if the users have permissions to do so, or create a follow-up alert for their supervisor.

Handling Bundle Items

You can reship bundle parent items and bundle component items. Reshipping a Bundle parent item will result in reship of all component items. For more information about bundles, see Section 6.2, "Configured Items".

Reshipping And Refunding An Item

After validating, the user can either reship or refund the items. The reship or refund options are provided based on the availability of the items.

If the customer chooses the for reship option, the reshipOrderLines API is called which creates new order lines to fulfill reshipment of order lines passed in the input. Attributes on the new order lines created by the reshipOrderLines API can be controlled by the ReshipOrderLines document template for the order's document type, as well as by the YFSreshipOrderLinesUE user exit. Additional validations may be done by this user exit. This user exit may cause the API to return different reship message.

Sometimes, the ordered item may be out of stock, or the customer might not want the item. In such situations, the user would have to refund the items. If refund is involved, a return is created for the order line with line type as 'Credit'.

> **Note:** The order lines are not reserved when you reship an item.

6.9.12.2 End-User Impact

None.

6.9.12.3 Implementation

This section explains how to configure the reasons for reshipping an item and how to configure the minimum reship window days.

1. Log in to the Sterling Call Center and Store Configurator. For more information about logging in to the application, see Section 2.1, "Starting the Sterling Call Center and Store Configurator".

2. From the Sterling Call Center and Store Configurator, select Configure Order Administration > Reship Reasons.

3. Enter appropriate reasons for reshipping the item.

4. From the Sterling Call Center and Store Configurator, select Configure Order Administration > Advanced Configurations > Configure Transaction Specific Rules.

5. In the Reship Order panel, enter the appropriate number of days in the Minimum Reship Window field.

Notes entered for this task are saved on the order with YCD_RESHIP_INFO note type.

6.9.12.4 Reference Implementation

This section explains the reference implementation configured to allow reship of an item for XYZ-CORP.

1. The minimum reship window period is set to five days which specifies the minimum number of days to be elapsed after which reship is allowed.

2. The following reasons are configured in the RESHIP_REASON common code:

- Missing Item

- Missing Container

- Wrong Item

- Cargo Loss

- Damaged or Defective Item

6.9.13 Add or Modify Charges

Call center and store representatives may have to add a new charge or modify an existing charge for an order that has been placed. For example, if a customer has been given two appeasements for the same issue, this task can be used to recover the excess refunded amount.

6.9.13.1 Solution

Sterling Call Center and Store provides a user interface that allows users to add or modify charges at both the header level and the line level.

The getChargeCategoryList API is called to retrieve the list of charge categories. The getChargeNameList API is called to retrieve the list of charge names. The user can add or modify charges at the header level and line level, based on permissions.

The getCompleteOrderDetails API is called to display the list of charges and taxes that are already applied on the order. The changeOrder API is called to apply the charge modifications.

Viewing and Confirming Payment Details
The Payment Confirmation screen displays the summary of the payment impact on the order as a result of adding or modifying the charges. If payment is configured to be handled outside Sterling Call Center and Store, the Payment Confirmation screen is not displayed. For more information about confirming the payment details, see Section 6.9.2, "Change Payment Method".

6.9.13.2 End-User Impact
None.

6.9.13.3 Implementation
This section lists the configurations for this task.

- Sterling Call Center and Store allows you to configure the order statuses for which the addition of a new charge or the modification of an existing charge is allowed. For more information about configuring the order statuses for modification, see Section 4.10.6, "Configuring Order Modification Rules".

- Sterling Call Center and Store allows you to define charge names, charge categories, and tax names for an enterprise. For more details about charge names, charge categories, and tax names, see the *Sterling Distributed Order Management Configuration Guide*.

- Implement the YFSOrderRepricingUE user exit to handle repricing during order modification. This implementation should take into consideration the changes in charges and taxes. For example, you may have to extend the Add Modify Charges user interface to pass additional information to the changeOrder API in order to indicate that the charges and taxes were overridden through the UI. For more information about the YFSOrderRepricingUE user exit and the changeOrder API, see the *Sterling Call Center and Store Javadocs*.

- The add or modify charges task is permission controlled. Sterling Call Center and Store allows you to assign the necessary permissions to user groups for this task.

- Notes entered for this task are saved in the order with the YCD_ADD_MODIFY_CHARGES note type.

6.9.13.4 Reference Implementation

This section explains the reference implementation provided as part of reference implementation for the add or modify charges task.

- The following charge categories are provided as part of the reference implementation:

  - Customer Appeasement

  - Discount

  - Handling

  - Price Match

  - Shipping

  - Personalization

- The following charge names are provided as part of the reference implementation:

  - Customer Appeasement

  - Discount

  - Handling

  - Price Match

  - Shipping

  - Personalization

- Sterling Call Center and Store provides the necessary permissions to add or modify charges to the CSR lead user group and store managers as part of reference implementation.

6.9.14 Add Coupon

This feature allows a user to add coupons or promotion codes for an order that has been placed.

The Sterling Multi-Channel Selling Solution integration provides an implementation of this feature, as described in Section 10.1, "Pricing Integration Using the Sterling Multi-Channel Selling Solution".

Applying The Promotion To The Order

If the coupon is valid, the changeOrder API is called to apply the new promotion. The YFSOrderRepricingUE is executed whenever the reprice_order flag is set to "Y" for the "Change Promotion" modification type.

6.9.14.1 End-User Impact

None.

6.9.14.2 Implementation

This section explains the configuration settings for adding a coupon or a promotion code to an order.

1. Log in to the Sterling Call Center and Store Configurator. For more information logging in to the application, see Section 2.1, "Starting the Sterling Call Center and Store Configurator".

2. In the Sterling Multi-Channel Fulfillment Solution Configurator:

   Set the StatusModificationTypeKey to "PROMO_AWARD", by following these steps:

   a. From the Sterling Multi-Channel Fulfillment Solution Configurator menu bar, select Distributed Order Management > Document Specific > Sales Order > Fulfillment > Order Modification > Modifications Impacting Pricing.

   b. Click Details. In the Modification Type List screen, add the Change Promotion and Remove Promotion modification types to the list of modifications that impact pricing.

Notes entered for this task are saved on the order with YCD_NEW_PROMOTION note type.

6.9.14.3 Reference Implementation

This section explains the default implementation of the user exits used for the Add Coupon task.

> **Note:** This user exit does not apply to the Sterling Multi-Channel Selling Solution implementation.

1. The default implementation of the YCDPromotionValidationUE user exit returns VALID = "N" for any promotion Id that starts with "X" to indicate that it is an invalid promotion Id.

2. The default YFSOrderRepricingUE user exit implementation accepts the following promotion codes:

   - FREESHIP—This promotion is applied to an order if the order total is greater than $100.

   - SALEONTV—This promotion is applied to an order line that has the "TV0001A5F21" Item ID.

   The above listed promotions IDs are case-sensitive. If you pass any other promotion Id to the YCDPromotionValidationUE user exit, the promotion Id is not applied to the order.

   The YFSOrderRepricingUE user exit implementation does not perform any repricing when you remove any promotion.

All rules for adding a coupon or promotion code are configured for the XYZ-ONLINE organization.

6.9.15 Cancel Order

A customer may want to cancel an entire order, or just certain product or service items of the order.

6.9.15.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to cancel the entire order or only certain product or service items of the order.

> **Note:** If you are running in integrated mode, cancelling order lines will trigger an order reprice from the Sterling Multi-Channel Selling Solution. For more information on this repricing logic, see Section 10.2, "Signing into Sterling Multi-Channel Selling Solution".

This section explains the Cancel Order process and the solution offered by Sterling Call Center and Store.

Selecting The Cancel Quantity

The customers can choose to cancel the entire order, if all ordered items need to be cancelled, or cancel a part of the order if only some items of the order need to be cancelled.

Cancelling Related Lines

When the user selects a parent item that has related product or service lines for cancellation, the related lines are automatically selected for cancellation.

Cancelling a Bundle Item

The user can only cancel a bundle parent item. When a bundle parent item is cancelled, all the components of the bundle are cancelled automatically.

Configuring Reasons For Cancellation

The reasons for cancelling an item can be configured in the CANCEL_REASON common code. You can configure reasons such as change of mind, cheaper price found, and so forth to allow the Cancel action.

Cancelling Pick up Lines After Release

If the Allow Cancellation of Pickup Lines after Release rule is enabled, the user can cancel the order lines even after the order lines with the pickup

fulfillment method are moved to the `Released` status. This is achieved by calling the following APIs:

- getCompleteOrderDetails API—This API retrieves the sales order details.

- changeOrder API—This API cancels the lines on the order and release, if associated with the order line.

- changeShipment API—This API cancels the shipment lines associated with the order line.

Cancelling Delivery Lines After Release

If the Allow Cancellation of Delivery Lines after Release rule is enabled, the user can cancel the order lines that have the Delivery fulfillment method and are moved to the `Released` status, but are not shipped. This is achieved by calling the following APIs:

- getCompleteOrderDetails API—This API retrieves the sales order details.

- changeOrder API—This API cancels the lines on the order and release associated with the order line.

- changeShipment API—This API cancels the shipment lines associated with the order line.

In order to cancel delivery lines after release, shipments must be created for product lines with fulfillment method as delivery.

Requesting For A Stop Delivery After Lines Have Been Shipped

The Cancel Order screen in Sterling Call Center and Store can be configured to allow users to request a stop delivery for order lines in `Shipped` status.

If an order line has already been shipped, you can either enable the lines for requesting a stop delivery or disable the lines so they cannot be cancelled if you do not support a stop delivery process.

This can be achieved by configuring the order status modification rules appropriately. If you wish to allow a stop delivery to be requested on shipped lines, configure the stop delivery modification type to be allowed

for the Shipped status. If you do not support stop delivery requests, you should disable this modification type.

Order lines can either be cancelled or requested for stop delivery (not both). Therefore, you must configure the status modification rules for cancellation and stop delivery to be mutually exclusive; any status that is allowed for cancellation cannot be allowed for stop delivery and vice-versa. For more information about configuring status modification rules, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

This is achieved by calling the following APIs:

* getCompleteOrderDetails API—This API returns the quantity which is available for cancellation and stop delivery.

* manageStopDeliveryRequest API—This API manages the request for the stop delivery.

The createException API is used to create an alert of type YCD_STOP_DELIVERY whenever a stop delivery request is placed. The alert is assigned to the YCD_STOP_DELIVERY queue. For more information about creation of alerts, see Section 6.18, "Alert and Queue Management".

In order for stop delivery requests to work, shipments must be created for product lines with fulfillment method as delivery.

6.9.15.2 End-User Impact
This section explains the end-user impact for the cancel order task.

* When the user selects a line for cancellation that has related lines, the related lines are automatically selected for cancellation.

* Based on the rules configured for cancellation of released lines, the end users can cancel delivery and pickup order lines that are above the Released status.

* Based on the status modification rules for an order, the end users can place stop delivery requests for shipped lines.

* The Payment Confirmation screen will display the list of all stop delivery requests placed on the order. Since order lines requested for stop delivery are not yet cancelled from the order, the user will not see any change in the order total on the Payment Confirmation screen. If these order lines are successfully stopped from being

delivered to the customer, the order total will be adjusted at that time. Refunds for the stop delivery will only be made after the item is received.

6.9.15.3 Implementation

This section explains the configurations for the cancel order task.

- To cancel delivery lines after they have been released or to allow requests for stop delivery after lines have been shipped, ensure that that Sales Order Fulfillment pipeline is configured to create shipments for product lines with fulfillment method as delivery. For more information about the sales order fulfillment pipeline, see the *Sterling Distributed Order Management Configuration Guide*.

- Sterling Call Center and Store allows you to define reason codes that are available during the cancellation process. For more information about defining cancellation reasons, see Section 4.10.9, "Defining Cancellation Reasons".

- Sterling Call Center and Store allows you to configure the order statuses for which cancellation of order lines is allowed. If you allow cancellation of order lines for a particular status, ensure that you allow cancellation of work order lines for the corresponding status. For more information about configuring the order statuses for modification, see Section 4.10.6, "Configuring Order Modification Rules".

- When a stop delivery request is placed, the YCD_StopDeliveryRequest_Alert_8.0 service generates an alert to notify that a stop delivery request is placed. This alert is sent to the Stop Delivery Request queue. When a return is received for the item for which stop delivery is requested, the YCD_StopDeliveryRequest_UpdateQty_8.0 service marks the stop delivery request as successful.

- Notes entered for this task are saved on the order with YCD_CANCEL_INFO note type.

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.9.15.4 Reference Implementation

This section explains the reference implementation provided as part of the Cancel Order task.

- The following reasons are configured in the "CANCEL_REASON" common code:
  - Change of Mind
  - Cheaper Price Found
  - Late/Failed Delivery
  - Unacceptable Delivery Time Promised
  - Product No Longer Available
  - Fraudulent Order
  - Address Undeliverable
  - Duplicate Order
  - Other
- As part of the reference implementation provided by Sterling Call Center and Store, the Order Repricing user exit is enabled when cancelling quantity on the Order.
- As part of reference implementation, Sterling Call Center and Store provides permissions to cancel an order to all user groups.

6.9.16 Track an Item

The customers may sometimes need to know the status of the orders. For example, if a customer does not receive items that were ordered, then the customer can call the CSR to enquire about the shipment status.

6.9.16.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to track orders.

The getCompleteShipmentDetails API is called to display the details of each order line such as status, work order-related information, shipments, containers. This API invokes the

YCDgetTrackingNumberURLUE user exit to retrieve the tracking URL for a container. This user exit is implemented to retrieve the Tracking Number URL for the given Tracking Number, Carrier, Carrier Service, and ScacAndService. The URL is displayed on the Order Summary and Shipment Tracking screens. When the user clicks this hyperlink, the appropriate carrier's website is displayed where the user can view the container's tracking information.

If an order is on hold, the user can view and resolve holds. For more information about resolving holds, see Section 6.9.1, "Resolve Holds".

Refer Table 6–30 for different order statuses and the corresponding screen display.

Table 6–30   Order Status and Screen Display

Order Status	Screen Display
Scheduled/Released	• If the fulfillment method is 'Shipping', the user can view the estimated ship date, estimated delivery date, item ID and description, and the item quantity. • If the fulfillment method is 'Pickup', the user can view the estimated pickup date, item ID and description, and the item quantity. • If the fulfillment method is 'Delivery' and if the order has associated work orders, the user can view the workorder information, otherwise the user can view the estimated ship date, estimated delivery date, item ID and description, and the item quantity.
Created/Reserved/ Back Ordered	• If the fulfillment method is 'Shipping', the user can view the estimated ship date, estimated delivery date, item ID and description, and the item quantity. • If the fulfillment method is 'Pickup', the user can view the estimated pickup date, item ID, description, and the item quantity. • If the fulfillment method is 'Delivery', the user can view the estimated delivery date, item ID and description, and the item quantity.
Cancelled	If the fulfillment method is 'Shipping', 'Delivery', or 'Pickup', the user can view the cancel date and cancel quantity.

Table 6—30   Order Status and Screen Display

Order Status	Screen Display
Included in shipment/Shipped	• If the items are Included in Shipment, the user can view the 'estimated to ship on' date, the estimated delivery date, and the item quantity. The user can view the shipped-on date, and the estimated delivery date. The View shipment, Reship shipment, and the reship container hyperlinks are available for a single order. • If the fulfillment method is 'Pickup', the shipment information is recorded. The user can view the 'picked up on' date, and the pickup quantity, and the store name.
Work Order Created	If an appointment is configured, the user can view the recent, open delivery appointment dates. The user can also view the item's identifier, quantity, and the unit price information.
Work Order Completed	The user can view the date on which the items were delivered to the customer, completed appointment date, completed delivery date and time, and the item quantity. The user can also view the item's identifier, quantity, and the unit price information.
Work Order Cancelled	If a work order is in cancelled status, the user will not be able to view any information.
Stop Delivery Request Placed	If a stop delivery request is placed, the user will see an icon indicating the stop delivery request.

If an order has associated work orders, based on the Process Type Details configuration options, the user can view the shipment and container information.

6.9.16.2 End-User Impact
None.

6.9.16.3 Implementation

This section explains the configurations for the track an item task.

- Implement the YCDgetTrackingNumberURLUE user exit to retrieve the tracking URL for a container from an external system.

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.9.16.4 Reference Implementation

As part of reference implementation, Sterling Call Center and Store provides permissions to track an item to all user groups.

6.9.17 Order Notes

A user may need to enter some notes for an order describing the actions performed against the order, for future reference. The order notes are either system generated or entered by the user. Additionally, a user can view the important events and changes that have occurred on an order by viewing previously logged order notes.

6.9.17.1 Solution

Sterling Call Center and Store provides the following features:

- A user interface to view and log notes on an order.

- A notes panel in the order related tasks in which notes are defaulted based on the task being performed. The user can modify these notes as necessary while performing the task in the user interface.

- A mechanism to automatically log notes during important events of an order's life cycle.

The changeOrder API is called to log notes on an order.

This section explains the system generated and user entered notes for an order.

System Generated Notes

You can configure to log notes automatically on the following events:

- Chained Order Created—The system generates notes when a chained order is created.

- FTC Notification—The system generates notes if the FTC monitors change anything in the order or send any notifications.
- Hold Created—The system generates notes when a hold is created.
- Hold Resolved—The system generates notes when a hold is resolved.
- Hold Rejected—The system generates notes when a hold is rejected.
- Back Ordered—The system generates notes if an order is back ordered while scheduling or releasing.
- On Shipment Confirmation—The system generates notes when a shipment is confirmed.
- Appointment Execution Failure—The system generates notes if an appointment fails.
- Appointment Execution Success—The system generates notes if an appointment is completed.
- Alert Created—The system generates notes when an alert is created for the order.

> **Note:** System generated notes will not be logged if a hold, irrespective of it being an order or order line level hold, is applied based on the hold type configuration. For example, if 'Fraud Check' hold type is configured to be automatically applied on order creation, a note will not be logged when the order is created. A note will be logged only if 'Fraud Check' hold is applied by calling changeOrder API.

Notes Entered By The User

The user may enter notes for an order, if applicable. The user can enter notes at the task level and prioritize them.

6.9.17.2 End-User Impact

The notes that have been configured to be logged automatically will be visible to the end users on the order notes screen.

6.9.17.3 Implementation

This section explains the configurations for the order notes task.

- Sterling Call Center and Store allows you to define note types and configure automatic note logging. For more information about defining note types and configuring note logging, see Section 4.10.14, "Defining Order Note Types and Configuring Automatic Note Logging". This configuration does not provide an option to configure system generated notes on chained order create event and FTC Notification event.

> **Note:** You can use the sample XSL files listed in Table 6–31 or you can use your own XSL files while selecting the XSL transformation file for an event in the Order Notes Wizard.

By default, the system generated notes on chained order created event is enabled. To disable system generated notes on this event, do not invoke the YCD_Log_Note_On_Chained_Order_Created_2.0 service.

System generated notes on FTC Notification events cannot be disabled.

- Sterling Call Center and Store provides sample XSL files to generate the note texts of the notes being logged for each event. Table 6–31 lists the events and the sample XSL files used to log notes on the corresponding events.

Table 6–31   Sample XSL Files

Event	Sample XSL File
Chained Order Created	YCD_Log_Note_On_Chained_Order_Created_2.0.xsl.sample
Hold Created	YCD_Log_Note_On_Hold_Status_Change_8.0.xsl.sample
Hold Resolved	YCD_Log_Note_On_Hold_Status_Change_8.0.xsl.sample
Hold Rejected	YCD_Log_Note_On_Hold_Status_Change_8.0.xsl.sample
Back Ordered	YCD_Log_Note_On_Back_Order_8.0.xsl.sample

Table 6–31   Sample XSL Files

Event	Sample XSL File
On Shipment Confirmation	YCD_Log_Note_On_On_Shipment_Confirmation_8.0.xsl.sample
Appointment Execution Failure	YCD_Log_Note_On_On_Appointment_Failure_8.0.xsl.sample
Appointment Execution Success	YCD_Log_Note_On_On_Appointment_Completion_8.0.xsl.sample
Alert Created	YCD_Log_Note_On_Create_Exception_8.0.xsl.sample

- Sterling Call Center and Store log notes with a unique note type for each task. The information regarding note types used in the Sterling Call Center and Store task flows are given in the corresponding task sections.

- Users can select a customer contact type while entering a note. For more information about configuring contact types, see Section 4.7.2, "Configuring Contact Types"

6.9.17.4 Reference Implementation

This section explains the default Note Types Codes and the Contact Types that are configured.

1. The Note Types are configured for system generated notes and task based notes.

   - The following are the Note Types configured for system generated notes:
     - Chained Order Information
     - FTC Notification Information
     - Shipment Confirmation Information
     - Hold Information
     - Backorder Information
     - Delivery Appointment Change Information
     - Create Alert Information

- The following are the Note Types configured for the task based notes:
  - Called Customer
  - Wrong Item Received
  - Customer Called
  - Schedule and Release Information
  - Issue Refund Now Information
  - Increase Line Quantity Information
  - Return Order Cancellation Information
  - Change Return Address
  - Change Return Method
  - Change Service Appointment
  - Called Issuing Bank
  - Marketing Opt-In
  - Cleared Held Order
  - Return Policy Overridden
  - Backorder Information
  - Hold Information
  - New Item Information
  - Order Entry
  - Fulfillment Options Change Information
  - Delivery Appointment Change Information
  - Delivery Instructions Change Information
  - Order Cancellation Information
  - Return Information
  - Order Address Change Information
  - Reship Information
  - Price Match Information

- — Customer Appeasement Information

- — New Promotion Information

- — Payment Change Information

- — Customer Verification Information

- — Add Modify Charges

- — Undo-Pick Information

- — Backroom-Pick Shortage Information

- — Create Alert Information

2. Refer Table 3–12 for the system generated note configuration provided as part of reference implementation for XYZ-CORP and XYZ-RETAIL organizations.

3. As a part of the reference implementation, the following Contact Types are configured:

- Phone

- E-mail

6.9.18 Change Service Instructions

Customers may request to change instructions for orders that are associated with delivery lines or service lines.

6.9.18.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to change service instructions.

At the time of delivery, if a customer requests to change the service instruction for a product or service item, the user can modify the service instructions as requested. For each service line, the user can modify the service instructions in the text box that has been provided. Sterling Call Center and Store allows the users to modify instructions for the deliveries or services that are not complete. For more information about viewing service fulfillment summary, see Section 6.9.20, "Service Fulfillment Summary".

6.9.18.2 End-User Impact

None.

6.9.18.3 Implementation

This section explains the configurations for the change service instructions task.

- Notes entered for this task are saved on the order with YCD_DELIVERY_INSTR note type.

- Sterling Call Center and Store allows you to configure the order statuses for which changing service instructions is allowed. For more information about configuring the order statuses for modification, see Section 4.10.6, "Configuring Order Modification Rules".

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.9.18.4 Reference Implementation

As part of reference implementation, Sterling Call Center and Store provides permissions to change service instructions to an order to all user groups.

6.9.19 Change Service Appointments

When a customer places an order for provided services or delivery services, an appointment needs to be taken with the corresponding retailer to agree on a time frame for the services to be fulfilled. Additionally, customers may need to provide the retailer with specific instructions to ensure that the service fulfillment is successful. For example, the customer may request the retailer to deliver an item at the back door.

After placing an order, the customers may request to make changes to an appointment or service instructions.

6.9.19.1 Solution

Sterling Call Center and Store provides configurable appointment screens, which include Service Fulfillment Summary screen and Service Appointment screen that allow users to create or modify service appointments and enter service instructions.

Sterling Call Center and Store does not support scheduling multiple appointments for a delivery or service line, while creating an order. The user can only take one appointment per line at a time.

If the customer wants more appointments to be taken, perform one of the following:

- The existing appointment must to be marked completed/failed and a new appointment must be taken.

- A new line must be added and a new appointment must be taken for the newly added line.

Service Fulfillment Summary Screen

The Service Fulfillment Summary screen provides visibility to service appointments pertaining to an order. For more information about service fulfillment summary, see Section 6.9.20, "Service Fulfillment Summary".

Service Appointment Screen

A calendar is displayed from which the user can select the appropriate appointment for the customer. When the customer chooses the time slot for delivery, the calendar displays information such as working or non-working days, capacity available days, and so forth. Sterling Call Center and Store provides multiple ways to take appointments. The user can take appointments by selecting the time slot and viewing the days available for the selected time slot. Alternatively, the user can select a day in the calendar and view the slots available on that day.

You can configure the number of weeks to display on the calendar at a time. By default, a complete month is displayed. To improve the performance, reduce the number of weeks to display to two so that only two weeks of data needs to be returned by the getWorkOrderAppointmentOptions API.

Users can look beyond the initial weeks displayed on the calendar in case there are no acceptable appointments within the initial time frame. By default, the appointment calendar allows the user to look out infinitely into the future for appointments. However, your capacity system may not have visibility beyond a certain time frame. You can configure the maximum number of days to allow users to look into the future. After the maximum number of days is reached in the appointment screen, the user will not be able to proceed to the next time period. When an appointment

is saved, the reserveOrder API is called. This API calls the changeOrder API to make a reservation.

If the reservation succeeds, the modifyWorkOrder API is called to save the appointment on the work order. If the reservation fails due to that same inventory being consumed by another order, the Service Appointment screen refreshes and requests the user to take a new appointment based on the new inventory picture.

Modifying Delivery Lines After Release

If the Allow Modification of Delivery Lines After Release rule is enabled, the user can change the service appointments of order lines that have the "Delivery" fulfillment method and are not in the Shipped status.

Handling Bundle Items

If the bundle item is configured as ship independent, the user can change the service appointment for all the component items. If the bundle item is configured as ship together, the user can only change the service appointment for the bundle parent item. For more information about bundles, see Section 6.2, "Configured Items".

6.9.19.2 End-User Impact

The configurable rules for the Service Appointment screen determines what information to display. As explained in the Service Appointment Screen section, you can configure the default calender view and the number of weeks to display.

6.9.19.3 Implementation

This section explains configurations for the change service appointments task.

- To change the service appointment calendar view, configure the following rules:
  - Capacity Information
  - Calendar Display
  - Default Appointment Calendar View
  - Defaulting Option

For more information about configuring the service appointment calendar view, see Section 4.6.22, "Configuring the Service Appointment Calendar View".

- Notes entered for this task are saved on the order with YCD_DELIVERY_APPT note type.

- Sterling Call Center and Store allows you to configure the order statuses for which changing service appointments is allowed. For more information about configuring the order statuses for modification, see Section 4.10.6, "Configuring Order Modification Rules".

- Sterling Call Center and Store allows you to configure the order statuses for which cancellation or modification of fulfillment options for delivery and pickup order lines that are beyond the released status is allowed. For more information about configuring the special order statuses for modification, see Section 4.10.31, "Configuring Special Order Modification Rules".

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.9.19.4 Reference Implementation

The instruction type provided and the note reason configured for changing a delivery appointment are:

- An instruction type called 'DELIVERY' is provided for saving service appointment instructions.

- The Calendar Display is set to "Monthly View"

- The Default Appointment Calendar View is set to "Select Slot First, Then Choose the Day".

- As part of reference implementation, Sterling Call Center and Store provides permissions to change service instructions to an order to all user groups.

6.9.20 Service Fulfillment Summary

The Service Fulfillment Summary screen provides visibility to service appointments pertaining to an order.

6.9.20.1 Solution

This section explains the functionality of the Service Fulfillment Summary screen.

getOrderFulfillmentDetails API

This API calls the getCompleteOrderDetails, getPossibleSchedules, and getCarrierServiceOptionsForOrdering APIs. It returns information pertaining to the work orders associated with delivery and service lines. This information is used to display the Delivery Fulfillment Summary screen.

This screen also provides the ability to:

* Mark delivery lines as gift items

* Change service instructions for work orders

Marking Delivery Lines As Gift Items

The Sterling Call Center and Store allows you to mark all lines in a work order as gifts, if the status modification rules permit. You can also configure whether gift options can be recorded for delivery lines.

The getOrderFulfillmentDetails API is called to retrieve the details of the order lines marked for a gift recipient. The changeOrder API is called to modify the gift options for the lines.

Change Service Instructions For The Work Order

The Sterling Call Center and Store allows you to change service instructions if the work order status modification rules permit. For more information about changing service instructions, see Section 6.9.18, "Change Service Instructions".

The getOrderFulfillmentDetails API is called to retrieve details of the work orders. The modifyWorkOrder API is called to modify the service instructions on the work order.

Handling Bundle Items

If the bundle item is configured as ship independent, the user can change the service instructions for all the component items. If the bundle item is configured as ship together, the user can only change the service instructions for the bundle parent item. For more information about bundles, see Section 6.2, "Configured Items".

6.9.20.2 End-User Impact

None.

6.9.20.3 Implementation

This section explains the configurations for the service fulfillment summary screen.

- Sterling Call Center and Store allows you to configure the order statuses for which changing gift options is allowed. For more information about configuring the order statuses for modification, see Section 4.10.6, "Configuring Order Modification Rules".

- Sterling Call Center and Store allows you to configure the order statuses for which changing service instructions is allowed. For more information about configuring the order statuses for modification, see Section 4.10.6, "Configuring Order Modification Rules".

- Sterling Call Center and Store allows you to configure the available gift options. For more information about configuring the available gift options, see Section 4.10.19, "Configuring Available Gift Options".

6.9.20.4 Reference Implementation

None.

6.9.21 Change Fulfillment Options

When a customer requests a change in the fulfillment options for an item, the user can modify the fulfillment options as requested. For example, a customer may request the delivery of ordered items, but later decides to pick up the items from a store. In such situations, the user can modify the fulfillment options for the items or a provided service line.

> **Note:** In the Change Fulfillment Options screen, all order lines that are associated with drop ship lines are disabled.

6.9.21.1 Solution

This section explains how to modify the fulfillment options.

Changing The Fulfillment Option For An Order Or An Order Line

The user can change the fulfillment options and the address for an order. The fulfillment options that are available are shipment, delivery, and pickup.

If the rule to enable stores is configured, the items are available for pickup from a store. The options available for pickup are based on the option selected by the user. The getFulfillmentOptionsForLines API returns all fulfillment options that are applicable for the order line.

* If the selected option is "Ship", the items are shipped to the specified address.

* If the selected option is "Delivery", the items are delivered to the customer's doorstep.

* If the selected option is "Pickup", the user has a choice to choose to pick up from the current store or to select another store by entering the country and zip code details.

The getFulfillmentOptionsForLines API is used to determine the availability of the 'delivery address' and 'carrier service' that the user has supplied.

The generateWorkOrder API checks for order lines marked for delivery and determines if it has a delivery service associated with it, and if not, the generateWorkOrder API creates one and then creates a work order.

The YCDOverrideDeliveryMethodUE user exit is used to override fulfillment methods. This user exit provides the ability to override the logic of enabling a fulfillment method. The default implementation is not provided and you can use your own implementation for this user exit.

If the UsedForOrdering attribute is set to "Y", the information about all the carrier services is displayed.

The order dates for each order line displays based on the fulfillment methods of the order line.

* Pickup—The value of the ReqShipDate attribute from the OrderLine element displays.

* Ship—The order dates display based on:

  – The date range of the CommittedDate attribute values within the OrderDates element displays as follows:

- The minimum date is considered from the OrderDate element having DateTypeId attribute value as MIN_DELIVERY.

- The maximum date is considered from the OrderDate element having DateTypeId attribute value as MAX_DELIVERY.

- If the minimum date and maximum date for the CommittedDate attribute value are blank, the date range of the ExpectedDeliveryDate attribute value within Details element in the OrderStatus element displays.

- Delivery—The value of the PromisedApptStartDate attribute displays, if there is a work order associated with the orderline. Otherwise, the order dates do not display.

Disabling Availability Checks

The user can disable availability checks when inventory is maintained externally as the user is aware of the inventory availability details.

Disabling Fulfillment Methods

A user can select only the supported fulfillment methods for order lines. The fulfillment methods that are not supported are disabled. For instance, if an item does not support the "Pickup" fulfillment method, upon selecting the order line, the pick up option is disabled. Based on the configuration, Delivery and Shipping are displayed as separate fulfillment methods.

Disabling Pickup From Store for All Items

You can configure the user interface to never show the pickup fulfillment method if the enterprise does not support that fulfillment method.

Validating Fulfillment Options

A user may skip the customer identification details when creating an order and proceeding to the next screen. When the Change Fulfillment Options screen is displayed, if the user moves to the next screen, the system validates that the fulfillment method is added to every order line. The user must enter the Ship To Address, if the fulfillment method is "Shipping", the Deliver To Address if the fulfillment method is "Delivery". If the fulfillment method is "Pickup", the Pick up Store must be entered.

Selection of Related Lines

When the user wants to modify the fulfillment option for the parent item, the related lines associated with it are also selected for modification.

Selection of Bundle Lines

When the user wants to modify the fulfillment option for the bundle item, if the bundle item is configured as ship independent, you can also select the components lines for modification. If the bundle item is configured as ship together, only the bundle parent item is displayed for modification and the fulfillment method of the component lines will be changed accordingly. For more information about bundles, see Section 6.2, "Configured Items".

Changing Service Instructions And Appointments

A user can modify the service instructions. A user can also take appointments for deliveries for a customer by selecting the available time slot and date from the calendar. The generateWorkOrder API considers the new work orders and existing work orders, if any. If the work orders are in the `Failed` or `Cancelled` status, or if an appointment is not taken, the generateWorkOrder API returns a suggested appointment. For more information about changing service appointments, see Section 6.9.19, "Change Service Appointments".

Changing Pickup Lines

A user can modify pickup lines even if they are in the `Released` status, and until the items are picked up and are not in the `Shipped` status. The user can change the ship node and fulfillment method for the pick up line. The changeRelease API is called to backorder an order line that is in the `Released` status.

Changing Delivery Lines

A user can modify delivery lines even if they are in the `Released` status and are not in the `Shipped` status. The user can change the ship node and the fulfillment method for a delivery line if the "Allow Modification of Delivery Lines after Release" option is enabled. The changeRelease API is called to backorder an order line that is in the `Released` status.

Payment Confirmation Details

Due to the change in fulfillment options, if the payment information changes, the system displays the updated payment details. If the customer wants to make additional payments, the user must select the payment method.

Customer Context Ordering

When the order is in the context of a customer, all addresses available to the customer/contact will be provided in the drop-down list in the Change Fulfillment Options screen. These addresses will also appear in the create new and edit address pop-up screens to serve as a starting point for a new address.

> **Note:** When the order is in the context of a customer, all new addresses added to the order will automatically be saved against the customer record.

6.9.21.2 End-User Impact

This section explains the impact on the user.

Disabling Availability Checks

The user is not shown the availability details in any store on the Add Multiple Lines, Order Entry, Change Fulfillment Options, Change Order Addresses, and Item Inquiry screens.

Changing Pickup Lines

The user is allowed to modify the order lines that have the pickup fulfillment method even after the status is changed to `Released`.

Changing Delivery Lines

The user is allowed to modify the order lines that have the delivery fulfillment method even after the status is changed to `Released`.

6.9.21.3 Implementation

This section details the rules to be configured to change the fulfillment options.

Disabling Availability Checks

If the Prevent Initial Availability Checks During Order Entry and Order Modifications rule is enabled, the inventory availability check is not performed and the calls to the getFulfillmentOptionsForLines, findInventory, or any derivation APIs are eliminated. This aids in better performance and pace when capturing the order.

Changing Pickup Lines

To modify the pickup lines that are in the `Released` status or above, check the Allow Modification of Pickup Dates and Store for Pickup Lines after Release box for the Enterprise.

Changing Delivery Lines

To modify the delivery lines that are in the `Released` status or later, check the Allow Modification of Fulfillment Options for Delivery Lines After Release box for the Enterprise.

Notes entered for this task are saved on the order with YCD_DELIVERY_OPTIONS note type.

6.9.21.4 Reference Implementation

This section explains the reference implementation provided for the following tasks:

Disabling Availability Checks

The Prevent Initial Availability Checks During Order Entry and Order Modifications rule is defaulted to ensure that availability checks are performed.

Changing Pickup Lines

The Allow Modification of Pickup Dates and Store for Pickup Lines after Release rule is defaulted to allow modification of lines after release.

Changing Delivery Lines

The Allow Modification of Fulfillment Options for Delivery Lines after Release rule is defaulted to allow modification of lines after release.

The Allow Cancellation of Delivery Lines after Release rule is also defaulted to allow modification of lines after release.

6.9.22 Fulfillment Summary

The Fulfillment Summary screen provides the complete scenario of how the order is configured and fulfilled. Based on the fulfillment method, the order lines can be grouped. Within each fulfillment method, the order lines can be grouped as follows:

- Ship To Address for shipping
- Ship Node for pickup

The Fulfillment Summary screen provides visibility to order information, line items, quantity, price, fulfillment time, fulfillment date, available date, and delivery date. This screen also provides the ability to:

- Set the order lines as gift items
- Select the replacement nodes for pickup
- Modify the fulfillment option of the order line
- Cancel lines

6.9.22.1 Solution

This section explains the functionality of the Fulfillment Summary screen.

getOrderFulfillmentDetails API

This API calls the getCompleteOrderDetails, getPossibleSchedules, and getCarrierServiceOptionsForOrdering APIs. It returns information such as availability of items, level of service, and so forth, that are added to the order line. This information is used to display the Fulfillment Summary screen.

From the Fulfillment Summary screen, you can view or modify the following:

- Availability of Items
- Changing the Carrier Service for Shipping
- Changing the Pickup Date of the Item
- Changing Fulfillment Method
- Handling Related Items
- Handling Bundle Items

- Cancelling Items

- Reserving Items

- Marking Items as Gifts

- Changing the Pickup Location

- Overriding Availability

Availability of Items

The item availability is displayed depending on the date. The getPossibleSchedule API returns the date, which determines whether or not the items are available.

Changing the Carrier Service for Shipping

The getCarrierServiceOptionsForOrdering API provides a list of carrier service options and their estimated dates for items that have fulfillment method as "Shipping". By implementing the GetCarrierServiceOptionsForOrderingUE user exit, you can obtain the cost of each carrier service.

Changing the Pickup Date of the Item

The user can change the pickup date for an item by selecting the preferred date from the calendar. Only the dates on or after the ProductShipDate are enabled on this calendar.

Changing Fulfillment Method

The fulfillment method can be changed for an item if the item supports the new fulfillment method. This is possible by choosing the action you want to change from "Shipping" to "Change to Pick up" or from "Change to Pickup" to "Shipping".

Handling Related Items

The related items are selected automatically when the parent item and the related lines have the same fulfillment method.

Handling Bundle Items

If the bundle item is configured as ship independent, gift options can be changed for all the component items. If the bundle item is configured as ship together, then if the gift option for bundle parent is changed, the

gift option will be changed for all the components items. For more information about bundles, see Section 6.2, "Configured Items".

The user can only cancel a bundle parent item. When a bundle parent item is cancelled, all the components of the bundle are cancelled automatically.

Cancelling Items

Items that are in a status that supports cancellation can be cancelled by selecting the Cancel action.

Reserving Items

Items can be reserved upon confirmation or when moving to the next screen.

Marking Items as Gifts

The user can mark selected items as gift items by clicking the Gift Options button.

Changing the Pickup Location

The pickup location can be changed by clicking the Pick Locations button for the selected order lines. This button is displayed in the Pickup panel.

Overriding Availability

The inventory availability can be overridden only in the Pickup panel, when logged in at the store from where the user wants to pickup inventory. Overriding of availability is possible only if the user logs in at the current store from where you perform pickup, and belongs to a user group that has permission to override inventory availability.

The order dates for each order line displays based on the fulfillment methods of the order line.

- Pickup—The value of the ReqShipDate attribute from the OrderLine element displays.

- Ship—The order dates display based on:

  - The date range of the CommittedDate attribute values within the OrderDates element displays as follows:

- The minimum date is considered from the OrderDate element having DateTypeId attribute value as MIN_DELIVERY.

- The maximum date is considered from the OrderDate element having DateTypeId attribute value as MAX_DELIVERY.

- If the minimum date and maximum date for the CommittedDate attribute value are blank, the date range of the ExpectedDeliveryDate attribute value within Details element in the OrderStatus element displays.

• Delivery—The value of the PromisedApptStartDate attribute displays, if there is a work order associated with the orderline. Otherwise, the order dates do not display.

6.9.22.2 End-User Impact
This section explains the impact on the user.

Handling Related Items
When the user selects the parent item, the related lines having the same fulfillment method as the parent item is also selected.

Handling Bundle Items
When the user wants to modify the fulfillment option for the bundle item, if the bundle item is configured as ship independent, the user can also select the components lines for modification. If the bundle item is configured as ship together, the user can only select the bundle parent item for modification and the fulfillment method of the component lines will be changed automatically. For more information about bundles, see Section 6.2, "Configured Items".

6.9.22.3 Implementation
This section explains the configuration for fulfillment summary.

1. Log in to the Sterling Call Center and Store Configurator.

   For more information about logging in to the Sterling Call Center and Store Configurator, see Section 2.1, "Starting the Sterling Call Center and Store Configurator".

2. From the Sterling Call Center and Store Configurator, select Configure Information Recorded During Level of Service Selection. The

Configure Information Recorded During Level of Service Selection screen is displayed.

3. Configure the Save committed dates on the line rule.

6.9.22.4 Reference Implementation

The Compute Expected Dates When Requested Dates On The Pickup Order Lines Are Changed rule is set to "Y" for XYZ-CORP and XYZ-RETAIL organizations.

6.9.23 Reservations

The reservation of items is performed to confirm availability and resolve issues when handling multiple customers simultaneously. For example, if two CSRs are assisting two different customers for the same item, which is the only available item, and if the item is not reserved, then both CSRs might sell the item by checking the availability status. In such situations, reservations are essential.

6.9.23.1 Solution

This section describes the functionality of reservations.

Creating Reservations

Reservations can be created only if the Reserve Items During Order Entry and Order Modifications rule is enabled.

To reserve items on the Fulfillment Summary screen for order lines with fulfillment method as "Pickup" or "Ship", the reservation is created by calling the changeOrder API.

To reserve items on the Delivery Appointment screen for order lines with fulfillment method as "Delivery", the reservation is created by calling the reserveOrder API.

Handling Bundle Items

While reserving a bundle item, if the reservation of a component item fails, the bundle parent item will not be reserved. For more information about bundles, see Section 6.2, "Configured Items".

6.9.23.2 Implementation

This section explains the rules to configure item reservations.

To reserve items:

1. Log in to the Sterling Call Center and Store Configurator.

For more information about logging in to the Sterling Call Center and Store Configurator, see Section 2.1, "Starting the Sterling Call Center and Store Configurator".

2. From the Sterling Call Center and Store Configurator, select Configure Order Administration > Advanced Configurations > Configure Availability Check and Reservation Options. The Configure Availability Check and Reservation Options screen is displayed.

3. Configure the Reserve Items During Order Entry and Order Modifications rule. The default value is "N".

> **Note:** If the Reserve Items During Order Entry and Order Modifications rule is enabled, and in the Fulfillment Summary Screen, if the system fails to reserve some items, the user cannot go to the next screen.

6.9.23.3 End-User Impact

None.

6.9.23.4 Reference Implementation

By default, the Reserve Items During Order Entry and Order Modifications rule is set to "N" for XYZ-CORP and XYZ-RETAIL organizations.

6.9.24 Increase Order Line Quantity

When a customer wants to increase the quantity of one or more items on an order that is already placed, the call center or store representatives can increase the order line quantity as requested. Line quantity for provided services cannot be increased.

6.9.24.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to increase the order line quantity.

This section explains Increase Order Line Quantity process and the solution offered by Sterling Call Center and Store.

Validating Whether The Order Line Quantity Can Be Increased

Sterling Call Center and Store validates if the order line quantity can be increased based on the order modification rules. The order modification rule verifies if the order status permits addition of lines to an order.

The getCompleteOrderDetails API is called to retrieve the details of the order. The findInventory API is called to retrieve the capacity information for service items. The getFulfillmentOptionsForLines API is called to retrieve the inventory information for product items.

The getFulfillmentOptionsForLines API is called with ReqEndDate as an input to verify whether the additional item quantity can be fulfilled along with the existing order quantity. The ReqEndDate is the farthest available ExpectedShipmentDate taken from the Details element under the order status of the order line. The ShipNode is passed from the OrderStatus element having the Details element from where the ExpectedShipmentDate is taken.

If the getFulfillmentOptionsForLines API returns the `HasAnyUnavailableQty` attribute value as "N", the adjustment can be fulfilled and the additional item quantity can be added to the order. If the value of the `HasAnyUnavailableQty` attribute is set to "Y", the additional item quantity requested by the customer cannot be added to the order. In such situations, a warning icon is displayed on the screen along with the available item quantity that can be added to the order.

If the getFulfillmentOptionsForLines API returns a different delivery date for the additional item quantity that is not the same as the original delivery date, an appropriate message is displayed on the screen.

> **Note:** If the service line is a related line and you increase the quantity of the parent item, based on the configuration, the quantity of the service line automatically increases. For more information about configuring the provided services, see the *Sterling Product Management Configuration Guide*.

Handling Bundle Items

While increasing the line quantity of a bundle item, the quantity of the component items will automatically be increased. For more information about bundles, see Section 6.2, "Configured Items".

Validating Whether The Items Are Present In The Store

The user needs to verify if the requested additional item quantity is present in the store. If the minimum order line status is in the Released status or exceeds this status, a warning message displays that prompts the user to manually check whether the items are present in the store.

Viewing Service Fulfillment Summary

The user can view the service fulfillment summary and modify appointments for the items added. The items are reserved based on the configuration. For more information about service fulfillment summary, see Section 6.9.20, "Service Fulfillment Summary". For more information about service appointments, see Section 6.9.19, "Change Service Appointments".

Viewing And Confirming Payment Details

Due to the increase in line quantity, the payment information changes, and the system displays the updated payment details. To make additional payments, the user must select the payment method.

Sterling Call Center and Store can be used to carry out the critical payment related processes during order management processing and enables you to integrate with external payment processing systems such as CyberSource or Chase Paymentech.

> **Note:** If you are running in integrated mode, increasing the order line quantity will trigger an order reprice from the Sterling Multi-Channel Selling Solution. For more information about repricing logic, see Section 10.2, "Signing into Sterling Multi-Channel Selling Solution".

6.9.24.2 End-User Impact

None.

6.9.24.3 Implementation

This section explains the configurations for the increase order line quantity task.

- Sterling Call Center and Store allows you to configure the order statuses for which increasing order line quantity is allowed. For more information about configuring the order modification statuses, see Section 4.10.6, "Configuring Order Modification Rules".

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.9.24.4 Reference Implementation

This section explains the reference implementation provided as part of the increase order line quantity task.

- As part of the reference implementation provided by Sterling Call Center and Store, the YFSOrderRepricingUE user exit is enabled when the line quantity is increased on the Order.

- Sterling Call Center and Store provides permissions to increase the order line quantity to all users as part of reference implementation.

6.9.25 Schedule and Release an Order

After an order is created, it has to be scheduled so that it can be delivered to the customer. Important shipment attributes, such as delivery dates and ship nodes, are determined at this point. After Sterling Call Center and Store determines one or more ship nodes that can be utilized to ship the ordered merchandise, those nodes are notified with all the information that is necessary to send the shipment. In some

cases, it may be necessary to execute the schedule and release process from Sterling Call Center and Store user interface.

6.9.25.1 Solution

Sterling Call Center and Store provides a user interface that allows users to schedule and release an order. This task enables users to demonstrate the flow of an order that is created and fulfilled in Sterling Call Center and Store without having to go to the Sterling Multi-Channel Fulfillment Solution console.

The order is scheduled by calling the scheduleOrder API. It is released by calling the releaseOrder API. After the order is successfully scheduled and/or released, the details of all the order lines are displayed by calling the getOrderLineStatusList API and getCompleteOrderDetails API. If there is a problem with scheduling an order, the getPossibleSchedules API is called to display the schedule failure reasons.

Sterling Call Center and Store provides a list of common codes to display reasons for the failures that may occur during scheduling and releasing. These common codes are defined in the YCD_YFS_BASE_COMMON_CODE table and can be identified by the YCD_SCH_FAILURE_RSN code type.

6.9.25.2 End-User Impact

None.

6.9.25.3 Implementation

The schedule and release order task is permission controlled. Sterling Call Center and Store allows you to assign the necessary permissions to user groups for this task.

6.9.25.4 Reference Implementation

Sterling Call Center and Store provides the necessary permissions to schedule and release an order to hub users as part of reference implementation.

6.9.26 View Procurement Orders

Call center and store representatives may need to view procurement and transfer orders that have been created for a sales order to get a

complete picture of how the sales order is being fulfilled. If the ship node defined for an order line does not have enough inventory to fulfill the order, the required inventory can be acquired from a procurement node. In this scenario, the ship node defined for the order line receives inventory from the procurement node to fulfill the order.

6.9.26.1 Solution

Sterling Call Center and Store provides a user interface task which allows users to view procurement orders (Purchase Orders and Transfer Orders) that are created for a sales order.

The getOrderLineList API is called to retrieve a list of procurement orders for the sales order. The getCompleteOrderDetails API is called to display the details of the procurement order.

6.9.26.2 End-User Impact

None.

6.9.26.3 Implementation

This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.9.26.4 Reference Implementation

Sterling Call Center and Store provides permissions to view procurement orders to hub users as part of reference implementation.

6.9.27 Change Order Address

A customer may want to change or modify the addresses on an order after placing the order. In such situations, call center and store representatives can modify the addresses as requested.

6.9.27.1 Solution

This section explains the process of changing the order address and the solution offered by Sterling Call Center and Store.

Disabling Availability Checks

You can disable availability checks when inventory is maintained externally. If the Prevent Availability Checks During Order Entry and Order Modifications rule is enabled or set to "Y", the inventory availability check is not performed and the calls to the getPossibleSchedules, findInventory, or any derivation APIs are eliminated. This aids in better performance and pace in capturing the order.

Validating the Address Information

When the user has to enter an order address for a new customer, or modify an existing address, the validity of the address needs to be verified.

The validity of the address needs to be verified when the address of a new customer is to be entered or when the existing address of a customer needs to be modified. For more information about address verification, see Section 6.6.4.2, "Address Verification".

Modifying Delivery Lines After Release

If the Allow Modification of Delivery Lines After Release rule is enabled, the user can change the shipping address of order lines that have the Delivery fulfillment method and are not in the Shipped status.

Viewing Service Fulfillment Summary

After changing the address on the order using the changeOrder API, the generateWorkOrder API is used to create the delivery lines and generate work orders. The user can change the delivery appointment for the customer, if applicable. The items are reserved based on the configuration. For more information about service fulfillment summary, see Section 6.9.20, "Service Fulfillment Summary". For more information about service appointments, see Section 6.9.19, "Change Service Appointments".

> **Note:** The order lines with fulfillment method as "Shipping" are not reserved when the user changes the shipping address.

6.9.27.2 End-User Impact

None.

6.9.27.3 Implementation

This section explains the configurations for the change order address task.

- Sterling Call Center and Store allows you to configure the order statuses for which changing the address is allowed. For more information about configuring the order statuses for modification, see Section 4.10.6, "Configuring Order Modification Rules".

- Sterling Call Center and Store allows you to configure availability checks and reservation options. For more information about configuring availability checks and reservation options, see Section 4.10.27, "Configuring Availability Check and Reservation Options".

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

- Notes entered for this task are saved on the order with YCD_SHIPPING_ADDRESS note type.

6.9.27.4 Reference Implementation

This section explains the reference implementation provided as part of change order address task.

- By default, the Prevent Availability Checks During Order Entry and Order Modifications rule is set to "N" for XYZ-CORP and XYZ-RETAIL organizations.

- Sterling Call Center and Store provides permissions to change the order address to all users as part of reference implementation.

6.9.28 Launch Sterling Multi-Channel Fulfillment Solution Consoles

In some implementations, call center and store representatives may need to access screens and functionality from the Sterling Multi-Channel Fulfillment Solution Consoles. For example, call center and store representatives may need to access the detailed order audit screens available in the Sterling Multi-Channel Fulfillment Solution Consoles.

6.9.28.1 Solution

Sterling Call Center and Store provides a user interface task which allows users to launch the Sterling Multi-Channel Fulfillment Solution Consoles from within the Sterling Call Center and Store user interface.

Sterling Call Center and Store allows you to configure the URL to be used when launching the Sterling Multi-Channel Fulfillment Solution Consoles from the Sterling Call Center and Store user interface so that you can configure a specific screen or set of screens that will be opened.

> **Note:**   Since Sterling Multi-Channel Fulfillment Solution Consoles are not supported on Linux, you cannot launch the Sterling Multi-Channel Fulfillment Solution Consoles from within the Sterling Call Center and Store user interface for Linux based installations.

6.9.28.2 End-User Impact

None.

6.9.28.3 Implementation

This section explains the configurations for this task.

- To launch the Sterling Multi-Channel Fulfillment Solution Consoles from the Sterling Call Center and Store user interface, define an entry under the Config element in `locations.ycfg` to allow logging into the browser.

  ```
  LoginThroughBrowser="TRUE"
  ```

  For more information about configuring settings to allow logging into the browser, see the *Sterling Multi-Channel Fulfillment Solution Installation Guide*.

- If the client machine's network connection is configured to use a proxy server and port:

  - Ensure that the proxy server and port are specified in connection settings for the client machine's default browser.

  - Ensure that the BaseURL and PortNumber are set in the `locations.ycfg` file.

> For example if the client machine's network connection is configured to use a proxy server "Proxy" and Port "8080", you should set the following in the `locations.ycfg` file.
>
> ```
> BaseUrl = "Proxy"
>
> PortNumber  = "8080"
> ```
>
> For more information about editing the `locations.ycfg` file, see the *Sterling Call Center and Store Installation Guide*.

- In order to use the console resources to log in to the Sterling Multi-Channel Fulfillment Solution Consoles, you need to set the following argument in the com.ini/som.ini file.

  ```
  -Duseconsoleresources=Y
  ```

  For more information about configuring settings to allow logging into the browser, see the *Sterling Multi-Channel Fulfillment Solution Installation Guide*.

- Sterling Call Center and Store allows you to configure the URL to be used when launching the Sterling Multi-Channel Fulfillment Solution Consoles from the Sterling Call Center and Store user interface. For more information about configuring the URL, see Section 4.10.35, "Configuring External User Interface Rules".

  Sterling Call Center and Store allows you to configure URLs for each enterprise in your organization. If the user belongs to multiple enterprises, the URL corresponding to the user's primary enterprise is used.

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.9.28.4 Reference Implementation

This section explains the default values provided for this feature.

- The rule to configure the URL to be launched is set to the Sterling Multi-Channel Fulfillment Solution Consoles URL for XYZ-CORP and XYZ-RETAIL organizations.

- Sterling Call Center and Store provides permissions to launch the Sterling Multi-Channel Fulfillment Solution Consoles to hub users as part of reference implementation.

6.9.29 Change an Item's Style

After placing an order for a stylized item, a customer may want to change the attributes of that item.

6.9.29.1 Solution

Sterling Call Center and Store provides the Change Items Style functionality which enables the user to change an item's style even after the item is added to the order.

The getCompleteItemList API is called to display the different styles for an item. On entering the partial Item ID of a model item or a stylized item, a pop-up window appears, in which the user can select the corresponding item by selecting the attributes that are used to model the item. For more information about handling styles for an item, see Section 6.1.2, "Handling Styles for an Item".

When an item's style is changed, the original item is cancelled and a new item is added. The user will be able to change an item's style only if status modification rules permit cancellation and addition of lines.

When the attributes of a stylized item are changed, the changeOrder API is called to cancel the existing order line, and the changeOrder API is called to add a new line.

6.9.29.2 End-User Impact

None.

6.9.29.3 Implementation

The change an item's style task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.9.29.4 Reference Implementation

Sterling Call Center and Store provides the necessary permissions to change an item's style to all the user groups as part of reference implementation.

6.9.30 Reconfigure Items

Call center and store representatives may need to reconfigure bundle items. For example, a customer may place an order for a computer that was originally configured with a slower, inexpensive processor. The customer may change his mind and ask the CSR to reconfigure the computer to have a faster, more expensive processor.

6.9.30.1 Solution

Sterling Call Center and Store provides user interface task which enables users to reconfigure bundle items.

This section explains the Reconfigure Item process, and the solution offered by Sterling Call Center and Store.

Reconfiguring The Item

The getCompleteOrderDetails API is called to display the details of the order lines. When the reconfigure link is selected, the Sterling Multi-Channel Selling Solution's Item Browser is launched from within the Sterling Call Center and Store user interface. For more information about launching the Sterling Multi-Channel Selling Solution from within Sterling Call Center and Store, see Section 10.2, "Signing into Sterling Multi-Channel Selling Solution". For more information about the Sterling Multi-Channel Selling Solution Configurator, see Section 10.6, "Product Configuration".

After the item is reconfigured, the changeOrder API is called to update the order.

Changing The Fulfillment Method Of The Item

A user can change the fulfillment method of the item after reconfiguring the item. For more information about changing the fulfillment method, see Section 6.9.21, "Change Fulfillment Options".

Viewing Pick up and Shipping Fulfillment Summary

After modifying the fulfillment method of the item, the user can view the details of the fulfillment summary. The Fulfillment Summary screen provides the complete scenario of how the pick up and ship order lines are fulfilled. The items are reserved based on the configuration. For more information about fulfillment summary, see Section 6.9.22, "Fulfillment Summary".

Viewing Service Fulfillment Summary

After adding items to the order using the changeOrder API, if you choose the Delivery option, the generateWorkOrder API is used to create the delivery lines and generate work orders. The user can change the delivery appointment for the customer, if applicable. The items are reserved based on the configuration. For more information about service fulfillment summary, see Section 6.9.20, "Service Fulfillment Summary". For more information about service appointments, see Section 6.9.19, "Change Service Appointments".

Confirming The Payment Details

Due to the changes in the configuration of the item, or changing the fulfillment options, if the order total changes, the system displays the updated payment details. If the customer wants to make additional payments, the user must select the payment method. For more information about confirming the payment details, see Section 6.9.2, "Change Payment Method".

6.9.30.2 End-User Impact

None.

6.9.30.3 Implementation

This section explains the configurations for this task

- Sterling Call Center and Store allows you to configure external payment options. For more information about configuring external payment options, see Section 4.10.30, "Configuring User Interface Payment Handling".

- Sterling Call Center and Store allows users to reconfigure bundle items only if the change bundle definition status modification rule is enabled. For more information about configuring the order modification rules, see Section 4.10.6, "Configuring Order Modification Rules".

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.9.30.4 Reference Implementation

Sterling Call Center and Store application provides permissions to launch the reconfigure items to hub users as part of reference implementation.

6.10 Payment Processing

In a customer order scenario, each order has to be paid whenever it is placed. The user can use different payment types to pay for an order. To process these payment types different requests need to be made to payment servers. For example, a credit card needs to be validated as not being fraudulent, having sufficient funds, and charged. Whereas, a stored value card (SVC) needs to be validated only for sufficient funds and charged.

The commonly used payment types need to be made available to the customers placing orders. The payment types need to be validated and charged by external payment validation servers.

If your enterprise implements its own or a third-party payment system, the Payment Summary screen is not displayed. This option is set through the external payment rule, YCD_PAYMENT_ENTERED_EXTERNALLY.

6.10.1 Solution

An unlimited number of payment methods can be used on an order. The payment methods are based on the following payment types defined in Sterling Call Center and Store:

- Credit Card

- Stored Value Card

- Pre-paid

- Check

- Refund Check

Through user exit implementations, Sterling Call Center and Store interacts with the payment servers to authorize and charge the payment methods, if applicable. It is assumed that the front-end system attempts to validate and charge the payment methods up front, and Sterling Call Center and Store attempts to validate any unauthorized or uncharged

amount at the time of order capture, or when a payment method is modified on the order.

When any payment method validations or charges fail, the system invokes configurable services to send alerts to queues that are monitored by user groups.

6.10.1.1 Credit Card

Credit cards always need to be checked for fraudulent activity and funds availability by a payment system. It is assumed that the front-end systems attempt to check the credit cards up front for fraud, and attempt to authorize them. If the validation and authorization are successful, the order are captured with the authorization details. However, if the payment verification system is down, or if a payment type is changed on the order, payment verification may need to be completed by Sterling Call Center and Store.

When an order is captured, the request collection agent creates an authorization and charge request for any unauthorized amount. The requestCollection API is called and creates an authorization or charge request, which is picked up by the executeCollection API. The executeCollection API in turn calls the YFSCollectionCreditCardUE user exit, which communicates with the external payment systems.

If the credit card is authorized, the order is processed normally. If the user exit returns a response code indicating that something is wrong with the credit card, the order is not processed, and an alert is sent to the appropriate queue depending on why the credit card failed the authorization.

For more information about implementing the credit card payment method, see Section 6.10.3.1, "Credit Card Implementation".

6.10.1.2 Stored Value Card

Unlike credit cards, a stored value card (SVC) is always assumed not to be fraudulent, since it is issued by the store itself. However, SVCs need to be checked for available funds. Similar to credit cards, this is assumed to be completed by the front-end system, but any SVC payment method not validated for funds is processed by Sterling Call Center and Store.

When SVC payment types are created, ensure that the "Charge Up To Available" option is selected.

When an order is captured, the Request Collection agent creates a charge request for any uncharged amount, which is picked up by the Payment Execution agent. The Request Collection agent calls the payment server to get the available funds using the YFSGetFundsAvailableUE user exit. The default implementation for this user exit is not provided.

The executeCollection API calls the YFSCollectionStoredValueCardUE user exit for the payment collection.

If the SVC is successfully charged, the order is processed normally. If the user exit returns a response code indicating that the SVC could not be processed, either because of unavailable funds or due to the payment system being unavailable, the order is not processed, and an alert is sent to the appropriate queue.

For more information implementing the credit card payment method, see Section 6.10.3.2, "Stored Value Card Implementation".

6.10.1.3 Pre-paid

An entire order or a part of the an order may be charged before the order is captured. For example, a customer may place an order in a store, which can be picked up from there at a later time, at another store, or shipped to their home. Full or partial payment can be made for that order, and the store operator can create that order online providing all payment information.

The amount that has already been paid at the time of order capture falls under the Pre-paid payment method.

When adding the pre-paid payment method to an order, the following fields are captured by Sterling Call Center and Store:

- Transaction Number (corresponds to Payment Reference #1)

- Register Number (corresponds to Payment Reference #2)

- Store Tender Type (corresponds to Payment Reference #3)

6.10.1.4 Check

An entire order or a part of the order can be paid using a check. Sterling Call Center and Store assumes that a check payment method is pre-charged and pre-approved. The check amount should be specified, and is marked as the collected amount.

When adding the check payment method to an order, the following fields are captured in Sterling Call Center and Store:

- Check Number (corresponds to Payment Reference #1)
- Check Amount (corresponds to Payment Reference #2)
- Check Reference (corresponds to Payment Reference #3)

6.10.1.5 Refund Check

When a check or small amount of money need to be refunded to the customer, a refund check can be issued and mailed to them.

The request collection agent creates a request for the refund amount. A refund check is always assumed to be valid, and there is no authorization mechanism. The charge request is picked up by the executeCollection API, which calls the YFSCollectionOthersUE user exit to interact with the payment system.

For more information about implementing the refund check payment method, see Section 6.10.3.3, "Return Check Implementation".

> **Note:** Although the Refund Check payment type is available on a sales order, it must only be used in the context of a return.

6.10.2 End-User Impact

The payment processing of Sterling Call Center and Store affects users of the Sterling Multi-Channel Fulfillment Solution Consoles in the following ways:

- Certain user groups can view alerts raised by failed payment validations or charges. The users who can view the alert details depends on the alert services configuration. The end users resolve alerts by calling the customers and replacing the payment method on the order. For more information about implementing alert services, see Section 6.10.3.4, "Payment Processing Error Handling".
- When modifying orders, the users are able to select the available payment types as payment methods on the orders.

- The strike limit is displayed on the order, and if that limit exceeds, an alert is raised. For more information about strike limit configuration, see Section 6.10.3.5, "Strike Limit Configuration".

6.10.3 Implementation

All payment processing goes through the executeCollection API. This API calls the appropriate user exits depending on the payment method being used. The those user exits call the system defined payment services. These services are pointers to the customizable payment service implementations, which call the external payment server to perform authorizations and charges.

Depending on the response codes returned by the payment server, the user exits raise an event which invokes services responsible for sending alerts to the appropriate queues if certain user groups need to be notified of the outcome of the payment verification attempt. For more information about error handling in payment processing, see Section 6.10.3.4, "Payment Processing Error Handling".

Figure 6–12 depicts the flow of payment processing in Sterling Call Center and Store.

Figure 6–12   Payment Processing
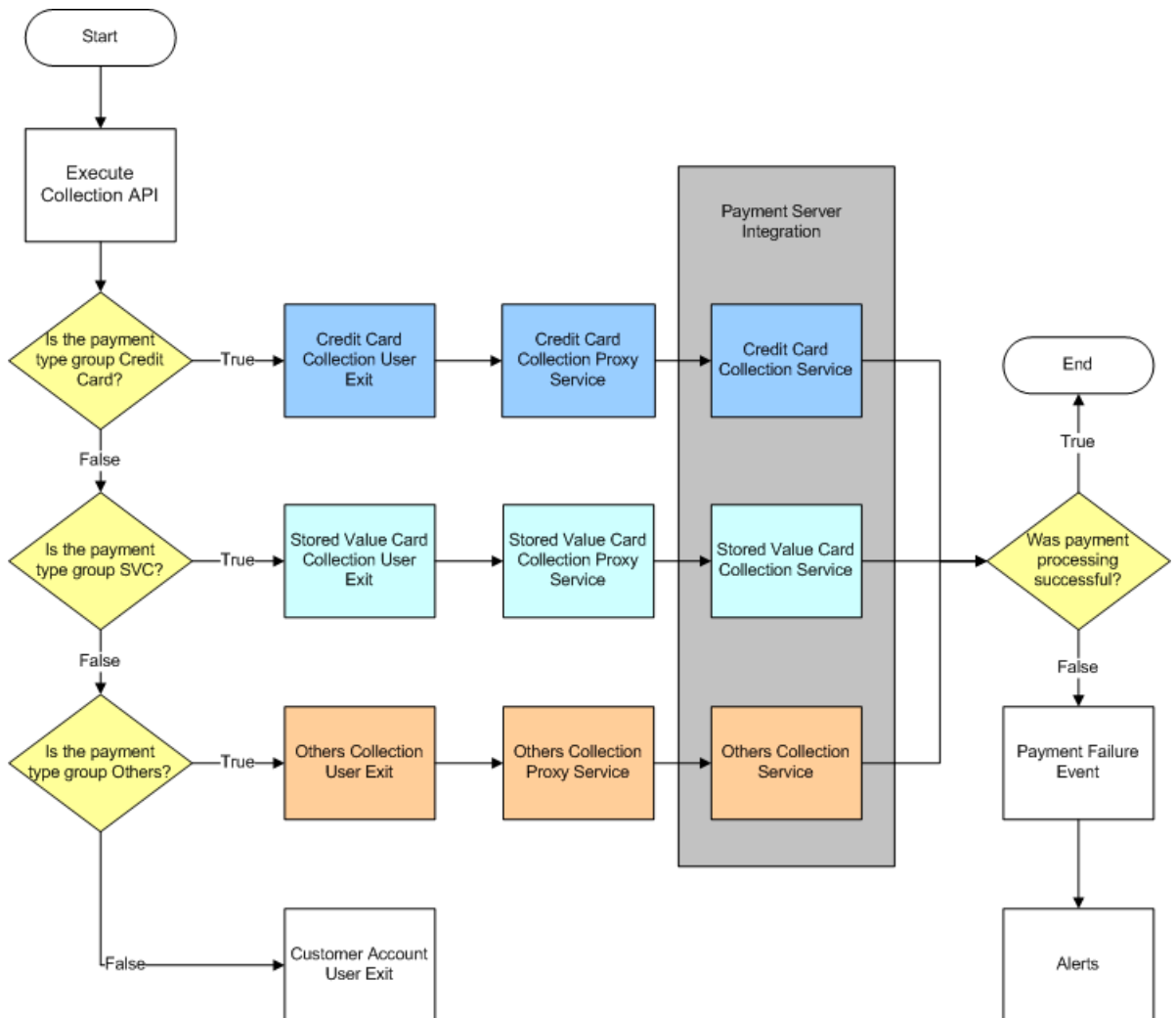
The following topics are covered in this section:

- Credit Card Implementation
- Stored Value Card Implementation

- Return Check Implementation

- Payment Processing Error Handling

- Alert Services

- Strike Limit Configuration

6.10.3.1 **Credit Card Implementation**

In order for a credit card to be validated as a payment method, you must implement the YFSCollectionCreditCardUE user exit. It takes its input from the executeCollection API. From that input, the following XML is created, and passed to a java class which in turn calls the YCD_ExecuteCollectionCreditCard_Proxy_1.0 service, a pointer to the YCD_ExecuteCollectionCreditCard_1.0 service which is responsible for integrating with the external payment system:

```
<Payment AuthorizationId="" BillToAddressLine1="" BillToCity="" BillToCountry=""
BillToDayPhone="" BillToEmailId="" BillToFirstName="" BillToId="" BillToKey=""
BillToLastName="" BillToState="" BillToZipCode="" bPreviouslyInvoked=""
ChargeTransactionKey="" ChargeType="" CreditCardExpirationDate=""
CreditCardName="" CreditCardNo="" CreditCardType="" Currency=""
CustomerAccountNo="" CustomerPONo="" DocumentType="" EnterpriseCode=""
MerchantId="" OrderHeaderKey="" OrderNo="" PaymentReference1=""
PaymentReference2="" PaymentReference3="" PaymentType="" RequestAmount=""
ShipToAddressLine1="" ShipToCity="" ShipToCountry="" ShipToDayPhone=""
ShipToEmailId="" ShipToFirstName="" ShipToId="" ShipTokey="" ShipToLastName=""
ShipToState="" ShipToZipCode="" SvcNo="">
```

You should create your own custom service to handle the integration with the external payment system, and modify the YCD_ExecuteCollectionCreditCard_Proxy_1.0 service to point to your service.

To modify YCD_ExecuteCollectionCreditCard_Proxy_1.0 service to use your own custom service, perform following steps:

1. Launch the Sterling Multi-Channel Fulfillment Solution Configurator.

2. From Distributed Order Management > Document Specific > Sales Order > Fulfillment > Fulfillment Process Model > Service Repository > Payment Processing.

3. From the application rules side panel, select YCD_ExecuteCollectionCreditCard_Proxy_1.0 service.

4. Select the Execute Collection Check API component.

5. Select the Arguments tab.

6. Click ![plus icon]. The Service Argument window is displayed as shown in .

7. In Argument Name, enter ServiceName.

8. In Argument Value, enter the name of your own custom service.

Figure 6–13 System Argument Window for API Component

Note: Sterling Call Center and Store reference implementation provides a demo service, YCD_ExecuteCollectionCreditCard_1.0 service, to integrate with the external payment system.

The expected output of the YCD_ExecuteCollectionCreditCard_Proxy_1.0 service is in the following XML format:

```
<Payment ResponseCode="" AsynchRequestProcess="" AuthAVS="" AuthCode=""
AuthorizationAmount="" AuthorizationExpirationDate="" AuthorizationId=""
AuthReturnCode="" AuthReturnFlag="" AuthReturnMessage="" AuthTime=""
BPreviousInvocationSuccessful="" CollectionDate="" DisplayPaymentReference1=""
HoldOrderAndRaiseEvent="" HoldReason="" InternalReturnCode=""
InternalReturnFlag="" InternalReturnMessage="" PaymentReference1=""
PaymentReference2="" PaymentReference3="" RequestID="" RetryFlag=""
SCVVAuthCode="" SuspendPayment="" TranAmount="" TranRequestTime=""
TranReturnCode="" TranReturnFlag="" TranReturnMessage="" TranType=""/>
```

The value of the `ResponseCode` attribute returned by the user exit determines how to handle the order, if the payment method fails the validation:

If the payment processing fails for any reason, the `COLLECTION_FAILED` is raised by the YFSCollectionCreditCardUE user exit. The event calls the `YCDOnCollectionFailure` action, which invokes the YCD_ProcessCollectionFailure_1.0 service, responsible for calling the appropriate alert service depending on the ResponseCode.

- APPROVED—This response code returns if the authorization or charge was successful.

- HARD_DECLINE—This response code returns if the authorization or charge fails because the card is invalid. For example, a lost or stolen credit card.

  In this case, the order's strike count is increased by 1. The strike count represents how many times an order has had its payment declined with a `HARD_DECLINE` response code. The maximum allowed number of strikes is configurable. For more information about strike limit configuration, see Section 6.10.3.5, "Strike Limit Configuration".

  - If the strike count is higher than the maximum allowed number of strikes, the payment method is marked not to retry authorization, suspended, updated with the failure details, and the YCD_PaymentAuthRetryLimitAlert_1.0 alert service invoked. The alert is sent to the Payment Auth Retry Limit Reached queue, which is monitored by the Fraud Analyst Group users.

  - If the strike count is lower than the maximum allowed number of strikes, the payment method is marked not to retry authorization, suspended, updated with the failure details, and the YCD_PaymentHardDeclinedAlert_1.0 alert service is invoked. The alert is sent to the Payment Hard Declined queue, which is monitored by the Fraud Analyst Group users.

- SOFT_DECLINE and BANK_HOLD—This response code is returned if the authorization or charge fails because the card was declined. For example, an invalid CVV number or insufficient funds.

  The payment method is marked not to retry authorization, suspended, updated with the failure details, and the YCD_PaymentDeclinedAlert_1.0 alert service invoked. The alert is

sent to the `Payment Declined` queue, which is monitored by the CSR Group users.

- SERVICE_UNAVAILABLE—This response code returns if the credit card authentication service could not be reached.

  The payment method is marked as retry charge, is not suspended, not updated with the failure details, and the YCD_PaymentServiceUnavailableAlert_1.0 alert service is invoked. The alert is sent to the Payment Service Unavailable queue, which is monitored by the System Group users.

For more information about error handling in payment processing, see Section 6.10.3.4, "Payment Processing Error Handling".

6.10.3.2 Stored Value Card Implementation

The Stored Value Cards do not need to be authorized. It needs to be only charged. In order for stored value cards to be charged, you must implement the YFSCollectionStoredValueCardUE user exit. This user exit takes its input from the executeCollection API. From that input, the following XML is created, and passed to a java class which in turn calls the YCD_ExecuteCollectionSVC_1.0_Proxy service, a pointer to the YCD_ExecuteCollectionSVC_1.0 service responsible for integrating with the external payment system:

```
<Payment AuthorizationId="" BillToAddressLine1=""
BillToCity="" BillToCountry="" BillToDayPhone=""
BillToEmailId="" BillToFirstName="" BillToId="" BillToKey=""
BillToLastName="" BillToState="" BillToZipCode=""
bPreviouslyInvoked="" ChargeTransactionKey="" ChargeType=""
CreditCardExpirationDate="" CreditCardName="" CreditCardNo=""
CreditCardType="" Currency="" CustomerAccountNo=""
CustomerPONo="" DocumentType="" EnterpriseCode=""
MerchantId="" OrderHeaderKey="" OrderNo=""
PaymentReference1="" PaymentReference2="" PaymentReference3=""
PaymentType="" RequestAmount="" ShipToAddressLine1=""
ShipToCity="" ShipToCountry="" ShipToDayPhone=""
ShipToEmailId="" ShipToFirstName="" ShipToId="" ShipTokey=""
ShipToLastName="" ShipToState="" ShipToZipCode="" SvcNo="">
```

You should create your own custom service to handle the integration with the external payment system, and modify the YCD_ExecuteCollectionSVC_Proxy_1.0 service to point to your service.

To modify YCD_ExecuteCollectionSVC_Proxy_1.0 service to use your own custom service, perform following steps:

1. Launch the Sterling Multi-Channel Fulfillment Solution Configurator.

2. From Distributed Order Management > Document Specific > Sales Order > Fulfillment > Fulfillment Process Model > Service Repository > Payment Processing

3. From the application rules side panel, select YCD_ExecuteCollectionSVC_Proxy_1.0 service.

4. Select the Execute Collection Check API component.

5. Select the Arguments tab.

6. Click ➕. The Service Argument window is displayed as shown in Figure 6–13.

7. In Argument Name, enter ServiceName.

8. In Argument Value, enter the name of your own custom service.

> **Note:** Sterling Call Center and Store reference implementation provides a demo service, YCD_ExecuteCollectionSVC_1.0 service, to integrate with the external payment system.

The expected output of the user exit is in the following XML format:

```
<Payment ResponseCode="" AsynchRequestProcess="" AuthAVS=""
AuthCode="" AuthorizationAmount="" AuthorizationId=""
AuthReturnCode="" AuthReturnFlag="" AuthReturnMessage=""
DisplayPaymentReference1="" DisplaySvcNo=""
HoldOrderAndRaiseEvent="" HoldReason="" PaymentReference1=""
PaymentReference2="" PaymentReference3="" RequestID=""
RetryFlag="" SuspendPayment="" SvcNo="" TranAmount=""
TranRequestTime="" TranReturnCode="" TranReturnFlag=""
TranReturnMessage="" TranType=""/>
```

The value of the ResponseCode attribute returned by the user exit determines how the order is handled if the payment method fails the validation:

- APPROVED—This response code is returned if the charge was successful.

- DECLINED—This response code is returned if the charge failed.

  The payment method is marked not to retry charge, suspended, updated with the failure details, and the YCD_PaymentDeclinedAlert_1.0 alert service invoked. The alert is sent to the `Payment Declined` queue, which is monitored by the CSR Group users.

- SERVICE_UNAVAILABLE—This response code is returned if the authentication service could not be reached.

  The payment method is marked as retry charge, is not suspended, not updated with the failure details, and the YCD_PaymentServiceUnavailableAlert_1.0 alert service invoked. The alert is sent to the Payment Service unavailable queue, which is monitored by the System Group users.

For more information about error handling in payment processing, see Section 6.10.3.4, "Payment Processing Error Handling".

6.10.3.3 Return Check Implementation

In order for a charge to be issued for the refund check, you must implement the YFSCollectionOthersUE user exit.

The executeCollection API passes its output to the user exit. From that input, the following XML is created, and passed to the YCD_ExecuteCollectionRefundCheck_Proxy_1.0 proxy service, which is the pointer to the YCD_ExecuteCollectionRefundCheck_1.0 service responsible for integrating with the external payment system:

```
<Payment AuthorizationId="" BillToAddressLine1=""
BillToCity="" BillToCountry="" BillToDayPhone=""
BillToEmailId="" BillToFirstName="" BillToId="" BillToKey=""
BillToLastName="" BillToState="" BillToZipCode=""
bPreviouslyInvoked="" ChargeTransactionKey="" ChargeType=""
CreditCardExpirationDate="" CreditCardName="" CreditCardNo=""
CreditCardType="" Currency="" CustomerAccountNo=""
CustomerPONo="" DocumentType="" EnterpriseCode=""
MerchantId="" OrderHeaderKey="" OrderNo=""
PaymentReference1="" PaymentReference2="" PaymentReference3=""
PaymentType="" RequestAmount="" ShipToAddressLine1=""
```

```
ShipToCity="" ShipToCountry="" ShipToDayPhone=""
ShipToEmailId="" ShipToFirstName="" ShipToId="" ShipTokey=""
ShipToLastName="" ShipToState="" ShipToZipCode="" SvcNo="">
```

You must create your own custom service to integrate with the external payment system, and modify the YCD_ExecuteCollectionRefundCheck_Proxy_1.0 service to point to your service.

To modify YCD_ExecuteCollectionRefundCheck_Proxy_1.0 service to use your own custom service, perform following steps:

1. Launch the Sterling Multi-Channel Fulfillment Solution Configurator.

2. From Distributed Order Management > Document Specific > Sales Order > Fulfillment > Fulfillment Process Model > Service Repository > Payment Processing

3. From the application rules side panel, select YCD_ExecuteCollectionRefundCheck_Proxy_1.0 service.

4. Select the Execute Collection Check API component.

5. Select the Arguments tab.

6. Click ![icon]. The Service Argument window is displayed as shown in .

7. In Argument Name, enter ServiceName.

8. In Argument Value, enter the name of your own custom service.

> **Note:** Sterling Call Center and Store reference implementation provides a demo service YCD_ExecuteCollectionRefundCheck_1.0 service to integrate with the external payment system.

The expected output of the YCD_ExecuteCollectionRefundCheck_Proxy_1.0 service is in the following XML format:

```
<Payment AuthCode="" AuthorizationAmount="" AuthorizationId=""
AuthReturnCode="" AuthReturnFlag="" AuthReturnMessage=""
DisplayPaymentReference1="" HoldOrderAndRaiseEvent=""
HoldReason="" RequestID="" RetryFlag="" SuspendPayment=""
```

```
TranAmount="" PaymentReference1="" PaymentReference2=""
PaymentReference3="" TranReturnCode="" TranReturnFlag=""
TranReturnMessage="" TranType=""/>
```

The user exit should return the `PaymentReference1`, `PaymentReference2` and `PaymentReference3` as Check Number, Check Amount, and Check Reference, respectively.

6.10.3.4 Payment Processing Error Handling

When user exits receive response codes from the Payment Server, they raise the COLLECTION_FAILED event if the collection fails for any reason. That event calls the YCDOnCollectionFailure action, which invokes the YCD_ProcessFailure_1.0 service.

This service examines the response code and calls one of the defined alert services to send notification to the appropriate queue. Figure 6–14 illustrates the Process Collection Failure service.

Figure 6–14   The YCD_ProcessCollectionFailure_1.0 Service
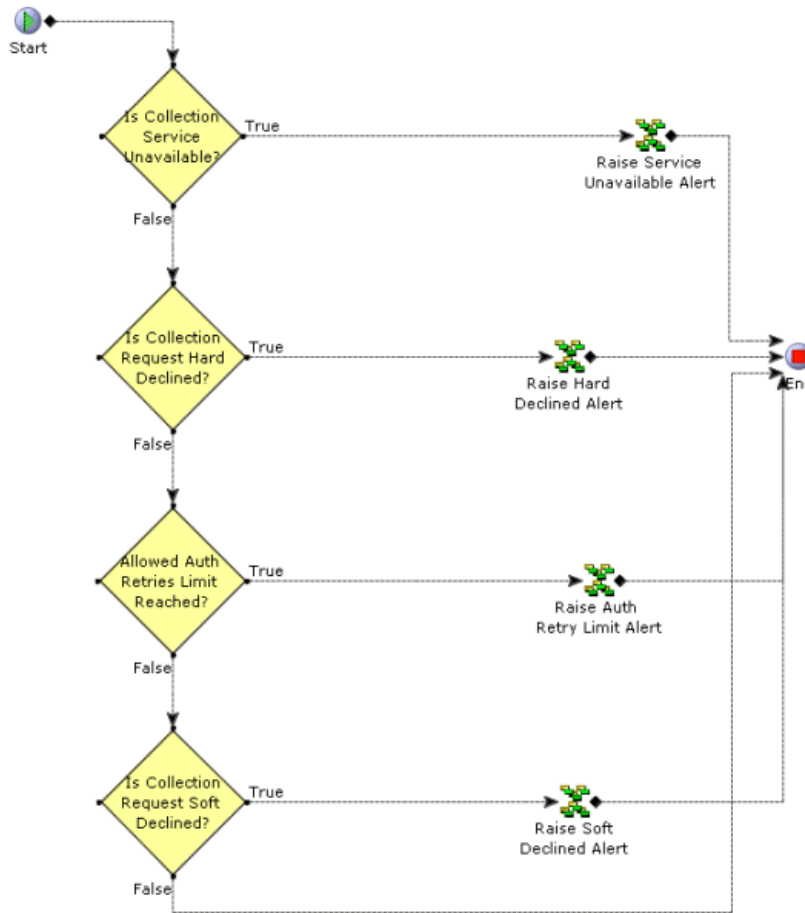
All services can be accessed through the Sterling Multi-Channel Fulfillment Solution Configurator in the Platform module at the Sales Order document type level, in the Payment Processing branch service definitions tree.

The XML passed by the COLLECTION_FAILED event to the YCD_ProcessCollectionFailure_1.0 service is found in the following file:

<INSTALL_DIR>/documentation/api_javadocs/XML/YFS_PAYMENT_EXECUTION.CHARGE_FAILED_XML.xml

For an example of how an error in payment processing is handled in Sterling Call Center and Store, see Section , "Example: HARD_DECLINE response code on credit card collection attempt".

For a list of the alert services defined by default in Sterling Call Center and Store, see Section 6.10.3.4.1, "Alert Services".

Example: HARD_DECLINE response code on credit card collection attempt

If the Payment Server returns the HARD_DECLINE response code to the YFSCollectionCreditCardUE user exit on an order that hasn't been declined before, it raises the COLLECTION_FAILED event, which invokes the YCD_ProcessCollectionFailure_1.0 service through the YCDOnCollectionFailure action.

This service evaluates the XML output of the COLLECTION_FAILED event, whether or not the payment service is available (which is false). Then, the service evaluates whether the collection service is hard declined (which is true).

Therefore, the YCD_PaymentHardDeclinedAlert_1.0 service invokes, which sends an alert to the Payment Hard Declined queue, which is typically monitored by the user as illustrated in Figure 6–15.

Figure 6–15   The YCD_PaymentHardDeclinedAlert_1.0 Service

Start   Payment Hard   End
             Declined Alert

6.10.3.4.1 Alert Services

By default, the following services are defined in Sterling Call Center and Store to send alerts in case of payment failure:

- YCD_PaymentHardDeclinedAlert_1.0
- YCD_PaymentServiceUnavailableAlert_1.0
- YCD_PaymentAuthRetryLimitAlert_1.0
- YCD_PaymentDeclinedAlert_1.0

If you need to change the queue to which payment alerts are sent, the user can edit the Alert Queue Name field on the General tab in the alert properties for the appropriate service.

6.10.3.5 Strike Limit Configuration

A strike is given to an order when a credit card is declined by the payment server with HARD_DECLINE as a response code. An order that has had several credit cards declined because they were stolen or invalid can be considered to be fraudulent. You may want to build a mechanism that cancels the order automatically in that case.

You can define how many strikes an order can receive before an alert is sent to the fraud analyst. For more information about configuring the strike limit, see Section 4.9.5, "Configuring Payment Failure Rules".

6.11 Return Order Capture

Users need to enter return orders with maximum flexibility. They might need to create a return from several sales orders, allow a customer to return an item without a receipt, note return reasons, create exchanges, and set up appointments for pickup.

6.11.1 Solution

Sterling Call Center and Store provides a returns interface that enables CSRs to manage all aspects of a return process. A CSR can:

- Create a return from single or multiple sales orders.

- Create a return for a customer who has no order in the system or has lost a receipt (if the enterprise allows this).

- Create a return for a customer who has received a wrong item or an item that was not ordered.

- Enter a variety of return reasons.

- Avoid the high shipping and handling costs of customer returns by exercising configurable appeasement and price-matching options.

- Create exchanges.

- Change an item's pickup location (if it is different from the original delivery address).

- Allow a customer to keep an item if returning it is not cost-effective for the company.

- Select return appointments and consolidate them with exchange appointments, ensuring that the item can be uninstalled and a new item can be installed in the same appointment.

- Create a return based on the container, because a customer may want to return an unopened or damaged package or shipment container.

This section contains a description of the solutions that the Sterling Call Center and Store provides for creating return orders.

6.11.1.1 Return Line Selection

Sterling Call Center and Store provides a variety of ways in which a user can search for a line to return or exchange:

- By Order - Users can locate an existing order and find lines to return.

- By Container - Users can search for an order by entering the shipping container tracking number.

- By Items Without an Order (as long as the enterprise allows this) - Users can allow customers to return items not associated with an order.

- By Extra Item - Users can create a return for an item that a customer received by mistake.

For more information about return line selection, see Section 6.13.1, "Return Line Selection".

6.11.1.2 Adding Lines to a Return

Sterling Call Center and Store provides a variety of methods to add lines to a return order. For more information, see Section 6.11.1.2, "Adding Lines to a Return".

6.11.1.3 Validating Lines and Addresses

After lines have been selected for return and added to the return order, Sterling Call Center and Store validates the lines and addresses before displaying the Return reason screen. For more information, see Section 6.13.1, "Return Line Selection".

6.11.1.4 Entering Return Reason

Sterling Call Center and Store provides a Return Reason screen that enables users to record information such as the reason for the return and whether items are being returned or exchanged. Users may want to add a service line or perform return avoidance measures such as price match and appeasement. They may also want to override the return policy for that item. For more information, see Section 6.13.2, "Entering Return Reason".

6.11.1.5 Return Reason Rule

A return reason rule for returns can be configured in the common code. For more information about defining return reasons, see Section 4.16.2, "Defining Return Reasons".

6.11.1.6 Overriding the Return Policy

For each line that is selected for return, Sterling Call Center and Store displays the return policy. Users can override this return policy. This is permission controlled. For more information, see Section 6.13.2, "Entering Return Reason".

6.11.1.7 Basic and Advanced Add Exchange Line

A wizard determines whether an exchange order needs to be created. If yes, the flow goes to either the Basic or the Advanced Add Exchange Line screen based on a rule for showing the Advanced Add item page. For more information about configuring this rule, see Figure 4–12, "Order Entry Rules, Display Item Entry".

If no exchange order is necessary, the flow goes to another rule to verify order addresses.

6.11.1.8 Modifying an Exchange

The Sterling Call Center enables users to modify exchange orders, specify the change quantity and Unit of Measure (UOM) on exchange lines, override exchange prices, and select fulfillment options. For more information, see Section 6.13.3, "Modifying an Exchange".

6.11.1.9 Default Exchange Type Rules

Two rules exist for the default exchange type determine permission control. For more information about the Default Exchange Type Rule for Permission Control and the Default Exchange Type Rule for Change, see Section 6.13.3, "Modifying an Exchange".

6.11.1.10 Needs Appointments Rule

This rule looks at the exchange order and searches for lines that require a work order to be created for them. This rule looks at a model for exchange work order and a flag in the wizard for return work order. If either one has a work order, the appointment flow is run.

6.11.1.11 Is Customer Info Present Rule

This rule determines whether the return order header contains all the customer information, and if not, it displays the appropriate customer search screens:

- Customer Identification
- Customer Search
- Advanced Customer Search

On a return or an exchange order, the header address is copied to every line that does not already have an address.

6.11.1.12 Address Info Needed Rule

This rule copies the address from the return to the exchange order. It also copies the address to any line on the return order or exchange order that does not have an address.

6.11.1.13 Create Reservation Rule

If a user specifies an exchange, this rule reserves the item so that the inventory is not consumed by another customer. See Section 6.9.23, "Reservations" for more information.

6.11.1.14 Exchange Fulfillment Options

The Sterling Call Center and Store provides the Exchange Fulfillment Options that enable users to change the fulfillment method, the pickup

location, and the shipping and delivery addresses on exchange orders. For more information, see Section 6.13.4, "Exchange Fulfillment Options"

6.11.1.15 Needs Appointment Rule

The Sterling Call Center and Store provides an appointment rule to determine when work orders are necessary for return orders. This rule looks at a model for exchange work orders and a flag in the wizard for return work orders. If either one has a work order, the appointment flow is run.

6.11.1.16 Is Customer Info Present Rule

This rule determines whether enough customer information is present to complete a return order, and if not, it displays the appropriate customer search screens:

- Customer Identification

- Customer Search

- Advanced Customer Search

6.11.1.17 Address Info Needed Rule

This rule copies address information to return and exchange orders. It also copies the address to any line on the return or exchange order that does not have an address.

6.11.1.18 Create Reservation Rule

Sterling Call Center and Store provides a rule that reserves items so that the inventory is not consumed by another customer.

6.11.1.19 Fulfillment Summary

Sterling Call Center and Store enables users to specify and view the shipping, pickup, and delivery methods for return and exchange orders. For more information, see Section 6.13.5, "Fulfillment Summary".

6.11.1.20 Select Appointment

Sterling Call Center and Store provides users with the ability to manage and view return order appointments. For more information, see Section 6.13.6, "Select Appointment".

6.11.1.21 Payment Summary

Users can view and change payment details on the Payment Summary screen. For more information, see Section 6.13.7, "Payment Summary".

6.11.2 End-User Impact

This section explains the end-user impact for return order capture.

6.11.2.1 Line Selection

If the Reship rule is set, an icon signifying reshipped lines is displayed. If the Reship rule is not set, a check box is displayed at the top of the screen which, if selected, displays reship details.

If the rule that allows the return of items without an order is set, the Items Without an Order tab is displayed and customers can return an item without an order. If the rule is not set, the Items Without an Order tab is not displayed and customers can return an item only if they have a receipt or the item can be found on an order.

6.11.2.2 Exchange Fulfillment Options

- Disabling Availability Checks - The user is not shown the availability details in any store on the Add Multiple Lines, Order Entry, Change Fulfillment Options, Change Order Addresses, and Item Inquiry screens.

- Changing Pickup Lines - The user is allowed to modify the order lines that have the pickup fulfillment method even after the status is changed to `Released`.

- Changing Delivery Lines - The user is allowed to modify the order lines that have the delivery fulfillment method even after the status is changed to `Released`.

6.11.3 Implementation

This section explains implementation considerations for return order capture.

Return entry is a permission-controlled task. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.11.3.1 Line Selection

To display an icon identifying reshipped lines, turn on the Reship configuration. If the Reship rule is turned off and reship lines exist, a check box displays reshipped details. See Section 4.16.6, "Configuring Return Entry Rules" for configuration information about the Reship rule.

If your enterprise does not wish to allow returns for items not associated with an order, turn off the rule that allows returning items without an order. In this case, the Items Without an Order tab would not be displayed. For more information, see Section 4.16.6, "Configuring Return Entry Rules".

6.11.3.2 Return Reason

The rule for the Override Return Policy note type notes pop-up window is configurable.

The reasons for returning an item can be configured in the RETURN_REASON common code.

For more information about defining return reasons, see Section 4.16.2, "Defining Return Reasons".

6.11.3.3 Modify an Exchange

You can configure two exchange type rules for the Add Exchange Items screen that define the enterprise-specific value for the default exchange type and that specify user access to this feature. See Section 4.16.6, "Configuring Return Entry Rules" for more information.

6.11.3.4 Exchange Fulfillment Options

This section details the rules to be configured to change the fulfillment options.

- **Disabling Availability Checks** - If the Prevent Initial Availability Checks During Order Entry and Order Modifications rule is enabled, the inventory availability check is not performed and the calls to the getFulfillmentOptionsForLines, findInventory, or any derivation APIs are eliminated. This aids in better performance and pace when capturing the order. For more information, see Section 4.10.27, "Configuring Availability Check and Reservation Options".

- **Changing Pickup Lines** - To modify the pickup lines that are in the `Released` status or above, check the Allow Modification of Pickup Dates and Store for Pickup Lines after Release box for the Enterprise. For more information, see Section 4.10.31, "Configuring Special Order Modification Rules".

- Changing Delivery Lines - To modify the delivery lines that are in the `Released` status or later, check the Allow Modification of Fulfillment Options for Delivery Lines After Release box for the Enterprise.

  Notes entered for this task are saved on the order with YCD_DELIVERY_OPTIONS note type. For more information, see Section 4.10.31, "Configuring Special Order Modification Rules".

6.11.3.5 Fulfillment Summary

For returns, the UI is painted with a summary panel for each delivery method. Delivery methods are suggested by Sterling Call Center and Store and can be customized through the YCDgetReturnMethodUE. The delivery methods are:

- Return Pickup

- Return Shipping

- Items can be kept

The YCDGetReturnMethodUE applies a standard user exit template and passes the result to the user exit. The default implementation is not provided for this user exit. If the user selects the Ship To Return Center return method, the RETURN_FULFILLMENT fulfillment type is used to determine the correct return center to receive the item.

6.11.3.6 Status Changes to a Return or Exchange Order

Enable notes for all status modifications of a return order or an exchange order. This is how Sterling Call Center and Store records status changes. See Section 4.16.7, "Defining Return Note Reasons" for more information.

6.11.3.7 Select Appointment

This section explains the configurations for the change service appointment task.

- To change the service appointment calendar view, configure the following rules:
  - Calendar Display
  - Default Appointment Calendar View
  - Capacity Information

  For more information about configuring the service appointment calendar view, see Section 4.6.22, "Configuring the Service Appointment Calendar View".

- Sterling Call Center and Store allows you to configure the order statuses for which changing service appointment is allowed. For more information about configuring the order modification statuses, see Section 4.10.6, "Configuring Order Modification Rules".

6.11.4 Reference Implementation

This section explains reference implementation information for return order capture.

6.11.4.1 Line Selection

Sterling Call Center and Store provides implementations of the YFSorderRepricingUE and YFSgetExternalPricesForItemListUE user exits. For more information, see Section 10.1, "Pricing Integration Using the Sterling Multi-Channel Selling Solution".

6.11.4.2 Return Reason

The reference implementation ships the following return reasons:

- Cargo Damaged
- Change of Mind
- Damaged Items
- Loose Parts
- Lower Price Found
- Missing Parts
- Other

See Section 4.16.2, "Defining Return Reasons" for more information.

6.11.4.3 Exchange Fulfillment Options

This section explains the reference implementation provided for the following tasks:

- Disabling Availability Checks - The Prevent Initial Availability Checks During Order Entry and Order Modifications rule is defaulted to ensure that availability checks are performed.

- Changing Pickup Lines - The Allow Modification of Pickup Dates and Store for Pickup Lines after Release rule is defaulted to allow modification of lines after release.

- Changing Delivery Lines - The Allow Modification of Fulfillment Options for Delivery Lines after Release rule is defaulted to allow modification of lines after release.

  The Allow Cancellation of Delivery Lines after Release rule is also defaulted to allow modification of lines after release.

6.11.4.4 Select Appointment

The section explains the reference implementation provided for the change service appointment task.

- An instruction type called 'DELIVERY' is provided for saving service appointment instructions.

- Sterling Call Center and Store provides permissions to change service appointments to all users as part of reference implementation.

6.12 Return Order Inquiry

Sometimes customers may inquire information about return orders. For example, a customer may want to cancel a return or change a pickup appointment on the return order. In such situations, call center or store representatives need to search for the appropriate return order and then perform the necessary actions.

6.12.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to search for return orders.

The getOrganizationList API is called to retrieve the list of enterprises to be displayed as a search criteria in Sterling Call Center. The getOrderList API is called to retrieve the list of orders that match the search criteria. The getCompleteOrderDetails API is called to display the details of the return order. The getExceptionList API is called to retrieve the list of alerts on the order. For more information about alerts, see Section 6.18, "Alert and Queue Management".

The search results can be sorted in ascending or descending order based on following Order By options:

- Return Order Number
- Return Order Date
- Customer Last Name

Pagination

Sterling Call Center and Store supports smart retrieval of record sets in the Return Search screen. You can configure if history records need to be automatically fetched while retrieving records. For more information about configuring pagination rules, see Section 4.19.9, "Configuring Pagination Rules".

For more information about pagination, see Section 6.17, "Pagination".

6.12.2 End-User Impact

Based on the configuration to search for history orders, the end user will see history orders or recent orders in the search results.

6.12.3 Implementation

This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.12.4 Reference Implementation

Sterling Call Center and Store provides permissions to search for return orders to all users as part of reference implementation.

6.13 Return Order Maintenance

Sterling Call Center and Store provides the following return order maintenance features:

- Return Line Selection
- Selecting Lines to Return
- Entering Return Reason
- Modifying an Exchange
- Exchange Fulfillment Options
- Fulfillment Summary
- Select Appointment
- Payment Summary
- Create Exchange Order
- Report Extra Items
- Report Wrong Items
- Report Unexpected Items
- Issue Refund Now
- Change Return Address
- Change Service Appointment
- Change Return Method
- Cancel Return Order
- Payment Confirmation

6.13.1 Return Line Selection

Users need to be able to select one or more lines of items to add to a return order from Order Summary screen or from the Task Panel.

6.13.1.1 Solution

Users can create returns using the following criteria:

- By Order
- By Container
- By Items Without an Order (as long as the enterprise allows this)
- By Extra Item

By Order

The most common way to create a return order is from a previously placed order. After an order is chosen, either the entire order or select lines from the order can be designated for return. A user can also include lines from multiple orders on the same return.

By selecting the Order tab on the Create Return screen, a user can either enter an order number or search for orders by using the Order Search functionality described in Section 6.7, "Order Inquiry".

When a user clicks the Order tab and searches for the order or enters the order number, a call is made to the getOrderLineswithTransactionalQuantity API to get the order information. When the order is added, the available quantity for return shows only the quantity that can be returned, depending upon the modification rules and the line status of the quantity.

Lines that are not in a returnable status cannot be selected by the user for return. This occurs when the order status shows that the item has not been shipped or has already been returned.

Notes entered for this task are saved on the order with YCD_RETURN_INFO note type.

By Container

A user may need to create a return order based on shipping containers. This requires searching for the container's tracking number. Searching for orders by entering the tracking number enables users to find orders and lines to return.

In the Tracking # tab, when the user enters the tracking number and the Add button, a call is made to getShipmentContainerList. If the tracking number matches with an existing tracking number, all the orders

(complete or partial) that are part of the searched container are added to the return creation in individual panels, with each line showing only the quantities that are available for return.

For each order, the getOrderLinesWithTransactionalQuantity API is called. Each order is displayed in its own collapsible panel. When all the orders have been retrieved, a check takes place for the lines that were shipped in the container. This sets the quantity based on the quantity in the container.

By Items Without an Order

Items that are not associated with an order can also be returned, unless the enterprise has turned off the rule that allows returns without an order. In that case, the Items Without an Order tab will not be displayed.

By selecting the By Items Without an Order tab, a user can create a return for an item that is not associated with an order. When a user scans or enters the Item ID, the getCompleteItemList API is called to get the item information and verify whether the ID is valid.

When getCompleteItemList returns with only one result, a collapsible panel is created, showing the items not associated with an order. A Remove Line hyperlink enables users to remove the item if they entered it by mistake. If getCompleteItemList returns with no result or with multiple results, an error stating that the order could not be identified is displayed.

By Extra Item

On the Extra Items tab, a user can create a return for an item that a customer received by mistake. Because these extra items were not purchased, refunds are not issued.

When a user selects the Extra Item tab and either scans or enters the Item ID, the getCompleteItemList API is called to get the item information and verify whether the ID is valid. When getCompleteItemList returns, it puts the item in a collapsible panel that shows extra items to return. The user can also remove the line if the ID that was entered is incorrect.

If no results or multiple results are returned, an error is displayed.

Selecting Lines to Return

After a list containing one or more lines is identified for return, the lines that are added to the return order must have the check box selected to be returned. Blind and extra items displayed will always be returned unless they are removed from the UI.

Selecting by Container

If the order has at least one container, a link is shown at the order level which, when clicked, calls getCompleteShipmentDetails and opens a container selection pop-up window. This window displays all the containers on the order along with the items in each container. When a user selects one or more containers and clicks Confirm, all the lines in the container are automatically selected and the quantities increased according to the amount in each container. This creates new, collapsible panels for each order if the container has lines from multiple orders.

Stop Delivery Request

If a line has a stop delivery request placed on it, an icon indicates that the status of this request is open until it is completed, at which point the icon is not displayed and the returnable quantity is reduced.

Open Box

If the line on the original sales order was an open box, the open box icon is displayed only to provide information to the CSR. If a customer requests an exchange for an open box, the exchange item will be a regular (non-open box) item.

Gift Lines

If the line on the original sales order was a gift, the gift icon is displayed only for CSR informational purposes.

Bundles

Only entire bundles are returnable, so a return activity can take place only in the context of the entire bundle. For this reason, only parent lines are displayed in the bundle. For more information about bundles, see Section 6.2, "Configured Items".

Reship Lines

If the reship configuration rule is turned on, which is the default, a column displays an icon identifying the reshipped lines. If the reship rule is turned off and reship lines exist, a check box is displayed for those lines. Selecting the check box displays reship details.

Reshipped lines are available for return, but the price should be $0.00 in cases where customers receive items they have asked to be reshipped.

To ensure that refunds are not issued for extra items, define pricing user exits with the line type marked as extra and the price set to $0.00. The line type is configurable using the rule for extraneous line types.

Collecting and Validating Return Order Information

After a user selects items for return, the system must collect and validate the necessary information to create a return order.

When the user clicks the Next button after line selection, a validation occurs to verify whether there is at least one line on the screen with a check box selected. If yes, input is constructed for the createOrder API, but it is not called until the return policy is checked and the user has entered a return reason, as described in Section 6.13.2, "Entering Return Reason".

The shipTo and billTo addresses on the sales order lines are copied to the new return line. Also, lines are always copied (except for gift lines). If all the header addresses and customer information are the same, this is copied as well. If two header addresses or customer information differ from one another, no copy takes place. This information is captured later in the flow.

No address is populated on the return order if the item is being returned by a gift recipient.

When these processes are complete, a model is set so that the Return Reason screen can use it. This model is read, modified, and saved to ensure that the correct information is used.

Missing addresses are determined later in the flow.

6.13.1.2 End User Impact

If the Reship rule is set, an icon signifying reshipped lines is displayed. If the Reship rule is not set, a check box is displayed at the top of the screen which, if selected, displays reship details.

If the rule that allows the return of items without an order is set, the Items Without an Order tab is displayed and customers can return an item without an order. If the rule is not set, the Items Without an Order tab is not displayed and customers can return an item only if they have a receipt or if the item can be found on an order.

6.13.1.3 Implementation

To display an icon identifying reshipped lines, turn on the Reship configuration. If the Reship rule is turned off and reship lines exist, a check box displays the reshipped details. See Section 4.16.6, "Configuring Return Entry Rules" for configuration information about the Reship rule.

If your enterprise does not want to allow returns for items not associated with an order, turn off the rule that allows the return of items without an order. In this case, the Items Without an Order tab will not be displayed. For more information, see Section 4.16.6, "Configuring Return Entry Rules".

6.13.1.4 Reference Implementation

Sterling Call Center and Store provides implementations of the orderRepricingUE and getExternalPricesForItemListUE user exits. For more information, see Section 10.1, "Pricing Integration Using the Sterling Multi-Channel Selling Solution".

6.13.2 Entering Return Reason

Users need to record information such as the reason for return and whether items are being exchanged. They may want to add a service line or perform return avoidance through price match and appeasement.

6.13.2.1 Solution

After all the lines that have to be put on the order have been selected, the Return Reason screen enables users to perform the actions described in this section.

Selecting a Return Reason

Users must select a return reason for an item to be returned or exchanged. The Apply to All Items button applies the return reason to the entire return order.

For each line that is selected for return on the Return Reason screen, text is displayed at the top of the screen showing the return policy for that item. If the item cannot be returned, a user can optionally select a link to remove that line from the return order. Alternatively, the user can override the return policy by clicking the Override Return Policy button. If the user does not click the Override Return Policy button, the line will not be added to the return, but will be displayed when the user comes back to the screen.

On the Return Reason screen, there may be some lines that can be returned along with lines that cannot be returned. A panel displays the lines that cannot be returned. This information is maintained throughout the order return process and is always displayed on the Return Reason screen as long as the same instance of the wizard exists and the user has not closed the wizard. If the user comes back to this screen after going forward in the flow, the same information will still be here, unless it has been overridden.

Return Policy

When overriding the return policy is allowed, it is determined by the getReturnPolicy API and the YCDGetReturnPolicyUE. If the item cannot be returned, the user can override the return policy by clicking the Override Return Policy button.

An Override Return Policy notes pop-up window requires the user to enter a reason for the override before continuing. The rule for overriding return policy note type is configurable.

Creating Exchanges

The Return Reason screen has two check boxes for exchanges:

* **Exchange Returned Items** (check box at the top of the screen:)

  When a user selects this check box, it signifies that an exchange order will be created when the user clicks Next. If none of the exchanges is for the same item, the exchange order is created with no lines. Exchange lines can be specified on the next screen.

- **Exchange for the same item** (check box in the panel on the right:)

  When the user selects this check box, the Exchange Returned Items check box at the top of the screen is also automatically selected, and an exchange order is populated automatically with details of the item that has been selected for exchange. These details include the quantity and price for an even exchange on the item. To exchange all the items on the Return Reason screen for the same item, click the Apply to All Items button.

Add Return Service

The Add Return Service link creates a pop-up window (called by the getCompleteItemList API) with return services available for the selected item, if applicable. If the service is configured to specify the quantity at the service line, the quantity field is editable. An added return service can be associated to only one product line.

Price Match This Item

The link for Price Match This Item launches the price match flow as a sub-task. If a price match is performed on a line in the Return Reason screen, that line is removed from the screen and is no longer considered a part of the return order. For more information about the price match process and the solution offered by Sterling Call Center and Store, see Section 6.9.7, "Price Match".

Create Appeasement

The Create Appeasement link launches the appeasement flow as a sub-task. If a customer appeasement is performed on a line in the Return Reason screen, that line is removed from the screen and is no longer considered a part of the return order. For more information about the customer appeasement process and the solution offered by Sterling Call Center and Store, see Section 6.9.6, "Customer Appeasement".

6.13.2.2 End User Impact

None.

6.13.2.3 Implementation

The rule for the Override Return Policy note type pop-up window is configurable.

The reasons for returning an item can be configured in the RETURN_REASON common code.

For more information about defining return reasons, see Section 4.16.2, "Defining Return Reasons".

6.13.2.4 Reference Implementation

You can configure reasons such as:

- Cargo Damaged
- Change of Mind
- Damaged Items
- Loose Parts
- Lower Price Found
- Missing Parts
- Other

See Section 4.16.2, "Defining Return Reasons" for more information.

6.13.3 Modifying an Exchange

Users need to specify many types of exchange details.

6.13.3.1 Solution

After the user enters a return reason in the Return Reason screen and specifies an exchange, the Add Exchange Items screen is displayed.

In this screen, users can specify the change quantity and Unit of Measure (UOM) on exchange lines, override the price on an exchange line, select the fulfillment option for the exchange line, and change the exchange type.

All other aspects of creating an exchange order are the same as in order capture, which is described in detail in Section 6.6, "Order Capture".

Default Exchange Type Rule for Permission Control

Permission control can be configured for the default exchange type, which restricts unauthorized users from changing the default exchange type. The rule is enterprise-specific and has three values:

- Regular

- Advanced

- Prepaid

Default Exchange Type Rule for Change

An additional rule enables your organization to decide whether you want to allow the default exchange type value to be changed at all. If this rule is disabled, only the link is hidden; the exchange type description is still displayed.

6.13.3.2 End User Impact

None.

6.13.3.3 Implementation

You can configure two exchange type rules for the Add Exchange Items screen that define the enterprise-specific value for the default exchange type and that specify user access to this feature. See Section 4.16.12, "Configuring Extraneous Item/Wrong Item Rules" for more information.

6.13.3.4 Reference Implementation

None.

6.13.4 Exchange Fulfillment Options

Users need to be able to view and change fulfillment details on a return order.

The Exchange Fulfillment Options screen enables a user to change the fulfillment method on an exchange order, change the shipping/delivery address on the exchange lines, and change the pickup location on the exchange lines.

For more information about the Exchange Fulfillment Options screen, see Section 6.9.21, "Change Fulfillment Options".

6.13.5 Fulfillment Summary

Users need to specify and view the shipping, pickup, and delivery methods for return and exchange lines.

See Section 6.13.15, "Change Return Method" for a complete description of the Fulfillment Summary.

6.13.6 Select Appointment

Users need to be able to manage and view return-order appointments.

On the Appointment screen, users can view return lines on the exchange or return order and see when they will be delivered. In addition, users can change appointments and add delivery instructions.

Consolidation occurs automatically.

The Select Appointment screen in the return and exchange process is exactly the same as it is in order capture. For more information, see Section 6.13.14, "Change Service Appointment".

6.13.7 Payment Summary

Users need to view and change payment details for return orders and exchange orders.

6.13.7.1 Solution

On the Payment Summary screen, a user can view payment details for returns and exchanges and view header, line charges, and taxes for returns and exchanges, as well as add a note to the return.

In the top left corner of the Payment Summary screen, the Overall Payment Details are displayed. This panel includes Credits from Returns, New Charges from Exchanges, if any, and the Net Balance of the customer refund amount or the amount due from the customer.

If your enterprise implements its own or a third-party payment system, the Sterling Call Center and Store Payment Summary screen is not displayed. This option is set through a rule to enter payments externally.

Return Panel

If there is no exchange order, only the Return Order Totals panel on the lower left lists Refunded Charges, Taxes, and Fees for items being returned. For Sterling Call Center and Store, agents perform these tasks in the background. The payment process and how customers get refunds

is not handled by the Sterling Call Center and Store UI, except to display the amount of money the customer will be refunded.

Through the Return Order Totals panel, users can access pop-up windows and screens that enable them to add or modify return fees, charge categories, charge names, charge amounts, and notes, if necessary. These changes are reflected in the totals on the Overall Payment Details panel in the Payment Summary screen.

Exchange Panel

If there is an exchange, the Exchange Order Totals panel on the lower right lists charges, taxes, and discounts for items being exchanged. Through the Exchange panel, users can access pop-up windows and screens that enable them to add or modify exchange fees, add charges, charge names, charge amounts, and notes, if necessary. These changes are reflected in the totals on the Overall Payment Details panel in the Payment Summary screen.

Payment Methods Panel

Users can enter a payment method in the Payment Methods panel in the top right corner of the Payment Summary screen. Through the Payment Methods panel, users can also supply Payment Type information and the amount to be paid, as well as apply coupons and promotions.

For information about typical payment processing, see Section 6.10, "Payment Processing" contains a complete description of the entire payment processing interface.

6.13.7.2 End User Impact

None.

6.13.7.3 Implementation

None.

6.13.7.4 Reference Implementation

None.

6.13.8 Create Exchange Order

Customer may want an exchange item for the items being returned. In such situations call center and store representatives may need to create return orders as requested by the customer.

6.13.8.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to create exchange order for the return order.

This section explains the Create Exchange process and the solution offered by Sterling Call Center and Store.

Adding Items To The Exchange Order

The Add Items screen enables users to add lines to the exchange order. For more information about adding items to the exchange order, see Section 6.13.3, "Modifying an Exchange".

Exchange Fulfillment Options

On this screen, users can view and modify the fulfillment options for the exchange order. For more information about exchange fulfillment options, see Section 6.13.4, "Exchange Fulfillment Options".

Fulfillment Summary

The Fulfillment Summary screen provides the complete scenario of how the exchange order is configured and fulfilled. For more information about fulfillment summary, see Section 6.13.5, "Fulfillment Summary".

Select Appointment

The Select Appointment screen enables users to create and modify appointments. In addition, it also allows users to enter and modify service instructions. For more information about selecting appointments, see Section 6.13.6, "Select Appointment".

Payment Confirmation

The Payment Confirmation screen displays the summary of the payment impact on the order as a result of adding exchange items. For more information about viewing and confirming payment details, see Section 6.13.17, "Payment Confirmation".

6.13.8.2 End User Impact

If an exchange order is already created for a return order and the status of the exchange order is `Created`, the user cannot create another exchange order for the corresponding return order. If the exchange order is in the `Draft` status, the Add Items screen is displayed, which enables users to add items to the exchange order.

6.13.8.3 Implementation

This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.13.8.4 Reference Implementation

As part of reference implementation, Sterling Call Center and Store provides permissions to create exchange order to all user groups.

6.13.9 Report Extra Items

Sometimes a customer may report that the he has received extra items in their shipment by mistake. For example, if a customer ordered a single shirt and has received two shirts instead. In such situations, the extra items can either be returned back to the enterprise or the CSR can allow the customer to keep the extra items depending on the value of the items.

6.13.9.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to report extra items.

This section explains the Report Extra Items process and the solution offered by Sterling Call Center and Store.

Identifying Extra Items And Creating A Return

The Extra Item Identification screen is provided for users to enter data about the extra item. In some instances, the customer and CSR may not be able to identify the specific item that was given to the customer. For example, the extra item may be a blue shirt that the customer is not able to describe well enough for the CSR to find the correct item ID. In this scenario, you can configure the system to allow the CSR to enter an "unknown" item in this screen. Since the application requires you to use

a valid item ID, you can configure a temporary item ID to be saved on the return. In this case, the CSR can manually enter a description of the item in this screen. When the item is actually received at the warehouse, the correct item ID can be substituted on the return.

The getCompleteItemList is called to validate the item ID, when a product or service item ID or alternate item ID is entered or scanned. The createOrder API is called to create a return for the extra items. Sterling Call Center and Store provides a line type YCD_EXTRANEOUS which is used as the line type when creating an order line for extra items.

Displaying Fulfillment Summary For Return Items

The Fulfillment Summary screen displays the suggest return method for the extra items reported. For more information about fulfillment summary, see Section 6.13.5, "Fulfillment Summary".

Creating Service Appointment For Return Items

If the user chooses to have the extra item picked up, the Return Service Appointment screen is displayed. For more information about creating service appointments, see Section 6.13.14, "Change Service Appointment".

6.13.9.2 End-User Impact

None.

6.13.9.3 Implementation

This section explains the configurations for the return extra item task.

- Sterling Call Center and Store allows you to configure the line type for extraneous items and wrongly shipped items. For more information about configuring the line types for extra items, see Section 4.16.12, "Configuring Extraneous Item/Wrong Item Rules".

- Sterling Call Center and Store allows you to configure rules to allow unknown item returns and the item ID to be used for unknown item returns. For more information about allowing unknown item returns and configuring the item ID for unknown item returns, see Section 4.16.5, "Configuring Rules for Wrongly Shipped Items".

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.13.9.4 Reference Implementation

This section explains the reference implementation provided as part of the report extra item task.

- Unknown item returns are allowed for XYZ-CORP and XYZ-RETAIL organizations.

- The item ID for a Unknown item is WRONGITEM for XYZ-CORP and XYZ-RETAIL organizations.

- The line type for the return item is set to YCD_EXTRANEOUS_LINE_TYPE for XYZ-CORP and XYZ-RETAIL organizations.

- As part of reference implementation, Sterling Call Center and Store provides permissions to report extra items to all user groups.

6.13.10 Report Wrong Items

Sometimes a customer may report that he received different items than what he ordered. For example, the customer may have ordered a black shirt, but received a blue shirt instead. In such situations you may need to reship the items that were ordered and also create a return for the wrong items that were delivered.

6.13.10.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to report wrong items.

This section explains the Report Wrong Items process and the solution offered by Sterling Call Center and Store.

Reshipping Items

When a customer reports that he has received wrong items, the originally ordered items need to be reshipped. The validateReship API is called to verify if the item can be reshipped. If the items cannot be reshipped, the user can override reship validation only if the user is a supervisor. For more information about reshipping an item, see Section 6.9.12, "Reship".

Refunding The Amount For Unavailable Items

Sometimes, the ordered items may be out of stock, or the customer might not want the items. In such situations, the CSR may need to refund the amount for the originally ordered items. The Payment Confirmation screen displays the summary of the payment impact on the order as a result of the refund. For more information about payment summary, see Section 6.13.17, "Payment Confirmation".

Identifying Wrong Items And Creating A Return

The Wrong Item Identification screen is provided for users to enter data about the wrong item. In some instances, the customer and CSR may not be able to identify the specific item that was given to the customer. For example, the wrong item may be a blue shirt that the customer is not able to describe well enough for the CSR to find the correct item ID. In this scenario, you can configure the system to allow the CSR to enter an "unknown" item in this screen. Since the application requires you to use a valid item ID, you can configure a temporary item ID to be saved on the return. In this case, the CSR can manually enter a description of the item in this screen. When the item is actually received at the warehouse, the correct item ID can be substituted on the return. The createOrder API is called to create a return for the wrong items.

Modifying The Fulfillment Method Of The Return Items

The customer can choose to modify the fulfillment method of the return items. The changeOrder API is called to modify the fulfillment option for the wrong item. For more information about fulfillment summary, see Section 6.13.5, "Fulfillment Summary".

6.13.10.2 End-User Impact

None.

6.13.10.3 Implementation

This section explains the configurations for the return wrong item task.

- Sterling Call Center and Store allows you to configure the line type for extraneous items and wrongly shipped items. For more information about configuring the line types for wrong items, see Section 4.16.12, "Configuring Extraneous Item/Wrong Item Rules".

- Sterling Call Center and Store allows you to configure rules to allow unknown item returns and the item ID to be used for unknown item returns. For more information about allowing unknown item returns and configuring the item ID for unknown item returns, see Section 4.16.5, "Configuring Rules for Wrongly Shipped Items".

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.13.10.4 Reference Implementation

This section explains the reference implementation provided as part of the report wrong item task.

- Unknown item returns are allowed for XYZ-CORP and XYZ-RETAIL organizations.

- The item ID for a Unknown item is WRONGITEM for XYZ-CORP and XYZ-RETAIL organizations.

- The line type for the return item is set to YCD_WRONGLY_SHIPPED_LINE_TYPE for XYZ-CORP and XYZ-RETAIL organizations.

- As part of reference implementation, Sterling Call Center and Store provides permissions to report wrong items to all user groups.

6.13.11 Report Unexpected Items

Sometimes a customer may report that he did not order for any items and has received some items. For example, the shipping carrier may have dropped the shipment off at the wrong house. In such situations you may need to create a customer and then create a return for the wrongly shipped items.

6.13.11.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to report unexpected items.

This section explains the Report Unexpected Items process and the solution offered by Sterling Call Center and Store.

Identifying Customers

When a customer reports that he had not ordered for any items, but has received some items, you need to search if the customer already exists. If the customer does not exist, you may need to create a new customer.

Identifying or Searching for a Customer

Sterling Call Center and Store provides the functionality to search for a customer, based on three options:

- Advanced Customer Search

- Search based on address

- Basic Customer Search

Advanced Customer Search

This screen is recommended if the user wants to report unexpected items for customers maintained by Sterling Call Center and Store. This screen provides a full set of features to search against your database. The Advanced Customer Search option enables you to use additional addresses and payment methods that have been associated to the customer. You must use the Advanced Customer Search if you want to access the customers created in the Sterling Call Center and Store. All customer information is obtained through a getCustomerList API call.

When searching a customer master database, you can enable the search on business customers by configuring the Business Customers Enabled rule. You can also configure the default customer type when searching for a customer. For more information about configuring the display of customer identification screen, see Section 4.7.4, "Configuring Customer Type Rules".

The user can enter a new address or modify an existing address in this screen. For more information about the address capture screen, see Section 6.6.4.2, "Address Verification".

When creating a customer from the Advanced Customer Search screen, the create customer wizard is loaded in a pop-up window. Section 6.14, "Customer Creation" contains more information about this task.

When a new address is added or modified using the Advanced Customer Search screen, the new address is saved against the selected customer record through a manageCustomer API call.

The Advanced Customer Search screen contains validations to ensure that the end user enters enough information for a search. If this screen is extended to contain additional fields, these validations are not performed. This enables you to create validations based on the fields that you added. For more information about customizing screens, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

Search based on address

If you do not maintain a customer database, you can choose to display this screen which allows the user to search among the existing addresses in the system.

The getPersonInfoList API is called to retrieve the addresses for the search criteria. The getConsumerDetails API is used to retrieve the details of the consumer associated with the address. If a consumer corresponding to the address is not found, and if corporate users are enabled for the enterprise, the system attempts to find a corporate user associated with the address.

The user can enter a new address or modify an existing address in this screen. For more information about the address capture screen, see Section 6.6.4.2, "Address Verification".

The Address Entry screen contains validations to ensure that the end user enters enough information for a search. If this screen is extended to contain additional fields, these validations are not performed. This enables you to create validations based on the fields that you added. For more information about customizing screens, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

Basic Customer Search

This screen is not recommended for new installations and is only provided for backward compatibility.

Sterling Call Center and Store provides a configuration to enable searches based on customer types. You can also configure the default customer type to be used when searching for a customer. For more information about configuring the customer types, see Section 4.7.4, "Configuring Customer Type Rules".

The getCustomerList API is used to retrieve the details of the business customer or consumer customer.

The user can enter a new address or modify an existing address in this screen. For more information about the address capture screen, see Section 6.6.4.2, "Address Verification".

The Basic Customer Search screen contains validations to ensure that the end user enters enough information for a search. If these screens are extended to contain additional fields, these validations are not performed. This enables you to create validations based on the fields that you added. For more information about customizing screens, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

Identifying Unexpected Items And Creating A Return

The Unexpected Item Identification screen is provided for users to enter data about the unexpected item. In some instances, the customer and CSR may not be able to identify the specific item that was given to the customer. For example, the item may be a blue shirt that the customer is not able to describe well enough for the CSR to find the correct item ID. In this scenario, you can configure the system to allow the CSR to enter an "unknown" item in this screen. Since the application requires you to use a valid item ID, you can configure a temporary item ID to be saved on the return. In this case, the CSR can manually enter a description of the item in this screen. When the item is actually received at the warehouse, the correct item ID can be substituted on the return.

The getCompleteItemList is called to validate the item ID, when a product or service item ID or alternate item ID is entered or scanned. The createOrder API is called to create a return for the unexpected items. Sterling Call Center and Store provides a line type YCD_EXTRANEOUS which is used as the line type when creating an order line for extra items.

Displaying Fulfillment Summary For Return Items

The Fulfillment Summary screen displays the suggested return method for the unexpected items reported. For more information about fulfillment summary, see Section 6.13.5, "Fulfillment Summary".

Creating Service Appointment For Return Items

If the user chooses to have the unexpected item picked up, the Return Service Appointment screen is displayed. For more information about creating service appointments, see Section 6.13.14, "Change Service Appointment"

6.13.11.2 End-User Impact

- The user will see either the Advanced Customer Search screen, Address Search screen or Basic Customer Search screen based on the configuration.

- Users can search for customers based on the customer type, if the configuration for customer type search is enabled and the default customer type during search is Business.

6.13.11.3 Implementation

This section explains the configurations for the return unexpected item task.

- Sterling Call Center and Store allows you to configure rules to allow unknown item returns and the item ID to be used for unknown item returns. For more information about allowing unknown item returns and configuring the item ID for unknown item returns, see Section 4.16.5, "Configuring Rules for Wrongly Shipped Items".

- Sterling Call Center and Store allows you to configure the type of the customer search screen that needs to be displayed. For more information about configuring the customer search screen, see Section 4.7.4, "Configuring Customer Type Rules".

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.13.11.4 Reference Implementation

This section explains the reference implementation provided as part of the report wrong item task.

- Unknown item returns are allowed for XYZ-CORP and XYZ-RETAIL organizations.

- The item ID for a Unknown item is WRONGITEM for XYZ-CORP and XYZ-RETAIL organizations.

- The line type for the return item is set to YCD_EXTRANEOUS_LINE_TYPE for XYZ-CORP and XYZ-RETAIL organizations.

- As part of reference implementation, Sterling Call Center and Store provides permissions to report unexpected items to all user groups.

6.13.12 Issue Refund Now

A customer may want the refund to be issued immediately. For example, if the return method of an item is pick up and no representatives from the enterprise arrived to pick up the item, the customer may call the call center or store and demand for an immediate refund. In such situations, the call center and store representatives may need to issue a refund for the items immediately.

6.13.12.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to issue refund to the customer immediately.

The getCompleteOrderDetails API is called to display the details of all order lines of the return order. When the user selects the lines for refund and clicks Next, the createOrderInvoice API is called to create the invoice for the selected items. The output of the createOrderInvoice API is used to display the header charges, tax breakup, line details and line charges in the Invoice Details screen.

The processOrderPayments API is called to authorize the payment type and refund for the selected items. If the return order line is associated with a sales order, this API processes payments against the corresponding sales order. If the return order line is not associated with a sales order, this API processes payments against the return order.

The getChargeNameList API is called to display the names of the charges and the getChargeCategoryList API is called to display the charge category if the charge name is not displayed.

6.13.12.2 End-User Impact

None.

6.13.12.3 Implementation

This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.13.12.4 Reference Implementation

Sterling Call Center and Store provides permissions to issue refund for return orders to all users as part of reference implementation.

6.13.13 Change Return Address

A customer may want to change or modify the addresses on a return order. In such situations, call center or store representatives can modify the addresses as requested.

6.13.13.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to change the address on a return order.

When the user has to enter an order address for a new customer, or modify an existing address, the validity of the address needs to be verified. For more information about address verification, see Section 6.6.4.2, "Address Verification".

The changeOrder API is called to change the address. If the return method is pick up, the generateWorkOrder API is called to take a new appointment.

6.13.13.2 End-User Impact

None.

6.13.13.3 Implementation

This section explains the configurations for the change return address task.

- Sterling Call Center and Store allows you to configure the return order statuses for which changing return address is allowed. For more information about configuring the return order modification statuses, see Section 4.16.1, "Configuring Return Order Modification Rules".

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.13.13.4 Reference Implementation

Sterling Call Center and Store provides permissions to change return address to all users as part of reference implementation.

6.13.14 Change Service Appointment

A customer may want to change the appointment for a return order and an exchange order, if applicable. An appointment needs to be taken with the corresponding enterprise to agree on a time frame for the services to be fulfilled. Additionally, customers may need to provide the enterprise with specific instructions to ensure that the service fulfillment is successful, for example, the customer may request the retailer to deliver the exchange item at the back door.

6.13.14.1 Solution

Sterling Call Center and Store provides configurable appointment screens, which include the Service Appointment screen and Service Fulfillment Summary screen that allow users modify service appointments and enter service instructions. For more information about configuring the service appointment calendar, see Section 4.6.22, "Configuring the Service Appointment Calendar View".

Service Fulfillment Summary Screen

The Service Fulfillment Summary screen provides visibility to service appointments pertaining to a return order and exchange order, if applicable. The getOrderFulfillmentDetails API is called to display a list of appointments.

The gift options hyperlink is displayed only for the exchange orders. When you select an item as a gift item, the changeOrder API is called to modify the gift option.

Service Appointment Screen

A calendar is displayed from which the user can select the appropriate appointment for the customer.

You can also configure the number of weeks to display on the calendar at a time. By default, a complete month is displayed. To improve the performance, reduce the number of weeks to display to two so that only two weeks of data needs to be returned by the getWorkOrderAppointmentOptions API.

The getOrderFulfillmentDetails API is called to display the details of the appointment and the order lines included in the appointment.

Users can look beyond the initial weeks displayed on the calendar in case there are no acceptable appointments within the initial timeframe. By default, the appointment calendar allows the user to look out infinitely into the future for appointments. However, your capacity system may not have visibility beyond a certain timeframe. You can configure the maximum number of days to allow users to look into the future. After the maximum number of days is reached in the appointment screen, the user will not be able to proceed to the next time period.

When an appointment is saved, the reserveOrder API is called for exchange order lines if there are any on this appointment. This API calls the changeOrder API to make a reservation. If the reservation succeeds, the modifyWorkOrder API is called to save the appointment on the work order.

The return order lines are displayed in the return order lines panel and exchange order lines are displayed in the exchange order lines panel.

6.13.14.2 End-User Impact

None.

6.13.14.3 Implementation

This section explains the configurations for the change service apointment task.

- To change the service appointment calendar view, configure the following rules:
  - Calendar Display
  - Default Appointment Calendar View
  - Capacity Information

  For more information about configuring the service appointment calendar view, see Section 4.6.22, "Configuring the Service Appointment Calendar View".

- Sterling Call Center and Store allows you to configure the return order statuses for which changing service appointment is allowed. For more information about configuring the return order modification statuses, see Section 4.16.1, "Configuring Return Order Modification Rules".

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.13.14.4 Reference Implementation

The section explains the reference implementation provided for the change service appointment task.

- An instruction type called 'DELIVERY' is provided for saving service appointment instructions.

- Sterling Call Center and Store provides permissions to change service appointments and instructions to all users as part of reference implementation.

6.13.15 Change Return Method

Sometimes a customer may want to change the return method of the return items or fulfillment method for the exchange items. For example, a customer may have agreed to ship the item back to a return center when creating a return, but may call back later to schedule a return pickup appointment.

6.13.15.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to change the return method of an item.

This section explains the Change Return Method process and the solution offered by Sterling Call Center and Store.

The getOrderFulfillmentDetails API is called to retrieve the fulfillment details of the return items. The getReturnMethod API is called to retrieve the return method of all the items.

Delivery methods are suggested by Sterling Call Center and Store and can be customized through the YCDGetReturnMethodUE user exit. The delivery methods are:

- Return Pickup—The items being returned will be picked up at the customer's address.

- Return Shipping—The customer will ship the items back to the return center.

- Items can be kept—The customer can keep the items because the cost of returning items is higher than the value of the item.

If there are any exchange items, the getOrderFulfillmentDetails API is called again to retrieve the fulfillment details of the exchange items.

After the user's first visit to the Fulfillment Summary screen, if he makes changes to the Return Order and revisits the Fulfillment Summary screen, it may not contain changes made during the original visit because the Fulfillment Summary screen always chooses options based on the configuration that is set by the enterprise for the items.

For example, originally, a pickup appointment may have been scheduled for three items being returned (two expensive items and one inexpensive item). The customer changes his/her mind and decides to return only the inexpensive item instead. On the second visit to the Fulfillment Summary screen, the customer should be instructed to keep the item instead. To help users remember this, a warning message is displayed on the second and subsequent visits to the Fulfillment Summary screen reminding them to review the information carefully on this screen and ensure that options they set previously are still in effect. They can reset these options, if necessary.

The current delivery method, the delivery methods that are allowed, and the user's privileges decide which return methods are displayed, as determined by the IsSchedulePickupAllowed, IsReturnReturnNodeFound, and IsReceiptExpected attributes. If IsReceiptExpected is returned as "N" from the getReturnMethod API, then the Customer Can Keep button is displayed, provided the user has privileges.

When the user modifies the return method and clicks Next, the changeOrder API is called to update the return method.

The generateWorkOrder API checks for order lines marked for delivery and determines if it has a delivery service associated with it, and if not, the generateWorkOrder API creates one and then creates a work order. If several work orders are required, generateWorkOrder tries to consolidate them.

Handling Bundle Items

Bundles on exchange lines are handled so that if a parent is selected, all the children are also selected. For more information about bundles, see Section 6.2, "Configured Items".

6.13.15.2 End User Impact

The Customer Can Keep button is displayed only if the user has permissions to Override Return Method To Allow Customer To Keep Items.

6.13.15.3 Implementation

This section explains the configurations for the Change Return Method task.

- The YCDGetReturnMethodUE applies a standard user exit template and passes the result to the user exit. The default implementation is not provided for this user exit.

- If the user selects the Ship To Return Center return method, the RETURN_FULFILLMENT fulfillment type is used to determine the correct return center to receive the item. Ensure that you configure the sourcing rules to select the appropriate return center node for RETURN_FULFILLMENT fulfillment type. For more information about configuring sourcing rules, see the *Sterling Distributed Order Management Configuration Guide*. The return center node will be displayed on the Return Fulfillment Summary screen so the CSR can tell the customer the correct address to ship the items back to the return center.

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.13.15.4 Reference Implementation

This section explains the reference implementation provided as part of change return method task.

- Sterling Call Center and Store provides access to the Customer Can Keep button to all users as part of reference implementation

- Sterling Call Center and Store provides permissions to change the return method to all users as part of reference implementation.

6.13.16 Cancel Return Order

A customer may want to cancel some of the items or the entire return order. The customer may also want to cancel the exchange order corresponding to the return order.

6.13.16.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to cancel some of the items or all the items included in the return order and exchange order.

The getCompleteOrderDetails API is called to display the details of the order. The changeOrder API is called to cancel the item(s).

Selecting The Cancel Quantity

The users can cancel the entire order, or cancel a part of the order as requested by the customer.

Cancelling Related Lines

When the user selects a parent item that has related product or service lines for cancellation, the related lines are automatically selected for cancellation.

Cancellation Reasons For Return

Sterling Call Center and Store provides a list of common codes to display reasons for cancelling a return item. You can define reasons such as 'change of mind' to allow the Cancel action.

Cancellation Of Exchange Order Corresponding To The Return Order

If the return that is being cancelled has an associated exchange order, Sterling Call Center and Store enables users to cancel some of the items or all the items in the exchange order. For more information about canceling an exchange order, see Section 6.9.15, "Cancel Order".

Viewing and Confirming Payment Details

The Payment Confirmation screen displays the summary of the payment impact on the order as a result of cancelling items. For more information about viewing and confirming payment details, see Section 6.13.17, "Payment Confirmation".

6.13.16.2 End-User Impact

None.

6.13.16.3 Implementation

This section explains the configurations for the cancel return order task.

- Sterling Call Center and Store allows you to define reason codes that are available during the cancellation process. For more information about defining cancellation reasons, see Section 4.16.8, "Defining Return Cancellation Reasons".

- Sterling Call Center and Store allows you to configure the return order statuses for which cancellation of return order lines is allowed. If you allow cancellation of return order lines for a particular status, ensure that you allow cancellation of work order lines for the corresponding status. For more information about configuring the order statuses for modification, see Section 4.16.1, "Configuring Return Order Modification Rules".

- This task is permission controlled. Sterling Call Center and Store allows you to assign permissions to user groups for this task.

6.13.16.4 Reference Implementation

This section explains the reference implementation provided as part of cancel return order task.

- The following reasons are configured in the "CANCEL_REASON" common code for returns:

  - Change of Mind

  - Others

- Sterling Call Center and Store provides permissions to cancel return order to all users as part of reference implementation.

6.13.17 Payment Confirmation

Users need to view and change payment details for return orders and exchange orders.

6.13.17.1 Solution

On the Payment Summary screen, the user can view payment details for returns and exchanges, view header, line charges, and taxes for returns and exchanges, as well as add a note to the return.

The getCompleteOrderDetails API is called to retrieve the details of the return order and exchange order, if applicable. The getChargeCategoryList API is called to retrieve the list of charge categories. The getChargeNameList API is called to retrieve the list of charge names. The getChargeCategoryList API and getChargeNameList API are called again to retrieve list of charge categories and the list of charge names respectively for the exchange order, if an exchange order exists.

If there is a payment impact, the changeOrder API is called to confirm the payment.

6.13.17.2 End User Impact

If the Exchange Type attribute is set to Regular or Advanced, the user will see a consolidated summary for return orders and exchange orders. If the Exchange Type attribute is set to Advanced Prepaid, the user will see separate summary panels for return orders and exchange orders.

6.13.17.3 Implementation

You should assign permissions to users for the following tasks:

- Add Coupon
- Add/ Modify Charges
- Add Payment Method

6.13.17.4 Reference Implementation

None.

6.14 Customer Creation

Sterling Call Center and Store enables you to create two types of customers:

- Consumer Customers
- Business Customers

6.14.1 Create Consumer

Call center and store representatives may need to create customer records with contact and payment information.

6.14.1.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to create and manage consumer customers. This section explains the Create Consumer task and the solution offered by Sterling Call Center and Store.

Create a Contact

A consumer customer consists of a single contact. The only required information on a consumer customer is the contact record, which serves as a unique identifier. The First Name and Last Name of a customer are mandatory. The Create Consumer screen does not have a field for entering User ID. The e-mail address entered is stored as the User ID. If the Create Consumer screen is customized to include a User ID field, the value entered in this field will be stored as User ID. The manageCustomer API is called to save the customer record. If the user requires permission to access customers, the manageCustomerAssignment API is called to assign the customer to the user and his team.

Validation of Addresses

The verifyAddress API is called to validate an address before saving the address to the order. (This is applicable only if an address is entered.)

Add a Payment Method

A consumer can also add payment methods to his account, which can be used later when placing orders. The default payment method will be the default option selected on any orders created for the customer. The manageCustomer API is called to assign the payment method to the customer.

6.14.1.2 End-User Impact

None.

6.14.1.3 Implementation

If the user wants to add payment methods to a customer record, all the payment methods must be previously defined in the Sterling Call Center and Store Configurator for the Organization of the user creating the customer. For more information about adding payment methods, see the *Sterling Distributed Order Management Configuration Guide*.

6.14.1.4 Reference Implementation

None.

6.14.2 Create Business Customer

Call center and store representatives may need to create business customer records with contact and payment information.

6.14.2.1 Solution

Sterling Call Center and Store provides a user interface task which enables users to create and manage business customers. This section explains the Create Business Customer task and the solution offered by Sterling Call Center and Store.

Create a Customer

A Business Customer consists of a Buyer Organization, and any number of contacts. The addresses and payment methods can be defined for all contacts, or for specific contacts depending on where they are created. The unique identifier of a Business Customer is the Buyer Organization Code.

The minimum information required to create a Business Organization is the Buyer Organization's Code and Name, as well as a single contact record. Through the Business Customer creation task, Sterling Call Center and Store provides the user with the ability to enter this information along with the default addresses and contact information for the customer.

All addresses created through this task are created at the Customer level, and will be accessible by all contacts of the Customer record.The manageCustomer API is called to save the customer record. If the user requires permission to access customers, the

manageCustomerAssignment API is called to assign the customer to the user and his team.

Validation of Addresses

The verifyAddress API is called to validate an address before saving the address to the order. (This is applicable only if an address is entered.)

Add a Payment Method

A consumer can also add payment methods to his account, which can be used later when placing orders. The default payment method will be the default option selected on any orders created for the customer. The manageCustomer API is called to assign the payment method to the customer.

6.14.2.2 End-User Impact

None.

6.14.2.3 Implementation

If the user wants to add payment methods to a customer record, all the payment methods must be previously defined in the Sterling Call Center and Store Configurator for the Organization of the user creating the customer. For more information about adding payment methods, see the *Sterling Distributed Order Management Configuration Guide*.

6.14.2.4 Reference Implementation

None.

6.15 Customer Inquiry

Users need the ability to perform customer inquiry for both business and consumer customers.

6.15.1 Solution

Sterling Call Center and Store provides the ability to search and view two types of customers:

- Consumer Customers

- Business Customers

Sterling Call Center and Store provides two ways to search for customers:

- Quick Access—The user can select the customer type and enter the customer's e-mail ID, user ID, day phone number, and the business name in case of a business customer and search for the customer.

- Advanced Customer Search—The user can enter more restrictive search criteria to search for the customer.

If the search criteria results in a single record, the Customer Details screen is displayed. If the search criteria results in multiple records being retrieved, the Search and List screen is displayed.

The getCustomerList API is called to retrieve the customer records. For more information about the getCustomerList API, see the *Sterling Call Center and Store Javadocs*.

Pagination

Sterling Call Center and Store supports smart retrieval of record sets in the Customer Search screen.

For more information about pagination, see Section 6.17, "Pagination".

> **Note:** If searching by address for business customers is enabled, special performance considerations need to be evaluated to ensure that this type of query is fast enough.

6.15.2 End-User Impact

The end user can search for Consumer Customers or Business Customers against the customer database or addresses already in the database.

6.15.3 Implementation

Sterling Call Center and Store allows you to configure search for business customers and consumer customers. For more information about configuring customer search options, see Section 4.10.1, "Configuring Order Entry Rules".

6.15.4 Reference Implementation

Sterling Call Center and Store provides a consumer customer contact and two business customer contacts as part of reference implementation for XYZ-CORP organization.

6.16 Customer Maintenance

Sterling Call Center and Store provides the ability to manage a customer's contacts, addresses, payment methods.

6.16.1 Manage Contacts

Users need the ability to manage customer records from within the Sterling Call Center and Store.

6.16.1.1 Solution

Sterling Call Center and Store enables you to define contacts for a business. This task provides functionality to modify a contact record, modify contact address, manage contact payment methods, and delete contacts that are no longer used.

For a Consumer Customer, this task will prompt you to modify the contact record. For a Business Customer, multiple contact records will be available for modification, creation, or deletion.

The getCustomerDetails API is called to display the list of customer contact records. The manageCustomer API is called to modify the contact details.

Consumer Customer

The consumer record can be modified directly from the Consumer Customer task. Fields are updated using the manageCustomer API.

Business Customer

The business customer screen provides the CSR with a list of contacts on the customer record. From this screen, the CSR can add contacts, modify or remove existing contacts, and update, add, or remove contact addresses and payment methods. These changes are made by accessing the contact versions of the Modify Address and Payment task for the

selected contact. This is the only screen from which the contact record's payment method can be modified.

All data is displayed from the getCustomerDetails API and all changes are saved using the manageCustomer API.

6.16.1.2 End-User Impact

This task is permission controlled. You can launch this task only if you belong to a particular user group that is assigned permissions.

6.16.1.3 Implementation

This task is permission controlled. If the user does not have access to the customer details record, this task is not available, regardless of the user's resource permission.

6.16.1.4 Reference Implementation

None.

6.16.2 Manage Customer Addresses

Users may need to define multiple addresses for a customer.

6.16.2.1 Solution

Sterling Call Center and Store enables you to define addresses for a customer. You can define addresses at the contact level or at the customer level. You can also define default Ship To, Bill-To and Sold To addresses to be used during ordering. If a contact has no defaults selected, then the customer default addresses will be used.

To define addresses for business contacts, this task must be accessed from the Manage Contact task for a selected contact.

The getCustomerDetails API is called to display the list of customer addresses. The manageCustomer API is called to modify the customer addresses.

6.16.2.2 End-User Impact

This task is permission controlled. You can launch this task only if you belong to a particular user group that is assigned permissions.

6.16.2.3 Implementation

This task is permission controlled. If the user does not have access to the customer details record, this task is not available, regardless of the user's resource permission.

6.16.2.4 Reference Implementation

None.

6.16.3 Manage Payment Methods

Users may need to define payment methods for customers.

6.16.3.1 Solution

The Sterling Call Center and Store enables you to define payment methods for a customer. You can define payment methods at the contact level or at the customer level.

If you want to manage the payment methods for a specific business customer, you can manage this customer task only in the context of a contact in the Manage Contacts task.

To define addresses for business contacts, this task must be accessed from the Manage Contact task for a selected contact.

The getCustomerDetails API is called to display the list of payment types available for the customer. The manageCustomer API is called to modify the payment method.

6.16.3.2 End-User Impact

This task is permission controlled. You can launch this task only if you belong to a particular user group that is assigned permissions.

> **Note:**   Billing address will not be directly tied to the credit card records stored against the customer. In order to relate them, this needs to be defined during ordering.
>
> Available payment types created against customer records are not limited.

6.16.3.3 Implementation

If the user wants to add payment methods to a customer record, all payment methods must be previously defined in the Sterling Call Center and Store Configurator for the Organization of the user creating the customer. For more infromation about adding payment methods, see *Sterling Distributed Order Management Configuration Guide*.

If the additional attributes of a credit card are encrypted, they will not be visible from the Payment Method display panel.

This task is permission controlled. If the user does not have access to the customer details record, this task is not available, regardless of the user's resource permission.

6.16.3.4 Reference Implementation

None.

6.16.4 Customer Team Assignments

Sterling Call Center and Store provides the ability to assign customers to a team, once the customer is created. A supervisor can assign a customer from his team to any of his immediate sub teams.

6.16.4.1 Solution

The getTeamList API is called to retrieve a list of sub teams assigned to the supervisor. The getCustomerAssignmentList API is called to retrieve a list of the teams already assigned to the customer that are part of the list of sub teams with which the supervisor is working. The manageCustomerAssignment API is called to assign the customer to the selected team.

6.16.4.2 End-User Impact

None.

6.16.4.3 Implementation

The teams (data security groups) must be defined in the Sterling Call Center and Store Configurator and users must be associated to the teams.

The only purpose of this task is to further distribute a customer to sub teams. Therefore, the supervisor's team should also have sub teams defined in the Sterling Call Center and Store Configurator. For more information about creating teams/data security groups, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

6.16.4.4 Reference Implementation

> **Note:** This task will not be accessible if the user is not a supervisor and the user's team does not require Customer Assignments, even if the user has permission to access this related task.

6.16.5 Customer User Assignments

Supervisors need the ability to assign a customer to selected users on his team.

6.16.5.1 Solution

Sterling Call Center and Store provides the ability to assign customers to a user, once the user is created and assigned to a team. A supervisor can search for users from his team. The getUserList API is called to retrieve a list of users assigned to the supervisor's team, to limit the results. After a user is selected, the Customer Assignment screen is displayed. This screen provides the supervisor with a view into the customers that a selected user already has access to, and provides the ability to perform a search for additional customers that the supervisor can assign to the user.

6.16.5.2 End-User Impact

If the user is not a supervisor or the user is a member of a team that does not require customer assignments, or the rule to manually assign customers to users is disabled, the related task will not be displayed, even if the user has access permissions.

6.16.5.3 Implementation

The teams (data security groups) need to be defined in the Sterling Call Center and Store Configurator, users must be associated to the teams, and the user must be a supervisor.

The purpose of this task is to assign customers to users. Therefore, to access this task the supervisor must be on a team that requires customer assignments and the rule to manually assign customers to users must be enabled.

To define customer access mode, call the manageTeam API to set the customerAccessMode to 02, which is the Requires Customer Assignment permission.

For more information about creating teams/data security groups, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

6.16.5.4 Reference Implementation

None.

6.16.6 Customer Self Assignments

Users sometimes may need to assign themselves to customers.

6.16.6.1 Solution

The Sterling Call Center and Store provides the ability for users to assign customers to themselves. When a user searches for customers, the getUserHierarchy API is called to retrieve the maximum number of customers assignments for the user. The getCustomerAssignmentList API is called to retrieve a list of customers. A user can search among customers that are already assigned to his team and assign one to himself. If a customer is selected, the manageCustomerAssignments API is called to assign the customer to the user.

6.16.6.2 End-User Impact

If the user is on a team that does not require customer assignment and manual assignment of customers to users is not required, then even if the user has permission to view this task, the related task will not be displayed.

6.16.6.3 Implementation

The teams (data security groups) need to be defined in the Sterling Call Center and Store Configurator, and users must be associated to the teams.

The purpose of this task is to assign customers to users. Therefore, to access this task the user must be on a team that requires customer assignments and the rule to manually assign customers to users must be enabled.

To define customer access mode, call the manageTeam API to set the customerAccessMode to 02, which is the Requires Customer Assignment permission.

For more information about creating teams/data security groups, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

6.16.6.4 Reference Implementation

None.

6.16.7 View Account Activity

Users need the ability to use Sterling Multi-Channel Selling Solution carts, quotes, and gift registries.

6.16.7.1 Solution

To provide users with the ability to access functionality from the Sterling Multi-Channel Selling Solution without launching a second application, Sterling Call Center and Store provides a new view into the Sterling Multi-Channel Selling Solution. This view enables the CSR to access and modify Customer Carts and Quotes, and to view, modify and place customer orders for items on Wish Lists and Registries through the Sterling Multi-Channel Selling Solution's workspace.

6.16.7.2 End-User Impact

None.

6.16.7.3 Implementation

To access this task, the Sterling Multi-Channel Selling Solution integration must be installed and configured. The user must exist on

both the Sterling Multi-Channel Selling Solution and Sterling Call Center and Store applications. Synchronization between the Sterling Multi-Channel Selling Solution and Sterling Call Center and Store customers should be enabled in a synchronous mode. This task is enabled in the Sterling Multi-Channel Selling Solution factory setup for the default user groups provided.

For more information, see Section 10.3, "Carts, Quotes, Templates, Wish Lists and Gift Registries".

6.16.7.4 Reference Implementation

No additional Reference implementation is provided for this feature.

For more information, see Section 10.3, "Carts, Quotes, Templates, Wish Lists and Gift Registries".

6.17 Pagination

When users perform inquiries, they need the information to be retrieved in a minimum amount of time and to be displayed as efficiently as possible.

6.17.1 Solution

Sterling Call Center and Store supports smart retrieval of record sets in all of its search and list screens. These include:

- Order search
- Price Match search
- Competitor search
- Alert search
- Customer search
- Item search
- Return order search
- Advanced shipment search

For large record sets, smart retrieval enables a CSR to display the records as a full, complete set. Pagination is performed by using the YRCPaginationData object, which transforms an API call into a getPage

call, and retrieves the first page of records for display. If more records that fit the criteria exist, the CSR can click the Get More Records link to retrieve them, one list of records at a time. Each time this is done, records are appended to the existing record list, until the complete set of records is displayed. The most recent set of records returned is highlighted. In addition, in the Order Search and Return Order Search tasks, an Order By pull-down window allows for sorting returned data by Order Number, Order Date, or Customer Last Name.

The Order Search and Return Order Search tasks also enable the CSR to view history orders. This is performed through a link on the display, which toggles between between displaying recent orders and history orders. This requires two different YRCPaginationData objects, as described in the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

6.17.2 End-User Impact

Record display screens have different links, depending on how record handling is configured. The CSR might see the following links at the bottom of the screen:

- Total Available link - can be configured to allow users to request the total number of records to display, to always display the total number of records, or to never display the total number of records. If configured so that the user can request the total number of records, as the CSR repeatedly clicks on the Get More Records link, each successive set of records is displayed until none are left.

- View History Orders/View Recent Orders - this link is applicable only to Order Search and Return Order Search tasks. If configured, this link toggles between automatically displaying the total number of history records available for the search criteria and displaying recent order records that fit the search criteria.

6.17.3 Implementation

Pagination uses the following configuration options:

- When a CSR performs searches, the number of records retrieved is specified by the following properties in the yfs_propertierties_ysc_ext file:

    - yfs.rcp.ui.PageSize - number of records to retrieve

- yfs.ui.queryTimeout - number of seconds for each SQL statement to execute before console timeout

The default values for these properties are extensible through the YRCPaginationData object, as described in the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

- Configure pagination rules as described in Section 4.19.9, "Configuring Pagination Rules".

> **Note:** Sterling Call Center and Store recommends that you do not configure pagination to automatically display the total number of records. This count can affect the performance of the application server as well as all of the clients.

6.17.4 Reference Implementation

None.

6.18 Alert and Queue Management

The Alert Management task provides the ability for the user to create, resolve, and assign alerts. Alerts are generated automatically when the system raises certain events happen, or they may be manually created by the users. For example, when a payment authorization fails for an order, the system generates an alert. The user can then call the customer and request for a different payment method. Alternatively, the user can create an alert for the supervisor when the customer requests a price match that exceeds the 'No Hassle' price match check. Sterling Call Center and Store provides the comprehensive visibility to alerts assigned to users, move alerts to a different queue, and so on.

6.18.1 Solution

Sterling Call Center and Store provides features that enable you to create appropriate types of alerts and process them in a timely and efficient manner.

Using the Alert Type configuration, you can define types of alerts that can get raised in a system. You can use queues to group related alerts. Users can be subscribed to one or more queues and can process alerts from their subscribed queues.

You can configure whether to notify user whenever an alert is assigned to the current user or notify users whenever an alert is added to a queue the user is subscribed. The getExceptionList API is used to poll for new alerts in the Sterling Call Center and Store client.

If you have configured to notify users whenever an alert is added to a queue the user is subscribed, alert notifications will notify a user when an alert is created in the user's queues in the last polling time. The user will not be notified of alerts moved to the user's queues during that time.

If you have configured to notify user whenever an alert is assigned to the current user, the user will be notified of alerts assigned to them since the last polling time.

Designing Custom Alert Resolution Panels

Sterling Call Center and Store provides visibility to alerts and resolve them using the Alert Details screen. This screen is unique and displays different alert resolution panels in the screen depending on the alert type that is being viewed. For example, if you are viewing a duplicate order alert (an alert raised when the system detects that two or more orders have been entered in the system that may be duplicates because they have similar attributes), the Alert Detail screen lists the orders that are potential duplicates so that the users can view the order details and cancel appropriate orders.

Sterling Call Center and Store provides pre-defined alert types. Additionally, you can define new resolution panels for your own custom alert types.

Alert Notification

Sterling Call Center and Store notifies the user about the latest open Priority 1 alerts. The user is notified of the alerts in any of the following ways:

- The Alert Message Status hyperlink is displayed on the CSR message panel, which displays:

  - Open alerts that are assigned to the current user.

— Priority 1 alerts that are added to the queues to which the current user is subscribed.

The getExceptionList API is called to retrieve all open and priority 1 alerts, consolidate them, and display the number of open alerts.

> **Note:** If there are no priority 1 alerts assigned to the queue to which the user is subscribed, the total number of follow-up alerts display.

- The Alert Notification panel pops up at the specified time interval based on the configuration. This is indicated by a beep. The getExceptionList API is called to retrieve the latest open and priority 1 alerts, consolidate them, and display the number of open alerts.

6.18.2 End-User Impact

The users can view popup notifications of new alerts based on the configuration. The users have the ability to disable this notification after logging into the application.

6.18.3 Implementation

You can define alert types as needed. When configuring your alert type, in the alert type configuration, you can specify a java class that is an instance of the SWT composite class (org.eclipse.swt.widgets.Composite) as the resolution form. You must create this composite and include components that helps the users to resolve alerts for that specific alert type. You can call APIs within the composite if you require additional information in that panel. If you do not want to design a new composite for any of the custom alert types, you can leave the Resolution Form field blank in the alert type configuration. If you do not enter any information in this field, the default resolution panel are used. The default resolution panel displays the data from the Alert Details column of the alert table (YFS_INBOX).

You can group similar type of alerts into queues and assign them to the users. For more information about assigning alerts and queues, see Section 4.17, "Configuring Alert Management".

Configure the following rules to notify users about the alerts raised:

- Notify User Whenever an Alert is Assigned to the Current User
- Notify Users Whenever an Alert is Added to a Queue The User is Subscribed
- Never Notify Users About Alerts
- Poll for New Alerts Every <number_of_minutes> Minutes

For more information about alert notification, see Section 4.17, "Configuring Alert Management".

Notes entered for this task are saved with YCD_CREATE_ALERT note type.

6.18.4 Reference Implementation

By default, the following alert types are provided:

- YCD_VERIFY_ADDRESS
- YCD_PAYMENT_FAILURE
- YCD_DUPLICATE_ORDER
- YCD_ORDER_CANCEL_NOTICE
- YCD_PRICE_MATCH
- YCD_RESHIP
- YCD_STOP_DELIVERY

The resolution types provided for the following alert types are:

- YCD_VERIFY_ADDRESS
- YCD_PAYMENT_FAILURE
- YCD_DUPLICATE_ORDER
- YCD_ORDER_CANCEL_NOTICE

Alerts types, queues, and queue subscriptions are defined for the "XYZ-CORP" organization.

By default, the following note type is provided for the "XYZ-CORP" organization and "XYZ-RETAIL" organization:

- YCD_CREATE_ALERT

6.19 User Preferences

When viewing the Sterling Call Center and Store application, the user may want to personalize the appearance of the screen. A novice user may also wish to view additional help messages while performing a task.

6.19.1 Solution

Sterling Call Center and Store provides a user interface task to set user preferences. The user can set preferences such as display of alert notifications, additional help messages, keyboard shortcuts, customer message panel, position of related tasks, and the CSR message/customer message panel. The user can also set preferences to remember pagination preference.

The getProperty API is called to retrieve the preferences of the user when the user preferences screen is opened. The following properties are updated:

- YCDAlertNotification—display of alert notifications
- YCDAddtnlHlpMsgsIcons—display of additional help messages and icon legends
- YCDRelatedTaskShortcut—display of keyboard shortcuts
- YCDCustomerCSRMessages—display of collapsible customer message panel
- YCDSavePaginationSort—remember pagination preferences
- YCDRelatedTaskPosition—position of related task panel
- YCDCustomrCSRMsgPnlPsn—position of CSR message panel

The manageProperty API is called to update the properties.

6.19.2 End-User Impact

This section explains the end-user impact for setting the user preferences.

- Based on the preferences set, the user will see alert notifications, additional help messages, keyboard shortcuts.
- The related tasks, CSR message and customer message panels are positioned based on the user preferences.

- Based on the preferences set, the user will be notified when new records are inserted in an already sorted or filtered table.

6.19.3 Implementation

None.

6.19.4 Reference Implementation

This section explains the reference implementation provided as part of the setting user preferences task.

- By default, the Alert Notification panel is displayed.
- By default, the Additional Helpful Text Messages are displayed.
- By default, the keyboard shortcuts for related tasks is displayed.
- By default, the Customer Message panel is displayed.
- By default, the Pagination Preference is not saved.
- By default, the position of Related Tasks panel is Left
- By default, the position of CSR message/customer message panel is Top.

6.20 Helpful Text Messages

When using the Sterling Call Center and Store applications, a novice user may want to view additional help messages which guide the user to perform a task.

6.20.1 Solution

Sterling Call Center and Store provides a help assistant screen for each task. The Sterling Call Center and Store Assistant is launched when a screen is loaded and it displays a hyperlink for each task that can be performed on the corresponding screen. On clicking a hyperlink, detailed instructions for the selected task is displayed. Help Assistant is available for the following screens:

- Create Order: Select Customer
- Add Lines to Order

- Change Fulfillment Options

- Pickup Select Store Pop-up

- Take Appointment

- Take Appointment: Resolve Line Problems

- Delivery Fulfillment Summary

- Ship/Pickup Fulfillment Summary

- Price Match: Price Match Details

- Create Return: Select Lines

- Create Return: Return Reason

- Create Return: Fulfillment Summary

- Create Return: Take Appointment

- Create Return: Change Appointment

The content for helpful text messages may reside on a different server and can be retrieved when needed. You can configure the server URL where the content for helpful text messages reside. A taskhelp.xml is provided which contains the help content for each screen.

The taskhelp.xml must adhere to the following structure:

```
<Screens>
<Screen ID=" ">
<HelpTasks>
<HelpTask TaskID=" " BundleKey=" " Url=" "/>
</HelpTasks>
</Screen>
</Screens>
```

Sterling Call Center and Store also allows you to add more questions to a screen for which content is already provided. You can also customize and localize the titles that appear on the Help Assistant screen.

Sterling Call Center and Store also allows you to add content for new screens.

The user can configure whether the help assistant screen should be displayed when the screens are launched. For more details on user preferences, see Section 6.19, "User Preferences".

6.20.2 End-User Impact

Based on user preferences, the user will see additional helpful text messages.

6.20.3 Implementation

This section explains the configurations for helpful text messages.

- Sterling Call Center and Store allows you to configure the server URL from where the content for the Help Assistant screens is retrieved. To configure the URL, set the value for the `yfs.ycd.help.baseurl` property in the `<INSTALL_DIR>/properties/customer_overrides.properties` file.

- Sterling Call Center and Store allows you to add content for existing screens.

  To add more questions to an existing screen:

  a. Create a new folder where the customized file will be located.

  b. Copy the `reference\help\taskhelp.xml` file to the new folder created in Step a.

  c. Modify the `taskhelp.xml` file to include additional HelpTask elements under the screen for which more helpful messages are added.

  d. In the plugin.xml file, implement the extension point `com.yantra.pca.ycd.rcp.YCDTaskHelpContent`. Create an extension `HelpFileName`. In the Name field, specify the relative path to the new file created in Step b.

- Sterling Call Center and Store allows you to customize and localize the titles that appear on the Help Assistant screen. For more information about customizing the titles that appear on the Help Assistant screens, see Section A.2.1, "Resource Bundles".

6.20.4 Reference Implementation

None.

7

Implementing the Sterling Store Features

This chapter describes the store features supported by Sterling Store.

7.1 Item Inquiry

A user may want to search for product items or service items and also view the details for them such as fulfillment methods, availability, promotions, associations, price. An enterprise may want to model items based on distinct attributes such as style, size and color and enable users to search and view details of stylized items. For more information about item inquiry, see Section 6.1, "Item Inquiry".

7.2 Configured Items

In some retail environments may fulfill orders comprising of configured items. A configured item is a group of items which are related such as a computer which comprises of the processor, keyboard, mouse, and monitor. Configured items are also referred to as bundles. For more information about configured items, see Section 6.2, "Configured Items".

Bundles are supported in the following flows:

- Shipment Inquiry
- Backroom Pick
- Undo Backroom Pick
- Customer Pick

7.3 Alternate Item Identifier

The alternate item identifier can be used to scan and search for product or service items in the store application. For more information about alternate item identifiers, see Section 6.3, "Alternate Item Identifier".

The Order Print tasks provided by Sterling Store do not display alternate item identifiers, even if you have configured alternate item identifiers. For more information about order prints, see Section 7.21, "Order Print Tasks".

7.4 Item Display Options Configuration

Sterling Call Center and Store enables you to configure which item attributes need to be displayed throughout the user interface. For more information about configuring item display options, see Section 6.4, "Item Display Options Configuration".

7.5 Alternate Store Pickup Locations Search

Sterling Call Center and Store provides an ability to search for availability of items for pickup across stores. For more information about alternate stores, see Section 6.5, "Alternate Store Pickup Locations Search".

7.6 Order Capture

Data must be captured for fulfilling an order in a store. The order capture process includes order creation and order validation. For more information about order capture, see Section 6.6, "Order Capture".

Adding Open Box Items
Sterling Store provides the ability to add open box items to an order and to view the open box items on existing orders. For more information about open box items, see Section 7.9.6, "Open Box Items".

7.7 Order Inquiry

A customer may walk into a store to inquire about any order placed in the store. In such situations, Sterling Call Center and Store needs to respond to order inquiries by publishing information about the orders

captured to the external systems. The order inquiry process and implementation supported in a store is similar to the order inquiry process in a call center.

The order inquiry process in the Sterling Store scenario enables you to search for draft orders and orders that are created in a store. For more information about order inquiry, see Section 6.7, "Order Inquiry".

7.8 Order Monitoring

Once orders are captured, they need to be monitored so that the customers are notified about the order status. For more information about order monitoring, see Section 6.8, "Order Monitoring".

7.9 Order Maintenance

You can modify orders that are created and captured in Sterling Call Center and Store. The following order maintenance features are supported in the Sterling Store scenario:

- Resolve Holds
- Change Payment Method
- Add Multiple Items to an Order
- Change Gift Options
- Customer Appeasement
- Open Box Items
- Add Coupon
- Cancel Order
- Track an Item
- Return Order Capture
- Order Notes
- Change Fulfillment Options
- Change Service Instructions
- Change Service Appointments
- Fulfillment Summary

- Reservations
- Price Match
- Increase Order Line Quantity
- Schedule and Release an Order
- View Procurement Orders
- Change Order Address
- Launch Sterling Multi-Channel Fulfillment Solution Consoles
- Change an Item's Style
- Reconfigure Items

7.9.1 Resolve Holds

Sterling Call Center and Store provides visibility to holds applied to an entire order or to just certain order lines, and enables you to resolve them. An order can be placed on hold with various hold types, either automatically or manually. For more information about resolving holds, see Section 6.9.1, "Resolve Holds".

7.9.2 Change Payment Method

Different types of payment are supported in the Sterling Store scenario. For more information about the process and implementation of changing a payment method, see Section 6.9.2, "Change Payment Method".

7.9.3 Add Multiple Items to an Order

Once an order is created, the customer may want to add a few more product or service items to that order. Sterling Store enables you to add multiple items to an order. For more information about adding multiple items, see Section 6.9.4, "Add Multiple Items to an Order".

7.9.4 Change Gift Options

You can identify certain items as gifts in an order. You can configure which of the fulfillment methods allow gift options to be recorded in the user interface. For more information about changing gift options, see Section 6.9.5, "Change Gift Options".

7.9.5 Customer Appeasement

When a customer is not satisfied or has had a bad experience with any of the services that were provided, you can present them with the option to appease them. For example, a customer may walk in to a store to report having received a damaged item. In such situations, you need to perform an appeasement task to make amends for the bad experience. For more information about customer appeasement, see Section 6.9.6, "Customer Appeasement".

7.9.6 Open Box Items

Open box items are display items that are returned with minute defects and are sold at a discounted rate. You can add the open box items to an order.

7.9.6.1 Solution

Sterling Call Center and Store provides the ability to add open box items to an order and to view the open box items on existing orders.

Typically, open box items are assigned a unique identifier to differentiate them from the other items. In Sterling Call Center and Store, the unique identifiers for the available open box items are stored as item tag attributes. For more information about defining a product item's inventory information, see the *Sterling Product Management Configuration Guide*.

Open box items must be assigned a different product class to ensure that they do not appear in normal item availability inquiries and are not promised to orders for regular items.

Open box identifiers can be entered in the user interface in the create order and add line screens. The getCompleteOrderDetails API retrieves the sales order details that contain the OrderLineInvAttRequest element as an output template. The user interface uses the getTagListForOrdering API to validate the open box ID and get the corresponding item information for that open box ID such as the Item ID, Unit of Measure, Product Class, and Price Details. The createOrder or changeOrder APIs are called with open box unique identifiers and passed to the OrderLineInvAttRequest element as input.

7.9.6.2 End-User Impact

None.

7.9.6.3 Implementation

This section explains the configuration needed to add an open box item to an order.

1. Log in to the Sterling Call Center and Store Configurator. For more information about logging in to the application, see Section 2.1, "Starting the Sterling Call Center and Store Configurator".

2. In the Sterling Multi-Channel Fulfillment Solution Configurator, set the following rules:

   - Allow Addition of Open Box Items to Orders—Enable this rule to allow open box items to be added to orders.

   - Tag Identifier for Open Box ID—Select the appropriate item tag attribute that is used to track the unique open box identifier from the drop-down list.

     > **Note:** In the user role configuration, you can grant or revoke permission to the "Add Open Box" resource if you want to control the capability to add open box items at a user level.

   - Product Class for Open Box Items—Select the appropriate product class that represents open box items from the drop-down list. This product class is used to differentiate open box items from regular availability checks and order promising.

   - Fulfillment Methods Supported for Open Box Items—Select the appropriate fulfillment method to use for open box items. The following types of fulfillment method are supported for open box items:

     − Pickup

     − Shipping

     − Delivery

7.9.6.4 Reference Implementation

A new item, AOE4357 Computer Game CD is added to the XYZ-CORP organization with Batch No as the open box unique identifier.

7.9.7 Add Coupon

This feature allows a user to add coupons or promotion codes for an order that has been placed. For more information about adding coupons to orders, see Section 6.9.14, "Add Coupon".

7.9.8 Cancel Order

A customer may want to cancel an entire order, or just certain product or service items on the order. The items on an order can be cancelled as long as they have not been shipped. For example, you can cancel items that are included in the shipment but still present in the store.

In the Sterling Store scenario, depending on the store enterprise configurations, a store representative can cancel the order lines that are not shipped from a local store, even if permissions are not assigned. The getCompleteOrderDetails API determines whether or not an order line can be cancelled. If the cancellation request has some items beyond `Released` status, the store representative must first validate if the items can be cancelled. The order lines can be cancelled even after the order lines with the pick up fulfillment method are moved to the `Released` status. The changeOrder API is called to cancel the lines on the order and release, if associated with the order line. The changeShipment API is called to cancel the shipment lines associated with the order line. This API is called only when the shipment line is associated with an order line.

As a part of Cancel Order task implementation:

1. Log in to the Sterling Call Center and Store Configurator.

   For more information about logging in to the Sterling Call Center and Store Configurator, see Section 2.1, "Starting the Sterling Call Center and Store Configurator".

2. From the Sterling Call Center and Store Configurator, select Configure Order Administration > Configure Order Modification Rules. The Modification Rules: Order Fulfillment screen is displayed.

3. In Group By drop-down list, select Modification Type.

4. From Order Fulfillment > Add Note > Line, right-click Sent To Store.

5. Select Allow Modification.

6. From Order Fulfillment > Add Note > Order, right-click Sent To Store.

7. Select Allow Modification.

For more information about cancelling an order, see Section 6.9.15, "Cancel Order".

7.9.9 Track an Item

The customers may sometimes need to know the status of the orders. For example, if a customer does not receive items that were ordered, then the customer can call the CSR to enquire about the shipment status. For more information about tracking an item, see Section 6.9.16, "Track an Item".

7.9.10 Order Notes

A user may need to enter some notes for an order describing the actions performed against the order, for future reference. The order notes are either system generated or entered by the user. The Sterling Store feature allows the user to add notes to an order line. This helps the user to track any important events at the order line level.

As a part of the reference implementation, the following Contact Types are configured:

- Phone
- E-mail
- In Person

For more information about adding notes to an order, see Section 6.9.17, "Order Notes".

7.9.11 Change Fulfillment Options

You can use this task to change fulfillment options for orders that are associated with the delivery lines.

The getShipmentList API returns a list of shipments associated with the order for a particular node.

If an item has to be delivered or picked up from a local store for which the order status is greater than `Released` and not shipped, the item is most likely to be present in the store. In such situations, the store representative can verify whether the item is present in the store and modify the fulfillment options as requested by the customer by using the getCompleteOrderDetails API.

For more information about changing the fulfillment options, see Section 6.9.21, "Change Fulfillment Options".

> **Note:** You can configure the user interface to never show the pick up fulfillment method if the enterprise does not support that fulfillment method.

7.9.12 Change Service Instructions

At the time of delivery, if a customer requests to change the service instructions for a product or service item, you can modify the service instructions as requested. For more information about changing service instructions, see Section 6.9.18, "Change Service Instructions".

7.9.13 Change Service Appointments

When a customer wants to change the date and time of delivery of the ordered items, you can modify the service appointments. For more information about changing service appointments, see Section 6.9.19, "Change Service Appointments".

7.9.14 Fulfillment Summary

Order lines can be grouped based on their fulfillment methods. Within each fulfillment method, the order lines can be grouped as follows:

- Ship To Address for shipping
- Ship Node for pickup

For more information about fulfillment summary, see Section 6.9.22, "Fulfillment Summary".

7.9.15 Reservations

The reservation of items is performed to confirm availability and resolve issues when handling multiple customers simultaneously. For more information about reservations, see Section 6.9.23, "Reservations".

7.9.16 Price Match

A customer may sometimes find that an item is available at a cheaper price from a different retailer. In such situations, the store representative can investigate the customer's claims and perform the necessary price match action. For more information about price matching an item, see Section 6.9.7, "Price Match".

7.9.17 Competitor Search

Sterling Call Center and Store provides the ability the search and view competitor records. While performing a price match, you can search if the competitor already exists in the database. For more information about searching for a competitor, see Section 6.9.8, "Competitor Search".

7.9.18 Price Match Search

Sterling Call Center and Store provides the ability the search and view existing price match records. During the price match process, a user may want to search for an existing price match. Based on the search criteria, a list of price matches is displayed. For more information about searching for a price match, see Section 6.9.9, "Price Match Search".

7.9.19 Create or Modify a Competitor Record

Sterling Call Center and Store provides the functionality to create a new competitor, if the competitor does not already exist in the database, and also allows you to modify an existing competitor record. For more information about creating or modifying a competitor record, see Section 6.9.10, "Create or Modify a Competitor Record".

7.9.20 Create or Modify a Price Match Record

Sterling Call Center and Store provides the functionality to create a new price match, if the price match does not already exist in the database,

and also allows you to modify an existing price match record. For more information about creating or modifying a price match record, see Section 6.9.11, "Create or Modify a Price Match Record".

7.9.21 Increase Order Line Quantity

When a customer wants to increase the quantity of one or more items on an order that is already placed, the user can increase the order line quantity as requested. For more information about increasing an order line quantity, see Section 6.9.24, "Increase Order Line Quantity".

In the Sterling Store application, while increasing the order line quantity, if the order line is in the Released status, a warning message which prompts the user to manually check whether the items are present in the store is displayed.

7.9.22 Schedule and Release an Order

Sterling Call Center and Store enables a user to schedule and release an order. For more information about scheduling and releasing an order, see Section 6.9.25, "Schedule and Release an Order".

7.9.23 View Procurement Orders

Sterling Call Center and Store enables a user to view procurement orders (Purchase Orders and Transfer Orders) that are created for a sales order. For more information about viewing procurement orders, see Section 6.9.26, "View Procurement Orders".

7.9.24 Change Order Address

A customer may want to change or modify the addresses on an order after placing the order. In such situations, you can modify the addresses as requested by the customer. For more information about changing the order address, see Section 6.9.27, "Change Order Address".

7.9.25 Launch Sterling Multi-Channel Fulfillment Solution Consoles

In some implementations, call center and store representatives may need to access screens and functionality from the Sterling Multi-Channel Fulfillment Solution Consoles. For example, call center and store

representatives may need to access the detailed order audit screens available in the Sterling Multi-Channel Fulfillment Solution Consoles.

 For more information about launching the Sterling Multi-Channel Fulfillment Solution Consoles, see Section 6.9.28, "Launch Sterling Multi-Channel Fulfillment Solution Consoles".

7.9.26 Change an Item's Style

After placing an order for a stylized item, a customer may want to change the attributes of the item. Sterling Call Center and Store enables you to change an item's style once the item is added to the order. For more information about changing an item's style, see Section 6.9.29, "Change an Item's Style".

7.9.27 Reconfigure Items

Sterling Call Center and Store provides rich functionality to reconfigure bundle items. For example, if the customer has ordered for a computer and wants to change the configuration of the processor, this task enables you to change the necessary configurations. For more information about reconfiguring items, see Section 6.9.30, "Reconfigure Items".

7.10 Payment Processing

In the Sterling Store scenario, each order has to be paid when it is placed. The customer can use different types of payment to pay for an order. For more information about payment processing and implementation, see Section 6.10, "Payment Processing".

7.11 Return Order Capture

Sterling Store implements the same Return Order functionality that is in Sterling Call Center, as described in Section 6.11, "Return Order Capture". This section contains the few exceptions that apply to Sterling Store for creating returns, entering return reasons, and viewing or changing the Fulfillment Summary and Payment Summary.

Maintaining returns is described in Section 7.13, "Return Order Maintenance". This includes tasks such as reporting extra items, wrong

items, and unexpected items, issuing immediate refunds, changing return addresses, and canceling return orders.

7.11.1 Create Return

This section describes only the Sterling Store functionality for creating a return. For more information about creating returns, see Section 6.11, "Return Order Capture".

To scan an item for return, a user selects the By Order tab, which shows an Item ID field. When the user scans the item, the Item ID is displayed in the Item ID field. If the item scanned is not on the order, an error message is displayed indicating that the Item ID was not found.

A scanned item is automatically marked in hand when it is scanned. Returns without a receipt and returns by Extra Item (items that the customer received by mistake) are also assumed to be in hand by the system. Certain aspects of the return process, such as return methods and appointments, are unnecessary if an item is in hand.

If an item is not scanned, the return panel contains a check box for "Item is in Hand" and a check box for "All Selected Items Are Present."

When scanning items, the last scanned item is always visible on the screen.

Sterling Store provides the capability to record items that were in hand when the return was created.

7.11.2 Return Reason

This section describes only the Sterling Store functionality for the Return Reason screen. For more information about entering the Return Reason screen, see Section 6.13.2, "Entering Return Reason".

For an item that was marked in hand on the Line Selection screen, the Return Reason screen contains a drop-down for the Return Disposition Code, which enables the user to specify the condition of the item when it was returned. If the user does not have any items in hand, he will not be able to enter the Disposition Code. This code is required only for an item in hand to continue the return process flow. The value for this field is stored in YFS_ORDER_LINE, as described in Table 8–2, "YFS_ORDER_LINE Extensions".

As a part of the reference implementation, the following Return Disposition Codes are configured for the Create Store Return task:

* Sent For Repair

* Scrapped

* Restocked

To apply the same Disposition Code to all items in hand that are being returned, click the Apply to All Items button on the Return Reason Screen. For more information about returns and exchanges, see Section 6.11, "Return Order Capture".

7.11.2.1 All Items Are In Hand Rule

After the Address Info Needed rule described in Section 6.13.4, "Exchange Fulfillment Options" is run, the "All Items Are in Hand" rule will be run. This rule checks whether all the lines on the order are marked as in hand or if there is an exchange order. If either is true, the flow continues to the Fulfillment Summary screen.

If no exchange order is created and every item in the return order is in hand, the flow goes to the Payment screen because no lines are being returned by shipping or being picked up, and no reservations or appointments are needed.

If no exchange order is created on the Return Reason screen or if there is a return order with any line that is not in hand, the returns flow proceeds to the Fulfillment Summary screen.

If there is no exchange order, the flow proceeds to the Fulfillment Summary screen.

7.11.3 Fulfillment Summary

This section describes only the Sterling Store functionality for the Fulfillment Summary screen. For more information about entering the Fulfillment Summary screen, see Section 6.13.5, "Fulfillment Summary".

When this screen is displayed, a call to the getReturnMethod API is made, which determines whether the line needs to be displayed in a pickup panel, a shipping panel, or whether the customer can keep the item.

The same process collects lines that are already received or are in hand, and displays them in their own panel, so that the user can see their status. This status cannot be changed.

7.11.4 Payment Processing

This section describes only the Sterling Store functionality for the Payment Summary screen. For more information about entering the Payment Summary screen, see Section 6.13.7, "Payment Summary".

Instead of calling the confirmOrder API to process payments, Sterling Store calls a user exit called processReturnCompletionUE. This user exit calls a list of APIs based on the return or exchange lines. The default implementation of these APIs tries to push the order through the pipeline as far possible, receiving the items that are in hand and setting the items that are to be picked up or shipped to `Released` status. When items that are not in hand are received at the warehouse, a receipt is started so that the customer receives a refund.

7.12 Return Order Inquiry

Sometimes customers may inquire information about return orders. For example, a customer may want to change the return address or appointment on the return order. In such situations, call center or store representatives need to search for the appropriate return order and then perform the necessary actions. For more information about return order inquiry, see Section 6.12, "Return Order Inquiry".

In Sterling Store, the SellerOrganizationCode attribute is passed to the getOrderList API.

7.13 Return Order Maintenance

Sterling Call Center and Store provides the following return order maintenance features:

- Report Extra Items
- Report Wrong Items
- Report Unexpected Items
- Issue Refund Now

- Change Return Address
- Cancel Return Order

7.13.1 Report Extra Items

Sometimes a customer may report that the customer has recieved extra items. For example, if a customer ordered for a TV and has recieved 2 TV's instead of 1. In such situations, the extra items can either be returned back or you can allow the customer to keep the extra items. For more information about reporting extra items, see Section 6.13.9, "Report Extra Items".

7.13.2 Report Wrong Items

Sometimes a customer may report that the customer did not recieve the items that were ordered. In such situations you may need to reship the items that were ordered and also create a return for the wrong items that were delivered. For example, if a customer ordered for TV and has recieved a DVD player instead of the TV, you need to create a return for the DVD player and reship the TV. For more information about reporting wrong items, see Section 6.13.10, "Report Wrong Items".

7.13.3 Report Unexpected Items

Sometimes a customer may report that he did not order for any items and has recieved some items. In such situations you may need to create a customer and then create a return for the wrongly shipped items. For more information about reporting unexpected items, see Section 6.13.11, "Report Unexpected Items".

7.13.4 Issue Refund Now

A customer may call to inquire about why he has not been refunded for the items which have already been returned. In such situations, you may need to issue a refund for the items immediately. For more information about issuing a refund, see Section 6.13.12, "Issue Refund Now".

7.13.5 Change Return Address

A customer may want to change or modify the addresses on a return order. In such situations, you can modify the addresses as requested. For

more information about changing the return address, see
Section 6.13.13, "Change Return Address".

7.13.6 Cancel Return Order

A customer may want to cancel some of the items or the entire return
order. The customer may also want to cancel the exchange order
corresponding to the return order. For more information about canceling
a return order, see Section 6.13.16, "Cancel Return Order".

7.14 Customer Creation

Sterling Call Center and Store enables you to create two types of
customers:

- Consumer Customers
- Business Customers

7.14.1 Create Consumer

A Consumer Customer consists of a single contact. The only information
required for a consumer customer is a consumer contact record which
serves as a unique identifier for the customer. For more information
about creating a consumer, see Section 6.14.1, "Create Consumer".

7.14.2 Create Business Customer

A Business Customer consists of a Buyer Organization, and any number
of contacts. The addresses and payment methods can be defined for all
contacts, or for specific contacts depending on where they are created.
The unique identifier of a Business Customer is the Buyer Organization
Code. For more information about creating a business consumer, see
Section 6.14.2, "Create Business Customer".

7.15 Customer Inquiry

Sterling Call Center and Store provides the ability to search and view two
types of customers:

- Consumer Customers
- Business Customers

For more information about customer inquiry, see Section 6.15, "Customer Inquiry".

7.16 Customer Maintenance

Sterling Call Center and Store provides the ability to manage a customer's contacts, addresses, and payment methods.

7.16.1 Manage Contacts

Sterling Call Center and Store enables you to define multiple contacts for a customer. This task provides functionality to modify a contact record, modify contact address, and delete contacts which are no longer used. For more information about managing contacts, see Section 6.16.1, "Manage Contacts".

7.16.2 Manage Customer Addresses

Sterling Call Center and Store enables you to define multiple addresses for a customer. You can define addresses at the contact level or at the customer level. You can also define default Ship To, Bill-To and Sold To addresses to be used during ordering. If a contact has no defaults selected, then the customer default addresses will be used. For more information about managing customer addresses, see Section 6.16.2, "Manage Customer Addresses".

7.16.3 Manage Payment Methods

Sterling Call Center and Store enables you to define multiple payment methods for a customer. You can define payment methods at the contact level or at the customer level. You can also define a default payment method at the contact level or customer level. For more information about managing customer addresses, see Section 6.16.3, "Manage Payment Methods".

7.16.4 Customer Team Assignments

Sterling Call Center and Store provides the ability to assign customers to a team once the customer is created. A supervisor can assign a customer from his team, to any of his immediate sub teams. For more information

about assigning a customer to a team, see Section 6.16.4, "Customer Team Assignments".

7.16.5 Customer User Assignments

Sterling Call Center and Store provides the ability to assign customers to a user, once the user is created and assigned to a team. A supervisor can search for users from his team and assign the customer to the selected user. For more information about assigning a customer to a user, see Section 6.16.5, "Customer User Assignments".

7.16.6 Customer Self Assignments

A user with permissions can assign himself to customers that is available to his/her team. Users can assign customers to themselves upto a maximum limit and also remove customers that they are no longer working with. For more information about assigning a customer, see Section 6.16.6, "Customer Self Assignments".

7.17 Pagination

When users perform inquiries, they need the information to be retrieved in a minimum amount of time and to be displayed as efficiently as possible. For more information about pagination, see Section 6.17, "Pagination".

7.18 Alert and Queue Management

The alert management task enables the user to create, assign, and resolve alerts. The new alerts that are raised can be notified to the user based on certain configurations, such as poll time. Sterling Call Center and Store provides a comprehensive visibility to the alerts assigned to users, alerts moved to a different queue, and so on.

If your enterprise has configured queues common to various stores, you may want store users to look at alerts intended only for his store.

7.18.1 Solution

Sterling Store provides a way to filter alerts based on the user's current store based on a configuration. If the rule is enabled the store user will

be able to see alerts assinged only to his store. If this rule is enabled, the ShipnodeKey is passed to the APIs when retrieving alerts in the following screens:

- Alert Search

- View My Alerts and Queues

- Alert Notification Panel

For more information about alert and queue management, see Section 6.18, "Alert and Queue Management".

7.18.2 End-User Impact

None.

7.18.3 Implementation

Sterling Store allows you to configure user alert notification. For more information about configuring user alert notification, see Section 4.17.3, "Configuring User Alert Notifications".

7.18.4 Reference Implementation

None.

7.19 User Preferences

Sterling Call Center and Store enables you to set user preferences such as the display of alert notifications, additional help messages, keyboard shortcuts, customer message panel, position of related tasks, and CSR message/customer message panel. For more information about user preferences, see Section 6.19, "User Preferences".

7.20 Helpful Text Messages

When using the Sterling Call Center and Store applications, a novice user may want to view additional help messages which guide the user to perform a task. For more information about helpful text messages, see Section 6.20, "Helpful Text Messages".

7.21 Order Print Tasks

A customer may visit a store to either place an order or make some modifications to an existing order that may result in some payment changes. In such situations, you must issue an order slip of the transaction to the customer.

Printers are configured as devices. For more information about defining devices, see the *Sterling Warehouse Management System Configuration Guide*.

7.21.1 Create Order and Order Summary Prints

When you confirm a draft order, you must issue the customer a Order Sales Slip that has a snapshot of the order. Typically, the snapshot displays order lines and payment details.

The Order Sales Slip is also printed from the Order Summary screen when the customer needs the summary of the order.

7.21.1.1 Solution

On confirming the draft order, the system invokes the print service component. Whenever a customer requests for an order slip, you can click the Print Order Summary related task to print the Order Sales Slip.

7.21.1.2 End-User Impact

None.

7.21.1.3 Implementation

The following service can be found in the COM Print transaction of the Sterling Multi-Channel Fulfillment Solution Configurator:

YCD_PrintOrderSummary_3.0 service—This service is used to print the Sales Order Slip. It is invoked by the callPrintOrderSummaryService event of the COM transaction. Figure 7–1 illustrates this service.

Figure 7–1   YCD_PrintOrderSummary_3.0 service
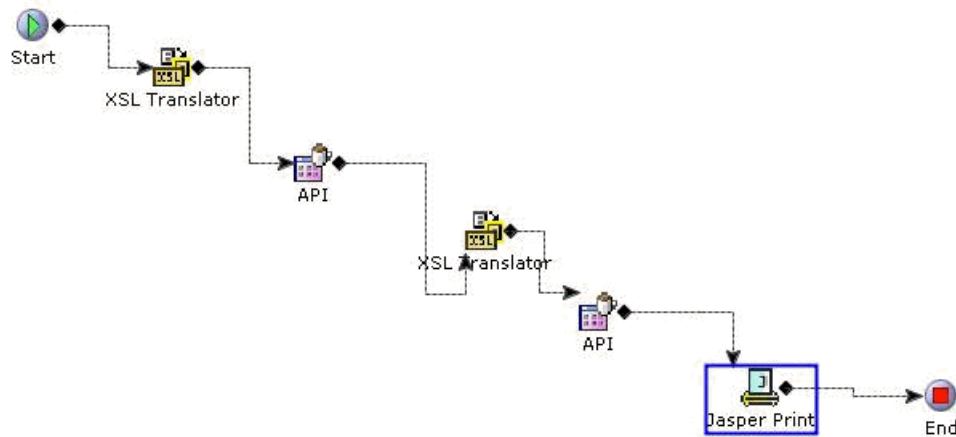
7.21.1.4 Reference Implementation

None.

7.21.2 Change Order Print

When you make modifications such as order cancellation, adding a coupon, increase in the order line quantity, changes in the fulfillment options, and so forth to an existing order, the Change Order Slip is generated.

7.21.2.1 Solution

After performing the order modifications, the print service component is invoked.

7.21.2.2 End-User Impact

None.

7.21.2.3 Implementation

The following service can be found in the COM Print transaction of the Sterling Multi-Channel Fulfillment Solution Configurator:

YCD_PrintChangeOrderSummaryPrintReport_3.0 service—This service is used to print the Change Order Slip. It is invoked by the

callPrintChangeOrderService event of the Sterling Call Center and Store transaction. Figure 7–2 illustrates this service.

Figure 7–2   YCD_PrintChangeOrderSummaryPrintReport_3.0
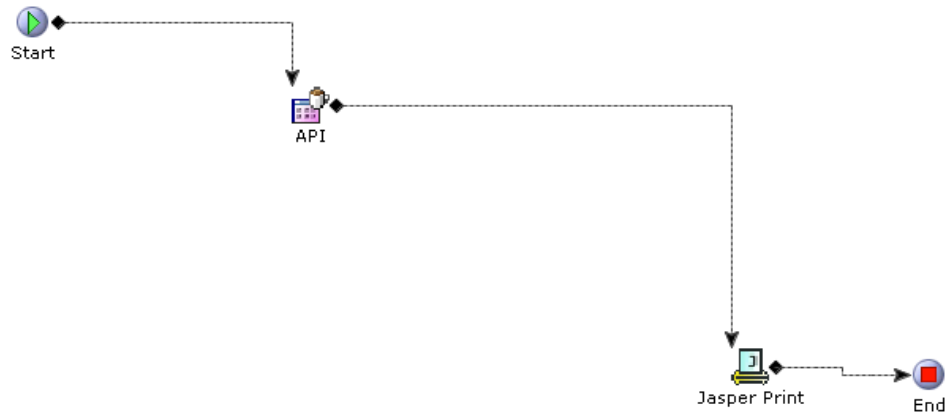
7.21.2.4 Reference Implementation
None.

7.21.3 Return or Exchange Order Prints

When a customer returns items to a store, a Return Order Slip must be printed. If the customer has requested for exchange of items, the Exchange Order Slip provides information about the exchange order.

7.21.3.1 Solution
When a customer returns items to a store or exchanges any item, the print service component is invoked.

7.21.3.2 End-User Impact
None.

7.21.3.3 Implementation

The following services can be found in the Sterling Call Center and Store Print transaction of the Sterling Multi-Channel Fulfillment Solution Configurator:

YCD_PrintReturnOrderSummary_3.0 service—This service is used to print the Return Order Slip. It is called by the callPrintReturnOrderSummaryService event of the COM transaction. Figure 7–1 illustrates this service.

YCD_PrintExchangeOrderSummary_3.0 service—This service is used to print the Exchange Order Slip. It is called by the callPrintExchangeOrderSummaryService event of the COM transaction. Figure 7–1 illustrates this service.

7.21.3.4 Reference Implementation

None.

7.22 User Security

User Security enables you to ensure that users access only the required information for carrying out their tasks. This requires you to set up user groups and associate users to the user groups. The Sterling Call Center and Store Configurator enables you to create users and user groups and assign permissions.

7.22.1 Solution

A user has the privilege to change the password or the user group of another user.

Changing a Password

A user can change a password in the Change Password screen. The modifyUserHierarchy API is invoked to change the password. Table 7–1 describes the various validations that the system performs before changing the password.

For more information about the modifyUserHierarchy API, see the *Sterling Multi-Channel Fulfillment Solution Javadocs*.

Table 7–1   Change Password Validations

Validation	Result
If the old password and the new password match	An error message is displayed.
If the new password and the confirmed password do not match	An error message is displayed.
If the old password is incorrect	An error message is displayed.
If the old password field is blank	An error message is displayed.

Managing Users

A store administrator can either change the credentials of a user or transfer a user to another store. To get a list of all users, the getUserList API is invoked. To get the list of all user groups, the getUserGroupList API is called. The modifyUserHierarchy API is invoked, to apply the changes made to user credentials.

To transfer a store user from one store to another, the getOrganizationHierarchy API is called which validates the store to which the user was transferred. However, the store administrators cannot choose to transfer themselves to another store.

7.22.2 End-User Impact

None.

7.22.3 Implementation

None.

7.22.4 Reference Implementation

None.

7.23 In-Store Pick-up Tasks

Many retailers want to provide customers the option of ordering items online and picking them up at the store sometimes even on the same day. Sterling Store provides functionality to achieve this with the ability to search for shipments, print pick tickets, perform backroom pick and customer pick. It also enables users to undo a backroom pick.

7.23.1 Shipment Inquiry

A store associate may need to search for shipments for various tasks such as printing a pick ticket, recording a backroom pick, customer pick or undo a backroom pick.

7.23.1.1 Solution

Sterling Store provides a user interface task which enables users to search for shipments which need to be picked up by the customer from the current store. This section explains the Shipment Search process and the solution offered by Sterling Store.

Searching for Shipments

The store associate can search for shipments based on certain search criteria. The getShipmentList API is used to retrieve the list of all the shipments that match the search criteria.

Along with the list of shipments that match the search criteria, the store associate can view other details related to the shipments.

Shipment Details

The store associate can view the shipment details such as items in the shipment, quantity of items, unit price of the item. The getShipmentDetails API retrieves the shipment details.

Handling Bundle Items

If the Display Bundle Components on Order Summary Screen rule is enabled, the bundle component items are displayed on the Shipment Details screen else the bundle parent item is displayed.

7.23.1.2 End-User Impact

None.

7.23.1.3 Implementation

This section explains the configurations for the shipment inquiry task.

- Sterling Store allows you to configure the Display Bundle Components on Order Summary Screen rule to display bundle component items on the Shipment Details screen. For more information about configuring the display of bundle components, see Section 4.10.36, "Configuring Bundle Components Display".

- This task is permission controlled. The Sterling Store allows you to assign permissions to user groups for this task.

7.23.1.4 Reference Implementation

As part of reference implementation, Sterling Store provides permissions to search shipments to all user groups.

7.23.2 Print Pick Ticket

Employees at the store need to know which items to move to the customer pickup area before the customer arrives at the store. Pick ticket is a sheet containing the list of items that need to be moved from the backroom pick location to the customer pick location.

7.23.2.1 Solution

Sterling Store provides a user interface task which enables users to print pick ticket. This section explains the Print Pick Ticket process and the solution offered by Sterling Store.

The getShipmentList API is called to retrieve the list of shipments with status less than `Shipment Shipped` and for which pick ticket is not printed.

The YCD_PrintPickTicket_8.0 service is used to print the pick ticket of the selected shipment on the user interface.

> **Note:** The Shipment Details screen has a related task for printing a pick ticket just incase a pick ticket for a shipment needs to be reprinted.

7.23.2.2 End-User Impact

None.

7.23.2.3 Implementation

This section explains the configurations for the print pick ticket task.

- You need to configure the printer to print the Pick Ticket. Printers are configured as devices. For more information about defining devices, see the *Sterling Warehouse Management System Configuration Guide*.

- You need to associate the configured printer with PRINT_PICK_TICKET print document. For more information about defining print documents, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

- The YCD_PrintPickTicket_8.0 service can be found in the COM Print transaction of the Sterling Multi-Channel Fulfillment Solution Configurator. This service is invoked to print the pick ticket. It is invoked by the callPrintPickTicketService event of the COM Print transaction. Figure 7–3 illustrates this service.

Figure 7–3 YCD_PrintPickTicket_8.0 service
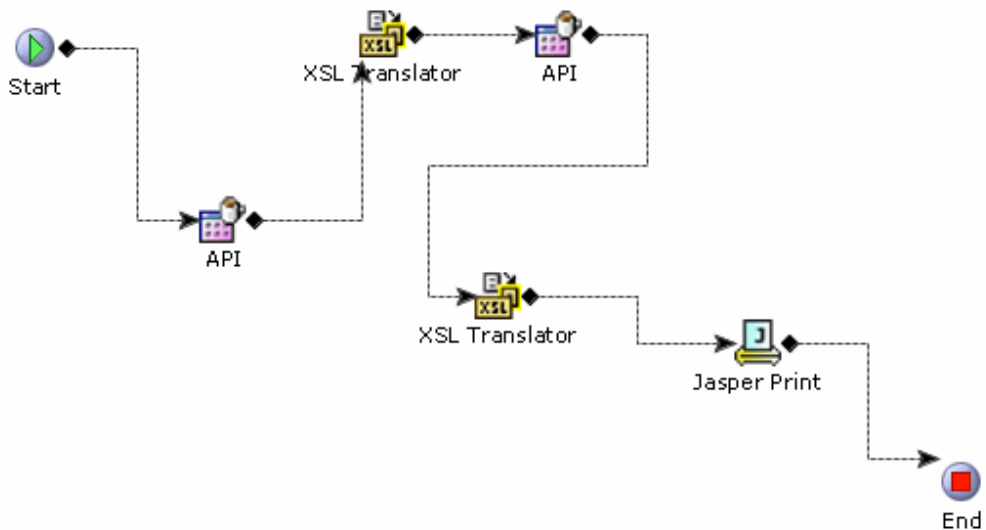
- This task is permission controlled. Sterling Store allows you to assign permissions to user groups for this task.

7.23.2.4 Reference Implementation

As part of reference implementation, the Sterling Store provides permissions to print pick ticket to all user groups.

7.23.3 Backroom Pick

The movement of items from backroom to the customer service area needs to be tracked in a store. Based on the store configuration, Sterling Store supports the recording of backroom picks for a store.

7.23.3.1 Solution

Sterling Store provides a user interface task which enables users to record a backroom pick. This section explains the Backroom Pick process and the solution offered by Sterling Store.

Recording Backroom Pick

Sterling Store provides the following extended statuses of `Shipment Created` status:

- `Ready For Customer`

- `Ready For Backroom Pick`

Sterling Commerce strongly recommends you to not delete these statuses.

Sterling Store provides the Store Backroom Pick (BaseTransactionKey=" Change_Shipment_Status") transaction with Pickup Status as `Ready For Backroom Pick` and the drop status as `Ready For Customer`.

The Process Shipment for Backroom Pick (BaseTransactionKey=" Change_Shipment_Status") transaction is introduced to change the shipment status from `Shipment Created` to either `Ready For Backroom Pick` status or `Ready For Customer` status based on the Is Backroom Pick Required rule.

Store associates can scan the items to be picked or enter the Item ID in the screen provided. The translateBarCode API is called to translate the barcode entered. The Item ID entered is validated to ensure whether the item belongs to the shipment. The quantity being picked is validated against the quantity available to pick.

During the recording of a backroom pick, the changeShipment API is called to save the picked quantity in the `BackroomPickedQuantity` attribute of the shipment line. When the shipment status needs to be changed from `Ready for Backroom Pick` to `Ready for Customer`, the changeShipmentStatus API is called with transaction as Store Backroom Pick. The YCDUpdateLocationInventoryUE user exit is called to update the inventory when moving inventory from the backroom pick location to the customer pick location.

Shortage Resolution

If there is a shortage due to inadequate inventory, the resolution for the shortage is reported as either "Inventory Shortage" or "Will Pick Later". The Table 7–2 provides the list of shortage resolutions and the corresponding system behavior.

Table 7–2   Shortage Resolution and Actions

Shortage Resolution	System Behavior
Inventory Shortage	Items are backordered from the shipment by calling the changeShipment API with the value of the BackOrderRemovedQuantity flag set to "Y".
Will Pick Later	No Impact on shipment status. Only the recorded quantity is updated as `BackroomPickedQuantity` on the corresponding shipment line. It is expected that the store associate will pick up the remaining quantity at a later time.

Handling Bundle Items

On the Backroom Pick screens, all the bundle components are displayed. If there is a shortage for any component of the bundle, an action is taken as follows:

- Inventory Shortage—Appropriate quantity of the bundle component item is backordered.

- Will Pick Later—Shipment is updated with the picked quantity of the bundle components.

If there is shortage for some of the bundle components in such a way that the configured bundle component ratio is broken

- If the bundle item is configured as ship independent:

  - If the shortage resolution is Inventory Shortage, the shortage quantity of the bundle component item is backordered and the picked quantity is updated as BackroomPickRequired on the corresponding shipment line.

  - If the shortage resolution is Will Pick Later, the picked quantity is updated as BackroomPickRequired on the corresponding shipment line.

- If the bundle item is configured as ship together:

  - If the shortage resolution is Inventory Shortage, the entire bundle item is backordered.

  - If the shortage resolution is Will Pick Later, the picked quantity of the components is updated as BackroomPickRequired on the corresponding shipment lines.

7.23.3.2 End-User Impact

None.

7.23.3.3 Implementation

This section explains the various implementation steps required for recording backroom pick.

- Sterling Store allows you to configure the Is Backroom Pick Required rule. For more information about configuring the Is Backroom Pick Required rule, see Section 4.21.7, "Configuring Backroom Pick Rules".

- Process Modeling—Invoke the Change Shipment Status to Backroom Pick action on the ON_SUCCESS event of Create Shipment transaction. This action in turn invokes the YCD_Change_Status_Backroom_Pick_8.0 service. This service calls the getRuleDetails API to retrieve rule value of Is Backroom Pick Required rule. If the rule value is set to "Y", the Process Shipment for Backroom Pick (BaseTransactionKey="Change_Shipment_Status") transaction changes the status of the shipment to `Ready For Backroom Pick`. If the rule value is set to "N", the transaction changes the status of the shipment to `Ready For Customer`. Figure 7–4 illustrates this service.

Figure 7–4   YCD_Change_Status_Backroom_Pick_8.0 service
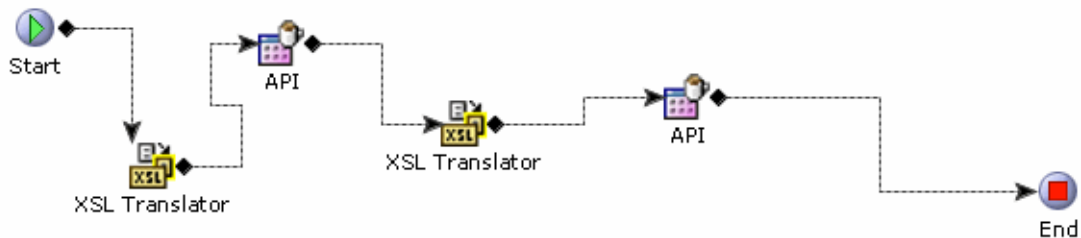
- Implement the YCDUpdateLocationInventoryUE user exit to update the inventory stored in an external system after the backroom pick process.

- Notes entered for this task are saved on the order with YCD_BACKROOM_PICK_SHORTAGE note type.

- This task is permission controlled. Sterling Store allows you to assign permissions to user groups for this task.

7.23.3.4 Reference Implementation

This section explains the reference implementation provided as part of the backroom pick task.

- The ON_SUCCESS event of Create Shipment transaction invokes the Change Shipment Status to Backroom Pick action for XYZ-RETAIL enterprise.

- The Is Backroom Pick Required rule is set to "Y" for XYZ_S1 store and "N" for XYZ_S11 store.

- Sterling Store provides permissions to record a backroom pick to all user groups.

7.23.4 Undo Backroom Pick

After performing the backroom pick, the customer may decide not to pick up the order. The store associate needs to undo the backroom pick process so that the items can be moved back.

7.23.4.1 Solution

Sterling Store provides a user interface task which enables users to undo backroom pick. This section explains the Undo Backroom Pick process and the solution offered by Sterling Store.

The Undo Store Backroom Pick (BaseTransactionKey="Change_Shipment_Status") transaction is introduced between the `Ready For Customer` and `Ready For Backroom Pick` statuses.

The undoBackRoomPick API is called to perform undo backroom pick. This API changes the status of the shipment from `Ready for Customer` to `Ready for Backroom Pick`.

Handling Bundle Items

Bundle parent and component items are displayed on the Undo Backroom Pick screen but the table rows corresponding to the parent items are disabled.

7.23.4.2 End-User Impact

None.

7.23.4.3 Implementation

This section explains the configurations for the undo backroom pick task.

- Notes entered for this task are saved on the order with YCD_UNDO_PICK note type.

- This task is permission controlled. Sterling Store allows you to assign permissions to user groups for this task.

7.23.4.4 Reference Implementation

As part of reference implementation, Sterling Store provides permissions to undo backroom pick to all user groups.

7.23.5 Customer Pick

When a customer walks into a store to pick up the ordered items, Sterling Store enables you to record customer pick.

7.23.5.1 Solution

Sterling Store provides a user interface task which enables users to record a customer pick. This section explains the Customer Pick process and the solution offered by Sterling Store.

Searching for a Shipment

The Advanced Shipment Search or Customer Pick task can be used to search the shipment for which the customer pick needs to be performed. The getShipmentList API is called to search the shipment based on the search criteria.

Verification of the Customer

The getShipmentDetails API is called to retrieve the details to be displayed on various screens of the Customer Pick flow.

The store associate must validate that the person that walked into the store is actually the item recipient.

Credit card verification type is built into the application. You can configure your own verification types such as license verification, address verification. For more information about configuring verification types, see Section 4.11.2, "Configuring Verification Criteria". In case of credit card verification, the last 4 digits of the credit card number are validated against the last 4 digits of credit card number of the order for which customer pick is being performed.

All the verification types are stored as common codes for the enterprise with the code type as "YCD_CUST_VERFN_TYP". The getCommonCodeList API is called to retrieve the verification types. The verification types displayed on the Customer Verification screen are sorted in the alphabetical order.

Whenever a customer is verified during the customer pick process, a note is logged by calling the changeOrder API.

Identifying Items for Customer Pick

Store associates can scan the items to be picked or enter the Item ID in the field provided. The translateBarCode API is called to translate the barcode entered. The Item ID entered is validated to ensure whether the item belongs to the shipment. The quantity being picked is validated against the quantity available to pick.

Resolving Shortages

If there are shortages of items, the shortage resolution screen displays the shortage resolutions. The Table 7–3 provides the list of shortage resolutions and the corresponding system behavior.

Table 7–3   Shortage Resolution and Actions

Shortage Resolution	System Behavior
Inventory Shortage	Items are backordered from the shipment by calling the changeShipment API with the value of the BackOrderRemovedQuantity flag set to "Y".
Cancel Remaining	Items are cancelled from the shipment by calling the changeShipment API with the value of the CancelRemovedQuantity flag set to "Y".
Customer Preference	No Impact on shipment status. Only the recorded quantity is updated on the corresponding shipment line and a new shipment is created by calling the splitShipment API. It is assumed that the customer will pickup the remaining quantity later.

Recording Customer Pick

At the end of the Customer Pick process, following API's are called:

- recordCustomerPick
- raiseEvent

The recordCustomerPick API does the following:

- Calls the changeOrder API to save the note for customer verification.
- Calls various API's to take appropriate actions for shortage resolution as mentioned in Table 7–3.
- Calls YCDUpdateLocationInventoryUE user exit to update the location inventory.

The raiseEvent API invokes handler for the callPrintCustomerPickAknwlgmntService event of the COM Print transaction.

Handling Bundle Items

On the Customer Pick screens, only the bundle parent item is displayed. If there is a shortage for any bundle parent quantity, an action is taken as follows:

- Inventory Shortage—shortage quantity of the bundle component item is backordered.

- Will Pick Later—Shipment is split and new shipment is created for the shortage quantity of the bundle item.

- Cancel—Shortage quantity is removed from the shipment and order.

7.23.5.2 End-User Impact

None.

7.23.5.3 Implementation

This section explains the configurations for the customer pick task.

- Sterling Store allows you to configure the verification types to be used for customer verification step during Customer Pick. For more information about configuring verification types, see Section 4.11.2, "Configuring Verification Criteria".

- Notes for customer verification are saved on the order with YCD_CUSTOMER_VERIFICATION note type.

- Process Modeling—Invoke the Print Customer Pick Acknowledgement action on the callPrintCustomerPickAknwlgmntService event of COM Print transaction. This action in turn invokes the YCD_PrintCustomerPickAcknowledgement_8.0 service. This service calls the getShipmentDetails API to retrieve the details of the picked items. This service also calls the getPrinter to find the printer for printing the acknowledgement and getCurrencyList API to display the currency details on the acknowledgement. Figure 7–5 illustrates this service.

Figure 7–5   YCD_PrintCustomerPickAcknowledgement_8.0 service
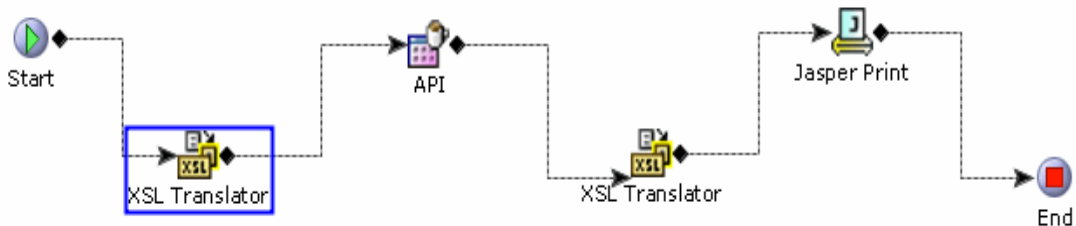
- This task is permission controlled. Sterling Store allows you to assign permissions to user groups for this task.

7.23.5.4 Reference Implementation

This section explains the reference implementation for the customer pick task.

- Sterling Store provides the following verification types for XYZ-RETAIL enterprise:
    - Address verification
    - License verification
    - Passport verification
    - Other Verification
- Sterling Store provides permissions to record customer pick to all user groups.

8

Summary of Components

This chapter explains the various components that are included in Sterling Call Center and Store. It is assumed that the user is familiar with the Sterling Multi-Channel Fulfillment Solution and understands which components need to be added or modified.

This chapter explains the following components:

- Database Extensions for Sterling Call Center and Store
- APIs and User Exits
- Services
- Monitor Events
- XSL Files
- Hold Types
- Transactions
- Time-Triggered Purge Transactions
- Events
- Agents

8.1 Database Extensions for Sterling Call Center and Store

To implement Sterling Call Center and Store, the following tables have been extended:

- YFS_ORDER_HEADER
- YFS_ORDER_LINE

- YFS_SHIPMENT

- YFS_PRICE_MATCH

- YFS_PRICE_MATCH_H

- YFS_COMPETITOR

- YFS_ORDER_LINE_PRICE_MATCH

- YFS_ASSC_RELATIONSHIP

- YFS_EVENT_AUDITOR

YFS_ORDER_HEADER

Table 8–1   YFS_ORDER_HEADER Extensions

Column Name	Data Type	Description
ALL_ADDRESSES_VERIFIED	Char (1)	This flag determines whether or not the addresses in this order have been verified by an address verification program.
COMPL_GIFT_BOX_QTY	Number (3)	The number of complimentary gift boxes to be given with the order.
NO_OF_AUTH_STRIKES	Number (1)	Indicates the number of failed credit card authorizations with HARD_DECLINE as reason code for the order.
SOURCE_IP_ADDRESS	Varchar2 (20)	The IP address of the system from which the customer placed order.
CUSTOMER_FIRST_NAME	Varchar2 (40)	The first name of the customer who placed the order.
CUSTOMER_LAST_NAME	Varchar2 (40)	The last name of the customer who placed the order.

Table 8–1   YFS_ORDER_HEADER Extensions

Column Name	Data Type	Description
CUSTOMER_PHONE_NO	Char (40)	The daytime phone number of the customer who placed the order.
CUSTOMER_ZIP_CODE	Varchar2 (35)	The address zip code of the customer who placed the order.

YFS_ORDER_LINE

Table 8–2   YFS_ORDER_LINE Extensions

Column Name	Data Type	Description
BACKORDER_NOTIFICATION_QTY	Number (14,4)	Indicates the backordered quantity for which the last customer notification was sent.
IS_PRICE_MATCHED	Char (1)	This flag determines whether the price match was performed for the item.
ITEM_IS_IN_HAND	Char (1)	Specifies whether the item was in hand when it was returned.
IS_PICK_UP_NOW	Char (1)	This flag determines whether price match was performed for the item.
DISPOSITION_CODE	Char (40)	The disposition code for the return line.

YFS_SHIPMENT

Table 8–3   YFS_SHIPMENT Extensions

Column Name	Data Type	Description
NOTIFICATION_SENT	Char (1)	This flag determines whether or not the customer has been informed about this shipment.
PICKTICKET_PRINTED	Char (1)	This flag indicates whether or not the pick ticket has been printed.
BACKROOM_PICK_REQ UIRED	Char (1)	This flag indicates whether or not backroom pick is required.

YFS_SHIPMENT_LINE

Table 8–4   YFS_SHIPMENT_LINE Extensions

Column Name	Data Type	Description
BACKROOM_PICKED_QTY	Number (14,4)	Indicates the backroom picked quantity for the shipment line.

YFS_PRICE_MATCH

Table 8–5   YFS_PRICE_MATCH Extensions

Column Name	Data Type	Description
PRICE_MATCH_KEY	Char (24)	The primary key for the YFS_PRICE_MATCH table.
STATUS	Varchar2 (100)	Indicates the status of the price match record.
PRICE_MATCH_DESC RIPTION	Varchar2 (2000)	The description of the price match.
COMPETITOR_KEY	Char (24)	Indicates the foreign key to the YFS_COMPETITOR table.
COMPETITOR_UNIT_P RICE	Number (15,2)	Indicates the competitor's unit price price.
COMPETITOR_DISCO UNTS	Number (15,2)	Indicates the competitor's discount.

YFS_PRICE_MATCH_H

Table 8–6   YFS_PRICE_MATCH_H Extensions

Column Name	Data Type	Description
PRICE_MATCH_KEY	Char (24)	The primary key for the YFS_PRICE_MATCH table.
STATUS	Varchar2 (100)	Indicates the status of the price match record.
PRICE_MATCH_DESCRIPTION	Varchar2 (2000)	The description of the price match.
COMPETITOR_KEY	Char (24)	Indicates the foreign key to the YFS_COMPETITOR table.
COMPETITOR_UNIT_PRICE	Number (15,2)	Indicates the competitor's unit price price.
COMPETITOR_DISCOUNTS	Number (15,2)	Indicates the competitor's discount.

YFS_COMPETITOR

Table 8–7   YFS_COMPETITOR Extensions

Column Name	Data Type	Description
COMPETITOR_KEY	Char (24)	The primary key for the YFS_COMPETITOR table.
COMPETITOR_NAME	Varchar (40)	The competitor's name who offered a lower price of the item.
COMPETITOR_DESC	Varchar2 (2000)	The description of the competitor.
ENTERPRISE_CODE	Char (24)	Enterprise the competitor belongs to.
WEB_ADDRESS	Varchar2 (255)	Indicates the web address of the competitor.
STATUS	Char (40)	Indicates the status of the competitor.
PERCENT_PRICE_MATCH	Number (5,2)	Indicates the price match percentage.
CREATETS	sysdate	Indicates the timestamp when the record was created.

Table 8–7   YFS_COMPETITOR Extensions

Column Name	Data Type	Description
MODIFYTS	sysdate	Indicates the timestamp when the record was last modified.
CREATEUSERID	Varchar2 (40)	Indicates the user who created the record.
MODIFYUSERID	Varchar2 (40)	Indicates the user who modified the record.
CREATEPROGID	Varchar2 (40)	Indicates the program that created the record.
MODIFYPROGID	Varchar2 (40)	Indicates the program that modified the record.
LOCKID	Number (5)	Indicates the integer used to track and prevent concurrent modifications.

YFS_ORDER_LINE_PRICE_MATCH

Table 8–8   YFS_ORDER_LINE_PRICE_MATCH Extensions

Column Name	Data Type	Description
ORDER_LINE_PRICE_MATCH_KEY	Char (24)	The primary key for the YFS_ORDER_LINE_PRICE_MATCH table.
ORDER_LINE_KEY	Char (24)	The primary key of the YFS_ORDER_LINE table which relates the price match to an order line.
PRICE_MATCH_KEY	Char (24)	The primary key of the YFS_PRICE_MATCH table which relates the price match to an order line.
EXISTING_UNIT_PRICE	Number (15,2)	This is the unit price of an item used for price match.
EXISTING_DISCOUNTS	Number (15,2)	This is the discounts for an item used for price match.

Table 8–8   YFS_ORDER_LINE_PRICE_MATCH Extensions

Column Name	Data Type	Description
EXISTING_CHARGES	Number (15,2)	This is the charges for an item used for price match.
COMPETING_CHARGES	Number (15,2)	Indicates the competitor's charges.

YFS_ASSC_RELATIONSHIP

Table 8–9   YFS_ASSC_RELATIONSHIP Extensions

Column Name	Data Type	Description
ASSC_RELATIONSHIP_KEY	Char (24)	The primary key for the YFS_ASSC_RELATIONSHIP table.
ENTERPRISE_CODE	Char (24)	Enterprise for which the association types are configured to be displayed.
ASSOCIATION_TYPE	Varchar2 (20)	The association type to be displayed.
RELATIONSHIP_TYPE	Varchar (20)	The relationship type indicates the relationship between the order lines.
SHOW_IN_UI	Char (1)	This attribute indicates whether or not the association type has to be displayed.
CREATETS	sysdate	Indicates the timestamp when the record was created.
MODIFYTS	sysdate	Indicates the timestamp when the record was last modified.
CREATEUSERID	Varchar2 (40)	Indicates the user who created the record.
MODIFYUSERID	Varchar2 (40)	Indicates the user who modified the record.
CREATEPROGID	Varchar2 (40)	Indicates the program that created the record.
MODIFYPROGID	Varchar2 (40)	Indicates the program that modified the record.

Table 8–9   YFS_ASSC_RELATIONSHIP Extensions

Column Name	Data Type	Description
LOCKID	Number (5)	Indicates the integer used to track and prevent concurrent modifications.
INVENTORY_CHECK_ REQUIRED	Char (1)	This attribute indicates whether or not the inventory check has to be performed.

YFS_EVENT_AUDITOR

Table 8–10

Column Name	Data Type	Description
EVENT_AUDITOR_KEY	Char (24)	The primary key for the YFS_EVENT_AUDITOR table.
ORGANIZATION_CODE	Char (24)	Organization for which the event auditor record is created.
EVENT_AUDITOR_TYPE	Char (24)	Indicates the event auditor type. The available options are: • TRANSACTION_EVENT • HOLD_ADDED_EVENT • HOLD_RESOLVED_EVENT • HOLD_REJECTED_EVENT • APPLICATION_EVENT
TRANID	Varchar2 (40)	Indicates the transaction ID the auditor record corresponds to for a transaction event.
EVENTID	Varchar2 (40)	Indicates the event ID the auditor event corresponds to for a hold event.
HOLD_TYPE	Char (20)	Indicates the hold type the auditor event corresponds to for a transaction event.
NOTE_TYPE	Varchar2 (40)	Indicates the reason code for the note that has been logged.

Table 8–10

Column Name	Data Type	Description
TRANSFORMATION_FILE	Varchar2 (100)	Indicates the XSL file used to transform the XML data to notes text.
ACTIVE	Char(1)	Indicates whether or not the auditor event is active.

8.2 APIs and User Exits

Table 8–11 provides a list of the APIs and User Exits introduced in Sterling Call Center and Store, and the features that are affected.

Table 8–11   APIs and User Exits

API or User Exit	Features Affected
getAssociationRelationshipList	Order Creation
verifyAddress	Address Verification
getCompleteOrderDetails	Cancel Order, Change Fulfillment Options, Increase Order Line Quantity
getCompleteItemList	Order Creation, Item Inquiry, Add Line
YCDSendFutureOrderCustomerAppeasementUE	Customer Appeasement
checkDuplicateOrder	Duplicate Order Validation
checkFraudOnOrder	Fraud Check
getReturnMethod	Return Order Capture, Change Return Method
getOrderLinesWithTransactionQuantity	Return Order Capture
applyPriceMatch	Price Match
checkNoHasslePriceMatch	Price Match
checkOrderPriceMatch	Price Match
getPriceMatchCompetitors	Price Match

Table 8–11   APIs and User Exits

API or User Exit	Features Affected
managePriceMatch	Price Match
getCompetitorList	Price Match
manageCompetitor	Price Match
getCompetitorDetails	Price Match
getPriceMatchList	Price Match
managePriceMatch	Price Match
getPriceMatchDetails	Price Match
getOrderLinesForPriceMatch	Price Match
listCarrierService	Change Fulfillment Options
getOrderFulfillmentDetails	Fulfillment Summary, Change Service Appointments
reserveOrder	Change Service Appointments
getEventAuditorList	Order Notes
getUserGroupList	Managing Users
getCompleteShipmentDetails	Track an Item
undoBackRoomPick	Undo Backroom Pick
recordCustomerPick	Customer Pick
UpdateLocationInventoryUE	Backroom Pick,Customer Pick
YCDPromotionValidationUE	Add Coupon
YCDVerifyAddressWithAVSUE	Address Verification
YCDProcessReturnCompletionUE	Return Order Capture
YCDGetAppeasementOffersUE	Customer Appeasement
YCDProcessDuplicateOrderCheckUE	Duplicate Order Validation
YCDProcessOrderFraudCheckUE	Fraud Check
YCDGetReturnPolicyUE	Return Order Capture, Change Return Method

Table 8–11   APIs and User Exits

API or User Exit	Features Affected
YCDGetReturnMethodUE	Return Order Capture
YCDCanPriceMatchBePerformedUE	Price Match
YCDCheckNoHasslePriceMatchUE	Price Match
YCDCheckOrderPriceMatchUE	Price Match
YCDGetPriceMatchCompetitorsUE	Price Match
YCDManagePriceMatchUE	Price Match
YCDgetCompetitorListUE	Price Match
YCDGetCompetitorDetailsUE	Price Match
YCDGetPriceMatchListUE	Price Match
YCDGetPriceMatchDetailsUE	Price Match
YCDGetTrackingNumberURLUE	Track an Item
YCDOverrideDeliveryMethodUE	Order Creation, Change Fulfillment Options
YCDValidateCreditCardInfoUE	Change Payment Method

For more information about these APIs and user exits, see the *Sterling Call Center and Store Javadocs*.

8.3 Services

The following services are introduced in Sterling Call Center and Store, and can be found in the service definitions of the `Sales Order` document type:

- Order Maintenance Services

- Order Pricing Services

- Customer Notification Services

- Order Capture Services

- Payment Processing Services

- Order Printing Services

- FTC Compliance Services
- Sterling Item Processing Services

8.3.1 Order Maintenance Services

Table 8–12   Order Maintenance Services

Service	Feature Affected
YCD_ResolveAddressHold_1.0	Address Verification
YCD_ResolveOrderAlerts_1.0	Address Verification
YCD_SetOrderDefaultsOnChange_2.0	Federal Trade Commission Compliance
YCD_UpdateBackorderOnCancel_1.0	Federal Trade Commission Compliance
YCD_StopDeliveryRequest_UpdateQty_8.0	Cancel Order
YCD_StopDeliveryRequest_Alert_8.0	Cancel Order
YCD_LogNotesForOrderHistory_8.0	Order Notes
YCD_Change_Status_Backroom_Pick_8.0	In-Store Pick-up Tasks

8.3.2 Order Pricing Services

The following customer notification services are introduced in the Sterling Multi-Channel Selling Solution Integration implementation.

Table 8–13   Order Pricing Services

Service	Feature Affected
YCD_Coupon_Validation_UE_8.0	This feature enables a user to add coupons or promotion codes for an order that has been placed. The Sterling Multi-Channel Selling Solution integration provides an implementation of this feature, as described in Pricing Integration Using the Sterling Multi-Channel Selling Solution.
YCD_Order_Repricing_UE_8.0	Pricing Integration Using the Sterling Multi-Channel Selling Solution

8.3.3 Customer Notification Services

The following customer notification services are introduced in Sterling Call Center and Store.

Table 8–14   Customer Notification Services

Service	Feature Affected
YCD_CancelOrderNotification_1.0	Federal Trade Commission Compliance
YCD_ShipmentNotificationEmail_1.0	Shipment Notification

8.3.4 Order Capture Services

The following order capture services are introduced in Sterling Call Center and Store.

Table 8–15   Order Capture Services

Service	Feature Affected
YCD_DuplicateOrderAlert_1.0	Duplicate Order Validation
YCD_ProcessCustOrdMgmtHolds_1.0	Duplicate Order Validation
YCD_ProcessDuplicateOrderCheck_1.0	Duplicate Order Validation

Table 8–15   Order Capture Services

Service	Feature Affected
YCD_SetOrderDefaults_2.0	Federal Trade Commission Compliance
YCD_VerifyAddressFailedAlert_1.0	Address Verification

8.3.5 Payment Processing Services

The following payment processing services are introduced in Sterling Call Center and Store.

Table 8–16   Payment Processing Services

Service	Feature Affected
YCD_ExecuteCollectionCreditCard_Proxy_1.0	Payment Processing
YCD_ExecuteCollectionRefundCheck_Proxy_1.0	Payment Processing
YCD_ExecuteCollectionSVC_Proxy_1.0	Payment Processing
YCD_PaymentAuthRetryLimitAlert_1.0	Payment Processing
YCD_PaymentDeclinedAlert_1.0	Payment Processing
YCD_PaymentHardDeclinedAlert_1.0	Payment Processing
YCD_PaymentServiceUnavailableAlert_1	Payment Processing
YCD_ProcessCollectionFailure_1	Payment Processing

8.3.6 Order Printing Services

The following order printing services are introduced in Sterling Call Center and Store.

Table 8–17   Order Printing Services

Service	Feature Affected
YCD_PrintOrderSummary_3.0	Create Order and Order Summary Prints
YCD_PrintReturnOrderSummary_3.0	Return or Exchange Order Prints

Table 8–17   Order Printing Services

Service	Feature Affected
YCD_PrintExchangeOrderSummary_3.0	Return or Exchange Order Prints
YCD_PrintChangeOrderSummaryPrintReport_3.0	Change Order Print
YCD_PrintPickTicket_8.0	Print Pick Ticket

8.3.7 FTC Compliance Services

The following FTC compliance services are introduced in Sterling Call Center and Store.

Table 8–18   FTC Compliance Services

Service	Feature Affected
YCD_FTC_AUTO_RESOLVE	Federal Trade Commission Compliance
YCD_FTC_CANCEL_ORDER_LINES	Federal Trade Commission Compliance
YCD_FTC_DELAY_ALERT	Federal Trade Commission Compliance
YCD_FTC_DELAY_EMAIL	Federal Trade Commission Compliance
YCD_FTC_FIRST_DELAY_ALERT	Federal Trade Commission Compliance
YCD_FTC_FIRST_DELAY_EMAIL	Federal Trade Commission Compliance
YCD_FTC_INDEFINITE_DELAY_ALERT	Federal Trade Commission Compliance
YCD_FTC_INDEFINITE_DELAY_EMAIL	Federal Trade Commission Compliance
YCD_FTC_SEND_NOTIFICATION	Federal Trade Commission Compliance

8.3.8 Sterling Item Processing Services

The following Item Processing Services are introduced in Sterling Call Center and Store.

Table 8–19   Item Processing Services

Service	Feature Affected
YCD_Item_List_Pricing _8.0	Item Inquiry, Order Capture
YCD_Item_Entitlement _8.0	Order Capture, Item Inquiry

8.4 Monitor Events

The following monitor events are introduced in Sterling Call Center and Store.

Table 8–20   Monitor Events

Monitor Event	Feature Affected
YCD_FTC_Auto_Resolve	Federal Trade Commission Compliance
YCD_FTC_Cancel_Lines	Federal Trade Commission Compliance
YCD_FTC_Delay_Alert	Federal Trade Commission Compliance
YCD_FTC_Delay_Email	Federal Trade Commission Compliance
YCD_FTC_First_Delay_Alert	Federal Trade Commission Compliance
YCD_FTC_First_Delay_Email	Federal Trade Commission Compliance
YCD_FTC_Indefinite_Delay_Al ert	Federal Trade Commission Compliance
YCD_FTC_Indefinite_Delay_E mail	Federal Trade Commission Compliance

8.5 XSL Files

The following sample XSL translation files have been provided by Sterling Call Center and Store to support the customization and localization of information.

Table 8–21   XSL Translators

XSL File	Feature Affected
<INSTALL_DIR>/repository/xapi/template/merged/exception_console/YCD_FTC_Alert_Template_5.0.xsl.sample	Federal Trade Commission Compliance
<INSTALL_DIR>/repository/xapi/template/merged/exception_console/YCD_FTC_Email_Alert_Template_5.0.xsl.sample	Federal Trade Commission Compliance
<INSTALL_DIR>/repository/xapi/template/merged/service/ycd/YCD_Log_Note_On_Hold_Status_Change_8.0.xsl.sample	Order Notes
<INSTALL_DIR>/repository/xapi/template/merged/service/ycd/YCD_Log_Note_On_Back_Order_8.0.xsl.sample	Order Notes
<INSTALL_DIR>/repository/xapi/template/merged/service/ycd/YCD_Log_Note_On_Confirm_Shipment_8.0.xsl.sample	Order Notes
<INSTALL_DIR>/repository/xapi/template/merged/service/ycd/YCD_Log_Note_On_Appointment_Completion_8.0.xsl.sample	Order Notes
<INSTALL_DIR>/repository/xapi/template/merged/service/ycd/YCD_Log_Note_On_Appointment_Failure_8.0.xsl.sample	Order Notes
<INSTALL_DIR>/repository/xapi/template/merged/service/ycd/YCD_Log_Note_For_Order_BackOrdered_2.0.xsl.sample	Order Notes
<INSTALL_DIR>/repository/xapi/template/merged/service/ycd/YCD_Log_Note_On_Chained_Order_Created_2.0.xsl.sample	Order Notes

Table 8–21   XSL Translators

XSL File	Feature Affected
<INSTALL_DIR>/repository/xapi/template/merged/service/ycd/YCD_Get_Backroom_Flag_8.0.xsl.sample	Backroom Pick
<INSTALL_DIR>/repository/xapi/template/merged/service/ycd/YCD_Set_Backroom_Flag_8.0.xsl.sample	Backroom Pick

8.6 Hold Types

The following hold types are introduced in Sterling Call Center and Store.

Table 8–22   Hold Types

Hold Type	Feature Affected
YCD_DUPLICATE_ORDER	Duplicate Order Validation
YCD_VERIFY_ADDRESS	Address Verification
YCD_FRAUD_CHECK	Fraud Check

8.7 Transactions

The following transactions are introduced in Sterling Call Center and Store.

Table 8–23   Transactions

Transaction Name	Feature Affected	Events
Duplicate Order	Duplicate Order Validation	On Duplicate Order
Address Verification	Address Verification	Address Verification Failed
Shipment Notification	Shipment Notification	Send Notification
COM PRINT	Create Order and Order Summary Prints	Print Order Summary

Table 8–23   Transactions

Transaction Name	Feature Affected	Events
COM PRINT	Return or Exchange Order Prints	Print Return Order Summary
COM PRINT	Return or Exchange Order Prints	Print Exchange Order Summary
COM PRINT	Change Order Print	Print Change Order
COM PRINT	Print Pick Ticket	Print PickTicket
COM PRINT	Customer Pick	Customer Pick Acknowledgement
YCD_UNDO_BACKROOM_PICK	Backroom Pick	None
YCD_BACKROOM_PICK	Backroom Pick	None

8.8 Time-Triggered Purge Transactions

There are several transactions that you can use to purge your database tables at specific time intervals. Purge transactions determine when a table should be purged by determining the current date and subtracting the retention days specified by the purge. If the timestamp on the table is less than or equal to (current day - retention days) the table is purged.

Sterling Call Center and Store provides the following time-triggered purge transactions:

- Price Match Purge

- Price Match History Purge

8.8.1 Price Match Purge

This purge removes price match data from the system. If the expiry date of a price match record is less than or equal to (current day - retention days), the agent moves the price match records to the price match history table. If a price match record is still present in the YFS_ORDER_LINE_PRICE_MATCH table, then the price match record cannot be purged. In such situations, the price match record will be purged only after the record is purged from the YFS_ORDER_LINE_PRICE_MATCH table.

Attributes

The following are the attributes for this time-triggered transaction:

Table 8–24   Price Match Purge Attributes

Attribute	Value
Base Transaction ID	YCDPRICEMATCHPRG
Base Document Type	General
Base Process Type	General
Abstract Transaction	No
APIs called	None
User Exits Called	YFSBeforePurgeUE

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 8–25   Price Match Purge Criteria Parameters

Criteria Parameters	Description
Action	Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value.
PurgeCode	Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria.
Live	Optional. Mode in which to run. Valid values are: • Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. • N - Test mode. Determines the rows that are moved to history tables without actually moving them.
EnterpriseCode	Optional. The organization for which the Alert Purge needs to be run. If not passed, then all enterprises are monitored.

Table 8–25 Price Match Purge Criteria Parameters

Criteria Parameters	Description
NumRecordsToBuffer	Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000.
CollectPendingJobs	If this parameter is set to N, the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the Sterling Multi-Channel Fulfillment Solution System Management Console.

Statistics Tracked

The following statistics are tracked for this transaction:

Table 8–26 Price Match Purge Statistics

Statistic Name	Description
NumPriceMatchPurged	Number of price match records purged.

8.8.2 Price Match History Purge

This purge removes price match history data from the system. Sterling Call Center and Store provides the YCDPRICEMATCHHISTPRG purge agent which purges the price match history records from the YFS_PRICE_MATCH_H table.

Attributes

The following are the attributes for this time-triggered transaction:

Table 8–27 Price Match History Purge Attributes

Attribute	Value
Base Transaction ID	YCDPRICEMATCHHISTPRG
Base Document Type	General
Base Process Type	General
Abstract Transaction	No
APIs called	None
User Exits Called	YFSBeforePurgeUE

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 8–28   Price Match History Purge Criteria Parameters

Criteria Parameters	Description
Action	Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value.
PurgeCode	Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria.
Live	Optional. Mode in which to run. Valid values are: • Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. • N - Test mode. Determines the rows that are moved to history tables without actually moving them.
EnterpriseCode	Optional. The organization for which the Alert Purge needs to be run. If not passed, then all enterprises are monitored.
NumRecordsToBuffer	Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000.
CollectPendingJobs	If this parameter is set to N, the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the Sterling Multi-Channel Fulfillment Solution System Management Console.

Statistics Tracked

The following statistics are tracked for this transaction:

Table 8–29   Price Match History Purge Statistics

Statistic Name	Description
NumPriceMatchHistory Purged	Number of price match history records purged.

8.9 Events

The following transaction events are implemented in Sterling Call Center and Store.

Table 8–30   Events

Transaction	Event
Change Order	On Cancel
Change Order	On Success
Change Order Release	On Backorder
Change Order Release	On Cancel
Confirm Draft Order	On Success
Create Order	On Success
Release Order	On Cancel
Release Order	On Backorder
Schedule Order	On Backorder
Return Receipt	On Success
Create Shipment	On Success

8.9.1 Event Call Back Handlers

The following pre-event call back handlers are implemented in Sterling Call Center and Store.

Table 8–31   Pre-event Call Back Handlers

Transaction	Event	Feature Affected
Confirm Shipment	On Success	Order Notes
Schedule Order	On Backorder	Order Notes
Release Order	On Backorder	Order Notes
Confirm Work Order	On Work Order Completion	Order Notes
Confirm Work Order	On Work Order Execution Failure	Order Notes

For more information about pre-event call back handlers, see the *Sterling Multi-Channel Fulfillment Solution Platform Configuration Guide*.

8.10 Agents

The following agents are implemented in Sterling Call Center and Store.

Table 8–32   Agents

Agent	Feature Affected
YCDPRICEMATCHPRG	Purging Of Price Match Records
YCDPRICEMATCHHISTPRG	Purging Of Price Match History Records

9

Performance Tuning

This chapter explains the steps you need to take to fine-tune Sterling Call Center and Store for optimal performance.

9.1 Database Management

For Database Management, Sterling Commerce recommends that you add the following custom indices to the YFS_PERSON_INFO table:

- A new custom index on the following columns:
    - UPPER (LAST_NAME)
    - UPPER (FIRST_NAME)
- A new custom index on the DAY_PHONE column.

If you want to enable users to search for the Manufacturer's name in the Quick Access screen, Sterling Commerce recommends that you add a new custom index in the MANUFACTURER_NAME column in the YFS_ITEM table. Also ensure that you add custom indices for all item attributes for which searches are enabled.

If you want to purge price match records, Sterling Commerce recommends that you add a new custom index in the PRICE_MATCH_KEY column in the YFS_ORDER_LINE_PRICE_MATCH table.

For more information about custom indices, see the *Sterling Multi-Channel Fulfillment Solution Performance Management Guide*.

9.2 Enabling Reference Data Caching

The caching feature is enabled using the `yfs.dbcache.classes` parameter in the `yfs.properties` file. Sterling Commerce recommends

that you add
`com.yantra.yfs.dbclasses.YFS_Assc_RelationshipDBCacheHome` and
`com.yantra.yfs.dbclasses.YFS_Event_Auditor_DBCacheHome` to the
`yfs.dbcache.classes` parameter value. For more information about
enabling reference data caching, see the *Sterling Multi-Channel
Fulfillment Solution Performance Management Guide.*

9.3 Rule Caching

The following rules are cached when you launch the client applications:

- ENCRYPT_CREDIT_CARD_PAYMENT_TYPE_GROUP
- ENCRYPT_STORED_VALUE_CARD_PAYMENT_TYPE_GROUP
- ENCRYPT_CUSTOMER_ACCOUNT_PAYMENT_TYPE_GROUP
- ENCRYPT_OTHER_PAYMENT_TYPE_GROUP
- ENCRYPT_ADDNL_ATTRIBUTES_CREDIT_CARD_PAYMENT_TYPE_GROUP
- YCD_USE_TRANSACTIONAL_QUANTITY
- YCD_DISTANCE_TO_CONSIDER
- YCD_DISTANCE_UOM_TO_CONSIDER
- YCD_ALLOW_COUNTRY_ENTRY
- YCD_POSTPONE_AVAILABILITY_CHECK
- YCD_AVAILABILITY_CHECK_IN_ITEM_INQUIRY
- YCD_DISPLAY_BUNDLE_COMPONENTS
- YCD_OPENBOX_ENABLED
- YCD_OPENBOX_TAG_ATTR
- YCD_OPENBOX_DEL_PICKUP_ONLY
- YCD_OPENBOX_DEFAULT_PRODUCTCLASS
- YCD_PAYMENT_ENTERED_EXTERNALLY
- YCD_PRINT_AT_ORDER_MODIFY
- YCD_USE_ALT_ITEM_ID
- YCD_ITEM_ALIAS

- YCD_STATE_DROP_DOWN_REGION_SCHEMA
- YCD_ENABLE_GIFT_SHIPMENT
- YCD_ENABLE_GIFT_PICKUP
- YCD_RESERVATION_REQUIRED
- YCD_ALERT_POLING_INTERVAL
- YCD_ALERT_CONFIG
- YCD_USE_COMMITTED_DATES
- YCD_DEFAULT_DELIVERY_METHOD
- YCD_SHOW_DELIVERY_AS_FULFILLMENT_METHOD
- YCD_SERVICE_RELATIONSHIP
- YCD_MODIFY_DEL_POST_REL
- YCD_SERVICE_TO_LOG_NOTES
- YCD_ENABLE_INTEGRATED_SEARCH
- YCD_USE_CREDIT_CARD_NAME
- YCD_DEFAULT_CUST_SRCH
- YCD_DISP_CUST_SRCH_TYPE
- YCD_CUSTOMER_SCR_SEQ
- USE_ENTERPRISE_CODE_FOR_PAYMENT

10

Integrating with the Sterling Multi-Channel Selling Solution

The integration between the Sterling Multi-Channel Selling Solution and Sterling Call Center and Store provides a solution that combines the two products in a single system that supports the order life cycle.

Sterling Call Center and Store user exits can be implemented to interact with the Sterling Multi-Channel Selling Solution through provided services. This enables Sterling Call Center and Store to utilize some inherent features of the Sterling Multi-Channel Selling Solution.

As part of the Sterling Multi-Channel Fulfillment Solution integration, Sterling Call Center and Store provides access to customer, order, and item data so that it is available from both the Sterling Multi-Channel Selling Solution and the Sterling Call Center and Store.

In Sterling Call Center and Store, this integration is further extended as follows:

- Users have the ability to perform pricing calls and integrated item searches using the Sterling Multi-Channel Selling Solution item browser directly from within Sterling Call Center and Store.

- Users have access to the Sterling Multi-Channel Selling Solution item configurator from Sterling Call Center and Store.

- Users can access the account activity view provided by the Sterling Multi-Channel Selling Solution from within Sterling Call Center and Store.

> **Note:** This chapter provides an overview of how the Sterling Multi-Channel Selling Solution integrates with Sterling Call Center and Store. To take full advantage of these integration features, it is recommended that you read the *Sterling Multi-Channel Fulfillment Solution Integration Guide*. If you want additional information about the specific Sterling Multi-Channel Selling Solution features described in this chapter, see the Sterling Multi-Channel Selling Solution documentation.

10.1 Pricing Integration Using the Sterling Multi-Channel Selling Solution

As part of the integration, users must be able to use the pricing engine from the Sterling Multi-Channel Selling Solution from within the Sterling Call Center and Store. For example, they might want to obtain Sterling Multi-Channel Selling Solution prices, pricing rules, and coupons.

10.1.1 Solution

Sterling Call Center and Store provides implementations of the orderRepricingUE, the getExternalPricesForItemListUE, and the YCDPromotionValidationUE as part of the Sterling Multi-Channel Selling Solution factory setup. For more information, see the *Sterling Call Center and Store Installation Guide*.

orderRepricingUE
A sample implementation is provided for the orderRepricingUE user exit to integrate with the Sterling Multi-Channel Selling Solution. The service YCD_Order_Repricing_UE_8.0 applies pricing adjustments to orders from the Sterling Multi-Channel Selling Solution pricing engine. This user exit recalculates prices upon any change that is configured to require repricing. The service takes into consideration the order total and customer information when pricing, and is always priced for the date and time in which the order was initially placed.

This user exit implementation is provided only for the Sales Order document type, and it does not handle shipping charges or taxes. In

addition, line-level pricing rules configured within the Sterling Multi-Channel Selling Solution are not applied to the discounts and charges as line-level charges, but instead are reflected directly in the Unit Price of an order line.

> **Note:** When an order is created initially through the Sterling Multi-Channel Selling Solution, the pricing service will not execute because the Sterling Multi-Channel Selling Solution is expected to have provided the proper pricing information in the createOrder call.

getExternalPricesForItemListUE

A sample implementation is provided for the getExternalPricesForItemListUE user exit to integrate with the Sterling Multi-Channel Selling Solution. This user exit can consider the user's pricing if a user ID is passed into the input of the following APIs:

- getItemListForOrdering
- getCompleteItemList

The customer contact user ID must be passed into the calling API SearchReference1 attribute, in order to get pricing specifically for that user. The service YCD_Item_List_Pricing_8.0 is provided to return the prices of the items for the customer. This pricing will not contain promotion information, and will always be for the date and time in which the price is retrieved. The User Interface performs these tasks automatically.

YCDPromotionValidationUE

This implementation uses the YCDPromotionValidationUE to execute a call to the Sterling Multi-Channel Selling Solution Coupon Validation service. This user exit sends the Organization, UserID, BuyerOrganizationCode, Currency, PricingClassificationCode, and PromotionID to the application, which returns a status after validation.

Table 10–1 shows the coupon statuses that are returned by the Sterling Multi-Channel Selling Solution through the YCD_Coupon_Validation_8.0 service.

These statuses are translated into valid or invalid responses. If the response is an invalid coupon, one of the error messages shown in

Table 10–1 is displayed with the corresponding description, which can be localized.

Table 10–1   Coupon Statuses

Status	Description
VALID COUPON	The coupon is valid.
INVALID COUPON	The coupon does not exist in the Sterling Multi-Channel Selling Solution.
INVALID CURRENCY	The coupon is not valid for the provided currency.
INVALID CUSTOMER TYPE	The customer type is not valid, and therefore the coupon is also not valid.
EXPIRED COUPON	The coupon has expired and is therefore invalid.
NOT EFFECTIVE COUPON	The coupon is effective at a later date and is therefore invalid.
NOT ENABLED COUPON	The coupon is not enabled yet in the Sterling Multi-Channel Selling Solution and is therefore not applied.
NOT APPLICABLE	The coupon is valid but not applicable for the order.

In order to apply shipping rules to the shipping charges of an order, the following criteria must be satisfied.

- Order lines with fulfillment method shipping must exist on the order.
- All order lines that are being shipped should have the same carrier service code, and the carrier service code is mandatory.
- Shipping charge should exist on either the order header or order lines that are being shipped.

If these criteria are met, the shipping information will be passed to Sterling Multi-Channel Selling Solution to request shipping rule information, otherwise no shipping discounts will be applied by the pricing engine by default.

10.1.2 End-User Impact

If no User ID is passed into SearchReference1, anonymous user pricing is used.

10.1.3 Implementation

The Sterling Multi-Channel Selling Solution uses a Default Customer Type to perform pricing. When an order is created in Sterling Call Center and Store, the value of the Default Customer Type in the Sterling Multi-Channel Selling Solution is used to perform pricing. If the order is created in the Sterling Multi-Channel Selling Solution, this value is passed to Sterling Call Center and Store.

The Sterling Multi-Channel Selling Solution defines promotions and their effective dates. The order date is used as the pricing date. To use pricing integration, do not change the pricing rules that are in place. Instead, create new pricing rules with new effective dates that do not overlap.

All promotions will be applied to the order as OSDISCOUNT charges, and are recalculated every time the user exit is executed. Any charges will be applied using the Charge Category UPLIFT.

If you are not going to install the reference implementation, manually create the OSDISCOUNT and UPLIFT charge categories. The OSDISCOUNT charge category implements a discount; the UPLIFT charge category does not.

> **Note:** For the Sterling Multi-Channel Selling Solution integration, it is recommended that the Charge Name validation be disabled. Otherwise, all the Coupon Names created in the application will need a corresponding Charge Name in Sterling Call Center and Store.

For information about creating charge categories, see the *Sterling Distributed Order Management Configuration Guide*.

Coupons and rules must be configured in the Sterling Multi-Channel Selling Solution to conform to the size limitations of the Sterling Multi-Channel Fulfillment Solution. Otherwise, a size constraint error will be thrown during repricing. The relevant fields in the Sterling Multi-Channel Selling Solution are the rule name (cannot be more than 40 characters in length) and description (cannot be more than 50 characters in length).

Rename the `getExternalPricesForItemList.xml.sample` and `orderRepricing.xml.sample` files located in `<INSTALL_DIR>/repository/xapi/template/merged/userexit/extn`

folder to `getExternalPricesForItemList.xml` and `orderRepricing.xml` respectively. This ensures that the templates are picked up by the user exits for the integration services.

For information about creating charge categories, see the *Sterling Distributed Order Management Configuration Guide*. For information about how to create coupons, see the *Sterling Multi-Channel Selling Solution Administration Guide*.

Configure the status modification types that should trigger repricing, when the pricing engine from the Sterling Multi-Channel Selling Solution is used:

- At the order level
  - Change Promotions
  - Remove Promotions
  - Add Line
  - Change Carrier Service Code
  - Change Price
- At the order line level
  - Add Quantity
  - Cancel
  - Change Carrier Service Code
  - Change Price

10.1.4 Reference Implementation

Both the OSDISCOUNT and UPLIFT charge categories are provided as part of the reference implementation.

For extensibility purposes, any other charge category can be used. They will be maintained on the order. However, they will not be modified by this user exit unless the user exit is extended.

A status modification type, BUYER_USER, is provided to trigger repricing based on the BuyerUserId. If BUYER_USER is set, adding the customer to an order after it is created will trigger repricing. The literal for the modification type BUYER_USER_ID is Change Order User ID.

As part of the Sterling Multi-Channel Selling Solution reference implementation, the payment type GIFT_CARD is provided for synchronizing orders.

10.2 Signing into Sterling Multi-Channel Selling Solution

Users need to be able to seamlessly use the Sterling Multi-Channel Selling Solution from the Sterling Call Center and Store application so that they can perform item searches, reconfigure applicable bundle items, and perform customer account tasks.

10.2.1 Solution

The Sterling Call Center and Store application provides single sign-on capability, particularly when searching for items, reconfiguring items, and performing customer account tasks.

This functionality is implemented in the following screens:

- Item Search

- Reconfigure Item (only for a reconfigurable bundle)

- Customer Account Activity

These are the three tasks from which Sterling Call Center and Store application launches the Sterling Multi-Channel Selling Solution internally. The Sterling Call Center and Store user must exist in both locations. When users open any one of these screens, they are redirected to the Sterling Multi-Channel Selling Solution through the Sterling Call Center and Store application server.

The user's session and login ID are taken from the Order Fulfillment application and sent to the Sterling Multi-Channel Selling Solution, which accepts this information and replies back to the Sterling Order Fulfillment server application with an authentication check.

If it succeeds, the user is logged into the Sterling Multi-Channel Selling Solution and a new session is created there.

The User ID must be unique for the entire system in integrated mode. That is, account assignments are not synchronized between the Sterling Multi-Channel Selling Solution and the Sterling Call Center and Store.

You must create the user ID in both systems, and the minimum role required is Commerce Function in the Sterling Multi-Channel Selling Solution.

Callback Mechanism to Login for Sterling Multi-Channel Selling Solution

To log into the Sterling Multi-Channel Selling Solution from Sterling Call Center and Store, first the CSR user must exist in both applications with an identical login ID. The Sterling Multi-Channel Selling Solution must be configured to point to the authentication servlet on Sterling Call Center and Store. See the *Sterling Call Center and Store Installation Guide* for more information on configuring Sterling Call Center and Store authentication.

The URL to the Sterling Multi-Channel Selling Solution is formed from three attributes:

- Configuring the `yfs.yc3.admin.location` property.

- Configuring the `yfs.yc3.locale.<local_code>` property

- Defining the AccountWithHub attribute

For example, in the following URL:

http://localhost:<port>/Sterling/en/us/tokenIF/matrix:

- "http://localhost:<port>/Sterling/" is derived from `yfs.yc3.admin.location`

- "en/us/" is derived from `yfs.yc3.locale.<locale>`

- "tokenIF" is part of the reference to the Sterling Multi-Channel Selling Solution that Sterling Call Center uses for the single sign-on

- "matrix" is the AccountWithHub value defined on the organization record

Refer to the *Sterling Call Center and Store Installation Guide* for information about configuring the `yfs.yc3.admin.location` and `yfs.yc3.locale.<local_code>` properties in the `<INSTALL_DIR>/properties/customer_overrides.properties` file.

10.2.2 End-User Impact

From the Sterling Call Center and Store application, Item Search, Reconfigure Item, and Customer Account Activity will use the integrated, Sterling Multi-Channel Selling Solution application interface.

All web page hotkeys work, except for the Backspace key, which sometimes causes the error, "Webpage has expired."

10.2.3 Implementation

To implement the ability to integrate directly with the Sterling Multi-Channel Selling Solution, perform the following tasks:

- Set the LoginThroughBrowser attribute.

  To log into the Sterling Multi-Channel Selling Solution and access the Item Browser, Customer Account Activity and Item Configurator from within Sterling Call Center and Store, see the *Sterling Call Center and Store Installation Guide* instructions about editing the `locations.ycfg` file.

- Set the AccountWithHub attribute.

  This attribute, defined at each enterprise, determines which Sterling Multi-Channel Selling Solution storefront to launch from a Sterling Multi-Channel Fulfillment Solution enterprise. This is case-sensitive and must match the Sterling Multi-Channel Selling Solution storefront's URL. For example, if the Sterling Multi-Channel Selling Solution URL for your storefront is http://localhost:8080/Sterling/en/US/enterpriseMgr/matrix, you would pass "matrix" as the AccountWithHub value for the organization to map it to the Sterling Multi-Channel Fulfillment Solution.

  See the *Sterling Distributed Order Management Configuration Guide* for more information about setting the AccountWithHub attribute.

- If the client machine's network connection is configured to use a proxy server and port:
  - Ensure that the proxy server and port are specified in connection settings for the client machine's default browser.

- Ensure that the BaseURL and PortNumber are set in the `locations.ycfg` file.

  For example if the client machine's network connection is configured to use a proxy server "Proxy" and Port "8080", you should set the following in the `locations.ycfg` file.

  `BaseUrl = "Proxy"`

  `PortNumber  = "8080"`

  For more information about editing the `locations.ycfg` file, see the *Sterling Call Center and Store Installation Guide*.

- Edit the `customer_overrides.properties` file, as described in the *Sterling Call Center and Store Installation Guide*.

- Ensure that the CSR exists in both systems with the same user ID.

- Enable cookies.

10.2.4 Reference Implementation

None.

10.3 Carts, Quotes, Templates, Wish Lists and Gift Registries

Users need the ability to use Sterling Multi-Channel Selling Solution carts, quotes, and gift registries.

10.3.1 Solution

Limited access to the Sterling Multi-Channel Selling Solution's CSR workspace is available from the Customer's Account Activity screen, which is accessible from the Customer Details related task in the Sterling Call Center and Store Application.

This task provides access to the Active, Quotes, Registries and Wish lists tabs in the Sterling Multi-Channel Selling Solution, allowing the CSR to access this information for the customer that he was viewing.

From the Active task, the CSR can access any open carts that the customer may have started through the web channel. They will be able

to help the customer complete the order placement process from Sterling Multi-Channel Selling Solution through Sterling Call Center and Store.

The CSR can access the Gift Registries and Wish Lists tabs from this screen, as well. The CSR can create/modify a registry or wish list and also place an order for the customer from his or her registry/wish list or someone else's public registry/wish list. This order can be created as a cart on the Sterling Multi-Channel Selling Solution from the Sterling Call Center and Store.

For more information about creating gift registries and wish lists, see *Sterling Multi-Channel Selling Solution Administration Guide*.

> **Note:**   There is no functionality provided directly from within Sterling Call Center and Store that handles updating the Registries or Wish Lists created within the Sterling Multi-Channel Selling Solution.

10.3.2 End-User Impact

Viewing account activity automatically enables the Sterling Multi-Channel Selling Solution's user interface.

10.3.3 Implementation

To implement integrated carts, quotes, templates, wish lists and gift registries, follow the Implementation instructions in Section 10.2, "Signing into Sterling Multi-Channel Selling Solution". To enable this, as with all tasks, resource permission must be provided. As part of the standard Sterling Multi-Channel Selling Solution factory setup, permission is enabled for carts, quotes, templates, wish lists and gift registries for the provided user groups.

10.3.4 Reference Implementation

The Sterling Call Center and Store provides the following rules in the Sterling Multi-Channel Selling Solution:

- Display Customer Type in Search - This rule is disabled for the integration, because only consumer customers are provided by the synchronization and there is no need to display the Business options.

- User Customer Name or Customer First Name, Middle Name, Last Name on a Credit Card - This rule is disabled for integration so that the First, Middle and Last names are displayed.

10.4 Item Entitlement

Users need access to the same items, whether they are using the Sterling Multi-Channel Selling Solution or the Sterling Call Center and Store.

10.4.1 Solution

As part of the getItemList, getCompleteItemList, and getItemListforOrdering APIs, the YCMGetItemListUE user exit is implemented with YCM_Item_Entitlement_8.0 service. This service takes the IsForOrdering attribute to determine if the user exit should be executed. The ItemID attribute maps back to the Search Criteria input in the user exit, and the SearchReference1 field passes the user context to the order selling service, which retrieves a list of items that are returned back to the user.

10.4.2 End-User Impact

Item Entitlement is enabled only when the "Integrate Item Search Screen with Order Selling Application" rule is enabled.

If no customer is provided in the SearchReference1 field, it is assumed that the search should occur for the anonymous customer on the Sterling Multi-Channel Selling Solution.

If a CSR does not have entitlement to an item but the customer for whom the order is being placed does, the CSR will be able to see the item, but upon adding it, will see an "Invalid Item" error. For this reason, it is recommended that CSRs who place orders should have entitlement to more items than do the customers.

10.4.3 Implementation

To implement item entitlement, enable the integrated search capability from the Sterling Call Center and Store Configurator. See Section 4.5.9, "Configuring Item Search Options" for more information.

For more information about the synchronization of customers and products, see the *Sterling Multi-Channel Fulfillment Solution Integration Guide*.

10.4.4 Reference Implementation

The reference implementation provided is configured with the "Integrate Item Search Screen with Order Selling Application" enabled.

10.5 Integrated Item Search

CSRs may want the ability to use the Sterling Multi-Channel Selling Solution browser to browse for an item, search for an item and details, and add an item directly to an order.

10.5.1 Solution

The Sterling Call Center provides an integrated item search capability that is accessible through the Advanced Item Search screen. If the configuration rule for integrated searches is enabled, the Sterling Multi-Channel Selling Solution's item browser is launched instead of the existing Item Search screen.

You can configure the rule for integrated searches from the Sterling Call Center and Store Configurator. See Section 4.5.9, "Configuring Item Search Options" for more information.

10.5.2 End-User Impact

The Sterling Multi-Channel Selling Solution's item browser is launched instead of the existing Item Search screen,

If the Integrated Item Search is enabled, the Sterling Call Center and Store replaces the existing Item Searching with the Sterling Multi-Channel Selling Solution Browser. This browser is launched for the Customer if the CSR is in the context of a customer, that is, launched from the Customer Details or the Order Entry tasks. Otherwise, the browser is launched for the anonymous user and will display the items accordingly. The instructions for creating a client application in the *Sterling Call Center and Store Installation Guide* explain how to enable the Sterling Multi-Channel Selling Solution browser.

10.5.3 Implementation

To implement integrated item searching, follow the Implementation instructions in the Section 10.2, "Signing into Sterling Multi-Channel Selling Solution". In addition, perform the following:

- Enable Integrated Item Search in the Sterling Call Center and Store Configurator.

- If the deployment uses the same item entitlement for all users, you must deactivate the integrated search on the same page. Deactivate the rule "The integrated search is customer specific, and needs to be reset when the Customer Changes."

For information about accessing these rules in the Sterling Call Center and Store Configurator, see Section 4.5.9, "Configuring Item Search Options".

10.5.4 Reference Implementation

The reference implementation provided is configured with the "Integrate Item Search Screen with Order Selling Application" enabled.

In the reference implementation, the following rule is disabled: "The integrated search is customer specific, and needs to be reset when the Customer Changes."

10.6 Product Configuration

When working in an integrated environment, users may want to take advantage of the Configurable Items feature when placing orders from within the Sterling Call Center application.

10.6.1 Solution

The Sterling Call Center provides a mechanism to access the Sterling Multi-Channel Selling Solution Configurator tool from Sterling Call Center. This enables users to adjust configurable items.

Items stored in the YFS_ITEM table that have an IsConfigurable value of "Y" are displayed with a Configure button on the Add Items screen of the Sterling Call Center. When this button is clicked, the Sterling Multi-Channel Selling Solution Configurator opens in a new RCP window.

After an item has been configured using the Sterling Multi-Channel Selling Solution Configurator, an XML file that contains the updated product configuration is returned to the Sterling Call Center and converted into a bundle item.

Items that are in draft order status can be reconfigured using the same method as the original configuration. The original draft order is deleted and replaced with an updated order line during item reconfiguration. For more information about reconfiguring items, see Section 6.9.30, "Reconfigure Items".

After the order is confirmed, the contents of the bundle can be viewed from the Order Line Summary.

Availability is not checked until after the item is configured.

> **Note:** Creation of bundles that contain other bundles is not supported when using the integrated environment.

10.6.2 End-User Impact

An item can be reconfigured only when:

- The item was created in the Sterling Multi-Channel Selling Solution system.

- The item is synchronized between the Sterling Multi-Channel Selling Solution and the Sterling Call Center. See the *Sterling Selling and Fulfillment Suite Integration Guide* for more information about synchronization.

- The IsConfigurable attribute on the item is set to "Y".

10.6.3 Implementation

To enable product configuration:

- The Reconfigure task requires resource permission.

- Items must be synchronized from the Sterling Multi-Channel Selling Solution to the Sterling Call Center.

To enable the option to reconfigure a bundle, you must enable the Change Bundle Definition status modification rule for the appropriate status.

10.6.4 Reference Implementation

None.

A

Localizing the Application

This chapter explains how to localize Sterling Call Center and Store.

A.1 User Interface Themes

The user interface theme files specify the screen colors, display fonts, and images to use. The display fonts are dependent on the languages that need to be supported. However, some fonts may not support all languages. When setting up a theme, choose a font that displays the specific language you need or choose a font that displays for a particular locale. For example, when setting up a Japanese locale, customize the theme to use a font that displays Japanese characters such as Hiragana.

To localize Sterling Call Center and Store user interface:

1. Save:

    a. `com.yantra.pca.ycd_sapphire.ythm`,
       `com.yantra.pca.ycd_earth.ythm`, and
       `com.yantra.pca.ycd_jade.ythm` located in the
       `<INSTALL_DIR>/rcp/COM/reference` folder to `RCP_EXTN_FOLDER`.

For more information about localizing a theme, see the *Sterling Multi-Channel Fulfillment Solution Localization Guide*.

A.2 Literals

Sterling Call Center and Store uses resource bundles that contain literals or text displayed on the screens. Sterling Call Center and Store enables you to customize and localize resource bundles based on the user's locale. In addition, literals used in the customized screens have their own resource bundles, and are considered during the localization process.

For more information about literals, see the *Sterling Multi-Channel Fulfillment Solution Localization Guide*.

If you have customized Sterling Call Center and Store applications, you must localize those customizations also. For more information about customizing the Sterling Rich Client Platform Interface, see the *Sterling Multi-Channel Fulfillment Solution Customization Guide*.

> **Note:** Literals cannot be localized in the following places:
> - Condition Builder
> - Order/Shipment Monitor
> - Hard-coded literals in APIs

A.2.1 Resource Bundles

Sterling Call Center and Store always releases complete resource bundles in the `com.yantra.pca.ycd_bundle.properties` file with the localized versions of Sterling Call Center and Store. Incremental updates are not provided. If you localize Sterling Call Center and Store, it is your responsibility (or that of your third-party localization company) to compare and validate the differences between the resource bundles shipped with the product to those you have localized.

The Sterling Multi-Channel Fulfillment Solution Sterling Call Center and Store application uses the resource bundle files to define literals for the user interface.

To localize the client application resource bundles:

1. Save the:

   a. `com.yantra.pca.ycd_bundle.properties` bundles as `com.yantra.pca.ycd_bundle_[lang]_[country]_[variant].properties` located in the `<INSTALL_DIR>/resources` folder.

   b. `com.yantra.pca.ycd_Message_bundle.properties` as `com.yantra.pca.ycd_Message_bundle_[lang]_[country]_[variant].properties` located in the `<INSTALL_DIR>/resources`.

   c. `com.yantra.pca.ycd_format_bundle.properties` as `com.yantra.pca.ycd_format_bundle_[lang]_[country]_[variant].properties` located in the `<INSTALL_DIR>/resources`.

To localize the titles that appear on the Help Assistant Screen:

1. Save the:

   a. `com.yantra.pca.ycd_HelpMessages_bundle.properties` as `com.yantra.pca.ycd_HelpMessages_bundle_[lang]_[country]_ [variant].properties` located in the `<INSTALL_DIR>/resources`.

Here, lang is the language to which you want to localize, country is the Country Code, and variant is the Time Zone or the Variant Component.

> **Note:** After saving the bundle files as mentioned above, you must create Sterling Call Center and Store client applications. For more information about creating a client application, see the *Sterling Call Center and Store Installation Guide*.

For more information about resource bundles, see the *Sterling Multi-Channel Fulfillment Solution Localization Guide*.

To localize the resource bundles server application:

1. Copy the:

   a. `<INSTALL_DIR>/resources/ycdbundle.properties` file and save it as `<INSTALL_DIR>/resources/ycdbundle_<lang>_<country>.prope rties`.

A.3 Localizing Address and Store Node Information

When the Address and Store Node information are provided, a bundle key is also provided for all single line displays.

- For a Store Node:

   The standard display is formatted as per the Common_Binding_Store_Node key in `com.yantra.pca.ycd_bundles.properties`. For example, a bundle record looks like:

   `Common_Binding_Store_Node={8}, {9} ({1})`

The Common_Binding_Store_Node key is passed to the following method in YRCPlatformUI:

`getFormattedString` (String key, String[] data) along with the String[] array whose contents should match the place holders defined in the Common_Binding_Store_Node key.

- For Address Records:

The standard display is formatted as per the Common_Binding_Address key in `com.yantra.pca.ycd_bundles.properties`. For example, a bundle record looks like:

`Common_Binding_Address={0} - {6}, {7}`

The Common_Binding_Address key is passed to the following method in YRCPlatformUI:

`getFormattedString` (String key, String[] data) along with the String[] array whose contents should match the place holders defined in the Common_Binding_Address key.

A.4 Factory Setup Data

Besides storing your transactional data, the database also stores configuration data, such as error codes and item descriptions of various attributes. This means that the database may need to store values in a language-specific format. If these database literals are not localized, screen literals display inconsistently, with some displaying in the localized language and others displaying in English.

For more information about localizing factory setup data, see the *Sterling Multi-Channel Fulfillment Solution Localization Guide*.

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