

Sterling Multi-Channel Selling Solution

Reference Guide

Release 8.0.1

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Preface

Welcome to the Sterling Multi-Channel Selling Solution. This guide and the associated documentation provide all the information required for you to implement successfully the Sterling Multi-Channel Selling Solution in your organization.

This guide provides reference information that you will need while installing and implementing the Sterling Multi-Channel Selling Solution. It provides detailed descriptions of the various components and schema of the system so that you can correctly implement it in your organization.

Audience

This guide is intended for system integrators, system administrators, and developers responsible for implementing the Sterling Multi-Channel Selling Solution at a site or for extending its functionality. Readers are presumed to have a working knowledge of Java, XML, and related Web-based technologies.

Conventions

Throughout this guide, we will use the following conventions shown in Table 1, "Conventions", on page viii:

TABLE 1. Conventions

Type	Convention
File names	Sample.txt
Paths and directory names	/top_level/next_level/next_level/destination_directory/
Sample code extracts	<code>public void method (String s)</code>
Values to be provided	<i><value supplied by developer></i>

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This guide provides detailed coverage of the Sterling Multi-Channel Selling Solution reference information. It covers:

- CHAPTER 2, "Document Type Definitions"
- CHAPTER 3, "Sample XML Messages"
- CHAPTER 4, "Configuration Files"
- CHAPTER 5, "Sterling Multi-Channel Selling Solution Schema"
- CHAPTER 6, "Implementing a DataService Class"
- CHAPTER 8, "Security in the Sterling Multi-Channel Selling Solution"
- CHAPTER 9, "Knowledgebase Schema"
- CHAPTER 11, "Logging Information"
- CHAPTER 12, "Server to Server Messages"

XML Knowledge Requirements

In implementing the Sterling Multi-Channel Selling Solution in your organization, you need to determine how the system connects to other systems to store and retrieve data. The system uses XML documents to:

- transmit information between Sterling Multi-Channel Selling Solution servers.
- specify the structure of business objects.
- specify the configuration parameters of the Sterling Multi-Channel Selling Solution.

You must have a knowledge of XML, elements, attributes, and the use of document type definitions (DTDs) to validate XML documents.

Java Knowledge Requirements

The Sterling Multi-Channel Selling Solution server is written in Java in order to be platform-independent. In particular, the Service classes that enable the server to call external systems are Java classes. You might need to extend the Service class to integrate an external system with the Sterling Multi-Channel Selling Solution.

To customize and create business logic classes and presentation logic classes, you must have a good knowledge of Java and the use of class libraries.

In addition, the new Sterling Multi-Channel Selling Solution applications make use of the Java 2 Enterprise Edition (J2EE) architecture. You must familiarize yourself with the application framework that this architecture provides. You must understand how servlets and Java Server Pages (JSP) are used to deploy Web applications in a Java Servlet Development Kit Release 2.3 (JSDK 2.3)-compliant servlet container.

HTML and JSP Knowledge Requirements

Both the customer-facing and administration interfaces of the Sterling Multi-Channel Selling Solution are accessed through a Web browser. The server uses JSP pages to generate the Web pages dynamically.

If you are using the Sterling Multi-Channel Selling Solution to support direct and indirect ordering, then the system is delivering dynamically-generated Web pages to display the user workspace, product inquiry lists, and the catalog-related pages. The Sterling Multi-Channel Selling Solution uses JSP pages to determine the look and feel of these pages.

To customize the look-and-feel of pages served up by the Sterling Multi-Channel Selling Solution, you must have a working knowledge of HTML and understand how JSP pages use standard JSP tags and custom tags.

Terminology used in this Guide

Throughout this guide, we will refer to the installation of the Sterling Multi-Channel Selling Solution at the enterprise site as the enterprise server, and refer to installations of the Sterling Multi-Channel Selling Solution at a partner site as the partner's enterprise server.

The Sterling Multi-Channel Selling Solution defines an API in the form of XML documents. Collectively, this set is known as Sterling Commerce dXML (distributed XML).

In addition, the Sterling Multi-Channel Selling Solution uses XML as an internal representation of business objects: we refer to this as Comergent XML: in general, when the Sterling Multi-Channel Selling Solution receives an external message, it converts the message to the corresponding Comergent XML document before processing it.

DTDs are used to validate XML documents by ensuring that they correspond to the structure defined in the DTD. This chapter covers the Document Type Declarations (DTDs) that define the dXML API used by the Sterling Multi-Channel Selling Solution. It also covers the DTDs for the most often used Comergent XML documents.

Overview

The XML documents used in the Sterling Multi-Channel Selling Solution come in two types: messages and business objects.

- Message XML documents are transmitted from one to server to another in a Sterling Multi-Channel Selling Solution network. Each type of message has a pre-defined structure that is determined by its DTD. You can use

dXML as the message family for server to server communication. However, provided that you create the appropriate translation files, you can use any message family such as RosettaNet, cXML, and so on.

- Business object XML documents define the business objects processed by the Sterling Multi-Channel Selling Solution. A message may contain one or more business object XML documents as elements within the message XML document. These XML documents correspond to the Comergent message family.

DTDs also come in two types: message DTDs and business object DTDs. Messages transmitted and received by Sterling Multi-Channel Selling Solution servers are validated against these DTDs.

- Use message DTDs to specify the precise structure of the messages that may be sent and received by your server.
- Use business object DTDs to validate the structure of the business object XML documents to ensure that the business objects correspond to their required structure.

Messages may contain business objects as elements within them.

- The message DTDs determine the structure of each overall message. Each enterprise server defines its message DTDs and must distribute them to each partner implementing the Sterling Multi-Channel Selling Solution.
- The business object DTDs determine the structure of the business object elements. You can automatically generate the business object DTDs using the SDK generateDTD target (see the *Sterling Multi-Channel Selling Solution Developer Guide* for more information).

When two Sterling Multi-Channel Selling Solution enterprise servers exchange a message, validation takes place at both ends. The DTDs used to validate messages must be identical on both servers. Consequently, enterprise server implementations of the Sterling Multi-Channel Selling Solution *must* agree on the set of message DTDs used to pass messages between them.

dXML API

This section provides a selection of the most important messages DTDs that define the dXML API. The complete set of dXML DTDs is located in ***debs_home/dXML/***. For example, the Version 4.0 set is in ***debs_home/dXML/4.0/*** and the Version 5.1 set is in ***debs_home/dXML/5.1/***.

Most messages are defined as pairs of a request message and a response message such as `PriceAvailabilityRequest` and `PriceAvailabilityResponse`. In such pairs, the request element contains a `RemoteUser` element that carries the authentication information. The reply message contains a `ResponseHeader` element whose `InResponseToID` element identifies the request message. The `SessionID` element of the reply `MessageHeader` element carries session identifier information that can be re-used.

Request Messages

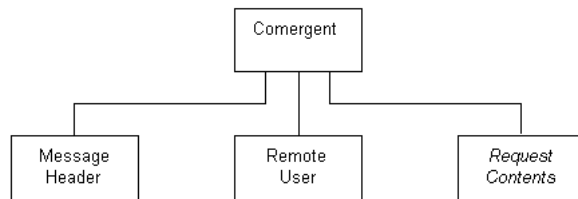


FIGURE 1. Request Message DTD

In general, each request message takes the same form; a dXML element that contains three elements:

- `MessageHeader`: the message header identifies the message type, a unique message identifier, and session information if appropriate.
- `RemoteUser`: this element provides login information if required.
- `Request Contents`: this element varies depending on the message type. Typically, it is one of the following:
 - `Order`
 - `PriceAvailability`
 - `ShoppingCart`

Response Messages

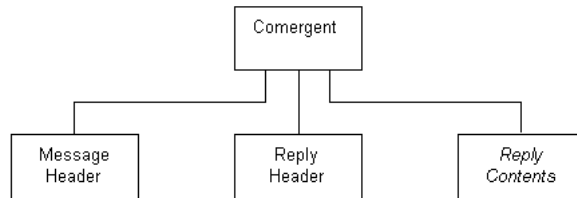


FIGURE 2. Response Message DTD

In general, each request message takes the same form; a dXML element that contains three elements:

- **MessageHeader:** the message header identifies the message type, a unique message identity, and session information if appropriate.
- **ResponseHeader:** this element provides the message identifier of the request message to which it is a response and a response status code. See CHAPTER 12, "Server to Server Messages" for more information about reply status codes.
- **Reply Contents:** this element varies depending on the message type. Typically, it is one of the following:
 - Order
 - PriceAvailability
 - ShoppingCart

Comergent XML

This section describes the Release 8.0.1 Comergent XML messages used internally by the Sterling Multi-Channel Selling Solution. In general, you do not need to work with these messages, but if you change one of the business objects such as PriceAvailability or ShoppingCartTransfer, then the corresponding mapping to the external message DTD must be revised. See *Sterling Multi-Channel Selling Solution Implementation Guide* for more information.

LoginReply DTD

```
<?xml encoding="US-ASCII"?>

<!-- LoginReply
```

```
Document Type Declaration (DTD)
Version 1.0
24-Aug-99
Authors:
Comergent
-->

<!ENTITY % MessageHeader SYSTEM "MessageHeader.dtd">
%MessageHeader;
<!ENTITY % ReplyHeader SYSTEM "ReplyHeader.dtd">
%ReplyHeader;

<!ELEMENT LoginReply (
    MessageHeader,
    ReplyHeader)
>

<!-- The LoginReply message
-->
```

LoginRequest DTD

```
<?xml encoding="US-ASCII"?>

<!-- LoginRequest
Document Type Declaration (DTD)
Version 1.0
24-Aug-99
Authors:
Comergent
-->

<!ENTITY % MessageHeader SYSTEM "MessageHeader.dtd">
%MessageHeader;
<!ENTITY % RemoteUser SYSTEM "RemoteUser.dtd">
%RemoteUser;

<!ELEMENT LoginRequest (
    MessageHeader,
    RemoteUser)
>

<!-- The LoginRequest message
-->
```

PriceAvailabilityRequest DTD

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<!-- PriceAvailabilityRequest
      Document Type Declaration (DTD)
      Version 4.2
      Authors:
          Comergent
          Contact: (650) 232-6000
                  support@comergent.com
Comergent Proprietary and Confidential
-->
<!ENTITY % MessageHeader SYSTEM "MessageHeader.dtd">
%MessageHeader;
<!ENTITY % RemoteUser SYSTEM "RemoteUser.dtd">
%RemoteUser;
<!ENTITY % Extrinsic SYSTEM "Extrinsic.dtd">
%Extrinsic;

<!ELEMENT dXML (MessageHeader, RemoteUser, PriceAvailability)>
<!ELEMENT PriceAvailability (OrderType?, CurrencyCode?, SellerKey,
SellerName?, SellerLocation?, UserInfoMessage?, InResponseToID?,
Extrinsic*, ItemList)>
<!ELEMENT ItemList (Item*)>
<!ELEMENT Item (ConfigFlag?, SellerSKU?, SellerSKUAuthority, Seller-
SKUName?, SellerSKUDescription?, BuyerSKU?, BuyerSKUAuthority?, Quan-
tity?, ListPrice, SellerPrice, ServiceProvided?, ConfigFlag?,
UnitOfMeasure?, LineKey?, ParentLineKey?, LineType?, Extrinsic*)>
<!ELEMENT OrderType (#PCDATA)>
<!ELEMENT ConfigFlag (#PCDATA)>
<!ELEMENT CurrencyCode (#PCDATA)>
<!ELEMENT SellerKey (#PCDATA)>
<!ELEMENT SellerName (#PCDATA)>
<!ELEMENT SellerLocation (#PCDATA)>
<!ELEMENT UserInfoMessage (#PCDATA)>
<!ELEMENT InResponseToID (#PCDATA)>
<!ELEMENT SellerSKU (#PCDATA)>
<!ELEMENT SellerSKUAuthority (#PCDATA)>
<!ELEMENT SellerSKUName (#PCDATA)>
<!ELEMENT SellerSKUDescription (#PCDATA)>
<!ELEMENT BuyerSKU (#PCDATA)>
<!ELEMENT BuyerSKUAuthority (#PCDATA)>
<!ELEMENT Quantity (#PCDATA)>
<!ELEMENT ListPrice (#PCDATA)>
<!ELEMENT SellerPrice (#PCDATA)>
<!ELEMENT ServiceProvided (#PCDATA)>
<!ELEMENT UnitOfMeasure (#PCDATA)>
<!ELEMENT LineKey (#PCDATA)>
<!ELEMENT ParentLineKey (#PCDATA)>
<!ELEMENT LineType (#PCDATA)>
```

PriceAvailabilityReply DTD

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- PriceAvailabilityResponse
      Document Type Declaration (DTD)
      Version 4.2
      Authors:
          Comergent
          Contact: (650) 232-6000
                  support@comergent.com
          Comergent Proprietary and Confidential
-->
<!ENTITY % MessageHeader SYSTEM "MessageHeader.dtd">
%MessageHeader;
<!ENTITY % ResponseHeader SYSTEM "ResponseHeader.dtd">
%ResponseHeader;
<!ENTITY % Extrinsic SYSTEM "Extrinsic.dtd">
%Extrinsic;

<!ELEMENT dXML (MessageHeader, ResponseHeader, PriceAvailability)>
<!ELEMENT PriceAvailability (OrderType?, CurrencyCode?, SellerKey,
SellerName?, SellerLocation?, StatusCode?, StatusMessage?, UserInfor-
Message?, InResponseToID?, Extrinsic*, ItemList)>
<!ELEMENT ItemList (Item*)>
<!ELEMENT Item (ConfigFlag?, SellerSKU?, SellerSKUAuthority, Seller-
SKUName?, SellerSKUDescription?, BuyerSKU?, BuyerSKUAuthority?, Quan-
tity?, ListPrice, SellerPrice, ServiceProvided?, StatusCode?,
StatusMessage?, UnitOfMeasure?, LineKey?, ParentLineKey?, SellerProm-
otionMessage?, SellerPromotionURL?, LineType?, Extrinsic*, Availabil-
ityList, AuxiliaryPriceList)>
<!ELEMENT AvailabilityList (Availability*)>
<!ELEMENT Availability (WarehouseLocation, WarehouseQuantity,
RestockDate?, RestockQuantity?, ETA?, Extrinsic*)>
<!ELEMENT AuxiliaryPriceList (AuxiliaryPrice*)>
<!ELEMENT AuxiliaryPrice (PriceTypeCode, PriceTypeString?, Group-
Code?, Description?, Price?)>
<!ELEMENT PriceTypeCode (#PCDATA)>
<!ELEMENT PriceTypeString (#PCDATA)>
<!ELEMENT GroupCode (#PCDATA)>
<!ELEMENT Description (#PCDATA)>
<!ELEMENT Price (#PCDATA)>
<!ELEMENT ConfigFlag (#PCDATA)>
<!ELEMENT SellerSKU (#PCDATA)>
<!ELEMENT ParentLineKey (#PCDATA)>
<!ELEMENT SellerSKUAuthority (#PCDATA)>
<!ELEMENT BuyerSKU (#PCDATA)>
<!ELEMENT UnitOfMeasure (#PCDATA)>
<!ELEMENT SellerPrice (#PCDATA)>
<!ELEMENT ETA (#PCDATA)>
```

```
<!ELEMENT SellerPromotionURL (#PCDATA)>
<!ELEMENT Quantity (#PCDATA)>
<!ELEMENT BuyerSKUAuthority (#PCDATA)>
<!ELEMENT RestockQuantity (#PCDATA)>
<!ELEMENT ServiceProvided (#PCDATA)>
<!ELEMENT WarehouseLocation (#PCDATA)>
<!ELEMENT SellerPromotionMessage (#PCDATA)>
<!ELEMENT SellerLocation (#PCDATA)>
<!ELEMENT StatusMessage (#PCDATA)>
<!ELEMENT OrderType (#PCDATA)>
<!ELEMENT RestockDate (#PCDATA)>
<!ELEMENT LineKey (#PCDATA)>
<!ELEMENT SellerKey (#PCDATA)>
<!ELEMENT ListPrice (#PCDATA)>
<!ELEMENT StatusCode (#PCDATA)>
<!ELEMENT WarehouseQuantity (#PCDATA)>
<!ELEMENT SellerName (#PCDATA)>
<!ELEMENT CurrencyCode (#PCDATA)>
<!ELEMENT SellerSKUName (#PCDATA)>
<!ELEMENT SellerSKUDescription (#PCDATA)>
<!ELEMENT LineType (#PCDATA)>

<!-- The PriceAvailabilityReply message

-->
```

ProcessingFailureReply DTD

```
<?xml encoding="US-ASCII"?>

<!-- ProcessingFailureReply
      Document Type Declaration (DTD)
      Version 1.0
      24-Aug-99
      Authors:
          Comergernt
-->

<!ENTITY % MessageHeader SYSTEM "MessageHeader.dtd">
%MessageHeader;
<!ENTITY % ReplyHeader SYSTEM "ReplyHeader.dtd">
%ReplyHeader;

<!ELEMENT ProcessingFailureReply (
      MessageHeader,
      ReplyHeader,
      RequestInfo?)
>

<!ELEMENT RequestInfo (
```



```
        MessageHeader)
    >

<!-- The LoginReply message

<!--=====
The ProcessingFailureReply.dtd

RequestInfo: contains the MessageHeader from the Request which caused
the Processing Failure.
=====-->
```

ReplyHeader DTD

```
<!-- ReplyHeader BusinessObject Definition
Document Type Declaration (DTD)
Version 1.0
16-Aug-99
Authors:
    Comergent

-->

<!ELEMENT ReplyHeader (
    ReplyStatusCode,
    ReplyStatusMessage?,
    UserInfoMessage?,
    InResponseToID)
>

<!ELEMENT InResponseToID (#PCDATA)>
<!ELEMENT ReplyStatusCode (#PCDATA)>
<!ELEMENT ReplyStatusMessage (#PCDATA)>
<!ELEMENT UserInfoMessage (#PCDATA)>

<!-- All DCMS reply messages contain a required ReplyHeader element,
which contains elements that comment on the overall validity of the
original request message.

All DCMS reply-type DTDs should include this DTD as an external
entity.

-->

<!-- ReplyHeader
=====
```

The ReplyHeader element should be included in all messages that are replies to some request. ReplyStatusCode should represent the success or failure of the request. The optional ReplyStatusMessage element can provide a human-readable explanation of the request's status. UserIn-

foMessage may also be set to a text message that should be displayed in the UI to the end user. InResponseToID should be used to hand the original MessageID of the request back to the requestor.

Sub-elements:

ReplyStatusCode	Status (success or error code) of the request
ReplyStatusMessage	Human-readable status message
InResponseToID	MessageID of original request
UserInfoMessage	Message to display to the end user

-->

ShoppingCartTransferRequest DTD

This is the DTD for the ShoppingCartTransferRequest.

```
<?xml encoding='UTF-8' ?>

<!-- ShoppingCartTransferRequest
      Document Type Declaration (DTD)
      Version 1.0
      24-Aug-99
      Authors:
          Comergerent
          Contact: support
                  (650) 232-6000
                  support@comergerent.com
-->

<!ENTITY % MessageHeader SYSTEM "MessageHeader.dtd">
%MessageHeader;
<!ENTITY % RemoteUser SYSTEM "RemoteUser.dtd">
%RemoteUser;
<!ENTITY % ShoppingCartTransfer SYSTEM "../bizobjs/ShoppingCartTransfer.dtd">
%ShoppingCartTransfer;

<!ELEMENT Comergerent (
      MessageHeader,
      RemoteUser,
      ShoppingCartTransfer)
>

<!-- The ShoppingCartTransferRequest message
-->
```

ShoppingCartTransferReply DTD

```
<?xml encoding="US-ASCII"?>
```

```
<!-- ShoppingCartTransferReply
    Document Type Declaration (DTD)
    Version 1.0
    24-Aug-99
    Authors:
        Comergernt
-->

<!ENTITY % MessageHeader SYSTEM "MessageHeader.dtd">
%MessageHeader;
<!ENTITY % ReplyHeader SYSTEM "ReplyHeader.dtd">
%ReplyHeader;
<!ENTITY % ShoppingCartTransfer SYSTEM "../bizobjjs/ShoppingCartTrans-
fer.dtd">
%ShoppingCartTransfer;

<!ELEMENT ShoppingCartTransferReply (
    MessageHeader,
    ReplyHeader,
    ShoppingCartTransfer)
>

<!-- The ShoppingCartTransferReply message
-->
```

Element Level Description

This section provides a description of the message elements and how they are used in server to server communication. It describes the elements as they are used in the reference implementation of Release 8.0.1. You must check to see whether your implementation has made any changes to the message DTDs.

In the following tables, we indicate whether an element is required. Note that a DTD may require that an element is present in an XML message, but the element may not need to contain any data. If an element has child elements, then the child elements are marked as required if the parent element requires them. If the parent element itself is not required and is not present, then the child elements are not present either.

DistiOrderAck message DTD

TABLE 1. DistiOrderAck DTD Description

Name	Parent	Description	Possible Values	Required?	Request or Reply
DistiOrder-Ack					
MfgShoppingCartKey	DistiOrder-Ack	Unique enterprise identifier of cart	System-generated	Yes	Request
DistiOrderID	DistiOrder-Ack	Unique identifier of order on partner side	System-generated	Yes	Request
DistiOrder-Status	DistiOrder-Ack	Status code to specify status of order at partner	Specified by the enterprise	No	Request
AccessKey	DistiOrder-Ack	Key that controls access to record	System-generated	No	Request
UpdateDate	DistiOrder-Ack	Date of last update	Date	No	Request
UpdatedBy	DistiOrder-Ack	User who last updated order	System-generated	Yes	Request
CreateDate	DistiOrder-Ack	Date order acknowledgement created	Date	No	Request
CreatedBy	DistiOrder-Ack	User who created order	System-generated	Yes	Request
LastAccess-Date	DistiOrder-Ack	Date order last accessed	Date	No	Request
LastAccessedBy	DistiOrder-Ack	User who last accessed order	System-generated	Yes	Request
OwnedBy	DistiOrder-Ack	The enterprise user who owns the order acknowledgement	System-generated	Yes	Request
LineItemList	DistiOrder-Ack	Element to hold the LineItem elements		Yes	Request

TABLE 1. DistiOrderAck DTD Description (Continued)

Name	Parent	Description	Possible Values	Required?	Request or Reply
LineItem	LineItemList	A grouping element		No	Request
LineKey	LineItem	Unique key used to identify lines within order	Numeric	No	Request
SKU	LineItem	The enterprise SKU of this line	Specified by the enterprise	Yes	Request
SKUAuthority	LineItem	A code to designate the enterprise	Specified by the enterprise	Yes	Request
Description	LineItem	Brief description of product	Free-form text	No	Request
Quantity	LineItem	Quantity of SKU ordered	Numeric	No	Request
UnitOfMeasure	LineItem	Unit of measure for this SKU	Numeric	No	Request
Price	LineItem	Price as ordered	Numeric	No	Request
Status	LineItem	Not used in this release	n/a	No	Request
Parent-LineKey	LineItem	Reference to parent line of configured or bundle product	System-generated	No	Request
UpdateDate	LineItem	Date of last update	System-generated	No	Request
UpdatedBy	LineItem	Enterprise user who last updated the line item	System-generated	Yes	Request

TABLE 1. DistiOrderAck DTD Description (Continued)

Name	Parent	Description	Possible Values	Required?	Request or Reply
CreateDate	LineItem	Date line item was created	System-generated	No	Request
CreatedBy	LineItem	Enterprise user who created the line item	System-generated	Yes	Request

LoginReply DTD

TABLE 2. LoginReply DTD Description

Name	Parent	Description	Possible Values	Required?	Request or Reply
Message-Header	LoginReply	See above		Yes	Reply
ReplyHeader	LoginReply	See below		Yes	Reply

LoginRequest DTD

TABLE 3. LoginRequest DTD Description

Name	Parent	Description	Possible Values	Required?	Request or Reply
Message-Header	Login-Request	See above		Yes	Request
RemoteUser	Login-Request	See below		Yes	Request

MessageHeader DTD

TABLE 4. MessageHeader DTD Description

Name	Parent	Description	Possible Values	Required?	Request or Reply
Message-Header		The header level element		Yes	Both
Message-Type	Message-Header	The type of message; for example, PriceAvailabilityRequest	See "MessageType Codes" on page 435	Yes	Both
Message-Version	Message-Header	DTD version	Currently, 1.0 or 2.0	Yes	Both
MessageID	Message-Header	A unique identifier for each message	System-generated	Yes	Both

TABLE 4. MessageHeader DTD Description (Continued)

Name	Parent	Description	Possible Values	Required?	Request or Reply
SessionID	Message-Header	Identifies a session ID created by remote system	As generated by remote session ID generator	Yes	Both
Message-TimeStamp	Message-Header	Date of message creation	System-generated	No	Both
SystemCredentials	Message-Header	Used to identify the message sender		No	
SenderID	SystemCredentials	A username to identify the sender of the message	Specified by the enterprise server	Yes, if SystemCredentials element present	Request
SenderName	SystemCredentials	The name of the user in plain text	Any text	No	Request
Sender-Authenticator	SystemCredentials	The password used to authenticate the user identified in the SenderID element	The valid password	Yes, if SystemCredentials element present	Request

PriceAvailabilityReply DTD

TABLE 5. PriceAvailabilityReply DTD Description

Name	Parent	Description	Possible Values	Required?	Request or Reply
Message-Header	PriceAvailabilityReply	See above		Yes	Reply
Reply-Header	PriceAvailabilityReply	See below		Yes	Reply
PriceAvailability	PriceAvailabilityReply	See below		Yes	Reply

PriceAvailabilityRequest DTD

TABLE 6. PriceAvailabilityRequest DTD Description

Name	Parent	Description	Possible Values	Required?	Request or Reply
Message-Header	Price-Availability-Request	See above		Yes	Reply
RemoteUser	Price-Availability-Request	See below		Yes	Reply
PriceAvailability	Price-Availability-Request	See below		Yes	Reply

PriceAvailability DTD

TABLE 7. PriceAvailability DTD Description

Name	Parent	Description	Possible Values	Required?	Request or Reply
PriceAvailability ^a		The element that holds the content of the price and availability request			Both
OrderType	PriceAvailability	The vertical market	See "Order-Type codes" on page 437	No	Both

TABLE 7. PriceAvailability DTD Description (Continued)

Name	Parent	Description	Possible Values	Required?	Request or Reply
Currency-Code	PriceAvailability	The currency code of this request	Specified by the enterprise	No	Both
SellerKey	PriceAvailability	The unique identifier of the seller providing the pricing. This identifier is set by the enterprise	Specified by the enterprise	Yes	Both
SellerName	PriceAvailability	The seller name	Free-form text	No	Both
SellerLocation	PriceAvailability	The geographic location of the seller	Free-form text	No	Both
StatusCode	PriceAvailability	A header level status of the request	See "ReplyStatusCodes" on page 435	No	Both
StatusMessage	PriceAvailability	A plain text description of status	Free-form text	No	Both
UserInfo-Message	PriceAvailability	A plain text informational message	Free-form text	No	Both
InResponse-ToID	PriceAvailability	The message identifier of the request message	The MessageID of the price and availability request	No	Reply
LineItemList ^b	PriceAvailability	This element contains the line items as a list of elements. There may be zero line item elements		Yes	Both

TABLE 7. PriceAvailability DTD Description (Continued)

Name	Parent	Description	Possible Values	Required?	Request or Reply
LineItem ^c	LineItemList	Each line item provides information about one line of the price and availability request	A grouping element	No	Both
SellerSKU	LineItem	The partner SKU that corresponds to the buyer SKU	Specified by the partner	No	Reply
SellerSKU-Authority	LineItem	Code that identifies the partner	Valid values are specified by the enterprise	Yes	Both
BuyerSKU	LineItem	The enterprise SKU	Specified by the enterprise	Yes	Both
BuyerSKU-Authority	LineItem	A code identifying the enterprise	Valid values are specified by the enterprise	Yes	Both
Quantity	LineItem	Quantity requested	Numeric	No	Both
ListPrice	LineItem	The enterprise list price	Numeric	Yes	Both
SellerPrice	LineItem	The partner quoted price	Numeric	Yes	Reply
ServiceProvided	LineItem	Additional services provided by the partner relating to this line item	Free-form text	No	Reply
StatusCode	LineItem	A status code for the line item	See "ReplyStatusCodes" on page 435	No	Reply

TABLE 7. PriceAvailability DTD Description (Continued)

Name	Parent	Description	Possible Values	Required?	Request or Reply
UnitOfMeasure	LineItem	Code used to define quantity unit for this SKU	Specified by the enterprise	No	Both
LineKey	LineItem	Unique key used to identify each line item	System-generated	No	Both
Parent-LineKey	LineItem	Value of related line key that acts as the "parent" for this child line item. It is used to manage bundled or configurable products.	Numeric	No	Both
SellerPromotion-Message	LineItem	Short description of partner promotional message. It is used as the text of the Alt attribute.	Free-form text	No	Reply
SellerPromotionURL	LineItem	A URL that points to the the HTML file used to populate the content of the promotion window.	A valid URL	No	Reply
Availability-List ^d	LineItem	This element contains Availability lines as a list of elements. There may be zero Availability elements.		Yes	Reply

TABLE 7. PriceAvailability DTD Description (Continued)

Name	Parent	Description	Possible Values	Required?	Request or Reply
Availability ^e	Availability-List	Each Availability element provides availability information for a specific warehouse location.	A grouping element	No	Reply
Warehouse-Location	Availability	An identifier that unambiguously denotes a single stocking location.	Free-form text	Yes	Reply
Warehouse-Quantity	Availability	The number held at this location.	Numeric	Yes	Reply
RestockDate	Availability	The date by which the partner will receive more stock.	Date	No	Reply
Restock-Quantity	Availability	The quantity expected at the next restock event.	Numeric	No	Reply
ETA	Availability	Estimated time of arrival of the item at the purchaser location.	Date	No	Reply

- a. PriceAvailability has one attribute, state, that can take one of the following values:
INSERTED, MODIFIED, DELETED, UNCHANGED.
- b. LineItemList has one attribute, state, that can take one of the following values:
INSERTED, MODIFIED, DELETED, UNCHANGED.
- c. LineItem has one attribute, state, that can take one of the following values:
INSERTED, MODIFIED, DELETED, UNCHANGED.
- d. AvailabilityList has one attribute, state, that can take one of the following values:
INSERTED, MODIFIED, DELETED, UNCHANGED.
- e. Availability has one attribute, state, that can take one of the following values:
INSERTED, MODIFIED, DELETED, UNCHANGED.

ProcessingFailureReply DTD

TABLE 8. ProcessingFailureReply DTD description

Name	Parent	Description	Possible values	Required?	Request or Reply
Message-Header	Processing-FailureReply	See above		Yes	Reply
Reply-Header	Processing-FailureReply	See below		Yes	Reply
RequestInfo	Processing-FailureReply	This element provides the details of the request whose processing failed		No	Reply
Message-Header	RequestInfo	This element reproduces the header of the failed request message		Yes	Reply

RemoteUser DTD

TABLE 9. RemoteUser DTD description

Name	Parent	Description	Possible values	Required?	Request or Reply
RemoteUser		The element used to pass authentication information to a remote system		Yes	Request
UserLogin	RemoteUser	The username or other unique identifier of this user	Plain text	Yes	Request

TABLE 9. RemoteUser DTD description (Continued)

Name	Parent	Description	Possible values	Required?	Request or Reply
UserFull-Name	RemoteUser	The plain text name of this user	Free-form text	No	Request
User-Authenticator	RemoteUser	The password to authenticate this user	Plain text	Yes	Request

ReplyHeader DTD

TABLE 10. ReplyHeader DTD Description

Name	Parent	Description	Possible Values	Required?	Request or Reply
ReplyHeader		The element used to pass header-level information back to requesting system		Yes	Reply
ReplyStatus-Code	ReplyHeader	The header-level status of this reply.	See "ReplyStatusCodes" on page 435.	Yes	Reply
ReplyStatus-Message	ReplyHeader	The plain text name of this user	Plain text	No	Reply
UserInfo-Message	ReplyHeader	The password to authenticate this user	Plain text	No	Reply
InResponse-ToID	ReplyHeader	The message ID of the request to which this is the response	System-generated	Yes	Reply

ShoppingCartTransferReply DTD

TABLE 11. ShoppingCartTransferReply DTD Description

Name	Parent	Description	Possible Values	Required?	Request or Reply
Message-Header	ShoppingCartTransferReply	See above		Yes	Reply
ReplyHeader	ShoppingCartTransferReply	See above		Yes	Reply
ShoppingCartTransfer	ShoppingCartTransferReply	See below		Yes	Reply

ShoppingCartTransferRequest DTD

TABLE 12. ShoppingCartTransferRequest DTD Description

Name	Parent	Description	Possible Values	Required?	Request or Reply
Message-Header	Shopping-CartTrans-ferReply	See above		Yes	Request
RemoteUser	Shopping-CartTrans-ferReply	See above		Yes	Request
Shopping-CartTransfer	Shopping-CartTrans-ferReply	See below		Yes	Request

ShoppingCartTransfer DTD

TABLE 13. ShoppingCartTransfer DTD Description

Name	Parent	Description	Possible Values	Required?	Request or Reply
Shopping-Cart-Trans-fer		The element that holds the content of the shopping cart transfer request			Both
Account-ManagerKey	Shopping-CartTransfer	The user key for the enterprise account manager for the owner of the cart	Specified by the enterprise	No	Request
Account-Manager-Name	Shopping-CartTransfer	The name of the account manager	Specified by the enterprise	No	Request
BuyerShoppingCartKey	Shopping-CartTransfer	Unique identifier of the cart on the enterprise site	System-generated	Yes	Both
BuyerShoppingCart-Name	Shopping-CartTransfer	Plain text name of the cart	Free-form text	No	Request

TABLE 13. ShoppingCartTransfer DTD Description (Continued)

Name	Parent	Description	Possible Values	Required?	Request or Reply
Customer-Name	Shopping-CartTransfer	The name of the partner's customer	Free-form text	No	Request
OrderType	Shopping-CartTransfer	Identifies the vertical market of this shopping cart	See "Order-Type codes" on page 437	No	Request
Currency-Code	Shopping-CartTransfer	Code for the currency to be used for pricing	Specified by the enterprise	No	Both
SellerKey	Shopping-CartTransfer	The unique identifier of the seller to whom the cart is to be transferred. This identifier is set by the enterprise	Specified by the enterprise	Yes	Reply
SellerName	Shopping-CartTransfer	The seller name	Free-form text	No	Both
SellerLocation	Shopping-CartTransfer	The geographic location of the seller	Numeric	No	Reply
SellerShoppingCartKey	Shopping-CartTransfer	Unique seller identifier of the cart created on successful transfer	System-generated on seller side	Yes	Reply
SellerShoppingCartURL	Shopping-CartTransfer	URL associated to shopping cart after successful transfer	System-generated on seller side	Yes	Reply
StatusCode	Shopping-CartTransfer	A header level status of the transfer request	See "ReplyStatusCodes" on page 435	Yes	Reply

TABLE 13. ShoppingCartTransfer DTD Description (Continued)

Name	Parent	Description	Possible Values	Required?	Request or Reply
StatusMessage	ShoppingCartTransfer	A plain text description of status	Free-form text	No	Reply
UserInfoMessage	ShoppingCartTransfer	A plain text informational message	Free-form text	No	Reply
InResponseToID	ShoppingCartTransfer	The message identifier of the request message	The MessageID of the shopping cart transfer request	No	Reply
LineItemList	ShoppingCartTransfer	This element contains the line items as a list of elements. There may be zero line item elements		Yes	Both
LineItem	LineItemList	Each line item provides information about one line of the shopping cart transfer request		No	Both
BuyerSKU	LineItem	The enterprise SKU for this line item	Specified by the enterprise	No	Request
BuyerSKU-Authority	LineItem	Code that identifies the buyer: usually, the enterprise name	Specified by the enterprise	Yes	Request
Quantity	LineItem	Quantity of this line item	Numeric	No	Request
ListPrice	LineItem	The price specified by the enterprise	Numeric	Yes	Request

TABLE 13. ShoppingCartTransfer DTD Description (Continued)

Name	Parent	Description	Possible Values	Required?	Request or Reply
SellerPrice	LineItem	The price set by the partner at time of transfer	Numeric	Yes	Reply
SellerSKU	LineItem	The partner SKU that corresponds to this line item	Specified by the partner	No	Reply
SellerSKU-Authority	LineItem	Code to designate the partner identity	Specified by the enterprise	Yes	Reply
StatusCode	Status of the line item on transfer	A line item level code to denote the success or failure of the cart transfer.	See "ReplyStatusCodes" on page 435	Yes	
UnitOfMeasure	LineItem	Code used to define quantity unit for this SKU	Specified by the enterprise	No	Both
Warehouse-Location	Availability	An identifier that unambiguously denotes a single stocking location.	Free-form text	Yes	Reply
Parent-LineKey	LineItem	Value of related line key that acts as the "parent" for this child line item. It is used to manage bundled or configurable products.	Numeric	No	Both

Business Object DTDs

Business object DTDs are created by Sterling Commerce as a part of the reference implementation provided with this release and are subject to change from release to release. Your implementation must map the business object DTDs to an agreed upon family of message DTDs such as dXML.

Use the DTDGenerator utility to generate the business object DTDs automatically from the XML schema defined for your implementation. Please see "Business Object DTD Generation" on page 89 in CHAPTER 5, "Sterling Multi-Channel Selling Solution Schema" for further information.

Note:	The business object DTDs are generated directly from the XML schema. Consequently, any changes that are made to the schema causes changes to the business object DTDs. Always check that you are working with the most up-to-date DTDs generated from your XML schema.
--------------	--

For each data object, the Sterling Multi-Channel Selling Solution generates a corresponding DTD. See your *debs_home/WEB-INF/bizobjs* directory for the current business object DTDs.

This chapter presents sample XML documents to demonstrate their use. There are two types: business object type and message type.

Use data object type XML documents to define data objects within a Sterling Multi-Channel Selling Solution. Use them to encapsulate the data that makes up a data object. They are defined by the Sterling Multi-Channel Selling Solution schema. See CHAPTER 5, "Sterling Multi-Channel Selling Solution Schema" for further details.

Use message type XML documents to transmit data from one Sterling Multi-Channel Selling Solution server to another. Typically, message type XML documents contain data object XML documents as elements.

These XML documents are validated against their corresponding DTDs as they are passed between an enterprise server and a partner's enterprise server. Their DTDs are documented in CHAPTER 2, "Document Type Definitions".

Message XML Examples

This section provides examples of message type XML documents. These example messages are for illustration only. The messages used by your implementation might differ from the example message type XML documents provided here.

Browser request messages

Messages generated in response to a browser request are formed using the following elements:

- container element <Comergent>
- message version element <MessageVersion>
- HttpRequest element that encapsulates the request as a sequence of attributes in an attribute list. Attributes take the form of name-value pairs. The type of the request is contained in the HttpRequest element as the MessageType element.

HomePageDisplay

```
<?xml version="1.0"?>
<Comergent>
  <MessageVersion>2.0</MessageVersion>
  <HttpRequest type="BusinessObject">
    <MessageType>HomePageDisplay</MessageType>
    <AttributeList/>
  </HttpRequest>
</Comergent>
```

Login

```
<?xml version="1.0"?>
<Comergent>
  <MessageVersion>2.0</MessageVersion>
  <HttpRequest type="BusinessObject">
    <MessageType>LoginDisplay</MessageType>
    <AttributeList>
      <Attribute>
        <Name>cmd</Name>
        <Value>validate</Value>
      </Attribute>
      <Attribute>
        <Name>passwd</Name>
        <Value>bsmith</Value>
      </Attribute>
      <Attribute>
        <Name>.url</Name>
        <Value>687474703a2f2f3139322e313e31137303a3939</Value>
      </Attribute>
      <Attribute>
        <Name>SessionID</Name>
        <Value>2145985006</Value>
      </Attribute>
      <Attribute>

```



```
        <Name>login</Name>
        <Value>bsmith</Value>
      </Attribute>
    </AttributeList>
  </HttpRequest>
</Comergent>
```

Logout

```
<?xml version="1.0"?>
<Comergent>
  <MessageVersion>2.0</MessageVersion>
  <HttpRequest type="BusinessObject">
    <MessageType>LogoutDisplay</MessageType>
    <AttributeList>
      <Attribute>
        <Name>SessionID</Name>
        <Value>2145985007</Value>
      </Attribute>
    </AttributeList>
  </HttpRequest>
</Comergent>
```

PartnerProfileDisplay

```
<?xml version="1.0"?>
<Comergent>
  <MessageVersion>2.0</MessageVersion>
  <HttpRequest type="BusinessObject">
    <MessageType>PartnerProfileDisplay</MessageType>
    <AttributeList>
      <Attribute>
        <Name>PartnerKey</Name>
        <Value>2</Value>
      </Attribute>
      <Attribute>
        <Name>SessionID</Name>
        <Value>2145985008</Value>
      </Attribute>
    </AttributeList>
  </HttpRequest>
</Comergent>
```

System to System Messages

In general, the Sterling Multi-Channel Selling Solution uses the following elements for all system-to-system communication:

- container element <Comergent>

- message header element <MessageHeader>. The type of the message is contained in the MessageHeader as the MessageType element.
- one of:
 - in the case of a request message, a remote user element <RemoteUser>
 - in the case of a reply message, a reply header <ReplyHeader>
- and one or more business objects as elements.

Typically, each request message has a corresponding reply message that is returned by the system that receives the request message.

LoginRequest

```
<?xml version="1.0" encoding="UTF-8"?>
<Comergent>
  <MessageHeader>
    <MessageType>LoginRequest</MessageType>
    <MessageVersion>2.0</MessageVersion>
    <MessageID>1</MessageID>
    <SessionID>1</SessionID>
    <MessageTimeStamp>1:00:00</MessageTimeStamp>
    <SystemCredentials>
      <SenderID>bsmith</SenderID>
      <SenderName>bsmith</SenderName>
      <SenderAuthenticator>bsmith</SenderAuthenticator>
    </SystemCredentials>
  </MessageHeader>
  <RemoteUser>
    <UserLogin>bsmith</UserLogin>
    <UserFullName>bsmith</UserFullName>
    <UserAuthenticator>bsmith</UserAuthenticator>
  </RemoteUser>
</Comergent>
```

PriceAvailabilityRequest

```
<Comergent>
  <MessageHeader>
    <MessageType>PriceAvailabilityRequest</MessageType>
    <MessageVersion>2.0</MessageVersion>
    <MessageID>1</MessageID>
    <SessionID>???Remote SessionId Unknown???</SessionID>
    <MessageTimeStamp>Thu Dec 09 12:16:10 PST 1999</MessageTimeStamp>
    <SystemCredentials/>
  </MessageHeader>
  <RemoteUser>
    <UserLogin>bsmith</UserLogin>
    <UserFullName>???Remote User Full Name Unknown???</UserFullName>
  </RemoteUser>
</Comergent>
```

```
<UserAuthenticator>bsmith</UserAuthenticator>
</RemoteUser>
<PriceAvailability type="BusinessObject">
  <OrderType>Web</OrderType>
  <CurrencyCode></CurrencyCode>
  <SellerKey>12</SellerKey>
  <StatusCode></StatusCode>
  <StatusMessage></StatusMessage>
  <UserInfoMessage></UserInfoMessage>
  <InResponseToID></InResponseToID>
  <LineItemList>
    <LineItem>
      <SellerSKU></SellerSKU>
      <SellerSKUAuthority></SellerSKUAuthority>
      <BuyerSKU>MXWS-7600</BuyerSKU>
      <BuyerSKUAuthority></BuyerSKUAuthority>
      <Quantity>1</Quantity>
      <ListPrice></ListPrice>
      <SellerPrice></SellerPrice>
      <ServiceProvided></ServiceProvided>
      <StatusCode></StatusCode>
      <UnitOfMeasure></UnitOfMeasure>
      <LineKey></LineKey>
      <ParentLineKey></ParentLineKey>
      <AvailabilityList></AvailabilityList>
    </LineItem>
    <LineItem>
      <SellerSKU></SellerSKU>
      <SellerSKUAuthority></SellerSKUAuthority>
      <BuyerSKU>MX-WS7600</BuyerSKU>
      <BuyerSKUAuthority></BuyerSKUAuthority>
      <Quantity>1</Quantity>
      <ListPrice></ListPrice>
      <SellerPrice></SellerPrice>
      <ServiceProvided></ServiceProvided>
      <StatusCode></StatusCode>
      <UnitOfMeasure></UnitOfMeasure>
      <LineKey></LineKey>
      <ParentLineKey></ParentLineKey>
      <AvailabilityList></AvailabilityList>
    </LineItem>
    <LineItem>
      <SellerSKU></SellerSKU>
      <SellerSKUAuthority></SellerSKUAuthority>
      <BuyerSKU>MX-IN550</BuyerSKU>
      <BuyerSKUAuthority></BuyerSKUAuthority>
      <Quantity>1</Quantity>
      <ListPrice></ListPrice>
      <SellerPrice></SellerPrice>
```

```
        <ServiceProvided></ServiceProvided>
        <StatusCode></StatusCode>
        <UnitOfMeasure></UnitOfMeasure>
        <LineKey></LineKey>
        <ParentLineKey></ParentLineKey>
        <AvailabilityList></AvailabilityList>
    </LineItem>
    <LineItem>
        <SellerSKU></SellerSKU>
        <SellerSKUAuthority></SellerSKUAuthority>
        <BuyerSKU>MX-PR256S</BuyerSKU>
        <BuyerSKUAuthority></BuyerSKUAuthority>
        <Quantity>1</Quantity>
        <ListPrice></ListPrice>
        <SellerPrice></SellerPrice>
        <ServiceProvided></ServiceProvided>
        <StatusCode></StatusCode>
        <UnitOfMeasure></UnitOfMeasure>
        <LineKey></LineKey>
        <ParentLineKey></ParentLineKey>
        <AvailabilityList></AvailabilityList>
    </LineItem>
</LineItemList>
</PriceAvailability>
</Comergent>
```

PriceAvailabilityReply

```
<Comergent>
    <MessageHeader>
        <MessageType>PriceAvailabilityReply</MessageType>
        <MessageVersion>2.0</MessageVersion>
        <MessageID>1</MessageID>
        <SessionID>2026756943</SessionID>
        <MessageTimeStamp>Thu Dec0912:16:14PST 1999</MessageTimeStamp>
        <SystemCredentials/>
    </MessageHeader>
    <ReplyHeader>
        <ReplyStatusCode>?Reply Status Code Unknown?</ReplyStatusCode>
        <ReplyStatusMessage>Reply Status Message?</ReplyStatusMessage>
        <UserInfoMessage>?User Info Message Unknown?</UserInfoMessage>
        <InResponseToID>?In Response To ID Unknown?</InResponseToID>
    </ReplyHeader>
    <PriceAvailability type="BusinessObject">
        <OrderType>Web</OrderType>
        <CurrencyCode/>
        <SellerKey>10</SellerKey>
        <SellerName/>
        <SellerLocation/>
        <StatusCode/>
    </PriceAvailability>
</Comergent>
```

```
<StatusMessage/>
<UserInfoMessage/>
<InResponseToID/>
<LineItemList>
  <LineItem>
    <SellerSKU>DX-GV17T</SellerSKU>
    <SellerSKUAuthority/>
    <BuyerSKU>MX-GV17T</BuyerSKU>
    <BuyerSKUAuthority/>
    <Quantity/>
    <ListPrice/>
    <SellerPrice>0.0</SellerPrice>
    <ServiceProvided/>
    <StatusCode/>
    <UnitOfMeasure/>
    <LineKey/>
    <ParentLineKey/>
    <AvailabilityList>
      <Availability>
        <WarehouseLocation>Dallas</WarehouseLocation>
        <WarehouseQuantity>25</WarehouseQuantity>
        <RestockDate>99-11-10 15:17:14.0</RestockDate>
        <RestockQuantity>15</RestockQuantity>
        <ETA>1999-11-10 15:17:14.0</ETA>
      </Availability>
      <Availability>
        <WarehouseLocation>Denver</WarehouseLocation>
        <WarehouseQuantity>5</WarehouseQuantity>
        <RestockDate>99-11-10 15:17:14.0</RestockDate>
        <RestockQuantity>15</RestockQuantity>
        <ETA>1999-11-10 15:17:14.0</ETA>
      </Availability>
    </AvailabilityList>
  </LineItem>
  <LineItem>
    <SellerSKU>DX-IN550</SellerSKU>
    <SellerSKUAuthority/>
    <BuyerSKU>MX-IN550</BuyerSKU>
    <BuyerSKUAuthority/>
    <Quantity/>
    <ListPrice/>
    <SellerPrice>0.0</SellerPrice>
    <ServiceProvided/>
    <StatusCode/>
    <UnitOfMeasure/>
    <LineKey/>
    <ParentLineKey/>
    <AvailabilityList>
      <Availability>
```

```
        <WarehouseLocation>Dallas</WarehouseLocation>
        <WarehouseQuantity>25</WarehouseQuantity>
        <RestockDate>99-11-10 15:17:13.0</RestockDate>
        <RestockQuantity>15</RestockQuantity>
        <ETA>1999-11-10 15:17:13.0</ETA>
    </Availability>
    <Availability>
        <WarehouseLocation>Denver</WarehouseLocation>
        <WarehouseQuantity>5</WarehouseQuantity>
        <RestockDate>99-11-10 15:17:14.0</RestockDate>
        <RestockQuantity>15</RestockQuantity>
        <ETA>1999-11-10 15:17:14.0</ETA>
    </Availability>
</AvailabilityList>
</LineItem>
</LineItemList>
</PriceAvailability>
</Comergent>
```

ShoppingCartTransferRequest

```
<Comergent>
  <MessageHeader>
    <MessageType>ShoppingCartTransferRequest</MessageType>
    <MessageVersion>2.0</MessageVersion>
    <MessageID>1</MessageID>
    <SessionID>2026756943</SessionID>
    <MessageTimeStamp>Thu Dec 09 12:27:17 PST 1999</MessageTimeStamp>
    <SystemCredentials/>
  </MessageHeader>
  <RemoteUser>
    <UserLogin>bsmith</UserLogin>
    <UserFullName>??Remote User Full Name Unknown??</UserFullName>
    <UserAuthenticator>bsmith</UserAuthenticator>
  </RemoteUser>
  <ShoppingCartTransfer type="BusinessObject">
    <AccountManagerKey></AccountManagerKey>
    <AccountManagerName></AccountManagerName>
    <BuyerShoppingCartKey>138</BuyerShoppingCartKey>
    <BuyerShoppingCartName></BuyerShoppingCartName>
    <CurrencyCode>USD</CurrencyCode>
    <CustomerName></CustomerName>
    <OrderType>Web</OrderType>
    <SellerKey>12</SellerKey>
    <SellerName>Ingram Micro</SellerName>
    <SellerLocation></SellerLocation>
    <SellerShoppingCartKey></SellerShoppingCartKey>
    <SellerShoppingCartURL></SellerShoppingCartURL>
    <StatusCode></StatusCode>
    <StatusMessage></StatusMessage>
```

```
<UserInfoMessage></UserInfoMessage>
<InResponseToID></InResponseToID>
<LineItemList>
  <LineItem>
    <LineKey>500</LineKey>
    <BuyerSKU>MXWS-7600</BuyerSKU>
    <BuyerSKUAuthority></BuyerSKUAuthority>
    <Quantity>1</Quantity>
    <ListPrice>5645.0</ListPrice>
    <SellerPrice></SellerPrice>
    <SellerSKU></SellerSKU>
    <SellerSKUAuthority></SellerSKUAuthority>
    <StatusCode></StatusCode>
    <UnitOfMeasure></UnitOfMeasure>
    <WarehouseLocation></WarehouseLocation>
    <ParentLineKey></ParentLineKey>
  </LineItem>
  <LineItem>
    <LineKey>501</LineKey>
    <BuyerSKU>MX-WS7600</BuyerSKU>
    <BuyerSKUAuthority></BuyerSKUAuthority>
    <Quantity>1</Quantity>
    <ListPrice>5495.0</ListPrice>
    <SellerPrice></SellerPrice>
    <SellerSKU></SellerSKU>
    <SellerSKUAuthority></SellerSKUAuthority>
    <StatusCode></StatusCode>
    <UnitOfMeasure></UnitOfMeasure>
    <WarehouseLocation></WarehouseLocation>
    <ParentLineKey>500</ParentLineKey>
  </LineItem>
  <LineItem><LineKey>502</LineKey>
    <BuyerSKU>MX-IN550</BuyerSKU>
    <BuyerSKUAuthority></BuyerSKUAuthority>
    <Quantity>1</Quantity>
    <ListPrice>1200.0</ListPrice>
    <SellerPrice></SellerPrice>
    <SellerSKU></SellerSKU>
    <SellerSKUAuthority></SellerSKUAuthority>
    <StatusCode></StatusCode>
    <UnitOfMeasure></UnitOfMeasure>
    <WarehouseLocation></WarehouseLocation>
    <ParentLineKey>501</ParentLineKey>
  </LineItem>
  <LineItem>
    <LineKey>509</LineKey>
    <BuyerSKU>MXC-MS02K</BuyerSKU>
    <BuyerSKUAuthority></BuyerSKUAuthority>
    <Quantity>1</Quantity>
```

```
        <ListPrice>250.0</ListPrice>
        <SellerPrice></SellerPrice>
        <SellerSKU></SellerSKU>
        <SellerSKUAuthority></SellerSKUAuthority>
        <StatusCode></StatusCode>
        <UnitOfMeasure></UnitOfMeasure>
        <WarehouseLocation></WarehouseLocation>
        <ParentLineKey>508</ParentLineKey>
    </LineItem>
</LineItemList>
</ShoppingCartTransfer>
</Comergent>
```

This chapter provides a detailed description of the configuration files used to specify the Sterling Multi-Channel Selling Solution. The main configuration files are found in *debs_home/Sterling/WEB-INF/properties/*.

The schema definition files used to define the data objects and database objects are found in *debs_home/Sterling/WEB-INF/schema/*.

Figure 3 on page 46 shows the hierarchy of the configuration files (for example, **web.xml** provides the pointer to **Comergent.xml** which provides pointers to other files and so on).

Summary of Configuration Files

The following diagram provides a schematic overview of the organization of the configuration files.

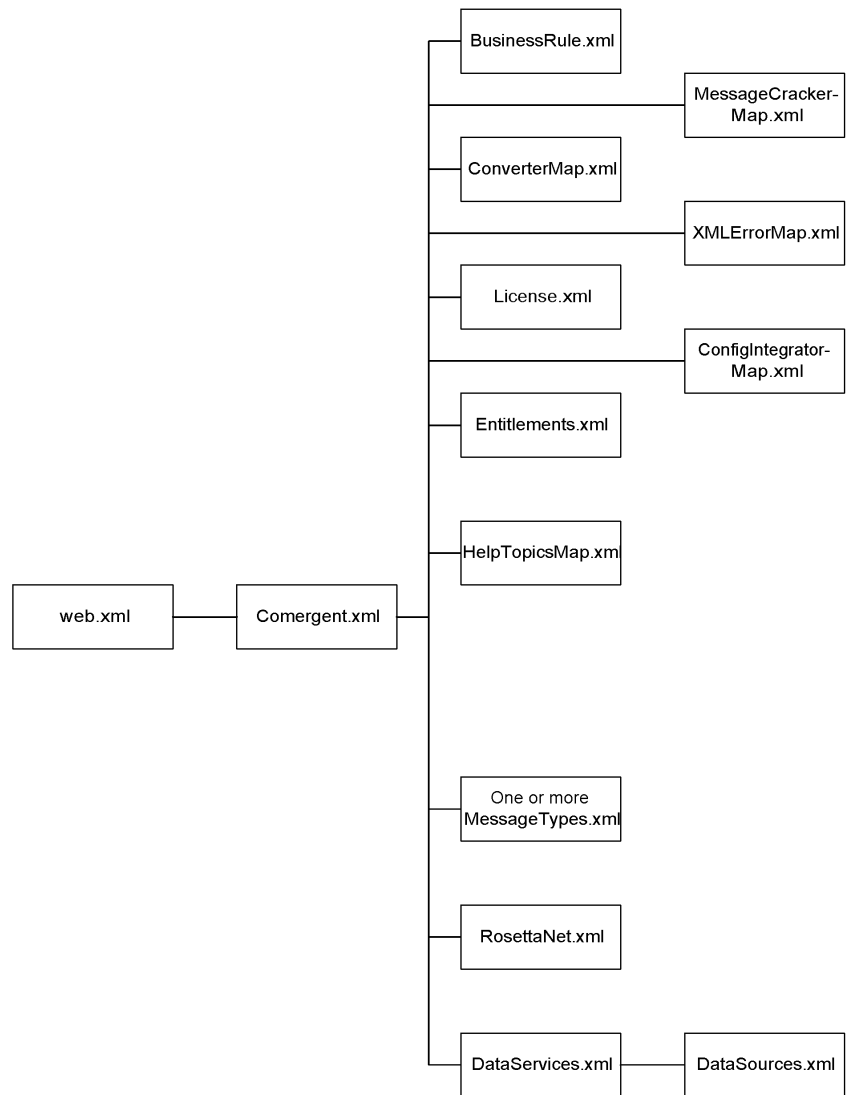


FIGURE 3. Organization of the Configuration Files

The configuration files are all XML documents that you can edit using your preferred text editor. Include comment lines in the configuration files by using the standard XML comment tags:

```
<!-- This is a comment -->
```

The properties files are organized as follows:

web.xml

This is the primary configuration file used by the Sterling Multi-Channel Selling Solution Web application. It is read by the servlet container to determine the basic configuration of the Web application. It must be in the *debs_home*/Sterling/WEB-INF/ directory.

prefs.xml

This file is the overlay configuration file: it enables you to overwrite property values that are defined in other configuration files. It can be created using the SDK or using the Preferences tool provided in the **cmgt-preferences-tools.jar**. By default, the **prefs.xml** configuration file is located in the *user_home/cmgt/debs/conf/* directory, where *user_home* is the home directory of the operating system user running the servlet container. You can use the `comergent.preferences.store` property to specify an alternate location of this file. When system properties are updated using the Sterling Multi-Channel Selling Solution Web interface, then the updated property values are saved to this file.

Comergent.xml

This file provides the basic configuration information for the Sterling Multi-Channel Selling Solution server and the location of the other properties files. The location of this file is specified in the **web.xml** file by the context parameter called "ConfigurationFile".

The **Comergent.xml** file is organized to use a number of subsidiary configuration files that specify the values of configuration parameters. Detailed descriptions of these subsidiary configuration files are provided in the *Sterling Multi-Channel Selling Solution Reference Guide*.

The `GeneralObjectFactory` element (in the **Comergent.xml** file) comprises the following two elements that specify subsidiary configuration files:

- The `messageTypeFilename` element points to the **MessageTypes.xml** files that are used to map message requests to the corresponding logic classes, controllers, and templates or JSP pages. The value of this element must be

a comma-delimited list of XML files, each of which conforms to the DTD defined by the **MessageTypes.dtd** file.

- The entitlementFilename element points to the **Entitlements.xml** file. This file determines the functionality that users can access.

ConfigIntegratorMap.xml

This configuration file provides parameters used to integrate the Sterling Configurator. If you have not licensed this product, then you do not have to modify this file. The location of this file is determined by the includeFile attribute of the configIntegratorMap element in **Comergent.xml**.

ConverterMap.xml

This file determines the converter classes used to convert messages to business objects and from business objects into messages. The location of this file is determined by the converterMap element in **Comergent.xml**. See "ConverterMap.xml" on page 50 for more information.

DataServices.xml

This file determines the location of the schema directory and the names of the files used to specify the business objects, recipes, data objects, and data sources. In addition, it is used to specify the Service classes used to process persist and restore calls (see the *Sterling Multi-Channel Selling Solution Reference Guide* for more details) and the Driver classes used to connect to databases. The location of this file is determined by the DataServices element in **Comergent.xml**. See "DataServices.xml" on page 51 for more information.

DataSources.xml

This file provides the connection information between the Sterling Multi-Channel Selling Solution and its Knowledgebase database server.

Entitlements.xml

This file specifies the roles available to users and how user types are defined by the set of roles available to them. See "Functional Entitlements" on page 141 for more information.

MessageTypes.xml Files

Your implementation of the Sterling Multi-Channel Selling Solution has one or more files that declare the message types for your implementation. These files

determine how each request is processed by the Web application. See "MessageTypes.xml Files" on page 54 for more information.

RosettaNetLocalDatabase.xml

Use this file to provide a local data set to use with RosettaNet transactions. If you are not implementing RosettaNet, then you do not need to modify this file. Its location is specified by the `includeFile` attribute of the `RosettaNetLocalPriceDatabase` element.

RosettaNet.xml

This file specifies return URLs for RosettaNet transactions. If you are not implementing RosettaNet, then you do not need to modify this file. Its location is specified by the `includeFile` attribute of the `RosettaNetReturnedURLMap` element.

BusinessRule.xml

The **BusinessRule.xml** configuration file is superseded in Release 7.1 and later. In Release 7.1 and later, the site-wide administration system properties reside in configuration files, while the tenant enterprise and storefront properties reside in the following knowledgebase tables:

- CMGT_SYS_PROPERTIES
- CMGT_SYS_PROPERTY_LOCALE
- CMGT_SYS_PROPERTY_UI_HINTS

See CHAPTER 9, "Knowledgebase Schema" for more information about these properties tables.

There is one copy of the system properties and business rules for the tenant enterprise, and one copy of the system properties and business rules for each storefront. To administer site-wide properties at the enterprise level, you log in as the site administrator user to the tenant administration site:

```
http://<server name>/Sterling/en/US/enterpriseMgr/admin
```

You administer tenant enterprise and storefront business rules from the Business Rules page of the System Administration panel. In Release 7.1 and later, the file **WEB-INF\xml\data\StorefrontSysProperties.xml** contains system properties for the storefront. The file **WEB-INF\xml\data\StorefrontBusinessRules.xml** contains business rules for the storefront.

ConverterMap.xml

This file provides the information that determines how messages are converted into business objects. The server identifies each message by message family and message version and invokes the corresponding converter class to generate the business objects.

Here is a sample file:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Comergent>
  <ConverterMap displayName="ConverterMap.ConverterMap">
    <Comergent_1_0 controlType="text" runtimeDisplayed="true"
      ChangeOnlyAtBootTime="true" visible="true" boxsize="45" displayQues-
      tion="Comergent_1_0" defaultChoice="com.comergent.dcm.con-
      verter.Converter10Impl" help="This deals with the property of
      Comergent_1_0">
      com.comergent.dcm.converter.Converter10Impl
    </Comergent_1_0>
    <Comergent_2_0 controlType="text" runtimeDisplayed="true"
      ChangeOnlyAtBootTime="true" visible="true" boxsize="45" displayQues-
      tion="Comergent_2_0" defaultChoice="com.comergent.dcm.con-
      verter.Converter20Impl" help="This deals with the property of
      Comergent_2_0">
      com.comergent.dcm.converter.Converter20Impl
    </Comergent_2_0>
    <cXML controlType="text" runtimeDisplayed="true" ChangeOnlyAt-
      BootTime="true" visible="true" boxsize="45" displayQues-
      tion="Comergent_CXML"
      defaultChoice="com.comergent.dcm.converter.ConverterCXMLImpl"
      help="This deals with the property of Comergent_CXML">
      com.comergent.dcm.converter.ConverterCXMLImpl
    </cXML>
    <MessageFamily controlType="text" runtimeDisplayed="true"
      ChangeOnlyAtBootTime="true" visible="true" boxsize="45" displayQues-
      tion="MessageFamily" defaultChoice="Root" help="This deals with the
      property of MessageFamily">
      Root
    </MessageFamily>
    <MessageVersion controlType="text" runtimeDisplayed="true"
      ChangeOnlyAtBootTime="true" visible="true" boxsize="45" displayQues-
      tion="MessageVersion" defaultChoice="MessageVersion" help="This deals
      with the property of MessageVersion">
      MessageVersion
    </MessageVersion>
  </ConverterMap>
</Comergent>
```

DataServices.xml

This file specifies parameters used by the data services layer of the Sterling Multi-Channel Selling Solution. Specifically, it determines the location of the XML schema files, the Service classes used to restore and persist business objects, and the Driver classes used to connect to databases through the JDBCService class. The DsDataSources element specifies the location of the file that sets the database connection information.

Here is a sample file:

```
<?xml version="1.0" encoding="UTF-8"?>
<Comergent>
  <General displayName="DataServices.General">
    <Comergent_1_0 controlType="text" runtimeDisplayed="true"
      ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
      displayQuestion="Comergent_1_0"
      defaultChoice="com.comergent.dcm.dataservices.MsgServiceV1"
      help="This deals with the property of Comergent_1_0">
      com.comergent.dcm.dataservices.MsgServiceV1
    </Comergent_1_0>
    <Comergent_2_0 controlType="text" runtimeDisplayed="true"
      ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
      displayQuestion="Comergent_2_0"
      defaultChoice="com.comergent.dcm.dataservices.MsgService"
      help="This deals with the property of Comergent_2_0">
      com.comergent.dcm.dataservices.MsgService
    </Comergent_2_0>
    <DsBusinessObjects controlType="text" runtimeDisplayed="true"
      ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
      displayQuestion="DsBusinessObjects"
      defaultChoice="DsBusinessObjects.xml"
      help="This deals with the property of DsBusinessObjects">
      DsBusinessObjects.xml
    </DsBusinessObjects>
    <DsConstraints controlType="text" runtimeDisplayed="true"
      ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
      displayQuestion="DsConstraints"
      defaultChoice="DsConstraints.xml"
      help="This deals with the property of DsConstraints">
      DsConstraints.xml
    </DsConstraints>
    <DsDataElements controlType="text" runtimeDisplayed="true"
      ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
      displayQuestion="DsDataElements"
      defaultChoice="DsDataElements.xml"
      help="This deals with the property of DsDataElements">
```

```
DsDataElements.xml
</DsDataElements>
<DsDataSources controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="DsDataSources"
  defaultChoice="OracleDataSources.xml"
  help="This deals with the property of DsDataSources">
  OracleDataSources.xml</DsDataSources>
<DsKeyGenerators controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="DsKeyGenerators"
  defaultChoice="OracleKeyGenerators.xml"
  help="This deals with the property of DsKeyGenerators">
  OracleKeyGenerators.xml
</DsKeyGenerators>
<DsRecipes controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="DsRecipes" defaultChoice="DsRecipes.xml"
  help="This deals with the property of DsRecipes">
  DsRecipes.xml
</DsRecipes>
<JdbcDriver1 controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="JdbcDriver1"
  defaultChoice="oracle.jdbc.driver.OracleDriver"
  help="This deals with the property of JdbcDriver1">
  oracle.jdbc.driver.OracleDriver
</JdbcDriver1>
<JdbcService controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="JdbcService"
  defaultChoice="com.comergent.dcm.dataservices.JDBCService"
  help="This deals with the property of JdbcService">
  com.comergent.dcm.dataservices.JDBCService
</JdbcService>
<MsgService controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="MsgService"
  defaultChoice="com.comergent.dcm.dataservices.MsgService"
  help="This deals with the property of MsgService">
  com.comergent.dcm.dataservices.MsgService
</MsgService>
<Rosettanet_1_1 controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="Rosettanet_1_1"
  defaultChoice="com.comergent.dcm.dataservices.-
  RosettaNetMsgService"
  help="This deals with the property of Rosettanet_1_1">
  com.comergent.dcm.dataservices.RosettaNetMsgService
```



```
</Rosettanet_1_1>
<ServerId controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="ServerId" defaultChoice="1"
  help="This deals with the property of ServerId">1</ServerId>
<schemaRepository controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="schemaRepository"
  defaultChoice="WEB-INF/schema"
  help="This deals with the property of schemaRepository">
  WEB-INF/schema
</schemaRepository>
</General>
<Microsoft displayName="DataServices.Microsoft">
<SQL>
<Server>
<DATE controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="DATE" defaultChoice="11"
  help="This deals with the property of DATE">
  11
</DATE>
<MaxRequestsPerConnect controlType="text"
  runtimeDisplayed="true" ChangeOnlyAtBootTime="true"
  visible="true" boxsize="45"
  displayQuestion="MaxRequestsPerConnect" defaultChoice="1"
  help="This deals with the property of MaxRequestsPerConnect">
  1
</MaxRequestsPerConnect>
<UpperCase controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="UpperCase" defaultChoice=""
  help="This deals with the property of UpperCase"/>
</Server>
</SQL>
</Microsoft>
<Oracle displayName="DataServices.Oracle">
<LowerCase controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="LowerCase"
  defaultChoice="LOWER("
  help="This deals with the property of LowerCase">
  LOWER(
</LowerCase>
<MaxRequestsPerConnect controlType="text"
  runtimeDisplayed="true" ChangeOnlyAtBootTime="true"
  visible="true" boxsize="45"
  displayQuestion="MaxRequestsPerConnect" defaultChoice="16"
  help="This deals with the property of MaxRequestsPerConnect">
```

```
16
</MaxRequestsPerConnect>
<UpperCase controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="UpperCase" defaultChoice="UPPER("
  help="This deals with the property of UpperCase">
  UPPER(
</UpperCase>
</Oracle>
</Comergent>
```

MessageTypes.xml Files

Each request received by the Sterling Multi-Channel Selling Solution provides a parameter whose name is "cmd". The value that the parameter takes is the name of a message type. The message type determines how the request is processed by determining which controller, business logic class, and JSP page are used to process the request and display the result. See the *Sterling Multi-Channel Selling Solution Developer Guide* for a more detailed description of processing requests.

When the Sterling Multi-Channel Selling Solution starts up, the system reads in all the **MessageTypes.xml** files specified in the messageTypeFilename element of the **Comergent.xml** file. The system creates a mapping between each message type and the corresponding controllers, business logic classes, and JSP page to be used to process the message type.

Each **MessageTypes.xml** file is an XML file that conforms to following structure:

- A MessageTypes element: this is the document root element and contains MessageGroup and MessageType child elements.
- Each MessageGroup element contains MessageGroup, MessageType, MessageGroupRef, and MessageTypeRef elements and also Description, GroupDefault, BLCMapping, ControllerMapping, FallbackRedirect, JSPMapping, PLCMapping, SecurityLevel, TemplateMapping elements. Each MessageGroup element aggregates a set of related MessageGroups and MessageTypes and can define properties pertaining to all members of the group.

Message groups are used to define roles so that by associating roles to users you can manage which message types can be executed by which users. See "Entitlements.xml" on page 48 for more information.

- Each MessageType element contains a Description, GroupDefault, BLCMapping, ControllerMapping, FallbackRedirect, JSPMapping,

PLCMapping, SecurityLevel, TemplateMapping elements. Together these determine how a request of this message type is processed.

- MessageGroupRef elements provide a means to reference a MessageGroup defined elsewhere. This means that you can specify the definition of a message group separately from declaring where it is in the MessageGroup hierarchy.
- MessageTypeRef elements provide a means to reference a MessageType defined elsewhere. This means that you can specify the definition of a message type separately from declaring its location in a message group.
- Description elements are contained in MessageGroup and MessageType elements and describe in free text the contained element.
- GroupDefault elements (deprecated) define a fallback MessageType for a particular application endpoint. See "MessageGroupDefaults Message Group" on page 55 for more information on how defaults can be specified.
- BLCMapping elements (deprecated) define a mapping to a Business Logic Class (BLC).
- ControllerMapping elements define a mapping to a Controller class. Each message type should declare a ControllerMapping element. If it does not, then the Controller mapping defined in the MessageGroupDefaults MessageGroup is used to process a message of this type.
- FallbackRedirect elements define a set of fallback MessageTypes.
- Redirect elements define a fallback redirect for a particular endpoint.
- JSPMapping elements define a mapping to a JSP Page.
- PLCMapping elements (deprecated) define a mapping to a Presentation Logic Class (PLC)
- SecurityLevel elements characterize the security level expected for a message type or group.
- TemplateMapping elements (deprecated) define a mapping to a Template file.

MessageGroupDefaults Message Group

One special MessageGroup whose name is "MessageGroupDefaults" defines the set of default elements to be used if a MessageType does not define an element. For example, the child element:

```
<ControllerMapping>
```

```
        com.comergent.dcm.caf.controller.ForwardController  
    </ControllerMapping>
```

ensures that if a message type does not define what controller should process the request, then the ForwardController should do so.

Sterling Multi-Channel Selling Solution Schema

This chapter describes how to use an XML schema to define the business and data objects used by the Sterling Multi-Channel Selling Solution. Note that Release 8.0 and higher makes almost exclusive use of data objects: the use of business objects is deprecated.

You should understand basic XML concepts such as well-formed XML documents, elements, validation, DTDs, and element type declarations.

Introduction

The Sterling Multi-Channel Selling Solution uses the data integration layer to abstract the specifics of each installation of the Sterling Multi-Channel Selling Solution and its implementation at a specific site. The data integration layer comprises the recipes and data objects that manage data sources to provide the content from the Knowledgebase and local ERP systems.

The `ObjectManager` and `DataManager` classes are used to instantiate data objects as data beans, and they pass these objects to the business logic classes and controllers designated to process each request. Data beans are Java classes whose source is generated automatically using the `generateBean` target provided as part of the Software Development Kit. See the *Sterling Multi-Channel Selling Solution Developer Guide* for more information about the use of the Software Development Kit. Each data bean class extends the `DataBean` abstract class which provides a set

of methods used to access and manage the internal data of the data bean. These methods use the DataManager class, but its use is invisible to the developers using the data bean classes. Use the ObjectManager to create data beans: see the *Sterling Multi-Channel Selling Solution Developer Guide* for more information.

The DataManager class creates each data object from its definition in the XML schema using a *recipe* and one or more *data objects*. At runtime, the DataManager creates the data object using an appropriate recipe determined by the DataManager. The recipe specifies the data objects and data sources to be used to populate the data object. For example, a data source can be a database, an XML message, or an ERP system.

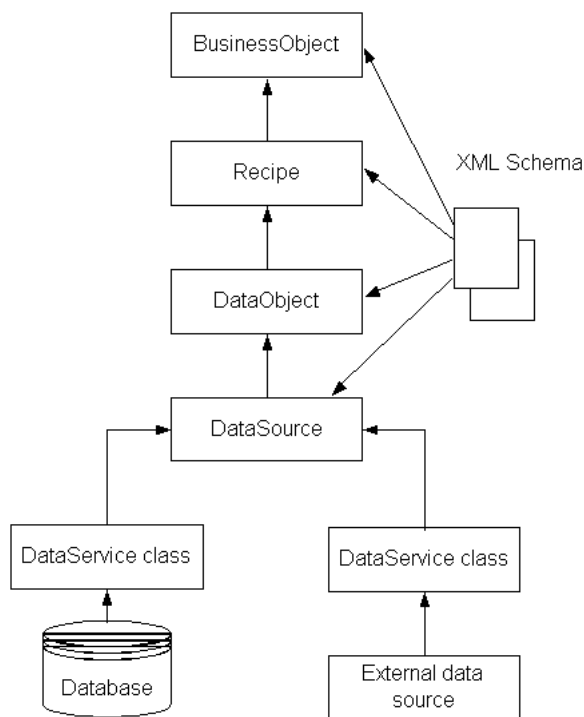


FIGURE 4. Sterling Multi-Channel Selling Solution Schema

The data objects define the structure of the data bean and how the data is to be retrieved from the data source. The recipe associated to a data object specifies a DataSource for each data object and each data object definition declares any related reference or child data objects that are part of its definition. The DataSource determines the service class that is used to retrieve the data and the location of the

data source (typically, a database or file location). For example, if the `DataSource` is equal to “PA-MSG”, then this name is used to determine which Service class is used to retrieve the data from the external system (see “DataSource Element” on page 61).

Use data beans for your work rather than business objects. All Version 5.0 and higher data objects use their data beans to manage their data in the Sterling Multi-Channel Selling Solution.

Typically, data objects are created using one of two recipes: a recipe or a recipe for accessing remote sources.

- When you run the generateDTD SDK target to generate the business object DTDs, it uses the default recipe. The default recipe is used if no recipe is specified when the `getBusinessObject()` method is called by a business logic class. (See “Business Object DTD Generation” on page 89.)
- `DataService` classes use the recipe for remote data sources when the `DataService` class is accessing an external data source that supplies the data object data in the form of an XML message. You can use the same recipe to access more than one external data source. At runtime, the Sterling Multi-Channel Selling Solution consults the naming service to determine the URL to which the message request is sent.

Data objects hold their data in tree structures whose nodes are each `DsElements`. You can use the methods of the `DataBean` classes and interfaces to create and modify data objects. When a bizlet or controller uses methods from these classes, errors will result in `ICCEExceptions` being thrown. These must be caught and handled by the bizlets that access the data objects. See the *Sterling Multi-Channel Selling Solution Developer Guide* for more details.

When the Sterling Multi-Channel Selling Solution starts up, it reads in the XML schema used to create the data objects from text files. A reference schema is supplied when Sterling Multi-Channel Selling Solution is installed. Modify this schema to ensure that the relevant data sources are used to populate the data objects.

Schema File Structure

The schema for the Sterling Multi-Channel Selling Solution network must be agreed upon by all partners in the network. Typically, the organization(s) hosting an enterprise server defines the schema and then requires that each of their partners create a schema at the installation of a partner enterprise server that ensures that each message and data object has the correct structure.

The schema is defined as a set of XML files as described in the following sections.

DataServices.xml Configuration File

The **DataServices.xml** configuration file provides the top-level view of the underlying data services used by the Sterling Multi-Channel Selling Solution. It declares some general properties of the data services layer, and specific data sources to be used data objects.

General Properties

The **DataServices.xml** file specifies the directory location of the XML schema as the `schemaRepository` element. For example, suppose that the **DataServices.xml** file includes the lines:

```
<schemaRepository controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="schemaRepository" defaultChoice="WEB-INF/schema"
  help="This deals with the property of schemaRepository">
  WEB-INF/schema
</schemaRepository>
```

In Release 6.3 and higher, there is the capability to manage schema customizations in a separate sub-directory. The **DataServices.xml** file declares a `schemaRepositoryExtn` element as follows:

```
<schemaRepositoryExtn controlType="text" runtimeDisplayed="true"
  ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
  displayQuestion="Schema Repository Directory Location"
  defaultChoice="WEB-INF/schema" help="Enter the path of the XML
  schema Repository.">WEB-INF/schema/custom</schemaRepositoryExtn>
```

Custom data object definitions and their declarations in **DsBusinessObjects.xml**, **DsDataElements.xml**, and **DsRecipes.xml** can now be managed separately from the release schema. See the *Sterling Multi-Channel Selling Solution Developer Guide* for more information.

On start-up, the server looks in the directory *debs_home/Sterling/WEB-INF/schema/* for the schema files. The schema file names are also defined in **DataServices.xml**. Their default names are described below.

Data Sources

Each data source is declared using the `DataSource` element. This element lists the data sources referenced by data objects.

DataSource Element

Each DataObject needs to retrieve data from an external data source. To accomplish this you need to maintain information relating to each specific data source. Each data source is declared as a child element of the DataSource element of the **DataServices.xml** configuration file. Each of these elements points to a particular external source, specifying the DataService class that connects to the source and provides any parameters that the DataService class needs. Note that the **prefs.xml** configuration file is used to override values defined in the **DataServices.xml** configuration file, so you should check both files when troubleshooting data services problems.

```
<DataSource displayName="DataServices.DataSource" visible="true">
  <ENTERPRISE displayName="DataServices.DataSource.ENTERPRISE" visible="true">
    <DataService controlType="text" runtimeDisplayed="true"
ChangeOnlyAtBootTime="true" visible="true" boxsize="45" displayQuestion="ENTERPRISE Data Service" defaultChoice="JdbcService"
help="Enter the name of the Data Service to use (JdbcService, OdbcService, LocalDataService).">JdbcService</DataService>
    <SrcvSubType controlType="text" runtimeDisplayed="true"
ChangeOnlyAtBootTime="true" visible="true" boxsize="45" displayQuestion="Database type" defaultChoice="ORACLE" help="Enter the database type (ORACLE, MS, DB2).">ORACLE</SrcvSubType>
    <ConnectString controlType="text" runtimeDisplayed="true"
ChangeOnlyAtBootTime="true" visible="true" boxsize="45" displayQuestion="Database Connection String" defaultChoice="jdbc:oracle:thin:@lalo:1521:DEBS" help="Enter the database connection string.">jdbc:oracle:thin:@lalo:1521:DEBS</ConnectString>
    <UserId controlType="text" runtimeDisplayed="true" ChangeOnlyAtBootTime="true" visible="true" boxsize="45" displayQuestion="Database UserId" defaultChoice="cmgtuser" help="Enter the database user id.">matrix70</UserId>
    <Password controlType="text" runtimeDisplayed="true" ChangeOnlyAtBootTime="true" visible="true" boxsize="45" displayQuestion="Database Password" defaultChoice="cmgtpassword" help="Enter the database password.">matrix70</Password>
    <Encrypted controlType="text" runtimeDisplayed="true"
ChangeOnlyAtBootTime="true" visible="true" boxsize="45" displayQuestion="Is Password Encrypted" defaultChoice="false" help="Is the Password (Preference) encrypted.">>false</Encrypted>
    <MaxConnections controlType="text" runtimeDisplayed="true"
ChangeOnlyAtBootTime="true" visible="true" boxsize="45" displayQuestion="Maximum Database Connections" defaultChoice="-1" help="Enter the maximum number of concurrent database connections.">-1</MaxConnections>
    <MaxPoolSize controlType="text" runtimeDisplayed="true"
ChangeOnlyAtBootTime="true" visible="true" boxsize="45" displayQuestion="Maximum Database Pool Size" defaultChoice="10" help="Enter the maximum number of database pool connections.">10</MaxPoolSize>
  </ENTERPRISE>
</DataSource>
```

```
tion="Connection Pool Size" defaultChoice="-1" help="Enter the number
of connections to be pooled.">50</MaxPoolSize>
  <UseAnsiLOJ controlType="text" runtimeDisplayed="true"
ChangeOnlyAtBootTime="true" visible="true" boxsize="45" displayQues-
tion="Use ANSI Left Outer Join Syntax" defaultChoice="true" help="Con-
trols whether Oracle or ANSI Left Outer Join syntax is used">true</
UseAnsiLOJ>
  </ENTERPRISE>
  <MESSAGE displayName="DataServices.DataSource.PARTNER"
visible="true">
    <DataService controlType="text" runtimeDisplayed="true"
ChangeOnlyAtBootTime="true" visible="true" boxsize="45" displayQues-
tion="MESSAGE Data Service" defaultChoice="LocalDataService"
help="Enter the name of the Data Service to use (JdbcService, OdbcSer-
vice, LocalDataService).">LocalDataService</DataService>
  </MESSAGE>
</DataSource>
```

Notes

The **DataService** element indicates which **DataService** class should be instantiated. The **DataService** value is normally a reference such as “JDBC”, “MSSQL”, “ODBC”, or “MSG” to a class. The **DataServices.xml** configuration file maps each value of **DataService** to a Java class. For example, suppose that the properties file has entries:

```
<MsSqlService controlType="text" runtimeDisplayed="true"
ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
displayQuestion="MsSqlService class name"
defaultChoice="com.comergent.dcm.dataservices.MsSqlService">
  com.comergent.dcm.dataservices.MsSqlService
</MsSqlService>
<OdbcService controlType="text" runtimeDisplayed="true"
ChangeOnlyAtBootTime="true" visible="true" boxsize="45"
displayQuestion="OdbcService Class Name"
defaultChoice="com.comergent.dcm.dataservices.OdbcService">
  com.comergent.dcm.dataservices.OdbcService
</OdbcService>
<JdbcService controlType="text" runtimeDisplayed="true" ChangeOnlyAt-
BootTime="true" visible="true" boxsize="45" displayQuestion="JdbcSer-
vice class name"
defaultChoice="com.comergent.dcm.dataservices.JDBCService" >
  com.comergent.dcm.dataservices.JDBCService
</JdbcService>
<MsgService controlType="text" runtimeDisplayed="true" ChangeOnlyAt-
BootTime="true" visible="true" boxsize="45" displayQuestion="MsgSer-
vice class name"
defaultChoice="com.comergent.dcm.dataservices.MsgService">
  com.comergent.dcm.dataservices.MsgService
```

</MsgService>

A `DataSource` that specifies `DataService="JDBC"` uses the `JDBCService` class found in the classpath, whereas a `DataSource` specifying `MSG` is processed using the `MSGService` class found in the **custom/** path.

The other `Primary` and `Alternate` attributes are the source-specific connection parameters used by the `DataService` class. For database connections, these typically include any protocol and authentication parameters.

Schema Definition Files

For Release 8.0 of the Sterling Multi-Channel Selling Solution, the following files comprise the definition of the schema:

- **DsBusinessObjects.xml**: specifies the business objects used by the Sterling Multi-Channel Selling Solution. See "BusinessObject Element" on page 64. In Release 8.0, this is used primarily for DTD generation only.
- **DsConstraints.xml**: defines the constraints used by the Sterling Multi-Channel Selling Solution. You use these elements to ensure that certain fields take values in pre-defined ranges. See "Constraint Element" on page 84.
- **DsDataElements.xml**: creates a "dictionary" of data elements that specifies the data type for each element. `DataElements` can be reused by multiple `DataObjects`. See "DataElement Element" on page 85.
- **DsRecipes.xml**: defines the recipes used by the Sterling Multi-Channel Selling Solution to create data objects. See "Recipe Element" on page 64. You can include any number of recipes in this file, but you must ensure that for each business object declared in **DsBusinessObjects.xml**, there is a corresponding default recipe that has the same *name* as the business object.
- **DsKeyGenerators.xml**: specifies the ways in which keys are generated in order to identify business objects in the Sterling Multi-Channel Selling Solution uniquely. See "KeyGenerator Element" on page 87.
- **<DataObject>.xml**: defines the data object structure and external data fields that are used to create the data objects. Recipes define the data objects. By changing the recipe used to create the data object, you can change the data object.

Schema Specification

This section describes the major elements of the schema.

BusinessObject Element

Each business object used in the Sterling Multi-Channel Selling Solution must be declared as a business object element in the **DsBusinessObjects.xml** schema file. Note that the business objects schema file does not itself specify the structure of the resulting business objects. The Recipe and the related DataObject files determine the structure of each data object. This structure is reflected in the generated DTDs.

```
<BusinessObject Name="businessObjectName" Version="version"
  Description="description"/>
```

Business object definitions are primarily a legacy from earlier releases of the Sterling Multi-Channel Selling Solution. They are still used to generate DTDs for each data object.

Notes

- The Version attribute is not used in Release 8.0, but it does provide information for developers who may need to customize the business object.
- The Description attribute is optional and allows the creator to provide a description for display or reference purposes.

Recipe Element

The **DsRecipes.xml** file declares the complete list of recipes and data objects used by the Sterling Multi-Channel Selling Solution. A data source is associated to a data object by means of a recipe. Each Recipe element provides the name of the corresponding data object(s) and their data source.

```
<Recipe Name="name" Version="version" BusinessObject="businessObject"
  ShowInactive="y|n" Description="description">
  <DataObjectList>
    <DataObject Name="dataObjectName" Access="access"
      DataSourceName="dataSourceName"
      Ordinality="1|n"/>
  </DataObjectList>
</Recipe>
```

The required BusinessObject attribute specifies for which business object the recipe is used. As described above, when a data object is created by the DataManager class, it is created using a recipe specified by its name. If no named recipe is

provided, then a default recipe whose name is the same as the data object must be used.

The `<DataObject>` elements indicates the main source of data. The string *dataObjectName* must correspond to an existing `DataObject`. The `Access` attribute is used to specify what level of access the data services layer has to the data object: it takes one or more of the values D (delete), I (insert), R (read), W (write). In general, set this to `Access="DIRW"`.

The `DataSourceName` attribute specifies the data source used to retrieve and store data for this data object. The value of the `DataSourceName` attribute must match the `Name` attribute of a `DataSource` element in the **DataSources.xml** file. The `Ordinality` attribute is used to determine whether one or more objects can be restored as a list data object. If the `Ordinality` attribute is set to "n", then a list data bean class will be created for this data object.

In Release 6.4.1 and higher of the Sterling Multi-Channel Selling Solution, more than one `DataObject` element may be defined in the `DataObjectList` element.

You can use the `ShowInactive` attribute to hide or expose inactive business objects. To show inactive business objects, set the attribute to "y". If the attribute is set to any other value or is absent, by default it is assumed that the attribute is set to "n". Consequently, inactive data objects are hidden from business logic classes because when *restore()* is called on the corresponding bean, the inactive data objects are not restored.

In some parts of the Sterling Multi-Channel Selling Solution, you want users to be able to delete objects (so that they do not see them any more), but not actually delete them from the database: so that you can run reports on them for example. Use the `ACTIVE_FLAG` column for this: it sometimes maps to an explicit `ActiveFlag` data field in data objects, but more usually uses a "hidden" data field that the data services layer uses. If an application invokes *delete()*, then when the object is persisted the value "N" gets set in the `ACTIVE_FLAG` column. (Note calling *delete()* is not enough to delete the object, it just marks the data object for deletion: you must call *persist()* to actually cause the database operation.)

If the `ShowInactive` attribute is set to "n" in the recipe for the data object, then any *restore()* operation will automatically filter out those records that have the `ACTIVE_FLAG` column value of "N". Alternatively, setting the attribute to "y" will ensure that *restore()* operations retrieve all of the records. The default (if you do not declare the `ShowInactive` attribute) is to assume it has been set to "n".

In some circumstances you might want to display only active data objects to some users, and display all the data objects to another class of users. In this case, you can

either create two data objects one whose recipe sets the ShowInactive attribute to “n” and the other sets it to “y”, or you can create just one data object definition and set the attribute to “y”, but then you must ensure that applications filter out the inactive data objects as part of their business logic.

Because the ActiveFlag data field is not explicitly declared in data object definitions, it is easy to miss the fact that if you want to define a new data object and corresponding database table, then you must create a column called ACTIVE_FLAG in the table even though there is no visible data field that maps to it. You should set a default value on this column of 'Y' so that when objects are created they are created with the active flag set to 'Y'. For example, in Oracle syntax:

```
ACTIVE_FLAG VARCHAR2(1) DEFAULT 'Y'
```

If you do not create an ACTIVE_FLAG column in the database table, then you must set the ShowInactive attribute to “y”.

DataObject Elements

For each data object, the DataObject element declared in the corresponding **<Data object>.xml** file defines the mechanism and field mappings used when retrieving data. Each DataField declared in a DataObject must have a corresponding DataElement of the same name. If a DataField does not have a corresponding DataElement, then an error will be thrown when the Sterling Multi-Channel Selling Solution starts up.

DataElement attributes are used by each DataField of the same name. You can override attribute values by declaring them in the DataField element.

Note: If you use the same name for two different DataFields, then make sure that the same DataElement definition is valid for both DataFields or override attributes that are different in the two uses.

The DataObject comprises header information (expressed as attributes of the DataObject element), included and child data object information, and data field information. See the following sections:

- "Header Information" on page 67
- "Included Data Objects" on page 71
- "Child Data Objects" on page 73
- "Data Fields" on page 78

Note that older versions of data objects declare one or more `ExternalObject` specifications, each of which contain one or more `DataField` specifications. If the `DataObject` accesses an underlying database, then each external object maps to an individual table, view, or stored procedure that is specified by the `ExternalName` attribute of the `ExternalObject`. The `Relationship` and `KeyFields` specifications describe the relationship between the individual `ExternalObjects`.

Header Information

A typical `DataObject` definition begins:

```
<DataObject Name="Campaign" ExternalName="CMGT_CAMPAIGN"
  Extends="C3RW" SourceType="1" ObjectType="JDBC" Version="6.0">
```

- The `Name` attribute is used to determine the name of the generated Java `DataBean` class and its interfaces.
- The `ExternalName` attribute is the name of the underlying database table or stored procedure used to save and retrieve data for the data object.
- The `Extends` attribute is used to manage your hierarchy of data objects. See "Extending Data Objects" on page 70 for details.

When you define data objects, take care to specify the `SourceType` attribute. It can take the following values:

- "1": the underlying data source uses a table. This is the default value.
- "2": the underlying data source uses a stored procedure. See "Stored Procedures for DataObjects" on page 68 for more information.

If no `SourceType` attribute is defined, then the default value means that a table is the underlying source type for the data object.

If the `DataObject` rests upon a database source, then the `DataObject` element describes precisely how each element of the `DataObject` is populated from columns of one or more tables of the database. If the `DataObject` rests upon a non-relational data source (such as an XML message or flat file), then the `ExternalObjects` describe the structure of the `DsElement` result set. Note that some elements of the `DataObject` do not need to be populated from the data source, but might be assigned values through the application.

Each `ExternalObject` declaration results in a `Header DsElement` that contains its `DataFields`.

For relational data sources, the `DataObject` automatically generates a SQL statement that retrieves all the data as a single request. It generates relevant insert,

update, and delete requests for each of the external objects that make up the DataObject.

Stored Procedures for DataObjects

Associating a data object to a stored procedure can be accomplished as follows. In the XML data object definition file for the data object:

1. Specify the stored procedure name in the ExternalName attribute of the DataObject. For Oracle, the stored procedure name should be prefixed by its package name.
2. Specify the SourceType attribute for the data object and assign it a value of “2”.
3. Specify all input parameters as data fields with a ParameterType attribute value of “IN”.
4. Ensure all input parameters are also specified as key fields.
5. Specify all output parameters as data fields with a ParameterType attribute value of “OUT”. You must also specify an ExternalFieldName attribute for these fields. This is not used and so you can set any value for the attribute.
6. Specify all result parameters as data fields with a ParameterType attribute value of “RESULT”. Note that the result set is returned directly by the procedure call. The result parameters correspond to the columns that comprise the result set.

See the *Sterling Multi-Channel Selling Solution Developer Guide* for more information on using stored procedures.

Localizing Data Objects

Release 6.4.1 and higher of the Sterling Multi-Channel Selling Solution supports enhanced localization capabilities. In particular, it is possible for data objects to support data for more than one locale. To do so:

1. You must set the Localized attribute of the DataObject to “Y”.
2. Reference the data object that holds the localized data using the ReferenceDataObject element.
3. Create the referenced data object. This data object must have two fields: a KeyField that is used to join to the referencing data object, and a locale data field. Every other data field declared in the referenced data object can be accessed from the referencing data object using the standard DataBean

accessor methods and will automatically reflect the current locale of the Sterling Multi-Channel Selling Solution.

4. Populate the locale table for the referenced data object. In Release 8.0, when new data objects are created using Sterling Multi-Channel Selling Solution, the data provided is used to populate the locale table. You must manually replace the data with locale-specific data.

For example: suppose that you wish to localize the Enquiry data object.

1. Set the Localized attribute of the DataObject element in **Enquiry.xml** to “Y”.
2. Declare a reference data object:

```
<ReferenceDataObject Name="EnquiryLocale" />
```

3. Create a EnquiryLocale data object in the file **EnquiryLocale.xml** as follows:

```
<?xml version="1.0"?>
<DataObject Name="EnquiryLocale"
  ExternalName="CMGT_ENQUIRY_LOCALE"
  Access="RWID" Ordinality="1"
  ObjectType="JDBC" Version="5.0">
  <KeyFields>
    <KeyField Name="EnquiryKey" ExternalName="ENQUIRY_KEY"/>
    <KeyField Name="Locale" ExternalName="LOCALE"/>
  </KeyFields>
  <Relationship CascadeDelete="Y" CascadeErase="Y">
    <JoinKeys>
      <JoinKey JoinField="EnquiryKey"
        SourceField="ENQUIRY_KEY" />
    </JoinKeys>
  </Relationship>
  <DataField Name="Locale"
    Writable="y" Mandatory="y"
    ExternalFieldName="LOCALE" DefaultValue="Locale"/>
  <DataField Name="Name"
    Writable="Y" Mandatory="Y"
    ExternalFieldName="NAME"/>
  <DataField Name="Description"
    Writable="Y" Mandatory="N"
    ExternalFieldName="DESCRIPTION"/>
</DataObject>
```

As well as ENQUIRY_KEY and LOCALE, the underlying CMGT_ENQUIRY_LOCALE table has two columns, NAME and DESCRIPTION, which now hold data for each supported locale. See "Internationalization" on page 164 for further information on the structure of the locale tables.

Abstract Data Objects

A data object may be declared as abstract using the Abstract attribute of the DataObject element. If a data object is declared as abstract (Abstract="Y"), then when the generateBean target is run, the resulting DataObject class is declared as an abstract Java class. Thus, you cannot instantiate a data object if its DataObject element is declared as abstract. By default, DataObject elements are not abstract.

Extending Data Objects

One data object may *extend* another data object. When one data object extends another, it inherits all of the attributes and elements of the extended data object. You can add data fields to the extending data object or overwrite attributes, elements, and data fields of the extended data object. Use the Extends attribute of the DataObject element to declare that a data object extends another.

If one data object extends another, then when the generateBean target is run, the DataBean Java class of the extending data object extends the DataBean Java class of the extended data object. Thus the hierarchy of data objects is reflected in the corresponding hierarchy of generated DataBean Java classes.

Typically, you use the capability of extending data objects to create a hierarchy of data objects in which data objects that have common properties are extended from a common data object.

For example, in the reference implementation of the Sterling Multi-Channel Selling Solution, there is a data object called C3RW. It declares four data fields: CreatedBy, CreateDate, UpdatedBy, and UpdateDate. The C3PrimaryRW data object extends C3RW by adding two more data fields: OwnedBy and AccessKey. It extends C3RW with this element:

```
<DataObject Name="C3PrimaryRW" Extends="C3RW" Abstract="Y"
  Version="5.0">
```

Note that all data objects that make use of the ACL mechanism to manage access *must* extend the C3PrimaryRW data object. See the *Sterling Multi-Channel Selling Solution Developer Guide* for more information.

In turn, the ShoppingCart data object extends the C3PrimaryRW data object using:

```
<DataObject Name="ShoppingCart" Extends="C3PrimaryRW">
```

As a result the ShoppingCart data object has the following fields declared in its super data objects: CreatedBy, CreateDate, UpdatedBy, UpdateDate, OwnedBy, and AccessKey. Note that these data fields inherit the attributes declared in the super data objects. For example, CreatedBy is a mandatory element of the

ShoppingCart data object because CreatedBy is declared as a mandatory element of C3RW.

You can overwrite attributes of data fields of the extended object simply by declaring the same data fields in the extending data object. That is, if the extending data object declares a data field which has the same name (value of the Name attribute) as a data field of the extended data object, then the attributes in the extending data object's data field definition override those set in the extended data object's definition of the data field.

Included Data Objects

In Release 8.0, you can include one data object as a component of another data object by using the IncludedDataObject element. This usage is the same as ReferenceDataObject whose usage is deprecated in Release 8.0. The Name attribute of this element specifies the data object to be included. There must be a one-to-one relationship between the containing object and included data object.

- Invoking the *restore()* method on the containing data object results in a left outer join to retrieve the included data object.
- Invoking the *persist()* method on the containing data object results in all data being saved including that of the included data object.

The most common use of IncludedDataObject elements is in extending existing data objects by adding data fields. In situations where a parent object is extended by more than one data object, it is common practice to define the fields that extend the parent using an included data object. In this way, the extending data objects can make use of common data fields and a database table for the common data fields, and then separately manage their extensions in separate data fields and separate database tables.

The DstJoinField and SrcJoinField attributes are used to tie the included data object to the including Data object: the DstJoinField must be a data field of the included data object and the SrcJoinField must be a data field of the including data object.

For example, in the reference schema both the Order and Quote data objects extend the OrderInquiryList data object whose external database table is CMGT_OIL. The Order and Quote data objects declare as an IncludedDataObject an OrderExtension and QuoteExtension data object respectively. The data object definitions of Order and Quote are

```
<DataObject Name="Order" Extends="OrderInquiryList"
  ObjectType="JDBC" Version="6.0">
  ...
<IncludedDataObject Access="RWID" Name="OrderExtension"
```

```
        Ordinality="1">
        <Relationship CascadeDelete="y" CascadeErase="n">
            <JoinKeys>
                <JoinKey DstJoinField="OECartKey"
                    SrcJoinField="ShoppingCartKey"/>
            </JoinKeys>
        </Relationship>
    </IncludedDataObject>
    ...
```

and

```
    <DataObject Name="Quote" Extends="OrderInquiryList"
        ObjectType="JDBC" Version="6.0">
    ...
    <ReferenceDataObject Access="RWID" Name="QuoteExtension"
        Ordinality="1">
        <Relationship CascadeDelete="y" CascadeErase="n">
            <JoinKeys>
                <JoinKey DstJoinField="QuoteExtensionKey"
                    SrcJoinField="ShoppingCartKey"/>
            </JoinKeys>
        </Relationship>
    </ReferenceDataObject>
    ...
```

The referenced data objects are defined by:

```
<?xml version="1.0"?>
<DataObject Name="OrderExtension" ExternalName="CMGT_ORDER_EXTN"
    ObjectType="JDBC" Version="6.0">
    <KeyFields>
        <KeyField ExternalName="CART_KEY" Name="OECartKey"/>
    </KeyFields>
    <DataFieldList>
        <DataField ExternalFieldName="CART_KEY" Mandatory="n"
            Name="OECartKey" Writable="y"/>
        <DataField ExternalFieldName="ORDER_REF_NUMBER" Mandatory="n"
            Name="OrderRefNumber" Writable="y"/>
        ...
        other data fields
        ...
    </DataFieldList>
</DataObject>
```

and

```
<?xml version="1.0"?>
<DataObject Name="QuoteExtension" ExternalName="CMGT_QUOTE_EXTN"
    ObjectType="JDBC" Version="6.0">
    <KeyFields>
```

```

        <KeyField ExternalName="CART_KEY" Name="QuoteExtensionKey"/>
    </KeyFields>
    <DataFieldList>
        <DataField ExternalFieldName="CART_KEY" Mandatory="n"
            Name="QuoteExtensionKey" Writable="y"/>
        <DataField ExternalFieldName="EXPIRY_DATE" Mandatory="y"
            Name="ExpiryDate" Writable="y"/>
    </DataFieldList>
</DataObject>

```

The IncludedDataObject declarations for Order and Quote both specify the SrcJoinField to be the ShoppingCartKey data field of the OrderInquiryList data object (this maps to the CART_KEY column in CMGT_OIL). Note that this field is actually inherited from the ShoppingCart data object which the OrderInquiryList data object extends. The OrderExtension and QuoteExtension data objects declare their external database tables to be CMGT_ORDER_EXTN and CMGT_QUOTE_EXTN, respectively.

At the database level, this means that for each order and quote, data is held in CMGT_OIL table and is joined by the ShoppingCartKey field to a record in the CMGT_ORDER_EXTN and CMGT_QUOTE_EXTN tables respectively.

- For an order, when the joins are performed it is on the CMGT_OIL.CART_KEY (the SrcJoinField) and CMGT_ORDER_EXTN.CART_KEY (the DstJoinField) columns.
- For a quote, when the joins are performed it is on the CMGT_OIL.CART_KEY (the SrcJoinField) and CMGT_QUOTE_EXTN.CART_KEY (the DstJoinField) columns.

Child Data Objects

In Release 6.0 and higher, one data object can own another data object by using the ChildDataObject element. ChildDataObjects should be listed last, after DataField and IncludedDataObject declarations. The Name attribute of this element specifies the child data object. There can be a many-to-one relationship between the child object and owning data object.

- Invoking the *restore()* method on the owning data object results in a retrieval of only the root data. Child data object data is retrieved on the first reference to the child.
- Invoking the *persist()* method on the owning data object results in all data being saved including that of the child data object(s).

The ChildDataObject element has the following attributes:

- Name: specifies the data object for the child data object.
- Access: specifies what data access the parent object has acting on the child object.
- Ordinality: if one or more data objects can be children, then set to “n”; otherwise set to “1”.
- Overrides: this attribute can be used when the parent data object of the child data object extends another data object. If the extended data object declares a child data object, but you want to specify the use of a different child data object in the extending data object, then the Overrides attribute is used to express that. For example: suppose that ChannelShoppingCart extends ShoppingCart, and the ShoppingCart data object declares a child data object by:

```
<ChildDataObject Access="RWID" Name="LineItem" Ordinality="n">
```

In the ChannelShoppingCart data object, a child data object is declared as:

```
<ChildDataObject Access="RWID" Name="ChannelLineItem"
  Ordinality="n" Overrides="LineItem">
```

Because the ChannelLineItem child data object overrides the LineItem child data object it is used instead of the LineItem data object.

If you have a hierarchy of data objects, each of which have a child data object, and you want each child data object to override the child above, then you must set the value of the Overrides attribute to the child of the *topmost* data object. For example, consider the three data objects ShoppingCart, OrderInquiryList, and Order where OrderInquiryList extends ShoppingCart and Order extends OrderInquiryList. Each have child data objects:

LineItem, OrderInquiryListLineItem, and OrderLineItem. To ensure that the corresponding child data objects override each other, you must set:

```
<ChildDataObject Access="RWID" Name="OrderLineItem"
  Ordinality="n" Overrides="LineItem">
```

in the Order data object and

```
<ChildDataObject Access="RWID" Name="OrderInquiryListLineItem"
  Ordinality="n" Overrides="LineItem">
```

in the OrderInquiryList data object.

Each ChildDataObject element must include a Relationship element that is used to determine the relationship between parent and child: typically, you use this element to define the join keys using a JoinKey element. You must define a join key using:

- a SrcJoinField attribute to specify the parent’s DataField;
- a DstJoinField attribute to specify the DataField in the child data object.

The Relationship element supports the following optional attributes:

- **CascadeDelete**: if you set this to “y”, then if the parent object is deleted, then the child items are also deleted.
- **CascadeErase**: if you set this to “y”, then if the parent object is erased, then the child items are also erased.
- **ChangeUpdatesParent**: if you set this to “y”, then if a change is made to a child object, then the parent is marked as having changed too, and so its updated date will be changed if the parent object is persisted.

For example, suppose that the following is part of a data object definition:

```
<DataObject Name="ShoppingCart" Extends="C3PrimaryRW"
  ExternalName="CMGT_CARTS" Access="RWID" Ordinality="1"
  ObjectType="JDBC" Version="5.0">
...
  <DataFieldList>
    <DataField Name="ShoppingCartKey"
      Writable="y" Mandatory="n"
      ExternalFieldName="CART_KEY"/>
    <!-- Other data field definition .... -->
  </DataFieldList>
...
<ChildDataObject Name="LineItem" Access="RWID" Ordinality="n">
  <Relationship CascadeDelete="y" ChangeUpdatesParent="y">
    <JoinKeys>
      <JoinKey
        SrcJoinField ="ShoppingCartKey"
        DstJoinField="CartKey" />
    </JoinKeys>
  </Relationship>
</ChildDataObject>
```

Suppose that the definition of the LineItem data object includes:

```
<DataObject Name="LineItem" Extends="C3PrimaryRW"
  ExternalName="CMGT_CART_LINE" Access="RWID" Ordinality="n"
  ObjectType="JDBC" Version="5.0">
...
  <DataFieldList>
    <DataField Name="CartKey"
      Writable="y" Mandatory="n"
      ExternalFieldName="CART_KEY"/>
    <!-- Other data field definition .... -->
  </DataFieldList>
</DataObject>
```

Then, when ShoppingCart data objects are restored, line items will be restored by performing a join on the CMGT_CARTS column CART_KEY with the CART_KEY column of the CMGT_CART_LINE table. If any change is made to a line item, then when the ShoppingCart data object is persisted, both the LineItem and the ShoppingCart are marked as updated.

By default, the join operation is LEFT OUTER, but you can specify an EQUI join using the optional JoinOperator attribute.

Note that when you define a child data object, you should not include the parent data object key in the definition of the child data object.

External Objects

There is a legacy form of the data object definition that uses ExternalObject elements. The ExternalObjectList element declares the list of ExternalObjects used to populate the business object. It contains one or more ExternalObject elements that typically map to individual database tables. The case of message-based retrieval has only a single ExternalObject.

- Each ExternalObject element typically represents a single database table or message type. ExternalObject Name attribute is the DsElement name for the “HEADER” element that is the parent of all DataFields that make up this ExternalObject.
- The ExternalObject ExternalName attribute is the name of the underlying database table (or view) or message type. The ExternalAlias attribute is an optional attribute indicating an alias name applied to all references to the ExternalObject. This allows SQL to be generated that references multiple instances of a given table or view.

Access Control

The Access attribute of an ExternalObject element indicates the allowable access for this ExternalObject. This consists of one or more of the following:

- R (Read): read data from the external data source
- I (Insert): insert new data (such as a new row into a database table).
- W (Write): modify data (such as updating a row in a database table).
- D (Delete): delete data (such as deleting a row from a database table).

You cannot use the business object method *persist()* to update data in a table if the Access attribute does not include “W”.

Additional Selection Criteria

For some data objects, you may want to add additional selection criteria that should be added to the SELECT operation WHERE clause before the query is executed. Use the SelectionCriteria and JoinCriteria elements to do this. For example, consider this data object definition:

```
<?xml version="1.0"?>
<DataObject Name="InvoiceBillAddress" Extends="InvoiceAddress"
  ObjectType="JDBC" Version="6.0">
  <SelectionCriteria
    Value="CMGT_INVOICE_ADDRESSES.ADDRESS_TYPE=1" />
</DataObject>
```

The InvoiceBillAddress data object extends the InvoiceAddress data object. It has exactly the same data fields, but adds a SelectionCriteria element. When InvoiceBillAddress data beans are restored, then the additional clause “AND CMGT_INVOICE_ADDRESSES.ADDRESS_TYPE=1” is appended to the SELECT statement’s WHERE clause. This ensures that only billing addresses are retrieved.

The value of the SelectionCriteria element is added to the SELECT statement used to restore the data object as a string, and so you can use this element to add conditions such as “CMGT_USER_CONTACTS.SUFFIX IS NOT NULL” simply by setting:

```
<SelectionCriteria Value="CMGT_USER_CONTACTS.SUFFIX IS NOT NULL" />
```

However, note that because you are passing in strings to the SELECT statement, you must make sure that they have valid syntax for the database server running the Knowledgebase.

You can also use this element to add an additional join to a restore operation. However, note that due to differences in the way that different database servers support joins, you must be careful in defining the join. The syntax of the join operation may vary from one database server to another, so you may need to maintain different versions of the same data object if your implementation may be deployed across different database servers. In particular, in Oracle you can add a selection criterion outside a join statement, but in SQL Server you must add a JoinCriteria element to the ReferenceDataObject element so that the criteria is built into the join clause.

For example, in Oracle, you can add a SelectionCriteria element after the definition of the ReferenceDataObject element:

```
<ReferenceDataObject Access="RWID" Name="ConfigVersionLookup"
  Ordinality="1">
```

```
<Relationship CascadeDelete="y" CascadeErase="y">
  <JoinKeys>
    <JoinKey DstJoinField="ModelKey" SrcJoinField="ModelKey"/>
  </JoinKeys>
</Relationship>
</ReferenceDataObject>
<SelectionCriteria Value="CMGT_ITEMS.PARENT_KEY(+)= -1"/>
```

The equivalent definition for SQL Server is to define in the ConfigVersionLookup data object itself the following ReferenceDataObject:

```
<ReferenceDataObject Access="RWID" Name="ItemsRefLookup"
  Ordinality="1">
  <Relationship CascadeDelete="y" CascadeErase="y">
    <JoinKeys>
      <JoinKey DstJoinField="VersionKey"
        SrcJoinField="VersionKey"/>
    </JoinKeys>
    <JoinCriteria Value="CMGT_ITEMS.PARENT_KEY=-1"/>
  </Relationship>
</ReferenceDataObject>
```

Data Fields

The DataFieldList element contains one or more field DataField elements. Each DataField element *must* have a corresponding DataElement. The DataElement provides the type information for this DataField. Any attribute declared in the DataField definition overrides the corresponding attribute value in the DataElement.

Attention: The DataFields that are also listed in the KeyFields element (see "Key Generation" on page 81) must come before all the other DataField elements.

- The DataField Name attribute indicates the named DataElement that corresponds to this DataField.
- The DataField Writable attribute indicates whether the DataField value can be changed. It takes values “y” or “n”. By default, it takes the value “n”.

- The DataField Mandatory attribute indicates whether the DataField must be provided for an INSERT or UPDATE request called by the *persist()* method. It takes the values “y” or “n”. By default, it takes the value “n”.

When a *persist()* operation is performed on a DataObject, each mandatory DataField is checked. Each mandatory field must have a non-null value and Strings must not be equal to “”. When a *restore()* operation is performed on a DataObject, no check is made that all of the mandatory fields are populated with non-null data.

- The DataField ValidateXml attribute indicates whether the DataManager validates the data for this DataField. Validation comprises type checking, mandatory field checking, and constraint validation. It takes the values “y” or “n”. By default, it takes the value “y”.
- The DataField ExternalFieldName attribute specifies the DataSource-specific field that contains data for this DataField. Typically, this is a database column. This attribute is required for databases, but is ignored for message-based data requests. In the case of linked DataObjects this attribute is not used. Instead the attribute “LinkedDataObject” is used to point to another DataObject.

If no ExternalFieldName attribute is defined for a data field, then the data field is not used during *restore()* or *persist()* operations. However, the corresponding data bean still provides accessor methods for the data field. Such data fields are often useful to store the results of runtime calculations (such as totals) or to manage the display of strings that represent status codes. The code may be what is saved in the database, but users will understand the string better than a numeric code. Such fields are referred to as *transient*: their data is not persistent beyond the in-memory life of the bean.

For example, suppose that a data object uses the following data field definitions:

```
<DataField Name="ShippingMethod" Mandatory="n" Writable="y"/>
<DataField Name="ShippingMethodCode"
  ExternalFieldName="SHIPPING_METHOD_CODE"
  Mandatory="n" Writable="y"/>
```

The ShippingMethod data field is used for display purposes: it is populated by a string using the *setShippingMethod(String s)* of the data bean. The string that is used is determined by retrieving the value of the ShippingMethodCode data field and then using the lookup code table (CMGT_LOOKUPS: see CHAPTER 9, "Knowledgebase Schema" for more

information) to convert this to the corresponding string. If the data bean is passed to a JSP page, then the *getShippingMethod()* can be used to display the string to the user.

- Use the DataField WhereClauseOnly attribute to mark fields that should only be used to build WHERE clauses and cannot be read by business objects.
- The DataField supports the AllowSetTemporary attribute. If this attribute is set to “y”, then the Bean Generator will generate a *setTempFieldName(datatype value)* method in both the IRd interface and in the DataBean. Invoking this method enables you to write to a read-only DataField. It does set linked lookup values. If you invoke a *persist()* call on the data object, then the changes made to this field are not written to the Knowledgebase. The AllowSetTemporary attribute cannot be set to “y” if the Writable attribute is set to “y”.
- You can specify a default value for a data field using the DefaultValue attribute. During a *persist()* operation, if the value of the DataField where DefaultValue is specified is null, then the data services layer will automatically enter the value using the value of the DefaultValue attribute.

DefaultValue=“<Any string>”: any hard-coded string can be used for the default value. This is cast to the appropriate type before the *persist()* operation is invoked. There are three special values of this string whose behavior is different:

- DefaultValue=“Locale”: enter current user session locale.
- DefaultValue=“SYSDATE”: enter current timestamp.
- DefaultValue=“CurrentUser”: enter current user key.

You can specify that a given DataField is a linked DataObject. In this case, there is no ExternalFieldName. Instead, we specify the name of a different DataObject that is used to retrieve this portion of the business object’s data. This data retrieval can be considered a lazy link in that the data is retrieved from the DataSource only when you reference that DataField. Linked DataObjects must be the last DataFields in a given ExternalObject.

Note: In Release 7.1 and later, the use of linked DataObjects is deprecated. Instead, you should use child DataObjects. See "Child Data Objects" on page 73.

DataFields that comprise the primary key must appear before non-key DataField elements. A DataObject element may specify one or more KeyGenerator elements (see "KeyGenerator Element" on page 87).

Key Generation

Many of the business objects used in the Sterling Multi-Channel Selling Solution are identified by a unique key that is used as a primary key in one of the underlying database tables. In order to ensure that an appropriate key is generated for these business objects, you must define an appropriate key generator. Key fields are ignored for message-based business objects.

- The KeyFields element contains a list of one or more KeyField elements. This structure indicates the fields that constitute the primary key for this ExternalObject. Every key field must be declared in the list of data fields.
- The KeyField's Name attribute is the DataField name that makes up part of the primary key. The ExternalName attribute is the database column for the primary key. The KeyGenerator attribute indicates the name of the key generator to be used to create key values.

Key generators are defined in the **DsKeyGenerators.xml** configuration file. Typically, this is the name of a procedure that invokes a sequence generator. This field is required only for generated keys. See "KeyGenerator Element" on page 87 for more information.

Relationships

Use the Relationship element to express parent-child relationships between ExternalObjects. The Relationship element is required for any ExternalObject that is joined to a parent. The Relationship Parent attribute indicates which named ExternalObject is the parent. The JoinOperator attribute indicates the join mechanism to use. The following joins are currently supported:

- EQUI JOIN
- LEFT OUTER JOIN
- CROSS JOIN
- INNER JOIN

The INNER JOIN requires that there are matching records in all joined tables. For example, if a User DataObject includes an Address Reference DataObject using INNER JOIN on UserKey, then a restore of UserList will only return Users that have an Address.

The CascadeDelete attribute indicates whether deletion of the parent should automatically result in deletion of occurrences of this ExternalObject. The JoinKeys element contains a list of one or more key mappings that qualify the join.

The JoinField attribute of the JoinKey element indicates the DataField in the ExternalObject that is to be used in the join. The SourceObject attribute indicates the underlying database table that corresponds to the parent ExternalObject. The SourceField attribute indicates the underlying database field of the SourceObject that is used to form the join.

Ordering and Grouping

You can order and group the business objects as they are returned from a restore operation using these elements:

- The OrderByFields element is an optional element that provides for requesting specific ordering of the results or a restore operation. It comprises a list of OrderByField elements.
- For each OrderByField element:
 - The OrderByField Name attribute of an OrderByField element specifies a named DataField by which to order the results.
 - The OrderByField Ascending attribute of an OrderByField element indicates whether the order is ascending or descending. It takes the values “Y” or “N”.

For example:

```
<OrderByFields>
  <OrderByField Name="ContractKey" Ascending="Y" />
</OrderByFields>
```

- The GroupByFields element is an optional element that provides for requesting specific grouping of the results or a restore operation.
- The GroupByField element’s Name attribute specifies named DataFields by which to group the results. It uses the DISTINCT SQL keyword to group the results by the field values. For example:

```
<GroupByFields>
  <GroupByField Name="SKU" />
  <GroupByField Name="StartDate" />
  <GroupByField Name="EndDate" />
  <GroupByField Name="SupplierID" />
</GroupByFields>
```

Template for the DataObject Element

The following provides a basic template for DataObject definitions:

```
<DataObject Name="name" Version="version" Extends="parentDataObject"
  ObjectType="JDBC" >
```

```

<KeyFields>
  <KeyField Name="name" ExternalName="externalName"
    KeyGenerator="generator"/>
</KeyFields>
<DataFieldList>
  <DataField Name="name" Writable="y/n"
    Mandatory="mandatory"
    ValidateXml="Y/N"
    ExternalFieldName="externalField"/>
</DataFieldList>
<IncludedDataObject Access="RWID" Name="dataObjectName"
  Ordinality="1">
  <Relationship CascadeDelete="y" CascadeErase="y">
    <JoinKeys>
      <JoinKey DstJoinField="dstJoinField"
        SrcJoinField="srcJoinField"/>
    </JoinKeys>
  </Relationship>
</IncludedDataObject>
<ChildDataObject Access="RWID" Name="childDataObject" Ordinality="n"
  Overrides="parentChildDataObject">
  <Relationship CascadeDelete="y" CascadeErase="n">
    <JoinKeys>
      <JoinKey DstJoinField="dstJoinField"
        SrcJoinField="srcJoinField"/>
    </JoinKeys>
  </Relationship>
</ChildDataObject>
</DataObject>

```

Notes

- The Name attribute provides a unique label for the DataObject.
- The Version attribute is required and allows for upgrade compatibility.
- The ObjectType attribute is a flag to indicate the type of the underlying data source. In most cases, this must be set to “JDBC” to indicate that the data source is a database and the JDBCService class is used to restore and persist the data object. If the ObjectType attribute is set to “MSG”, then a message service class is used to restore and persist the data object.
- The Ordinality attribute of the ExternalObject element indicates whether there is one occurrence of the ExternalObject (“1”), or if there is a list (“n”). If the value is “n”, then a “LIST” DsElement is created that is the parent of all occurrences of this External Object. The name of the list element is the ExternalObject Name appended by “List”.

- Use the CheckConsistency attribute to specify whether *persist()* operations should check to see if the DataObject has been updated since it was last restored. See "Optimistic Concurrency" on page 90 for more information. Set it to "Y" ensure that the consistency check is performed. If the attribute is set to "N", then no check is performed. By default, the attribute is set to "N".

Constraint Element

The Constraint element lets you specify the values that a particular data field may take. It allows you to handle minimum and maximum values (ranges) and lists of allowable value. For example:

```
<Constraint Name="constraintName" DataType="dataType">
  <MinimumValue>"minimumValue"</MinimumValue>
  <MaximumValue>"maximumValue"</MaximumValue>
  <AllowableValueList>
    <Value>"value1"</Value>
    <Value>"value2"</Value>
  </AllowableValueList>
</Constraint>
```

Notes

The Name attribute provides a unique label for the constraint. The Version attribute is required to allow for upgrade compatibility. The DataType attribute must be one of the following:

- BOOLEAN
- DATE
- DECIMAL
- DOUBLE
- LONG
- STRING

The Description attribute is an optional attribute that lets you provide a description for display or reference.

The MinimumValue element is an optional element that specifies the minimum allowed value. The MaximumValue element is an optional element that specifies the maximum allowed value. The AllowableValueList element is an optional element that allows for the specification of one or more Value elements. These are the only values accepted for a Data Element that uses this constraint.

DataElement Element

The DataElement elements declared in the schema indicate the type and structure of the elements read from the external data sources. More than one DataField element may refer to a DataElement, and the same definition is used in all cases. Note that if an attribute is defined in a DataField, then it overrides the value defined in the DataElement.

DataElements are declared in the **DsDataElements.xml** file. To avoid multiple definitions of the same DataElement, we *strongly* suggest that you list all DataElements in alphabetical order.

DataField DataElements

DataElement specifications provide a mechanism to ensure consistent definition of data components across all uses. Each DataObject DataField reuses the same existing DataElement definition. The DataField can specify additional or overriding information necessary to map it to the underlying data source.

```
<DataElement Name="name" LongName="longName" DataType="dataType"
    MaxLength="maxLength" Constraint="constraint" Scale="scale"
    Encryption="1-way" LookupCode="lookupCode"
    LookupType="lookupType" LookupString="lookupString" />
```

ExternalObject DataElements

If you use ExternalObjects in the definition of data objects, then in addition to defining a DataElement for each DataField declared in a DataObject, you must also define DataElements for each ExternalObject in the DataObject. In general, you must declare a DataElement for each ExternalObject. It must have the same name as the ExternalObject and it must have DataType “HEADER”. In addition, if the Ordinality of the ExternalObject is “n”, then you must also declare a list DataElement. The name of the list DataElement must be *<ExternalObject Name>List* and it must have DataType “LIST”.

For example, suppose that the following descriptions of DataElements are provided.

```
<DataElement Name="Address" Description="Address" DataType="HEADER"/>
<DataElement Name="AddressList" Description="Address List"
    DataType="LIST"/>
```

When a DataObject declares an ExternalObject whose Name is “Address”, then the above description is used.

Notes

The Name attribute provides a unique label for the DataElement. The LongName attribute is an optional attribute that lets you provide a descriptive name for display or reference. The DataType attribute must be one of the following:

- BOOLEAN
- DATE
- DECIMAL
- DOUBLE
- LONG
- STRING
- LIST
- HEADER

Use the LIST and HEADER DataTypes to define the DataElements associated with ExternalObjects. Do not use them to define DataElements that correspond to DataFields. The MaxLength attribute indicates the maximum length of the value. The Constraint attribute is the name of a constraint used to validate input values.

For a DataElement of DataType DECIMAL, the Scale attribute specifies the number of digits to the right of the decimal point.

The Encryption attribute marks fields whose values must be encrypted before storing them. For example, use this attribute to ensure that passwords are encrypted in a database. If the value of this attribute is “1-way” or “2-way”, then the data value is encrypted. If the attribute takes any other value or is missing, then no encryption is used.

With both encryption methods, the value is encrypted as soon as it is set in a DataBean or BusinessObject. With “1-way” encryption, this encrypted value can be compared to the encrypted value stored in the database, but it can never be decrypted. With “2-way” encryption, the value is encrypted when set, but a call to the *restore()* method will decrypt the value. As soon as a value is set in a DataBean it is immediately encrypted. For 2-way encryption the value is only decrypted when it is returned from the DataBean via an accessor method.

By default, encryption makes use of the **dcmsKey.ser** file generated by the Sterling Multi-Channel Selling Solution. See the *Sterling Multi-Channel Selling Solution Implementation Guide* for more information.

The lookup attributes are used as follows:

- **LookupCode:** specifies that lookup codes are used to populate this element. It must be used in conjunction with a **LookupType** attribute.
- **LookupString:** specifies that lookup description strings are used to populate this element. It must be used in conjunction with a **LookupType** attribute.
- **LookupType:** specifies the lookup type whose lookup code values are used to populate this element.

KeyGenerator Element

The Sterling Multi-Channel Selling Solution uses keys to identify business objects uniquely that are stored in the Knowledgebase. The **KeyGenerator** elements declared in the schema are used by the **DataObjects** to determine how to generate key values. Each **KeyProcedure** element has a name and a generator type. See "**DataObject Elements**" on page 66 for more information regarding the use of key generators.

If the generator type is "PROCEDURE", then a key procedure name must provide a database stored procedure that returns a new key value. If the generator type is "MAX_VALUE", then the key is generated using the maximum current value of the specified column as a seed to an internal key generator.

```
<KeyGenerator Name="name"
  KeyProcedureName="keyProcedureName"
  GeneratorType="PROCEDURE"/>
<KeyGenerator Name="name"
  GeneratorType="MAX_VALUE"/>
```

Schema Element

The **BusinessObject**, **DataObject**, and **DataSource** element specifications must be wrapped with a **Schema** element that provides a schema Name, Version number, and Description:

```
<Schema Name="schemaName" Version="version"
  Description="description">
</Schema>
```

Data Object Inheritance

The definition of data objects supports inheritance. That is, a data object can be defined to extend another data object in much the same way that one Java class can be defined to extend another Java class.

Function

By using data object inheritance, you can simplify the definition of your data objects by defining one or more data objects as being extensions of a single parent data object. In this way, all the data elements that the child data objects have in common can be defined once in a common location.

For example, the C3RW data object is used to define a base data object whose only data fields are: UpdateDate, UpdatedBy, CreateDate, CreatedBy, and the DeleteFlag.

The C3PrimaryRW data object extends this data object by adding the data fields OwnedBy and AccessKey. Any data object that extends the C3PrimaryRW data object already contains the definitions of the data fields declared in the C3RW and C3PrimaryRW data objects.

Usage

You declare data object inheritance using the Extends attribute of the DataObject element. When a data object extends another, all data fields defined in the extended data are automatically defined for the extending data object: you do not have to define them again. This means that if you are using a different database table for the extending data object, then you must check that for each data field defined in the extended data object, there is a column in the extending data object's database table (specified by the extending data object's ExternalName attribute) that corresponds to the value of its ExternalFieldName attribute.

You can use the Abstract attribute to ensure that the data object cannot be used to instantiate business objects. If you do not specify the Abstract attribute, then by default its value is "N" (No).

Example

In this example, we declare a data object called Comment.

```
<DataObject Name="Comment" Extends="C3PrimaryRW" Abstract="N"
  ExternalName="CMGT_COMMENT" Access="RWID" Ordinality="1"
  ObjectType="JDBC" Version="5.0">
  <KeyFields>
    <KeyField Name="CommentKey" ExternalName="COMMENT_KEY"/>
  </KeyFields>

  <DataField Name="CommentKey"
    Writable="y" Mandatory="y"
    ExternalFieldName="COMMENT_KEY"/>

  <DataField Name="Description"
```

```
Writable="y" Mandatory="n"  
ExternalFieldName="DESCRIPTION"/>  
</DataObject>
```

It extends the C3PrimaryRW data object, and so the following fields are implicitly declared:

- UpdateDate, UpdatedBy, CreatedDate, CreatedBy, DeleteFlag (declared in C3RW)
- OwnedBy, and AccessKey (declared in C3PrimaryRW)

Consequently, the CMGT_COMMENT database table must have the following columns: UPDATE_DATE, UPDATED_BY, CREATE_DATE, CREATED_BY, DELETE_FLAG, OWNED_BY, ACCESS_KEY, COMMENT_KEY, and DESCRIPTION.

Business Object DTD Generation

Each message that is transmitted from one Sterling Multi-Channel Selling Solution to another is validated against the server's DTDs to ensure correctness. The message type DTDs are created to meet the needs of the messages transmitted between servers. Typically, messages comprise header information together with one or more business objects.

The business object DTDs are generated automatically from the schema. This section describes how each business object DTD is generated from the corresponding business object XML file.

The generateDTD target parses the schema and generates a business object DTD for each business object it identifies in the schema. Run this target as part of the implementation process, and the DTDs that it generates are used at runtime by the Sterling Multi-Channel Selling Solution server.

This is how the generateDTD target works:

1. For each external object element, there is an element type declaration in the DTD.
2. If an external object has a Relationship element that identifies another external object as its parent, then it is included in the content rule of the parent element.
 - If the child external object Ordinality attribute is "1", then it appears as an element in the content rule of the parent object.
 - If the child external object Ordinality attribute is "n", then a list element is included in the content rule of the parent element. The list element name

appends “List” to the name of the child external object, and its content rule declares that it comprises multiple (zero or more) instances of the child external object.

3. Each DataField element of an external object is included in the content rule of the external object element type declaration.
4. The attribute list for the business object element declares its type to be “BusinessObject”.
5. Each DataField element of an external object is declared as an element in the content rule of the external object element type declaration. They take only character data as denoted by “#PCDATA”.

Optimistic Concurrency

In a multi-tier application such as the Sterling Multi-Channel Selling Solution, it is possible for two client applications to access the same data object concurrently, and they may both attempt to update the object. To manage this situation, the Sterling Multi-Channel Selling Solution enables you to specify how to resolve inconsistent changes that are applied to the same data object.

What is Optimistic Concurrency?

An Optimistic Concurrency mechanism is a common technique used to maintain database consistency while maximizing concurrent access. It achieves this by assuming that most updates will not be in conflict, and in those rare cases where a conflict exists, that is acceptable to reject the changes.

Database consistency is maintained by re-reading data to ensure that it has not changed since it was last read. Only if the data has not changed is an update allowed to proceed.

This technique minimizes long duration database locks thus maximizing concurrent access. It is used by Digital’s RDB (now owned by Oracle), the InterBase RDBMS, and numerous 4GL application environments.

Why Optimistic Concurrency?

The traditional approach to maintaining database consistency is to apply locks when the data is first read. These locks are then held until all updates are applied or until the application determines there will not be any updates. This is referred to as a pessimistic locking strategy.

While improvements in database lock management generally allow individual rows to be locked, there are several problems with this approach:

Since we do not know if the user will update a given piece of data, most data must be locked when it is first read. These locks may be held for several minutes while the user determines what to do with the data. This does not prevent other users from reading the data providing there is no possibility they will update it. However, during this time no one else can read the data using an application that has the potential to update the data since that will need to acquire conflicting locks.

The very nature of Web based applications causes complications. The server may frequently receive a request to retrieve data for possible update, but if the user then terminates the browser, jumps directly to another URL, or there is a network problem, the server may not receive notice that the data is no longer needed. This can lead to hanging transactions and locks. Over a period of time, these locks can accumulate, denying access to selected data, tying up lock resources, and can eventually completely lock up the database server until there is manual intervention by a database administrator.

A basic requirement of a pessimistic locking strategy is to provide all data access within the context of a single connection and transaction. This effectively means that each user requires a dedicated connection and transaction. Theoretically some databases support multiple concurrent transactions within the same connection, but in practice there is too much contention for connection based resources. Assigning a dedicated connection and transaction to each user ties up database resources even though the connections are idle for most of the elapsed time. Use of this technique would require massive database servers and would likely still reduce the number of users that could be concurrently supported.

Database Isolation Levels

Within the context of a transaction, ANSI defines 5 standard database isolation levels:

1. **Dirty Read:** An application will see all updates to a database, even if they have not been committed. This is also referred to as “Read Uncommitted”.
2. **Read Committed:** An application only sees updates that have been committed. This is the default isolation level for most databases including Oracle, Microsoft SQL Server, and DB2.
3. **Repeatable Read:** If an application reissues the same read (select) request it will not see any updates to records that it previously read. This is also referred to as “Stable Cursors”.

4. Phantom Protection: If an application reissues the same read (select) request it will not see records that have been inserted since the first read.
5. Serializable: This is an extreme isolation level. It guarantees that any updates applied by concurrent transactions will be applied in a manner equivalent to the completion of one transaction followed by the completion of the second transaction. This mode usually involves extreme locking techniques and is only used in rare circumstances, typically by financial applications.

Note: The ANSI standard assumes these isolation levels are cumulative. In the case of certain concurrency mechanisms that is not always the case.

The Optimistic Concurrency technique as implemented by the Sterling Multi-Channel Selling Solution provides isolation level 2 (Read Committed). This isolation level is consistent with common database programming practices, and is best suited to the nature of the Sterling Multi-Channel Selling Solution applications.

Controlling Consistency Checks

By setting the CheckConsistency attribute on a data object, you determine whether the Sterling Multi-Channel Selling Solution checks before updating a data object to see if it has been changed since it was last read:

- If CheckConsistency is set to “Y”, then if the data object has been changed since it was last read, then the *persist()* operation is not executed; otherwise the *persist()* is executed.
- If CheckConsistency is set to “N”, then the *persist()* operation is always executed.

Note that you can incur a minor performance cost by setting CheckConsistency to “Y”. The logic of the implementation is as follows:

If this CheckConsistency exists and is set to “Y”, then when the data services layer receives a *persist()* request that will result in the update of a database record, it first re-reads the "Update Date" for the record using its primary key. This same request applies a row-level lock. If the “Update Date” of the request does not agree with the “Update Date” of the database record to be updated, then an exception will be thrown and the entire request is rolled back.

The row-level lock is necessary to ensure the data is not changed between the time the record is re-read and the time the update is applied. Since this is controlled entirely within the context of a single *persist()* request, the lock duration can be kept to a minimum. Locks are released automatically upon the success or failure of a request.

Note that the Sterling Multi-Channel Selling Solution does not perform this check for “delete” or “erase” requests since these do not care about changes to underlying data. Concurrent “insert” requests cannot be in conflict.

What are the performance implications?

This technique will minimize the performance implications of ensuring data consistency. It should have almost no impact on read access. Update requests will likely incur a 50-75% performance penalty due to the need to re-read and lock the record prior to update. This is still preferable to the overall performance degradation introduced by a pessimistic locking strategy.

Example of Simultaneous Access

Suppose that a customer creates a product inquiry list and places an order. Subsequently, they email your customer support organization with a request to modify the order. A customer service representative accesses the order and begins to make the change. Simultaneously, the customer decides to make another change to the order and retrieves the order to add another product to it.

- Suppose that the CheckConsistency attribute of the Order DataObject is set to “Y”.
 - If the customer makes their change and saves their modified order first, then when the customer service representative comes to save their change to the order, an exception is thrown and the application alerts the customer service representative to the fact that the order changed while they were working on it.
 - The customer service representative saves their modifications to the order. When the customer attempts to save the change they have made to their order, then an exception is thrown and the customer is alerted to the fact that the order has been changed and their requested change has not taken effect.
- Suppose that the CheckConsistency attribute of the Order DataObject is set to “N”.
 - If the customer makes their change and saves their modified order first, then when the customer service representative comes to save their change to the order, their change overwrites the order and the customer’s change is lost.
 - The customer service representative saves their modifications to the order first. When the customer saves the change they have made to their order, then the change made by the customer service representative is lost.

Examples of Line Item Updating

The following examples cover the common use cases where multiple users are updating data concurrently.

Example 1: Non Conflicting Updates

1. User 1 retrieves Shopping Cart 1.
2. User 2 retrieves Shopping Cart 1.
3. User 1 Modifies Cart Line 1 and persists the changes:
4. Cart Line 1 is re-read and locked. The database Update Date matches the Update Date of the Shopping Cart Bean so the update is applied.
5. The transaction is committed releasing all locks.
6. User 2 Modifies Cart Line 1 and persists the changes:
7. Cart Line 1 is re-read and locked. The database Update Date DOES NOT match the Update Date of the Shopping Cart Bean so the update is NOT applied and an exception is thrown.
8. The transaction is rolled back releasing all locks.

Example 2: Conflicting Updates

1. User 1 retrieves Shopping Cart 1.
2. User 2 retrieves Shopping Cart 1.
3. User 1 Modifies Cart Line 1 and persists the changes:
4. Cart Line 1 is re-read and locked. The database UpdateDate matches the UpdateDate of the Shopping Cart Bean so the update is applied.
5. The transaction is committed releasing all locks.
6. User 2 Modifies Cart Line 2 and persists the changes:
7. Cart Line 2 is re-read and locked. The database UpdateDate matches the UpdateDate of the Shopping Cart Bean so the update is applied.
8. The transaction is committed releasing all locks

Example 3: Overlapping Updates

1. User 1 retrieves Shopping Cart 1.
2. User 2 retrieves Shopping Cart 1.

3. User 1 Modifies Cart Lines 1 and 3 and persists the changes: Cart Line 1 is re-read and locked. The database UpdateDate matches the UpdateDate of the Shopping Cart Bean so the update is applied.
4. Cart Line 3 is re-read and locked. The database UpdateDate matches the UpdateDate of the Shopping Cart Bean so the update is applied. The transaction is committed releasing all locks.
5. User 2 Modifies Cart Lines 2 and 3 and persists the changes: Cart Line 2 is re-read and locked. The database UpdateDate matches the UpdateDate of the Shopping Cart Bean so the update is applied.
6. Cart Line 3 is re-read and locked. The database UpdateDate DOES NOT match the UpdateDate of the Shopping Cart Bean so the update is NOT applied and an exception is thrown.
7. The transaction is rolled back releasing all locks and undoing the update of Cart Line 2.

Support for LOB Datatypes

BLOB and CLOB Support

In Release 6.0 and higher, the Sterling Multi-Channel Selling Solution has added support for Oracle BLOB and CLOB data types. BLOB is short for Binary Large Object and CLOB is short for Character Large Object.

Note:	Oracle BLOBs and CLOBs do not participate in transactions. This is an Oracle restriction.
--------------	---

BLOB Support

Oracle BLOBs can be accessed by using the new BLOB data type. Due to restrictions in the JDBC interfaces for BLOB data types there are some restrictions:

- Following a restore, the BLOB getter method will return a `FileInputStream` object.
- To provide a new BLOB, the setter method accepts a java `File` object as input: that is, *not* a `FileInputStream` object. This asymmetric interface is necessary due to limitations of the setter methods for JDBC parameters.
- It is not possible to issue an `UPDATE` that involves a BLOB. You must instead delete the record and insert a new one.

- The Oracle JDBC thin client driver will only support BLOBs of less than 10 MBytes. The ORACLE JDBC OCI driver must be used if larger BLOBs will be stored or retrieved.

CLOB Support

Oracle CLOBs can be accessed by using the Sterling Multi-Channel Selling Solution “OBJECT” or “STRING” data types. This has always been available, but was not recommended due to limitations in older versions of the Oracle JDBC drivers. It is now officially supported.

Usage Guidelines

If you have a need to store BLOB or CLOB data, then the following guidelines apply:

- The LOB data should be stored in a separate table that contains only the LOB column and the primary key of the referring object.
- In the Sterling Multi-Channel Selling Solution XML schema, the LOB data must always be referenced using a Child Data Object. This allows the Sterling Multi-Channel Selling Solution to take advantage of the lazy link mechanism to ensure that LOB data is only retrieved when absolutely necessary.

If these guidelines are not followed, then there can be severe performance consequences.

Generating Key Values

This section provides answers to commonly asked questions about key generators.

How do I specify that I need key values generated for a specific field?

A KeyGenerator can be specified as part of the KeyField specification for a DataObject. For example:

```
<KeyField Name="AccessKey" ExternalName="ACL_KEY"
  KeyGenerator="ACLKey" />
```

The KeyGenerator must then be defined in the ***DBTypeKeyGenerators.xml*** schema file. An example for a stored procedure-based key generator is:

```
<KeyGenerator Name="ACLKey" KeyProcedureName="ACLKEY"
  GeneratorType="PROCEDURE" />
```

An example for our maximum value-based key generator is:

```
<KeyGenerator Name="ACLKey" GeneratorType="MAX_VALUE" />
```

What is the difference between the "PROCEDURE" and "MAX_VALUE" key generators?

The "PROCEDURE" based key generator invokes the database stored procedure named by KeyProcedureName attribute to retrieve a new key value. The stored procedure must be defined in the database. This stored procedure will typically retrieve the next value from a named database sequence generator.

The first time a "MAX_VALUE" based key generator is used it retrieves the current maximum key value from the related database table. This value is then kept in memory and incremented each time a new key value is required.

Why do I sometimes get a duplicate key value error when I insert a new record.

The "MAX_VALUE" key generator keeps the next available key in memory. If multiple Sterling Multi-Channel Selling Solution servers are running, then it is possible for each server to try to use the same key value. To eliminate this problem we reserve the last two digits of the generated key to store a "ServerId". Each Sterling Multi-Channel Selling Solution instance must specify a unique value from 0-99 for the ServerId in its **DataServices.xml** property file. This eliminates the potential for conflict.

Can multiple data objects share a key generator?

Sharing Key Generators is not recommended. This can potentially work for PROCEDURE-based key generators when the key is obtained from a database sequence generator. Prior to Release 6.0, it would not work for the MAX_VALUE-based key generators since these could only obtain the current maximum value from a single table. To minimize the risk of data corruption, Release 6.0 and higher now obtain the maximum value from all tables that use a given key generator and use that value as the seed.

When are key values generated?

If data fields are assigned key generators, then when a data bean is persisted, all key values will be automatically generated.

How do I see the generated key values?

Generated key values will be available from the data bean immediately following the *persist()* method call. You do not need to restore the data bean to see the key values.

What if I need key values prior to persisting a data bean?

If the key values are required prior to invoking the persist operation, then the data bean exposes a *generateKeys()* method. This generates all key values for the current data bean. This method is exposed through the *IDataBean* interface.

An example of how this method might be used is:

An application wants to add three line items to a cart. It needs to make one line item subordinate by setting its *ParentKey* to the *LineItemKey* of the parent. The problem is that the *LineItemKey* is normally generated automatically during the persist operation.

The application first creates the two *LineItemBeans*, adds them to the *Cart*, and sets any non-key values.

It then invokes *generateKeys()* on each of the *LineItemBeans*. This generates the key values, which are then available through the *getLineItemKey()* method on the bean.

The application can then use the generated key to set the *ParentKey* of the appropriate bean.

Finally, the application issues a *persist()* on the *CartBean*. This will insert the new *LineItemBeans* using the generated key values.

Why do I get gaps in my key sequences?

Sequence generation does not occur in a transaction context. This means that generating key values that are not used will result in gaps in the key sequence. This is normal database behavior, even when keys are populated using database triggers that use database internal key generators.

Why do we not use Microsoft's key generators?

Microsoft supports two forms of key generators.

The first technique uses an attribute of the table definition, and cannot be easily obtained when a new record is inserted.

The second technique results in the generation of a GUID (Globally Unique ID). GUIDs are non-sequential. Customers have expressed dislike for non-sequential key values. This also means that sorting in key order does not provide any historical ordering.

Sample Schema

Refer to APPENDIX A, "Sample Schema", for the reference implementation business object schema definition to see a possible use of the schema capabilities. You must create a schema that meet the needs of your Sterling Multi-Channel Selling Solution.

This chapter provides a description of what you need to do to subclass the `DataService` class to implement the integration of an external data source.

Introduction to the DataService Class

The Sterling Multi-Channel Selling Solution supplies an abstract class called `DataService` and two interfaces: `DataInterface` and `SqlDataInterface`.

The `DataInterface` interface is used for non-RDBMS data sources such as data files. Use the `SqlDataInterface` interface for SQL-based data services such as JDBC sources, ODBC sources, and so on. We provide the source code for both interfaces in "Interface Source Code" on page 103.

`DataService` implements the `DataInterface` interface. Use it as the parent class of any class used to connect to an external data source. Its source code is provided in "DataService Source Code" on page 106.

You must implement the *`persist()`* and *`restore()`* methods. The *`persist()`* method saves data to the data source. The *`restore()`* method retrieves data from the data source. These methods correspond to the *`persist()`* and *`restore()`* methods defined in each `DataBean` class.

The definition of data objects in the XML schema require that each data object has one or more recipes associated to it. At runtime, the appropriate recipe is used to

create the data object. The data object specifies its data source, and the data source specifies the DataService class to be used to access the external source. So through a recipe, data object, and data source, each runtime business object is associated with a DataService class.

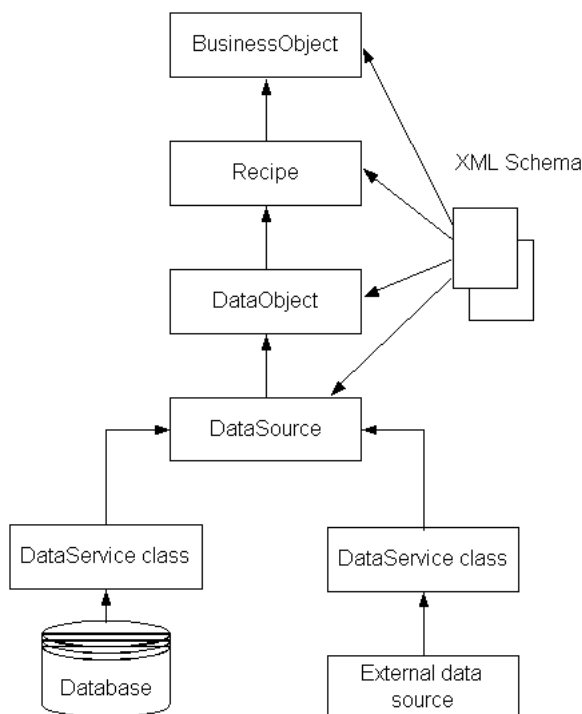


FIGURE 5. DataService classes

DataBean Methods

The main methods invoked on data beans and business objects are to retrieve data from a data source to populate the object and to save the data in an object to its data source. These operations are called *restore()* and *persist()* respectively. See the *Sterling Multi-Channel Selling Solution Developer Guide* for more information about methods supported by data beans and business objects.

When a data bean class invokes *persist()*, it invokes the *DataManager persist()* method. The *DataManager* uses the *persist()* method of the corresponding *DataObject* to call the *persist()* method of the *DataService class*. Similarly, the

restore() method of a data bean invokes the *restore()* method of the *DataManager*, and in turn the *DataManager* uses the *restore()* method of the appropriate *DataService* class to retrieve data.

Deprecated BusinessObject Methods

The *BusinessObject* methods described here are deprecated and are noted only for maintaining legacy Sterling Multi-Channel Selling Solution applications.

***persist()* Method**

```
abstract void persist(BusinessObject busObj, Operation op)
    throws ICCEException
```

This method takes two arguments: the business object whose data is to be saved; and an associated operation used to specify the SQL operation required to save the data. Depending on the external data source, the operation may not be required.

***restore()* Method**

```
abstract void restore(BusinessObject busObj, Operation op,
    Vector descriptors) throws ICCEException
```

This method takes three arguments: the business object that is to be populated from the data source; an operation that defines the SQL statement that can be used to retrieve the data; and the descriptors that specify the data mapping between the source and the fields of the business object.

Interface Source Code

This section provides the source code for the two interfaces provided by the Sterling Multi-Channel Selling Solution.

DataInterface

This section provides the source code for *DataInterface*.

```
package com.comergent.dcm.dataservices;

import com.comergent.dcm.util.ICCEException;
import java.util.Vector;
import java.net.URL;

/**
 * Copyright (c) 1999 Comergent. All rights reserved.
 * The DataInterface defines the base interface for a DataService.
 */
interface DataInterface {
```

```
void init(DataSourceInfo connectInfo, boolean readOnly) throws
ICCEException;

/**
    Return the current number of users of this instance of the
    DataService.
    @roseuid 383C7A070150
 */
long getRefCount();

/**
    Increments the reference count of the number of users of
    this instance of a connection.
 */
void incrRefCount();

/**
    Decrements the reference count for the connection and
    returns the new count.
 */
long decrRefCount();

/**
    Execute a data query returning results..
    This will also be responsible for converting datatypes in
    the result set.
 */
void restore(BusinessObject busObj, Operation op, Vector descrip-
tors, String distId, String msgType, URL url) throws ICCEException;

/**
    Execute a request that does not return results.
    i.e. an insert or delete operation.
 */
void persist(BusinessObject busObj, Operation op, String distId,
String msgType, URL url) throws ICCEException;

/**
    This method is optional.
    It populates the DsElement with the next available key value.
    This is typically accomplished by one of the following:
    - SELECT MAX(keyColumn) + 1 FROM table
    - invoking a procedure call
    - invoking a function call
 */
long generateKey(String keyGenerator, int generatorType) throws
ICCEException;
```

```
    /**
     * This method is optional. It returns the String to be provided
     * when calling generateKey()
     */
    String getGeneratorString(DataMap keyMap, String keyGenerator, int
generatorType) throws ICCEException;

    /**
     * This method is used to match a DataService to the
     * specified connection parameters.
     */
    boolean equals(DataSourceInfo connectInfo);

    String getName();

    void freeResources(Operation op) throws ICCEException;

    void finalize();
}
```

SqlDataInterface

This section provides the source code for SqlDataInterface.

```
package com.comergent.dcm.dataservices;

import java.util.Vector;
import com.comergent.dcm.util.ICCEException;

interface SqlDataInterface extends DataInterface {

    void restoreLink(DsElement linkElement, Operation op, Vector des-
cList) throws ICCEException;

    /**
     * This method is used to prepare (compile) an sql statement.
     */
    void prepare(Operation op, boolean force) throws ICCEException;

    /**
     * This method sets the value of the parameter at
     * the specified index. If the value reference is null
     * it will set the parameter to null.
     */
    void setParameter(Operation op, int index, int paramType, Object
value) throws ICCEException;

    /**
     * This method returns the datasource specific versions of a
     * function.
     */
}
```

```
*/
    String getFunction(int functionId) throws ICCEException;

    void commit() throws ICCEException;

    Object getColumn(Operation op, DataMap colDesc) throws ICCEException;

    boolean nextRow(Operation op) throws ICCEException;

    void rollback() throws ICCEException;
}
```

DataService Source Code

This section provides the source code for the abstract class DataService.

```
package com.comergent.dcms.dataservices;

import java.util.Vector;
import com.comergent.dcms.util.ICCEException;

/**
 * Copyright (c) 1999 Comergent. All rights reserved.
 *
 * The DataService class is responsible for the execution of requests
 * against a physical data source such as a specific JDBC driver. This is
 * an abstract class. Subclasses will be created for each specific data
 * source type (i.e. JDBC)
 */
public abstract class DataService {

    /**
     * Reference Count of active connections.
     */
    protected long m_refCount = 0;

    /**
     * The connection timeout time in seconds. "0" indicates no time out.
     */
    protected long m_timeout = 0;
    protected int m_serviceType = 0;
    protected DataSourceInfo m_connectInfo;

    DataService(DataSourceInfo connectInfo, boolean readOnly) {
        m_connectInfo = connectInfo;
    }
}
```

```
protected DataService() {}

/**
Return the current number of users of this instance of the DataSer-
vice.
*/
long getRefCount() {
    return(m_refCount);

/**
Increments the reference count of the number of users of this instance
of a connection.
*/
void incrRefCount() {
    m_refCount++;
    return;
}

/**
Decrements the reference count for the connection and
returns the new count.
*/
long decrRefCount() {
    return (--m_refCount);
}

/**
Execute a data query returning results.This will also be responsible
for converting datatypes in the result set.
*/
abstract void restore(BusinessObject busObj, Operation op, Vector
descriptors) throws ICCEException;

void restoreLink(DsElement linkElement, Operation op,
Vector descList) throws ICCEException {
}

/**
Execute a request that does not return results. i.e. an insert or
delete operation.
*/
abstract void persist(BusinessObject busObj, Operation op) throws
ICCEException;

/**
This method is used to match a DataService to the specified connection
parameters.
*/
```

```
        boolean equals(DataSourceInfo connectInfo) {
            if (m_connectInfo == connectInfo)
            {
                return (true);
            }
            return (false);
        }
    /**
    The next three methods are concerned with using the DataService class
    to use a SQL-based external service. They might not be used by your
    DataService classes.
    */

    /**
    This method is used to prepare (compile) an sql statement.
    */
        abstract void prepare(Operation op, boolean force)
            throws ICCEException;

    /**
    This method sets the value of the parameter at the specified index. If
    the value reference is null it will set the parameter to null.
    */
        abstract void setParameter(Operation op, int index, int paramType,
            Object value) throws ICCEException;

        void generateKey(DsElement keyElement, String keyGenerator)
            throws ICCEException {
            return;
        }

        String getName() {
            return(m_connectInfo.getName());
        }

        void freeResources(Operation op) throws ICCEException {}

        protected void finalize() {}
    }
```

DataService Classes

The Sterling Multi-Channel Selling Solution provides the following DataService classes that extend the DataService abstract class:

- **JDBCService:** supports accessing data sources that are JDBC-compliant databases.

- **MsSqlService:** provides a native connection to Microsoft SQL Server.
- **MsgService:** supports accessing data sources through XML messages.

<p>Note: The <i>restore()</i> and <i>persist()</i> methods of the MsgService class behave identically. No distinction is made between these two methods when a data object is posted to an external system.</p>

- **HTMLService:** accesses data sources by emulating a browser-based session with an external system.

You can use **JDBCService** and **MsgService** classes "out of the box". They are fully functional classes that use the data objects and settings as described in the *Sterling Multi-Channel Selling Solution Implementation Guide* and *Sterling Multi-Channel Selling Solution Administration Guide*.

However, you need to customize **HTMLService** class extensively before use. In particular, you must modify the class so that the *restore()* and *persist()* methods use appropriate URLs to post the requests for data for each data object type. It must retrieve the data object data from the HTML that is returned from the external system. See the *Sterling Multi-Channel Selling Solution Implementation Guide* for further information.

This chapter describes the Sterling Pricing Service. The Pricing Service can be used by any application which requires catalog level pricing information, order level pricing information and coupon validation information. The Sterling Customer Order Management (COM) system and Sterling Distributed Order Management (DOM) system applications use the Pricing Service to send pricing requests to the Sterling Multi-Channel Selling Solution (the Order Selling system).

This chapter covers the following topics:

- "Introduction to the Sterling Pricing Service" on page 112
- "Pricing Line Service" on page 112
 - "PricingLineServiceRequest" on page 113
 - "Pricing Line Service Response" on page 115
 - "PricingLineService Request and Reply Example" on page 117
- "Pricing Cart Service" on page 119
 - "Pricing Cart Service Request" on page 119
 - "Pricing Cart Service Response" on page 124
 - "PricingCartService Request and Reply Example" on page 130
- "Coupon Validation Service" on page 133

- "CouponValidationRequest" on page 134
- "CouponValidationReply" on page 135
- "CouponValidationService Example" on page 136

Introduction to the Sterling Pricing Service

The Sterling Pricing Service supports the following types of pricing requests:

- Pricing Line Service: get pricing information for a list of line items.
- Pricing Cart Service: include a set of coupons along with a set of line items.
- Coupon Validation: get coupon validation status for a set of coupons.

Note the following limitations:

- Sterling Pricing Service does not provide remote and alternate pricing information.
- Sterling Pricing Service does not accept negative values in the External Shipping Charge. It throws an exception if a negative value is found.
- The Sterling Pricing Engine requires supplier information for shipping calculations. The Sterling Pricing Service uses the current storefront as the supplier for shipping calculations.

Pricing Line Service

The Pricing Line Service supports getting pricing information for a list of line items. This section describes the Pricing Line Service request and reply messages.

At the line item level, the pricing user provides some header information, such as CustomerType (General, Banking, and so on), Currency (such as USD), and BuyerUser if the request is made by a Customer Service Representative on behalf of a user. Following the header information, the request contains a list of line items. In the reply, the user receives pricing information for each line item with discount information and information about suppliers providing the line item.

PricingLineServiceRequest

The following table lists and describes the PricingLineServiceRequest fields.

TABLE 14. PricingLineServiceRequest Fields

Field Name	Description	Data Type	Required? (Y/N)
Date	The (UTC) date and time for which pricing request is being made. Default is the current date. The format is: yyyy-mm-dd hh:mm:ss.ffffff Example: 2007-09-05 00:00:00.000000000 The Order Selling system applies the locale-specific offset to this date.	UTC	N
CustomerTypeCode	The internal numerical representation of CustomerType. This field takes precedence over CustomerType.	Number(20)	N
CustomerType	Defines the vertical market to which the customer belongs, for example: General, Government, Telecommunication, Retail. This field is ignored if CustomerTypeCode is present in the request. The default CustomerType is the configured business rule in the Order Selling system.	Varchar2(90)	N
Currency	Currency in which the request is being made. For example, USD, INR, EUR.	Varchar2(10)	Y
BuyerUser	User for whom the pricing request is being made. For example, if a CSR (ajones) is generating this request for user cchen, BuyerUser will be cchen. The default is the current storefront's Anonymous User..	Varchar2(60)	N
PricingLineItemList	List of line items.	N/A	Y
PricingLineItem	Individual line item.	N/A	Y
SKU	Identifier of the product in the line item as used in the Order Selling system. For example: MX-MSWORD.	Varchar2(120)	Y
Quantity	Number of products of a particular SKU. The default is 1.	Number(20)	N
SupplierOrgCode	The supplier's organization code. If this field is specified, only the price from this supplier is returned; otherwise, the Order Selling system picks the supplier with the lowest price.	Varchar2(90)	N
ExternalRefID	Placeholder for the caller for storing additional information. This field is not used in the pricing calculation.	Varchar2(120)	N

Sample PricingLineServiceRequest XML

The following is a sample XML PricingLineServiceRequest representation that includes required and optional fields.

```
<PricingLineServiceRequest>
  <Date/>
  <CustomerType/>
  <CustomerTypeCode/>
  <Currency/>
  <BuyerUser/>
  <PricingLineItemList>
    <PricingLineItem>
      <SKU/>
      <Quantity/>
      <SupplierOrgCode/>
      <ExternalRefID/>
    </PricingLineItem>
  </PricingLineItemList>
</PricingLineServiceRequest>
```

The following is a sample PricingLineServiceRequest XML representation including only the required fields.

```
<PricingLineServiceRequest>
  <Currency/>
  <PricingLineItemList>
    <PricingLineItem>
      <SKU/>
    </PricingLineItem>
  </PricingLineItemList>
</PricingLineServiceRequest>
```

Pricing Line Service Response

The following table lists and describes the PricingLineServiceResponse fields..

TABLE 15. PricingLineServiceResponse Fields

Field Name	Description	Data Type	Required? (Y/N)
Date	The (UTC) date and time for which pricing request is being made. Default is the current date. The format is: yyyy-mm-dd hh:mm:ss.ffffff Example: 2007-09-05 00:00:00.000000000 The Order Selling system applies the locale-specific offset to this date.	UTC	N
CustomerTypeCode	The internal numerical representation of CustomerType. This field takes precedence over CustomerType.	Number(20)	N
CustomerType	Defines the vertical market to which the customer belongs, for example: General, Government, Telecommunication, Retail. This field is ignored if CustomerTypeCode is present in the request. The default CustomerType is the configured business rule in the Order Selling system.	Varchar2(90)	N
Currency	Currency in which the request is being made. For example, USD, INR, EUR.	Varchar2(10)	Y
BuyerUser	User for whom the pricing request is being made. For example, if a CSR (ajones) is generating this request for user cchen, BuyerUser will be cchen. The default is the current storefront's Anonymous User..	Varchar2(60)	N
PricingLineItemList	List of line items.	N/A	Y
PricingLineItem	Individual line item.	N/A	Y
SKU	Identifier of the product in the line item as used in the Order Selling system. For example: MX-MSWORD.	Varchar2(120)	Y
Quantity	Number of products of a particular SKU. The default is 1.	Number(20)	N
SupplierOrgCode	The supplier's organization code. If this field is specified, only the price from this supplier is returned; otherwise, the Order Selling system picks the supplier with the lowest price.	Varchar2(90)	N

TABLE 15. (Continued) PricingLineServiceResponse Fields

Field Name	Description	Data Type	Required? (Y/N)
ExternalRefID	Placeholder for the caller for storing additional information. This field is not used in the pricing calculation.	Varchar2(120)	N
ListPrice	List price as specified in the price list.	Numeric(19,4)	N
PriceListAbsolute Adjustment	Absolute adjustment as specified on the price list, for example \$25. Negative values represent discounts; positive values represent surcharges.	Numeric(19,4)	N
PriceListPercent Adjustment	Percentage adjustment as specified on the list price. Negative values represent discounts; positive values represent surcharges.	Numeric(19,4)	N
UnitPrice	Unit price is the price after applying PriceListAbsoluteAdjustment and PriceListPercentAdjustment to the list price.	Numeric(19,4)	N
TotalPrice	Total price is UnitPrice multiplied by Quantity.	Numeric(19,4)	Y
SupplierOrgCode	The organization code of the supplier.	Varchar2(90)	N
PricingSupplier-PriceList	The list of price lists available from applicable suppliers.	N/A	N
PricingSupplierPrice	The price from one supplier.	N/A	N
AuxiliaryPriceList	The list of auxiliary prices for a SKU.	N/A	N
AuxiliaryPrice	The auxiliary price for this line item.	N/A	N
PricingType	Information about the kind of auxiliary price. For example: Monthly, Annual, etc.	Varchar2(120)	N

Sample PricingLineServiceReply XML

The following is a sample XML PricingLineServiceReply representation.

```

<PricingLineServiceReply>
  <Date/>
  <CustomerType/>
  <CustomerTypeCode/>
  <Currency/>
  <BuyerUser/>
  <PricingLineItemList>
    <PricingLineItem>
      <SKU/>
      <Quantity/>
    </PricingLineItem>
  </PricingLineItemList>
  <ListPrice/>
  <PriceListAbsoluteAdjustment/>
  <PriceListPercentAdjustment/>
  <UnitPrice/>

```



```
        <SupplierOrgCode/>
        <TotalPrice/>
    </ExternalRefID/>
    <AuxiliaryPriceList>
        <AuxiliaryPrice>
            <PricingType/>
            <ListPrice/>
            <PriceListAbsoluteAdjustment/>
            <PriceListPercentAdjustment/>
            <UnitPrice/>
        </AuxiliaryPrice>
    </AuxiliaryPriceList>
    <PricingSupplierPriceList>
        <PricingSupplierPrice>
            <UnitPrice/>
            <SupplierOrgCode/>
        </PricingSupplierPrice>
    </PricingSupplierPriceList>
    <AuxiliaryPriceList>
        <AuxiliaryPrice>
            <PricingType/>
            <ListPrice/>
            <PriceListAbsoluteAdjustment/>
            <PriceListPercentAdjustment/>
            <UnitPrice/>
        </AuxiliaryPrice>
    </AuxiliaryPriceList>
    </PricingSupplierPrice>
</PricingSupplierPriceList>
</PricingLineItem>
</PricingLineItemList>
</PricingLineServiceReply>
```

PricingLineService Request and Reply Example

This example shows how to get the price for the line item MX-MSWORD.

XML Request

```
<?xml version="1.0"?>
<Comergent>
<MessageHeader>
<MessageType>PricingLineServiceRequest</MessageType>
<MessageVersion>4.0</MessageVersion>
<MessageID/>
<SessionID/>
<ExternalSessionID/>
</MessageHeader>
<RemoteUser>
<UserLogin>cService</UserLogin>
<UserFullName/>
<UserAuthenticator>cService</UserAuthenticator>
```

```
</RemoteUser>
<PricingLineServiceRequest type="BusinessObject">
  <CustomerType></CustomerType>
  <Currency>USD</Currency>
  <BuyerUser>cchen</BuyerUser>
  <PricingLineItemList>
    <PricingLineItem>
      <SKU>MX-MSWORD</SKU>
    </PricingLineItem>
  </PricingLineItemList>
</PricingLineServiceRequest>
</Comergent>
```

XML Response

```
<?xml version="1.0" encoding="UTF-8"?>
<Comergent>
  <MessageHeader>
    <MessageType>PricingLineServiceReply</MessageType>
    <MessageVersion>4.0</MessageVersion>
    <MessageID/>
    <SessionID/>
    <SessionKeepAlive>false</SessionKeepAlive>
    <MessageTimeStamp/>
  </MessageHeader>
  <ReplyHeader>
    <ReplyStatusCode>0</ReplyStatusCode>
    <ReplyStatusMessage/>
    <UserInfoMessage/>
    <InResponseToID/>
  </ReplyHeader>
  <PricingLineServiceReply type="BusinessObject">
    <Date>2008-03-14 20:55:24.829</Date>
    <CustomerType/>
    <CustomerTypeCode/>
    <Currency>USD</Currency>
    <BuyerUser>cchen</BuyerUser>
    <PricingLineItemList>
      <PricingLineItem>
        <SKU>MX-MSWORD</SKU>
        <Quantity>1</Quantity>
        <UnitPrice>79.0000000000</UnitPrice>
        <ListPrice>79</ListPrice>
        <PriceListAbsoluteAdjustment>0</PriceListAbsoluteAdjustment>
        <PriceListPercentAdjustment>0</PriceListPercentAdjustment>
        <SupplierOrgCode>Matrix</SupplierOrgCode>
        <TotalPrice>79.0000000000</TotalPrice>
        <ExternalRefID/>
        <AuxiliaryPriceList/>
      </PricingLineItem>
    </PricingLineItemList>
  </PricingLineServiceReply>
</Comergent>
```

```

<PricingSupplierPriceList>
  <PricingSupplierPrice>
    <UnitPrice>79.00</UnitPrice>
    <SupplierOrgCode>Matrix</SupplierOrgCode>
    <AuxiliaryPriceList/>
  </PricingSupplierPrice>
</PricingSupplierPriceList>
</PricingLineItem>
</PricingLineItemList>
</PricingLineServiceReply>
</Comergent>

```

Pricing Cart Service

The Pricing Cart Service provides support for cart-level (order total) pricing, line item pricing, and for including a set of coupons with line item information. This section describes the Pricing Cart Service request and reply messages.

In cart level pricing, the user can provide a set of coupons along with the list of line items and header information. In the response, the user receives the pricing information for each line item as well as any coupons and discounts applied. Discounts can be applied at the line item level and at the cart header level.

Pricing Cart Service Request

The following table lists and describes the Pricing Cart Service Request fields..

TABLE 16. PricingCartServiceRequest Fields

Field Name	Description	Data Type	Required? (Y/N)
Date	The (UTC) date and time for which pricing request is being made. Default is the current date. The format is: yyyy-mm-dd hh:mm:ss.ffffff Example: 2007-09-05 00:00:00.000000000 The Order Selling system applies the locale-specific offset to this date.	UTC	N
CustomerTypeCode	The internal numerical representation of CustomerType. This field takes precedence over CustomerType.	Number(20)	N

TABLE 16. (Continued) PricingCartServiceRequest Fields

Field Name	Description	Data Type	Required? (Y/N)
CustomerType	Defines the vertical market to which the customer belongs, for example: General, Government, Telecommunication, Retail. This field is ignored if CustomerTypeCode is present in the request. The default CustomerType is the configured business rule in the Order Selling system.	Varchar2(90)	N
Currency	Currency in which the request is being made. For example, USD, INR, EUR.	Varchar2(10)	Y
BuyerUser	User for whom the pricing request is being made. For example, if a CSR (ajones) is generating this request for user cchen, BuyerUser will be cchen. The default is the current storefront's Anonymous User..	Varchar2(60)	N
PricingCartItemList	List of line items.	N/A	Y
PricingCartItem	Individual line item.	N/A	Y
SKU	Identifier of the product in the line item as used in the Order Selling system. For example: MX-MSWORD.	Varchar2(120)	Y
Quantity	Number of products of a particular SKU. The default is 1.	Number(20)	N
ExternalRefID	Placeholder for the caller for storing additional information. This field is not used in the pricing calculation.	Varchar2(120)	N
FreezeFlag	A boolean field: either true or false. The default is false. If this field is set to true, the Pricing Service uses the unit price provided in PricingLineItem, instead of computing it from pricing rules.	Varchar2(10)	N
WillBeShipped	This is a line level flag that indicates whether a line item will be shipped or not. This flag should have the value "true" if the item is shippable and will not be picked up at the store, and should be "false" otherwise. Further item level shipping charges are calculated based on this flag. Shipping surcharges are only applied to items not picked up at store. Pricing Service will use this only when External Shipping Charge is present. Default value for this flag is "true"	Boolean	N

TABLE 16. (Continued) PricingCartServiceRequest Fields

Field Name	Description	Data Type	Required? (Y/N)
EligibleForShippingDiscounts	This is a line level flag that indicates whether a line item is eligible for shipping discounts or not. Order Selling uses this flag to calculate applicable shipping order total rules. If set to false, this line item's price is not included in shipping order total calculation. The Pricing Service uses this flag only when External Shipping Charge is present. Default value for this flag is "true".	Boolean	N
DistributeHeaderAdjustments	A boolean field: either true/false. The default is false. If this field is set to true, the Pricing Service distributes the header level adjustment as DistributedHeaderAdjustment fields in the reply sent back to caller.	Varchar2(10)	N
RunRulesFlag	A boolean field: either true/false. The default is true. If this field is set to false, the pricing and shipping rules are not applied.	Varchar2(10)	N
UnitPrice	If FreezeFlag is set to true, this field is used as the unit price for a line item. The default is 0.00.	Numeric(19,4)	Conditional
SupplierOrgCode	The supplier's organization code. If this field is specified, only the price from this supplier is returned; otherwise, the prices from all applicable suppliers are returned.	Varchar2(90)	N
PricingCouponList	The list of coupons available to the cart.	N/A	N
PricingCoupon	A coupon applicable to the cart.	N/A	N
CouponID	Coupon Identifier as implemented in the Order Selling system, for example, QXD15009 or ORD0665. The maximum length of the CouponID is 120.	Varchar2(120)	Y
ShippingInfo	The shipping information required for shipping discounts.	N/A	N
ExternalShippingCharge	The shipping charge provided by the caller. If this field is present, only shipping calculations will take place. Otherwise no shipping rule will be applied. It is assumed that this value is obtained from some external shipping charge calculation application (outside of the Order Selling system).	Numeric(19,4)	N

TABLE 16. (Continued) PricingCartServiceRequest Fields

Field Name	Description	Data Type	Required? (Y/N)
ShipCompleteStatus	<p>Flag to indicate whether the order is a complete shipping or partial shipping. Values can be "Y" or "N".</p> <p>This field is mandatory if the External Shipping Charge field is populated.</p> <p>The Order Selling system uses this value to apply the conditional shipping pricing rules and shipping coupons. It is possible that some rules are only applicable to partial shipping whereas others can be applied to complete shipping only.</p>	Varchar	Conditional
ShippingMethod	<p>Shipping method. Out of the box Order Selling shipping methods are:</p> <p>Standard Shipping</p> <p>Premium 2-Day</p> <p>Express Overnight</p> <p>This field is mandatory if the External ShippingCharge field is populated.</p> <p>The Order Selling system uses this value to apply the conditional shipping pricing rules and coupons. It is possible that certain rules are only applicable to a particular shipping method, whereas some rules are applicable to all shipping methods.</p>	Varchar	Conditional

Sample PricingCartServiceRequest XML

The following is a sample PricingCartServiceRequest XML representation showing all fields.

```

<PricingCartServiceRequest>
  <Date/>
    <CustomerType/>
    <CustomerTypeCode/>
    <Currency/>
    <BuyerUser/>
    <RunRulesFlag/>
  <DistributeHeaderAdjustments/>
    <PricingCartItemList>
      <PricingCartItem>
        <SKU/>
        <Quantity/>
        <FreezeFlag/>
        <WillBeShipped/>
      </PricingCartItem>
    </PricingCartItemList>
  </DistributeHeaderAdjustments>
</PricingCartServiceRequest>

```

```
        <EligibleForShippingDiscount/>
        <UnitPrice/>
        <SupplierOrgCode/>
        <ExternalRefID/>
    </PricingCartItem>
</PricingCartItemList>
<PricingCouponList>
    <PricingCoupon>
        <CouponID/>
    </PricingCoupon>
</PricingCouponList>
<ShippingInfo>
    <ExternalShippingCharge/>
    <ShipCompleteStatus/>
    <ShippingMethod/>
</ShippingInfo>
</PricingCartServiceRequest>
```

The following is a sample PricingCartServiceRequest XML representation showing mandatory fields only.

```
<PricingCartServiceRequest>
<Currency/>
    <PricingCartItemList>
        <PricingCartItem>
            <SKU/>
        </PricingCartItem>
    </PricingCartItemList>
    <PricingCouponList/>
</PricingCartServiceRequest>
```

Pricing Cart Service Response

The following table lists and describes the Pricing Cart Service Reply fields..

TABLE 17. PricingCartServiceReply Fields

Field Name	Description	Data Type	Required? (Y/N)
Date	The (UTC) date and time for which pricing request is being made. Default is the current date. The format is: yyyy-mm-dd hh:mm:ss.ffffff Example: 2007-09-05 00:00:00.000000000 The Order Selling system applies the locale-specific offset to this date.	UTC	N
CustomerTypeCode	The internal numerical representation of CustomerType. This field takes precedence over CustomerType.	Number(20)	N
CustomerType	Defines the vertical market to which the customer belongs, for example: General, Government, Telecommunication, Retail. This field is ignored if CustomerTypeCode is present in the request. The default CustomerType is the configured business rule in the Order Selling system.	Varchar2(90)	N
Currency	Currency in which the request is being made. For example, USD, INR, EUR.	Varchar2(10)	Y
BuyerUser	User for whom the pricing request is being made. For example, if a CSR (ajones) is generating this request for user cchen, BuyerUser will be cchen. The default is the current storefront's Anonymous User..	Varchar2(60)	N
CartSubTotal	Total price of all the line items before applying header-level adjustments.	Numeric(19,4)	Y
CartTotalAdjustment	Sum of header-level adjustments (discounts/surcharges/ Shipping adjustments) applied on a cart. For example, adjustment because of a coupon and a pricing rule.	Numeric(19,4)	Y
CartTotalPrice	Total price of the items in the cart, equal to: CartSubTotal + CartTotalAdjustment + External Shipping Charge	Numeric(19,4)	Y
PricingCartItemList	The list of line items.	N/A	Y
PricingCartItem	An individual line item.	N/A	Y

TABLE 17. (Continued) PricingCartServiceReply Fields

Field Name	Description	Data Type	Required? (Y/N)
SKU	Identifier of the product in the line item as used in the Order Selling system. For example: MX-MSWORD.	Varchar(120)	Y
Quantity	Number of products of a particular SKU. The default is 1.	Number(20)	N
ExternalRefID	As provided in the Request.	Varchar2(120)	N
FreezeFlag	As provided in the Request.	Varchar(10)	N
WillBeShipped	As provided in the Request.	Boolean	N
EligibleForShipping-Discounts	As provided in the Request.	Boolean	N
DistributeHeader Adjustments	As provided in the Request.	Varchar2(10)	N
RunRulesFlag	As provided in the Request.	Varchar2(10)	N
ListPrice	The list price as defined in the price list.	Numeric(19,4)	Conditional
PriceListAbsolute Adjustment	Absolute adjustment as given on the list price. Negative values represent discounts; positive values represent surcharges.	Numeric(19,4)	N
PriceListPercent Adjustment	Percentage adjustment as given on the list price. Negative values represent discounts; positive values represent surcharges	Numeric(19,4)	N
BasePrice	Base price is the price after applying PriceListAbsoluteAdjustment and PriceListPercentAdjustment on the list price.	Numeric(19,4)	N
UnitPrice	Unit Price is the price after applying any applicable pricing rule level discounts or surcharges on the Base Price.	Numeric(19,4)	Y
TotalPrice	Total price is the Unit Price multiplied by Quantity.	Numeric(19,4)	Y
SupplierOrgCode	Organization code of the supplier.	Varchar2(90)	N
PricingAdjustment List	List of pricing adjustments applied on the line item or at header level. Pricing adjustments can be either discounts (due to a coupon or a pricing rule) or other charges (for example, low volume charges).	N/A	Y
PricingAdjustment	Individual adjustment item for a line item or at the header level.	N/A	N
DistributedHeader AdjustmentList	List of distributed adjustments for a particular SKU.	N/A	Y

TABLE 17. (Continued) PricingCartServiceReply Fields

Field Name	Description	Data Type	Required? (Y/N)
DistributedHeader Adjustment	Individual distributed adjustment. Its behavior is different from PricingAdjustment: the value of PricingAdjustment for a line item is returned in terms of each item, but the value of the DistributedHeaderAdjustment is returned for all items in that line item. For example, suppose that a cart contains 1 line item with SKU MX-MSWORD and a quantity of 5. If a quantity pricing rule applies and a discount of \$20 is returned, the PricingAdjustment will contain \$4 , or \$20/5. But at the same time if for an item quantity coupon a discount of \$20 is returned, the DistributedHeaderAdjustment will have the value of \$20.	N/A	N
AdjustmentType	Type of adjustment. Can be one of the following CART: Order level adjustment COUPON: Coupon related adjustment	Varchar2(120)	N
AdjustmentID	Adjustment identifier. If this is a coupon adjustment, the ID is the COUPONID. If this is an order total level adjustment, the ID is empty.	Varchar2(120)	N
Name	Name of the rule for which the pricing adjustment was applied.	Varchar2(120)	N
Description	Description of the pricing adjustment rule. This is a localized value depending on the user for whom the request is made.	Varchar2(240)	N
QuantityAppliedTo	The number of items in that line item for which a rule has been applied.	Number(20)	N
AbsoluteAdjustment	Discount/surcharges value in unit of price, for example, USD 5.25. Negative values represent discounts; positive values represent surcharges.	Numeric(19,4)	N
PercentAdjustment	Discount as percentage of Base Price or CartSubTotal. Negative values represent discounts; positive values represent surcharges.	Numeric(19,4)	N
PricingSupplier-PriceList	List of prices available from multiple suppliers.	N/A	N
PricingSupplierPrice	Price from a single supplier.	N/A	N
PricingCouponList	List of coupons applicable to the cart.	N/A	N
PricingCoupon	A coupon applicable to the cart.	N/A	N

TABLE 17. (Continued) PricingCartServiceReply Fields

Field Name	Description	Data Type	Required? (Y/N)
CouponID	Coupon Identifier as implemented in the Order Selling system.	Varchar2(120)	Y
CouponStatus	<p>This field can have one of the following values:</p> <p>APPLIED: The coupon is valid and has been applied to the cart.</p> <p>INVALID COUPON: The coupon doesn't exist in the Order Selling system or is not applicable to the user.</p> <p>INVALID COUPON ASSIGNMENT: The coupon is not assigned to the target user of this request.</p> <p>INVALID CURRENCY: The coupon is not valid for the provided currency</p> <p>INVALID CUSTOMER TYPE: The customer type is not valid, so the coupon is not valid.</p> <p>EXPIRED COUPON: The coupon has expired and is invalid.</p> <p>NOT ENABLED COUPON: The coupon is not enabled yet in the Order Selling system so is not applied.</p> <p>NOT APPLIED: The coupon is valid but is not applied because it didn't satisfy the rule.</p>	Varchar2(120)	Y
AuxiliaryPriceList	List of auxiliary prices for a SKU.	N/A	N
AuxiliaryPrice	The auxiliary price.	N/A	N
PricingType	Information about the kind of auxiliary price. For example: Monthly, Annual, etc.	Varchar2(120)	N
ShippingInfo	Shipping information required for calculating shipping discounts.	N/A	N
ExternalShipping Charge	Same as for the request.	Numeric(19,4)	N
ShipCompleteStatus	Same as for the request.	Varchar	Conditional
ShippingMethod	Same as for the request.	Varchar	Conditional

TABLE 17. (Continued) PricingCartServiceReply Fields

Field Name	Description	Data Type	Required? (Y/N)
TotalShippingChargeAdjustment	The sum of shipping discounts and surcharges. This value can never be more than the value of ExternalShippingCharge . So if the adjustments because of multiple shipping rules and coupons result in a value greater than external shipping charge, this becomes equal to the external shipping charge so that adjusted shipping charge is 0.	Numeric(19,4)	Conditional
AdjustedShippingCharge	The sum of the external shipping charge and shipping adjustment provided by the Order Selling system.	Numeric(19,4)	Conditional

Sample PricingCartServicesReply XML

The following is a sample PricingCartServicesReply XML representation.

```

<PricingCartServiceReply>
  <Date/>
    <CustomerType/>
    <CustomerTypeCode/>
    <Currency/>
    <BuyerUser/>
    <CartSubTotal/>
    <CartTotalAdjustment/>
    <CartTotalPrice/>
    <DistributeHeaderAdjustments/>
    <RunRulesFlag/>
    <PricingCartItemList>
      <PricingCartItem>
        <SKU/>
        <Quantity/>
        <ListPrice/>
      </PricingCartItem>
    </PricingCartItemList>
    <PriceListAbsoluteAdjustment/>
    <PriceListPercentAdjustment/>
    <BasePrice/>
      <UnitPrice/>
    </BasePrice>
    <FreezeFlag/>
    <WillBeShipped/>
    <EligibleForShippingDiscount/>
    <TotalPrice/>
      <SupplierOrgCode/>
    </TotalPrice>
    <ExternalRefID/>
    <AuxiliaryPriceList>
      <AuxiliaryPrice>
        <PricingType/>
        <ListPrice/>
        <PriceListAbsoluteAdjustment/>
      </AuxiliaryPrice>
    </AuxiliaryPriceList>
  </PricingCartItemList>
</PricingCartServiceReply>

```

```
        <PriceListPercentAdjustment/>
        <UnitPrice/>
    </AuxiliaryPrice>
</AuxiliaryPriceList>
    <PricingAdjustmentList>
        <PricingAdjustment>
            <Name/>
            <Description/>
            <AdjustmentID/>
            <AdjustmentType/>
            <QuantityAppliedTo/>
            <AbsoluteAdjustment/>
            <PercentAdjustment/>
        </PricingAdjustment>
    </PricingAdjustmentList>
<DistributedHeaderAdjustmentList>
    <DistributedHeaderAdjustment>
        <Name/>
        <Description/>
        <AdjustmentID/>
        <AdjustmentType/>
        <AbsoluteAdjustment/>
    </DistributedHeaderAdjustment>
</DistributedHeaderAdjustmentList>
<PricingSupplierPriceList>
    <PricingSupplierPrice>
        <UnitPrice/>
        <SupplierOrgCode/>
    </PricingSupplierPrice>
</PricingSupplierPriceList>
<AuxiliaryPriceList>
    <AuxiliaryPrice>
        <PricingType/>
        <ListPrice/>
        <PriceListAbsoluteAdjustment/>
        <PriceListPercentAdjustment/>
        <UnitPrice/>
    </AuxiliaryPrice>
</AuxiliaryPriceList>
    </PricingSupplierPrice>
</PricingSupplierPriceList>
</PricingCartItem>
</PricingCartItemList>
<PricingCouponList>
    <PricingCoupon>
        <CouponID/>
        <CouponStatus/>
    </PricingCoupon>
</PricingCouponList>
<PricingAdjustmentList>
    <PricingAdjustment>
```

```
<Name/>
<Description/>
<AdjustmentID/>
<AdjustmentType/>
<QuantityAppliedTo/>
<AbsoluteAdjustment/>
<PercentAdjustment/>
</PricingAdjustment>
</PricingAdjustmentList>
<ShippingInfo>
  <ExternalShippingCharge/>
  <ShipCompleteStatus/>
  <ShippingMethod/>
  <TotalShippingChargeAdjustment/>
  <AdjustedShippingCharge/>
</ShippingInfo>
</PricingCartServiceReply>
```

PricingCartService Request and Reply Example

Suppose that the Order Selling system is configured as follows:

- A coupon, NEW_YEAR_OFFER, is set to give a discount of \$5 off on order totals over \$100
- A shipping order total rule is set to give 5% off on shipping charges if the order total is over \$100
- A combination pricing rule is configured to give 50% off on all items of MX-CD040D if the order contains 2 items of MX-CD040D

Suppose that the order contains 2 items of MX-CD040D and the coupon NEW_YEAR_OFFER. The PricingCartService request and reply are as follows.

Request

```
<?xml version="1.0"?>
<Comergent>
  <MessageHeader>
    <MessageType>PricingCartServiceRequest</MessageType>
    <MessageVersion>4.0</MessageVersion>
    <MessageID/>
    <SessionID/>
    <ExternalSessionID/>
  </MessageHeader>
  <RemoteUser>
    <UserLogin>cService</UserLogin>
    <UserFullName/>
    <UserAuthenticator>cService</UserAuthenticator>
  </RemoteUser>
```

```
<PricingCartServiceRequest type="BusinessObject">
<DistributeHeaderAdjustments>false</DistributeHeaderAdjustments>
  <CustomerTypeCode/>
  <Currency>USD</Currency>
  <BuyerUser>adean</BuyerUser>
  <BuyerOrgCode/>
  <RunRulesFlag>true</RunRulesFlag>
  <PricingCartItemList>
    <PricingCartItem>
      <SKU>MX-CD040D</SKU>
      <SupplierOrgCode>Matrix</SupplierOrgCode>
      <ExternalRefID>200802270909522261850</ExternalRefID>
      <Quantity>2</Quantity>
    </PricingCartItem>
  </PricingCartItemList>
  <PricingCouponList>
    <PricingCoupon>
      <CouponID>NEW_YEAR_OFFER</CouponID>
    </PricingCoupon>
  </PricingCouponList>
<ShippingInfo>
  <ExternalShippingCharge>20.00</ExternalShippingCharge>
  <ShipCompleteStatus>Y</ShipCompleteStatus>
  <ShippingMethod>Standard Shipping</ShippingMethod>
</ShippingInfo>
</PricingCartServiceRequest>
</Comergent>
```

Reply

```
<?xml version="1.0" encoding="UTF-8"?>
<Comergent>
  <MessageHeader>
    <MessageType>PricingCartServiceReply</MessageType>
    <MessageVersion>4.0</MessageVersion>
    <MessageID/>
    <SessionID/>
    <SessionKeepAlive>false</SessionKeepAlive>
    <MessageTimeStamp/>
  </MessageHeader>
  <ReplyHeader>
    <ReplyStatusCode>0</ReplyStatusCode>
    <ReplyStatusMessage/>
    <UserInfoMessage/>
    <InResponseToID/>
  </ReplyHeader>
  <PricingCartServiceReply type="BusinessObject">
    <Date>2008-03-14 18:48:31.729</Date>
    <CustomerType/>
    <CustomerTypeCode/>
```

```

    <DistributeHeaderAdjustments>false</DistributeHeaderAdjust-
ments>
    <Currency>USD</Currency>
    <BuyerUser>adean</BuyerUser>
    <RunRulesFlag>true</RunRulesFlag>
    <CartSubTotal>409.9499</CartSubTotal>
    <CartTotalAdjustment>14.00</CartTotalAdjustment>
    <CartTotalPrice>423.9499</CartTotalPrice>
    <PricingCartItemList>
      <PricingCartItem>
        <FreezeFlag>false</FreezeFlag>
        <WillBeShipped>true</WillBeShipped>
        <EligibleForShippingDiscounts>true</EligibleForShip-
pingDiscounts>
        <BasePrice>409.9499</BasePrice>
        <SKU>MX-CD040D</SKU>
        <Quantity>2</Quantity>
        <UnitPrice>204.9749</UnitPrice>
        <ListPrice>409.9499</ListPrice>
      <PriceListAbsoluteAdjustment>0</PriceListAbsoluteAdjustment>
      <PriceListPercentAdjustment>0</PriceListPercentAdjust-
ment>
      <SupplierOrgCode>Matrix</SupplierOrgCode>
      <TotalPrice>409.9499</TotalPrice>
      <ExternalRefID>200802270909522261850</ExternalRefID>
      <AuxiliaryPriceList/>
      <PricingSupplierPriceList>
        <PricingSupplierPrice>
          <UnitPrice>409.95</UnitPrice>
          <SupplierOrgCode>Matrix</SupplierOrgCode>
          <AuxiliaryPriceList/>
        </PricingSupplierPrice>
      </PricingSupplierPriceList>
      <PricingAdjustmentList>
        <PricingAdjustment>
          <QuantityAppliedTo>1</QuantityAppliedTo>
          <Name>CombRule2</Name>
          <Description/>
          <AdjustmentID/>
          <AdjustmentType/>
          <AbsoluteAdjustment>-204.9749</AbsoluteAdjust-
ment>
          <PercentAdjustment/>
        </PricingAdjustment>
      </PricingAdjustmentList>
    </PricingCartItem>
  </PricingCartItemList>
</PricingCouponList>
```



```
<PricingCoupon>
  <CouponID>NEW_YEAR_OFFER</CouponID>
  <CouponStatus>APPLIED</CouponStatus>
</PricingCoupon>
</PricingCouponList>
<PricingAdjustmentList>
  <PricingAdjustment>
    <QuantityAppliedTo>1</QuantityAppliedTo>
    <Name>NEW_YEAR_OFFER</Name>
    <Description>Get $5 off on order total of $100 or
more</Description>
    <AdjustmentID>NEW_YEAR_OFFER</AdjustmentID>
    <AdjustmentType>COUPON</AdjustmentType>
    <AbsoluteAdjustment>-5</AbsoluteAdjustment>
    <PercentAdjustment/>
  </PricingAdjustment>
</PricingAdjustment>
  <PricingAdjustment>
    <QuantityAppliedTo/>
    <Name>ShipRule</Name>
    <Description>Get 5 % off on shipping charges if order
total is more than $100</Description>
    <AdjustmentID/>
    <AdjustmentType>CART</AdjustmentType>
    <AbsoluteAdjustment>-1</AbsoluteAdjustment>
    <PercentAdjustment>-0.05</PercentAdjustment>
  </PricingAdjustment>
</PricingAdjustmentList>
<ShippingInfo>
  <ExternalShippingCharge>20.00</ExternalShippingCharge>
  <TotalShippingChargeAdjustment>-1</TotalShippingChargeAd-
justment>
  <AdjustedShippingCharge>19.00</AdjustedShippingCharge>
  <ShipCompleteStatus>Y</ShipCompleteStatus>
  <ShippingMethod>Standard Shipping</ShippingMethod>
</ShippingInfo>
</PricingCartServiceReply>
</Comergent>
```

Coupon Validation Service

The Coupon Validation Service supports validation of a set of coupons. This section describes the Coupon Validation Service request and reply messages.

CouponValidationRequest

The following table lists and describes the CouponValidationRequest fields.

TABLE 18. CouponValidationRequest Fields

Field Name	Description	Data Type	Required? (Y/N)
CustomerType Code	The internal numerical representation of CustomerType. This field takes precedence over CustomerType.	Number(20)	N
CustomerType	Defines the vertical market to which the customer belongs, for example: General, Government, Telecommunication, Retail. This field is ignored if CustomerTypeCode is present in the request. The default CustomerType is the configured business rule in the Order Selling system.	Varchar2(90)	N
Currency	Currency in which the request is being made. For example, USD, INR, EUR.	Varchar2(10)	Y
BuyerUser	User for whom the pricing request is being made. For example, if a CSR (ajones) is generating this request for user cchen, BuyerUser will be cchen. The default is the current storefront's Anonymous User..	Varchar2(60)	N
PricingCoupon List	List of coupons applicable to the cart.	N/A	N
PricingCoupon	A coupon applicable to the cart.	N/A	N
CouponID	Coupon Identifier as implemented in the Order Selling system, such as QXD15009 or ORD0665.	Varchar2(120)	Y

Sample CouponValidationRequest XML

The following sample CouponValidationRequest XML representation contains all the request fields.

```

<CouponValidation>
  <CustomerType/>
  <CustomerTypeCode/>
  <Currency/>
  <BuyerUser/>
  <PricingCouponList>
    <PricingCoupon>
      <CouponID/>
    </PricingCoupon>
  </PricingCouponList>
</CouponValidation>

```

The following sample CouponValidationRequest XML representation contains only the required fields.

```
<CouponValidation>
  <Currency/>
  <PricingCouponList>
    <PricingCoupon>
      <CouponID/>
    </PricingCoupon>
  </PricingCouponList>
</CouponValidation>
```

CouponValidationReply

The following table lists and describes the CouponValidationReply fields.

TABLE 19. CouponValidationReply Fields

Field Name	Description	Data Type	Required? (Y/N)
CustomerType Code	The internal numerical representation of CustomerType. This field takes precedence over CustomerType.	Number(20)	N
CustomerType	Defines the vertical market to which the customer belongs, for example: General, Government, Telecommunication, Retail. This field is ignored if CustomerTypeCode is present in the request. The default CustomerType is the configured business rule in the Order Selling system.	Varchar2(90)	N
Currency	Currency in which the request is being made. For example, USD, INR, EUR.	Varchar2(10)	Y
BuyerUser	User for whom the pricing request is being made. For example, if a CSR (ajones) is generating this request for user cchen, BuyerUser will be cchen. The default is the current storefront's Anonymous User..	Varchar2(60)	N
PricingCoupon List	List of coupons applicable to the cart.	N/A	N
PricingCoupon	A coupon applicable to the cart.	N/A	N

TABLE 19. (Continued) CouponValidationReply Fields

Field Name	Description	Data Type	Required? (Y/N)
CouponID	Coupon Identifier as implemented in the Order Selling system, such as QXD15009 or ORD0665.	Varchar2(120)	Y
CouponStatus	<p>This field can have one of the following values:</p> <p>VALID COUPON: The coupon is valid.</p> <p>INVALID COUPON: The coupon doesn't exist in the Order Selling system or is not applicable to the user.</p> <p>INVALID COUPON ASSIGNMENT: The coupon is not assigned to the target user of this request.</p> <p>INVALID CURRENCY: The coupon is not valid for the provided currency</p> <p>INVALID CUSTOMER TYPE: The customer type is not valid, so the coupon is not valid.</p> <p>EXPIRED COUPON: The coupon has expired and is invalid.</p> <p>NOT EFFECTIVE COUPON: Coupon is effective at some later date and is not currently valid.</p> <p>NOT ENABLED COUPON: The coupon is not enabled yet in the Order Selling system so is not applied.</p>	Varchar2(120)	Y

Sample CouponValidationReply XML

The following sample CouponValidationReply XML representation contains all the request fields.

```

<CouponValidation>
  <CustomerType/>
  <CustomerTypeCode/>
    <Currency/>
    <BuyerUser/>
    <PricingCouponList>
      <PricingCoupon>
        <CouponID/>
        <CouponStatus/>
      </PricingCoupon>
    </PricingCouponList>
</CouponValidation>

```

CouponValidationService Example

The following example shows the submission of several coupons and their returned status.

Request

```
<?xml version="1.0" encoding="UTF-8"?>
<Comergent xmlns:cmgtws="http://www.comergent.com/webservices/">
  <MessageHeader>
    <MessageType>CouponValidationRequest</MessageType>
    <MessageVersion>4.0</MessageVersion>
    <MessageID>XYZ</MessageID>
    <SessionID>sessionID123</SessionID>
  </MessageHeader>
  <RemoteUser>
    <UserLogin>cService</UserLogin>
    <UserFullName/>
    <UserAuthenticator>cService</UserAuthenticator>
  </RemoteUser>
  <CouponValidation type="BusinessObject">
    <Currency>USD</Currency>
    <CustomerType/>
    <BuyerUser>cchen</BuyerUser>
    <PricingCouponList>
      <PricingCoupon>
        <CouponID>SAVE20</CouponID>
      </PricingCoupon>
      <PricingCoupon>
        <CouponID>NEW_YEAR_OFFER</CouponID>
      </PricingCoupon>
      <PricingCoupon>
        <CouponID>DUMMY_INVALID</CouponID>
      </PricingCoupon>
    </PricingCouponList>
  </CouponValidation>
</Comergent>
```

Reply

```
<?xml version="1.0" encoding="UTF-8"?>
<Comergent>
  <MessageHeader>
    <MessageType>CouponValidationReply</MessageType>
    <MessageVersion>4.0</MessageVersion>
    <MessageID/>
    <SessionID/>
    <SessionKeepAlive>false</SessionKeepAlive>
    <MessageTimeStamp/>
  </MessageHeader>
  <ReplyHeader>
    <ReplyStatusCode>0</ReplyStatusCode>
    <ReplyStatusMessage/>
    <UserInfoMessage/>
    <InResponseToID>XYZ</InResponseToID>
  </ReplyHeader>
</Comergent>
```

```
</ReplyHeader>
<CouponValidation type="BusinessObject">
  <CustomerType/>
  <CustomerTypeCode/>
  <Currency>USD</Currency>
  <BuyerUser>cchen</BuyerUser>
  <PricingCouponList>
    <PricingCoupon>
      <CouponID>SAVE20</CouponID>
      <CouponStatus>INVALID COUPON ASSIGNMENT</CouponStatus>
    </PricingCoupon>
    <PricingCoupon>
      <CouponID>NEW_YEAR_OFFER</CouponID>
      <CouponStatus>VALID COUPON</CouponStatus>
    </PricingCoupon>
    <PricingCoupon>
      <CouponID>DUMMY_INVALID</CouponID>
      <CouponStatus>INVALID COUPON</CouponStatus>
    </PricingCoupon>
  </PricingCouponList>
</CouponValidation>
</Comergent>
```

Security in the Sterling Multi-Channel Selling Solution

This chapter provides an overview of how security is managed in the Sterling Multi-Channel Selling Solution to ensure that users have the appropriate privileges:

- to access the Sterling Multi-Channel Selling Solution and its data. See "Security in the Web Environment" on page 139.
- to execute a message type: As a user navigates through the Sterling Multi-Channel Selling Solution browser interface, they move from page to page by clicking links or buttons that are associated with URLs. Each URL corresponds to a *message type*. By determining whether a user can execute a message type, you can control which pages any particular user can view. See "Functional Entitlements" on page 141 for more details.
- to access a data object: Data object access is the mechanism used to control whether each user may view, modify, delete, or create a data object. See "Data Object Access" on page 148 for more details.

Security in the Web Environment

As a Web application, the Sterling Multi-Channel Selling Solution is potentially vulnerable to security risks. In particular:

- Make sure that if you use a Web server in conjunction with your servlet container that the Web server restricts access to the configuration

directories and JSP pages. Ensure also that your Web server can withstand a denial of service (DOS) attack.

- In general, you should not leave the logging level set to VERBOSE. This level of logging exposes passwords and other commercially-sensitive information to anyone with access to the servlet container's log files. We suggest setting the logging level to WARNING unless you are performing a specific debugging task.
- Make sure that you leave only the minimum access to the running system through your firewall. For example, ensure that the URLs used to access Sterling Analyzer reports cannot be accessed from outside your corporate firewall.

We strongly suggest that you create a checklist such as the one prepared by Sterling Commerce Professional Services so that you can perform a security audit of your implementation before you go live with the production system. Contact Sterling Commerce for more information.

Users, Groups, Roles, and Domains

In general, a group is a set of users. Each user must belong to a group. Enterprise and partner administrators are responsible for setting up users: see the *Sterling Multi-Channel Selling Solution Administration Guide* for further information.

A function is an attribute of a user; you assign functions to users when you create users. Functions are collections of roles: hence users can have one or more roles. The relationship between functions and roles is defined in the **Entitlements.xml** configuration file. For example, here is a sample fragment from the **Entitlements.xml** file that expresses which roles are in the DirectCommerce function.

```
<UserFunctionMapping Name="DirectCommerce">
  <Description>Commerce</Description>
  <Role>Partner.DirectBuyer</Role>
  <Role>Partner.CustomerServiceRepresentative</Role>
</UserFunctionMapping>
```

Subsequently, administrators may assign or unassign functions to users and so change the roles that a user has. Changes to the role assignment take effect when the user next logs into the Sterling Multi-Channel Selling Solution.

A user's roles are used:

- to restrict the requests that the user is entitled to make to the Sterling Multi-Channel Selling Solution (see "Functional Entitlements" on page 141).
- to filter the list of users and groups granted or denied an access privilege to a data object (see "Data Object Access" on page 148).

Users identify themselves when they log into the Sterling Multi-Channel Selling Solution by providing a *username* and *password*. Each authenticated user belongs to exactly one *group* and can have one or more *roles* associated with them. The system uses this information to determine how the user may interact with data objects.

Note that even users who access the direct commerce pages without entering a username and password are logged into the Sterling Multi-Channel Selling Solution. They are authenticated using the AnonymousUser userid and hence have access to objects determined by that user.

Security Domains

Roles are managed in the context of security domains: these enable the Sterling Multi-Channel Selling Solution to differentiate each user's access to different partners operating as Partner.com and Storefront partners.

Role names are represented as strings of the form *<domain>.<role>* where:

- the domain typically is "Enterprise" or "Partner" for users of the enterprise system and "Storefront_*identifier*" for customers of partners (that is users who belong to customer nodes of partners).
- the role is a string such as "User", "Administrator", "CustomerServiceRepresentative", "DirectCommerceUser", "TransferUser", or "RegisteredUser".

Functional Entitlements

In addition to controlling access privileges on data objects, the Sterling Multi-Channel Selling Solution can also control which actions a user may perform. It does this by declaring the set of messages that the user can execute. For example, if a user can request price and availability information, then you grant this user permission to execute a PriceAvailabilityRequest message.

You manage this authorization using the **Entitlements.xml** and **MessageTypes.xml** configuration files. By default, these files are located in the *debs_home/Sterling/properties/* directory.

- The **Entitlements.xml** file defines the set of user types, functions, and roles available in your implementation, and for each role defined, grants message groups and message types that the role can execute.
- The **MessageTypes.xml** files defines message types and message groups.

Roles

Each role groups together a set of related capabilities: this is the set of message types that the role includes. If a user has more than one role, then the list of granted message groups and message types for that user is created by taking the union of message groups and message types listed for each role. Roles are defined in the **Entitlements.xml** file. The **Entitlements.xml** file is a text file and its location is specified in the **Comergent.xml** file.

To manage what roles are potentially available to be assigned to a user, the **Entitlements.xml** file also declares UserTypeDefinition elements. Each UserTypeDefinition has a Name attribute and lists a set of UserFunctionMapping child elements. In addition, certain roles can be assigned directly to the user type using the MandatoryRoleSet element: these roles are assigned to users of this type irrespective of the assignment of functions to these users. For example, this element in the EnterpriseUser userTypeDefinition element is used to assign the Enterprise.User role to all enterprise users:

```
<MandatoryRoleSet>
  <Role>Enterprise.User</Role>
</MandatoryRoleSet>
```

Each UserFunctionMapping element lists a set of child Role elements. Each partner is assigned a UserTypeDefinition and when a user is created or modified, usually only those functions listed in the corresponding UserTypeDefinition are available to be assigned.

Note:	In Release 7.1 and later, the assignment of UserTypeDefinitions to partners is fixed.
--------------	---

In the reference implementation, the following are some of the UserTypeDefinitions and functions used:

- EnterpriseUser: Employees or agents of your company.
 - EnterpriseAdministration
 - EnterpriseFinancials
 - EnterpriseProgramManagement
 - EnterpriseCommerce

- IndirectUser: Employees or agents of an indirect commerce partner.
 - IndirectCommerce
 - ministration
- DirectUser: Employees or agents of a direct commerce partner.
 - DirectCommerce
 - PartnerAdministration
- RegisteredUser: Known direct commerce users with no partner affiliation.
- StorefrontCustomerUser: Known direct commerce customers of a Storefront partner.
 - StorefrontCustomerAdministration

Message Groups

Message groups are defined in the **MessageTypes.xml** files whose location is specified in the **Comergent.xml** file. The **MessageTypes.xml** file defines message groups by declaring MessageGroup elements. MessageGroup elements can contain child MessageGroup elements and MessageType elements. Each MessageType element defines a message type.

Message Types

The Sterling Multi-Channel Selling Solution only executes the message type if the user is entitled to access the message type. If the user is not entitled to execute a message type, then an error message is displayed to the user.

Example Files

This section provides examples of the **Entitlements.xml** and **MessageTypes.xml** files to illustrate their features.

Entitlements.xml File Example

In this example, suppose that the **Entitlements.xml** file contains the following:

```
<?xml version='1.0' encoding='UTF-8' ?>
<!--
<!DOCTYPE Entitlements SYSTEM "WEB-INF/properties/Entitlements.dtd">
-->
<Entitlements>
    <DomainDefinition Name="Enterprise"
        Resolver="com.comergent.dcm.entitlement.EnterpriseDomainNameRe-
solver">
```

```
<Description>The Enterprise Domain is the standard debs appli-
cation domain. The enterprise, direct, indirect, and procurement
entrypoints are all associated with this domain.</Description>
<Role>Anonymous.User</Role>
<Role>Enterprise.Administrator</Role>
<Role>Enterprise.BasicAdministrator</Role>
<Role>Enterprise.AdvisorManager</Role>
<Role>Enterprise.BusinessRuleManager</Role>
<Role>Enterprise.CustomerServiceRepresentative</Role>
<Role>Enterprise.ProductManager</Role>
<Role>Enterprise.SystemAdministrator</Role>
<Role>Enterprise.User</Role>
<Role>Enterprise.VisualModeler</Role>
<Role>Enterprise.ERPAdministrator</Role>
<Role>Enterprise.LeadAdministrator</Role>
<Role>Enterprise.AccountReceivable</Role>
<Role>Enterprise.SalesManager</Role>
<Role>Enterprise.SalesRep</Role>
<Role>Enterprise.MarketingManager</Role>
<Role>Enterprise.Analyzer</Role>
<Role>Enterprise.PricingManager</Role>
<Role>Enterprise.ChannelManager</Role>
<Role>Registered.User</Role>
<Role>StorefrontCustomer*.TransferUser</Role>
<Role>Partner.Administrator</Role>
<Role>Partner.BasicAdministrator</Role>
<Role>Partner.AccountPayable</Role>
<Role>Partner.OrderApprover</Role>
<Role>Partner.ProcurementUser</Role>
<Role>Partner.User</Role>
<Role>Partner.SalesRep</Role>
<Role>Partner.SalesManager</Role>
<Role>Partner.CustomerServiceRepresentative</Role>
<Role>Partner.StorefrontAdministrator</Role>
<Role>Partner.ProductManager</Role>
<Role>Partner.DirectBuyer</Role>
<Role>Partner.IndirectBuyer</Role>
</DomainDefinition>

<UserTypeDefinition Name="EnterpriseUser">
  <Description>
    Employees or agents of the subject enterprise.
  </Description>
  <MandatoryRoleSet>
    <Role>Enterprise.User</Role>
  </MandatoryRoleSet>
  <Label>User</Label>
  <UserFunctionMapping Name="EnterpriseCommerce">
    <Description>Commerce</Description>
```

```
<Role>Enterprise.CustomerServiceRepresentative</Role>
</UserFunctionMapping>
<UserFunctionMapping Name="EnterpriseSales">
  <Description>Sales</Description>
  <Role>Enterprise.SalesRep</Role>
  <Role>Enterprise.CustomerServiceRepresentative</Role>
</UserFunctionMapping>
<UserFunctionMapping Name="EnterpriseSalesExecutive">
  <Description>Sales</Description>
  <Role>Enterprise.SalesRep</Role>
  <Role>Enterprise.SalesManager</Role>
  <Role>Enterprise.CustomerServiceRepresentative</Role>
</UserFunctionMapping>
<UserFunctionMapping Name="EnterpriseProgramManagement">
  <Description>Program Management</Description>
  <Role>Enterprise.BusinessRuleManager</Role>
  <Role>Enterprise.SystemAdministrator</Role>
  <Role>Enterprise.AdvisorManager</Role>
  <Role>Enterprise.ProductManager</Role>
  <Role>Enterprise.VisualModeler</Role>
  <Role>Enterprise.PricingManager</Role>
  <Role>Enterprise.ChannelManager</Role>
  <Role>Enterprise.MarketingManager</Role>
  <Role>Enterprise.Analyzer</Role>
</UserFunctionMapping>
<UserFunctionMapping Name="EnterpriseFinancials">
  <Description>Financials</Description>
  <Role>Enterprise.AccountReceivable</Role>
</UserFunctionMapping>
<UserFunctionMapping Name="EnterpriseLeadAdministratorSales">
  <Description>Lead Administration</Description>
  <Role>Enterprise.LeadAdministrator</Role>
</UserFunctionMapping>
<UserFunctionMapping Name="EnterpriseBasicAdministration">
  <Description>Basic Profile Maintenance</Description>
  <Role>Enterprise.BasicAdministrator</Role>
</UserFunctionMapping>
<UserFunctionMapping Name="EnterpriseAdministration">
  <Description>Profile Administration</Description>
  <Role>Enterprise.BasicAdministrator</Role>
  <Role>Enterprise.Administrator</Role>
</UserFunctionMapping>
</UserTypeDefinition>

<RoleDefinition Name="All">
  <Description>
    This is the default role. It is granted to all users
    whether known
    or not.
```

```
</Description>
<Grant> Common </Grant>
<Grant> cicComponents </Grant>
<Grant> CommerceComponents </Grant>
<Grant> ResellerSelectorGroup </Grant>
<Grant> ProcurementCommon </Grant>
<Grant> ChannelMgmtCommon </Grant>
<Grant> HostedCommon </Grant>
<Grant> ProfileMgrCommonGroup </Grant>
<Grant> OfflineConfigurator </Grant>
<!-- disable configurator for unknown users-->
<Grant> ConfiguratorGroup </Grant>
<!--//-->
<Grant> OILCommon </Grant>
<Grant> OrdersLoginGroup </Grant>
<Grant> CampaignAction </Grant>
<!--<Grant> Test </Grant>-->
</RoleDefinition>

<RoleDefinition Name="Partner.User">
  <Description>
    User is a member of a named partner. Entitled to maintain
    own user profile, and perform partner marketplace activities: build a
    shopping cart, manage shopping cart workspace, check price and avail-
    ability, and transfer shopping carts.
  </Description>
  <Grant> PartnerHomeGroup </Grant>
  <Grant> PartnerProfileDisplayCommonGroup </Grant>
  <Grant> PartnerUserAdminGroup </Grant>
  <Grant> PartnerProfileAdminGroup </Grant>
  <Grant> UserAdminCommonGroup </Grant>
  <Grant> OILRecoveryGroup </Grant>
  <Grant> UserManagementGroup </Grant>
  <Grant> UserMoveGroup </Grant>
  <Grant> EditOrderApprovalFields </Grant>
  <Grant> ProductServiceGroup </Grant>
</RoleDefinition>
</Entitlements>
```

The `DomainDefinition` element specifies roles that are valid in the domain specified by the `Name` attribute. These determine what message types are valid in each domain. Different domains may support different sets of roles and hence different message types.

The `EnterpriseUser` is declared a `UserTypeDefinition`. If new enterprise users are created, then the functions `EnterpriseCommerce`, `EnterpriseSales`, and `EnterpriseSalesExecutive`, and so on are available for assignment.

A user who has the Partner.User role may execute message types that belong to the following message groups:

- PartnerHomeGroup
- PartnerProfileDisplayCommonGroup
- PartnerUserAdminGroup
- PartnerProfileAdminGroup
- UserAdminCommonGroup
- OILRecoveryGroup
- UserManagementGroup
- UserMoveGroup
- EditOrderApprovalFields
- ProductServiceGroup

Note that some roles are prefixed by either Enterprise or Partner. Generally, you can only assign enterprise roles to enterprise users, and conversely, only partner roles to partner users. New roles have been added for Partner.com and storefront users.

MessageTypes.xml File Example

This example file declares one message group, Common. The message group comprises three message types whose names are:

- CannedHTMLReply
- MatrixHomePageDisplay
- InventoryCollectionListActionDisplay

If the Common message group is granted to a role, then users who are assigned this role can execute these message types.

```
<?xml version="1.0" encoding="UTF-8"?>
<!--
<!DOCTYPE MessageTypes SYSTEM "MessageTypes.dtd" >
-->
<MessageTypes>
  <MessageGroup Name="Common">
    <Description>
      Message Types that should be accessible to all, regardless of
      entitlement.
    </Description>
    <MessageType Name="CannedHTMLReply">
```

```
<BLCMapping>
  com.comergent.apps.common.blc.simple.CannedHTMLReply
</BLCMapping>
</MessageType>
<MessageType Name="MatrixHomePageDisplay">
  <Description>
    The home page display request.
  </Description>
  <ControllerMapping>
    com.comergent.dcm.caf.controller.ForwardController
  </ControllerMapping>
  <JSPMapping>
    ../home/fs_home.jsp
  </JSPMapping>
</MessageType>
<MessageType Name="InventoryCollectionListActionDisplay">
  <JSPMapping>
    ../partnerMgr/InventoryCollectionListAction.jsp
  </JSPMapping>
  <ControllerMapping>
    com.comergent.apps.common.controller.ForwardController
  </ControllerMapping>
</MessageType>
</MessageGroup>
</MessageTypes>
```

Data Object Access

The key concepts to remember when considering the access to data objects are:

- access control lists: determine the access each user has to the data object.
- whether a user has a particular access privilege on an object is determined by the combination of user attributes (their user key, their group membership, their relationship to the group of the object's owner, and their roles) with the attached ACL.

Every data object that extends C3PrimaryRW has an *owner* and four different access privileges associated with it: *read*, *write*, *insert*, and *delete*. Each data object that extends the C3PrimaryRW data object in the system can have an access control list (ACL) attached to it. The ACL determines the users who have each access privilege.

Access privileges can be granted or denied by an ACL: that is, you can *deny* a user read access to an object or *grant* a group write access to an object.

Default Access

Two special ACLs are created as part of the minimal data:

- **System Base ACL:** this ACL defines the set of common access privileges. All other ACLs take this as the base from which additional privileges are granted or denied. It is currently defined as:
 - The owner of the object has all four privileges: read, write, insert, and delete.
 - Users who are members of the same group(s) as the owner have the read privilege.
 - Other users have no access privileges.
- **System Default ACL:** this ACL is used to test access to a data object if no ACL has been attached to a data object. By default, this ACL is empty. Consequently, the access granted to data objects with no attached ACL is that defined by the System Base ACL.

If an ACL is attached to a data object, then the base privileges for the owner and members of the same group as the owner are maintained unless they are explicitly denied by the ACL. Consequently, if no ACL is attached to a data object that extends the C3PrimaryRW data object, then users have the following access:

- The owner of the object has all four privileges: read, write, insert, and delete.
- Users who are members of the same group(s) as the owner have the read privilege.
- Other users have no access privileges.

This is the level of access defined by the System Base ACL created as part of the current minimal data set.

Attaching an ACL to a Business Object

When a Sterling Multi-Channel Selling Solution application creates a data object, the creating application can attach an ACL to the data object to manage future access to it. See the *Sterling Multi-Channel Selling Solution Developer Guide* for more information on how to do this.

Access Privileges

The access privileges supported by the Sterling Multi-Channel Selling Solution are:

- Delete privilege

- Insert privilege
- Read privilege
- Write privilege

There is no implicit order of precedence in this list of privileges. For example, it is possible for a user to have the delete privilege on a data object without having the write privilege.

Delete privilege

A user who has the delete privilege on an object can delete the object.

Insert privilege

A user who has the insert privilege on an object can *create* a new data object of this type. (“Insert” corresponds to the act of inserting a new row into the database table for this data object.) The insert privilege does not include either the read or write privilege, so it is possible that a user can create a new business object without being able to view or modify it later.

Read privilege

A user who has the read privilege on an object can view the data object details. They cannot modify the details.

Write privilege

A user who has the write privilege on an object can modify the data object details.

Access Control Lists

This section describes the logical structure of ACLs and their representation in the Knowledgebase.

Logical Structure

An access control list comprises four privilege lists: the read, write, insert, and delete lists. Each privilege list is made up of zero or more records in the Knowledgebase as described below.

If you want to use ACLs to manage access to a data object, then you must define it as extending the C3PrimaryRW data object or a descendant of the C3PrimaryRW data object. If a data object is created without attaching a specific ACL, then the System Base ACL is used to determine default access privileges to the object. Permissions granted and denied in the CMGT_ACCESSLIST table are added to the

default access permissions and can be used to override the default access. See "System Base ACL" on page 153 for more information about this ACL.

ACL Creation

Some ACLs are created when the minimal data is loaded, and others are defined as certain classes of data object are created. If you want to modify access to data objects whose access is managed by ACLs that belong to the minimal data set, then you must either modify the minimal data before you load it into the Knowledgebase or modify it in the Knowledgebase tables.

ACLs that are created at runtime are created by applications to meet the specific need of the application. The ACL data object is created by the application and persisted, and then the ACL key can be used to attach to the appropriate data objects. For example, each time a partner is created an ACL is created to manage access to the partner and corresponding group data objects. The newly-created ACL is attached to the partner and group data objects so that access to the partner and group are restricted to enterprise users and users of the partner's group.

An ACL may be attached to many different business objects and hence a small number of ACLs may meet the business needs of your implementation of the Sterling Multi-Channel Selling Solution.

When a user attempts to perform an action on a business object, then the business object's ACL is examined. The privilege list for the action is created from the corresponding rows of the CMGT_ACCESSLIST table. A test is performed to see whether the user meets the criteria of at least one of the GRANT lines that make up the privilege list.

Each privilege list line has the same structure:

- users: If a "-" appears before the user it means that this user is denied regardless of their group membership. (A "+" is optional to help read ACLs.)
- groups: If a "-" appears before the group it means that all members of this group are to be denied this access privilege. (A "+" is optional to help read ACLs.)
- fixed: (owner, all other users in the owner's group, or other). The "fixed" sets of users are defined relative to the owner of a business object as follows: Each business object has an *owner*. The owner of an object is implicitly included in the list of users and groups for each privilege, but can be explicitly excluded. Likewise, you can add *group* to a privilege list. It is a reference to the other users who belong to the same group as the

object owner. You can also add *other* to a privilege list; which grants or denies the privilege to *all* users other than the owner and owner's group.

- roles: a user must have one (or more) of the roles listed associated to them in order to have the privilege (unless the line identifies the user by user key or as the owner of the object). Roles in ACLs are domain-specific: they are not abstractly applicable to all domains. When the **Entitlements.xml** file declares abstract roles (such as Storefront*.User), they must be made concrete when added to ACLs. Thus, in assigning a storefront role for example, you must specify Storefront3.User, not Storefront*.User.

Most ACLs will use the “fixed” set of users to specify access privileges because most objects created in the system need to be accessed by their owner or their owner's group. In our reference implementation of the Sterling Multi-Channel Selling Solution, enterprise users can be referenced through their group key (1).

For a given user; first the list of members and groups is expanded to see whether the user belongs to the list of permitted members, and then the roles associated with the user are compared to the roles listed to verify at least one of their roles is listed. However, note the following:

- If a user is referenced explicitly, either by their user key or as the owner of an object, then no filtering by roles is performed: that is, the permission is applied to that user regardless of their assigned roles.
- In general, deny supersedes grant: that is, if a user is granted an access privilege through one privilege list line, but is denied the privilege through another line, then the net effect is to deny the access privilege to the user.

Each ACL has the same *logical* structure as described in the following table.

TABLE 20. Access Control List Structure

Element	Purpose
ACL_ID	Unique identifier of this ACL
Name	Descriptive name for this ACL
ReadList	List of (+ or -) user IDs, a list of (+ or -) group IDs, a list of roles
WriteList	List of (+ or -) user IDs, a list of (+ or -) group IDs, a list of roles

TABLE 20. Access Control List Structure (Continued)

Element	Purpose
InsertList	List of (+ or -) user IDs, a list of (+ or -) group IDs, a list of roles
DeleteList	List of (+ or -) user IDs, a list of (+ or -) group IDs, a list of roles

Note that the structure of the database tables used differs from this logical description. Each privilege list is made up of zero or more lines that correspond to zero or more database records. Each record either grants or denies the privilege to one user, one group, or one “fixed” set of users, and the resulting set of users is then filtered by the roles for that record.

System Base ACL

A new base ACL is defined in the Sterling Multi-Channel Selling Solution. Its name is “System Base ACL”. For any business object, in addition to privileges granted by an ACL that is attached to it, users will have privileges granted or denied by the System Base ACL. If no ACL is attached to a business object, then *only* the privileges granted or denied by the System Base ACL are allowed.

In the reference implementation of the Sterling Multi-Channel Selling Solution, the System Base ACL grants read, write, insert, and delete access to the object’s owner, read access to all other members of the owner’s group, and no other access.

ACL Example

In this section we give an example of the use of ACLs. Suppose that there is a user called Joan Smith. Suppose that she belongs to the group “Matrix” (whose group key is 27813) and has the DirectSalesExecutive function: this has the roles “Partner.SalesRep” and “Partner.SalesManager”. Another user, Kevin Chu, also belongs to the group “Matrix” and has the DirectSales function: this has the role “Partner.SalesRep”.

Suppose that the following is an ACL:

TABLE 21. Example ACL

Element	Value
ACL_ID	314159
Name	Matrix shopping carts access
ReadList	27813, "Partner.SalesRep"
WriteList	27813, -2001, "Partner.SalesRep"

TABLE 21. Example ACL

Element	Value
InsertList	427181, "Partner.SalesRep"
DeleteList	27813, "Partner.SalesManager"

Here, 27813 is the group to which both Joan Smith (user key 2000) and Kevin Chu (user key 2001) belong. If an object has this ACL attached to it, then Kevin Chu is able to view its details. He does not have the write privilege because he has been explicitly excluded from this list. He does not have the insert privilege because he is not a member of the only group listed. Finally, he does not have the delete privilege because he does not have the role of “Partner.SalesManager”.

On the other hand, Joan has the read, write, and delete privileges on this object. However, note that if Kevin is the owner of the object, then he also has the insert privilege because he is not explicitly excluded and the System Base ACL grants the owner of objects the insert privilege. However, he does not have the write privilege because he has been explicitly denied the privilege and denies supersede grants.

Database Representation

ACL information is stored in the Knowledgebase. Each access control list has a “header record” in the CMGT_ACLS table, and one or more rows in the CMGT_ACCESSLIST table. Each record of the CMGT_ACCESSLIST table is used to contribute to one of the four access privileges for an ACL.

- The set of rows that have the same ACL_KEY and PERMISSION make up a privilege list.
- The set of rows that have the same ACL_KEY make up the ACL.

For each record in the CMGT_ACCESSLIST table, one or more of the columns USER_KEY, GROUP_KEY, or FIXED must be non-null:

- USER_KEY: Grant or deny a user access to an object by specifying their user key.
- GROUP_KEY: Grant or deny a group of users access to an object by specifying their group key.
- FIXED: You use this column to make references to users without knowing the owner of the data object to which the ACL is attached. It takes a value between 0 and 31 which defines a bit mask. 1, 2, or 4 correspond to the data object owner, group (that is, other members of the same group as the owner), or other (that is, neither the owner nor a member of the owner’s

group) respectively. Use 16 to refer to the root group: the group of user's who belong to the root partner of the owner's partner hierarchy.

- Use 1 to refer to the business object owner.
- Use 2 to refer to the *other* users of the group to which the owner belongs.
- Use 4 to refer to "world", that is, all other users. This does not exclude users who belong to the root group of the owner.
- Do not use 8: this is a reserved mask.
- Use 16 to refer to users who belong to the group that corresponds to the root of the owner's group in their partner hierarchy.
- There are also the following custom masks: 256, 512, 1024, and 2048. Use these when you have to create a custom access not supported by the other masks. See "Custom Masks" on page 156 for more information.

By adding these values together, you can refer to other collections of users:

- 3: the data object owner and the other members of their group (1 + 2)
- 5: the data object owner and all other users that do not belong to the owner's group (1 + 4)
- 7: all users (1 + 2 + 4)
- 17: the data object owner and users who belong to the root node of the owner's partner hierarchy (16 + 1).

For example, for a given type of data object you could use the "owner" value to deny the owner of the data object the DELETE permission. Again, you could use the "group" value to grant the WRITE permission to all other users that belong to the same group as the business object owner.

Attention:	Note that if you use "2", then the permission is granted or denied to the other members of the same group as the owner, but <i>not</i> to the owner; whereas "3" enables you to refer to the owner <i>and</i> to the other users of the group to which owner belongs. Similarly, if you use "4", then the permission is granted or denied to all users who are neither the owner nor in the same group as the owner.
-------------------	--

PERMISSION takes a value 0, 1, 2, or 3 corresponding to read, write, insert, or delete privileges respectively. Because these privileges are independent, you must have one line for each privilege to give a user or group full access to an object.

ROLES is a comma-delimited string of domain roles (see "Users, Groups, Roles, and Domains" on page 140). Any role listed here is used to filter all the users that are listed by this or other rows of this access list (that is, that have the same ACL_KEY) and privilege. For this row of the ACL to take effect, the user must be assigned one (or more) of the roles listed here. If the column is blank, then roles are not used to filter in this row.

The GRANT_DENY_FLAG must be "T" (or NULL) for GRANT. Any non-null value other than "T" denotes DENY. Standard practice is to use "F" to denote DENY.

Custom Masks

On occasion, an application writer may find that the standard FIXED masks are not sufficient to manage access to data objects. The Sterling Multi-Channel Selling Solution supports four custom masks that may be used by developers. They have no prior meaning, but can be used to invoke a custom access control class that implements the `com.comergent.api.dcm.entitlement.AccessQualifier` interface.

The four bit masks are:

- `com.comergent.api.dcm.AccessControl.CUSTOM1`: value is 0x100 (256)
- `com.comergent.api.dcm.AccessControl.CUSTOM2`: its value is 0x200 (512)
- `com.comergent.api.dcm.AccessControl.CUSTOM3`: its value is 0x400 (1024)
- `com.comergent.api.dcm.AccessControl.CUSTOM4`: value is 0x800 (2048)

To use a custom mask, you must do the following:

1. Declare the custom mask in **Comergent.xml** file by defining a `CustomCheck*` element, where * is 1, 2, 3, or 4. The value of this element is the fully qualified class name of the custom access control class. For example:

```
<CustomCheck1>  
    com.comergent.apps.productMgr.CheckProductAccessQualifier  
</CustomCheck1>
```

2. Write the custom access control class and make sure that it implements the `com.comergent.api.dcm.entitlement.AccessQualifier` interface. The *qualifies()* method must have this signature:

```
boolean qualifies(IAccUser user, IAccC3RW obj)
```


3. When creating the ACLs that use this custom flag, make sure that the appropriate value is set in the FIXED column.

Entitlements API

This section describes the main methods that manage ACL security in the Sterling Multi-Channel Selling Solution. This API makes use of the Java classes: `AccessControl` and `ACLBuilder`. Each class has a variety of methods to determine whether a given user or group has a particular access privilege to a business object and to set privileges. Privileges are persistent; once an ACL is set for an object, the Knowledgebase is updated and those access privilege are still valid even if you stop and restart the system.

In Release 8.0, access checking can be performed automatically on any business object whose Version attribute is set to “5.0” or higher (that is 5.0, 5.5, 6.0, and so on). The standard `delete()`, `erase()`, `persist()`, and `update()` method calls perform the appropriate entitlement checks before performing the requested operation and an exception is thrown if the user is not entitled to perform the operation. See the *Sterling Multi-Channel Selling Solution Developer Guide* for more information about these methods.

This section does not document all the available methods. For further details, consult the *Sterling Multi-Channel Selling Solution Developer Guide* and the Javadoc documentation provided for the `com.comergent.dcms.entitlement` package.

AccessControl Class

The `AccessControl` interface you use to determine and set privileges on data objects. Typically, most methods allow a user to be referenced either as a data object or by their user key. Element-level access is controlled through a third argument in the method signatures that specify the element by name.

Note:	Use the Insert privilege to check that a user has the access privilege to <i>create</i> a data object. If the user does not have this access privilege, then the data object should not be persisted.
--------------	---

You retrieve a class implementing the `AccessControl` interface using the `AccessControlFactory` class. By calling the static `get()` method, the `AccessControlFactory` returns an instance of a class defined by the following **ObjectMap.xml** element:

```
<Object ID="com.comergent.api.dcm.entitlement.AccessControl">
  <ClassName>
    com.comergent.dcm.entitlement.StandardAccessControl
```

```
</ClassName>  
</Object>
```

By default, this is the `StandardAccessControl` class.

The `AccessControl` interface's most important method is `getPermissions()`. It throws an `ICCEException` if either one of the referenced objects is not valid or if the user does not have the appropriate privilege to perform the specified access.

- `getPermissions()`: returns the permissions entitlements that the specified user has on the specified object. To check whether a user can perform an specified access, the int returned from this method must be compared to the appropriate mask. For example:

```
if (DELETE_PERMIT & getPermissions(user, databean))  
{  
    has permission to delete object  
}  
else  
{  
    does not have permission to delete object  
}
```

Entitlement Methods in Bean Classes

In Release 6.0 and higher, new methods have been added to support the use of JSP pages in the Sterling Multi-Channel Selling Solution.

DataBean Classes

The `DataBean` classes and interfaces generated from the data object definitions that extend the `C3PrimaryRW` data object provide the following methods to determine whether the current user may perform the read, write, insert, or delete actions on the Bean:

- `boolean isReadable()`
- `boolean isWritable()`
- `boolean isInsertable()`
- `boolean isDeletable()`

Usage

When you create a Bean object, it is instantiated with the current user as the member variable `m_user`. At any time, you can call one of the methods listed

above to verify that the current user has the appropriate privilege to perform an action on the Bean.

For example, in a JSP page, you can include the following scriptlet to manage whether a button should be displayed:

```
<td height="18" class="Normal">
<% if (sessionUser != null && sessionUser.canRequest("CartDisplay")
    && cart.isWritable()) {
    String temp_ParameterString = "ShoppingCartKey=" + cartKey;
%>
    <a href="<%= link("debs", "CartDisplay", temp_ParameterString)%>"
        target="_top">
        
        <%= cartKey %></a>
<% } else { %>
    <%= cartKey %>
<% } %>
</td>
```

If the current user has the write privilege on the cart, then the Sterling Multi-Channel Selling Solution displays the cart key as a link; otherwise the cart key is simply displayed as text.

User Class

canRequest Method

```
boolean canRequest(String s)
```

This method of the `com.comergent.dcm.core.User` class can be used to determine whether a particular user may execute a particular message, and hence whether a particular link is visible to them on a browser page.

For example, in a JSP page, create a User object with:

```
<%
    User user=comergentSession.getUser();
%>
```

and subsequently call:

```
<%if (user.canRequest("PartnerDisplay")){%>
<A TARGET="_top" HREF="<cmgt:link app="debs" cmd="PartnerDisplay"/>">
<IMG SRC="images/partner_profile.gif" WIDTH="349" HEIGHT="40"></A>
<%}%>
```

Together, these two scriptlet fragments ensure that only users whose roles allow them to execute the PartnerDisplay message see the link.

Encryption

The Sterling Multi-Channel Selling Solution uses encryption in two areas:

- SSL communication between enterprise server and partner server: see the *Sterling Multi-Channel Selling Solution Implementation Guide* for further details.
- To encrypt data in the data layer: see "DataElement Element" on page 85 for more information on the use of storing encrypted values in the Knowledgebase. You can use any of the commonly available encryption algorithms and packages such as JCE and DES in your implementation.

The Sterling Multi-Channel Selling Solution uses a database server to store all the persistent business information in the system: it is called the *Knowledgebase*. This chapter provides a description of the tables and other database objects that make up the Sterling Multi-Channel Selling Solution database schema. It covers:

- "Reference Implementation" on page 162
- "Access Control" on page 162
- "Internationalization" on page 164
- "Promotions" on page 165
- "Knowledgebase Tables" on page 165
- "Indexes" on page 390
- "Procedures" on page 390
- "Views" on page 391
- "Oracle Sequences" on page 391
- "Triggers" on page 397
- "Lookup Codes" on page 397
- "Superseded Tables" on page 413

The database servers that can support the Knowledgebase are listed in the *Sterling Multi-Channel Selling Solution Implementation Guide*. Please see this guide for further information regarding database server requirements.

Reference Implementation

The Sterling Multi-Channel Selling Solution is designed to be completely flexible and extensible. Data objects are the basic building blocks that define any implementation of the system. Before reviewing the database schema, you must have a firm understanding of the relationship between data objects, the XML schema used to define the data object, and how the XML schema is used to specify the mappings to database tables and the relationships between database tables.

You must also understand how to use constraints to limit the values that certain columns may take. Please see the *Sterling Multi-Channel Selling Solution Developer Guide* for further information.

This chapter provides a description of the database schema as it is used by our *reference implementation*. While the reference implementation may form the starting point for a particular implementation of the Sterling Multi-Channel Selling Solution, you must define the XML schema to meet the needs of your implementation.

Access Control

Tables that hold data that you can modify have a column called ACCESS_KEY. When a record in the table is accessed, this column is used to identify the ACL_KEY used to determine the level of access privilege that the user has to act on this record. Each ACL_KEY corresponds to a number of rows in the CMGT_ACCESSLIST table. Each row represents a specific privilege such as read, write, insert, or delete. See "CMGT_ACCESSLIST" on page 165 for further details.

Standard Columns

Some table columns are used as flags to denote the status of an object. This section reviews the standard flags used by the Sterling Multi-Channel Selling Solution and the values that they take.

Active Flag

When a data object is deleted from the Sterling Multi-Channel Selling Solution, the related data is not deleted from the Knowledgebase database. Instead, a flag is set to

“N” in the corresponding database table. In the Knowledgebase database schema, the designated column for this flag is ACTIVE_FLAG. This signifies that the data object is no longer accessible by the Sterling Multi-Channel Selling Solution through its business logic classes. The data held in the record is still available for reporting and analysis.

By default, when a new data object is created, the flag must be set to “Y”. When a data object Recipe element is declared in **DsDataElements.xml**, you can use the ShowInactive attribute to determine whether the data objects marked with “N” are visible to the business logic classes.

Note that if you create a new data object and a corresponding database table, then you must create an ACTIVE_FLAG column as part of the table even if there is no explicit declaration of an ActiveFlag data field that maps to it. Make sure that you set it to have a default value of “Y”: when new instances of the data object are persisted, then this column will automatically be set to “Y”.

Access Key

The ACCESS_KEY column is used to specify which ACL has been attached to a business object. Any data object that extends the C3PrimaryRW data object must be supported by a database table that has the ACCESS_KEY and OWNED_BY columns. The only valid values in this column are NULL and values from the ACL_KEY column of the CMGT_ACLS table.

User Columns

The following are standard columns which are used by data objects to manage the interaction of users with them.

- The OWNED_BY column is used to store the owner of each object: when an ACL check is performed this is used to identify the owner of the object.
- The CREATED_BY column stores which user created the data object. There is a corresponding CREATION_DATE column to record the time of creation.
- The UPDATED_BY column stores the user who last *modified* the object. Note that simply viewing an object does not change this column. There is a corresponding UPDATE_DATE column to record the time of the update.

Each of these columns should only have valid user keys as values.

Sequence Number

When a number of data objects are displayed as a list, it is possible to control the order in which they appear. The `SEQUENCE_ID` column of tables such as `CMGT_FEATURE` and `CMGT_ITEMS` records the sequence order.

Storefront Key

This release supports the capability of multiple storefronts. To keep data from different storefronts separate, and to ensure that storefront data can be viewed only users of that storefront, certain data objects now use a `STOREFRONT_KEY` column to manage this. The values in this column correspond to the partner key of the storefront partner created when the storefront is created. For example, suppose that an enterprise administrator creates a new storefront: they do this by providing the profile information for the new storefront partner. When this storefront partner is created, it has a partner key, say 600589, which is stored in the `PARTNER_KEY` column of the `CMGT_PA_CART_LOG` table. Whenever objects are created within this storefront, the `STOREFRONT_KEY` column of these objects will have the value 600589.

In general, if a data object extends the `C3StorefrontRW` data object, then *restore()* and *persist()* operations on the data object will use the `STOREFRONT_KEY` column. For example, the Campaign data object extends the `C3StorefrontRW` data object. This means that the `CMGT_CAMPAIGN` table has a `STOREFRONT_KEY` column and when campaigns are restored from this table, then only those campaigns that belong to the same storefront as the current user are retrieved.

Internationalization

Release 6.0 and higher of the Sterling Multi-Channel Selling Solution provides enhanced support for internationalization by adding tables that maintain locale-specific data for data objects. In general, the data for such data objects is maintained in two tables: `CMGT_OBJECT` and `CMGT_OBJECT_LOCALE`, where *OBJECT* is the type of the data object.

The `CMGT_OBJECT` table maintains header information for each instance of the data object and the primary key column of this table uniquely identifies each instance. The corresponding `CMGT_OBJECT_LOCALE` table is used to maintain the localized data: its primary key columns comprise the primary key of the `CMGT_OBJECT` table together with the locale column.

The `FLAG` column of the `CMGT_OBJECT_LOCALE` table is always set to 1. It is for internal use only.

See the *Sterling Multi-Channel Selling Solution Implementation Guide* for more information on how to populate these tables while implementing the Sterling Multi-Channel Selling Solution or how to add a locale to an existing implementation.

Promotions

Enterprises can add promotional messages to product inquiry list selections and partners can add promotional messages to price and availability replies (see the *Sterling Multi-Channel Selling Solution Administration Guide* for further details). These features use the following tables of the Knowledgebase database schema:

- CMGT_PROMOTIONS
- CMGT_PROMOTION_CONTROL
- CMGT_PROMOTION_X_SKU

The basic detail for each promotion is maintained in the CMGT_PROMOTIONS table. Each promotion comprises a description and a URL that points to the HTML document that displays the details of the promotion. The CMGT_PROMOTION_CONTROL and CMGT_PROMOTION_X_SKU tables manages the information that is used to determine which promotion is displayed. The CMGT_PROMOTION_X_SKU table manages the assignment of promotions to product IDs. Each row in the CMGT_PROMOTION_CONTROL table provides information (in the form of priority, effectivity dates, and promotion key) to determine which promotion is displayed for a product ID. The CMGT_PARTNER_PROMOTIONS table records the promotions that are served up.

Knowledgebase Tables

Transactional Database Tables

This section provides a summary of each table in the Sterling Multi-Channel Selling Solution transactional database schema. Note that the data types given for each column are the Oracle data types: the corresponding data types are created for DB2 and SQL Server installations.

CMGT_ACCESSLIST

CMGT_ACCESSLIST maintains the lines that make up each ACL. Each row in this table corresponds to a specific permission. The aggregate of the rows with a specific ACL_KEY make up the ACL defined in the CMGT_ACLS table.

Typically, you require a row for each permission that you want to grant or deny in addition to the default permissions. For example, if you wish to extend the permission to read a data object to a group other than the owner's group, then you need to add a row that specified granting the READ permission to the new group.

TABLE 22. CMGT_ACCESSLIST Table

Name	Null?	Type
ACCESSLIST_KEY	NOT NULL	NUMBER(20)
USER_KEY	POSSIBLY NULL	NUMBER(20)
GROUP_KEY	POSSIBLY NULL	NUMBER(20)
FIXED	POSSIBLY NULL	NUMBER(20)
ACL_KEY	NOT NULL	NUMBER(20)
PERMISSION	NOT NULL	NUMBER(1)
ROLES	POSSIBLY NULL	VARCHAR2(480)
GRANT_DENY_FLAG	POSSIBLY NULL	VARCHAR2(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ACCOUNT_TRANSACTION

CMGT_ACCOUNT_TRANSACTION holds information about each transaction to increase or decrease the amount held in a payment account. The primary key is TRANSACTION_KEY.

TABLE 23. CMGT_ACCOUNT_TRANSACTION Table

Name	Null?	Type
TRANSACTION_KEY	NOT NULL	NUMBER(20)
ACCOUNT_KEY	POSSIBLY NULL	NUMBER(20)
TRANSACTION_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
REFERENCE_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
REFERENCE_KEY	POSSIBLY NULL	NUMBER(20)
TRANSACTION_CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)
CURRENCY_CONVERSION_RATE	POSSIBLY NULL	FLOAT(126)
TRANSACTION_DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
TRANSACTION_DATE	NOT NULL	DATE
AMOUNT	POSSIBLY NULL	FLOAT(126)

TABLE 23. CMGT_ACCOUNT_TRANSACTION Table (Continued)

Name	Null?	Type
DEBIT_OR_CREDIT_FLAG	POSSIBLY NULL	NUMBER(1)
ENDING_BALANCE	POSSIBLY NULL	FLOAT(126)
AVAILABLE_BALANCE	POSSIBLY NULL	FLOAT(126)
BASE_AMOUNT	POSSIBLY NULL	FLOAT(126)
COOP_PERCENTAGE	POSSIBLY NULL	FLOAT(126)
COOP_MAX_VALUE	POSSIBLY NULL	FLOAT(126)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ACLS

CMGT_ACLS holds a list of all current ACLs in the schema. The primary key for this table is ACL_KEY. Data objects use the ACCESS_KEY column in their table to refer to the ACL_KEY that should be used to determine access privileges at run-time.

TABLE 24. CMGT_ACLS Table

Name	Null?	Type
ACL_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
NAME	POSSIBLY NULL	VARCHAR2(90)
OWNED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ACTION_ITEM

CMGT_ACTION_ITEM stores information relating to models. The primary key is ACTION_ITEM_KEY.

TABLE 25. CMGT_ACTION_ITEM Table

Name	Null?	Type
ACTION_ITEM_KEY	NOT NULL	NUMBER(20)
ACTION_KEY	NOT NULL	NUMBER(20)
RESULT_MIN	NOT NULL	NUMBER(20)
RESULT_MAX	NOT NULL	NUMBER(20)
QUANTITY	NOT NULL	NUMBER(20)
QUANTITY_FORMULA	POSSIBLY NULL	VARCHAR(240)
ITEM	NOT NULL	VARCHAR2(256)
SEQUENCE_NUMBER	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ACTIVITY_X_SEGMENT

CMGT_ACTIVITY_X_SEGMENT maps an activity tracking event to a user segment.

Possible values for ACTIVITY_TYPE include:

- 10 = Promotion
- 20 = Pricing Rule
- 30 = Coupon
- 40 = Mailing List

Primary keys are ACTIVITY_TYPE, ACTIVITY_KEY, and SEGMENT_KEY.

TABLE 26. CMGT_ACTIVITY_X_SEGMENT Table

Name	Null?	Type
ACTIVITY_TYPE	NOT NULL	NUMBER(20)
ACTIVITY_KEY	NOT NULL	NUMBER(20)
SEGMENT_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ADDRESSES

CMGT_ADDRESSES stores your partner and user addresses. Each row includes specific address information. You need one row for each distinct address for a partner or user. You can associate an address either to a partner or to a user. Thus, a partner organization may have a different address from employees' addresses.

The primary key for this table is ADDRESS_KEY. The STATE_CODE, COUNTRY_CODE, and ADDRESS_TYPE columns are used as cross-references to the CMGT_LOOKUPS table.

The SOLD_TO, BILL_TO, and SHIP_TO columns specify whether the address can be used for that type of address: 1 denotes that it can. Similarly, a 1 in the DEFAULT_BILL_TO, DEFAULT_SHIP_TO, or DEFAULT_SOLD_TO column denotes that this address is the default bill-to, ship-to, or sold-to address respectively for this partner.

TABLE 27. CMGT_ADDRESSES Table

Name	Null?	Type	Description
ADDRESS_KEY	NOT NULL	NUMBER(20)	Primary key
UPDATE_DATE	POSSIBLY NULL	DATE	Standard column
UPDATED_BY	NOT NULL	NUMBER(20)	Standard column
CREATION_DATE	POSSIBLY NULL	DATE	Standard column
CREATED_BY	NOT NULL	NUMBER(20)	Standard column
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)	If the address belongs to a partner, then this is its key
CONTACT_KEY	POSSIBLY NULL	NUMBER(20)	If the address belongs to a user, then this is their key
ORIG_SYSTEM_REF	POSSIBLY NULL	VARCHAR2(90)	For integration with addresses stored in external system
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)	Unused
MAIL_STOP	POSSIBLY NULL	VARCHAR2(60)	Unused
STATUS	NOT NULL	VARCHAR2(6)	Unused
COUNTRY	POSSIBLY NULL	VARCHAR2(300)	Country
ADDRESS1	POSSIBLY NULL	VARCHAR2(120)	Address line 1
ADDRESS2	POSSIBLY NULL	VARCHAR2(120)	Address line 2
ADDRESS3	POSSIBLY NULL	VARCHAR2(120)	Address line 3

TABLE 27. CMGT_ADDRESSES Table (Continued)

Name	Null?	Type	Description
CITY	POSSIBLY NULL	VARCHAR2(60)	City
POSTAL_CODE	POSSIBLY NULL	VARCHAR2(60)	Postal code
STATE_CODE	POSSIBLY NULL	NUMBER(20)	State code: values from local_cd lookup type
STATE	POSSIBLY NULL	VARCHAR2(60)	Unused
COUNTY	POSSIBLY NULL	VARCHAR2(60)	Unused
PRIMARY_FLAG	POSSIBLY NULL	VARCHAR2(1)	Flag to denote primary address
TERRITORY_KEY	POSSIBLY NULL	NUMBER(20)	Unused
ADDRESS_TYPE	NOT NULL	NUMBER(20)	Address type: values from AddressType lookup type
OWNED_BY	NOT NULL	NUMBER(20)	Standard column
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)	Standard column
SOLD_TO	POSSIBLY NULL	NUMBER(1)	Address can be used for sold-to address: 1 indicates yes, 0 or null otherwise
BILL_TO	POSSIBLY NULL	NUMBER(1)	Address can be used for bill-to address: 1 indicates yes, 0 or null otherwise
SHIP_TO	POSSIBLY NULL	NUMBER(1)	Address can be used for ship-to address: 1 indicates yes, 0 or null otherwise
DEFAULT_SOLD_TO	POSSIBLY NULL	NUMBER(1)	Address is default sold-to address: 1 indicates yes, 0 or null otherwise
DEFAULT_SHIP_TO	POSSIBLY NULL	NUMBER(1)	Address is default ship-to address: 1 indicates yes, 0 or null otherwise
DEFAULT_BILL_TO	POSSIBLY NULL	NUMBER(1)	Address is default bill-to address: 1 indicates yes, 0 or null otherwise
COUNTRY_CODE	NOT NULL	NUMBER(20)	Country code: values from Country lookup type
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column

CMGT_ANALYZER_PROPS

CMGT_ANALYZER_PROPS is used to store various UI properties for Sterling Analyzer reports such as text colors. The appearance of Sterling Analyzer reports can be customized by modifying the values in this table.

All property values are read in at report startup time, and, as with the static text, a set of constants in the report environment is used to map the property code to the correct property.

The contents of this table are part of the minimal data. There is currently no way to modify this data from the administration interface and so changes must be made using SQL. The primary key is PROPERTY_CODE.

TABLE 28. CMGT_ANALYZER_PROPS Table

Name	Null?	Type
PROPERTY_CODE	NOT NULL	NUMBER(20)
VALUE	NOT NULL	VARCHAR2(60)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

- PROPERTY_CODE is a unique identifier for a single property.
- VALUE provides a text string with the value of the property such as a color identifier or some other type of value.

CMGT_ANSWER_SELECTED_LOG

CMGT_ANSWER_SELECTED_LOG is used to log customer activity in the Sterling Advisor questionnaire.

TABLE 29. CMGT_ANSWER_SELECTED_LOG Table

Name	Null?	Type
CONDITION_KEY	NOT NULL	NUMBER(20)
CONDITION_TEXT	POSSIBLY NULL	VARCHAR2(240)
FILTER_KEY	NOT NULL	NUMBER(20)
FILTER_TEXT	POSSIBLY NULL	VARCHAR2(240)

TABLE 29. CMGT_ANSWER_SELECTED_LOG Table (Continued)

Name	Null?	Type
USER_KEY	POSSIBLY NULL	NUMBER(20)
SESSION_ID	POSSIBLY NULL	VARCHAR2(240)
ANSWER_DATE	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ASSEMBLY_ITEM

CMGT_ASSEMBLY_ITEM is used to manage the structure of assembly product IDs. If the SKU_NAME column is null, then the assembly item is assumed to be just a text entry; otherwise it is assumed to be a product. The PART_NUMBER, COORDINATE, and SHAPE columns are used to hold data related to the parts diagram that may be associated with the assembly.

TABLE 30. CMGT_ASSEMBLY_ITEM Table

Name	Null?	Type	Description
ASSEMBLY_ITEM_KEY	NOT NULL	NUMBER(20)	Primary key
SKU_NAME	POSSIBLY NULL	VARCHAR2(120)	Product Id of this assembly item
PARENT_SKU_NAME	NOT NULL	VARCHAR2(120)	Product Id of the product that this item is part of
NAME	POSSIBLY NULL	VARCHAR2(90)	Name of item
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)	Description of item
ITEM_NUMBER	POSSIBLY NULL	NUMBER(20)	Number that can be used in UI to distinguish items in an assembly
QUANTITY	NOT NULL	NUMBER(20)	Quantity of item in assembly
PART_NUMBER	POSSIBLY NULL	VARCHAR2(120)	Catalog part number
COORDINATES	POSSIBLY NULL	VARCHAR2(120)	Coordinates within image for this item's hot spot. For rectangular hotspots, they are stored as: "x,y x,y", where the first pair is the top-left corner and the second is the bottom-right

TABLE 30. CMGT_ASSEMBLY_ITEM Table (Continued)

Name	Null?	Type	Description
SHAPE	POSSIBLY NULL	VARCHAR2(40)	Shape for the item's hot spot: 1 is rectangular
START_DATE	NOT NULL	DATE	Start effectivity date
END_DATE	NOT NULL	DATE	End effectivity date
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column
STATUS	NOT NULL	NUMBER(20)	Unused

CMGT_ASSEMBLY_ITEM_LOCALE

CMGT_ASSEMBLY_ITEM_LOCALE holds the locale-specific information for assembly items. The primary key is ASSEMBLY_ITEM_KEY and LOCALE.

TABLE 31. CMGT_ASSEMBLY_ITEM_LOCALE Table

Name	Null?	Type
ASSEMBLY_ITEM_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
NAME	NOT NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ATTR_ALLOWED_VALUES

CMGT_ATTR_ALLOWED_VALUES defines the acceptable values allowed for a user/partner attribute.

TABLE 32. CMGT_ATTR_ALLOWED_VALUES Table

Name	Null?	Type
ATTR_ALLOWED_VALUE_KEY	NOT NULL	NUMBER(20)
ATTRIBUTE_KEY	NOT NULL	NUMBER(20)
SEQUENCE_NO	POSSIBLY NULL	NUMBER(20)
STR_VALUE	POSSIBLY NULL	VARCHAR2(256)
DBL_VALUE	POSSIBLY NULL	NUMBER(19,4)

TABLE 32. CMGT_ATTR_ALLOWED_VALUES Table (Continued)

Name	Null?	Type
LONG_VALUE	POSSIBLY NULL	NUMBER(20)
DATE_VALUE	POSSIBLY NULL	DATE
BOOL_VALUE	POSSIBLY NULL	NUMBER(1)
NUMERIC_MIN	POSSIBLY NULL	NUMBER(19,4)
NUMERIC_MAX	POSSIBLY NULL	NUMBER(19,4)
NUMERIC_STEP	POSSIBLY NULL	NUMBER(19,4)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ATTR_ALLOWEDVAL_LOCALE

CMGT_ATTR_ALLOWEDVAL_LOCALE associates a set of allowed attribute values (as defined in CMGT_ATTR_ALLOWED_VALUES) with a locale.

TABLE 33. CMGT_ATTR_ALLOWEDVAL_LOCALE Table

Name	Null?	Type
ATTR_ALLOWED_VALUE_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
DISPLAY_VALUE	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ATTR_GROUP_LOCALE

CMGT_ATTR_GROUP_LOCALE associates an attribute group with a locale.

TABLE 34. CMGT_ATTR_GROUP_LOCALE Table

Name	Null?	Type
ATTRIBUTE_GROUP_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ATTR_PARTNER_VALUES

CMGT_ATTR_PARTNER_VALUES contains the value of a *partner* (organization) attribute.

TABLE 35. CMGT_ATTR_PARTNER_VALUES Table

Name	Null?	Type
PARTNER_KEY	NOT NULL	NUMBER(20)
ATTRIBUTE_KEY	NOT NULL	NUMBER(20)
STR_VALUE	POSSIBLY NULL	VARCHAR2(256)
DBL_VALUE	POSSIBLY NULL	NUMBER(19,4)
LONG_VALUE	POSSIBLY NULL	NUMBER(20)
DATE_VALUE	POSSIBLY NULL	DATE
BOOL_VALUE	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ATTR_PROFILE

CMGT_ATTR_PROFILE stores information about an attribute assigned to a profile.

TABLE 36. CMGT_ATTR_PROFILE Table

Name	Null?	Type
ATTR_PROFILE_KEY	NOT NULL	NUMBER(20)
ATTRIBUTE_KEY	NOT NULL	NUMBER(20)

TABLE 36. CMGT_ATTR_PROFILE Table (Continued)

Name	Null?	Type
TYPE	POSSIBLY NULL	NUMBER(1)
SELF_MAINT	POSSIBLY NULL	NUMBER(1)
SEQUENCE_NO	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ATTR_USER_VALUES

CMGT_ATTR_USER_VALUES contains the value of a *user* attribute.

TABLE 37. CMGT_ATTR_USER_VALUES Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
ATTRIBUTE_KEY	NOT NULL	NUMBER(20)
STR_VALUE	POSSIBLY NULL	VARCHAR2(256)
DBL_VALUE	POSSIBLY NULL	NUMBER(19,4)
LONG_VALUE	POSSIBLY NULL	NUMBER(20)
DATE_VALUE	POSSIBLY NULL	DATE
BOOL_VALUE	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ATTRIBUTE

CMGT_ATTRIBUTE defines a user/organization attribute.

TABLE 38. CMGT_ATTRIBUTE Table

Name	Null?	Type
ATTRIBUTE_KEY	NOT NULL	NUMBER(20)
PARENT_KEY	NOT NULL	NUMBER(20)
PARENT_TYPE	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)

TABLE 38. CMGT_ATTRIBUTE Table (Continued)

Name	Null?	Type
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(90)
TYPE	NOT NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ATTRIBUTE_GROUP

CMGT_ATTRIBUTE_GROUP stores information about attribute groups. Attribute groups are hierarchical and a group may have parent or child groups. The PARENT_KEY field indicates the parent attribute group.

TABLE 39. CMGT_ATTRIBUTE_GROUP Table

Name	Null?	Type
ATTRIBUTE_GROUP_KEY	NOT NULL	NUMBER(20)
GROUP_NAME	NOT NULL	VARCHAR2(90)
PARENT_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ATTRIBUTE_LOCALE

CMGT_ATTRIBUTE_LOCALE associates a user/partner attribute with a locale.

TABLE 40. CMGT_ATTRIBUTE_LOCALE Table

Name	Null?	Type
ATTRIBUTE_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)

TABLE 40. CMGT_ATTRIBUTE_LOCALE Table (Continued)

Name	Null?	Type
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_AUTH_USER_CONTACTS

CMGT_AUTH_USER_CONTACTS holds the authentication information required to authenticate users as they log in to the Sterling Multi-Channel Selling Solution. It also stores the secret question and answer information for each user. Its primary key is the IDENTITY_KEY column.

Username must be unique within each storefront namespace: the NAMESPACE column tracks to which storefront each user belongs. The USER_KEY acts as a cross-reference to the user record stored in the CMGT_USER_CONTACTS table.

TABLE 41. CMGT_AUTH_USER_CONTACTS Table

Name	Null?	Type
IDENTITY_KEY	NOT NULL	NUMBER(20)
USER_KEY	NOT NULL	NUMBER(20)
USER_NAME	NOT NULL	VARCHAR2(60)
PASSWORD	NOT NULL	VARCHAR2(60)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
STATUS	NOT NULL	NUMBER(5)
EMAIL_ADDRESS	POSSIBLY NULL	VARCHAR2(120)
SECRET_QUESTION_CODE	POSSIBLY NULL	NUMBER(20)
SECRET_ANSWER	POSSIBLY NULL	VARCHAR2(120)
NAMESPACE	NOT NULL	VARCHAR2(124)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_AUTHENTICATION_EVENT

CMGT_AUTHENTICATION_EVENT stores events associated with authenticating users such as users logging in. It is used to track dates of logins and failed logins so that password policies can use this data. Each user who logs in is tracked using their IDENTITY_KEY. Its primary key is EVENT_KEY.

TABLE 42. CMGT_AUTHENTICATION_EVENT Table

Name	Null?	Type
EVENT_KEY	NOT NULL	NUMBER(20)
EVENT_TYPE	POSSIBLY NULL	NUMBER(20)
IDENTITY_KEY	NOT NULL	NUMBER(20)
RESULT_CODE	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_AVAILABILITY

CMGT_AVAILABILITY is used to store availability information for each product (represented by its SKU). You can store either a stock quantity in the AVAILABILITY column or a date in either the RESTOCK_DATE or ETA (expected time of arrival) column. The STOREFRONT_KEY column (replacing the use of the SELLER_KEY column) can be used to manage data in which more than one storefront is maintaining availability information in the same Knowledgebase.

TABLE 43. CMGT_AVAILABILITY Table

Name	Null?	Type
SKU	POSSIBLY NULL	VARCHAR2(120)
AVAILABILITY	POSSIBLY NULL	NUMBER(10)
RESTOCK_DATE	POSSIBLY NULL	DATE
ETA	POSSIBLY NULL	DATE
RESTOCK_QUANTITY	POSSIBLY NULL	NUMBER(10)
WAREHOUSE_LOCATION	POSSIBLY NULL	VARCHAR2(120)

TABLE 43. CMGT_AVAILABILITY Table (Continued)

Name	Null?	Type
SELLER_KEY	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_BUNDLE_LINES

CMGT_BUNDLE_LINES stores groups of items added to a bundle. This table is not used in the reference implementation of Release 8.0 of the Sterling Multi-Channel Selling Solution. The primary key for an item is BUNDLE_LINE_KEY.

TABLE 44. CMGT_BUNDLE_LINES Table

Name	Null?	Type
BUNDLE_LINE_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
SKU	NOT NULL	VARCHAR2(120)
BUNDLE_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CACHE

CMGT_CACHE stores data that is cached to the database from the Sterling Multi-Channel Selling Solution. Its primary key is CACHE_KEY.

TABLE 45. CMGT_CACHE Table

Name	Null?	Type
CACHE_KEY	NOT NULL	VARCHAR(20)
CACHE_LEASE_END	POSSIBLY NULL	NUMBER(20)
CACHE_VALUE	POSSIBLY NULL	BLOB
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CAMPAIGN

CMGT_CAMPAIGN stores information about each campaign. Its primary key is CAMPAIGN_KEY.

TABLE 46. CMGT_CAMPAIGN Table

Name	Null?	Type
CAMPAIGN_KEY	NOT NULL	NUMBER(20)
CAMPAIGN_NAME	POSSIBLY NULL	VARCHAR2(90)
CAMPAIGN_DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
CAMPAIGN_EXECUTION_DATE	POSSIBLY NULL	DATE
ACTUAL_EXECUTION_DATE	POSSIBLY NULL	DATE
CAMPAIGN_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
SELLER_KEY	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
CAMPAIGN_RECIPIENT_COUNT	POSSIBLY NULL	NUMBER(20)
CAMPAIGN_SENT_COUNT	POSSIBLY NULL	NUMBER(20)
CAMPAIGN_VIEWED_COUNT	POSSIBLY NULL	NUMBER(20)
CAMPAIGN_CLICKED_COUNT	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)

TABLE 46. CMGT_CAMPAIGN Table (Continued)

Name	Null?	Type
OWNED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CAMPAIGN_LINKS

CMGT_CAMPAIGN_LINKS stores information about the URL links defined in campaign email messages.. Its primary key is CAMPAIGN_LINK_KEY.

TABLE 47. CMGT_CAMPAIGN_LINKS Table

Name	Null?	Type
CAMPAIGN_LINK_KEY	NOT NULL	NUMBER(20)
CAMPAIGN_KEY	POSSIBLY NULL	NUMBER(20)
LOCALE_NAME	POSSIBLY NULL	VARCHAR2(10)
CAMPAIGN_LINK	POSSIBLY NULL	VARCHAR2(480)
CAMPAIGN_LINK_NUMBER	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CAMPAIGN_LINK_ACCESS_INFO

CMGT_CAMPAIGN_LINK_ACCESS_INFO stores information about which users have accessed links in campaign emails. Its primary key is CAMPAIGN_LINK_ACCESS_INFO_KEY.

TABLE 48. CMGT_CAMPAIGN_LINK_ACCESS_INFO Table

Name	Null?	Type
CAMPAIGN_LINK_ACC_INFO_KEY	NOT NULL	NUMBER(20)
CAMPAIGN_RECIPIENT_KEY	NOT NULL	NUMBER(20)
CAMPAIGN_KEY	NOT NULL	NUMBER(20)
CAMPAIGN_CLICKED_DATE	POSSIBLY NULL	DATE

TABLE 48. CMGT_CAMPAIGN_LINK_ACCESS_INFO Table (Continued)

Name	Null?	Type
CAMPAIGN_LINK_KEY	POSSIBLY NULL	NUMBER(20)
CAMPAIGN_LINK_TYPE_CODE	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CAMPAIGN_RECIPIENTS

CMGT_CAMPAIGN_RECIPIENTS stores information about the recipients of campaigns. Its primary key is CAMPAIGN_RECIPIENT_KEY.

TABLE 49. CMGT_CAMPAIGN_RECIPIENTS Table

Name	Null?	Type
CAMPAIGN_RECIPIENT_KEY	NOT NULL	NUMBER(20)
CAMPAIGN_KEY	NOT NULL	NUMBER(20)
MAILING_LIST_KEY	POSSIBLY NULL	NUMBER(20)
MAILING_LIST_MEMBER_KEY	POSSIBLY NULL	NUMBER(20)
EMAIL_ADDRESS	NOT NULL	VARCHAR2(120)
EMAIL_SENT_DATE	POSSIBLY NULL	DATE
EMAIL_SUCCESS_FLAG	POSSIBLY NULL	VARCHAR2(1)
FIRST_NAME	POSSIBLY NULL	VARCHAR2(240)
LAST_NAME	POSSIBLY NULL	VARCHAR2(240)
COMPANY	POSSIBLY NULL	VARCHAR2(90)
LOCALE_NAME	POSSIBLY NULL	VARCHAR2(10)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CAMPAIGN_X_MAILING_LIST

CMGT_CAMPAIGN_X_MAILING_LIST stores information about which mailing lists are to be used with a campaign. Its primary key is CAMPAIGN_KEY AND MAILING_LIST_KEY.

TABLE 50. CMGT_CAMPAIGN_X_MAILING_LIST Table

Name	Null?	Type
CAMPAIGN_KEY	NOT NULL	NUMBER(20)
MAILING_LIST_KEY	NOT NULL	NUMBER(20)
INCLUDE_FLAG	NOT NULL	NUMBER(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CAMPAIGN_UNSUBSCRIBE

CMGT_CAMPAIGN_UNSUBSCRIBE stores information about which users have unsubscribed from campaigns. Its primary key is EMAIL_ADDRESS.

TABLE 51. CMGT_CAMPAIGN_UNSUBSCRIBE Table

Name	Null?	Type
EMAIL_ADDRESS	NOT NULL	VARCHAR2(120)
UNSUBSCRIBE_DATE	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CARTS

CMGT_CARTS is the definition table for product inquiry lists created by indirect commerce users. CMGT_CARTS stores the header information for product inquiry lists. The primary key for this table is CART_KEY.

TABLE 52. CMGT_CARTS Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
DIST_CART_NUMBER	POSSIBLY NULL	VARCHAR2(120)
CART_NAME	POSSIBLY NULL	VARCHAR2(90)
CART_STATUS	POSSIBLY NULL	VARCHAR2(60)
CART_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
END_DATE	POSSIBLY NULL	DATE
TRANSFER_DATE	POSSIBLY NULL	DATE
TOTAL	POSSIBLY NULL	FLOAT
CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)
CURRENCY_CODE	POSSIBLY NULL	VARCHAR2(10)
LAST_ACCESS_DATE	POSSIBLY NULL	DATE
LAST_ACCESSED_BY	POSSIBLY NULL	NUMBER(20)
NOTES	POSSIBLY NULL	VARCHAR2(480)
SELLER_ID	POSSIBLY NULL	NUMBER(20)
SELLER_NAME	POSSIBLY NULL	VARCHAR2(90)
ORDER_TYPE	POSSIBLY NULL	VARCHAR2(120)
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
CONTACT_KEY	POSSIBLY NULL	NUMBER(20)
PROMOTION_KEY	POSSIBLY NULL	NUMBER(20)
DISCOUNT_KEY	POSSIBLY NULL	NUMBER(20)
TOTAL_DISCOUNT	POSSIBLY NULL	FLOAT
USER_KEY	POSSIBLY NULL	NUMBER(20)

TABLE 52. CMGT_CARTS Table (Continued)

Name	Null?	Type
DELETE_FLAG	POSSIBLY NULL	VARCHAR2(1)
ORIG_SYSTEM_REF	POSSIBLY NULL	VARCHAR2(90)
TO_DISTI_KEY	POSSIBLY NULL	NUMBER(20)
ORDER_DATE	POSSIBLY NULL	DATE
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
ROUTE_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
ROUTE_STATUS	POSSIBLY NULL	VARCHAR2(120)
ROUTE_USER_KEY	POSSIBLY NULL	NUMBER(20)
ROUTE_NOTES	POSSIBLY NULL	VARCHAR2(480)
ROUTE_FROM_USER_KEY	POSSIBLY NULL	NUMBER(20)
ROUTE_DATE	POSSIBLY NULL	DATE
CUSTOMER_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
SOURCE_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
SOURCE_KEY	POSSIBLY NULL	NUMBER(20)

CMGT_CART_CONFIGURATION

CMGT_CART_CONFIGURATION stores information about configurations stored in carts. Its primary key is CONFIGURATION_KEY.

TABLE 53. CMGT_CART_CONFIGURATION Table

Name	Null?	Type
MODEL_NAME	NOT NULL	VARCHAR2(256)
VERSION	POSSIBLY NULL	VARCHAR2(16)
CONFIGURATION_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
HAS_ERRORS	POSSIBLY NULL	NUMBER(1)
TYPE	POSSIBLY NULL	VARCHAR2(256)
CREATION_DATE	POSSIBLY NULL	DATE
UPDATE_DATE	POSSIBLY NULL	DATE

TABLE 53. CMGT_CART_CONFIGURATION Table (Continued)

Name	Null?	Type
CREATED_BY	POSSIBLY NULL	NUMBER(20)
UPDATED_BY	POSSIBLY NULL	NUMBER(20)

CMGT_CART_CONFIGURATION_LINES

CMGT_CART_CONFIGURATION_LINES stores item line information about a configuration saved to a product inquiry list. The PRICE column is used to store pricing information that comes back from the configuration session.

TABLE 54. CMGT_CART_CONFIGURATION_LINES Table

Name	Null?	Type
CONFIGURATION_KEY	NOT NULL	NUMBER(20)
LINE_KEY	POSSIBLY NULL	NUMBER(20)
PARENT_LINE_KEY	POSSIBLY NULL	NUMBER(20)
SKU_NAME	POSSIBLY NULL	VARCHAR2(120)
NAME	POSSIBLY NULL	VARCHAR2(121)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
QUANTITY	NOT NULL	NUMBER(20)
PRICE	POSSIBLY NULL	FLOAT(126)
ITEM_KEY	POSSIBLY NULL	NUMBER(20)
ITEM_ID	NOT NULL	VARCHAR2(64)
VALUE	POSSIBLY NULL	VARCHAR2(240)
VISIBLE	NOT NULL	NUMBER(1)
PRICE_LOCKED	POSSIBLY NULL	NUMBER(1)
COMMERCE_ITEM_KEY	POSSIBLY NULL	NUMBER(30)
RULE_PICK	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CART_LINES

CMGT_CART_LINES is the definition table for product inquiry list line items. Each product inquiry list line belongs to a product inquiry list that is identified by

the CART_KEY column. The PARENT_KEY column is used by child lines to a major line item. The primary key for an item is CART_LINE_KEY.

TABLE 55. CMGT_CART_LINES Table

Name	Null?	Type
CART_LINE_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
SKU	POSSIBLY NULL	VARCHAR2(120)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
SKU_AUTHORITY	POSSIBLY NULL	VARCHAR2(360)
QUANTITY	POSSIBLY NULL	NUMBER(20)
UNIT_OF_MEASURE_CODE	POSSIBLY NULL	NUMBER(20)
UNIT_OF_MEASURE	POSSIBLY NULL	VARCHAR2(60)
LIST_PRICE	POSSIBLY NULL	FLOAT
CONFIG_FLAG	POSSIBLY NULL	VARCHAR2(1)
CART_KEY	POSSIBLY NULL	NUMBER(20)
PARENT_KEY	POSSIBLY NULL	NUMBER(20)
CONFIG_CONTAINER	POSSIBLY NULL	VARCHAR2(50)
SELL_PRICE	POSSIBLY NULL	FLOAT
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
CONFIG_ID	POSSIBLY NULL	VARCHAR2(25)
CONFIGURATION_KEY	POSSIBLY NULL	NUMBER(20)
BUYER_SKU_AUTHORITY	POSSIBLY NULL	VARCHAR2(360)
LINE_TYPE	POSSIBLY NULL	NUMBER(1)
LINE_NAME	POSSIBLY NULL	VARCHAR2(121)
SAVE_PRICE_FLAG	POSSIBLY NULL	NUMBER(1)
CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)
TRANSFER_PRICE	POSSIBLY NULL	FLOAT(126)

CMGT_CATALOG_TO_CART_LOG

CMGT_CATALOG_TO_CART_LOG is used to log the events when customers transfer a product to a product inquiry list.

TABLE 56. CMGT_CATALOG_TO_CART_LOG Table

Name	Null?	Type
USER_KEY	POSSIBLY NULL	NUMBER(20)
SKU	NOT NULL	VARCHAR2(120)
SESSION_ID	POSSIBLY NULL	VARCHAR2(240)
FROM_PAGE	POSSIBLY NULL	VARCHAR2(240)
ADD_TO_CART_DATE	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CATALOG_TO_CONFIG_LOG

CMGT_CATALOG_TO_CONFIG_LOG is used to log the events when customers configure a product.

TABLE 57. CMGT_CATALOG_TO_CONFIG_LOG Table

Name	Null?	Type
USER_KEY	POSSIBLY NULL	NUMBER(20)
SKU	NOT NULL	VARCHAR2(120)
SESSION_ID	POSSIBLY NULL	VARCHAR2(240)
CONFIG_DATE	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CAT_DISP_INFO

CMGT_CAT_DISP_INFO holds information for each display set about which product categories have products on which price lists. This table is used to determine which product categories should be displayed to users as they navigate through the product catalog.

TABLE 58. CMGT_CAT_DISP_INFO Table

Name	Null?	Type
DISPLAY_SET_KEY	NOT NULL	NUMBER(20)
PRODUCT_CATEGORY_KEY	NOT NULL	NUMBER(20)

TABLE 58. CMGT_CAT_DISP_INFO Table (Continued)

Name	Null?	Type
PRICE_LIST_KEY	NOT NULL	NUMBER(20)
CHILD_PRODUCT_COUNT	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CAT_DISP_SET

CMGT_CAT_DISP_SET holds information about which product categories can be seen by users. Its primary key is DISPLAY_SET_KEY.

TABLE 59. CMGT_CAT_DISP_SET Table

Name	Null?	Type
DISPLAY_SET_KEY	NOT NULL	NUMBER(20)
NAME	POSSIBLY NULL	VARCHAR2(90)
VALID_DATE	NOT NULL	DATE
COMPLETION_DATE	NOT NULL	DATE
DISPLAY_SET_STATUS	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CAT_X_DISPSTYLE

CMGT_CAT_X_DISPSTYLE holds information about how each product category is displayed. It specifies the mapping between each product category and the message type (and additional parameters) used to render the page.

TABLE 60. CMGT_CAT_X_DISPSTYLE Table

Name	Null?	Type
PRODUCT_CATEGORY_KEY	NOT NULL	NUMBER(20)
PARTNER_LEVEL_CODE	NOT NULL	NUMBER(20)
MESSAGE_TYPE	POSSIBLY NULL	VARCHAR2(120)
ADDITIONAL_PARAMETER	POSSIBLY NULL	VARCHAR2(480)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CC_TRANSACTION_HISTORY

CMGT_CC_TRANSACTION_HISTORY holds information about each credit card transaction. The STOREFRONT_KEY column is used to differentiate between the

storefronts on which transactions take place. The primary key is TRANSACTION_KEY.

TABLE 61. CMGT_CC_TRANSACTION_HISTORY

Name	Null?	Type
TRANSACTION_KEY	NOT NULL	NUMBER(20)
SELLER_KEY	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
GATEWAY_TYPE	NOT NULL	NUMBER(4)
SERVICE_TYPE	NOT NULL	NUMBER(20)
MANUAL_TRANSACTION	POSSIBLY NULL	NUMBER(1)
REQUEST_ID	NOT NULL	VARCHAR2(32)
SUCCESS	POSSIBLY NULL	NUMBER(1)
RESPONSE_CODE	NOT NULL	NUMBER(20)
GATEWAY_RESPONSE	POSSIBLY NULL	VARCHAR2(64)
SERVICE_DATETIME	POSSIBLY NULL	DATE
MERCHANT_REFERENCE_CODE	POSSIBLY NULL	VARCHAR2(64)
BILL_TO_FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
BILL_TO_MIDDLE_NAME	POSSIBLY NULL	VARCHAR2(90)
BILL_TO_LAST_NAME	POSSIBLY NULL	VARCHAR2(90)
USER_KEY	NOT NULL	NUMBER(20)
BILL_TO_STREET1	POSSIBLY NULL	VARCHAR2(64)
BILL_TO_STREET2	POSSIBLY NULL	VARCHAR2(64)
BILL_TO_CITY	POSSIBLY NULL	VARCHAR2(64)
BILL_TO_STATE_CODE	POSSIBLY NULL	NUMBER(20)
BILL_TO_POSTAL_CODE	POSSIBLY NULL	VARCHAR2(16)
BILL_TO_COUNTRY_CODE	POSSIBLY NULL	NUMBER(20)
BILL_TO_EMAIL	POSSIBLY NULL	VARCHAR2(256)
CREDIT_CARD_TYPE	POSSIBLY NULL	NUMBER(20)
PAYMENT_NUMBER	POSSIBLY NULL	VARCHAR2(120)
PAYMENT_EXPIRATION_DATE	POSSIBLY NULL	DATE
REPLY_AMOUNT	POSSIBLY NULL	FLOAT
CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)

TABLE 61. CMGT_CC_TRANSACTION_HISTORY (Continued)

Name	Null?	Type
DECISION_RAW	NOT NULL	VARCHAR2(16)
MISSING_FIELDS_RAW	POSSIBLY NULL	VARCHAR2(128)
INVALID_FIELDS_RAW	POSSIBLY NULL	VARCHAR2(128)
AUTH_REPLY_FACTOR_CODE_RAW	POSSIBLY NULL	VARCHAR2(128)
AUTH_REPLY_AUTH_CODE_RAW	POSSIBLY NULL	VARCHAR2(8)
AUTH_REPLY_AVSCODE_RAW	POSSIBLY NULL	VARCHAR2(4)
AUTH_REPLY_CV_CODE_RAW	POSSIBLY NULL	VARCHAR2(4)
OWNED_BY	POSSIBLY NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)

CMGT_COMMERCE_NOTE

CMGT_COMMERCE_NOTE holds information about each note made about the commerce data objects. These include: inquiry lists, invoices, leads, orders, quotes, and requests for quote. The CART_KEY column links the note to the data object.

TABLE 62. CMGT_COMMERCE_NOTE Table

Name	Null?	Type
NOTE_KEY	NOT NULL	NUMBER(20)
TEXT	POSSIBLY NULL	VARCHAR2(1024)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)

TABLE 62. CMGT_COMMERCE_NOTE Table (Continued)

Name	Null?	Type
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
CART_KEY	POSSIBLY NULL	NUMBER(20)

CMGT_COMPILEALL_JOB_STATUS

CMGT_COMPILEALL_JOB_STATUS holds information about the compilation of models. Its primary key is COMPILE_ALL_JOB_STATUS_KEY.

TABLE 63. CMGT_COMPILEALL_JOB_STATUS Table

Name	Null?	Type
COMPILE_ALL_JOB_STATUS_KEY	NOT NULL	NUMBER(20)
JOBSTATUSCODE	POSSIBLY NULL	NUMBER(20)
MODEL_COUNT	POSSIBLY NULL	NUMBER(20)
MODEL_TOTAL	POSSIBLY NULL	NUMBER(20)
COMMENTS	POSSIBLY NULL	VARCHAR2(1024)
STARTTIME	POSSIBLY NULL	DATE
ENDTIME	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)

CMGT_COMPILE_MODEL_CYCLE_ITEM

CMGT_COMPILE_MODEL_CYCLE_ITEM holds information about the compilation of models. Its primary key is COMPILE_MODEL_CYCLE_ITEM_KEY.

TABLE 64. CMGT_COMPILE_MODEL_CYCLE_ITEM Table

Name	Null?	Type
COMPILE_MODEL_CYCLE_ITEM_KEY	NOT NULL	NUMBER(20)
CYCLE_KEY	POSSIBLY NULL	NUMBER(20)

TABLE 64. CMGT_COMPILE_MODEL_CYCLE_ITEM Table (Continued)

Name	Null?	Type
SEQUENCE_ID	NOT NULL	NUMBER(20)
ITEM_PATH	POSSIBLY NULL	VARCHAR2(1024)
MODEL_GROUP_PATH	POSSIBLY NULL	VARCHAR2(1024)
SUBASSEMBLY_NAME	POSSIBLY NULL	VARCHAR2(1024)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_COMPILE_MODEL_STATUS

CMGT_COMPILE_MODEL_STATUS holds information about each compilation of a model.

TABLE 65. CMGT_COMPILE_MODEL_STATUS Table

Name	Null?	Type
COMPILE_MODEL_STATUS_KEY	NOT NULL	NUMBER(20)
JOB_ID	POSSIBLY NULL	NUMBER(20)
JOBSTATUSCODE	POSSIBLY NULL	NUMBER(20)
MODEL_NAME	POSSIBLY NULL	VARCHAR2(1024)
COMMENTS	POSSIBLY NULL	VARCHAR2(1024)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)

CMGT_CONDITION

CMGT_CONDITION maintains the questions used by the questionnaire pages. Each question associated with a questionnaire page will be displayed as a palette. The assignment of conditions to questionnaire pages is maintained in the CMGT_QUERY_PAGE_X_CONDITION table.

The QUESTION_TEXT of the question is displayed as the header of the palette. The CONTROL_TYPE of a question determines whether a radio button control or check box control is used for each filter that is assigned to the question. FILTER_LOGIC is used to determine whether the filters should be combined as AND or as OR conditions.

TABLE 66. CMGT_CONDITION Table

Name	Null?	Type
CONDITION_KEY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
CONTROL_TYPE	NOT NULL	NUMBER(20)
RESOURCE_KEY	NOT NULL	NUMBER(20)
QUESTION_TEXT	POSSIBLY NULL	VARCHAR2(240)
FILTER_LOGIC	NOT NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

Column Codes

CONTROL_TYPE can take the following values: 100 (radio button) or 101 (check box). FILTER_LOGIC can take the values: 0 (OR) or 1 (AND).

CMGT_CONDITION_LOCALE

CMGT_CONDITION_LOCALE holds locale-specific information about conditions. The primary keys are CONDITION_KEY and LOCALE.

TABLE 67. CMGT_CONDITION_LOCALE Table

Name	Null?	Type
CONDITION_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
QUESTION_TEXT	NOT NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CONFIG_AUX_PRICE

CMGT_CONFIG_AUX_PRICE stores the auxiliary prices associated with a persisted BOM (bill of materials), if any.

TABLE 68. CMGT_CONFIG_AUX_PRICE Table

Name	Null?	Type
AUXPRICE_KEY	NOT NULL	NUMBER(20)
CONFIGURATION_KEY	NOT NULL	NUMBER(20)
CONFIG_LINE_KEY	NOT NULL	NUMBER(20)
PRICE	POSSIBLY NULL	FLOAT(126)
PRICE_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1) DEFAULT 'Y'

CMGT_CONFIGURATION

CMGT_CONFIGURATION stores the association of a configured product with its corresponding product ID (SKU_NAME).

TABLE 69. CMGT_CONFIGURATION Table

Name	Null?	Type
CONFIGURATION_KEY	NOT NULL	NUMBER(20)
SKU_NAME	NOT NULL	VARCHAR2(120)
VERSION	NOT NULL	VARCHAR2(16)
PARTIAL_CONFIG_FLAG	NOT NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CONFIG_FIRINGPHASE

CMGT_CONFIG_FIRINGPHASE stores the defined firing phases for Configurator.

TABLE 70. CMGT_CONFIG_FIRINGPHASE Table

Name	Null?	Type
FIRING_PHASE_KEY	NOT NULL	NUMBER(20)

TABLE 70. CMGT_CONFIG_FIRINGPHASE Table (Continued)

Name	Null?	Type
FIRING_PHASE_NAME	NOT NULL	VARCHAR2(120)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1) DEFAULT 'Y'

CMGT_CONFIG_FIRINGPHASE_LOCALE

CMGT_CONFIG_FIRINGPHASE_LOCALE stores the localized description of the firing phase that is displayed to the user, such as Service Contract Creation or Order Shipment.

TABLE 71. CMGT_CONFIG_FIRINGPHASE_LOCALE Table

Name	Null?	Type
FIRING_PHASE_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10) DEFAULT 'en_US'
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1) DEFAULT 'Y'

CMGT_CONFIG_LINE

CMGT_CONFIG_LINE stores the details of a configuration. It uses the CONFIGURATION_KEY column to tie together all the lines of a configuration.

TABLE 72. CMGT_CONFIG_LINE Table

Name	Null?	Type
CONFIG_LINE_KEY	NOT NULL	NUMBER(20)
CONFIGURATION_KEY	NOT NULL	NUMBER(20)
PARENT_LINE_KEY	NOT NULL	NUMBER(20)
ITEM_KEY	POSSIBLY NULL	NUMBER(20)
SKU_NAME	POSSIBLY NULL	VARCHAR2(120)
NAME	POSSIBLY NULL	VARCHAR2(121)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
QUANTITY	NOT NULL	NUMBER(20)

TABLE 72. CMGT_CONFIG_LINE Table (Continued)

Name	Null?	Type
ITEM_ID	NOT NULL	VARCHAR2(64)
VALUE	POSSIBLY NULL	VARCHAR2(240)
VISIBLE_FLAG	NOT NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
PRICE	POSSIBLY NULL	FLOAT(126)

CMGT_CONFIG_LISTS

CMGT_CONFIG_LISTS stores the header information of each model list. Its primary key, CONFIG_LIST_KEY, is used to group the list values stored in CMGT_CONFIG_LIST_VALUES.

TABLE 73. CMGT_CONFIG_LISTS Table

Name	Null?	Type
CONFIG_LIST_KEY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(60)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
PARENT_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CONFIG_LIST_VALUES

CMGT_CONFIG_LIST_VALUES stores valid values for each list used in models. The CONFIG_LIST_KEY is used to tie together the valid values for a list stored in the CMGT_CONFIG_LISTS table.

TABLE 74. CMGT_CONFIG_LIST_VALUES Table

Name	Null?	Type
CONFIG_LIST_VALUE_KEY	NOT NULL	NUMBER(20)
CONFIG_LIST_KEY	NOT NULL	NUMBER(20)
VALUE	POSSIBLY NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CONFIG_MESSAGES

CMGT_CONFIG_MESSAGES stores error, warning, and suggestion messages in a persisted BOM (bill of materials).

TABLE 75. CMGT_CONFIG_MESSAGES Table

Name	Null?	Type
MESSAGE_KEY	NOT NULL	NUMBER(20)
CONFIGURATION_KEY	NOT NULL	NUMBER(20)
MESSAGE	POSSIBLY NULL	VARCHAR2(240)
MESSAGE_TYPE	POSSIBLY NULL	VARCHAR2(100)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1) DEFAULT 'Y'
NAME	POSSIBLY NULL	VARCHAR2(100)

CMGT_CONFIG_PROPS

CMGT_CONFIG_PROPS stores the properties for a persisted BOM (bill of materials).

TABLE 76. CMGT_CONFIG_PROPS Table

Name	Null?	Type
PROPERTY_KEY	NOT NULL	NUMBER(20)
CONFIGURATION_KEY	NOT NULL	NUMBER(20)
CONFIG_LINE_KEY	NOT NULL	NUMBER(20)
PROP_NAME	NOT NULL	VARCHAR2(480)
PROP_VALUE	POSSIBLY NULL	VARCHAR2(240)
PROP_TYPE	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1) DEFAULT 'Y'

CMGT_CONFIG_RULE

CMGT_CONFIG_RULE stores information about rules for models. Its primary key is CONFIG_RULE_KEY.

TABLE 77. CMGT_CONFIG_RULE Table

Name	Null?	Type
CONFIG_RULE_KEY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(60)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
RULE_TRIGGER	NOT NULL	NUMBER(1)
PARENT_KEY	NOT NULL	NUMBER(20)
COMMENTS	POSSIBLY NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
RULE_CLASSIFICATION_NAME	POSSIBLY NULL	VARCHAR2(120)
DEFAULT_PRIORITY	POSSIBLY NULL	NUMBER(20)
DISABLE_FLG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CONFIG_VERSIONS

CMGT_CONFIG_VERSIONS stores information about versions of models. Its primary key is VERSION_KEY.

TABLE 78. CMGT_CONFIG_VERSIONS Table

Name	Null?	Type
VERSION_KEY	NOT NULL	NUMBER(20)
MODEL_KEY	NOT NULL	NUMBER(20)
VERSION_NUMBER	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CONTRACTS

CMGT_CONTRACTS stores contractual information regarding your business relationships with your partners. This table is not used in the reference implementation of Release 8.0. Each row provides information for a specific contract. In particular, it specifies a price list that may be used with this partner. You need one row for each distinct contract with a partner. The CONTACT_KEY

is a reference to a partner employee associated with this contract. The primary key for this table is CONTRACT_KEY.

TABLE 79. CMGT_CONTRACTS Table

Name	Null?	Type
CONTRACT_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(90)
TYPE_CODE	NOT NULL	VARCHAR2(60)
AGREEMENT_DATE	POSSIBLY NULL	DATE
DATE_SIGNED	NOT NULL	DATE
START_DATE_ACTIVE	POSSIBLY NULL	DATE
END_DATE_ACTIVE	POSSIBLY NULL	DATE
VOLUME_COMMITMENT_YR	POSSIBLY NULL	NUMBER(10)
VOLUME_COMMITMENT_QTRLY	POSSIBLY NULL	NUMBER(10)
NOTES	POSSIBLY NULL	VARCHAR2(480)
DISCOUNT_LEVEL	POSSIBLY NULL	NUMBER(10)
PRICE_LIST_KEY	POSSIBLY NULL	NUMBER(20)
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
CONTACT_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_COUPONS

CMGT_COUPONS holds information about each coupon: notably, the rule attached to the coupon and whether the coupon is exclusive. The COUPON_ID column is constrained to be unique. Its primary key is RULE_KEY.

TABLE 80. CMGT_COUPONS Table

Name	Null?	Type
RULE_KEY	NOT NULL	NUMBER(20)
COUPON_ID	NOT NULL	VARCHAR2(120)

TABLE 80. CMGT_COUPONS Table (Continued)

Name	Null?	Type
EXCLUSIVITY_FLAG	NOT NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CRON

CMGT_CRON stores information about each Cron job defined using the Job Scheduler. The IMPL_CLASS_NAME column stores the name of the Java class used to execute the Cron job. The CRON_TYPE column takes values 0 and 1 for system and application Cron jobs respectively. The USER_NAME and PASSWORD columns are used if the Cron job is to be run as an application Cron job as opposed to a system Cron job. The primary key is CRON_KEY.

TABLE 81. CMGT_CRON Table

Name	Null?	Type
CRON_KEY	NOT NULL	NUMBER(20)
CRON_NAME	NOT NULL	VARCHAR2(124)
CRON_STATUS	POSSIBLY NULL	NUMBER(1)
CRON_TYPE	POSSIBLY NULL	NUMBER(1)
IMPL_CLASS_NAME	POSSIBLY NULL	VARCHAR2(256)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
PARAMETER_LINE	POSSIBLY NULL	VARCHAR2(256)
FREQUENCY_TYPE	POSSIBLY NULL	NUMBER(2)
FREQUENCY_VALUE	POSSIBLY NULL	NUMBER(5)
START_DATE	POSSIBLY NULL	DATE
END_DATE	POSSIBLY NULL	DATE
USER_NAME	POSSIBLY NULL	VARCHAR2(60)
PASSWORD	POSSIBLY NULL	VARCHAR2(60)
LAST_EXECUTION_DATE	POSSIBLY NULL	DATE
LAST_EXECUTION_STATUS	POSSIBLY NULL	VARCHAR2(1020)
LAST_EXECUTION_DETAIL	POSSIBLY NULL	VARCHAR2(1024)
LAST_EXECUTION_END_TIME	POSSIBLY NULL	DATE
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)

TABLE 81. CMGT_CRON Table (Continued)

Name	Null?	Type
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CRON_STATUS_HISTORY

CMGT_CRON_STATUS_HISTORY holds information about how each cron job has run. Its primary key is the CRON_STATUS_HISTORY_KEY.

TABLE 82. CMGT_CRON_STATUS_HISTORY Table

Name	Null?	Type
CRON_STATUS_HISTORY_KEY	NOT NULL	NUMBER(20)
CRON_KEY	NOT NULL	NUMBER(20)
CRON_NAME	NOT NULL	VARCHAR2(124)
CRON_TYPE	POSSIBLY NULL	NUMBER(1)
LAST_EXECUTION_DATE	POSSIBLY NULL	DATE
LAST_EXECUTION_STATUS	POSSIBLY NULL	VARCHAR2(1020)
LAST_EXECUTION_DETAIL	POSSIBLY NULL	VARCHAR2(1024)
LAST_EXECUTION_END_TIME	POSSIBLY NULL	DATE
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CURRENCIES

CMGT_CURRENCIES stores the currencies used throughout the Sterling Multi-Channel Selling Solution. The CONVERSION_FACTOR column is used to specify the conversion rate *to* each currency *from* the enterprise currency: that is, the currency used as the currency of record for the Sterling Multi-Channel Selling Solution. Valid values for this column should be real numbers greater than zero. For example, if the enterprise currency is US Dollars, then a suitable value for the CONVERSION_FACTOR column for French Francs might be 7.4.

The FROM_EURO_FACTOR and TO_EURO_FACTOR columns are used to specify conversion rates from and to the Euro respectively. For example, values for these two columns for French Francs might be 6.55957 and 0.15245 respectively.

This table must be populated at implementation time: there is no administration interface to maintain this table.

TABLE 83. CMGT_CURRENCIES Table

Name	Null?	Type	Description
CURRENCY_KEY	NOT NULL	NUMBER(20)	Primary key
UPDATE_DATE	POSSIBLY NULL	DATE	Standard column
UPDATED_BY	POSSIBLY NULL	NUMBER(20)	Standard column
CREATION_DATE	POSSIBLY NULL	DATE	Standard column
CREATED_BY	POSSIBLY NULL	NUMBER(20)	Standard column
CURRENCY_CODE	NOT NULL	VARCHAR2(10)	Short name for currency
CURRENCY_SYMBOL	NOT NULL	VARCHAR2(24)	Currency symbol
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)	Currency description
CONVERSION_FACTOR	NOT NULL	FLOAT	Conversion rate to currency from enterprise currency
FROM_EURO_FACTOR	POSSIBLY NULL	FLOAT	Conversion rate to Euros
TO_EURO_FACTOR	POSSIBLY NULL	FLOAT	Conversion rate from Euros
EURO_FLAG	POSSIBLY NULL	NUMBER(1)	Unused
LOCALE	POSSIBLY NULL	VARCHAR2(10)	Default locale for currency
ACTIVE_FLAG	NOT NULL	VARCHAR2(1)	Standard column

CMGT_CYCLE_X_MODEL_STATUS

CMGT_CYCLE_X_MODEL_STATUS stores information about each model. Its primary key is CYCLE_KEY.

TABLE 84. CMGT_CYCLE_X_MODEL_STATUS Table

Name	Null?	Type
CYCLE_KEY	NOT NULL	NUMBER(20)
COMPILE_MODEL_STATUS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_DEPARTMENT

CMGT_DEPARTMENT stores information about each user's department in an organization. Each row includes the department name and description. You need one row for each department. Each department may have multiple contacts, but a contact belongs to, at most, one department. The DEPARTMENT_NUMBER and NUM_EMPLOYEES columns are not currently used. The primary key for this table is DEPT_KEY.

TABLE 85. CMGT_DEPARTMENT Table

Name	Null?	Type
DEPT_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
DEPARTMENT_NAME	POSSIBLY NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
NUM_EMPLOYEES	POSSIBLY NULL	NUMBER(20)
CONTACT_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_DIST_HDR_ADJ

CMGT_DIST_HDR_ADJ

Primary key is LINE_KEY.

TABLE 86. CMGT_DIST_HDR_ADJ Table

Name	Null?	Type
LINE_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_DISTI_ORDER_ACK

CMGT_DISTI_ORDER_ACK manages order acknowledgements as they are received from partner ERP systems. The line items that comprise the order are

stored in the CMGT_DISTI_ORDER_ACK_LINES table. The primary key for this table is CART_KEY.

TABLE 87. CMGT_DISTI_ORDER_ACK Table

Name	Null?	Type
CART_KEY	NOT NULL	VARCHAR2(120)
TOTAL	POSSIBLY NULL	FLOAT
DISTI_ORDER_NUMBER	POSSIBLY NULL	VARCHAR2(120)
DISTI_ORDER_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
DISTI_ORDER_STATUS	POSSIBLY NULL	VARCHAR2(120)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
LAST_ACCESS_DATE	POSSIBLY NULL	DATE
LAST_ACCESSED_BY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_DISTI_ORDER_ACK_LINES

CMGT_DISTI_ORDER_ACK_LINES stores the order lines of the orders stored in the CMGT_DISTI_ORDER_ACK table. The CART_KEY column must correspond to a CART_KEY in the CMGT_DISTI_ORDER_ACK table. The PARENT_KEY column is used to manage items that are sub-items of line items. The primary key for this table is ORDER_ACK_LINE_KEY.

TABLE 88. CMGT_DISTI_ORDER_ACK_LINES Table

Name	Null?	Type
ORDER_ACK_LINE_KEY	NOT NULL	NUMBER(20)
SKU	POSSIBLY NULL	VARCHAR2(120)
SKU_AUTHORITY	POSSIBLY NULL	VARCHAR2(360)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
QUANTITY	POSSIBLY NULL	NUMBER(20)

TABLE 88. CMGT_DISTI_ORDER_ACK_LINES Table (Continued)

Name	Null?	Type
UNIT_OF_MEASURE	POSSIBLY NULL	VARCHAR2(60)
UNIT_OF_MEASURE_CODE	POSSIBLY NULL	NUMBER(20)
ORDER_PRICE	POSSIBLY NULL	FLOAT
PARENT_KEY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
CART_KEY	POSSIBLY NULL	VARCHAR2(120)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_DOC_MANAGER

CMGT_DOC_MANAGER holds information about each document stored on the Sterling Multi-Channel Selling Solution. The primary key is DOCUMENT_KEY.

TABLE 89. CMGT_DOC_MANAGER Table

Name	Null?	Type
DOCUMENT_KEY	NOT NULL	NUMBER(20)
DOCUMENT_HANDLE	POSSIBLY NULL	VARCHAR2(480)
DOCUMENT_NAME	POSSIBLY NULL	VARCHAR2(80)
DOCUMENT_REL_PATH	POSSIBLY NULL	VARCHAR2(480)
DOCUMENT_CALLER_ID	POSSIBLY NULL	VARCHAR2(80)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_DOMAIN

CMGT_DOMAIN is used to manage the definition of classifications. These are used to generate catalog export dXML messages.

TABLE 90. CMGT_DOMAIN Table

Name	Null?	Type
DOMAIN_KEY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(90)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ELEMENTS

CMGT_ELEMENTS is currently not used in the Sterling Multi-Channel Selling Solution.

TABLE 91. CMGT_ELEMENTS Table

Name	Null?	Type
NAME	NOT NULL	VARCHAR2(90)
OBJECT_NAME	NOT NULL	VARCHAR2(90)
ACCESS_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ELEMENT_ACCESS

CMGT_ELEMENT_ACCESS is currently not used in the Sterling Multi-Channel Selling Solution.

TABLE 92. CMGT_ELEMENT_ACCESS Table

Name	Null?	Type
OBJECT_NAME	NOT NULL	VARCHAR2(90)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)

TABLE 92. CMGT_ELEMENT_ACCESS Table (Continued)

Name	Null?	Type
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ENTITLE_LIST

CMGT_ENTITLE_LIST holds information about entitlement lists.

TABLE 93. CMGT_ENTITLE_LIST Table

Name	Null?	Type
ENTITLE_LIST_KEY	NOT NULL	NUMBER(20)
NAME	POSSIBLY NULL	VARCHAR2(90)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
START_DATE	POSSIBLY NULL	DATE
END_DATE	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

CMGT_ENTITLE_LIST_LINE

CMGT_ENTITLE_LIST_LINE holds information about each line of an entitlement list.

TABLE 94. CMGT_ENTITLE_LIST_LINE Table

Name	Null?	Type
ENTITLE_LIST_KEY	NOT NULL	NUMBER(20)
ENTITLE_LIST_LINE_KEY	NOT NULL	NUMBER(20)
SKU_NAME	POSSIBLY NULL	VARCHAR2(120)

TABLE 94. CMGT_ENTITLE_LIST_LINE Table (Continued)

Name	Null?	Type
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

CMGT_ENTITY_UPDATED_LOG

CMGT_ENTITY_UPDATED_LOG tracks which products have been added or changed in the product catalog. It is used to build incremental search indexes.

TABLE 95. CMGT_ENTITY_UPDATED_LOG Table

Name	Null?	Type
LIST_ID	POSSIBLY NULL	NUMBER(20)
ENTITY_ID	POSSIBLY NULL	VARCHAR2(120)
UPDATED_ENTITY_ID	POSSIBLY NULL	NUMBER(20)
UPDATED_ENTITY_TYPE	NOT NULL	VARCHAR2(40)
UPDATE_SOURCE	POSSIBLY NULL	VARCHAR2(40)
UPDATE_OP	NOT NULL	VARCHAR2(10)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
LOCALE	POSSIBLY NULL	VARCHAR2(10)
AUX_ENTITY_ID	POSSIBLY NULL	VARCHAR2(3000)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_EXPORTSET

CMGT_EXPORTSET is used to manage export sets. An export set specifies the set of products that are exported as part of a product catalog export. Its primary key is EXPORTSET_KEY. The PRICE_LIST_KEY column stores which price list is used to filter the exported products: only products on the specified price list are

exported. The EXPORT_FORMAT column controls the form in which the product catalog export is created: supported formats include dXML, cXML, and xCBL.

TABLE 96. CMGT_EXPORTSET Table

Name	Null?	Type
EXPORTSET_KEY	NOT NULL	NUMBER(20)
NAME	POSSIBLY NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
PRICE_LIST_KEY	POSSIBLY NULL	NUMBER(20)
EXPORT_FORMAT	POSSIBLY NULL	VARCHAR2(32)
EXPORT_TYPE	POSSIBLY NULL	VARCHAR2(32)
CRON_KEY	POSSIBLY NULL	NUMBER(20)
PUNCH_OUT_URL	POSSIBLY NULL	VARCHAR2(480)
PUNCH_OUT_PRICE_LIST	POSSIBLY NULL	NUMBER(1)
FILENAME_PREFIX	POSSIBLY NULL	VARCHAR2(520)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_FACT

CMGT_FACT is used to store the facts used in the Advisor rules.

TABLE 97. CMGT_FACT Table

Name	Null?	Type
FACT_KEY	NOT NULL	NUMBER(20)
MODIFIER	NOT NULL	NUMBER(20)
FILTER_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

CMGT_FEATURE

CMGT_FEATURE maintains the feature information. Each feature is a product attribute that may be assigned to one or more products using the CMGT_PRODUCT_X_FEATURE table. Each feature must belong to one and only one feature type. The FEATURE_META_TYPE column is used to distinguish between standard features and features used to associate related products to products.

TABLE 98. CMGT_FEATURE Table

Name	Null?	Type
FEATURE_KEY	NOT NULL	NUMBER(20)
FEATURE_TYPE_KEY	NOT NULL	NUMBER(20)
NAME	POSSIBLY NULL	VARCHAR2(500)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(1000)
DATA_TYPE	NOT NULL	NUMBER(20)
SEQUENCE_ID	NOT NULL	NUMBER(20)
USAGE_FLAG	NOT NULL	NUMBER(2)
RESOURCE_KEY	NOT NULL	NUMBER(20)
START_DATE	NOT NULL	DATE
END_DATE	NOT NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)
FEATURE_META_TYPE	NOT NULL	NUMBER(20)

FEATURE_TYPE_KEY is a foreign key to the FEATURE_TYPE_KEY column of the CMGT_FEATURE_TYPE table.

Column Codes

DATA_TYPE can take the following values: 0 (Boolean: all current use cases use only this data type), 1 (Integer), 2 (Double), or 20 (String).

CMGT_FEATURE_LOCALE

CMGT_FEATURE_LOCALE holds locale-specific information about features. The primary keys are FEATURE_KEY and LOCALE.

TABLE 99. CMGT_FEATURE_LOCALE Table

Name	Null?	Type
FEATURE_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
NAME	NOT NULL	VARCHAR2(500)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(1000)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_FEATURE_TYPE

CMGT_FEATURE_TYPE maintains feature type information. Each feature type must belong to a feature type group which is identified by the FEATURE_TYPE_GROUP_KEY column. As a consequence, you must create entries in the CMGT_FEATURE_TYPE_GROUP table before populating this table. The FEATURE_META_TYPE column is used to distinguish between standard features and features used to associate related products to products.

The COMPARABILITY column determines whether the feature type is used in product comparison pages. The DISPLAY_DIRECTION_ID column specifies whether each feature belonging to this feature type is displayed as a separate row (multiple feature rows) or all on the same row of the product comparison page.

TABLE 100. CMGT_FEATURE_TYPE Table

Name	Null?	Type
FEATURE_TYPE_KEY	NOT NULL	NUMBER(20)
FEATURE_TYPE_GROUP_KEY	POSSIBLY NULL	NUMBER(20)
NAME	POSSIBLY NULL	VARCHAR2(500)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(1000)
DISPLAY_DIRECTION_ID	NOT NULL	NUMBER(20)
SEQUENCE_ID	NOT NULL	NUMBER(20)
COMPARABILITY	NOT NULL	NUMBER(2)
RESOURCE_KEY	NOT NULL	NUMBER(20)

TABLE 100. CMGT_FEATURE_TYPE Table (Continued)

Name	Null?	Type
START_DATE	NOT NULL	DATE
END_DATE	NOT NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)
FEATURE_META_TYPE	NOT NULL	NUMBER(20)

FEATURE_TYPE_GROUP_KEY is a foreign key to the FEATURE_TYPE_GROUP_KEY column of the CMGT_FEATURE_TYPE_GROUP table.

Column Codes

DISPLAY_DIRECTION can take the following values: 0 (multiple feature row), 1 (single feature row), 2 (image reference), or 3 (HTML blob). COMPARABILITY can take the following values: 0 (do not use in product comparison) or 1 (se in product comparison).

CMGT_FEATURE_TYPE_LOCALE

CMGT_FEATURE_TYPE_LOCALE holds locale-specific information about features. Its primary keys are FEATURE_TYPE_KEY and LOCALE.

TABLE 101. CMGT_FEATURE_TYPE_LOCALE Table

Name	Null?	Type
FEATURE_TYPE_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
NAME	NOT NULL	VARCHAR2(500)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(1000)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_FEATURE_TYPE_GROUP

CMGT_FEATURE_TYPE_GROUP manages the organization of feature types into feature type groups. When you create a feature type, you must assign it to a feature type group. Its primary key is FEATURE_TYPE_GROUP_KEY.

TABLE 102. CMGT_FEATURE_TYPE_GROUP Table

Name	Null?	Type
FEATURE_TYPE_GROUP_KEY	NOT NULL	NUMBER(20)
SEQUENCE_ID	NOT NULL	NUMBER(20)
NAME	POSSIBLY NULL	VARCHAR2(500)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(1000)
RESOURCE_KEY	NOT NULL	NUMBER(20)
START_DATE	NOT NULL	DATE
END_DATE	NOT NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

CMGT_FEATURE_TYPE_GROUP_LOCALE

CMGT_FEATURE_TYPE_GROUP_LOCALE holds locale-specific information about features. Its primary keys are FEATURE_TYPE_GROUP_KEY and LOCALE.

TABLE 103. CMGT_FEATURE_TYPE_GROUP_LOCALE Table

Name	Null?	Type
FEATURE_TYPE_GROUP_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
NAME	NOT NULL	VARCHAR2(500)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(1000)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_FILTER

CMGT_FILTER stores information about each filter used by Advisor. Filters (answers) provide a layer of separation between features and questions displayed on a questionnaire page. Each answer references one or more features: if the answer

is selected on a questionnaire page, then only products with the associated feature(s) are displayed. The assignment of answers to features is maintained in the CMGT_FILTER_X_FEATURE table. The primary key is FILTER_KEY.

The FILTER_LOGIC column is used to specify whether the features associated with this filter should be combined using OR or AND. The CONTROL_TYPE, FUNCTION_ID, OPERATOR_ID, DATA_TYPE, and VALUE columns are not used currently.

TABLE 104. CMGT_FILTER Table

NAME	Null?	TYPE
FILTER_KEY	NOT NULL	NUMBER(20)
CONDITION_KEY	NOT NULL	NUMBER(20)
REFERENCE_TYPE	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
DATA_TYPE	NOT NULL	NUMBER(20)
FILTER_VALUE	NOT NULL	VARCHAR2(360)
SEQUENCE_ID	NOT NULL	NUMBER(20)
RESOURCE_KEY	NOT NULL	NUMBER(20)
FILTER_TEXT	POSSIBLY NULL	VARCHAR2(240)
FILTER_LOGIC	NOT NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

The CONDITION_KEY column is a foreign key to the CONDITION_KEY column of the CMGT_CONDITION table.

Column Codes

- REFERENCE_TYPE can take the following values: 0 (Mapped to ProductCategory: used in Advisor to map an answer choice to a product category) or 60 (Mapped to Feature: for most cases, it should be set to this value).
- CONTROL_TYPE can take the following values: 100 (radio button) or 101 (check box).
- FILTER_LOGIC can take the following values: 0 (OR) or 1 (AND).

- FUNCTION_ID and OPERATOR_ID are both set to 1.

CMGT_FILTER_LOCALE

CMGT_FILTER_LOCALE holds locale-specific information about filters. The primary keys are FILTER_KEY and LOCALE.

TABLE 105. CMGT_FILTER_LOCALE Table

Name	Null?	Type
FILTER_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FILTER_TEXT	NOT NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_FILTER_X_FEATURE

CMGT_FILTER_X_FEATURE provides the association of features to answers. This determines which features are used to filter products based on the answers to questions on a particular questionnaire page.

TABLE 106. CMGT_FILTER_X_FEATURE Table

NAME	Null?	TYPE
FILTER_KEY	NOT NULL	NUMBER(20)
FEATURE_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

The FILTER_KEY is a foreign key to the FILTER_KEY column of the CMGT_FILTER table. The FEATURE_KEY column is a foreign key to the FEATURE_KEY column of the CMGT_FEATURE table.

CMGT_FLTR_X_PRDCT_CTGRY

CMGT_FLTR_X_PRDCT_CTGRY provides the association of answers to product categories. The FILTER_KEY column is a foreign key to the FILTER_KEY column of the CMGT_FILTER table. The PRODUCT_CATEGORY_KEY column is a foreign key to the PRODUCT_CATEGORY_KEY column of the

CMGT_PRODUCT_CATEGORY table. It is not used in Release 8.0 of the Sterling Multi-Channel Selling Solution.

TABLE 107. CMGT_FLTR_X_PRDCT_CTGRY Table

NAME	Null?	TYPE
FILTER_KEY	NOT NULL	NUMBER(20)
PRODUCT_CATEGORY_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

CMGT_FTR_TYP_X_EXPSET

CMGT_FTR_TYP_X_EXPSET stores information about which feature types are to be exported with an export set.

TABLE 108. CMGT_FTR_TYP_X_EXPSET Table

Name	Null?	Type
EXPORTSET_KEY	NOT NULL	NUMBER(20)
FEATURE_TYPE_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)

CMGT_GIFT_CARD_GATEWAY

CMGT_GIFT_CARD_GATEWAY stores information about the payment gateway for processing credit cards.

Primary key is PARTNER_KEY.

TABLE 109. CMGT_GIFT_CARD_GATEWAY Table

Name	Null?	Type
PARTNER_KEY	NOT NULL	NUMBER(20)
GATEWAY_TYPE	NOT NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)

TABLE 109. CMGT_GIFT_CARD_GATEWAY Table (Continued)

Name	Null?	Type
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)

CMGT_GROUPS

CMGT_GROUPS provides reference information for each group of users defined in the Sterling Multi-Channel Selling Solution. The GROUP_NAME column is used to display the name of the group in user administration pages. The primary key for this table is GROUP_KEY.

In the reference implementation of Release 8.0, the PARTNER_KEY column is used to associate a group to a specific partner. By associating a user to a group (see "CMGT_GROUP_USERS" on page 220), you can associate a user to a partner. PARENT_KEY is used to track the relationship between groups and their child groups: these reflect the relationships between partners and their child partners.

TABLE 110. CMGT_GROUPS Table

Name	Null?	Type
GROUP_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
GROUP_NAME	NOT NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
PARENT_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_GROUP_GROUPS

A future release of Sterling Multi-Channel Selling Solution will support nested groups in which a group can belong to a larger group. Currently, this table is not used.

TABLE 111. CMGT_GROUP_GROUPS Table

Name	Null?	Type
OWNER_GROUP_KEY	NOT NULL	NUMBER(20)
GROUP_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_GROUP_USERS

CMGT_GROUP_USERS is used to define group membership. Each line in the table represents the fact that a user (USER_KEY) belongs to a group (GROUP_KEY).

TABLE 112. CMGT_GROUP_USERS Table

Name	Null?	Type
USER_KEY	POSSIBLY NULL	NUMBER(20)
GROUP_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_HIDN_ADDR_USR_X_PARTNER

CMGT_HIDN_ADDR_USR_X_PARTNER is used to manage which addresses are hidden from each user. Its primary key is USER_KEY and ADDRESS_KEY. A record in this table indicates that the address identified by the ADDRESS_KEY should not be visible to the user identified by the USER_KEY.

TABLE 113. CMGT_HIDN_ADDR_USR_X_PARTNER Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
ADDRESS_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY Null	DATE

TABLE 113. CMGT_HIDN_ADDR_USR_X_PARTNER Table (Continued)

Name	Null?	Type
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_HOSTED_CARTS

CMGT_HOSTED_CARTS is used to manage product inquiry lists transferred to a hosted implementation of the Sterling Multi-Channel Selling Solution.

TABLE 114. CMGT_HOSTED_CARTS Table

Name	Null?	Type
CART_KEY	NOT NULL	VARCHAR2(120)
ACK_URL	POSSIBLY NULL	VARCHAR2(480)
ORDER_DATE	POSSIBLY NULL	DATE
MFR_NAME	POSSIBLY NULL	VARCHAR2(90)
ORDER_STATUS	POSSIBLY NULL	NUMBER(20)
TOTAL_AMOUNT	POSSIBLY NULL	FLOAT
TAX	POSSIBLY NULL	FLOAT
SHIPPING_CHARGES	POSSIBLY NULL	FLOAT
ORDER_KEY	POSSIBLY NULL	VARCHAR2(60)
TRANSFER_DATE	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_IMPORTSET

CMGT_IMPORTSET maintains information about each import set. Import sets are used to define what data is imported as part of a product catalog import.

TABLE 115. CMGT_IMPORTSET Table

Name	Null?	Type
IMPORTSET_KEY	NOT NULL	NUMBER(20)
IMPORTSET_NAME	POSSIBLY NULL	VARCHAR2(90)
IMPORT_FORMAT	POSSIBLY NULL	VARCHAR2(32)
SUPPLIER_NAME	POSSIBLY NULL	VARCHAR2(90)
INSERTION_POINT	POSSIBLY NULL	NUMBER(20)

TABLE 115. CMGT_IMPORTSET Table (Continued)

Name	Null?	Type
FILENAME	POSSIBLY NULL	VARCHAR2(520)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
PRICE_LIST_KEY	POSSIBLY NULL	NUMBER(20)

CMGT_INDEX_SET

CMGT_INDEX_SET saves data associated with the advanced search capabilities of the Sterling Multi-Channel Selling Solution. Each row corresponds to the creation of the index set created either by an enterprise administrator or by an indexing cron job. INDEX_SET_STATUS records whether or not the indexing was successful: an unsuccessful build is not selected for end-user searching. The primary key is INDEX_SET_KEY.

TABLE 116. CMGT_INDEX_SET Table

Name	Null?	Type
INDEX_SET_KEY	NOT NULL	NUMBER(20)
VERSION_KEY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(90)
SERVER_ID	NOT NULL	VARCHAR2(32)
INDEX_SET_PATH	NOT NULL	VARCHAR2(240)
UPDATE_DATE	NOT NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	NOT NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
INDEX_SET_STATUS	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_INVOICES

CMGT_INVOICES holds header information for each invoice. Its primary key is INVOICE_KEY.

TABLE 117. CMGT_INVOICES Table

Name	Null?	Type
INVOICE_KEY	NOT NULL	NUMBER(20)
INVOICE_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
SOURCE_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
INVOICE_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
INVOICE_NUMBER	POSSIBLY NULL	VARCHAR2(120)
INVOICE_NAME	POSSIBLY NULL	VARCHAR2(90)
INVOICE_DATE	POSSIBLY NULL	DATE
DUE_DATE	POSSIBLY NULL	DATE
ORDER_NUMBER	POSSIBLY NULL	VARCHAR2(60)
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)
TOTAL_AMOUNT	POSSIBLY NULL	FLOAT
BALANCE	POSSIBLY NULL	FLOAT
TAX	POSSIBLY NULL	FLOAT
SHIPPING_CHARGES	POSSIBLY NULL	FLOAT
MISC_ADJUSTMENTS	POSSIBLY NULL	FLOAT
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_INVOICE_LINES

CMGT_INVOICE_LINES holds information about each invoice line. The INVOICE_KEY column connects the invoice line to the invoice to which it belongs. Its primary key is INVOICE_LINE_KEY.

TABLE 118. CMGT_INVOICE_LINES Table

Name	Null?	Type
INVOICE_LINE_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
SKU	POSSIBLY NULL	VARCHAR2(120)
QUANTITY	POSSIBLY NULL	NUMBER(20)
UNIT_PRICE	POSSIBLY NULL	FLOAT
EXTENDED_PRICE	POSSIBLY NULL	FLOAT
CUSTOMER_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
ENTERPRISE_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
INVOICE_LINE_NUMBER	POSSIBLY NULL	VARCHAR2(60)
INVOICE_KEY	POSSIBLY NULL	NUMBER(20)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
REASON	POSSIBLY NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)

CMGT_INVOICE_ADDRESSES

CMGT_INVOICE_ADDRESSES holds information each invoice address. Its primary key is ADDRESS_KEY.

TABLE 119. CMGT_INVOICE_ADDRESSES Table

Name	Null?	Type
ADDRESS_KEY	NOT NULL	NUMBER(20)
INVOICE_KEY	POSSIBLY NULL	NUMBER(20)

TABLE 119. CMGT_INVOICE_ADDRESSES Table (Continued)

Name	Null?	Type
INVOICE_LINE_KEY	POSSIBLY NULL	NUMBER(20)
RETURN_KEY	POSSIBLY NULL	NUMBER(20)
ADDRESS_TYPE	NOT NULL	NUMBER(20)
ADDR_REF_NUMBER	POSSIBLY NULL	VARCHAR2(120)
FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
LAST_NAME	POSSIBLY NULL	VARCHAR2(90)
TITLE	POSSIBLY NULL	VARCHAR2(5)
TITLE_CODE	POSSIBLY NULL	NUMBER(20)
COMPANY_NAME	POSSIBLY NULL	VARCHAR2(90)
MAIL_STOP	POSSIBLY NULL	VARCHAR2(60)
COUNTRY	POSSIBLY NULL	VARCHAR2(60)
ADDRESS1	POSSIBLY NULL	VARCHAR2(120)
ADDRESS2	POSSIBLY NULL	VARCHAR2(120)
ADDRESS3	POSSIBLY NULL	VARCHAR2(120)
CITY	POSSIBLY NULL	VARCHAR2(60)
POSTAL_CODE	POSSIBLY NULL	VARCHAR2(60)
STATE	POSSIBLY NULL	VARCHAR2(60)
STATE_CODE	POSSIBLY NULL	NUMBER(20)
COUNTY	POSSIBLY NULL	VARCHAR2(60)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
COUNTRY_CODE	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_INVOICE_ADDRESSES_H

CMGT_INVOICE_ADDRESSES_H holds information about each invoice address history. Its primary key is ADDRESS_KEY and HISTORY_ADDRESS_KEY.

TABLE 120. CMGT_INVOICE_ADDRESSES_H Table

Name	Null?	Type
HISTORY_ADDRESS_KEY	NOT NULL	NUMBER(20)
ADDRESS_KEY	NOT NULL	NUMBER(20)
INVOICE_KEY	POSSIBLY NULL	NUMBER(20)
INVOICE_LINE_KEY	POSSIBLY NULL	NUMBER(20)
RETURN_KEY	POSSIBLY NULL	NUMBER(20)
ADDRESS_TYPE	NOT NULL	NUMBER(20)
ADDR_REF_NUMBER	POSSIBLY NULL	VARCHAR2(120)
FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
LAST_NAME	POSSIBLY NULL	VARCHAR2(90)
TITLE	POSSIBLY NULL	VARCHAR2(5)
TITLE_CODE	POSSIBLY NULL	NUMBER(20)
COMPANY_NAME	POSSIBLY NULL	VARCHAR2(90)
MAIL_STOP	POSSIBLY NULL	VARCHAR2(60)
COUNTRY	POSSIBLY NULL	VARCHAR2(60)
ADDRESS1	POSSIBLY NULL	VARCHAR2(120)
ADDRESS2	POSSIBLY NULL	VARCHAR2(120)
ADDRESS3	POSSIBLY NULL	VARCHAR2(120)
CITY	POSSIBLY NULL	VARCHAR2(60)
POSTAL_CODE	POSSIBLY NULL	VARCHAR2(60)
STATE	POSSIBLY NULL	VARCHAR2(60)
STATE_CODE	POSSIBLY NULL	NUMBER(20)
COUNTY	POSSIBLY NULL	VARCHAR2(60)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)

TABLE 120. CMGT_INVOICE_ADDRESSES_H Table (Continued)

Name	Null?	Type
COUNTRY_CODE	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_INVOICE_LI_H

CMGT_INVOICE_LI_H holds information about the history of each invoice line item. Its primary key is INVOICE_LINE_KEY and HISTORY_LINE_KEY.

TABLE 121. CMGT_INVOICE_LI_H Table

Name	Null?	Type
INVOICE_LINE_KEY	NOT NULL	NUMBER(20)
HISTORY_LINE_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
SKU	POSSIBLY NULL	VARCHAR2(120)
QUANTITY	POSSIBLY NULL	NUMBER(20)
UNIT_PRICE	POSSIBLY NULL	FLOAT
EXTENDED_PRICE	POSSIBLY NULL	FLOAT
CUSTOMER_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
ENTERPRISE_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
INVOICE_LINE_NUMBER	POSSIBLY NULL	VARCHAR2(60)
INVOICE_KEY	POSSIBLY NULL	NUMBER(20)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
REASON	POSSIBLY NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)

CMGT_INVOICE_X_NOTE

CMGT_INVOICE_X_NOTE holds the notes associated with each invoice. NOTE_KEY is a reference to the corresponding column of the CMGT_NOTE table. Its primary key is INVOICE_KEY and NOTE_KEY.

TABLE 122. CMGT_INVOICE_X_NOTE Table

Name	Null?	Type
INVOICE_KEY	NOT NULL	NUMBER(20)
NOTE_KEY	NOT NULL	NUMBER(20)
NOTE_TYPE	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_INV_LINES

CMGT_INV_LINES is used to store inventory data collected as part of the inventory collection activity. The INVENTORY_KEY is used to uniquely identify the inventory location request to which each inventory line belongs.

TABLE 123. CMGT_INV_LINES Table

Name	Null?	Type
INV_LINE_KEY	NOT NULL	NUMBER(20)
INVENTORY_KEY	NOT NULL	NUMBER(20)
SELLER_SKU	POSSIBLY NULL	VARCHAR2(120)
BUYER_SKU	NOT NULL	VARCHAR2(120)
QUANTITY	NOT NULL	NUMBER(20)
LINE_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
CREATION_DATE	POSSIBLY NULL	DATE

CMGT_INV_LINE_AVAILABILITY

CMGT_INV_LINE_AVAILABILITY is used to store inventory information as part of the inventory location activity.

TABLE 124. CMGT_INV_LINE_AVAILABILITY Table

Name	Null?	Type
INV_LINE_KEY	NOT NULL	NUMBER(20)
WAREHOUSE_LOCATION	POSSIBLY NULL	VARCHAR2(120)
AVAILABILITY	POSSIBLY NULL	NUMBER(10)
RESTOCK_DATE	POSSIBLY NULL	DATE
RESTOCK_QUANTITY	POSSIBLY NULL	NUMBER(10)
ETA	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_INV_LOG

CMGT_INV_LOG stores header information about each inventory location request collected as part of the inventory location activity. Inventory data is stored by storefront using the STOREFRONT_KEY column.

TABLE 125. CMGT_INV_LOG Table

Name	Null?	Type
INVENTORY_KEY	NOT NULL	NUMBER(20)
SELLER_KEY	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
INVENTORY_DATE	NOT NULL	DATE
MSG_STATUS_CODE	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
CREATION_DATE	POSSIBLY NULL	DATE

CMGT_ISO_COUNTRY

CMGT_ISO_COUNTRY stores information about the ISO codes for countries supported in the Sterling Multi-Channel Selling Solution. Its primary key is COUNTRY_CODE.

TABLE 126. CMGT_ISO_COUNTRY Table

Name	Null?	Type
COUNTRY_CODE	NOT NULL	NUMBER(20)
ISO_CODE	NOT NULL	VARCHAR2(5)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ITEMS

CMGT_ITEMS stores information about model option classes and items. Its primary key is ITEM_KEY. The PARENT_KEY columns specifies the parent model entity to which the option class or option item is attached. An option class has ITEM_TYPE column value of "3"; whereas an option item has ITEM_TYPE "4". Its primary key is ITEM_KEY.

The SKU column specifies whether a product ID is assigned to an item.

TABLE 127. CMGT_ITEMS Table

Name	Null?	Type
ITEM_KEY	NOT NULL	NUMBER(20)
VERSION_KEY	NOT NULL	NUMBER(20)
PARENT_KEY	NOT NULL	NUMBER(20)
ITEM_TYPE	POSSIBLY NULL	NUMBER(1)
NAME	POSSIBLY NULL	VARCHAR2(90)
SUBASSEMBLY_KEY	POSSIBLY NULL	NUMBER(20)
SKU	POSSIBLY NULL	VARCHAR2(120)
START_DATE	NOT NULL	DATE
END_DATE	NOT NULL	DATE
SEQUENCE_NUMBER	NOT NULL	NUMBER(20)
RATIO	POSSIBLY NULL	FLOAT
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

TABLE 127. CMGT_ITEMS Table (Continued)

Name	Null?	Type
NAME_SYNC_FLG	POSSIBLY NULL	VARCHAR2(1)
DESC_SYNC_FLG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ITEMS_LOCALE

CMGT_ITEMS_LOCALE stores the locale-specific information for each item. Its primary key is ITEM_KEY and LOCALE.

TABLE 128. CMGT_ITEMS_LOCALE Table

Name	Null?	Type
ITEM_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ITEM_RULES

CMGT_ITEM_RULES stores information about rules attached at the item level to models. Its primary key is ITEM_RULE_KEY. The ITEM_KEY and RULE_KEY together associate the rule to the item.

TABLE 129. CMGT_ITEM_RULES Table

Name	Null?	Type
ITEM_RULE_KEY	NOT NULL	NUMBER(20)
VERSION_KEY	NOT NULL	NUMBER(20)
ITEM_KEY	NOT NULL	NUMBER(20)
RULE_KEY	NOT NULL	NUMBER(20)
SEQUENCE_NUMBER	NOT NULL	NUMBER(20)
START_DATE	NOT NULL	DATE
END_DATE	NOT NULL	DATE
CHECK_POINT	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
RULE_PRIORITY	POSSIBLY NULL	NUMBER(20)

CMGT_LEAD

CMGT_LEAD stores information about each lead: it is used for general information that is used by both the lead header and lead detail data objects. Its primary key is LEAD_KEY.

The LEAD_TYPE column distinguishes between lead headers (“10”) and lead details (“20”). If the LEAD_TYPE column is 10, then the PARENT_LEAD_KEY column is null. If the LEAD_TYPE column is 20, and if the PARENT_LEAD_KEY is null, then the lead detail is a lead detail created by a partner sales representative; otherwise the PARENT_LEAD_KEY column must contain the value of a LEAD_KEY for a lead header.

TABLE 130. CMGT_LEAD Table

Name	Null?	Type
LEAD_KEY	NOT NULL	NUMBER(20)
LEAD_NAME	POSSIBLY NULL	VARCHAR2(90)
LEAD_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
OPPORTUNITY_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
PARTNER_LEVEL_CODE	POSSIBLY NULL	NUMBER(20)
PARTNER_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
CUSTOMER_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
LEAD_PRIORITY_CODE	POSSIBLY NULL	NUMBER(20)
LEAD_SOURCE_CODE	POSSIBLY NULL	NUMBER(20)
TERRITORY_CODE	POSSIBLY NULL	NUMBER(20)
CLOSE_DATE	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
LEAD_TYPE	NOT NULL	NUMBER(20)
PARENT_LEAD_KEY	POSSIBLY NULL	NUMBER(20)
RECOMMENDED_PARTNER_KEY	POSSIBLY NULL	NUMBER(20)

TABLE 130. CMGT_LEAD Table (Continued)

Name	Null?	Type
ASSIGNED_PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
ASSIGNED_DATE	POSSIBLY NULL	DATE
ASSIGNED_BY	POSSIBLY NULL	NUMBER(20)
BUDGET_PRICE	POSSIBLY NULL	FLOAT
EXPECTED_REVENUE	POSSIBLY NULL	FLOAT
BUDGET_APPROVED_FLAG	POSSIBLY NULL	VARCHAR2(1)
EXPECTED_CLOSE_DATE	POSSIBLY NULL	DATE
PROBABILITY_OF_SALE	POSSIBLY NULL	NUMBER(20)
LEAD_CLOSE_CODE	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)

CMGT_LEAD_ASSIGNMENT

CMGT_LEAD_ASSIGNMENT holds information about which leads have been assigned to which users. The primary key is LEAD_ASSIGNMENT_KEY.

TABLE 131. CMGT_LEAD_ASSIGNMENT Table

Name	Null?	Type
LEAD_ASSIGNMENT_KEY	NOT NULL	NUMBER(20)
LEAD_HEADER_KEY	NOT NULL	NUMBER(20)
LEAD_DETAIL_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	NOT NULL	NUMBER(20)
USER_KEY	POSSIBLY NULL	NUMBER(20)
ASSIGNED_DATE	POSSIBLY NULL	DATE
ASSIGNED_BY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_LEAD_CONTACT

CMGT_LEAD_CONTACT stores information about each contact associated with a lead. Note that lead contacts need not be existing users defined in the Sterling Multi-Channel Selling Solution. The primary key is LEAD_CONTACT_KEY.

TABLE 132. CMGT_LEAD_CONTACT Table

Name	Null?	Type
LEAD_CONTACT_KEY	NOT NULL	NUMBER(20)
FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
LAST_NAME	POSSIBLY NULL	VARCHAR2(90)
SUFFIX	POSSIBLY NULL	VARCHAR2(30)
TITLE_CODE	POSSIBLY NULL	NUMBER(20)
JOB_TITLE	POSSIBLY NULL	VARCHAR2(60)
CONTACT_ROLE	POSSIBLY NULL	VARCHAR2(60)
DEPARTMENT	POSSIBLY NULL	VARCHAR2(90)
COMPANY	POSSIBLY NULL	VARCHAR2(90)
EMAIL_ADDRESS	POSSIBLY NULL	VARCHAR2(120)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_LEAD_X_ADDRESS

CMGT_LEAD_X_ADDRESS stores information about which address is associated with each lead.

TABLE 133. CMGT_LEAD_X_ADDRESS Table

Name	Null?	Type
LEAD_ADDRESS_KEY	NOT NULL	NUMBER(20)
LEAD_CONTACT_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE

TABLE 133. CMGT_LEAD_X_ADDRESS Table (Continued)

Name	Null?	Type
CREATED_BY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_LEAD_X_CONTACT_INFO

CMGT_LEAD_X_CONTACT_INFO stores information about which contact is associated with each lead.

TABLE 134. CMGT_LEAD_X_CONTACT_INFO Table

Name	Null?	Type
LEAD_KEY	NOT NULL	NUMBER(20)
LEAD_CONTACT_KEY	NOT NULL	NUMBER(20)
CONTACT_TYPE	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_LEAD_X_NOTE

CMGT_LEAD_X_NOTE stores information about which notes are associated with lead. The primary key is LEAD_HEADER_KEY and LEAD_NOTE_KEY.

TABLE 135. CMGT_LEAD_X_NOTE Table

Name	Null?	Type
LEAD_KEY	NOT NULL	NUMBER(20)
LEAD_NOTE_KEY	NOT NULL	NUMBER(20)
NOTE_TYPE	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	DATE	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	DATE	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)

TABLE 135. CMGT_LEAD_X_NOTE Table (Continued)

Name	Null?	Type
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_LEAD_X_PHONE

CMGT_LEAD_X_PHONE stores information about which telephone number is associated with each lead.

TABLE 136. CMGT_LEAD_X_PHONE Table

Name	Null?	Type
LEAD_PHONE_KEY	NOT NULL	NUMBER(20)
LEAD_CONTACT_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_LI_AUX_PRICES

CMGT_LI_AUX_PRICES stores the auxiliary prices for commerce line item price variants. Its primary key is LI_AUX_PRICE_KEY, which is a combination of the LINE_KEY and PRICE_ID. LINE_KEY and PRICE_ID bind a particular auxiliary price row to a particular commerce line item price variant. A single line item may have multiple variants.

The following table shows the mapping of the PRICE_ID value to the commerce line item price variant and the corresponding table field that holds the corresponding one-time price.

TABLE 137. Price_ID to Commerce Line Item Price Variant Mapping

Price_ID	Commerce Line Item Price Variant
1000	SavedListPrice: CMGT_OIL_LI.LIST_PRICE
2000	BasePrice: CMGT_OIL_LI.BASE_PRICE
3000	OrderListPrice: CMGT_ORDER_LI_EXTN.ORDER_PRICE

TABLE 137. Price_ID to Commerce Line Item Price Variant Mapping

Price_ID	Commerce Line Item Price Variant
4000	MarkupListPrice: CMGT_PROPOSAL_LI_EXTN.MARKUP_LIST_PRICE
4010	MarkupListPrice: CMGT_PROPOSAL_LI_EXTN.MARKUP_LIST_PRICE
5000	Sales: ContractPrice: CMGT_SALES_CONTRACT_LI_EXTN.CONTRACT_PRICE
6000	Price & Availability: ListPrice: CMGT_PA_LINE_LOGLIST_PRICE
7000	Service: ContractPrice: CMGT_SERVICE_CONTRACT_LI_EXTN.CONTRACT_PRICE

In addition, the following two PRICE_IDs are defined for price variants that are transient, and therefore are not expected to appear in this table:

- 100: ListPrice
- 101: BasePriceTransient

TABLE 138. CMGT_LI_AUX_PRICES

Name	Null?	Type
LI_AUX_PRICE_KEY	NOT NULL	NUMBER(20)
LINE_KEY	NOT NULL	NUMBER(20)
PRICE_ID	NOT NULL	NUMBER(20)
PRICE_TYPE_CODE	NOT NULL	NUMBER(20)
PRICE	POSSIBLY NULL	FLOAT(126)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1) DEFAULT 'Y'

CMGT_LI_AUX_PRICES_H

CMGT_LI_AUX_PRICES_H stores information about the change history of auxiliary prices for order line items. Its primary key is the HISTORY_LINE_KEY, LI_AUX_PRICE_KEY tuple, but it is a combination of the LINE_KEY and PRICE_ID that bind a particular auxiliary price row to a particular commerce line item price variant (since a single line item may have multiple variants).

The following table shows the mapping of the PRICE_ID value to the commerce line item price variant and the corresponding table field that holds the corresponding one-time price.

TABLE 139. PRICE_ID to Commerce Line Item Price Variant Mapping

PRICE_ID	Commerce Line Item Price Variant
1000	SavedListPrice: CMGT_OIL_LI_H.LIST_PRICE)
2000	BasePrice: CMGT_OIL_LI_H.BASE_PRICE)
3000	OrderListPrice: CMGT_ORDER_LI_EXTN_H.ORDER_PRICE

TABLE 140. CMGT_LI_AUX_PRICES_H Table

Name	Null?	Type
HISTORY_LINE_KEY	NOT NULL	NUMBER(20)
LI_AUX_PRICE_KEY	NOT NULL	NUMBER(20)
LINE_KEY	NOT NULL	NUMBER(20)
PRICE_ID	NOT NULL	NUMBER(20)
PRICE_TYPE_CODE	NOT NULL	NUMBER(20)
PRICE	POSSIBLY NULL	FLOAT(126)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1) DEFAULT 'Y'

CMGT_LOCALE

CMGT_LOCALE stores the locales used by this instance of the Sterling Multi-Channel Selling Solution. The DB_SORT_LOCALE_NAME column specifies how locale-specific data should be sorted by the database server. Make sure that you insert appropriate locales into this table using either the XML data loading scripts or through SQL INSERT statements.

TABLE 141. CMGT_LOCALE Table

Name	Null?	Type
LOCALE_KEY	NOT NULL	NUMBER(20)
LOCALE_NAME	POSSIBLY NULL	VARCHAR2(10)
LOCALE_DESCRIPTION	POSSIBLY NULL	VARCHAR2(90)
DB_SORT_LOCALE_NAME	POSSIBLY NULL	VARCHAR2(50)

TABLE 141. CMGT_LOCALE Table (Continued)

Name	Null?	Type
DB_LOCALE_LANG_NAME	POSSIBLY NULL	VARCHAR2(50)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_LOCALE_CURRENCY

CMGT_LOCALE_CURRENCY stores the association between locales and currencies. The primary key is LOCALE.

TABLE 142. CMGT_LOCALE_CURRENCY Table

Name	Null?	Type
LOCALE	NOT NULL	VARCHAR2(10)
CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_LOCALE_NAMES

CMGT_LOCALE_NAMES stores the display names for each locale for a user's effective locale.

TABLE 143. CMGT_LOCALE_NAMES Table

Name	Null?	Type
EFFECTIVE_LOCALE	NOT NULL	VARCHAR2(10)
LOCALE_NAME	NOT NULL	VARCHAR2(10)
DISPLAY_NAME	POSSIBLY NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_LOCAL_SHIP_COST

CMGT_LOCAL_SHIP_COST stores information about shipping costs. It stores the shipping rate by state: each state is identified by its LOCAL_CD value set in the CMGT_LOOKUPS table. The primary key is LOCAL_CD.

TABLE 144. CMGT_LOCAL_SHIP_COST Table

Name	Null?	Type
LOCAL_CD	NOT NULL	NUMBER(20)

TABLE 144. CMGT_LOCAL_SHIP_COST Table (Continued)

Name	Null?	Type
SHIP_COST_PCT	POSSIBLY NULL	FLOAT
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_LOCAL_TAX

CMGT_LOCAL_TAX stores sales tax information. It stores the tax rate by state: each state is identified by its LOCAL_CD value set in the CMGT_LOOKUPS table. The primary key is LOCAL_CD.

TABLE 145. CMGT_LOCAL_TAX Table

Name	Null?	Type
LOCAL_CD	NOT NULL	NUMBER(20)
TAX_PCT	POSSIBLY NULL	FLOAT
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_LOOKUPS

CMGT_LOOKUPS stores information about the quickcode values that you can define while setting up the Knowledgebase. The LOOKUP_TYPE identifies the type of lookup code (such as “OrderStatus” or “AddressType”) and the LOOKUP_CODE distinguishes between the different codes for each type. For example, in our reference implementation, there are two commerce category codes: Indirect and Direct. They each have the LOOKUP_TYPE value “CommerceCategory” and their lookup codes are 1 and 2 respectively. See “Lookup Codes” on page 397 for the current set of lookup types and lookup codes.

Each lookup code must be defined in the table for each locale supported by your implementation of the Sterling Multi-Channel Selling Solution. The lookup code value for each locale is stored in the DESCRIPTION column. For example, if your implementation of the Sterling Multi-Channel Selling Solution supports the en_US and fr_FR locales, then for each lookup type and lookup code, there will be two records in the table: one whose locale is en_US which stores the English value of

the lookup code string, and the other whose locale is fr_Fr stores the French value as follows:

TABLE 146. Example Lookup Code Entries

	en_US	fr_FR
LOOKUP_TYPE	AddressType	AddressType
LOOKUP_CODE	10	10
LOCALE	en_US	fr_FR
DESCRIPTION	Billing	Facturation

If you want to add a locale to your implementation of the Sterling Multi-Channel Selling Solution, then you must add corresponding records to this table for each lookup code and lookup type for the new locale.

Note that if you add or change values in the CMGT_LOOKUPS table while the Sterling Multi-Channel Selling Solution is running, then the changes will only take effect when you stop and restart the Sterling Multi-Channel Selling Solution. The primary keys for this table are LOOKUP_TYPE, LOOKUP_CODE, and LOCALE.

TABLE 147. CMGT_LOOKUPS Table

Name	Null?	Type
LOOKUP_TYPE	NOT NULL	VARCHAR2(60)
LOOKUP_CODE	NOT NULL	NUMBER(20)
DESCRIPTION	NOT NULL	VARCHAR2(240)
LOCALE	NOT NULL	VARCHAR2(10)
EXTERNAL_LOOKUP	POSSIBLY NULL	VARCHAR2(60)
FLAG	POSSIBLY NULL	NUMBER(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_MAILING_LISTS

CMGT_MAILING_LISTS stores information about the mailing lists used by campaigns. Its primary key is MAILING_LIST_KEY.

TABLE 148. CMGT_MAILING_LISTS Table

Name	Null?	Type
MAILING_LIST_KEY	NOT NULL	NUMBER(20)
MAILING_LIST_NAME	POSSIBLY NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
MAILING_LIST_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
OBSOLETED_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_MANUFACTURER

CMGT_MANUFACTURER holds information about each manufacturer: these are used in determining the mappings between manufacturer SKUs and Sterling Multi-Channel Selling Solution product IDs.

TABLE 149. CMGT_MANUFACTURER Table

Name	Null?	Type
MFG_KEY	NOT NULL	NUMBER(20)
MFG_NAME	POSSIBLY NULL	VARCHAR2(90)
MFG_SKU_PREFIX	POSSIBLY NULL	VARCHAR2(20)
MFG_SYNONYMS	POSSIBLY NULL	VARCHAR2(240)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)

TABLE 149. CMGT_MANUFACTURER Table (Continued)

Name	Null?	Type
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_MDF_ACTIVITY

CMGT_MDF_ACTIVITY stores information about each program activity. Its primary key is ACTIVITY_KEY.

TABLE 150. CMGT_MDF_ACTIVITY Table

Name	Null?	Type
ACTIVITY_KEY	NOT NULL	NUMBER(20)
ACTIVITY_NAME	POSSIBLY NULL	VARCHAR2(90)
ACTIVITY_DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
PROGRAM_KEY	NOT NULL	NUMBER(20)
START_DATE	POSSIBLY NULL	DATE
END_DATE	POSSIBLY NULL	DATE
APPROVAL_REQ_MODEL_KEY	POSSIBLY NULL	NUMBER(20)
CLAIM_MODEL_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVITY_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
PREAPPROVAL_REQUIRED	POSSIBLY NULL	VARCHAR2(1)
REQUEST_PREAPPROVAL_BY_DATE	POSSIBLY NULL	DATE
SUBMIT_CLAIM_BY_DATE	POSSIBLY NULL	DATE
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_MDF_ACTIVITY_REQUEST

CMGT_MDF_ACTIVITY_REQUEST stores information about each pre-approval request and claim made by a partner against a program activity. Its primary key is the ACTIVITY_REQUEST_KEY

TABLE 151. CMGT_MDF_ACTIVITY_REQUEST Table

Name	Null?	Type
ACTIVITY_REQUEST_KEY	NOT NULL	NUMBER(20)
REQUEST_TYPE	POSSIBLY NULL	NUMBER(20)
PROGRAM_KEY	NOT NULL	NUMBER(20)
ACTIVITY_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	NOT NULL	NUMBER(20)
APPROVAL_REQ_KEY	POSSIBLY NULL	NUMBER(20)
SUBMISSION_DATE	POSSIBLY NULL	DATE
REQUEST_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
CURRENCY_CODE	POSSIBLY NULL	VARCHAR2(10)
ACTIVITY_COST	POSSIBLY NULL	FLOAT(126)
REQUESTED_FUNDS	POSSIBLY NULL	FLOAT(126)
APPROVED_FUNDS	POSSIBLY NULL	FLOAT(126)
APPROVAL_NUMBER	POSSIBLY NULL	VARCHAR2(90)
CONFIGURATION_KEY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_MDF_ACTIVITY_REQ_NOTE

CMGT_MDF_ACTIVITY_REQ_NOTE stores information about the notes made with program activity requests. Its primary key is ACTIVITY_REQ_NOTE_KEY.

TABLE 152. CMGT_MDF_ACTIVITY_REQ_NOTE Table

Name	Null?	Type
ACTIVITY_REQ_NOTE_KEY	NOT NULL	NUMBER(20)
TEXT	POSSIBLY NULL	VARCHAR2(1024)
ACTIVITY_REQUEST_KEY	NOT NULL	NUMBER(20)
PRIVATE_FLAG	POSSIBLY NULL	NUMBER(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_MDF_PROGRAM

CMGT_MDF_PROGRAM stores information about each program. Its primary key is PROGRAM_KEY.

TABLE 153. CMGT_MDF_PROGRAM Table

Name	Null?	Type
PROGRAM_KEY	NOT NULL	NUMBER(20)
PROGRAM_NAME	POSSIBLY NULL	VARCHAR2(90)
PROGRAM_DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
PROGRAM_TYPE_CODE	NOT NULL	NUMBER(20)
ACTIVITIES_START_DATE	POSSIBLY NULL	DATE
ACTIVITIES_END_DATE	POSSIBLY NULL	DATE
PROGRAM_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
PRODUCTS_SOLUTIONS	POSSIBLY NULL	VARCHAR2(480)
MARKET_PLAN_UPLOADED	POSSIBLY NULL	VARCHAR2(1)
MARKET_PLAN_URL	POSSIBLY NULL	VARCHAR2(480)
PARTNER_TYPES	POSSIBLY NULL	VARCHAR2(480)

TABLE 153. CMGT_MDF_PROGRAM Table (Continued)

Name	Null?	Type
PARTNER_LEVELS	POSSIBLY NULL	VARCHAR2(480)
PARTNER_TERRITORIES	POSSIBLY NULL	VARCHAR2(480)
NOTIFICATION_FLAG	POSSIBLY NULL	VARCHAR2(1)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_MDF_PROGRAM_ASSIGN_PTNR

CMGT_MDF_PROGRAM_ASSIGN_PTNR stores information about the assignment of programs to partners. Its primary key is PROGRAM_KEY, PARTNER KEY.

TABLE 154. CMGT_MDF_PROGRAM_ASSIGN_PTNR Table

Name	Null?	Type
PROGRAM_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_MODELS

CMGT_MODELS stores header information for each model entity: model groups, models, option class subassemblies, and option item subassemblies. Its primary key is MODEL_KEY. The root of the model group hierarchy has MODEL_KEY equal to 1. The PARENT_KEY column is used to specify the parent model entity to which the model entity belongs. The MODEL_TYPE column specifies whether the

model entity is a model group (“0”), model (“1”), option class subassembly (“2”), or option item subassembly (“3”). The XMLFILEPATH column records the location of the XML translation of the model entity.

TABLE 155. CMGT_MODELS Table

Name	Null?	Type
MODEL_KEY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(60)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
PARENT_KEY	POSSIBLY NULL	NUMBER(20)
MODEL_TYPE	NOT NULL	NUMBER(1)
XMLFILEPATH	POSSIBLY NULL	VARCHAR2(512)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_MODELS_LOCALE

CMGT_MODELS_LOCALE holds locale information for each model. The primary key is MODEL_KEY and LOCALE.

TABLE 156. CMGT_MODELS_LOCALE Table

Name	Null?	Type
MODEL_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
NAME	NOT NULL	VARCHAR2(60)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_MODEL_TAB

CMGT_MODEL_TAB stores which model tabs hold which model items. Its primary key is MODEL_TAB_KEY.

TABLE 157. CMGT_MODEL_TAB Table

Name	Null?	Type
MODEL_TAB_KEY	NOT NULL	NUMBER(20)
ITEM_KEY	NOT NULL	NUMBER(20)

TABLE 157. CMGT_MODEL_TAB Table (Continued)

Name	Null?	Type
SEQUENCE_NUMBER	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_MODEL_TAB_LOCALE

CMGT_MODEL_TAB_LOCALE manages locale-specific information for each model tab. Its primary key is MODEL_TAB_KEY and LOCALE.

TABLE 158. CMGT_MODEL_TAB_LOCALE Table

Name	Null?	Type
MODEL_TAB_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
TAB_NAME	NOT NULL	VARCHAR2(60)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_MODEL_TABS_X_ITEMS

CMGT_MODEL_TABS_X_ITEMS manages the assignment of model items to the tabs of a model when it is displayed to users. Its primary key is MODEL_TAB_KEY and ITEM_KEY.

TABLE 159. CMGT_MODEL_TABS_X_ITEMS Table

Name	Null?	Type
MODEL_TAB_KEY	NOT NULL	NUMBER(20)
ITEM_KEY	NOT NULL	NUMBER(20)
SEQUENCE_NUMBER	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_NODE_X_PARTNER

CMGT_NODE_X_PARTNER stores information about which partners have been assigned to nodes of the enterprise hierarchy. The enterprise node is identified by

its partner key and this is stored in the NODE_PARTNER_KEY column. The primary key is NODE_PARTNER_KEY and ASSIGNED_PARTNER_KEY.

TABLE 160. CMGT_NODE_X_PARTNER Table

Name	Null?	Type
ASSIGNMENT_KEY	NOT NULL	NUMBER(20)
NODE_PARTNER_KEY	NOT NULL	NUMBER(20)
ASSIGNED_PARTNER_KEY	NOT NULL	NUMBER(20)
ASSIGNMENT_COUNT	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_NOTE

CMGT_NOTE is used to store notes that may be attached to objects such as leads and invoices. The primary key is NOTE_KEY.

TABLE 161. CMGT_NOTE Table

Name	Null?	Type
NOTE_KEY	NOT NULL	NUMBER(20)
TEXT	POSSIBLY NULL	VARCHAR2(1024)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
HOLDER_KEY	POSSIBLY NULL	NUMBER(20)
HOLDER_TYPE	POSSIBLY NULL	NUMBER(20)

CMGT_OIL

CMGT_OIL holds information that various inquiry list objects have in common. The OIL_TYPE specifies which type of inquiry list each record represents. A number of extension tables hold the data for the fields that only one type of inquiry list object uses. Its primary key is CART_KEY.

SHIP_COMPLETE and TAXABLE are flags that can take the values “Y” or “N”. PAYMENT_TYPE distinguishes between credit card (10) and account (20) as defined in the CMGT_LOOKUPS table. CREDIT_CARD_TYPE takes values representing the types of credit card supported by the enterprise as defined in the CMGT_LOOKUPS table.

The CART_STATUS_CODE tracks the status of the inquiry list before it becomes an order, quote, or one of the other data objects that extend the OrderInquiryList data object. Once the inquiry list has become one of these data objects, the corresponding status code field in the data object (for example, ORDER_STATUS in CMGT_ORDER_EXTN for orders) is used to track its status after that.

The CREATED_FOR column records the user key of the user for whom the order inquiry list has been created: this supports the order on behalf of functionality introduced in Release 6.0.

The STOREFRONT_KEY column is used to record on which storefront the cart is created (replacing the use of the SELLER_KEY column).

TABLE 162. CMGT_OIL Table

Name	Null?	Type	Description
CART_KEY	NOT NULL	NUMBER(20)	Primary key
OWNED_BY	NOT NULL	NUMBER(20)	Standard column
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)	Standard column
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column
TOTAL_NUMBER_ITEMS	POSSIBLY NULL	NUMBER(20)	Unused
CURRENCY_CODE	POSSIBLY NULL	VARCHAR2(60)	Unused
CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)	Currency used in cart
ENCRYPTION_SEED	POSSIBLY NULL	VARCHAR2(60)	Unused
ERP_MESSAGE	POSSIBLY NULL	NUMBER(20)	Unused
VERTICAL_KEY	POSSIBLY NULL	NUMBER(20)	Unused
CART_NAME	POSSIBLY NULL	VARCHAR2(360)	Name of the cart

TABLE 162. CMGT_OIL Table (Continued)

Name	Null?	Type	Description
CART_STATUS_CODE	POSSIBLY NULL	NUMBER(20)	Status of cart: values from Cart-Status lookup type
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)	Unused
CONTACT_KEY	POSSIBLY NULL	NUMBER(20)	Unused
TOTAL	POSSIBLY NULL	FLOAT(126)	Value of items in cart (used for orders only)
ROUTE_STATUS_CODE	POSSIBLY NULL	NUMBER(20)	Status of routed cart: values from RouteStatus lookup type
ROUTE_USER_KEY	POSSIBLY NULL	NUMBER(20)	The user to whom the cart is routed
ROUTE_NOTES	POSSIBLY NULL	VARCHAR2(480)	Notes added when cart is routed
ROUTE_FROM_USER_KEY	POSSIBLY NULL	NUMBER(20)	The user who routed the cart
ROUTE_DATE	POSSIBLY NULL	DATE	Date on which cart is routed
MEMBER_LEVEL	POSSIBLY NULL	VARCHAR2(60)	Unused
CUSTOMER_TYPE_CODE	POSSIBLY NULL	NUMBER(20)	Customer type: values from CMGT_VERTICAL_MARKETS
SELLER_KEY	POSSIBLY NULL	NUMBER(20)	Not used: in earlier releases, stored the partner key of enterprise (1) or storefront at which order is placed.
STOREFRONT_KEY	NOT NULL	NUMBER(20)	Partner key of enterprise (1) or storefront at which order is placed.
SOURCE_TYPE_CODE	POSSIBLY NULL	NUMBER(20)	Indicates source of cart (from quote, RFQ, and so on)
SOURCE_KEY	POSSIBLY NULL	NUMBER(20)	Cart key of original source of cart (from quote, RFQ, and so on)
CREATED_FOR	POSSIBLY NULL	NUMBER(20)	Unused
OIL_TYPE	POSSIBLY NULL	NUMBER(20)	Type of inquiry list (cart, quote, RFQ, and so on)
TOTAL_DISCOUNT	POSSIBLY NULL	FLOAT(126)	Total discount applied to cart (used for orders only)
TOTAL_SHIP_DISCOUNT	POSSIBLY NULL	FLOAT(126)	Total discount applied to shipping charges

TABLE 162. CMGT_OIL Table (Continued)

Name	Null?	Type	Description
DISCOUNT_APPLIED_FLAG	POSSIBLY NULL	NUMBER(1)	Indicates if a discount has been applied: 1 means a discount has been applied, otherwise 0
UPDATE_DATE	POSSIBLY NULL	DATE	Standard Column
UPDATED_BY	NOT NULL	NUMBER(20)	Standard Column
CREATION_DATE	POSSIBLY NULL	DATE	Standard Column
CREATED_BY	NOT NULL	NUMBER(20)	Standard Column
ACK_URL	POSSIBLY NULL	VARCHAR2(480)	URL to which an acknowledgment should be sent if the cart is transferred to a storefront or external distributor and placed as an order
TRANSFER_DATE	POSSIBLY NULL	DATE	Date on which transfer takes place

CMGT_OIL_HEADER

CMGT_OIL_HEADER holds header information for each inquiry list. This table stores information about each of the order headers that is generated when an order is split based on the suppliers of products in the order. The SUPPLIER_KEY tracks which partner is the supplier for this inquiry list. Its primary key is OIL_HEADER_KEY.

TABLE 163. CMGT_OIL_HEADER Table

Name	Null?	Type	Description
OIL_HEADER_KEY	NOT NULL	NUMBER(20)	Primary key for table
CART_KEY	NOT NULL	NUMBER(20)	Used to link OILs created from the same cart
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column
DELIVERY_DATE	POSSIBLY NULL	DATE	Requested delivery date
REQUESTED_DATE	POSSIBLY NULL	DATE	Unused
SHIPPED_DATE	POSSIBLY NULL	DATE	Unused
CONTACT_REF_NUMBER	POSSIBLY NULL	VARCHAR2(120)	Field to link inquiry list with data from an external system (such as an ERP system)

TABLE 163. CMGT_OIL_HEADER Table (Continued)

Name	Null?	Type	Description
SHIP_COMPLETE	POSSIBLY NULL	VARCHAR2(1)	Flag to indicate that order should be shipped only when complete: Y means order should be shipped together, N or null otherwise
TAXABLE	POSSIBLY NULL	VARCHAR2(1)	Flag to indicate that order is taxable: Y means order is taxable, N or null otherwise
PAYMENT_TYPE	POSSIBLY NULL	NUMBER(20)	Payment type: values from PaymentType lookup type
SUPPLIER_KEY	NOT NULL	NUMBER(20)	Partner key of enterprise (1) or storefront at which order is placed
PO_NUMBER	POSSIBLY NULL	VARCHAR2(50)	Purchase order number
CREDIT_CARD_TYPE	POSSIBLY NULL	NUMBER(20)	Credit card type: values from CreditCardType lookup type
CREDIT_CARD_HOLDER	POSSIBLY NULL	VARCHAR2(120)	Obsoleted: Name of credit card holder
CREDIT_CARD_HOLDER_FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)	First name of credit card holder
CREDIT_CARD_HOLDER_MIDDLE_NAME	POSSIBLY NULL	VARCHAR2(90)	Middle name of credit card holder
CREDIT_CARD_HOLDER_LAST_NAME	POSSIBLY NULL	VARCHAR2(90)	Last name of credit card holder
PAYMENT_EXPIRATION_DATE	POSSIBLY NULL	DATE	Credit card expiration date
PAYMENT_NUMBER	POSSIBLY NULL	VARCHAR2(120)	Credit card number or PO number
SHIPPING_METHOD_CODE	POSSIBLY NULL	NUMBER(20)	Shipping code: values from ShippingMethod lookup type
SHIPPED_STATUS	POSSIBLY NULL	VARCHAR2(1)	Unused

TABLE 163. CMGT_OIL_HEADER Table (Continued)

Name	Null?	Type	Description
SHIP_TYPE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Unused
LAST_NAME	POSSIBLY NULL	VARCHAR2(90)	Last name as entered by user
FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)	First name as entered by user
EMAIL_ADDRESS	POSSIBLY NULL	VARCHAR2(120)	Email address as entered by user
PHONE_NUMBER	POSSIBLY NULL	VARCHAR2(30)	Phone number as entered by user
MEMO	POSSIBLY NULL	VARCHAR2(240)	Instructions as entered by user
UPDATE_DATE	POSSIBLY NULL	DATE	Standard column
UPDATED_BY	NOT NULL	NUMBER(20)	Standard column
CREATION_DATE	POSSIBLY NULL	DATE	Standard column
CREATED_BY	NOT NULL	NUMBER(20)	Standard column
OIL_ORDER_TYPE	POSSIBLY NULL	NUMBER(20)	Unused

CMGT_OIL_LI

CMGT_OIL_LI holds information about each line item of an inquiry list. The CART_KEY column is used to refer to the inquiry list to which the line item belongs. Data in this table gets extended by extension tables for each of the types of inquiry list. Its primary key is CART_LINE_KEY.

The SKU column records the product ID of the line item. The SHIPPING_METHOD_CODE column takes its values from the lookup codes defined for the ShippingMethod lookup type. The SAVE_PRICE_FLAG column is used to determine whether prices that are returned from a configuration session should be saved or whether recalculated from the Pricing engine.

The LINE_TYPE column stores the different line types that line items can have: PRODUCT (value 1), TEXT (value 2), COUPON (value 3), and EXTERNAL_PRODUCT (value 4).

The RETURN_STATUS and RETURN_REASON take their values from the lookup codes for ReturnStatus and ReturnReason.

TABLE 164. CMGT_OIL_LI Table

Name	Null?	Type	Description
CART_LINE_KEY	NOT NULL	NUMBER(20)	Primary key
CART_KEY	POSSIBLY NULL	NUMBER(20)	Cart to which line belongs
DELIVERY_DATE	POSSIBLY NULL	DATE	Requested delivery date for line
SKU	POSSIBLY NULL	VARCHAR2(120)	Product ID for line
DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)	Description saved with line: used for non-validated line items
SKU_AUTHORITY	POSSIBLY NULL	VARCHAR2(360)	Unused
TOTAL_AMOUNT	POSSIBLY NULL	FLOAT	Total value of this line item
SHIPPING_METHOD_CODE	POSSIBLY NULL	NUMBER(20)	Shipping code: values from ShippingMethod lookup type
SHIPPING_CHARGES	POSSIBLY NULL	FLOAT	Unused
SHIPPED_STATUS	POSSIBLY NULL	VARCHAR2(1)	Unused
QUANTITY	POSSIBLY NULL	NUMBER(20)	Quantity
UNIT_OF_MEASURE_CODE	POSSIBLY NULL	NUMBER(20)	Unused
CONFIG_FLAG	POSSIBLY NULL	VARCHAR2(1)	Indicates if line is configurable item: R means requires configuration, Y indicates a configured item, P indicates pre-configured item, null otherwise
PARENT_KEY	POSSIBLY NULL	NUMBER(20)	If line is part of assembly or configurable product, this gives the parent line key
CONFIG_CONTAINER	POSSIBLY NULL	VARCHAR2(50)	Unused
LIST_PRICE	POSSIBLY NULL	FLOAT	List price of product ID

TABLE 164. CMGT_OIL_LI Table (Continued)

Name	Null?	Type	Description
MEMO	POSSIBLY NULL	VARCHAR2(240)	Instructions for shipping line item
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column
CONFIG_ID	POSSIBLY NULL	VARCHAR2(25)	Unused
REQUESTED_DATE	POSSIBLY NULL	DATE	Unused
SHIP_COMPLETE	POSSIBLY NULL	VARCHAR2(1)	Flag to indicate that line should be shipped only when complete: Y means line should be shipped all together, N or null otherwise
RETURN_CODE	POSSIBLY NULL	NUMBER(20)	Unused
RETURN_STATUS	POSSIBLY NULL	NUMBER(20)	Unused
RETURN_REASON	POSSIBLY NULL	NUMBER(20)	Unused
SPECIAL_INSTRUCTIONS_FLAG	POSSIBLY NULL	NUMBER(1)	Flag to indicate that line-level shipping instructions have been set: 1 means that there are instructions, 0 or null otherwise
CONFIGURATION_KEY	POSSIBLY NULL	NUMBER(20)	Reference to configuration saved in CMGT_CART_CONFIGURATION
BUYER_SKU_AUTHORITY	POSSIBLY NULL	VARCHAR2(360)	SKU authority used when cart is transferred to remote system
LINE_TYPE	POSSIBLY NULL	NUMBER(1)	Line item type: values from LineItemType lookup type
LINE_OPTION_CODE	POSSIBLY NULL	NUMBER(20)	
LINE_NAME	POSSIBLY NULL	VARCHAR2(121)	Saved name for product ID: used for non-validated line items
UPDATE_DATE	POSSIBLY NULL	DATE	Standard column
UPDATED_BY	NOT NULL	NUMBER(20)	Standard column

TABLE 164. CMGT_OIL_LI Table (Continued)

Name	Null?	Type	Description
CREATION_DATE	POSSIBLY NULL	DATE	Standard column
CREATED_BY	NOT NULL	NUMBER(20)	Standard column
BASE_PRICE	POSSIBLY NULL	FLOAT(126)	Price for non-validated line items
SAVE_PRICE_FLAG	POSSIBLY NULL	NUMBER(1)	Flag to indicate whether to save price
CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)	Currency for saved price
SUPPLIER_KEY	POSSIBLY NULL	NUMBER(20)	Supplier for saved line item
EXPIRY_TIME_REMOTE_PRICE	POSSIBLY NULL	DATE	Date on which price expires
SOURCE_KEY	POSSIBLY NULL	NUMBER(20)	Source of inquiry list
SEPARATELY_SHIPPED	POSSIBLY NULL	NUMBER(1)	
WISHLIST_SOURCE_CART_KEY	POSSIBLY NULL	NUMBER(20)	Source wish list of the inquiry list
EST_DELIVERY_DATE	POSSIBLY NULL	DATE	

CMGT_OIL_LI_H

CMGT_OIL_LI_H holds information about the history of each inquiry list line item. Its primary key is CART_LINE_KEY and HISTORY_LINE_KEY.

TABLE 165. CMGT_OIL_LI_H Table

Name	Null?	Type
CART_LINE_KEY	NOT NULL	NUMBER(20)
CART_KEY	POSSIBLY NULL	NUMBER(20)
HISTORY_LINE_KEY	NOT NULL	NUMBER(20)
DELIVERY_DATE	POSSIBLY NULL	DATE
SKU	POSSIBLY NULL	VARCHAR2(120)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
SKU_AUTHORITY	POSSIBLY NULL	VARCHAR2(360)
TOTAL_AMOUNT	POSSIBLY NULL	FLOAT
SHIPPING_METHOD_CODE	POSSIBLY NULL	NUMBER(20)

TABLE 165. CMGT_OIL_LI_H Table (Continued)

Name	Null?	Type
SHIPPING_CHARGES	POSSIBLY NULL	FLOAT
SHIPPED_STATUS	POSSIBLY NULL	VARCHAR2(1)
QUANTITY	POSSIBLY NULL	NUMBER(20)
UNIT_OF_MEASURE_CODE	POSSIBLY NULL	NUMBER(20)
CONFIG_FLAG	POSSIBLY NULL	VARCHAR2(1)
PARENT_KEY	POSSIBLY NULL	NUMBER(20)
CONFIG_CONTAINER	POSSIBLY NULL	VARCHAR2(50)
LIST_PRICE	POSSIBLY NULL	FLOAT
MEMO	POSSIBLY NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
CONFIG_ID	POSSIBLY NULL	VARCHAR2(25)
REQUESTED_DATE	POSSIBLY NULL	DATE
SHIP_COMPLETE	POSSIBLY NULL	VARCHAR2(1)
RETURN_CODE	POSSIBLY NULL	NUMBER(20)
RETURN_STATUS	POSSIBLY NULL	NUMBER(20)
RETURN_REASON	POSSIBLY NULL	NUMBER(20)
SPECIAL_INSTRUCTIONS_FLAG	POSSIBLY NULL	NUMBER(1)
CONFIGURATION_KEY	POSSIBLY NULL	NUMBER(20)
BUYER_SKU_AUTHORITY	POSSIBLY NULL	VARCHAR2(360)
LINE_TYPE	POSSIBLY NULL	NUMBER(1)
LINE_OPTION_CODE	POSSIBLY NULL	NUMBER(20)
HISTORY_COMMENTS	POSSIBLY NULL	VARCHAR2(260)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
LINE_NAME	POSSIBLY NULL	VARCHAR2(90)
BASE_PRICE	POSSIBLY NULL	FLOAT(126)
SAVE_PRICE_FLAG	POSSIBLY NULL	NUMBER(1)
CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)

TABLE 165. CMGT_OIL_LI_H Table (Continued)

Name	Null?	Type
SUPPLIER_KEY	POSSIBLY NULL	NUMBER(20)
EXPIRY_TIME_REMOTE_PRICE	POSSIBLY NULL	DATE
SOURCE_KEY	POSSIBLY NULL	NUMBER(20)
SEPARATELY_SHIPPED	POSSIBLY NULL	NUMBER(1)
WISHLIST_SOURCE_CART_KEY	POSSIBLY NULL	NUMBER(20)
EST_DELIVERY_DATE	POSSIBLY NULL	DATE

CMGT_OIL_PAYMENT

CMGT_OIL_PAYMENT defines the payment for an inquiry list. This information is used during split payments when different payment types are used for a single order.

Primary key is OIL_PAYMENT_KEY.

TABLE 166. CMGT_OIL_PAYMENT Table

Name	Null?	Type
OIL_PAYMENT_KEY	NOT NULL	NUMBER(20)
OIL_HEADER_KEY	NOT NULL	NUMBER(20)
PAYMENT_TYPE	POSSIBLY NULL	NUMBER(20)
CREDIT_CARD_TYPE	POSSIBLY NULL	NUMBER(20)
CREDIT_CARD_HOLDER_FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
CREDIT_CARD_HOLDER_MIDDLE_NAME	POSSIBLY NULL	VARCHAR2(90)
CREDIT_CARD_HOLDER_LAST_NAME	POSSIBLY NULL	VARCHAR2(90)
PAYMENT_EXPIRATION_DATE	POSSIBLY NULL	DATE
PAYMENT_NUMBER	POSSIBLY NULL	VARCHAR2(120)
EMAIL_ADDRESS	POSSIBLY NULL	VARCHAR2(120)
PHONE_NUMBER	POSSIBLY NULL	VARCHAR2(20)
AMOUNT	POSSIBLY NULL	FLOAT
USER_CHARGE_AMOUNT	POSSIBLY NULL	FLOAT

TABLE 166. CMGT_OIL_PAYMENT Table (Continued)

Name	Null?	Type
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
CC_AUTH_TXN_KEY	POSSIBLY NULL	NUMBER(20)
CC_SETTLEMENT_TXN_KEY	POSSIBLY NULL	NUMBER(20)
ADDRESS_KEY	POSSIBLY NULL	NUMBER(20)

CMGT_ORDER_ADDRESSES

CMGT_ORDER_ADDRESSES holds address information for each order. The CART_KEY and CART_LINE_KEY columns tie each address to its order and order line item, and the ADDRESS_TYPE distinguishes between BILL TO, SHIP TO, and SOLD TO addresses.

TABLE 167. CMGT_ORDER_ADDRESSES Table

Name	Null?	Type
ADDRESS_KEY	NOT NULL	NUMBER(20)
OIL_HEADER_KEY	POSSIBLY NULL	NUMBER(20)
CART_LINE_KEY	POSSIBLY NULL	NUMBER(20)
RETURN_KEY	POSSIBLY NULL	NUMBER(20)
ADDRESS_TYPE	NOT NULL	NUMBER(20)
ADDR_REF_NUMBER	POSSIBLY NULL	VARCHAR2(120)
FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
LAST_NAME	POSSIBLY NULL	VARCHAR2(90)
TITLE_CODE	POSSIBLY NULL	NUMBER(20)
TITLE	POSSIBLY NULL	VARCHAR2(5)
COMPANY_NAME	POSSIBLY NULL	VARCHAR2(90)
MAIL_STOP	POSSIBLY NULL	VARCHAR2(60)
COUNTRY	POSSIBLY NULL	VARCHAR2(60)
ADDRESS1	POSSIBLY NULL	VARCHAR2(120)
ADDRESS2	POSSIBLY NULL	VARCHAR2(120)
ADDRESS3	POSSIBLY NULL	VARCHAR2(120)
CITY	POSSIBLY NULL	VARCHAR2(60)
POSTAL_CODE	POSSIBLY NULL	VARCHAR2(60)

TABLE 167. CMGT_ORDER_ADDRESSES Table (Continued)

Name	Null?	Type
STATE	POSSIBLY NULL	VARCHAR2(60)
STATE_CODE	POSSIBLY NULL	NUMBER(20)
COUNTY	POSSIBLY NULL	VARCHAR2(60)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
COUNTRY_CODE	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ORDER_ADDRESSES_H

CMGT_ORDER_ADDRESSES_H stores information about the changes made to order addresses. CART_KEY is no longer used, but is retained as a legacy column from earlier releases. The primary key is ADDRESS_KEY, HISTORY_ADDRESS_KEY.

TABLE 168. CMGT_ORDER_ADDRESSES_H Table

Name	Type	Null?
HISTORY_ADDRESS_KEY	NOT NULL	NUMBER(20)
ADDRESS_KEY	NOT NULL	NUMBER(20)
CART_KEY	POSSIBLY NULL	NUMBER(20)
OIL_HEADER_KEY	POSSIBLY NULL	NUMBER(20)
CART_LINE_KEY	POSSIBLY NULL	NUMBER(20)
RETURN_KEY	POSSIBLY NULL	NUMBER(20)
ADDRESS_TYPE	NOT NULL	NUMBER(20)
ADDR_REF_NUMBER	POSSIBLY NULL	VARCHAR2(120)
FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
LAST_NAME	POSSIBLY NULL	VARCHAR2(90)
TITLE	POSSIBLY NULL	VARCHAR2(5)
TITLE_CODE	POSSIBLY NULL	NUMBER(20)
COMPANY_NAME	POSSIBLY NULL	VARCHAR2(90)
MAIL_STOP	POSSIBLY NULL	VARCHAR2(60)

TABLE 168. CMGT_ORDER_ADDRESSES_H Table (Continued)

Name	Type	Null?
COUNTRY	POSSIBLY NULL	VARCHAR2(60)
ADDRESS1	POSSIBLY NULL	VARCHAR2(120)
ADDRESS2	POSSIBLY NULL	VARCHAR2(120)
ADDRESS3	POSSIBLY NULL	VARCHAR2(120)
CITY	POSSIBLY NULL	VARCHAR2(60)
POSTAL_CODE	POSSIBLY NULL	VARCHAR2(60)
STATE	POSSIBLY NULL	VARCHAR2(60)
STATE_CODE	POSSIBLY NULL	NUMBER(20)
COUNTY	POSSIBLY NULL	VARCHAR2(60)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
COUNTRY_CODE	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ORDER_DISCOUNT_LOG

CMGT_ORDER_DISCOUNT_LOG tracks discounts that are effective in orders.

TABLE 169. CMGT_ORDER_DISCOUNT_LOG Table

Name	Null?	Type
ORDER_DISCOUNT_KEY	NOT NULL	NUMBER(20)
RULE_KEY	NOT NULL	NUMBER(20)
IS_COUPON_RULE	POSSIBLY NULL	NUMBER(1)
RULE_NAME	POSSIBLY NULL	VARCHAR2(90)
RULE_TYPE	POSSIBLY NULL	NUMBER(20)
RULE_CATEGORY	POSSIBLY NULL	NUMBER(20)
TARGET_SKU	POSSIBLY NULL	VARCHAR2(120)
COUPON_ID	POSSIBLY NULL	VARCHAR2(120)
DISCOUNT_AMOUNT_ABS	POSSIBLY NULL	FLOAT(126)
DISCOUNT_AMOUNT_PERCENT	POSSIBLY NULL	FLOAT(126)

TABLE 169. CMGT_ORDER_DISCOUNT_LOG Table (Continued)

Name	Null?	Type
DISCOUNT_AMOUNT_FLATFEE	POSSIBLY NULL	FLOAT(126)
CART_KEY	NOT NULL	NUMBER(20)
USER_KEY	NOT NULL	NUMBER(20)
DISCOUNT_TYPE	POSSIBLY NULL	NUMBER(20)
RULE_DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
QUANTITY	POSSIBLY NULL	NUMBER(20)
ERROR_MESSAGE	POSSIBLY NULL	VARCHAR2(480)
ABSOLUTE_FLAG	POSSIBLY NULL	VARCHAR2(1)
FLATFEE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ORDER_EXTN

CMGT_ORDER_EXTN holds information about orders that extends the information stored in the CMGT_OIL table. Its primary key is CART_KEY and this is used to tie it to a row in the CMGT_OIL table.

The INTEGRATION_STATUS field is used to indicate whether or not an order has been successfully transmitted to a back-end ERP system. ORDER_STATUS tracks its status through as the order is processed: it takes values defined as OrderStatus lookup codes. It is usually used to track the status of the order as it is processed by a back-end ERP system or as changes are made to the order. The APPROVER and

APPROVAL_REQUEST_DATE columns track the approval of the order if the order total exceeds the original user's spending limit.

TABLE 170. CMGT_ORDER_EXTN Table

Name	Null?	Type	Description
CART_KEY	NOT NULL	NUMBER(20)	Key to link order information to underlying cart
ORIG_CONTAINER_KEY	POSSIBLY NULL	NUMBER(20)	Key to link with external order
ORDER_REF_NUMBER	POSSIBLY NULL	VARCHAR2(120)	For integration with remote systems
INTEGRATION_STATUS	POSSIBLY NULL	VARCHAR2(1)	Flag to indicate if the order has been successfully integrated with an external order system: Y indicates that integration has succeeded, N or null otherwise
ORDER_DATE	NOT NULL	DATE	Date order placed
ORDER_KEY	POSSIBLY NULL	VARCHAR2(60)	Unique key to identify order in Sterling Multi-Channel Selling Solution
ORDER_STATUS	POSSIBLY NULL	NUMBER(20)	Order status: values from OrderStatus lookup type
PARTNER_LEVEL_CODE	POSSIBLY NULL	NUMBER(20)	Partner level of partner of user placing order
PARTNER_REF_NUMBER	POSSIBLY NULL	VARCHAR2(120)	For integration with remote systems
SHIPPING_CHARGES	POSSIBLY NULL	FLOAT	Shipping charges for order
TAX	POSSIBLY NULL	FLOAT	Tax calculated for order
TOTAL_AMOUNT	POSSIBLY NULL	FLOAT	Total value of order (including shipping and tax)
APPROVER	POSSIBLY NULL	NUMBER(20)	Key of approver user if required

TABLE 170. CMGT_ORDER_EXTN Table (Continued)

Name	Null?	Type	Description
APPROVAL_REQUEST_DATE	POSSIBLY NULL	DATE	Date of approval
CREDIT_OVERRIDE	POSSIBLY NULL	NUMBER(1)	Flag to indicate whether credit override has been applied: 1 indicates that an override has been applied, 0 or null otherwise
CC_AUTH_TXN_KEY	POSSIBLY NULL	NUMBER(20)	Authorization transaction key
CC_SETTLEMENT_TXN_KEY	POSSIBLY NULL	NUMBER(20)	Settlement transaction key
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column
STOREFRONT_KEY	NOT NULL	NUMBER(20)	Used to track at which storefront the order has been placed

CMGT_ORDER_LI_EXTN

CMGT_ORDER_LI_EXTN stores information order lines that extend the information stored in the CMGT_OIL_LI table. In particular, it tracks the latest date that some or all of the line item is shipped and the quantity shipped on that date. It tracks whether return requests have been placed on each line item and whether they have been approved. ORDER_STATUS tracks the status of the line item: it takes values defined as OrderStatus lookup codes. Its primary key is CART_LINE_KEY.

TABLE 171. CMGT_ORDER_LI_EXTN Table

Name	Null?	Type	Description
CART_LINE_KEY	NOT NULL	NUMBER(20)	Primary key
QUANTITY_SHIPPED	POSSIBLY NULL	NUMBER(20)	Quantity shipped
QUANTITY_RETURNED	POSSIBLY NULL	NUMBER(20)	Quantity returned
SHIPPED_DATE	POSSIBLY NULL	DATE	Date line last shipped
RETURN_REQUEST_DATE	POSSIBLY NULL	DATE	Date of last return request
RETURN_APPROVAL_DATE	POSSIBLY NULL	DATE	Date of last return approval
SERIALIZABLE_FLAG	POSSIBLY NULL	NUMBER(1)	Indicates if line has serial line items: 1 indicates that the line is serializable, 0 or null otherwise

TABLE 171. CMGT_ORDER_LI_EXTN Table (Continued)

Name	Null?	Type	Description
ORDER_STATUS	POSSIBLY NULL	NUMBER(20)	Status of line: values from OrderStatus lookup type
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column
ORDER_PRICE	POSSIBLY NULL	FLOAT(126)	Price at which line item was placed
SERVICE_CONTRACT_KEY	POSSIBLY NULL	NUMBER(20)	

CMGT_ORDER_LI_EXTN_H

CMGT_ORDER_LI_EXTN_H stores information about the change history of order line items. Its primary key is HISTORY_LINE_KEY.

TABLE 172. CMGT_ORDER_LI_EXTN_H Table

Name	Null?	Type
HISTORY_LINE_KEY	NOT NULL	NUMBER(20)
CART_LINE_KEY	POSSIBLY NULL	NUMBER(20)
QUANTITY_SHIPPED	POSSIBLY NULL	NUMBER(20)
QUANTITY_RETURNED	POSSIBLY NULL	NUMBER(20)
SHIPPED_DATE	POSSIBLY NULL	DATE
RETURN_REQUEST_DATE	POSSIBLY NULL	DATE
RETURN_APPROVAL_DATE	POSSIBLY NULL	DATE
SERIALIZABLE_FLAG	POSSIBLY NULL	NUMBER(1)
ORDER_STATUS	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
ORDER_PRICE	POSSIBLY NULL	FLOAT(126)
SERVICE_CONTRACT_KEY	POSSIBLY NULL	NUMBER(20)

CMGT_ORDER_LI_SHIP

CMGT_ORDER_LI_SHIP stores information about shipping information relating to the shipping of each line item identified by its ORDER_LINE_KEY. Its primary key is ORDER_LI_SHIP_KEY.

TABLE 173. CMGT_ORDER_LI_SHIP Table

Name	Null?	Type
ORDER_LI_SHIP_KEY	NOT NULL	NUMBER(20)
ORDER_LINE_KEY	NOT NULL	NUMBER(20)
INVOICE_NUMBER	POSSIBLY NULL	VARCHAR2(60)
TRACKING_NUMBER	POSSIBLY NULL	VARCHAR2(60)
SHIP_CARRIER	POSSIBLY NULL	VARCHAR2(120)
SHIPMENT_DATE	POSSIBLY NULL	DATE
SHIPPED_QUANTITY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ORDER_SERIAL_ITEMS

CMGT_ORDER_SERIAL_ITEMS holds information relating to the serial number of individual items shipped as part of an order.

TABLE 174. CMGT_ORDER_SERIAL_ITEMS Table

Name	Null?	Type
ORDER_SERIAL_KEY	NOT NULL	NUMBER(20)
ORDER_LINE_KEY	POSSIBLY NULL	NUMBER(20)
SERIAL_NUMBER	POSSIBLY NULL	VARCHAR2(30)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
RETURN_CODE	POSSIBLY NULL	NUMBER(20)
SHIPPED_DATE	POSSIBLY NULL	DATE
RETURN_REQUEST_DATE	POSSIBLY NULL	DATE
RETURN_APPROVAL_DATE	POSSIBLY NULL	DATE
RETURN_STATUS	POSSIBLY NULL	NUMBER(20)

TABLE 174. CMGT_ORDER_SERIAL_ITEMS Table (Continued)

Name	Null?	Type
RETURN_REASON	POSSIBLY NULL	NUMBER(20)
SHIPPED	POSSIBLY NULL	NUMBER(1)
RETURN_SUBMITTED	POSSIBLY NULL	NUMBER(1)
RETURNED	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ORDER_SERIAL_ITEMS_H

CMGT_ORDER_SERIAL_ITEMS_H keeps records of the order history of serial numbers used in returns. Its primary key is ORDER_SERIAL_KEY and HISTORY_SERIAL_KEY.

TABLE 175. CMGT_ORDER_SERIAL_ITEMS_H Table

Name	Null?	Type
HISTORY_SERIAL_KEY	NOT NULL	NUMBER(20)
ORDER_SERIAL_KEY	NOT NULL	NUMBER(20)
ORDER_LINE_KEY	POSSIBLY NULL	NUMBER(20)
SERIAL_NUMBER	POSSIBLY NULL	VARCHAR2(30)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
RETURN_CODE	POSSIBLY NULL	NUMBER(20)
SHIPPED_DATE	POSSIBLY NULL	DATE
RETURN_REQUEST_DATE	POSSIBLY NULL	DATE
RETURN_APPROVAL_DATE	POSSIBLY NULL	DATE
RETURN_STATUS	POSSIBLY NULL	NUMBER(20)
RETURN_REASON	POSSIBLY NULL	NUMBER(20)
SHIPPED	POSSIBLY NULL	NUMBER(1)
RETURN_SUBMITTED	POSSIBLY NULL	NUMBER(1)
RETURNED	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PA_CART_LOG

CMGT_PARTNER_HIERARCHY manages the data logged to track price and availability requests. The primary key is PA_KEY.

TABLE 176. CMGT_PA_CART_LOG Table

Name	Null?	Type
PA_KEY	NOT NULL	NUMBER(20)
CART_KEY	POSSIBLY NULL	NUMBER(20)
PA_DATE	POSSIBLY NULL	DATE
FROM_PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
TO_DISTI_KEY	POSSIBLY NULL	NUMBER(20)
ORDER_TYPE	POSSIBLY NULL	VARCHAR2(120)
TOTAL_VALUE	POSSIBLY NULL	NUMBER(12)
OWNED_BY	POSSIBLY NULL	NUMBER(20)
MFR_NAME	POSSIBLY NULL	VARCHAR2(90)
STATUS_CODE	POSSIBLY NULL	NUMBER(20)
CUSTOMER_TYPE_CODE	POSSIBLY NULL	NUMBER(20)

CMGT_PA_LINE_LOG

CMGT_PA_LINE_LOG manages the individual product inquiry list lines logged to track price and availability requests. The primary key is PA_LINE_KEY.

TABLE 177. CMGT_PA_LINE_LOG Table

Name	Null?	Type
PA_KEY	NOT NULL	NUMBER(20)
PA_LINE_KEY	NOT NULL	NUMBER(20)
CART_KEY	POSSIBLY NULL	NUMBER(20)
LINE_KEY	POSSIBLY NULL	NUMBER(20)
SKU	POSSIBLY NULL	VARCHAR2(120)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
QUANTITY	POSSIBLY NULL	NUMBER(20)
LIST_PRICE	POSSIBLY NULL	FLOAT
PROMOTION_URL	POSSIBLY NULL	VARCHAR(480)

TABLE 177. CMGT_PA_LINE_LOG Table (Continued)

Name	Null?	Type
TOTAL_AVAILABLE	POSSIBLY NULL	NUMBER(12)
PARENT_KEY	POSSIBLY NULL	NUMBER(20)
STATUS_CODE	POSSIBLY NULL	NUMBER(20)

CMGT_PARTNERS

CMGT_PA_CART_LOG stores your partner profile information. Any information specific to an address for a given partner is stored in CMGT_ADDRESSES, and information specific to users is stored in the CMGT_USER_CONTACTS table. You need one row for each partner in the Knowledgebase. A partner can have multiple contacts, addresses, and warehouse locations. The primary key for this table is PARTNER_KEY which is a system-generated sequence.

In the current reference implementation, the following columns are not used: LEGAL_NAME, PARENT_COMPANY, and STATUS. The ORIG_SYSTEM_REF column can be used to identify partners that are imported from other systems. The DUNBRAD_ID column is used to identify partner organizations by a unique external identifier.

The PARTNER_TYPE column is used to define the partner type: “Distributor”, “Reseller”, “OEM”, and so on. Only partners whose type is “Distributor” are displayed in the list of available distributors on the partner profile pages. The MEMBER_LEVEL column is used to specify the business relationship between the enterprise and each partner: it uses values such as “Gold”, “Silver”, and “Bronze”. The XML_MESSAGE_VERSION column is used to identify the type of message that is to be sent to a partner of type “Distributor”. It only needs to be set for distributors. By default, “Comergent 4.0” messages are posted to distributors, but it is possible to define other message versions such as RosettaNet messages. COMMERCE_CATEGORY distinguishes between indirect and direct commerce partners: “1” for indirect and “2” for direct.

The ADDRESS_KEY column is used to associate an address to the partner profile. You can constrain the choice of permitted values for this column through the XML schema. BUSINESS_TRANSACTION is used only for reporting purposes. With each partner, you may associate categories, distributors, promotions, services, skills, territories, and customer types through their respective cross-reference tables,

The PARTNER_COM column and STOREFRONT column are flags that specify whether the partner has been created as either a Partner.com or storefront partner: a

1 denotes that it has, whereas null or 0 denotes that it has not. The PARENT_CODE column distinguishes between Partner.com and Storefront partners. If the value is “20” or “30”, then the partner is excluded from Analyzer reports. The URL_NAME column stores the string used to specify the security domain in the URL used to access the partner or send message to it. Values in this column must be unique.

Some CUSTOM_FIELD columns are provided to support extending the partner data object as part of an implementation of the Sterling Multi-Channel Selling Solution. They are not used in the reference implementation.

TABLE 178. CMGT_PARTNERS Table

Name	Null?	Type	Description
PARTNER_KEY	NOT NULL	NUMBER(20)	Primary key
STOREFRONT_KEY	NOT NULL	NUMBER(20)	Used to track which storefront the partner is part of
ORIG_SYSTEM_REF	POSSIBLY NULL	VARCHAR2(90)	Reference to external system (if partner information derived from external system)
UPDATE_DATE	POSSIBLY NULL	DATE	Standard column
UPDATED_BY	NOT NULL	NUMBER(20)	Standard column
CREATION_DATE	POSSIBLY NULL	DATE	Standard column
CREATED_BY	NOT NULL	NUMBER(20)	Standard column
PARTNER_NAME	NOT NULL	VARCHAR2(90)	Name of partner
LEGAL_NAME	POSSIBLY NULL	VARCHAR2(90)	Unused
PARENT_COMPANY	POSSIBLY NULL	VARCHAR2(90)	Unused
STATUS	POSSIBLY NULL	VARCHAR2(6)	Unused
EMAIL_ADDRESS	POSSIBLY NULL	VARCHAR2(120)	Email address of partner
ADDRESS_KEY	POSSIBLY NULL	NUMBER(20)	Unused
DUNBRAD_ID	POSSIBLY NULL	VARCHAR2(60)	Unique business identifier
BUSINESS_ID	POSSIBLY NULL	VARCHAR2(120)	Identifier used by enterprise

TABLE 178. CMGT_PARTNERS Table (Continued)

Name	Null?	Type	Description
PARTNER_TYPE	POSSIBLY NULL	VARCHAR2(120)	Unused
PARTNER_TYPE_CODE	NOT NULL	NUMBER(20)	Partner type: values from PartnerType lookup type
MEMBER_LEVEL	POSSIBLY NULL	VARCHAR2(60)	Unused
XML_MESSAGE_VERSION	POSSIBLY NULL	VARCHAR2(60)	Message version that should be used when sending messages to this partner
BUSINESS_TRANSACTION	POSSIBLY NULL	VARCHAR2(120)	Profile information
NET_WORTH	POSSIBLY NULL	FLOAT	Profile information
NUM_OF_EMPLOYEES	POSSIBLY NULL	NUMBER(20)	Profile information
POT_REV_CURR_FY	POSSIBLY NULL	FLOAT	Profile information
POT_REV_NEXT_FY	POSSIBLY NULL	FLOAT	Profile information
REFERENCE_USE_FLAG	POSSIBLY NULL	VARCHAR2(6)	Profile information
COTERM_DAY_MONTH	POSSIBLY NULL	VARCHAR2(60)	Profile information
URL	POSSIBLY NULL	VARCHAR2(240)	Profile information
MESSAGE_URL	POSSIBLY NULL	VARCHAR2(240)	URL to which messages should be posted to reach this partner
YEAR_ESTD	POSSIBLY NULL	VARCHAR2(120)	Profile information
ANALYSIS_FY	POSSIBLY NULL	VARCHAR2(12)	Profile information
FISCAL_YEAR_END_MONTH	POSSIBLY NULL	VARCHAR2(30)	Profile information
ACCOUNT_MANAGER	POSSIBLY NULL	VARCHAR2(90)	Profile information
COMMERCE_CATEGORY	NOT NULL	NUMBER(20)	Direct or Indirect Commerce partner: values from CommerceCategory lookup type
DISTI_LOGO_URL	POSSIBLY NULL	VARCHAR2(240)	Unused
DISTI_ACCESS	POSSIBLY NULL	NUMBER(1)	Unused

TABLE 178. CMGT_PARTNERS Table (Continued)

Name	Null?	Type	Description
INV_COLLECTION	NOT NULL	NUMBER(1)	Flag to indicate that partner participates in inventory collection
INV_COLLECTION_USER_NAME	POSSIBLY NULL	VARCHAR2(60)	Username to be used to access inventory information
INV_COLLECTION_PASSWORD	POSSIBLY NULL	VARCHAR2(60)	Password to be used to access inventory information
INV_COLLECTION_SKU_COUNT	POSSIBLY NULL	NUMBER(20)	Number of product IDs to be sent in each inventory collection information message
OWNED_BY	NOT NULL	NUMBER(20)	Standard column
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)	Standard column
PARTNER_LEVEL_CODE	NOT NULL	NUMBER(20)	Partner level: values from PartnerLevel lookup type
FISCAL_YEAR_END_MONTH_CODE	POSSIBLY NULL	NUMBER(20)	Profile information
PARENT_KEY	POSSIBLY NULL	NUMBER(20)	If partner is in hierarchy, then key of parent partner
PARENT_CODE	POSSIBLY NULL	NUMBER(20)	Flag to indicate whether part of part of organization hierarchy or a customer partner
CUSTOM_FIELD_1	POSSIBLY NULL	VARCHAR2(120)	Field for custom data
CUSTOM_FIELD_2	POSSIBLY NULL	VARCHAR2(120)	Field for custom data
CUSTOM_FIELD_3	POSSIBLY NULL	VARCHAR2(120)	Field for custom data
CUSTOM_FIELD_4	POSSIBLY NULL	VARCHAR2(120)	Field for custom data

TABLE 178. CMGT_PARTNERS Table (Continued)

Name	Null?	Type	Description
CUSTOM_FIELD_5	POSSIBLY NULL	VARCHAR2(120)	Field for custom data
PARTNER_COM	POSSIBLY NULL	NUMBER(1)	Flag to indicate whether partner is Partner.com partner: 1 indicates Partner.com partner, 0 or null otherwise
STOREFRONT	POSSIBLY NULL	NUMBER(1)	Flag to indicate whether partner is storefront partner: 1 indicates storefront partner, 0 or null otherwise
URL_NAME	POSSIBLY NULL	VARCHAR2(64)	URL used to transfer carts to partner
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column
CONTENT_TYPE	POSSIBLY NULL	VARCHAR2(120)	content-type set in HTTP post to URL
PARTNER_STATUS	POSSIBLY NULL	NUMBER(20)	Partner status: value from PartnerStatus lookup type
INHERITED_STATUS	POSSIBLY NULL	NUMBER(20)	Status inherited from parent partner
CREDIT_LIMIT	POSSIBLY NULL	FLOAT	Credit limit
AVAILABLE_CREDIT	POSSIBLY NULL	FLOAT	Available credit
CREDIT_CURRENCY_CODE	POSSIBLY NULL	VARCHAR2(10)	Currency in which credit limit is expressed
ROOT_PARTNER_KEY	POSSIBLY NULL	NUMBER(20)	Partner key of partner that is the root in this partner's hierarchy
MAX_ASSIGNABLE_REPS_OR_NODES	POSSIBLY NULL	NUMBER(20)	Number of enterprise users that can be assigned to this partner

TABLE 178. CMGT_PARTNERS Table (Continued)

Name	Null?	Type	Description
REMOTE_PRICES	POSSIBLY NULL	NUMBER(1)	Flag to denote whether partner maintains prices on a remote server.
REMOTE_PRICE_EXPIRY_INTERVAL	POSSIBLY NULL	NUMBER(20)	Time interval after which to retrieve new prices in hours.
COOP_PERCENTAGE	POSSIBLY NULL	FLOAT	Percentage to use when calculating allocation of COOP funds.
COOP_ACCOUNT_MAX	POSSIBLY NULL	FLOAT	Maximum amount allowed in COOP fund.
PARTNER_ID	POSSIBLY NULL	VARCHAR2(90)	String used to identify partner for SKU mapping and catalog import processing

CMGT_PARTNERSERVICES

CMGT_PARTNERSERVICES contains the list of services offered by each partner. Each row specifies that the partner whose partner key is PARTNER_KEY offers the service whose service key is SERVICE_KEY. You only need to maintain this table if you plan to maintain services information for each partner. The primary key is PARTNER_KEY and SERVICE_KEY.

In the reference implementation of Release 8.0, the SERVICE_LEVEL column is not used.

TABLE 179. CMGT_PARTNERSERVICES Table

Name	Null?	Type
PARTNER_KEY	NOT NULL	NUMBER(20)
SERVICE_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE

TABLE 179. CMGT_PARTNERSERVICES Table (Continued)

Name	Null?	Type
CREATED_BY	NOT NULL	NUMBER(20)
SERVICE_LEVEL	POSSIBLY NULL	VARCHAR2(6)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PARTNERSKILLS

CMGT_PARTNERSKILLS contains the skill rating for each partner. You need multiple rows to represent the skills for each partner. Each row specifies that the partner whose partner key is PARTNER_KEY has the skill whose skill key is SKILL_KEY. You only need to maintain this table if you plan to maintain skills information for each partner. The primary key for the table is SKILL_KEY and PARTNER_KEY.

TABLE 180. CMGT_PARTNERSKILLS Table

Name	Null?	Type
SKILL_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
RATING_KEY	POSSIBLY NULL	NUMBER(20)
CONTACT_KEY	POSSIBLY NULL	NUMBER(20)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PARTNER_CATEGORIES

CMGT_PARTNER_CATEGORIES stores the relationship between partners and product categories. Each row specifies that the partner whose partner key is

PARTNER_KEY can sell products whose category key is CATEGORY_KEY. The primary key is PARTNER_KEY and CATEGORY_KEY.

TABLE 181. CMGT_PARTNER_CATEGORIES Table

Name	Null?	Type
PARTNER_KEY	NOT NULL	NUMBER(20)
CATEGORY_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PARTNER_CHECKOUT_OPTION

CMGT_PARTNER_CHECKOUT_OPTION stores information about storefront partners relating to what payment and shipping options they support.

TABLE 182. CMGT_PARTNER_CHECKOUT_OPTION Table

Name	Null?	Type
PARTNER_KEY	NOT NULL	NUMBER(20)
LOOKUP_TYPE	NOT NULL	VARCHAR2(60)
LOOKUP_CODE	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PARTNER_DISTRIBUTORS

CMGT_PARTNER_DISTRIBUTORS stores the relationship between partners and distributors. Each row expresses that the partner whose partner key is PARTNER_KEY can send price and availability requests and transfer product inquiry lists to the distributor whose distributor key is DISTRIBUTOR_KEY. This table ensures that the user interface offers only valid distributors when a customer seeks to obtain price and availability information or to initiate a product inquiry list

transfer. Rows in this table are maintained through the partner profile pages for each partner. The primary key is PARTNER_KEY and DISTRIBUTOR_KEY.

In the reference implementation of Release 8.0, the DISTI_LEVEL column is not used.

TABLE 183. CMGT_PARTNER_DISTRIBUTORS Table

Name	Null?	Type
PARTNER_KEY	NOT NULL	NUMBER(20)
DISTRIBUTOR_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
BUY_SELL_TO	POSSIBLY NULL	VARCHAR2(60)
DISTI_LEVEL	POSSIBLY NULL	NUMBER(3)
DISTRIBUTOR_NAME	POSSIBLY NULL	VARCHAR2(90)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PARTNER_FORECAST_HDR

CMGT_PARTNER_FORECAST_HDR is used to record header level information about a partner's sales forecast. The header information includes the identity of the partner (defined by the PARTNER_KEY column) and the forecast period (defined by the QUARTER and YEAR columns).

TABLE 184. CMGT_PARTNER_FORECAST_HDR Table

Name	Null?	Type
FORECAST_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	NOT NULL	NUMBER(20)
QUARTER	NOT NULL	NUMBER(1)
YEAR	NOT NULL	NUMBER(4)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE

TABLE 184. CMGT_PARTNER_FORECAST_HDR Table (Continued)

Name	Null?	Type
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PARTNER_FORECAST_LINE

CMGT_PARTNER_FORECAST_LINE holds the individual lines that make up each partner forecast. The FORECAST_KEY column is used to refer to a CMGT_PARTNER_TERRITORIES row. All the rows in the CMGT_PARTNER_FORECAST_LINE with the same FORECAST_KEY comprise a unique forecast.

TABLE 185. CMGT_PARTNER_FORECAST_LINE Table

Name	Null?	Type
FORECAST_LINE_KEY	NOT NULL	NUMBER(20)
FORECAST_KEY	NOT NULL	NUMBER(20)
SKU	NOT NULL	VARCHAR2(120)
QUANTITY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PARTNER_HIERARCHY

CMGT_PARTNER_HIERARCHY stores information related to the position of a partner in a partner hierarchy. ANCESTOR_KEY indicates the parent partner. TREE_LEVEL indicates the node level within the hierarchy.

TABLE 186. CMGT_PARTNER_HIERARCHY Table

Name	Null?	Type
PARTNER_KEY	NOT NULL	NUMBER(20)
ANCESTOR_KEY	POSSIBLY NULL	NUMBER(20)
TREE_LEVEL	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PARTNER_PROMOTIONS

CMGT_PARTNER_PROMOTIONS contains a record of each promotion that is displayed in a price and availability reply. The USER_ID column identifies the customer who initiated the price and availability request. The primary key for this table is PARTNER_PROMOTION_KEY.

TABLE 187. CMGT_PARTNER_PROMOTIONS Table

Name	Null?	Type
PARTNER_PROMOTION_KEY	NOT NULL	NUMBER(20)
USER_ID	POSSIBLY NULL	VARCHAR2(120)
PROMOTION_KEY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	NOT NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	NOT NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
TYPE	NOT NULL	VARCHAR2(120)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PARTNER_TERRITORIES

CMGT_PARTNER_TERRITORIES holds the territory keys of the territories in which each partner operates. Each row specifies that the partner whose partner key is PARTNER_KEY operates in the territory whose territory key is TERRITORY_KEY. It is used to support the search function provided by the Sterling Multi-Channel Selling Solution. The primary key for this table is TERRITORY_KEY and PARTNER_KEY.

TABLE 188. CMGT_PARTNER_TERRITORIES Table

Name	Null?	Type
TERRITORY_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE

TABLE 188. CMGT_PARTNER_TERRITORIES Table (Continued)

Name	Null?	Type
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PARTNERS_TMP

CMGT_PARTNERS_TMP is a staging table for partner information.

TABLE 189. CMGT_PARTNERS_TMP Table

Name	Null?	Type
PARTNER_KEY	NOT NULL	NUMBER(20)
PARENT_KEY	POSSIBLY NULL	NUMBER(20)

CMGT_PARTNER_VERTICALS

CMGT_PARTNER_VERTICALS holds the customer type keys of the markets in which each partner operates. Each row expresses that the partner whose partner key is PARTNER_KEY can buy for the customer type whose customer type is VERTICAL_KEY. It is used to support the search function provided by the Sterling Multi-Channel Selling Solution. Primary key is VERTICAL_KEY and PARTNER_KEY.

TABLE 190. CMGT_PARTNER_VERTICALS Table

Name	Null?	Type
VERTICAL_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
APPROVED_FLAG	POSSIBLY NULL	VARCHAR2(30)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PARTNER_X_PROD_ENTITLE

CMGT_PARTNER_X_PROD_ENTITLE describes which entitlements have been mapped to which partners.

TABLE 191. CMGT_PARTNER_X_PROD_ENTITLE Table

Name	Null?	Type
PRODUCT_ENTITLEMENT_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	NOT NULL	NUMBER(20)
SHARABLE	POSSIBLY NULL	VARCHAR2(1)
ASSIGN_TYPE	NOT NULL	NUMBER(1)
SEQUENCE_ID	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PAYMENT_ACCOUNT

CMGT_PAYMENT_ACCOUNT holds information about each payment account. The primary key is ACCOUNT_KEY.

TABLE 192. CMGT_PAYMENT_ACCOUNT Table

Name	Null?	Type
ACCOUNT_KEY	NOT NULL	NUMBER(20)
ACCOUNT_NAME	POSSIBLY NULL	VARCHAR2(90)
ACCOUNT_DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
ACCOUNT_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
ACCOUNT_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
ACCOUNT_CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
AVAILABLE_DATE	POSSIBLY NULL	DATE
EXPIRATION_DATE	POSSIBLY NULL	DATE

TABLE 192. CMGT_PAYMENT_ACCOUNT Table (Continued)

Name	Null?	Type
PROGRAM_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVITY_KEY	POSSIBLY NULL	NUMBER(20)
AVAILABLE_BALANCE	POSSIBLY NULL	FLOAT(126)
ENDING_BALANCE	POSSIBLY NULL	FLOAT(126)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PAYMENT_ACCOUNT_NOTE

CMGT_PAYMENT_ACCOUNT_NOTE holds notes about payment accounts. The primary key is ACCOUNT_NOTE_KEY.

TABLE 193. CMGT_PAYMENT_ACCOUNT_NOTE Table

Name	Null?	Type
ACCOUNT_NOTE_KEY	NOT NULL	NUMBER(20)
TEXT	POSSIBLY NULL	VARCHAR2(1024)
ACCOUNT_KEY	POSSIBLY NULL	NUMBER(20)
PRIVATE_FLAG	POSSIBLY NULL	NUMBER(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PAYMENT_GATEWAY

CMGT_PAYMENT_GATEWAY holds information about the credit card payment gateway used by each partner. The primary key is PARTNER_KEY.

TABLE 194. CMGT_PAYMENT_GATEWAY Table

Name	Null?	Type
PARTNER_KEY	NOT NULL	NUMBER(20)
GATEWAY_TYPE	NOT NULL	NUMBER(20)
MERCHANTID	POSSIBLY NULL	VARCHAR2(32)
KEY_DIRECTORY	POSSIBLY NULL	VARCHAR2(64)
TARGET_API_VERSION	POSSIBLY NULL	VARCHAR2(8)
PROXY_HOST	POSSIBLY NULL	VARCHAR2(64)
PROXY_PORT	POSSIBLY NULL	VARCHAR2(10)
SEND_TO_PRODUCTION	POSSIBLY NULL	NUMBER(1)
ENABLE_LOG	POSSIBLY NULL	NUMBER(1)
LOG_DIRECTORY	POSSIBLY NULL	VARCHAR2(64)
LOG_MAX_SIZE	POSSIBLY NULL	NUMBER(4)
CV_CHECK	POSSIBLY NULL	NUMBER(1)
AUTH_ONLY	POSSIBLY NULL	NUMBER(1)
OWNED_BY	POSSIBLY NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)

CMGT_PHONES

CMGT_PHONES stores telephone information for your partners, contacts, and partner addresses. You need one row for each telephone record. A record in CMGT_PHONES must refer either to a partner or a user; that is, both CONTACT_KEY and PARTNER_KEY cannot be null. The primary key for this table is PHONE_KEY.

In the reference implementation of Release 8.0, the TYPE column is used to specify the telephone type (such as “Business”, “Home”, or “Fax”). You can constrain the choice of permitted values for this column through the XML schema.

TABLE 195. CMGT_PHONES Table

Name	Null?	Type
PHONE_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
PHONE_NUMBER	NOT NULL	VARCHAR2(30)
STATUS	NOT NULL	VARCHAR2(1)
AREA_CODE	POSSIBLY NULL	VARCHAR2(15)
EXTENSION	POSSIBLY NULL	VARCHAR2(18)
PHONE_TYPE_CODE	NOT NULL	NUMBER(20)
PHONE_TYPE	POSSIBLY NULL	VARCHAR2(60)
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
CONTACT_KEY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PICKUP_OPTIONS

CMGT_PICKUP_OPTIONS defines the options for in-store pickup of a product.

Primary key is OPTION_KEY.

TABLE 196. CMGT_PICKUP_OPTIONS Table

Name	Null?	Type
OPTION_KEY	NOT NULL	NUMBER(20)
LINE_KEY	NOT NULL	NUMBER(20)
STORE_ID	NOT NULL	VARCHAR2(100)
QUANTITY	NOT NULL	NUMBER(20)

TABLE 196. CMGT_PICKUP_OPTIONS Table (Continued)

Name	Null?	Type
PICKUP_DATE	NOT NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PRDCT_CAT_X_EXPSET

CMGT_PRDCT_CAT_X_EXPSET stores which products were exported as part of an export set. It serves as a cross-reference table between CMGT_PRODUCT_CATEGORY and CMGT_EXPORTSET.

TABLE 197. CMGT_PRDCT_CAT_X_EXPSET Table

Name	Null?	Type
EXPORTSET_KEY	NOT NULL	NUMBER(20)
PRODUCT_CATEGORY_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)

CMGT_PRDCT_CAT_X_PRDCT

CMGT_PRDCT_CAT_X_PRDCT defines the assignment of products to product categories. Each product may be assigned to more than one product category: this would be reflected in this table by two or more rows having the same SKU_NAME value.

TABLE 198. CMGT_PRDCT_CAT_X_PRDCT Table

Name	Null?	Type
PRODUCT_CATEGORY_KEY	NOT NULL	NUMBER(20)
SKU_NAME	NOT NULL	VARCHAR2(120)
SEQUENCE_ID	NOT NULL	NUMBER(20)
START_DATE	NOT NULL	DATE
END_DATE	NOT NULL	DATE
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)

TABLE 198. CMGT_PRDCT_CAT_X_PRDCT Table (Continued)

Name	Null?	Type
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

CMGT_PRDCT_CLSFCTN_EXPSET

CMGT_PRDCT_CLSFCTN_EXPSET maintains the relationship between product IDs and the classifications used to export the product catalog in the dXML format.

TABLE 199. CMGT_PRDCT_CLSFCTN_EXPSET Table

Name	Null?	Type
SKU_NAME	NOT NULL	VARCHAR2(120)
DOMAIN_KEY	NOT NULL	NUMBER(20)
CLASSIFICATION_CODE	NOT NULL	VARCHAR2(255)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PRDCT_X_EXPSET

CMGT_PRDCT_X_EXPSET stores which products were exported as part of an export set. It serves as a cross-reference table between CMGT_PRODUCT and CMGT_EXPORTSET.

TABLE 200. CMGT_PRDCT_X_EXPSET Table

Name	Null?	Type
EXPORTSET_KEY	NOT NULL	NUMBER(20)
SKU_NAME	NOT NULL	VARCHAR2(120)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE

TABLE 200. CMGT_PRDCT_X_EXPSET Table (Continued)

Name	Null?	Type
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PRDCT_CTGRY_X_FEATURE

CMGT_PRDCT_CTGRY_X_FEATURE manages the assignment of features to product categories.

TABLE 201. CMGT_PRDCT_CTGRY_X_FEATURE Table

NAME	Null?	TYPE
PRODUCT_CATEGORY_KEY	NOT NULL	NUMBER(20)
FEATURE_KEY	NOT NULL	NUMBER(20)
VALUE	NOT NULL	VARCHAR2(90)
ASSIGN_TYPE	NOT NULL	NUMBER(20)
START_DATE	NOT NULL	DATE
END_DATE	NOT NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

CMGT_PRDCT_CTGRY_X_FTR_TYP

CMGT_PRDCT_CTGRY_X_FTR_TYP provides the *association* of feature types to product categories. Before features may be *assigned* to product categories or products, you must make sure that the feature type to which the feature belongs has been associated with the appropriate product category.

TABLE 202. CMGT_PRDCT_CTGRY_X_FTR_TYP Table

NAME	Null?	TYPE
PRODUCT_CATEGORY_KEY	NOT NULL	NUMBER(20)
FEATURE_TYPE_KEY	NOT NULL	NUMBER(20)
START_DATE	NOT NULL	DATE
END_DATE	NOT NULL	DATE
ASSIGN_TYPE	NOT NULL	NUMBER(20)
FILTER_FLAG	POSSIBLY NULL	NUMBER(20)

TABLE 202. CMGT_PRDCT_CTGRY_X_FTR_TYP Table (Continued)

NAME	Null?	TYPE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

The default value for START_DATE is sysdate and for END_DATE is sysdate + 365*100. The default value for STATUS is 1. The PRODUCT_CATEGORY_KEY is a foreign key to the PRODUCT_CATEGORY_KEY of the CMGT_PRODUCT_CATEGORY table. The FEATURE_TYPE_KEY is a foreign key to the FEATURE_TYPE_KEY of the CMGT_FEATURE_TYPE table.

CMGT_PREVIOUS_PASSWORD

CMGT_PREVIOUS_PASSWORD stores the passwords used by users. This table is used to manage password policies that require that users do not re-use old passwords.

TABLE 203. CMGT_PREVIOUS_PASSWORD Table

NAME	Null?	TYPE
PASSWORD_KEY	NOT NULL	NUMBER(20)
IDENTITY_KEY	NOT NULL	NUMBER(20)
PASSWORD	NOT NULL	VARCHAR2(60)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PRICELISTS

CMGT_PRICELISTS stores your price lists. Each price list has a unique currency code and customer type. The SUPPLIER_KEY column is used to track which partner owns the price list. This information determines whether the price list is

used to determine prices on the enterprise site or at a partner's storefront. The primary key for this table is PRICE_LIST_KEY.

TABLE 204. CMGT_PRICELISTS Table

Name	Null?	Type	Description
PRICE_LIST_KEY	NOT NULL	NUMBER(20)	System-generated primary key
UPDATE_DATE	POSSIBLY NULL	DATE	Standard column
UPDATED_BY	NOT NULL	NUMBER(20)	Standard column
CREATION_DATE	POSSIBLY NULL	DATE	Standard column
CREATED_BY	NOT NULL	NUMBER(20)	Standard column
NAME	NOT NULL	VARCHAR2(90)	Name of price list
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)	Description of price list
START_DATE_ACTIVE	POSSIBLY NULL	DATE	Start effectivity date
END_DATE_ACTIVE	POSSIBLY NULL	DATE	End effectivity date
CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)	Currency of price list
CURRENCY_CODE	NOT NULL	VARCHAR2(60)	Currency code
VERTICAL_KEY	POSSIBLY NULL	NUMBER(20)	Customer type of price list: values from CMGT_VERTICAL_MARKETS
OBSOLETE_DATE	POSSIBLY NULL	DATE	Unused
PRICING_STATUS	POSSIBLY NULL	NUMBER(1)	Flag to enable and disable price list
PARENT_KEY	POSSIBLY NULL	NUMBER(20)	Unused
OWNED_BY	NOT NULL	NUMBER(20)	Standard column
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)	Standard column
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column
SUPPLIER_KEY	POSSIBLY NULL	NUMBER(20)	Key of partner for whom the price list is created: 1 is enterprise
STOREFRONT_KEY	NOT NULL	NUMBER(20)	Key of storefront to which the price list belongs

CMGT_PRICELIST_LINES

CMGT_PRICELIST_LINES stores the individual lines that make up the price lists. Each product ID on a price list must correspond to a row in this table.

TABLE 205. CMGT_PRICELIST_LINES Table

Name	Null?	Type	Description
PRICE_LIST_LINE_KEY	NOT NULL	NUMBER(20)	System-generated primary key
PARENT_LINE_KEY	POSSIBLY NULL	NUMBER(20)	Key of the parent line of this line
PRICE_LIST_KEY	POSSIBLY NULL	NUMBER(20)	Price list key to which line belongs
SKU	NOT NULL	VARCHAR2(120)	Product Id of line
UNIT_LIST_PRICE	POSSIBLY NULL	FLOAT	Unit list price for product
DISCOUNT	POSSIBLY NULL	FLOAT	Discount (if any)
RULE_VARIABLE	POSSIBLY NULL	NUMBER(20)	Conditional rule variable
RULE_CONSTANT	POSSIBLY NULL	NUMBER(20)	Value of variable
PRICING_STATUS	POSSIBLY NULL	NUMBER(1)	Enabled flag
PRICE_DIFFERENCE	POSSIBLY NULL	FLOAT(50)	Rule effect
SECOND_RULE_VARIABLE	POSSIBLY NULL	NUMBER(20)	Second conditional rule variable
SECOND_RULE_CONSTANT	POSSIBLY NULL	NUMBER(20)	Value of variable
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column
UPDATE_DATE	POSSIBLY NULL	DATE	Standard column
UPDATED_BY	NOT NULL	NUMBER(20)	Standard column
CREATION_DATE	POSSIBLY NULL	DATE	Standard column
CREATED_BY	NOT NULL	NUMBER(20)	Standard column
OBSOLETE_DATE	POSSIBLY NULL	DATE	Enabled flag
REPLACES_KEY	POSSIBLY NULL	NUMBER(20)	Line that it supersedes
SUPPLIER_ID	POSSIBLY NULL	NUMBER(20)	Partner key of supplier of this line
SUPPLIER_CONTRACT	POSSIBLY NULL	VARCHAR(90)	Contract covering this price
STARTING_POINT	POSSIBLY NULL	VARCHAR(90)	Placeholder for functionality to be introduced

TABLE 205. CMGT_PRICELIST_LINES Table (Continued)

Name	Null?	Type	Description
COST	POSSIBLY NULL	FLOAT	Placeholder for functionality to be introduced
OWNED_BY	NOT NULL	NUMBER(20)	Standard column
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)	Standard column
RULE_TYPE	POSSIBLY NULL	NUMBER(20)	Type of pricing rule: quantity or conditional
START_DATE	POSSIBLY NULL	DATE	Start effectivity date
END_DATE	POSSIBLY NULL	DATE	End effectivity date
PRICE_TYPE_CODE	NOT NULL	NUMBER(20)	

CMGT_PRICE_TYPE

CMGT_PRICE_TYPE stores price type information. Each one-time and auxiliary price type must have an entry in this table.

TABLE 206. CMGT_PRICE_TYPE Table

Name	Null?	Type
PRICE_TYPE_CODE	NOT NULL	NUMBER(20)
GROUP_CODE	POSSIBLY NULL	NUMBER(20)
PROPERTY_NAME	NOT NULL	VARCHAR2(60)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE DEFAULT SYSDATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1) DEFAULT 'Y'

CMGT_PRICING_CART_ACTION

CMGT_PRICING_CART_ACTION holds information about the action that each pricing rule takes when fired. The WHEN_TO_APPLY_CODE column acts as a

flag to control whether to apply the pricing rule to only one item or to all applicable items in an inquiry list. Its primary key is ACTION_KEY.

TABLE 207. CMGT_PRICING_CART_ACTION Table

Name	Null?	Type
ACTION_KEY	NOT NULL	NUMBER(20)
ACTION_NAME	POSSIBLY NULL	VARCHAR2(90)
RULE_KEY	NOT NULL	NUMBER(20)
ABSOLUTE_FLAG	POSSIBLY NULL	VARCHAR2(1)
FLATFEE_FLAG	POSSIBLY NULL	VARCHAR2(1)
DISCOUNT_FLAG	POSSIBLY NULL	VARCHAR2(1)
WHEN_TO_APPLY_CODE	POSSIBLY NULL	NUMBER(20)
AMOUNT	POSSIBLY NULL	FLOAT(126)
QUANTITY	POSSIBLY NULL	NUMBER(20)
CART_TOTAL_PRICE	POSSIBLY NULL	FLOAT(126)
ACTION_SEQUENCE_NUMBER	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PRICING_CART_RULE

CMGT_PRICING_CART_RULE provides the information for each order level rule. RULE_TYPE distinguishes between the types of rules: combination, item total, and order total rules. The STOREFRONT_KEY column tracks the storefront for which this rule applies. Its primary key is RULE_KEY.

TABLE 208. CMGT_PRICING_CART_RULE Table

Name	Null?	Type
RULE_KEY	NOT NULL	NUMBER(20)
RULE_NAME	POSSIBLY NULL	VARCHAR2(90)
IS_ITEM_RULE	POSSIBLY NULL	NUMBER(1)
RULE_TYPE	POSSIBLY NULL	NUMBER(20)

TABLE 208. CMGT_PRICING_CART_RULE Table (Continued)

Name	Null?	Type
ENABLED	POSSIBLY NULL	VARCHAR2(1)
START_DATE_ACTIVE	POSSIBLY NULL	DATE
END_DATE_ACTIVE	POSSIBLY NULL	DATE
PARTNER_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
PARTNER_LEVEL_CODE	POSSIBLY NULL	NUMBER(20)
CUSTOMER_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)
TARGET_SKU	POSSIBLY NULL	VARCHAR(120)
SKU_OPERATOR_CODE	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
IS_COUPON_RULE	POSSIBLY NULL	NUMBER(1)
SELLER_KEY	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
IS_FEATURE_RULE	POSSIBLY NULL	NUMBER(1)
RULE_CATEGORY	POSSIBLY NULL	NUMBER(20)
SHIP_COMPLETE	POSSIBLY NULL	VARCHAR2(1)
SHIPPING_METHOD_CODE	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PRICING_CART_RULE_LOCALE

CMGT_PRICING_CART_RULE_LOCALE holds locale-specific information for each pricing rule. Its primary key is RULE_KEY and LOCALE.

TABLE 209. CMGT_PRICING_CART_RULE_LOCALE Table

Name	Null?	Type
RULE_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
RULE_NOT_APPLICABLE_MSG	POSSIBLY NULL	VARCHAR2(480)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PRICING_RULE_X_SKU

CMGT_PRICING_RULE_X_SKU maintains the information relating to item level rules. Its primary key is RULE_KEY and SKU.

TABLE 210. CMGT_PRICING_RULE_X_SKU Table

Name	Null?	Type
RULE_KEY	NOT NULL	NUMBER(20)
SKU	NOT NULL	VARCHAR2(120)
QUANTITY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PRICING_RULE_X_TARGET_FTR

CMGT_PRICING_RULE_X_TARGET_FTR maintains information about the features that each pricing rule uses to evaluate the pricing rule condition.

TABLE 211. CMGT_PRICING_RULE_X_TARGET_FTR Table

Name	Null?	Type
RULE_KEY	NOT NULL	NUMBER(20)
SEQUENCE_NUMBER	POSSIBLY NULL	NUMBER(20)
TARGET_FEATURE	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

TABLE 211. CMGT_PRICING_RULE_X_TARGET_FTR Table (Continued)

Name	Null?	Type
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)

CMGT_PRICING_RULE_X_TARGET_SKU

CMGT_PRICING_RULE_X_TARGET_SKU maintains information about the skus that each pricing rule uses to evaluate the pricing rule condition.

TABLE 212. CMGT_PRICING_RULE_X_TARGET_SKU Table

Name	Null?	Type
RULE_KEY	NOT NULL	NUMBER(20)
SEQUENCE_NUMBER	POSSIBLY NULL	NUMBER(20)
TARGET_SKU	NOT NULL	VARCHAR2(120)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)

CMGT_PRODMGR_ACCESSLIST

CMGT_PRODMGR_ACCESSLIST holds information about the ACLs managing access to products. Its primary key is ACCESSLIST_KEY.

TABLE 213. CMGT_PRODMGR_ACCESSLIST Table

Name	Null?	Type
ACCESSLIST_KEY	NOT NULL	NUMBER(20)
GROUP_KEY	POSSIBLY NULL	NUMBER(20)
ACL_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PRODMMGR_ACLS

CMGT_PRODMMGR_ACLS holds information about ACLs managing access to products. Its primary key is ACL_KEY.

TABLE 214. CMGT_PRODMMGR_ACLS Table

Name	Null?	Type
ACL_KEY	NOT NULL	NUMBER(20)
NAME	POSSIBLY NULL	VARCHAR2(90)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PRODUCT

CMGT_PRODUCT provides the product information used by the Sterling Multi-Channel Selling Solution. The SKU_NAME column is the primary key for the table: each product in the Sterling Multi-Channel Selling Solution has a unique SKU. The SERVICE_FLAG column distinguishes between service and non-service products.

The COMPONENT_TYPE column distinguishes between Normal (“0”), Configurable (“1”), and Assembly (“2”) products. The PRE_CONFIG_FLAG denotes whether there is a pre-configured model associated with this product: “1” denotes a pre-configured model and “0” indicates that there is not. The MODEL_KEY column is used to associate a model with a product.

TABLE 215. CMGT_PRODUCT Table

NAME	NULL?	TYPE	Description
SKU_NAME	NOT NULL	VARCHAR2(120)	Unique identifier for product, and primary key
PARENT_SKU_NAME	POSSIBLY NULL	VARCHAR2(120)	Parent key if this product is child of aggregate product
NAME	POSSIBLY NULL	VARCHAR2(500)	Name of product
DESCRIPTION	POSSIBLY NULL	VARCHAR2(1000)	Description of product

TABLE 215. CMGT_PRODUCT Table (Continued)

NAME	NULL?	TYPE	Description
COMPONENT_TYPE	NOT NULL	NUMBER(20)	Product type: 0: normal 1: configurable 2: assembly 3: display-only 4: aggregate
UNIT_OF_MEASURE	POSSIBLY NULL	VARCHAR2(60)	Unit of measure
UNIT_OF_MEASURE_CODE	POSSIBLY NULL	NUMBER(20)	Unit of measure lookup code: values from UnitOfMeasure lookup type
QTY_PER_UNIT	POSSIBLY NULL	FLOAT(126)	Quantity per unit
SUPERSEDING_SKU_NAME	POSSIBLY NULL	VARCHAR2(120)	Product that super- sedes this product
LEAD_TIME	POSSIBLY NULL	NUMBER(20)	Lead time
SELLABLE_FLAG	NOT NULL	NUMBER(1)	Flag to indicate that product is separately buyable (as opposed to as part of config- urable product or assembly)
VALID_FLAG	NOT NULL	NUMBER(1)	Validity flag: 1 is valid, 0 otherwise
ASSIGNED_FLAG	NOT NULL	NUMBER(20)	Assigned to a cate- gory: 1 is assigned, 0 otherwise
SERVICE_FLAG	NOT NULL	NUMBER(1)	Indicates service product: 1 is service product, 0 otherwise
START_DATE_ACTIVE	POSSIBLY NULL	DATE	Start effectivity date
END_DATE_ACTIVE	POSSIBLY NULL	DATE	End effectivity date
RESOURCE_KEY	NOT NULL	NUMBER(20)	Key to associated resource

TABLE 215. CMGT_PRODUCT Table (Continued)

NAME	NULL?	TYPE	Description
PRE_CONFIG_FLAG	NOT NULL	NUMBER(1)	Flag to indicate that product is pre-configured
MODEL_KEY	POSSIBLY NULL	NUMBER(20)	Key to model if configurable product
SERVICE_MAINTENANCE_MODEL_KEY	POSSIBLY NULL	NUMBER(20)	Key to a service contract
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)	Standard column
OWNED_BY	NOT NULL	NUMBER(20)	Standard column
UPDATE_DATE	POSSIBLY NULL	DATE	Standard column
UPDATED_BY	NOT NULL	NUMBER(20)	Standard column
CREATION_DATE	POSSIBLY NULL	DATE	Standard column
CREATED_BY	NOT NULL	NUMBER(20)	Standard column
SKU_AUTHORITY	POSSIBLY NULL	VARCHAR2(360)	Key to partner to whom product belongs
MINIMUM_ORDER_QUANTITY	NOT NULL	NUMBER(20)	Minimum order quantity in inquiry lists
STATUS_CODE	NOT NULL	NUMBER(20)	The life cycle status of the product: values from ProductStatus lookup type
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column
MFG_ID	POSSIBLY NULL	NUMBER(20)	Mapping to manufacturer name
MFG_SKU	POSSIBLY NULL	VARCHAR2(120)	Manufacturer product ID for the product
COMPONENT_SUB_TYPE	POSSIBLY NULL	NUMBER(20)	Maps to a component type in the Sterling order fulfillment application. 1: Bundle 2: Physical Kit

TABLE 215. CMGT_PRODUCT Table (Continued)

NAME	NULL?	TYPE	Description
PICKUPABLE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Flag to indicate that the product is available for pick up
SHIPPING_DISCOUNT_FLAG	POSSIBLY NULL	VARCHAR2(1)	
SHIPPABLE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Flag to indicate that the product is shippable
LOCALUPDATE_FLAG	NOT NULL	VARCHAR2(1)	Flag to indicate whether the last change is a result of local change or a change in the remote fulfillment system
IS_MARKED_FOR_DELETION	NOT NULL	NUMBER(1)	Indicates that the product is deleted by the remote system

CMGT_PRODUCT_CATEGORY

CMGT_PRODUCT_CATEGORY provides the product category hierarchy information for the Sterling Multi-Channel Selling Solution. The PARENT_CATEGORY_KEY is used to specify the parent category and hence must be another CATEGORY_KEY value. The root product category is created at the time that the schema creation script is run. The primary key is PRODUCT_CATEGORY_KEY and LOCALE.

TABLE 216. CMGT_PRODUCT_CATEGORY Table

Name	Null?	Type
PRODUCT_CATEGORY_KEY	NOT NULL	NUMBER(20)
NAME	POSSIBLY NULL	VARCHAR2(500)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(1000)
CATEGORY_TITLE	POSSIBLY NULL	VARCHAR2(120)
PARENT_CATEGORY_KEY	NOT NULL	NUMBER(20)
SEQUENCE_ID	NOT NULL	NUMBER(20)
RESOURCE_KEY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)

TABLE 216. CMGT_PRODUCT_CATEGORY Table (Continued)

Name	Null?	Type
OWNED_BY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
START_DATE	NOT NULL	DATE
END_DATE	NOT NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

CMGT_PRODUCT_CATEGORY_LOCALE

CMGT_PRODUCT_CATEGORY_LOCALE holds locale-specific information about product categories.

TABLE 217. CMGT_PRODUCT_CATEGORY_LOCALE Table

Name	Null?	Type
PRODUCT_CATEGORY_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
NAME	NOT NULL	VARCHAR2(500)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(1000)
CATEGORY_TITLE	POSSIBLY NULL	VARCHAR2(120)
IMAGE	POSSIBLY NULL	VARCHAR2(120)
DATASHEET	POSSIBLY NULL	VARCHAR2(120)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PRODUCT_ENTITLEMENT

CMGT_PRODUCT_ENTITLEMENT holds header information about each entitlement.

TABLE 218. CMGT_PRODUCT_ENTITLEMENT Table

Name	Null?	Type
PRODUCT_ENTITLEMENT_KEY	NOT NULL	NUMBER(20)
NAME	POSSIBLY NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
SUPPLIER_KEY	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
START_DATE	NOT NULL	DATE
END_DATE	NOT NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

CMGT_PRODUCT_ENTITLEMENT_ITEM

CMGT_PRODUCT_ENTITLEMENT_ITEM holds information about each entitlement item: each line must belong to an entitlement. The SOURCE_TYPE and SOURCE_KEY columns are used to specify the type of entitlement item (price list, product category, feature, and so on) and the key of the specified object (for example, the price list key).

TABLE 219. CMGT_PRODUCT_ENTITLEMENT_ITEM Table

Name	Null?	Type
PRODUCT_ENTITLEMENT_KEY	NOT NULL	NUMBER(20)
PRODUCT_ENTITLEMENT_ITEM_KEY	NOT NULL	NUMBER(20)
SOURCE_TYPE	NOT NULL	NUMBER(20)

TABLE 219. CMGT_PRODUCT_ENTITLEMENT_ITEM Table

Name	Null?	Type
SOURCE_KEY	NOT NULL	VARCHAR2(90)
SEQUENCE_ID	NOT NULL	NUMBER(20)
INCLUSION_FLAG	NOT NULL	NUMBER(20)
NAME	POSSIBLY NULL	VARCHAR2(90)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PRODUCT_LOCALE

CMGT_PRODUCT_LOCALE holds locale-specific information about products. The primary key is SKU_NAME and LOCALE. Note that both IMAGE and DATASHEET are managed by locale: for each locale you can associate a different data sheet.

TABLE 220. CMGT_PRODUCT_LOCALE Table

Name	Null?	Type
SKU_NAME	NOT NULL	VARCHAR2(120)
LOCALE	NOT NULL	VARCHAR2(10)
NAME	NOT NULL	VARCHAR2(500)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(1000)
UNIT_OF_MEASURE	POSSIBLY NULL	VARCHAR2(60)
IMAGE	POSSIBLY NULL	VARCHAR2(120)
DATASHEET	POSSIBLY NULL	VARCHAR2(120)
LARGE_IMAGE	POSSIBLY NULL	VARCHAR2(120)
KEY_PRODUCT_DATA	POSSIBLY NULL	VARCHAR2(1024)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PRODUCT_REVIEW

CMGT_PRODUCT_REVIEW stores information about product reviews written by users. Reviews are stored by storefront using the STOREFRONT_KEY column. The primary key is REVIEW_ID.

TABLE 221. CMGT_PRODUCT_REVIEW Table

Name	Null?	Type
REVIEW_ID	NOT NULL	NUMBER(20)
SKU_NAME	POSSIBLY NULL	VARCHAR2(120)
USER_KEY	NOT NULL	NUMBER(20)
REVIEW_RATING	NOT NULL	NUMBER(3)
REVIEW_DATE	POSSIBLY NULL	DATE
PROS_TEXT	POSSIBLY NULL	VARCHAR2(240)
CONS_TEXT	POSSIBLY NULL	VARCHAR2(240)
ONE_LINE_SUMMARY	NOT NULL	VARCHAR2(50)
USER_OPINION	NOT NULL	VARCHAR2(720)
HELPFUL_COUNT	POSSIBLY NULL	NUMBER(10)
NON_HELPFUL_COUNT	POSSIBLY NULL	NUMBER(10)
ACTIVE_FLAG	NOT NULL	VARCHAR2(1)
HIGHLIGHT	NOT NULL	VARCHAR2(1)
VISIBLE	NOT NULL	VARCHAR2(1)
REVIEW_STATUS	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)

CMGT_PRODUCT_SYNC_EXT

CMGT_PRODUCT_SYNC_EXT synchronizes a local product and a remote product.

Primary key is SKU_NAME.

TABLE 222. CMGT_PRODUCT_SYNC_EXT Table

Name	Null?	Type
SKU_NAME	NOT NULL	VARCHAR2(250)
LOCAL_UPDATE_DATE	POSSIBLY NULL	DATE
REMOTE_UPDATE_DATE	POSSIBLY NULL	DATE
SYNC_DATE	POSSIBLY NULL	DATE
IS_SYNC_REQUIRED	POSSIBLY NULL	VARCHAR2(1)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PRODUCT_X_FEATURE

CMGT_PRODUCT_X_FEATURE provides the assignment of features to products. ASSIGN_TYPE is used to specify whether the assignment is inherited from an assignment of the feature to a parent product category.

This table is also used to manage related products: if product B is related to product A, then a feature is created to represent product B and this feature is assigned to product A. The ASSIGN_TYPE column is used to store the type of related product.

TABLE 223. CMGT_PRODUCT_X_FEATURE Table

Name	Null?	Type
SKU_NAME	NOT NULL	VARCHAR2(120)
FEATURE_KEY	NOT NULL	NUMBER(20)
DATA_TYPE	NOT NULL	NUMBER(20)
ASSIGN_TYPE	NOT NULL	NUMBER(20)
VALUE	NOT NULL	VARCHAR2(90)
SEQUENCE_NUMBER	NOT NULL	NUMBER(20)
RELATION_TYPE	NOT NULL	NUMBER(20)
START_DATE	NOT NULL	DATE
END_DATE	NOT NULL	DATE

TABLE 223. CMGT_PRODUCT_X_FEATURE Table (Continued)

Name	Null?	Type
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

The SKU_NAME column is a foreign key to the SKU_NAME column of the CMGT_PRODUCT table. The FEATURE_KEY column is a foreign key to the FEATURE_KEY of the CMGT_FEATURE table.

The DATA_TYPE column takes the following values:

- 0: Boolean: all the current use cases should set to this value
- 1: Integer
- 2: Double
- 20: String

The RELATION_TYPE column specifies the type of relation:

- 1: Accessory product
- 2: Alternate product
- 3: Competitive product
- 4: Related category

CMGT_PRODUCT_X_SUPPLIER

CMGT_PRODUCT_X_SUPPLIER records the supplier (identified by PARTNER_KEY column) associated with each product. The supplier information is used to determine how an order should be split: all the line items that have the same supplier key are grouped into the same order inquiry list. The primary key is SKU_NAME and PARTNER_KEY.

TABLE 224. CMGT_PRODUCT_X_SUPPLIER Table

Name	Null?	Type
SKU_NAME	NOT NULL	VARCHAR2(120)
PARTNER_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE

TABLE 224. CMGT_PRODUCT_X_SUPPLIER Table (Continued)

Name	Null?	Type
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PROD_CAT_BROWSE_LOG

CMGT_PROD_CAT_BROWSE_LOG logs the browsing activity of customers.

TABLE 225. CMGT_PROD_CAT_BROWSE_LOG Table

Name	Null?	Type
USER_KEY	POSSIBLY NULL	NUMBER(20)
PROD_CAT_KEY	NOT NULL	NUMBER(20)
PROD_CAT_NAME	POSSIBLY NULL	VARCHAR2(90)
SESSION_ID	POSSIBLY NULL	VARCHAR2(240)
BROWSE_DATE	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PROD_COMPARE_LOG

CMGT_PROD_COMPARE_LOG logs the occurrences of product comparisons.

TABLE 226. CMGT_PROD_COMPARE_LOG Table

Name	Null?	Type
SKU_NAME	NOT NULL	VARCHAR2(120)
USER_KEY	POSSIBLY NULL	NUMBER(20)
SESSION_ID	POSSIBLY NULL	VARCHAR2(240)
COMPARE_DATE	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PROD_DETAIL_LOG

CMGT_PROD_DETAIL_LOG logs the occurrences of product detail displays.

TABLE 227. CMGT_PROD_DETAIL_LOG Table

Name	Null?	Type
SKU_NAME	NOT NULL	VARCHAR2(120)
USER_KEY	POSSIBLY NULL	NUMBER(20)
SESSION_ID	POSSIBLY NULL	VARCHAR2(240)
DETAIL_DATE	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PROD_SEARCH_LOG

CMGT_PROD_SEARCH_LOG logs the searches performed by customers.

TABLE 228. CMGT_PROD_SEARCH_LOG Table

Name	Null?	Type
USER_KEY	POSSIBLY NULL	NUMBER(20)
SEARCH_TERM	POSSIBLY NULL	VARCHAR2(256)
SEARCH_FIELD	NOT NULL	VARCHAR2(90)
NUM_RESULTS	NOT NULL	NUMBER(20)
SESSION_ID	POSSIBLY NULL	VARCHAR2(240)
SEARCH_DATE	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PROFILE_MANAGER_NOTE

CMGT_PROFILE_MANAGER_NOTE stores the notes made by users in partner and user profiles.

TABLE 229. CMGT_PROFILE_MANAGER_NOTE Table

Name	Null?	Type
NOTE_KEY	NOT NULL	NUMBER(20)
TEXT	POSSIBLY NULL	VARCHAR2(1024)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE

TABLE 229. CMGT_PROFILE_MANAGER_NOTE Table (Continued)

Name	Null?	Type
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
OBJECT_KEY	POSSIBLY NULL	NUMBER(20)
OBJECT_TYPE	POSSIBLY NULL	NUMBER(20)
PRIVATE_FLAG	POSSIBLY NULL	NUMBER(1)

CMGT_PROMOTIONS

CMGT_PROMOTIONS contains the details of each promotion. Each promotion has a name that identifies it within the Sterling Multi-Channel Selling Solution. Its URL identifies the page that displays the promotion and its description serves as the alternate text. The STOREFRONT_KEY column tracks the storefront in which the promotion is created and used. The primary key for this table is PROMOTION_KEY.

TABLE 230. CMGT_PROMOTIONS Table

Name	Null?	Type
PROMOTION_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
PROMO_CODE	NOT NULL	VARCHAR2(120)
NAME	NOT NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
URL	POSSIBLY NULL	VARCHAR2(480)
ADTNL_SKU	POSSIBLY NULL	VARCHAR2(120)
ADTNL_SKU_QTY	POSSIBLY NULL	NUMBER
IMAGE_NAME	POSSIBLY NULL	VARCHAR2(90)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)

TABLE 230. CMGT_PROMOTIONS Table (Continued)

Name	Null?	Type
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
OWNED_BY	NOT NULL	NUMBER(20)
LOCALE_NAME	POSSIBLY NULL	VARCHAR2(10)
SELLER_KEY	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)

CMGT_PROMOTION_CONTROL

CMGT_PROMOTION_CONTROL contains the details of each promotion control. Rows in the table determine which promotion is served in response to a price and availability request. Each control is associated either with a specific product ID or with all product IDs, and it has a priority and start and end dates that together determine the time interval in which the promotion is effective.

The ENABLED column is used to act as a flag that determines whether the promotion control should be used. In Release 6.3 and higher, MEMBER_LEVEL is an obsolete column. The primary key for this table is CONTROL_KEY.

TABLE 231. CMGT_PROMOTION_CONTROL Table

Name	Null?	Type
CONTROL_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(90)
PROMOTION_KEY	POSSIBLY NULL	NUMBER(20)
PRIORITY	POSSIBLY NULL	NUMBER(3)
START_DATE_ACTIVE	POSSIBLY NULL	DATE
END_DATE_ACTIVE	POSSIBLY NULL	DATE
ENABLED	POSSIBLY NULL	VARCHAR2(10)
PARTNER_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
PARTNER_TYPE	POSSIBLY NULL	VARCHAR2(60)
PARTNER_LEVEL_CODE	POSSIBLY NULL	NUMBER(20)

TABLE 231. CMGT_PROMOTION_CONTROL Table (Continued)

Name	Null?	Type
MEMBER_LEVEL	POSSIBLY NULL	VARCHAR2(60)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)

CMGT_PROMOTION_EVENT

CMGT_PROMOTION_EVENT records each time a promotion is viewed and each time a promotion is used to add a product to a cart.

TABLE 232. CMGT_PROMOTION_EVENT Table

Name	Null?	Type
PROMOTION_KEY	NOT NULL	NUMBER(20)
MATCH_COUNT	POSSIBLY NULL	NUMBER(20)
VIEW_COUNT	POSSIBLY NULL	NUMBER(20)
ADD_TO_CART_COUNT	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PROMOTION_X_SKU

CMGT_PROMOTION_X_SKU stores the assignment of promotions to product IDs. This information is used to determine which (if any) promotion should be displayed when a product ID is present in a product inquiry list or price and availability request. Its primary key is PROMOTION_KEY and SKU.

TABLE 233. CMGT_PROMOTION_X_SKU Table

Name	Null?	Type
PROMOTION_KEY	NOT NULL	NUMBER(20)
SKU	NOT NULL	VARCHAR2(120)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PROPERTIES

CMGT_PROPERTIES stores information relating to model properties. Its primary key is PROPERTY_KEY.

TABLE 234. CMGT_PROPERTIES Table

Name	Null?	Type
PROPERTY_KEY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(60)
PROPERTY_TYPE	NOT NULL	NUMBER(1)
DEFAULT_VALUE	POSSIBLY NULL	VARCHAR2(240)
PARENT_KEY	NOT NULL	NUMBER(20)
LOCALIZABLE	NOT NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PROPERTIES_LOCALE

CMGT_PROPERTIES_LOCALE stores locale-specific information about properties. Its primary key is PROPERTY_KEY and LOCALE.

TABLE 235. CMGT_PROPERTIES_LOCALE Table

Name	Null?	Type
PROPERTY_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
LOCALIZED_DEFAULT_VALUE	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PROPERTY_VALUES

CMGT_PROPERTY_VALUES stores information about the values properties can take. The IS_FORMULA column records whether the property value is calculated from a formula. Its primary key is PROPERTY_VALUE_KEY.

TABLE 236. CMGT_PROPERTY_VALUES Table

Name	Null?	Type
PROPERTY_VALUE_KEY	NOT NULL	NUMBER(20)
VERSION_KEY	NOT NULL	NUMBER(20)
ITEM_KEY	NOT NULL	NUMBER(20)
PROPERTY_KEY	NOT NULL	NUMBER(20)
VALUE	POSSIBLY NULL	VARCHAR2(240)
LOCALIZABLE	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
IS_FORMULA	POSSIBLY NULL	VARCHAR2(1)

CMGT_PROPERTY_VALUES_LOCALE

CMGT_PROPERTY_VALUES_LOCALE stores locale-specific information about property values. Its primary key is PROPERTY_VALUE_KEY and LOCALE.

TABLE 237. CMGT_PROPERTY_VALUES_LOCALE Table

Name	Null?	Type
PROPERTY_VALUE_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
LOCALIZED_DEFAULT_VALUE	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PROPOSAL

CMGT_PROPOSAL stores information about each lead proposal: these are inquiry lists associated with lead headers and lead details. The LEAD_KEY column links to the lead under which the proposal is created. Its primary key is CART_KEY.

TABLE 238. CMGT_PROPOSAL Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
LEAD_KEY	NOT NULL	NUMBER(20)
CART_NAME	POSSIBLY NULL	VARCHAR2(90)
CART_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
TOTAL	POSSIBLY NULL	FLOAT
CURRENCY_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
CONTACT_KEY	POSSIBLY NULL	NUMBER(20)
LAST_ACCESS_DATE	POSSIBLY NULL	DATE
LAST_ACCESSED_BY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
ROUTE_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
ROUTE_USER_KEY	POSSIBLY NULL	NUMBER(20)
ROUTE_NOTES	POSSIBLY NULL	VARCHAR2(480)
ROUTE_FROM_USER_KEY	POSSIBLY NULL	NUMBER(20)
ROUTE_DATE	POSSIBLY NULL	DATE
CUSTOMER_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
SOURCE_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
SOURCE_KEY	POSSIBLY NULL	NUMBER(20)
TOTAL_DISCOUNT	POSSIBLY NULL	FLOAT

TABLE 238. CMGT_PROPOSAL Table (Continued)

Name	Null?	Type
EXPECTED_CLOSE_DATE	POSSIBLY NULL	DATE
PROBABILITY_OF_SALE	POSSIBLY NULL	NUMBER(20)
PROPOSAL_STATUS_CODE	POSSIBLY NULL	NUMBER(20)

CMGT_PROPOSAL_EXTN

CMGT_PROPOSAL_EXTN stores information about each proposal. The Proposal data object extends the OrderInquiryList data object and most of the fields for a proposal are stored in the CMGT_OIL table. This table is used to store only those fields that are specific to proposals. Its primary key is CART_KEY; this provides the join to the related record in the CMGT_OIL table.

TABLE 239. CMGT_PROPOSAL_EXTN Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
EXPIRY_DATE	POSSIBLY NULL	DATE
CREATE_DATE	POSSIBLY NULL	DATE
RFQ_MEMO	POSSIBLY NULL	VARCHAR2(240)
RFQ_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
LEAD_KEY	POSSIBLY NULL	NUMBER(20)
TOTAL_DISCOUNT	POSSIBLY NULL	FLOAT
EXPECTED_CLOSE_DATE	POSSIBLY NULL	DATE
PROBABILITY_OF_SALE	POSSIBLY NULL	NUMBER(20)
PROPOSAL_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
PROPOSAL_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PROPOSAL_FIELD_SELECTION

CMGT_PROPOSAL_FIELD_SELECTION stores information about which fields are used in generating a proposal for a customer.

TABLE 240. CMGT_PROPOSAL_FIELD_SELECTION Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
TEMPLATE_KEY	POSSIBLY NULL	NUMBER(20)
CUSTOMER_NAME_FLAG	POSSIBLY NULL	NUMBER(1)
PROPOSAL_TITLE_FLAG	POSSIBLY NULL	NUMBER(1)
PROPOSAL_TITLE	POSSIBLY NULL	VARCHAR2(120)
GREETING_FLAG	POSSIBLY NULL	NUMBER(1)
GREETING	POSSIBLY NULL	VARCHAR2(480)
COMPANY_ADDRESS_FLAG	POSSIBLY NULL	NUMBER(1)
COMPANY_LOGO_FLAG	POSSIBLY NULL	NUMBER(1)
ACCOUNT_REP_FLAG	POSSIBLY NULL	NUMBER(1)
TERMS_AND_CONDITIONS_FLAG	POSSIBLY NULL	NUMBER(1)
TERMS_AND_CONDITIONS	POSSIBLY NULL	VARCHAR2(120)
TOTAL_PRICE_FLAG	POSSIBLY NULL	NUMBER(1)
TOTAL_DISCOUNT_FLAG	POSSIBLY NULL	NUMBER(1)
MAJOR_LI_PROD_ID_FLAG	POSSIBLY NULL	NUMBER(1)
MAJOR_LI_PROD_NAME_FLAG	POSSIBLY NULL	NUMBER(1)
MAJOR_LI_PROD_DESC_FLAG	POSSIBLY NULL	NUMBER(1)
MAJOR_LI_PRICE_FLAG	POSSIBLY NULL	NUMBER(1)
MAJOR_LI_DISCOUNT_FLAG	POSSIBLY NULL	NUMBER(1)
MINOR_LI_PROD_ID_FLAG	POSSIBLY NULL	NUMBER(1)
MINOR_LI_PROD_NAME_FLAG	POSSIBLY NULL	NUMBER(1)
MINOR_LI_PROD_DESC_FLAG	POSSIBLY NULL	NUMBER(1)
MINOR_LI_PRICE_FLAG	POSSIBLY NULL	NUMBER(1)
MINOR_LI_DISCOUNT_FLAG	POSSIBLY NULL	NUMBER(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE

TABLE 240. CMGT_PROPOSAL_FIELD_SELECTION Table (Continued)

Name	Null?	Type
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PROPOSAL_LI_AUXPRICE_EXTN

CMGT_PROPOSAL_LI_AUXPRICE_EXTN stores additional proposal/quote line item auxiliary price information not already in the CMGT_LI_AUX_PRICES table. Its primary key is LI_AUX_PRICE_KEY matching a row in the CMGT_LI_AUX_PRICES table. The DELTA column stores the discount amount.

TABLE 241. CMGT_PROPOSAL_LI_AUXPRICE_EXTN Table

Name	Null?	Type
LI_AUX_PRICE_KEY	NOT NULL	NUMBER(20)
DISCOUNT_ABS_FLAG	POSSIBLY NULL	NUMBER(1)
DELTA	POSSIBLY NULL	FLOAT
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1) DEFAULT 'Y'

CMGT_PROPOSAL_LINE_ITEMS

CMGT_PROPOSAL_LINE_ITEMS stores information about each line item in a proposal. The CART_KEY column links each line item to its proposal. The primary key is CART_LINE_KEY.

TABLE 242. CMGT_PROPOSAL_LINE_ITEMS Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
CART_LINE_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
SKU	POSSIBLY NULL	VARCHAR2(120)
QUANTITY	POSSIBLY NULL	NUMBER(20)
CONFIG_FLAG	POSSIBLY NULL	VARCHAR2(1)

TABLE 242. CMGT_PROPOSAL_LINE_ITEMS Table (Continued)

Name	Null?	Type
PARENT_KEY	POSSIBLY NULL	NUMBER(20)
CONFIG_CONTAINER	POSSIBLY NULL	VARCHAR2(50)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
CONFIG_ID	POSSIBLY NULL	VARCHAR2(25)
CONFIGURATION_KEY	POSSIBLY NULL	NUMBER(20)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
BUYER_SKU_AUTHORITY	POSSIBLY NULL	VARCHAR2(360)
LINE_TYPE	POSSIBLY NULL	NUMBER(1)
LINE_NAME	POSSIBLY NULL	VARCHAR2(121)
LIST_PRICE	POSSIBLY NULL	FLOAT
UNIT_LIST_PRICE	POSSIBLY NULL	FLOAT
MARKUP	POSSIBLY NULL	FLOAT
DISCOUNT	POSSIBLY NULL	FLOAT
SAVE_PRICE_FLAG	POSSIBLY NULL	NUMBER(1)
MARKUP_LIST_PRICE	POSSIBLY NULL	FLOAT
DISCOUNT_MARKUP_LIST_PRICE	POSSIBLY NULL	FLOAT
CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)
BELOW_LINE_FLAG	POSSIBLY NULL	NUMBER(1)
DO_NOT_DISPLAY_FLAG	POSSIBLY NULL	NUMBER(1)

CMGT_PROPOSAL_LI_EXTN

CMGT_PROPOSAL_LI_EXTN stores information about each proposal line item: it is used as an extension to the CMGT_OIL_LI table. Its primary key is CART_LINE_KEY: this provides the join to the corresponding record in the CMGT_OIL_LI table.

TABLE 243. CMGT_PROPOSAL_LI_EXTN Table

Name	Null?	Type
CART_LINE_KEY	NOT NULL	NUMBER(20)
USER_PRICE	POSSIBLY NULL	FLOAT
RFQ_COMMENT	POSSIBLY NULL	VARCHAR2(240)
RFQ_REASON_CODE	POSSIBLY NULL	NUMBER(20)

TABLE 243. CMGT_PROPOSAL_LI_EXTN Table (Continued)

Name	Null?	Type
UNIT_LIST_PRICE	POSSIBLY NULL	FLOAT
MARKUP	POSSIBLY NULL	FLOAT
DISCOUNT	POSSIBLY NULL	FLOAT
MARKUP_LIST_PRICE	POSSIBLY NULL	FLOAT
DISCOUNT_MARKUP_LIST_PRICE	POSSIBLY NULL	FLOAT
BELOW_LINE_FLAG	POSSIBLY NULL	NUMBER(1)
DO_NOT_DISPLAY_FLAG	POSSIBLY NULL	NUMBER(1)
DISCOUNT_ABS_FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_PROPOSAL_TEMPLATE

CMGT_PROPOSAL_TEMPLATE stores information about each template. Its primary key is TEMPLATE_KEY.

TABLE 244. CMGT_PROPOSAL_TEMPLATE Table

Name	Null?	Type
TEMPLATE_KEY	NOT NULL	NUMBER(20)
TEMPLATE_GROUP_KEY	POSSIBLY NULL	NUMBER(20)
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
TEMPLATE_DESC	POSSIBLY NULL	VARCHAR2(120)
TEMPLATE_FILE_NAME	POSSIBLY NULL	VARCHAR2(120)
TEMPLATE_TYPE	POSSIBLY NULL	VARCHAR2(120)
TEMPLATE_LOCALE	POSSIBLY NULL	VARCHAR2(120)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)

CMGT_PROPOSAL_TEMPLATE_GROUP

CMGT_PROPOSAL_TEMPLATE_GROUP stores data about each proposal template group. Its primary key is TEMPLATE_GROUP_KEY.

TABLE 245. CMGT_PROPOSAL_TEMPLATE_GROUP Table

Name	Null?	Type
TEMPLATE_GROUP_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
TEMPLATE_NAME	POSSIBLY NULL	VARCHAR2(120)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_QUERY_PAGE

CMGT_QUERY_PAGE is used to manage the display of information on each page of the Sterling Multi-Channel Selling Solution questionnaire. Each page belongs to a particular questionnaire identified by the QUESTIONNAIRE_KEY. The PAGE_TEMPLATE column is used to store the name of the JSP page that is used to render this questionnaire page.

The START_PAGE flag is used to identify which questionnaire page is the start page: the value 1 denotes the start page and all other pages must have the value 0.

TABLE 246. CMGT_QUERY_PAGE Table

Name	Null?	Type
QUERY_PAGE_KEY	NOT NULL	NUMBER(20)
START_PAGE	NOT NULL	NUMBER(1)
QUESTIONNAIRE_KEY	NOT NULL	NUMBER(20)
NAME	POSSIBLY NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
RESOURCE_KEY	NOT NULL	NUMBER(20)
NUMBER_OF_COLUMNS	NOT NULL	NUMBER(20)
PRODUCT_LIST_FLAG	NOT NULL	NUMBER(1)

TABLE 246. CMGT_QUERY_PAGE Table (Continued)

Name	Null?	Type
PAGE_TEMPLATE	POSSIBLY NULL	VARCHAR2(100)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

The QUESTIONNAIRE_KEY is a foreign key to the QUESTIONNAIRE_KEY column of the CMGT_QUESTIONNAIRE table.

CMGT_QUERY_PAGE_LOCALE

CMGT_QUERY_PAGE_LOCALE holds locale-specific information about questionnaire pages. The primary key is QUERY_PAGE_KEY and LOCALE.

TABLE 247. CMGT_QUERY_PAGE_LOCALE Table

Name	Null?	Type
QUERY_PAGE_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
NAME	NOT NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_QUERY_PAGE_X_CONDITION

CMGT_QUERY_PAGE_X_CONDITION maintains the assignment of questions to query pages.

TABLE 248. CMGT_QUERY_PAGE_X_CONDITION Table

Name	Null?	Type
QUERY_PAGE_KEY	NOT NULL	NUMBER(20)
CONDITION_KEY	NOT NULL	NUMBER(20)
SEQUENCE_ID	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

The QUERY_PAGE_KEY is a foreign key to the QUERY_PAGE_KEY column of the CMGT_QUERY_PAGE table. The CONDITION_KEY is a foreign key to the CONDITION_KEY column of the CMGT_CONDITION table.

CMGT_QUESTIONNAIRE

CMGT_QUESTIONNAIRE provides the basic information associated with each questionnaire.

TABLE 249. CMGT_QUESTIONNAIRE Table

NAME	Null?	TYPE
QUESTIONNAIRE_KEY	NOT NULL	NUMBER(20)
NAME	POSSIBLY NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
RESOURCE_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

CMGT_QUESTIONNAIRE_LOCALE

CMGT_QUESTIONNAIRE_LOCALE holds locale-specific information about the questionnaires. The primary key is QUESTIONNAIRE_KEY and LOCALE.

TABLE 250. CMGT_QUESTIONNAIRE_LOCALE Table

Name	Null?	Type
QUESTIONNAIRE_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
NAME	NOT NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_QUOTE_EXTN

CMGT_QUOTE_EXTN stores information about quotes that extends the information held in the CMGT_OIL table. Its primary key is CART_KEY and this is used to reference the corresponding record in the CMGT_OIL table.

TABLE 251. CMGT_QUOTE_EXTN Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
EXPIRY_DATE	NOT NULL	DATE
CREATE_DATE	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_QUOTE_LI_EXTN

CMGT_QUOTE_LI_EXTN holds information about quote line items that extends information held in the CMGT_OIL_LI table. Its primary key is CART_LINE_KEY.

TABLE 252. CMGT_QUOTE_LI_EXTN Table

Name	Null?	Type
CART_LINE_KEY	NOT NULL	NUMBER(20)
QUOTELI_EXTENSION_DUMMY	POSSIBLY NULL	VARCHAR2(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
QUOTE_PRICE	POSSIBLY NULL	FLOAT(126)

CMGT_RATING

CMGT_RATING contains the list of ratings for evaluating partner skills. The CMGT_PARTNERSKILLS table holds records that link skills and ratings. The primary key for this table is RATING_KEY.

TABLE 253. CMGT_RATING Table

Name	Null?	Type
RATING_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE

TABLE 253. CMGT_RATING Table (Continued)

Name	Null?	Type
CREATED_BY	POSSIBLY NULL	NUMBER(20)
RATING	POSSIBLY NULL	VARCHAR2(6)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_RATING_LOCALE

CMGT_RATING_LOCALE stores locale-specific information about each skill rating. The primary key is RATING_KEY and LOCALE.

TABLE 254. CMGT_RATING_LOCALE Table

Name	Null?	Type
RATING_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
RATING	NOT NULL	VARCHAR2(6)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_REGISTRY_EXTN

CMGT_REGISTRY_EXTN stores information related to gift registries. A registry is a list of items that a user may want someone else to purchase for him or her for a special occasion, such as the birth of a baby or a wedding.

Primary key is CART_KEY.

TABLE 255. CMGT_REGISTRY_EXTN Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
REGISTRY_TYPE_CODE	NOT NULL	NUMBER(20)
SHOWER_DATE	POSSIBLY NULL	DATE
SHOWER_LOCATION	POSSIBLY NULL	VARCHAR2(120)
WEDDING_LOCATION	POSSIBLY NULL	VARCHAR2(120)
ENGAGEMENT_DATE	POSSIBLY NULL	DATE

TABLE 255. CMGT_REGISTRY_EXTN Table (Continued)

Name	Null?	Type
BABY_GENDER	POSSIBLY NULL	NUMBER(20)
TOTAL_GUESTS	POSSIBLY NULL	NUMBER(20)
REWARD_NUMBER	POSSIBLY NULL	VARCHAR2(120)
CO_REGISTRANT_FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
CO_REGISTRANT_LAST_NAME	POSSIBLY NULL	VARCHAR2(90)
CO_REGISTRANT_PHONE	POSSIBLY NULL	VARCHAR2(30)
CO_REGISTRANT_EMAIL	POSSIBLY NULL	VARCHAR2(120)
ITEMS	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_REGISTRY_PHONES

CMGT_REGISTRY_PHONES stores phone contact information for the owner of a gift registry.

Primary key is PHONE_KEY.

TABLE 256. CMGT_REGISTRY_PHONES Table

Name	Null?	Type
PHONE_KEY	NOT NULL	NUMBER(20)
REGISTRY_KEY	NOT NULL	NUMBER(20)
PHONE_NUMBER	NOT NULL	VARCHAR2(30)
PHONE_TYPE_CODE	NOT NULL	NUMBER(20)
ACTIVE_FLAG	NOT NULL	VARCHAR2(1)

CMGT_RESOURCE

CMGT_RESOURCE is used to define resources such as data sheets that may be attached to products and features. The RESOURCE_TYPE_KEY identifies the resource type as defined in the CMGT_RESOURCE_TYPE table. The RESOURCE_KEY uniquely identifies each resource, and the locale-specific data is stored in the CMGT_RESOURCE_LOCALE table. You can associate resources

to product categories, products, features, feature types, conditions, and other business objects.

TABLE 257. CMGT_RESOURCE Table

Name	Null?	Type
RESOURCE_TYPE_KEY	NOT NULL	NUMBER(20)
RESOURCE_KEY	NOT NULL	NUMBER(20)
RESOURCE_VALUE	POSSIBLY NULL	VARCHAR2(120)
RESOURCE_LABEL	POSSIBLY NULL	VARCHAR2(120)
RESOURCE_DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

The RESOURCE_TYPE_KEY column may take the following values:

- 1020: Image
- 1101: Data sheet
- 1123: Long text
- 1124: Video
- 1126: Audio

CMGT_RESOURCE_LOCALE

CMGT_RESOURCE_LOCALE holds locale-specific information about resources. The primary key is RESOURCE_TYPE_KEY, RESOURCE_KEY, and LOCALE.

TABLE 258. CMGT_RESOURCE_LOCALE Table

Name	Null?	Type
RESOURCE_TYPE_KEY	NOT NULL	NUMBER(20)
RESOURCE_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
RESOURCE_VALUE	NOT NULL	VARCHAR2(120)
RESOURCE_LABEL	POSSIBLY NULL	VARCHAR2(120)
RESOURCE_DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_RESOURCE_TYPE

CMGT_RESOURCE_TYPE defines the available resource types.

TABLE 259. CMGT_RESOURCE_TYPE Table

Name	Null?	Type
RESOURCE_TYPE_KEY	NOT NULL	NUMBER(20)
RESOURCE_TYPE	NOT NULL	VARCHAR2(60)
LABEL	POSSIBLY NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

CMGT_RESOURCE_TYPE_LOCALE

CMGT_RESOURCE_TYPE_LOCALE holds locale-specific information about resources. The primary key is RESOURCE_TYPE_KEY and LOCALE.

TABLE 260. CMGT_RESOURCE_TYPE_LOCALE Table

Name	Null?	Type
RESOURCE_TYPE_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
LABEL	POSSIBLY NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_RETURNS

CMGT_RETURNS stores information about requested returns.

TABLE 261. CMGT_RETURNS Table

Name	Null?	Type
RETURN_KEY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

TABLE 261. CMGT_RETURNS Table (Continued)

Name	Null?	Type
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ORDER_KEY	NOT NULL	VARCHAR2(60)
RETURN_REQUEST_DATE	POSSIBLY NULL	DATE
RETURN_APPROVAL_DATE	POSSIBLY NULL	DATE
RETURN_STATUS	POSSIBLY NULL	NUMBER(20)
INTEGRATION_STATUS	POSSIBLY NULL	VARCHAR2(1)
RMA_NUMBER	POSSIBLY NULL	VARCHAR2(60)
RULE_ENGINE_RESULT	POSSIBLY NULL	VARCHAR2(50)
RULE_ENGINE_COMMENT	POSSIBLY NULL	VARCHAR2(250)
CART_KEY	POSSIBLY NULL	NUMBER(20)
EMAIL_ADDRESS	POSSIBLY NULL	VARCHAR2(120)
RETURN_TO_DATE	POSSIBLY NULL	DATE
RETURN_TO_TRACKING_NUMBER	POSSIBLY NULL	VARCHAR2(240)
RETURN_TO_MEMO	POSSIBLY NULL	VARCHAR2(240)
LAST_NAME	POSSIBLY NULL	VARCHAR2(90)
FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
MEMBER_LEVEL	POSSIBLY NULL	VARCHAR2(60)
WAREHOUSE_CODE	POSSIBLY NULL	VARCHAR2(90)
RETURN_TO_SHIPPING_METHOD_CODE	POSSIBLY NULL	NUMBER(20)
PARTNER_LEVEL_CODE	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)

CMGT_RETURN_LINE_ITEMS

CMGT_RETURN_LINE_ITEMS holds informations about the line items of a returns.

TABLE 262. CMGT_RETURN_LINE_ITEMS Table

Name	Null?	Type
RETURN_LINE_KEY	NOT NULL	NUMBER(20)
ORDER_LINE_KEY	POSSIBLY NULL	NUMBER(20)
RETURN_KEY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
SKU	POSSIBLY NULL	VARCHAR2(120)
RETURN_CODE	POSSIBLY NULL	NUMBER(20)
QUANTITY_RETURNED	POSSIBLY NULL	NUMBER(20)
SERIALIZABLE_FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
RETURN_REASON	POSSIBLY NULL	NUMBER(20)
RETURN_CRITERION	POSSIBLY NULL	NUMBER(20)

CMGT_RETURN_SERIAL_ITEMS

CMGT_RETURN_SERIAL_ITEMS holds informations about the serial numbers of line items of a returns.

TABLE 263. CMGT_RETURN_SERIAL_ITEMS Table

Name	Null?	Type
RETURN_SERIAL_KEY	NOT NULL	NUMBER(20)
ORDER_SERIAL_KEY	POSSIBLY NULL	NUMBER(20)
RETURN_LINE_KEY	POSSIBLY NULL	NUMBER(20)
SERIAL_NUMBER	POSSIBLY NULL	VARCHAR2(30)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE

TABLE 263. CMGT_RETURN_SERIAL_ITEMS Table (Continued)

Name	Null?	Type
CREATED_BY	NOT NULL	NUMBER(20)
RETURN_CODE	POSSIBLY NULL	NUMBER(20)
RETURN_REASON	POSSIBLY NULL	NUMBER(20)
RETURN_CRITERION	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_RFQ_EXTN

CMGT_RFQ_EXTN stores information about requests for quotes that extends the information held in the CMGT_OIL table. Its primary key is CART_KEY and this is used to reference the corresponding record in the CMGT_OIL table.

TABLE 264. CMGT_RFQ_EXTN Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
RFQ_MEMO	POSSIBLY NULL	VARCHAR2(240)
RFQ_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_RFQ_LI_EXTN

CMGT_RFQ_LI_EXTN holds information about line items for requests for quote that extends the information held in the CMGT_OIL_LI table. Its primary key is CART_LINE_KEY.

TABLE 265. CMGT_RFQ_LI_EXTN Table

Name	Null?	Type
CART_LINE_KEY	NOT NULL	NUMBER(20)
USER_PRICE	POSSIBLY NULL	FLOAT
CSR_PRICE	POSSIBLY NULL	FLOAT
USER_REASON	POSSIBLY NULL	VARCHAR2(60)
RFQ_COMMENT	POSSIBLY NULL	VARCHAR2(240)
RFQ_REASON_CODE	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_RULE

CMGT_RULE manages the definition of each rule used by the Advisor questionnaire.

TABLE 266. CMGT_RULE Table

Name	Null?	Type
RULE_KEY	NOT NULL	NUMBER(20)
RULE_SET_KEY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
SALIENCE	NOT NULL	NUMBER(20)
QUERY_PAGE_KEY	POSSIBLY NULL	NUMBER(20)
ACTION	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

CMGT_RULE_ACTION

CMGT_RULE_ACTION stores information the action to be taken when a model rule fires. Its primary key is RULE_ACTION_KEY.

TABLE 267. CMGT_RULE_ACTION Table

Name	Null?	Type
RULE_ACTION_KEY	NOT NULL	NUMBER(20)
CONFIG_RULE_KEY	NOT NULL	NUMBER(20)
ACTION_TYPE	NOT NULL	NUMBER(1)
FORMULA	POSSIBLY NULL	VARCHAR2(240)
RESULT_MIN	POSSIBLY NULL	NUMBER(20)
RESULT_MAX	POSSIBLY NULL	NUMBER(20)
QUANTITY	POSSIBLY NULL	NUMBER(20)
ITEM	POSSIBLY NULL	VARCHAR2(240)
MESSAGE_TYPE	POSSIBLY NULL	NUMBER(20)
PROPERTY_NAME	POSSIBLY NULL	VARCHAR2(240)
PROPERTY_VALUE	POSSIBLY NULL	VARCHAR2(240)

TABLE 267. CMGT_RULE_ACTION Table (Continued)

Name	Null?	Type
SEQUENCE_NUMBER	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_RULE_ACTION_LOCALE

CMGT_RULE_ACTION_LOCALE holds locale-specific information about rule actions. Its primary key is RULE_ACTION_KEY and LOCALE.

TABLE 268. CMGT_RULE_ACTION_LOCALE Table

Name	Null?	Type
RULE_ACTION_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
MESSAGE	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_RULE_CLASSIFICATIONS

CMGT_RULE_CLASSIFICATIONS holds information about each rule classification.

TABLE 269. CMGT_RULE_CLASSIFICATIONS Table

Name	Null?	Type
RULE_CLASSIFICATION_NAME	POSSIBLY NULL	VARCHAR2(120)
RULE_CLASSIFICATION_DESC	POSSIBLY NULL	VARCHAR2(120)
RULE_CLASSIFICATION_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_RULE_FRAGMENTS

CMGT_RULE_FRAGMENTS holds the fragments of each rule. For each fragment, the CONFIG_RULE_KEY column specifies the rule to which it belongs. Its primary key is FRAGMENT_KEY.

TABLE 270. CMGT_RULE_FRAGMENTS Table

Name	Null?	Type
FRAGMENT_KEY	NOT NULL	NUMBER(20)
CONFIG_RULE_KEY	NOT NULL	NUMBER(20)
SEQUENCE_NUMBER	NOT NULL	NUMBER(20)
FRAGMENT_TYPE	NOT NULL	NUMBER(1)
BOOL_OP	POSSIBLY NULL	NUMBER(1)
FUNCTION1	POSSIBLY NULL	VARCHAR2(60)
PROPERTY1	POSSIBLY NULL	VARCHAR2(240)
OPERATOR	POSSIBLY NULL	NUMBER(1)
FUNCTION2	POSSIBLY NULL	VARCHAR2(60)
PROPERTY2	POSSIBLY NULL	VARCHAR2(240)
NULL_ACTION	POSSIBLY NULL	NUMBER(20)
PARENT_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
MODEL_NAME	POSSIBLY NULL	VARCHAR2(256)
MODELID1	POSSIBLY NULL	NUMBER(20)
MODELID2	POSSIBLY NULL	NUMBER(20)

CMGT_RULE_LOCALE

CMGT_RULE_LOCALE holds locale-specific information about rules. Its primary key is RULE_KEY and LOCALE. Its primary key is RULE_KEY and LOCALE.

TABLE 271. CMGT_RULE_LOCALE Table

Name	Null?	Type
RULE_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)

TABLE 271. CMGT_RULE_LOCALE Table (Continued)

Name	Null?	Type
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_RULE_SET

CMGT_RULE_SET manages the definition of each rule set used by the Advisor questionnaire.

TABLE 272. CMGT_RULE_SET Table

Name	Null?	Type
RULE_SET_KEY	NOT NULL	NUMBER(20)
QUESTIONNAIRE_KEY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

CMGT_RULE_SET_LOCALE

CMGT_RULE_SET_LOCALE holds locale-specific information about rule sets. Its primary key is RULE_SET_KEY and LOCALE.

TABLE 273. CMGT_RULE_SET_LOCALE Table

Name	Null?	Type
RULE_SET_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_RULE_X_FACT

CMGT_RULE_X_FACT manages the assignment of facts to rules used by the Advisor questionnaire.

TABLE 274. CMGT_RULE_X_FACT Table

Name	Null?	Type
RULE_KEY	NOT NULL	NUMBER(20)
FACT_KEY	NOT NULL	NUMBER(20)
IF_THEN	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
STATUS	NOT NULL	NUMBER(20)

CMGT_RULE_X_FIRINGPHASE

CMGT_RULE_X_FIRINGPHASE maps rules to the firing phase on which the rule should fire. A rule can be linked to more than one firing phase.

TABLE 275. CMGT_RULE_X_FIRINGPHASE

Name	Null?	Type
CONFIG_RULE_KEY	NOT NULL	NUMBER(20)
FIRING_PHASE_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1) DEFAULT 'Y'

CMGT_SALES_CONTRACT_EXTN

CMGT_SALES_CONTRACT_EXTN holds information about each sales contract. The Sales Contract data object extends the Order Inquiry List data object and so this table holds information which is specific to sales contracts. The primary key is CART_KEY.

TABLE 276. CMGT_SALES_CONTRACT_EXTN Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
SALES_CONTRACT_STATUS	POSSIBLY NULL	NUMBER(20)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
ATTACHED_DOC_LINK	POSSIBLY NULL	VARCHAR2(240)

TABLE 276. CMGT_SALES_CONTRACT_EXTN Table (Continued)

Name	Null?	Type
FULFILLED	POSSIBLY NULL	VARCHAR2(1)
SALES_CONTRACT_TYPE	POSSIBLY NULL	NUMBER(20)
OFFER_EXPIRY_DATE	POSSIBLY NULL	DATE
CONTRACT_START_DATE	POSSIBLY NULL	DATE
CONTRACT_END_DATE	POSSIBLY NULL	DATE
FREIGHT_TERMS	POSSIBLY NULL	NUMBER(20)
PAYMENT_TERMS	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_SALES_CONTRACT_LI_EXTN

CMGT_SALES_CONTRACT_LI_EXTN holds information about sales contract line item. The SalesContractLineItem data object extends the OrderInquiryListLineItem data object and so this table holds information which is specific to sales contract line items. The primary key is CART_LINE_KEY.

TABLE 277. CMGT_SALES_CONTRACT_LI_EXTN Table

Name	Null?	Type
CART_LINE_KEY	NOT NULL	NUMBER(20)
MEMO	POSSIBLY NULL	VARCHAR2(240)
DELIVERY_DATE	POSSIBLY NULL	DATE
REQUESTED_DATE	POSSIBLY NULL	DATE
TOTAL_AMOUNT	POSSIBLY NULL	FLOAT
CONTRACT_PRICE	POSSIBLY NULL	FLOAT
ORDERED_QUANTITY	POSSIBLY NULL	NUMBER(20)
FULFILLED	POSSIBLY NULL	VARCHAR2(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_SEGMENT_ORDER

CMGT_SEGMENT_ORDER is a View of data from the CMGT_OIL and CGMT_ORDER_EXTN tables. CMGT_SEGMENT_ORDER contains information about amounts ordered by users.

The OIL_TOTAL field is the value of items in a cart from CGMT_OIL.TOTAL. The TOTAL_AMOUNT field is the Total value of order (including shipping and tax) taken from CGMT_ORDER_EXTN.TOTAL_AMOUNT.

TABLE 278. CMGT_SEGMENT_ORDER Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
USER_KEY	NOT NULL	NUMBER(20)
OIL_TOTAL	POSSIBLY NULL	FLOAT(126)
TOTAL_AMOUNT	POSSIBLY NULL	FLOAT
CREATION_DATE	POSSIBLY NULL	DATE

CMGT_SEGMENT_ORDER_LINE

CMGT_SEGMENT_ORDER_LINE is a View of data from the CMGT_OIL_LI and CGMT_ORDER_LI_EXTN tables. CMGT_SEGMENT_ORDER_LINE contains information about the line items of an inquiry list.

TABLE 279. CMGT_SEGMENT_ORDER_LINE Table

Name	Null?	Type
CART_LINE_KEY	NOT NULL	NUMBER(20)
CART_KEY	POSSIBLY NULL	NUMBER(20)
SKU	POSSIBLY NULL	VARCHAR2(120)
OIL_LI_TOTAL_AMOUNT	POSSIBLY NULL	FLOAT
QUANTITY	POSSIBLY NULL	NUMBER(20)
PARENT_KEY	POSSIBLY NULL	NUMBER(20)
ORDER_PRICE	POSSIBLY NULL	FLOAT(126)
CREATION_DATE	POSSIBLY NULL	DATE

CMGT_SERVER_INFO

CMGT_SERVER_INFO holds information about the Sterling Multi-Channel Selling Solution server.

TABLE 280. CMGT_SERVER_INFO Table

Name	Null?	Type
SERVER_ID	NOT NULL	VARCHAR2(32)
SERVER_URL	POSSIBLY NULL	VARCHAR2(256)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_SERVICE_CONTRACT_EXTN

CMGT_SERVICE_CONTRACT_EXTN stores information about service contracts that extends the information stored in the CMGT_OIL table. Its primary key is CART_KEY, which links the information to a row in the CMGT_OIL table.

TABLE 281. CMGT_SERVICE_CONTRACT_EXTN Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
SOURCE_ORDER_KEY	POSSIBLY NULL	NUMBER(20)
SOURCE_ORDER_LI_KEY	POSSIBLY NULL	NUMBER(20)
SERVICE_CONTRACT_STATUS	POSSIBLY NULL	NUMBER(20)
EARLIEST_END_DATE	POSSIBLY NULL	DATE
LATEST_END_DATE	POSSIBLY NULL	DATE
PARTNER_REF_NUMBER	POSSIBLY NULL	VARCHAR2(120)
INTEGRATION_STATUS	POSSIBLY NULL	VARCHAR2(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1) DEFAULT 'Y'

CMGT_SERVICE_CONTRACT_LI_EXTN

CMGT_SERVICE_CONTRACT_LI_EXTN stores information about service contract line items that extend the information stored in the CMGT_OIL_LI table.

Its primary key is CART_LINE_KEY, which links the information to a row in the CMGT_OIL_LI table.

TABLE 282. CMGT_SERVICE_CONTRACT_LI_EXTN Table

Name	Null?	Type
CART_LINE_KEY	NOT NULL	NUMBER(20)
CONTRACT_PRICE	POSSIBLY NULL	FLOAT(126)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1) DEFAULT 'Y'

CMGT_SERVICES

CMGT_SERVICES contains the list of services offered by partners and a description of each service. This table is used in conjunction with the CMGT_PARTNERSERVICES table which associates services with each partner. The primary key for this table is SERVICE_KEY.

TABLE 283. CMGT_SERVICES Table

Name	Null?	Type
SERVICE_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
SERVICE_NAME	POSSIBLY NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_SERVICES_LOCALE

CMGT_SERVICES_LOCALE stores locale-specific information about each service. The primary key is SERVICE_KEY and LOCALE.

TABLE 284. CMGT_SERVICES_LOCALE Table

Name	Null?	Type
SERVICE_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)

TABLE 284. CMGT_SERVICES_LOCALE Table (Continued)

Name	Null?	Type
SERVICE_NAME	NOT NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_SKILLS

CMGT_SKILLS contains the list of skills. It is used in conjunction with the CMGT_PARTNERSKILLS table which associates skills with each partner. The primary key for this table is SKILL_KEY.

TABLE 285. CMGT_SKILLS Table

Name	Null?	Type
SKILL_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
SKILL	POSSIBLY NULL	VARCHAR2(120)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_SKILLS_LOCALE

CMGT_SKILLS_LOCALE stores locale-specific information about each service. The primary key is SKILL_KEY and LOCALE.

TABLE 286. CMGT_SKILLS_LOCALE Table

Name	Null?	Type
SKILL_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
SKILL	NOT NULL	VARCHAR2(120)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)

TABLE 286. CMGT_SKILLS_LOCALE Table (Continued)

Name	Null?	Type
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_SKU_MAPPING

CMGT_SKU_MAPPING is used to map between different enterprise product IDs. The STOREFRONT_KEY column tracks the storefront within which the mapping is defined.

TABLE 287. CMGT_SKU_MAPPING Table

Name	Null?	Type
SKU_MAPPING_KEY	NOT NULL	NUMBER(20)
SKU	NOT NULL	VARCHAR2(120)
DISTI_SKU	NOT NULL	VARCHAR2(120)
SKU_AUTHORITY	POSSIBLY NULL	VARCHAR2(255)
SELLER_KEY	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)

CMGT_STORE_FACADE

CMGT_STORE_FACADE store information about each storefront skin. The URL_NAME column stores the string used to identify the skin in URLs.

TABLE 288. CMGT_STORE_FACADE Table

Name	Null?	Type
FACADE_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	NOT NULL	NUMBER(20)

TABLE 288. CMGT_STORE_FACADE Table (Continued)

Name	Null?	Type
DISTI_LOGO_URL	POSSIBLY NULL	VARCHAR2(240)
URL_NAME	POSSIBLY NULL	VARCHAR2(64)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)

CMGT_SVC_CONT_HIST_HEADER

CMGT_SVC_CONT_HIST_HEADER stores the header information for the service contract modification history. Its primary key is HISTORY_HEADER_KEY. One row is created in this table for each batch of changes to record by whom (UPDATED_BY), when (UPDATE_DATE), and why (COMMENTS) the batch of changes was made. Specific details of the change are stored in the CMGT_SVC_CONT_HIST_LINE table.

TABLE 289. CMGT_SVC_CONT_HIST_HEADER

Name	Null?	Type
HISTORY_HEADER_KEY	NOT NULL	NUMBER(20)
SERVICE_CONTRACT_KEY	POSSIBLY NULL	NUMBER(20)
COMMENTS	POSSIBLY NULL	VARCHAR2(2000)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1) DEFAULT 'Y'

CMGT_SVC_CONT_HIST_LINE

CMGT_SVC_CONT_HIST_LINE stores the specific details of changes to the service contract modification history. Its primary key is HISTORY_LINE_KEY, and the HISTORY_HEADER_KEY is used to join all detail lines of a change batch to the header for that batch in CMGT_SVC_CONT_HIST_HEADER. The meaning for the values of the CHANGE_TYPE codes can be found in CMGT_LOOKUPS using a LOOKUP_TYPE of “ServiceContractHistoryType”.

TABLE 290. CMGT_SVC_CONT_HIST_LINE

Name	Null?	Type
HISTORY_LINE_KEY	NOT NULL	NUMBER(20)
HISTORY_HEADER_KEY	POSSIBLY NULL	NUMBER(20)
CHANGE_TYPE	NOT NULL	NUMBER(20)
FIELD_NAME	POSSIBLY NULL	VARCHAR2(240)
OLD_VALUE	POSSIBLY NULL	VARCHAR2(240)
NEW_VALUE	POSSIBLY NULL	VARCHAR2(240)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1) DEFAULT 'Y'

CMGT_SYS_PROPERTIES

CMGT_SYS_PROPERTIES stores the values for system properties for each storefront.

TABLE 291. CMGT_SYS_PROPERTIES Table

Name	Null?	Type
SYS_PROPERTY_KEY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(240)
PARENT_KEY	POSSIBLY NULL	NUMBER(20)

TABLE 291. CMGT_SYS_PROPERTIES Table (Continued)

Name	Null?	Type
IS_NODE	POSSIBLY NULL	NUMBER(1)
VALUE	POSSIBLY NULL	VARCHAR2(2048)
DEFAULT_VALUE	POSSIBLY NULL	VARCHAR2(1024)
VALUE_TYPE	POSSIBLY NULL	VARCHAR2(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_SYS_PROPERTY_LOCALE

CMGT_SYS_PROPERTY_LOCALE stores locale-specific information for each system property.

TABLE 292. CMGT_SYS_PROPERTY_LOCALE Table

Name	Null?	Type
SYS_PROPERTY_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
TEXT_TYPE	NOT NULL	VARCHAR2(128)
VALUE	POSSIBLY NULL	VARCHAR2(1024)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_SYS_PROPERTY_UI_HINTS

CMGT_SYS_PROPERTY_UI_HINTS stores information that controls how the system properties are displayed in the UI.

TABLE 293. CMGT_SYS_PROPERTY_UI_HINTS Table

Name	Null?	Type
SYS_PROPERTY_KEY	NOT NULL	NUMBER(20)
HINT_TYPE	NOT NULL	VARCHAR2(64)

TABLE 293. CMGT_SYS_PROPERTY_UI_HINTS Table (Continued)

Name	Null?	Type
VALUE	POSSIBLY NULL	VARCHAR2(1024)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_TABLE_RULES

CMGT_TABLE_RULES stores information about the tables of rules used in models. Its primary key is TABLE_RULE_KEY.

TABLE 294. CMGT_TABLE_RULES Table

Name	Null?	Type
TABLE_RULE_KEY	NOT NULL	NUMBER(20)
ITEM_KEY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(120)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
MESSAGE_TYPE	POSSIBLY NULL	NUMBER(1)
START_DATE	NOT NULL	DATE
END_DATE	NOT NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
DISABLE_FLG	POSSIBLY NULL	VARCHAR2(1)

CMGT_TABLE_RULES_LOCALE

CMGT_TABLE_RULES_LOCALE stores locale-specific information about table rules. Its primary key is TABLE_RULE_KEY and LOCALE.

TABLE 295. CMGT_TABLE_RULES_LOCALE Table

Name	Null?	Type
TABLE_RULE_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
ERROR_MESSAGE	POSSIBLY NULL	VARCHAR2(480)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_TABLE_RULE_CELL_DATA

CMGT_TABLE_RULE_CELL_DATA stores information about the cells of the rules table. Each table rule may have several table rows and they are linked through the TABLE_RULE_KEY. Its primary key is TABLE_RULE_COLUMN_KEY.

TABLE 296. CMGT_TABLE_RULE_CELL_DATA Table

Name	Null?	Type
TABLE_RULE_CELL_DATA_KEY	NOT NULL	NUMBER(20)
TABLE_RULE_ROW_KEY	POSSIBLY NULL	NUMBER(20)
TABLE_RULE_COLUMN_KEY	POSSIBLY NULL	NUMBER(20)
ITEM_KEY	POSSIBLY NULL	NUMBER(20)
ITEM_PATH	POSSIBLY NULL	VARCHAR2(512)
CLEANUP_COMPUTED	POSSIBLY NULL	VARCHAR2(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_TABLE_RULE_COLUMNS

CMGT_TABLE_RULE_COLUMNS stores information about the rows of the table rules. Each table rule may have several table columns and they are linked through the TABLE_RULE_KEY. Its primary key is TABLE_RULE_COLUMN_KEY.

TABLE 297. CMGT_TABLE_RULE_COLUMNS Table

Name	Null?	Type
TABLE_RULE_COLUMN_KEY	NOT NULL	NUMBER(20)
TABLE_RULE_KEY	POSSIBLY NULL	NUMBER(20)
ITEM_KEY	POSSIBLY NULL	NUMBER(20)
COLUMN_NUMBER	POSSIBLY NULL	NUMBER(20)
ITEM_PATH	POSSIBLY NULL	VARCHAR2(512)
CLEANUP_COMPUTED	POSSIBLY NULL	VARCHAR2(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_TABLE_RULE_ROWS

CMGT_TABLE_RULE_ROWS stores information about the rows of the table rules. Each table rule may have several table rows and they are linked through the TABLE_RULE_KEY. Its primary key is TABLE_RULE_ROW_KEY.

TABLE 298. CMGT_TABLE_RULE_ROWS Table

Name	Null?	Type
TABLE_RULE_ROW_KEY	NOT NULL	NUMBER(20)
TABLE_RULE_KEY	NOT NULL	NUMBER(20)
SEQUENCE_NUMBER	POSSIBLY NULL	NUMBER(20)
COMPATIBLE	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_TASK

CMGT_TASK stores information about the tasks performed by users.

TABLE 299. CMGT_TASK Table

Name	Null?	Type
TASK_KEY	NOT NULL	NUMBER(20)
NAME	POSSIBLY NULL	VARCHAR2(120)
SUMMARY	POSSIBLY NULL	VARCHAR2(480)
DUE_DATE	POSSIBLY NULL	DATE
STATUS	POSSIBLY NULL	NUMBER(20)
PRIORITY	POSSIBLY NULL	NUMBER(20)
FUNCTION_NAME	POSSIBLY NULL	VARCHAR2(60)
CREATION_KEY	POSSIBLY NULL	NUMBER(20)
CREATION_TYPE	POSSIBLY NULL	NUMBER(20)
TASK_TYPE	POSSIBLY NULL	NUMBER(20)
EMAIL_FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)

TABLE 299. CMGT_TASK Table (Continued)

Name	Null?	Type
OWNED_BY	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)

CMGT_TASK_NOTE

CMGT_TASK_NOTE stores notes that users make as they work tasks.

TABLE 300. CMGT_TASK_NOTE Table

Name	Null?	Type
TASK_KEY	POSSIBLY NULL	NUMBER(20)
NOTE_KEY	NOT NULL	NUMBER(20)
TEXT	POSSIBLY NULL	VARCHAR2(1024)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
PRIVATE_FLAG	POSSIBLY NULL	NUMBER(1)

CMGT_TASK_X_URL

CMGT_TASK_X_URL stores URLs associated with tasks.

TABLE 301. CMGT_TASK_X_URL Table

Name	Null?	Type
TASK_KEY	NOT NULL	NUMBER(20)
URL	NOT NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)

TABLE 301. CMGT_TASK_X_URL Table (Continued)

Name	Null?	Type
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)

CMGT_TASK_X_WATCHER

CMGT_TASK_X_WATCHER stores information about which users are assigned to be watchers on a particular task.

TABLE 302. CMGT_TASK_X_WATCHER Table

Name	Null?	Type
TASK_KEY	NOT NULL	NUMBER(20)
USER_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)

CMGT_TEMPLATE_EXTN

CMGT_TEMPLATE_EXTN stores information about a template. A template is a list of items that a user purchases frequently. A user may then easily copy items from the template to the cart.

Primary key is CART_KEY.

TABLE 303. CMGT_TEMPLATE_EXTN Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
REMINDER_FREQUENCY_CODE	POSSIBLY NULL	NUMBER(20)
REMINDER_FREQUENCY_OCCURENCE	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_TERRITORIES

CMGT_TERRITORIES holds information about territories. It is used in conjunction with the CMGT_PARTNER_TERRITORIES table which associates territories with each partner. The primary key for this table is TERRITORY_KEY.

TABLE 304. CMGT_TERRITORIES Table

Name	Null?	Type
TERRITORY_KEY	NOT NULL	NUMBER(20)
TERRITORY_NAME	POSSIBLY NULL	VARCHAR2(90)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
ALTERNATE_TERRITORY_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_TERRITORIES_LOCALE

CMGT_TERRITORIES_LOCALE stores locale-specific information about each vertical market. The primary key is TERRITORY_KEY and LOCALE.

TABLE 305. CMGT_TERRITORIES_LOCALE Table

Name	Null?	Type
TERRITORY_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
TERRITORY_NAME	NOT NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_TR_CELLS_ANCESTORS

CMGT_TR_CELLS_ANCESTORS holds information about table rules by defining its parent and child relationships. This table and the CMGT_TR_CELL_CLEANUP table are used to manage cleaning up the constraint

tables when option classes are deleted. Its primary key is TABLE_RULE_COLUMN_KEY.

TABLE 306. CMGT_TR_CELLS_ANCESTORS Table

Name	Null?	Type
TABLE_RULE_COLUMN_KEY	NOT NULL	NUMBER(20)
PARENT_KEY	POSSIBLY NULL	NUMBER(20)
CHILD_KEY	POSSIBLY NULL	NUMBER(20)

CMGT_TR_CELL_CLEANUP

CMGT_TR_CELL_CLEANUP stores information about the cleanup of table rule cells. This table and the CMGT_TR_CELLS_ANCESTORS table are used to manage cleaning up the constraint tables when option classes are deleted. Its primary key is CELL_CLEANUP_KEY.

TABLE 307. CMGT_TR_CELL_CLEANUP Table

Name	Null?	Type
CELL_CLEANUP_KEY	NOT NULL	NUMBER(20)
TABLE_RULE_COLUMN_KEY	NOT NULL	NUMBER(20)
REF_ITEM_KEY	NOT NULL	NUMBER(20)
TABLE_RULE_CELL_DATA_KEY	NOT NULL	NUMBER(20)
COL_CLEANUP_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_TR_COL_CLEANUP

CMGT_TR_COL_CLEANUP stores information about table rules. This table and the CMGT_TR_CELLS_ANCESTORS table are used to manage cleaning up the constraint tables when option classes are deleted. Its primary key is COL_CLEANUP_KEY.

TABLE 308. CMGT_TR_COL_CLEANUP Table

Name	Null?	Type
COL_CLEANUP_KEY	NOT NULL	NUMBER(20)
TABLE_RULE_COLUMN_KEY	NOT NULL	NUMBER(20)

TABLE 308. CMGT_TR_COL_CLEANUP Table (Continued)

Name	Null?	Type
REF_ITEM_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_UNIVERSAL_RESOURCE

CMGT_UNIVERSAL_RESOURCE stores information about each resource.

TABLE 309. CMGT_UNIVERSAL_RESOURCE Table

Name	Null?	Type
RESOURCE_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_UPDATED_ENTITY

CMGT_UPDATED_ENTITY is a View of data from the CMGT_ENTITY_UPDATED_LOG, CMGT_PRODUCT_X_FEATURE, CMGT_PRDCT_CAT_X_PRDCT, and CMGT_PRICELIST_LINES tables.

TABLE 310. CMGT_UPDATED_ENTITY Table

Name	Null?	Type
LIST_ID	POSSIBLY NULL	NUMBER(20)
ENTITY_ID	POSSIBLY NULL	VARCHAR2(120)
UPDATED_ENTITY_TYPE	NOT NULL	VARCHAR2(40)
UPDATE_SOURCE	POSSIBLY NULL	VARCHAR2(40)
UPDATE_OP	NOT NULL	VARCHAR2(10)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
LOCALE	POSSIBLY NULL	VARCHAR2(10)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_UPLOADED_MAIL_MEMBERS

CMGT_UPLOADED_MAIL_MEMBERS stores information about the names and addresses uploaded for use in campaigns. Every record must have an email address. Its primary key is MAILING_LIST_MEMBER_KEY.

TABLE 311. CMGT_UPLOADED_MAIL_MEMBERS Table

Name	Null?	Type
MAILING_LIST_KEY	POSSIBLY NULL	NUMBER(20)
MAILING_LIST_MEMBER_KEY	NOT NULL	NUMBER(20)
FIRST_NAME	POSSIBLY NULL	VARCHAR2(240)
LAST_NAME	POSSIBLY NULL	VARCHAR2(240)
EMAIL_ADDRESS	NOT NULL	VARCHAR2(120)
COMPANY	POSSIBLY NULL	VARCHAR2(90)
TITLE	POSSIBLY NULL	VARCHAR2(30)
JOB_TITLE	POSSIBLY NULL	VARCHAR2(60)
DEPARTMENT	POSSIBLY NULL	VARCHAR2(120)
PHONE_NUMBER	POSSIBLY NULL	VARCHAR2(30)
LOCALE_NAME	POSSIBLY NULL	VARCHAR2(10)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_USER_CONTACTS

CMGT_USER_CONTACTS stores your user information. You need one row for each user. The primary key for this table is USER_KEY.

TABLE 312. CMGT_USER_CONTACTS Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
USER_NAME	POSSIBLY NULL	VARCHAR2(60)

TABLE 312. CMGT_USER_CONTACTS Table (Continued)

Name	Null?	Type
PASSWORD	POSSIBLY NULL	VARCHAR2(60)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
CURRENCY	POSSIBLY NULL	VARCHAR2(60)
COUNTRY	POSSIBLY NULL	VARCHAR2(60)
PRICE_LIST_ID	POSSIBLY NULL	NUMBER(20)
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
ROLES	POSSIBLY NULL	VARCHAR2(720)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
STATUS	POSSIBLY NULL	VARCHAR2(6)
LAST_NAME	NOT NULL	VARCHAR2(90)
FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
TITLE_CODE	POSSIBLY NULL	NUMBER(20)
TITLE	POSSIBLY NULL	VARCHAR2(30)
SUFFIX	POSSIBLY NULL	VARCHAR2(30)

TABLE 312. CMGT_USER_CONTACTS Table (Continued)

Name	Null?	Type
JOB_TITLE	POSSIBLY NULL	VARCHAR2(60)
EMAIL_ADDRESS	POSSIBLY NULL	VARCHAR2(120)
SEX	POSSIBLY NULL	VARCHAR2(120)
CERTIFICATION	POSSIBLY NULL	VARCHAR2(60)
EMP_STATUS	POSSIBLY NULL	VARCHAR2(60)
DEPT_KEY	POSSIBLY NULL	NUMBER(20)
PAYMENT_TYPE	POSSIBLY NULL	NUMBER(20)
PAYMENT_NUMBER	POSSIBLY NULL	VARCHAR2(120)
PAYMENT_EXPIRATION_DATE	POSSIBLY NULL	DATE
CREDIT_CARD_TYPE	POSSIBLY NULL	NUMBER(20)
CREDIT_CARD_HOLDER	POSSIBLY NULL	VARCHAR2(120)
CREDIT_CARD_HOLDER_FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
CREDIT_CARD_HOLDER_MIDDLE_NAME	POSSIBLY NULL	VARCHAR2(90)
CREDIT_CARD_HOLDER_LAST_NAME	POSSIBLY NULL	VARCHAR2(90)
ORIG_SYSTEM_REF	POSSIBLY NULL	VARCHAR2(90)
LOCALE_NAME	POSSIBLY NULL	VARCHAR2(10)
COUNTRY_CODE	POSSIBLY NULL	NUMBER(20)

TABLE 312. CMGT_USER_CONTACTS Table (Continued)

Name	Null?	Type
SPENDING_LIMIT	POSSIBLY NULL	FLOAT
SPENDING_LIMIT_CURRENCY_CODE	POSSIBLY NULL	VARCHAR2(10)
APPROVER	POSSIBLY NULL	NUMBER(20)
PROXY_FOR_LIST	POSSIBLY NULL	VARCHAR2(120)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
SECRET_QUESTION_CODE	POSSIBLY NULL	NUMBER(20)
SECRET_ANSWER	POSSIBLY NULL	VARCHAR2(120)
NEW_PASSWORD_FLAG	POSSIBLY NULL	VARCHAR2(10)
USER_TYPE	NOT NULL	VARCHAR2(128)
USER_STATUS	POSSIBLY NULL	NUMBER(20)
MAX_PCT_LINE_DISCOUNT	POSSIBLY NULL	FLOAT(126)
MAX_PCT_ORDER_DISCOUNT	POSSIBLY NULL	FLOAT(126)
AWAY_FLAG	POSSIBLY NULL	NUMBER(1)
MAX_ACCOUNTS	POSSIBLY NULL	NUMBER(20)
IS_MANAGER	POSSIBLY NULL	NUMBER(1)
LOCALUPDATE_FLAG	NOT NULL	VARCHAR2(1)

CMGT_USER_PRICELIST

CMGT_USER_PRICELIST maintains the assignment of price lists to partners. When each user enters the Sterling Multi-Channel Selling Solution, they have access to all price lists associated with their partner. Each row of this table

represents the assignment of one price list (identified by the PRICE_LIST_KEY) to a partner (identified by PARTNER_KEY).

The SHARABLE column is a flag to indicate whether the price list should be shared with the partner's descendant (children, children of children, and so on) partners. The SHARE_COUNT column keeps track of how many ancestors (parents, parents of parents, and so on) of a partner have marked this price list as sharable: it is used to keep track of whether at least one of a partner's ancestors have marked the price list as sharable. ASSIGN_TYPE denotes whether the price list is directly assigned ("0") or assigned by an ancestor sharing the price list ("1").

Note that the same price list and partner key combination can show up in multiple records of this table. However, at any one time, only one such row can be marked as active ("Y").

TABLE 313. CMGT_USER_PRICELIST Table

Name	Null?	Type
USER_PRICE_LIST_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	NOT NULL	NUMBER(20)
USER_KEY	POSSIBLY NULL	NUMBER(20)
PRICE_LIST_KEY	NOT NULL	NUMBER(20)
OBSOLETE_DATE	POSSIBLY NULL	DATE
PRICING_STATUS	POSSIBLY NULL	NUMBER(1)
SHARABLE	POSSIBLY NULL	NUMBER(1)
SHARE_COUNT	POSSIBLY NULL	NUMBER(10)
ASSIGN_TYPE	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)

CMGT_USER_PROPERTY

CMGT_USER_PROPERTY_LOCALE stores information about each user property: these are the user preferences that users can maintain on their user detail

page. The related tables CMGT_USER_PROPERTY_LOCALE and CMGT_USER_PROPERTY_UI_HINT store information that determine how the properties are displayed to users.

TABLE 314. CMGT_USER_PROPERTY Table

Name	Null?	Type
USER_PROPERTY_KEY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(240)
VALUE	POSSIBLY NULL	VARCHAR2(1024)
VALUE_TYPE	POSSIBLY NULL	VARCHAR2(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_USER_PROPERTY_LOCALE

CMGT_USER_PROPERTY_LOCALE stores locale-specific information about each user property.

TABLE 315. CMGT_USER_PROPERTY_LOCALE Table

Name	Null?	Type
USER_PROPERTY_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
TEXT_TYPE	NOT NULL	VARCHAR2(128)
VALUE	POSSIBLY NULL	VARCHAR2(1024)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_USER_PROPERTY_UI_HINT

CMGT_USER_PROPERTY_UI_HINT stores UI data about each user property: these determine how the property is displayed on the user detail page.

TABLE 316. CMGT_USER_PROPERTY_UI_HINT Table

Name	Null?	Type
USER_PROPERTY_KEY	NOT NULL	NUMBER(20)
HINT_TYPE	NOT NULL	VARCHAR2(64)
VALUE	POSSIBLY NULL	VARCHAR2(1024)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_USER_SYNC_EXT

CMGT_USER_SYNC_EXT synchronizes a local user and a remote user.

Primary key is USER_KEY.

TABLE 317. CMGT_USER_SYNC_EXT Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
LOCAL_UPDATE_DATE	POSSIBLY NULL	DATE
REMOTE_UPDATE_DATE	POSSIBLY NULL	DATE
SYNC_DATE	POSSIBLY NULL	DATE
IS_SYNC_REQUIRED	POSSIBLY NULL	VARCHAR2(1)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_USER_X_CARTDEFAULTS

CMGT_USER_X_CARTDEFAULTS stores for each user the key of the default cart for each type (cart, wish list, and so on). Its primary key is USER_KEY, DEFAULT_TYPE.

Possible values for DEFAULT_TYPE include:

- 10: Cart
- 20: Template
- 30: Wish List
- 40: Baby Registry
- 50: Wedding Registry

TABLE 318. CMGT_USER_X_CARTDEFAULTS Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
DEFAULT_TYPE	NOT NULL	NUMBER(20)
CART_KEY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	NOT NULL	VARCHAR2(1)

CMGT_USER_X_FUNCTION

CMGT_USER_X_FUNCTION stores the functions that have been assigned to each user. These functions determine what roles are assigned to the user.

TABLE 319. CMGT_USER_X_FUNCTION Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
FUNCTION_NAME	NOT NULL	VARCHAR2(60)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_USER_X_PARTNER

CMGT_USER_X_PARTNER stores information about which partners have been assigned to enterprise users. The primary key is USER_KEY and ASSIGNED_PARTNER_KEY.

TABLE 320. CMGT_USER_X_PARTNER Table

Name	Null?	Type
ASSIGNMENT_KEY	NOT NULL	NUMBER(20)
USER_KEY	NOT NULL	NUMBER(20)
ASSIGNED_PARTNER_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_USER_X_PROPERTY_VALUE

CMGT_USER_X_PROPERTY_VALUE stores the values for user preferences. It cross-references properties to user keys and stores the user-specific value in the DEFAULT_VALUE column.

TABLE 321. CMGT_USER_X_PROPERTY_VALUE Table

Name	Null?	Type
USER_PROPERTY_KEY	NOT NULL	NUMBER(20)
USER_KEY	NOT NULL	NUMBER(20)
VALUE	POSSIBLY NULL	VARCHAR2(1024)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_VERTICAL_MARKETS

CMGT_VERTICAL_MARKETS holds the details of different customer types. The primary key for this table is VERTICAL_KEY. The assignment of customer types to partners is maintained in the CMGT_PARTNER_VERTICALS table.

TABLE 322. CMGT_VERTICAL_MARKETS Table

Name	Null?	Type
VERTICAL_KEY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
MARKET	POSSIBLY NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_VERTICAL_MARKETS_LOCALE

CMGT_VERTICAL_MARKETS_LOCALE stores locale-specific information about each vertical market. The primary key is VERTICAL_KEY and LOCALE.

TABLE 323. CMGT_VERTICAL_MARKETS_LOCALE Table

Name	Null?	Type
VERTICAL_KEY	NOT NULL	NUMBER(20)
LOCALE	NOT NULL	VARCHAR2(10)
MARKET	NOT NULL	VARCHAR2(90)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)
FLAG	POSSIBLY NULL	NUMBER(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_VM_GRID_SHEETS

CMGT_VM_GRID_SHEETS stores information about each worksheet created in Visual Modeler. The worksheet belongs to the model identified by the model key. Its primary key is GRID_SHEET_KEY.

TABLE 324. CMGT_VM_GRID_SHEETS Table

Name	Null?	Type
GRID_SHEET_KEY	NOT NULL	NUMBER(20)
MODEL_KEY	NOT NULL	NUMBER(20)
NAME	NOT NULL	VARCHAR2(120)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_VM_GRID_SHEET_COLUMNS

CMGT_VM_GRID_SHEET_COLUMNS stores information about worksheet columns (the properties managed in the worksheet). Its primary key is GRID_SHEET_COLUMN_KEY.

TABLE 325. CMGT_VM_GRID_SHEET_COLUMNS Table

Name	Null?	Type
GRID_SHEET_COLUMN_KEY	NOT NULL	NUMBER(20)
GRID_SHEET_KEY	POSSIBLY NULL	NUMBER(20)
PROPERTY_KEY	POSSIBLY NULL	NUMBER(20)
COLUMN_WIDTH	POSSIBLY NULL	NUMBER(20)
SEQUENCE_NUMBER	POSSIBLY NULL	NUMBER(20)
REMOVE_ATTACHMENT	POSSIBLY NULL	VARCHAR2(1)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_VM_GRID_SHEET_ROWS

CMGT_VM_GRID_SHEET_ROWS stores information about the rows of worksheets (the option items). Its primary key is GRID_SHEET_ROW_KEY.

TABLE 326. CMGT_VM_GRID_SHEET_ROWS Table

Name	Null?	Type
GRID_SHEET_ROW_KEY	NOT NULL	NUMBER(20)
GRID_SHEET_KEY	NOT NULL	NUMBER(20)

TABLE 326. CMGT_VM_GRID_SHEET_ROWS Table (Continued)

Name	Null?	Type
ITEM_KEY	POSSIBLY NULL	NUMBER(20)
ITEM_PATH	POSSIBLY NULL	VARCHAR2(512)
SEQUENCE_NUMBER	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_WISHLIST_ADDRESSES

CMGT_WISHLIST_ADDRESSES stores address information for the owner of a wish list.

Primary keys are WISHLIST_ADDRESS_KEY and CART_KEY.

TABLE 327. CMGT_WISHLIST_ADDRESSES Table

Name	Null?	Type
WISHLIST_ADDRESS_KEY	NOT NULL	NUMBER(20)
CART_KEY	NOT NULL	NUMBER(20)
ADDRESS_TYPE	NOT NULL	NUMBER(20)
FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
LAST_NAME	POSSIBLY NULL	VARCHAR2(90)
USER_TITLE_CODE	POSSIBLY NULL	NUMBER(20)
ADDRESS1	POSSIBLY NULL	VARCHAR2(120)
ADDRESS2	POSSIBLY NULL	VARCHAR2(120)
CITY	POSSIBLY NULL	VARCHAR2(60)
STATE_CODE	NOT NULL	VARCHAR2(60)
POSTAL_CODE	POSSIBLY NULL	VARCHAR2(60)
COUNTRY	POSSIBLY NULL	NUMBER(20)
EFFECTIVE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_WISHLIST_EXTN

CMGT_WISHLIST_EXTN stores information about wish lists. A wish list is a list of items that a user would like to have and that someone else may purchase for him or her.

Primary key is CART_KEY.

TABLE 328. CMGT_WISHLIST_EXTN Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
EVENT_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
EVENT_DATE	POSSIBLY NULL	DATE
COMMENTS	POSSIBLY NULL	VARCHAR2(240)
RECIPIENT_FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
RECIPIENT_LAST_NAME	POSSIBLY NULL	VARCHAR2(90)
RECIPIENT_EMAIL	POSSIBLY NULL	VARCHAR2(120)
RECIPIENT_PHONE	POSSIBLY NULL	VARCHAR2(30)
SHARE_CODE	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_WISHLIST_LI_EXTN

CMGT_WISHLIST_LI_EXTN stores information about the line items of a wish list.

Primary key is LINE_KEY.

TABLE 329. CMGT_WISHLIST_LI_EXTN Table

Name	Null?	Type
LINE_KEY	NOT NULL	NUMBER(20)
PRIORITY_CODE	POSSIBLY NULL	NUMBER(20)
QUANTITY_PURCHASED	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_X_PARTNERS

CMGT_X_PARTNERS is a quick lookup table to access partner information.

TABLE 330. CMGT_X_PARTNERS Table

Name	Null?	Type
X_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
CREATION_DATE	POSSIBLY NULL	DATE
DESCRIPTION	POSSIBLY NULL	VARCHAR2(240)

Segmentation Database Tables

This section provides a summary of each table in the Sterling Multi-Channel Selling Solution segmentation database schema. Note that the data types given for each column are the Oracle data types: the corresponding data types are created for SQL Server installations.

Operator Field

Several of the tables in the Segmentation database contain an "Operator" field. The possible values for this field include:

- 3: Equal
- 4: Equal (case insensitive)
- 5: Not Equal
- 6: Greater Than
- 7: Greather Than or Equal To
- 8: Less Than
- 9: Less Than or Equal To
- 10: Like
- 100: Inclusive Interset
- 110: Inclusive Union
- 120: Exclusive Interset
- 130: Exclusive Union

Data Type Fields

Several field use a Long to indicate a data type. The possible values for these data type fields include:

- 2: List

4: Boolean
5: Date
7: Double
8: Long
9: String
100: Hierarchy
200: TimeFrame
300: Lookup

CMGT_ALL_SEGMENT_X_USER_A

CMGT_ALL_SEGMENT_X_USER_A and CMGT_ALL_SEGMENT_X_USER_B store the segmentation output results for all segments.

The current and previous calculations alternate between Table A and Table B. CMGT_SEGMENT_CONTROL indicates which table is current and which is previous.

Primary keys are SEGMENT_KEY, USER_KEY, and STOREFRONT_KEY.

TABLE 331. CMGT_ALL_SEGMENT_X_USER_A Table

Name	Null?	Type
SEGMENT_KEY	NOT NULL	NUMBER(20)
USER_KEY	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ALL_SEGMENT_X_USER_B

See "CMGT_ALL_SEGMENT_X_USER_A" on page 367. for details.

TABLE 332. CMGT_ALL_SEGMENT_X_USER_B Table

Name	Null?	Type
SEGMENT_KEY	NOT NULL	NUMBER(20)
USER_KEY	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_AMOUNT_QTY_ROLLUP

CMGT_AMOUNT_QTY_ROLLUP rolls up the minor line items of a cart into major line items.

Primary key is CART_LINE_KEY.

TABLE 333. CMGT_AMOUNT_QTY_ROLLUP Table

Name	Null?	Type
CART_LINE_KEY	POSSIBLY NULL	NUMER(20)
TOTAL_QUANTITY	POSSIBLY NULL	NUMBER(20)
ORDER_PRICE	POSSIBLY NULL	FLOAT
TOTAL_AMOUNT	POSSIBLY NULL	FLOAT

CMGT_ASSIGNED_SEGMENT_X_USER_A

CMGT_ASSIGNED_SEGMENT_X_USER_A and CMGT_ASSIGNED_SEGMENT_X_USER_B contain the segmentation output for assigned segments. (The data is extracted from CMGT_ALL_SEGMENT_X_USER.) The application uses this table to determine to which segments a user belongs.

The current and previous calculations alternate between Table A and Table B. CMGT_SEGMENT_CONTROL indicates which table is current and which is previous.

Primary keys are SEGMENT_KEY, USER_KEY, and STOREFRONT_KEY.

TABLE 334. CMGT_ASSIGNED_SEGMENT_X_USER_A Table

Name	Null?	Type
SEGMENT_KEY	NOT NULL	NUMBER(20)
USER_KEY	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_ASSIGNED_SEGMENT_X_USER_B

See "CMGT_ASSIGNED_SEGMENT_X_USER_A" on page 368 for details.

TABLE 335. CMGT_ASSIGNED_SEGMENT_X_USER_B Table

Name	Null?	Type
SEGMENT_KEY	NOT NULL	NUMBER(20)
USER_KEY	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

CMGT_CART_AMOUNT_QTY_ROLLUP

CMGT_CART_AMOUNT_QTY_ROLLUP stores the total quantity and amount of a cart line.

Primary key is CART_LINE_KEY.

TABLE 336. CMGT_CART_AMOUNT_QTY_ROLLUP Table

Name	Null?	Type
CART_LINE_KEY	POSSIBLY NULL	NUMER(20)
TOTAL_QUANTITY	POSSIBLY NULL	NUMBER(20)
ORDER_PRICE	POSSIBLY NULL	FLOAT
TOTAL_AMOUNT	POSSIBLY NULL	FLOAT

CMGT_SEGMENT

CMGT_SEGMENT contains the definitions for segments. Each segment will have an entry in this table.

The primary key is SEGMENT_KEY.

TABLE 337. CMGT_SEGMENT Table

Name	Null?	Type	Description
SEGMENT_KEY	NOT NULL	NUMBER(20)	Primary key
SEGMENT_TYPE	NOT NULL	NUMBER(20)	0 = Regular 10 = BHS 20 = Upload
NAME	NOT NULL	VARCHAR2(50)	Name of the segment
DESCRIPTION	POSSIBLY NULL	VARCHAR2(256)	Description of the segment
STOREFRONT_KEY	NOT NULL	NUMBER(20)	Key of the storefront to which this segment belongs.
START_DATE	NOT NULL	DATE	Beginning date of the segment.
END_DATE	NOT NULL	DATE	Ending date of the segment.

TABLE 337. CMGT_SEGMENT Table (Continued)

Name	Null?	Type	Description
STATUS	NOT NULL	NUMBER(20)	0 = In-creation 10 = End state 20 = Inactive 30 = Obsolete 40 = Active
UPDATE_FREQUENCY	POSSIBLY NULL	NUMBER(20)	Determines how often the segment is updated. Works in conjunction with UPDATE_FREQUENCY_TYPE
UPDATE_FREQUENCY_TYPE	POSSIBLY NULL	NUMBER(20)	0 = Day 10 = Week For example if UPDATE_FREQUENCY_TYPE is 10 and UPDATE_FREQUENCY is 2, then the segment will be updated every 2 weeks.
UPDATE_START_DATE	POSSIBLY NULL	DATE	Original date set by admin for execution of segment calculation.
UPDATE_NEXT_CALC_DATE	POSSIBLY NULL	DATE	Next execution date for the segment calculation.
LAST_CALC_DATE	POSSIBLY NULL	DATE	Last date of the segment calculation.
LAST_PUBLISHED_CALC_DATE	POSSIBLY NULL	DATE	Last date that a published segment was calculated.
NUMBER_USERS	POSSIBLY NULL	NUMBER(20)	Number of users in a non-published segment calculation
NUMBER_PUBLISHED_USERS	POSSIBLY NULL	NUMBER(20)	Number of users in a published segment calculation

TABLE 337. CMGT_SEGMENT Table (Continued)

Name	Null?	Type	Description
BUILD_STATUS	NOT NULL	NUMBER(20)	0 = Reset 20 = Success 30 = Fail 40 = In-Process When a in-progress calculation hangs, the status should be set to Reset. Also, before a segment has been calculated, its status will equal Reset.
ASSIGNMENT_COUNT	NOT NULL	NUMBER(20)	Number of assigned relationships.
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)	Standard column
OWNED_BY	NOT NULL	NUMBER(20)	Standard column
UPDATE_DATE	POSSIBLY NULL	DATE	Standard column
UPDATED_BY	NOT NULL	NUMBER(20)	Standard column
CREATION_DATE	POSSIBLY NULL	DATE	Standard column
CREATED_BY	NOT NULL	NUMBER(20)	Standard column
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column

CMGT_SEGMENT_ABAND_CART

CMGT_SEGMENT_ABAND_CART stores information about abandoned carts.

Primary key is CART_KEY.

TABLE 338. CMGT_SEGMENT_ABAND_CART Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
OIL_TOTAL	POSSIBLY NULL	FLOAT
CART_TOTAL_AMOUNT	POSSIBLY NULL	FLOAT

TABLE 338. CMGT_SEGMENT_ABAND_CART Table (Continued)

Name	Null?	Type
CREATION_DATE	POSSIBLY NULL	DATE
UPDATE_DATE	POSSIBLY NULL	DATE

CMGT_SEGMENT_ABAND_CART_LINE

CMGT_SEGMENT_ABAND_CART_LINE stores information about abandoned cart lines.

Primary key is CART_LINE_KEY.

TABLE 339. CMGT_SEGMENT_ABAND_CART_LINE Table

Name	Null?	Type
CART_LINE_KEY	NOT NULL	NUMBER(20)
CART_KEY	POSSIBLY NULL	NUMBER(20)
SKU	POSSIBLY NULL	VARCHAR2(120)
TOTAL_AMOUNT	POSSIBLY NULL	FLOAT
QUANTITY	POSSIBLY NULL	NUMBER(20)
PARENT_KEY	POSSIBLY NULL	NUMBER(20)
ORDER_PRICE	POSSIBLY NULL	FLOAT(126)
CREATION_DATE	POSSIBLY NULL	DATE
UPDATE_DATE	POSSIBLY NULL	DATE

CMGT_SEGMENT_ASSIGN_USER_LIST

CMGT_SEGMENT_ASSIGN_USER_LIST is a View of data from the CMGT_USER_CONTACTS, CMGT_PARTNERS, and CMGT_ASSIGNED_SEGMENT_X_USER tables.

CMGT_SEGMENT_ASSIGN_USER_LIST lists all the users that have been assigned to a segment.

TABLE 340. CMGT_SEGMENT_ASSIGN_USER_LIST Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
USER_NAME	POSSIBLY NULL	VARCHAR2(60)
FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)

TABLE 340. CMGT_SEGMENT_ASSIGN_USER_LIST Table (Continued)

Name	Null?	Type
LAST_NAME	NOT NULL	VARCHAR2(90)
PARTNER_NAME	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
SEGMENT_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_BUILD

CMGT_SEGMENT_BUILD stores calculated results and upload results.

TABLE 341. CMGT_SEGMENT_BUILD Table

Name	Null?	Type
SEGMENT_KEY	NOT NULL	NUMBER(20)
USER_KEY	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_CALC_USER_LIST

CMGT_SEGMENT_CALC_USER_LIST is a View of data from the CMGT_USER_CONTACTS, CMGT_PARTNERS, and CMGT_SEGMENT_BUILD tables. CMGT_SEGMENT_CALC_USER_LIST lists all users that have been calculated for a segment a segment..

TABLE 342. CMGT_SEGMENT_CALC_USER_LIST Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
USER_NAME	POSSIBLY NULL	VARCHAR2(60)
FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
LAST_NAME	NOT NULL	VARCHAR2(90)
PARTNER_NAME	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
SEGMENT_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_CONTROL

CMGT_SEGMENT_CONTROL indicates the A/B current/previous relationships for several tables.

Primary key is CONTROL_KEY.

TABLE 343. CMGT_SEGMENT_CONTROL Table

Name	Null?	Type	Description
CONTROL_KEY	NOT NULL	NUMBER(20)	Primary key
BUILD_STATUS	NOT NULL	NUMBER(20)	0 = Reset 20 = Success 30 = Fail 40 = In-Process
PREV_ALL_SEG_TBL	NOT NULL	VARCHAR2(256)	Name of the previous CMGT_ALL_SEGMENT_X_USER table
CURR_ALL_SEG_TBL	NOT NULL	VARCHAR2(256)	Name of the current CMGT_ALL_SEGMENT_X_USER table
PREV_ASSGN_SEG_TBL	NOT NULL	VARCHAR2(256)	Name of the previous CMGT_ASSIGNED_SEGMENT_X_USER table
CURR_ASSGN_SEG_TBL	NOT NULL	VARCHAR2(256)	Name of the current CMGT_ASSIGNED_SEGMENT_X_USER table
PREV_EVENT_TBL	NOT NULL	VARCHAR2(256)	Name of the previous CMGT_SEGMENT_TRACKING_EVENT table
CURR_EVENT_TBL	NOT NULL	VARCHAR2(256)	Name of the current CMGT_SEGMENT_TRACKING_EVENT table
LAST_BUILD_DATE	NOT NULL	DATE	Date of the last segment build
LAST_PUBLISH_DATE	NOT NULL	DATE	Date of the last time a segment was published
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column
DEPLOYMENT_TYPE	NULL	NUMBER(20)	For internal use only.

CMGT_SEGMENT_LINE

CMGT_SEGMENT_LINE stores the lines that make up a segment definition. The SEGMENT_KEY field indicates the parent segment of the line. The EXEC_ORDER field indicates the order in which the lines of the segment will be executed. Each line has a SEGMENT_LINE_TYPE defined; further information is stored in the corresponding CMGT_SEGMENT_LINE_* table.

The primary key is SEGMENT_LINE_KEY.

TABLE 344. CMGT_SEGMENT_LINE Table

Name	Null?	Type	Description
SEGMENT_KEY	NOT NULL	NUMBER(20)	Parent segment to which this line belongs
SEGMENT_LINE_KEY	NOT NULL	NUMBER(20)	Primary key
SEGMENT_LINE_TYPE	NOT NULL	NUMBER(20)	0 = User Attribute 10 = Organization/Partner Attribute 20 = User Entity Field 30 = Organization/Partner Entity Field 40 = BHC 50 = Segment
OPERATOR	NOT NULL	NUMBER(20)	See "Operator Field" on page 366
EXEC_ORDER	NOT NULL	NUMBER(20)	Order in which the line is executed. Lower numbers are executed first.
SEGMENT_SQL	POSSIBLY NULL	VARCHAR2(512)	Consumed by the segmentation engine to qualify user for a segment.
USER_SQL	POSSIBLY NULL	VARCHAR2(1024)	Consumed by the segmentation engine to qualify user for a segment in an end-user registration flow.
TARGET_SEGMENT_KEY	POSSIBLY NULL	NUMBER(20)	Key of a child segment
TARGET_DATA	POSSIBLY NULL	VARCHAR2(256)	Contains miscellaneous information depending on the data type. For example, may store the data object for an Entity Field.
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)	Standard column
OWNED_BY	NOT NULL	NUMBER(20)	Standard column
UPDATE_DATE	POSSIBLY NULL	DATE	Standard column
UPDATED_BY	NOT NULL	NUMBER(20)	Standard column
CREATION_DATE	POSSIBLY NULL	DATE	Standard column
CREATED_BY	NOT NULL	NUMBER(20)	Standard column
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column

CMGT_SEGMENT_LINE_ATTRIBUTE

CMGT_SEGMENT_LINE_ATTRIBUTE stores information for segment lines of the Attribute type. Attributes are information about users and partners that are stored separately from the user/partner profiles.

The primary keys are SEGMENT_LINE_KEY, ATTRIBUTE_KEY, and ATTRIBUTE_ASSIGN_TYPE.

TABLE 345. CMGT_SEGMENT_LINE_ATTRIBUTE Table

Name	Null?	Type	Description
SEGMENT_LINE_KEY	NOT NULL	NUMBER(20)	Key of the line to which this attribute belongs. Primary key
ATTRIBUTE_KEY	NOT NULL	NUMBER(20)	Primary key
ATTRIBUTE_ASSIGN_TYPE	NOT NULL	NUMBER(20)	0 = User 10 = Organization/Partner Primary key.
ATTRIBUTE_DATA_TYPE	NOT NULL	NUMBER(20)	Data type of the attribute. See "Data Type Fields" on page 366.
SEGMENT_KEY	NOT NULL	NUMBER(20)	Key of the segment to which this attribute belongs
OPERATOR	NOT NULL	NUMBER(20)	See "Operator Field" on page 366
STR_VALUE	POSSIBLY NULL	VARCHAR2(256)	Value of a String
LONG_VALUE	POSSIBLY NULL	NUMBER(20)	Value of a Long
DBL_VALUE	POSSIBLY NULL	NUMBER(19,4)	Value of a Double
DATE_VALUE	POSSIBLY NULL	DATE	Value of a Date
BOOL_VALUE	POSSIBLY NULL	NUMBER(1)	Value of a Boolean
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)	Standard column
OWNED_BY	NOT NULL	NUMBER(20)	Standard column
UPDATE_DATE	POSSIBLY NULL	DATE	Standard column
UPDATED_BY	NOT NULL	NUMBER(20)	Standard column
CREATION_DATE	POSSIBLY NULL	DATE	Standard column
CREATED_BY	NOT NULL	NUMBER(20)	Standard column
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column

CMGT_SEGMENT_LINE_BHC

CMGT_SEGMENT_LINE_BHC stores information for segment lines of the BHC type. When a user defines the criteria for a BHC in the user interface, the application persists the criteria to this table. The backend processing unit of a BHC (such as a stored procedure) reads directly from this table.

Primary keys are SEGMENT_LINE_KEY, BHC_ID, and INPUT_ID.

TABLE 346. CMGT_SEGMENT_LINE_BHC Table

Name	Null?	Type	Description
SEGMENT_LINE_KEY	NOT NULL	NUMBER(20)	Key of the line to which this BHC belongs. Primary key
BHC_ID	NOT NULL	VARCHAR2(256)	Primary key
INPUT_ID	NOT NULL	NUMBER(20)	Input ID from the BHC Registry. Primary key
INPUT_DATA_TYPE	NOT NULL	NUMBER(20)	Data type of the input. See "Data Type Fields" on page 366.
SEGMENT_KEY	NOT NULL	NUMBER(20)	Key of the segment to which this BHC belongs.
OPERATOR	NOT NULL	NUMBER(20)	See "Operator Field" on page 366
STR_VALUE	POSSIBLY NULL	VARCHAR2(256)	Value of a String
LONG_VALUE	POSSIBLY NULL	NUMBER(20)	Value of a Long
DBL_VALUE	POSSIBLY NULL	NUMBER(19,4)	Value of a Double
DATE_VALUE	POSSIBLY NULL	DATE	Value of a Date. For a TimeFrame data type this will be the start date.
DATE_VALUE2	POSSIBLY NULL	DATE	For a TimeFrame data type this will be the end date
BOOL_VALUE	POSSIBLY NULL	NUMBER(1)	Value of a Boolean
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)	Standard column
OWNED_BY	NOT NULL	NUMBER(20)	Standard column
UPDATE_DATE	POSSIBLY NULL	DATE	Standard column
UPDATED_BY	NOT NULL	NUMBER(20)	Standard column
CREATION_DATE	POSSIBLY NULL	DATE	Standard column
CREATED_BY	NOT NULL	NUMBER(20)	Standard column
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column

CMGT_SEGMENT_LINE_BHC_LIST

CMGT_SEGMENT_LINE_BHC_LIST specifies the list of features, categories and sub-categories for a BHC.

In cases where the BHC requires a Hierarchy type as an input, CMGT_SEGMENT_LINE_BHC will contain the top node and CMGT_SEGMENT_LINE_BHC_LIST will contain the top node and all sub-nodes.

Primary keys are SEGMENT_LINE_KEY, BHC_ID, INPUT_ID, and LIST_ENTRY_KEY.

TABLE 347. CMGT_SEGMENT_LINE_BHC_LIST Table

Name	Null?	Type	Description
SEGMENT_LINE_KEY	NOT NULL	NUMBER(20)	Key of the line to which this BHC belongs. Primary key
BHC_ID	NOT NULL	VARCHAR2(256)	BHC to which this list belongs. Primary key
INPUT_ID	NOT NULL	NUMBER(20)	Input ID from the BHC Registry. Primary key
LIST_ENTRY_KEY	NOT NULL	NUMBER(20)	Primary key
LIST_VALUES	NOT NULL	VARCHAR2(256)	Value of a list item
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)	Standard column
OWNED_BY	NOT NULL	NUMBER(20)	Standard column
UPDATE_DATE	POSSIBLY NULL	DATE	Standard column
UPDATED_BY	NOT NULL	NUMBER(20)	Standard column
CREATION_DATE	POSSIBLY NULL	DATE	Standard column
CREATED_BY	NOT NULL	NUMBER(20)	Standard column
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column

CMGT_SEGMENT_LINE_ENTITY_FIELD

CMGT_SEGMENT_LINE_ENTITY_FIELD stores information for segment lines of the Entity Field type. Entity field refers to fields in the user/organization profiles. Entity fields available in the Segmentation Management user interface will be specified in the Entity Field Registry file.

Primary keys are SEGMENT_LINE_KEY, ENTITY_FIELD_ID, ENTITY_FIELD_TYPE, and INPUT_ID.

TABLE 348. CMGT_SEGMENT_LINE_ENTITY_FIELD Table

Name	Null?	Type	Description
SEGMENT_LINE_KEY	NOT NULL	NUMBER(20)	Key of the line to which this attribute belongs. Primary key
ENTITY_FIELD_ID	NOT NULL	VARCHAR2(50)	Primary key
ENTITY_FIELD_TYPE	NOT NULL	VARCHAR2(50)	"userCriteria" or "partnerCriteria" Primary key
INPUT_ID	NOT NULL	NUMBER(20)	Input ID from the Entity Field Registry. Primary key
ENTITY_DATA_TYPE	NOT NULL	NUMBER(20)	Data type of the entity. See "Data Type Fields" on page 366.
SEGMENT_KEY	NOT NULL	NUMBER(20)	Key of the segment to which this attribute belongs.
OPERATOR	NOT NULL	NUMBER(20)	See "Operator Field" on page 366
STR_VALUE	POSSIBLY NULL	VARCHAR2(256)	Value of a String
LONG_VALUE	POSSIBLY NULL	NUMBER(20)	Value of a Long
DBL_VALUE	POSSIBLY NULL	NUMBER(19,4)	Value of a Double
DATE_VALUE	POSSIBLY NULL	DATE	Value of a Date
BOOL_VALUE	POSSIBLY NULL	NUMBER(1)	Value of a Boolean
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)	Standard column
OWNED_BY	NOT NULL	NUMBER(20)	Standard column
UPDATE_DATE	POSSIBLY NULL	DATE	Standard column
UPDATED_BY	NOT NULL	NUMBER(20)	Standard column
CREATION_DATE	POSSIBLY NULL	DATE	Standard column
CREATED_BY	NOT NULL	NUMBER(20)	Standard column
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)	Standard column

Event Tracking Tables

CMGT_SEGMENT_EVENT_CAT

CMGT_SEGMENT_EVENT_CAT stores information about Category Browse events.

TABLE 349. CMGT_SEGMENT_EVENT_CAT Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
EVENT_DATE	NOT NULL	DATE
STOREFRONT_KEY	NOT NULL	NUMBER(20)
PRODUCT_CATEGORY_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_EVENT_PROD

CMGT_SEGMENT_EVENT_PROD stores information about Product Detail View events.

TABLE 350. CMGT_SEGMENT_EVENT_PROD Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
EVENT_DATE	NOT NULL	DATE
STOREFRONT_KEY	NOT NULL	NUMBER(20)
SKU_NAME	NOT NULL	VARCHAR2(120)

CMGT_SEGMENT_EVENT_SEARCH

CMGT_SEGMENT_EVENT_SEARCH stores information about Search events.

TABLE 351. CMGT_SEGMENT_EVENT_SEARCH Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
EVENT_DATE	NOT NULL	DATE
STOREFRONT_KEY	NOT NULL	NUMBER(20)
SEARCH_STRING	NOT NULL	VARCHAR2(240)

CMGT_SEGMENT_TRACKING_EVENT_A

CMGT_SEGMENT_TRACKING_EVENT_A and CMGT_SEGMENT_TRACKING_EVENT_B are the staging tables for storing events. The tracking event service uses the data services module to store events in these tables.

The current and previous calculations alternate between Table A and Table B. CMGT_SEGMENT_CONTROL indicates which table is current and which is previous.

Possible values for the EVENT_TYPE field include:

- 100: Catalog Category Browse Event
- 200: Catalog Product Detail View
- 300: Catalog Search.

TABLE 352. CMGT_SEGMENT_TRACKING_EVENT_A Table

Name	Null?	Type
EVENT_TYPE	NOT NULL	NUMBER(20)
EVENT_DATE	NOT NULL	DATE
USER_KEY	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
SESSION_ID	NOT NULL	VARCHAR2(100)
EVENT_DATA	NOT NULL	VARCHAR2(240)

CMGT_SEGMENT_TRACKING_EVENT_B

See "CMGT_SEGMENT_TRACKING_EVENT_A" on page 382 for details.

TABLE 353. CMGT_SEGMENT_TRACKING_EVENT_B Table

Name	Null?	Type
EVENT_TYPE	NOT NULL	NUMBER(20)
EVENT_DATE	NOT NULL	DATE
USER_KEY	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)
SESSION_ID	NOT NULL	VARCHAR2(100)
EVENT_DATA	NOT NULL	VARCHAR2(240)

Temporary Segment Results Tables

In addition to the above tables, the segmentation database includes tables that temporarily hold the results of the calculations of a specific segment. The Sterling BHC (Behavioral/Historical Calculation) stored procedures write to these tables, whose names end with _TMP, before writing the data to CMGT_SEGMENT_BUILD.

CMGT_SEGMENT_ABDN_CAT_QTY_TMP

CMGT_SEGMENT_ABDN_CAT_QTY_TMP temporarily store results from the BHC stored procedure SP_USER_CAT_ABAND_QTY before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 354. CMGT_SEGMENT_ABDN_CAT_QTY_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_ABDN_CAT_NUM_TMP

CMGT_SEGMENT_ABDN_CAT_NUM_TMP temporarily store results from the BHC stored procedure SP_USER_CAT_ABAND_NUM before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 355. CMGT_SEGMENT_ABDN_CAT_NUM_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
NUMBER_OF_TIMES	POSSIBLY NULL	NUMBER(20)

CMGT_SEGMENT_ABDN_FEAT_QTY_TMP

CMGT_SEGMENT_ABDN_FEAT_QTY_TMP temporarily store results from the BHC stored procedure SP_USER_FEAT_ABAND_QTY before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 356. CMGT_SEGMENT_ABDN_FEAT_QTY_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_ABDN_FEAT_NUM_TMP

CMGT_SEGMENT_ABDN_FEAT_NUM_TMP temporarily store results from the BHC stored procedure SP_USER_FEAT_ABAND_NUM before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 357. CMGT_SEGMENT_ABDN_FEAT_NUM_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
NUMBER_OF_TIMES	POSSIBLY NULL	NUMBER(20)

CMGT_SEGMENT_ABDN_ITEM_QTY_TMP

CMGT_SEGMENT_ABDN_ITEM_QTY_TMP temporarily store results from the BHC stored procedure SP_USER_ITEM_ABAND_QTY before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 358. CMGT_SEGMENT_ABDN_ITEM_QTY_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_ABDN_ITEM_NUM_TMP

CMGT_SEGMENT_ABDN_ITEM_NUM_TMP temporarily store results from the BHC stored procedure SP_USER_ITEM_ABAND_NUM before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 359. CMGT_SEGMENT_ABDN_ITEM_NUM_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
NUMBER_OF_TIMES	POSSIBLY NULL	NUMBER(20)

CMGT_SEGMENT_BROW_FEAT_TMP

CMGT_SEGMENT_BROW_FEAT_TMP temporarily store results from the BHC stored procedure SP_USER_ITEM_FEAT_BROWS_NUM before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 360. CMGT_SEGMENT_BROW_FEAT_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
NUMBER_OF_TIMES	POSSIBLY NULL	NUMBER(20)

CMGT_SEGMENT_BROW_CAT_TMP

CMGT_SEGMENT_BROW_CAT_TMP temporarily store results from the BHC stored procedure SP_USER_CAT_BROWS_NUM before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 361. CMGT_SEGMENT_BROW_CAT_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
NUMBER_OF_TIMES	POSSIBLY NULL	NUMBER(20)

CMGT_SEGMENT_BROW_ITEM_CAT_TMP

CMGT_SEGMENT_BROW_ITEM_CAT_TMP temporarily store results from the BHC stored procedure SP_USER_ITEM_CAT_BROWS_NUM before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 362. CMGT_SEGMENT_BROW_ITEM_CAT_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
NUMBER_OF_TIMES	POSSIBLY NULL	NUMBER(20)

CMGT_SEGMENT_BROW_ITEM_TMP

CMGT_SEGMENT_BROW_ITEM_TMP temporarily store results from the BHC stored procedure SP_USER_ITEM_BROWS_NUM before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 363. CMGT_SEGMENT_BROW_ITEM_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
NUMBER_OF_TIMES	POSSIBLY NULL	NUMBER(20)

CMGT_SEGMENT_CAT_ORD_AMT_TMP

CMGT_SEGMENT_CAT_ORD_AMT_TMP temporarily store results from the BHC stored procedure SP_USER_CAT_ORD_AMT before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 364. CMGT_SEGMENT_CAT_ORD_AMT_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_CAT_ORD_QTY_TMP

CMGT_SEGMENT_CAT_ORD_QTY_TMP temporarily store results from the BHC stored procedure SP_USER_CAT_ORD_QTY before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 365. CMGT_SEGMENT_CAT_ORD_QTY_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_CAT_ORD_NUM_TMP

CMGT_SEGMENT_CAT_ORD_NUM_TMP temporarily store results from the BHC stored procedure SP_USER_CAT_ORD_NUM before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 366. CMGT_SEGMENT_CAT_ORD_NUM_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
NUMBER_OF_TIMES	POSSIBLY NULL	NUMBER(20)

CMGT_SEGMENT_EXCLUDE_TMP

CMGT_SEGMENT_EXCLUDE_TMP temporarily store results from the BHC stored procedures before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 367. CMGT_SEGMENT_EXCLUDE_TMP Table

Name	Null?	Type
SEGMENT_KEY	NOT NULL	NUMBER(20)
USER_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_FEAT_ORD_AMT_TMP

CMGT_SEGMENT_FEAT_ORD_AMT_TMP temporarily store results from the BHC stored procedure SP_USER_FEAT_ORD_AMT before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 368. CMGT_SEGMENT_FEAT_ORD_AMT_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_FEAT_ORD_QTY_TMP

CMGT_SEGMENT_FEAT_ORD_QTY_TMP temporarily store results from the BHC stored procedure SP_USER_FEAT_ORD_QTY before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 369. CMGT_SEGMENT_FEAT_ORD_QTY_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_FEAT_ORD_NUM_TMP

CMGT_SEGMENT_FEAT_ORD_NUM_TMP temporarily store results from the BHC stored procedure SP_USER_FEAT_ORD_NUM before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 370. CMGT_SEGMENT_FEAT_ORD_NUM_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
NUMBER_OF_TIMES	POSSIBLY NULL	NUMBER(20)

CMGT_SEGMENT_ITEM_ORD_AMT_TMP

CMGT_SEGMENT_ITEM_ORD_AMT_TMP temporarily store results from the BHC stored procedure SP_USER_ITEM_ORD_AMT before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 371. CMGT_SEGMENT_ITEM_ORD_AMT_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_ITEM_ORD_QTY_TMP

CMGT_SEGMENT_ITEM_ORD_QTY_TMP temporarily store results from the BHC stored procedure SP_USER_ITEM_ORD_QTY before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 372. CMGT_SEGMENT_ITEM_ORD_QTY_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_ITEM_ORD_NUM_TMP

CMGT_SEGMENT_ITEM_ORD_NUM_TMP temporarily store results from the BHC stored procedure SP_USER_ITEM_ORD_NUM before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 373. CMGT_SEGMENT_ITEM_ORD_NUM_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
NUMBER_OF_TIMES	POSSIBLY NULL	NUMBER(20)

CMGT_SEGMENT_SEARCH_NUM_TMP

CMGT_SEGMENT_SEARCH_NUM_TMP temporarily store results from the BHC stored procedure SP_USER_SEARCH_NUM before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 374. CMGT_SEGMENT_SEARCH_NUM_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
NUMBER_OF_TIMES	POSSIBLY NULL	NUMBER(20)

CMGT_SEGMENT_USER_ORD_AMT_TMP

CMGT_SEGMENT_USER_ORD_AMT_TMP temporarily store results from the BHC stored procedure SP_USER_ORD_AMT before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 375. CMGT_SEGMENT_USER_ORD_AMT_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)

CMGT_SEGMENT_USER_ORD_NUM_TMP

CMGT_SEGMENT_USER_ORD_NUM_TMP temporarily store results from the BHC stored procedure SP_USER_ORD_NUM before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 376. CMGT_SEGMENT_USER_ORD_NUM_TMP Table

Name	Null?	Type
USER_KEY	NOT NULL	NUMBER(20)
NUMBER_OF_TIMES	POSSIBLY NULL	NUMBER(20)

CMGT_SEGMENT_USER_LINE_TMP

CMGT_SEGMENT_USER_LINE_TMP temporarily store results from the BHC stored procedures before being stored in the CMGT_SEGMENT_BUILD table.

TABLE 377. CMGT_SEGMENT_USER_LINE_TMP Table

Name	Null?	Type
SEGMENT_KEY	NOT NULL	NUMBER(20)
USER_KEY	NOT NULL	NUMBER(20)
SEGMENT_LINE_KEY	NOT NULL	NUMBER(20)
STOREFRONT_KEY	NOT NULL	NUMBER(20)

Indexes

To improve the efficiency of data retrieval, indexes are created for some of the Sterling Multi-Channel Selling Solution tables. By examining the indexes script for your database type (DB2, Oracle, or SQL Server), you can determine what indexes are created for your Knowledgebase.

Indexes are defined in the *dbtype_indexes.sql* files in each of the *dbtype/setup/* directories for the transactional database and the *dbtype/segment/* directories for the segmentation database. Note that by default, the Oracle indexes are created in a separate table space.

Procedures

The Sterling Multi-Channel Selling Solution makes use of database procedures to manage actions as data is inserted or deleted from the Knowledgebase. Currently,

these are primarily used to manage keys for tables. For an Oracle server, the procedures are created by the **oracle_sequence_procedures.sql** script invoked as part of the schema creation script.

Views

The Sterling Multi-Channel Selling Solution uses views to remove any dependency on the underlying table structure to access data for the Sterling Analyzer.

Views are defined in the **dbtype_views.sql** files in each of the **dbtype/setup/** directories for the transactional database and the **dbtype/segment/** directories for the segmentation database.

Oracle Sequences

If you use an Oracle server as the database server for the Knowledgebase, then the following sequences are created to manage the automatic numbering of the primary keys used.

- ACCESSLIST_KEY_SEQ START WITH 600575;
- ACCOUNT_TRANSACTION_KEY_SEQ START WITH 600500;
- ACL_KEY_SEQ START WITH 600506;
- ACTION_ITEM_KEY_SEQ START WITH 600500;
- ADDRESS_KEY_SEQ START WITH 602050;
- ATTR_ALLOWED_VALUE_KEY START WITH 30000;
- ATTRIBUTE_GROUP_KEY START WITH 1000;
- ATTRIBUTE_KEY START WITH 1000;
- ATTRIBUTE_PROFILE_KEY START WITH 30000;
- AUTH_PASSWORD_KEY START WITH 1;
- AUTHENTICATION_EVENT_KEY START WITH 1;
- AUXPRICE_KEY START WITH 1;
- BUNDLE_KEY_SEQ START WITH 600500;
- BUNDLE_LINE_KEY_SEQ START WITH 600500;
- CAMPAIGN_KEY_SEQ START WITH 600500;

- CAMPAIGN_LINK_ACC_INFO_KEY_SEQ START WITH 600500;
- CAMPAIGN_LINK_KEY_SEQ START WITH 600500;
- CAMPAIGN_RECIPIENT_KEY_SEQ START WITH 600500;
- CART_CONFIGURATION_KEY_SEQ START WITH 600503;
- CART_CONFIG_LINE_KEY_SEQ START WITH 600500;
- CART_KEY_SEQ START WITH 600600;
- CART_LINE_KEY_SEQ START WITH 600700;
- CATEGORY_KEY_SEQ START WITH 600500;
- CC_TRANSACTION_KEY_SEQ START WITH 600506;
- CELL_CLEANUP_KEY_SEQ START WITH 600500;
- CMGT_ASSEMBLY_ITEM_KEY_SEQ START WITH 600500;
- CMGT_CONDITION_KEY_SEQ START WITH 600500;
- CMGT_FACT_KEY_SEQ START WITH 600500;
- CMGT_FEATURE_KEY_SEQ START WITH 600500;
- CMGT_FEATURE_TYPE_KEY_SEQ START WITH 600500;
- CMGT_FILTER_KEY_SEQ START WITH 600500;
- CMGT_FTR_TYPE_GRP_KEY_SEQ START WITH 600500;
- CMGT_PRODMGR_ACCLIST_KEY_SEQ START WITH 600500;
- CMGT_PRODMGR_ACL_KEY_SEQ START WITH 600500;
- CMGT_PRODUCT_CATEGORY_KEY_SEQ START WITH 600500;
- CMGT_PRODUCT_KEY_SEQ START WITH 600500;
- CMGT_PRODUCT_SKU_SEQ START WITH 600500;
- CMGT_PROD_ENTITLE_ITEM_KEY_SEQ START WITH 600500;
- CMGT_PROD_ENTITLE_KEY_SEQ START WITH 6600500;
- CMGT_QUERY_PAGE_KEY_SEQ START WITH 600500;
- CMGT_QUESTIONNAIRE_KEY_SEQ START WITH 600500;
- CMGT_RESOURCE_TYPE_KEY_SEQ START WITH 600500;

- CMGT_RULE_KEY_SEQ START WITH 600500;
- CMGT_RULE_SET_KEY_SEQ START WITH 600500;
- CM_CYCLE_ITEM_KEY_SEQ START WITH 600500;
- COL_CLEANUP_KEY_SEQ START WITH 600500;
- COMPILE_ALL_JOB_STATUS_KEY_SEQ START WITH 600500;
- COMPILE_MODEL_STATUS_KEY_SEQ START WITH 600500;
- CONFIGURATION_KEY_SEQ START WITH 600502;
- CONFIG_LINE_KEY_SEQ START WITH 600500;
- CONFIG_LIST_KEY_SEQ START WITH 600600;
- CONFIG_LIST_VALUE_KEY_SEQ START WITH 600600;
- CONFIG_RULE_KEY_SEQ START WITH 600600;
- CONTACT_KEY_SEQ START WITH 600500;
- CONTRACT_KEY_SEQ START WITH 600500;
- CONTROL_KEY_SEQ START WITH 600500;
- CRITERION_KEY_SEQ START WITH 600500;
- CRON_KEY_SEQ START WITH 600500;
- CRON_STATUS_HISTORY_KEY_SEQ START WITH 600500;
- CURRENCY_SEQ START WITH 600500;
- CYCLE_KEY_SEQ START WITH 600500;
- DEPT_KEY_SEQ START WITH 600505;
- DISCOUNT_KEY_SEQ START WITH 600500;
- DISPLAY_SET_KEY_SEQ START WITH 600500;
- DOC_MANAGER_KEY_SEQ START WITH 600500;
- DOMAIN_KEY_SEQ START WITH 600500;
- EXPORTSET_KEY_SEQ START WITH 600500;
- EXPORT_KEY_SEQ START WITH 600500;
- FIRING_PHASE_KEY START WITH 1;

- FORECAST_LINE_SEQ START WITH 600500;
- FORECAST_SEQ START WITH 600500;
- FRAGMENT_KEY_SEQ START WITH 600500;
- GRID_SHEET_COLUMN_KEY_SEQ START WITH 600500;
- GRID_SHEET_KEY_SEQ START WITH 600500;
- GRID_SHEET_ROW_KEY_SEQ START WITH 600500;
- GROUP_KEY_SEQ START WITH 600506;
- HISTORY_ADDRESS_KEY_SEQ START WITH 600600;
- HISTORY_HEADER_KEY_SEQ START WITH 1;
- HISTORY_LINE_KEY_SEQ START WITH 1;
- HISTORY_SERIAL_KEY_SEQ START WITH 600600;
- IDENTITY_KEY START WITH 1;
- IMPORTSET_KEY_SEQ START WITH 600500;
- INDEX_SET_KEY_SEQ START WITH 600500;
- INVENTORY_KEY_SEQ START WITH 600500;
- INVENTORY_LINE_KEY_SEQ START WITH 600500;
- INVOICE_HISTORY_LINE_KEY_SEQ START WITH 200;
- INVOICE_KEY_SEQ START WITH 600800;
- INVOICE_LINE_KEY_SEQ START WITH 601130;
- ITEM_KEY_SEQ START WITH 600500;
- ITEM_RULE_KEY_SEQ START WITH 600500;
- ITEM_SEQUENCE_NUMBER_SEQ START WITH 600500;
- LEAD_CONTACT_KEY_SEQ START WITH 600500;
- LEAD_KEY_SEQ START WITH 600500;
- LINE_ITEM_AUX_PRICE_KEY START WITH 1;
- LOCALE_KEY_SEQ START WITH 600500;
- MAILING_LIST_KEY_SEQ START WITH 600500;

- MAILING_LIST_MEMBER_KEY_SEQ START WITH 600500;
- MESSAGE_KEY START WITH 1;
- MDF_ACTIVITY_KEY_SEQ START WITH 600500;
- MDF_ACTIVITY_REQ_KEY_SEQ START WITH 600500;
- MDF_ACTIVITY_REQ_NOTE_KEY_SEQ START WITH 600500;
- MDF_PROGRAM_KEY_SEQ START WITH 600500;
- MFG_KEY_SEQ START WITH 1;
- MODEL_KEY_SEQ START WITH 600500;
- MODEL_TAB_KEY_SEQ START WITH 600500;
- NODE_ASSIGNMENT_KEY_SEQ START WITH 600500;
- NOTE_KEY_SEQ START WITH 600575;
- OIL_HEADER_KEY_SEQ START WITH 3700;
- OIL_PAYMENT_KEY_SEQ START WITH 1000;
- OPTION_KEY_SEQ START WITH 600500;
- ORDERACKLINEKEY_SEQ START WITH 600500;
- ORDER_DISCOUNT_KEY_SEQ START WITH 1;
- ORDER_LINE_KEY_SEQ START WITH 600600;
- ORDER_LI_SHIP_KEY_SEQ START WITH 600600;
- ORDER_SERIAL_KEY_SEQ START WITH 600500;
- PARTNER_KEY_SEQ START WITH 600506;
- PASSWORD_KEY START WITH 1;
- PAYMENT_ACCOUNT_KEY_SEQ START WITH 600500;
- PAYMENT_ACCOUNT_NOTE_KEY_SEQ START WITH 600500;
- PA_KEY_SEQ START WITH 600500;
- PA_LINE_KEY_SEQ START WITH 600500;
- PHONE_KEY_SEQ START WITH 600515;
- PRICELIST_LINE_SEQ START WITH 600530;

- PRICE_LIST_KEY_SEQ START WITH 600005;
- PRICING_ORDER_ACT_KEY_SEQ START WITH 73;
- PRICING_ORDER_RULE_KEY_SEQ START WITH 21;
- PRODUCT_REVIEW_KEY_SEQ START WITH 600500;
- PROMOTION_KEY_SEQ START WITH 600500;
- PROPERTY_KEY START WITH 1;
- PROPERTY_KEY_SEQ START WITH 650500;
- PROPERTY_VALUE_KEY_SEQ START WITH 600532;
- PROPOSAL_TEMPLATE_KEY_SEQ START WITH 1;
- RATING_KEY_SEQ START WITH 600500;
- REGISTRY_PHONE_KEY_SEQ START WITH 1;
- RESOURCE_KEY_SEQ START WITH 600500;
- RESOURCE_SEQ START WITH 600500;
- RETURN_KEY_SEQ START WITH 600500;
- RETURN_LINE_KEY_SEQ START WITH 600500;
- RETURN_SERIAL_KEY_SEQ START WITH 600500;
- RULE_ACTION_KEY_SEQ START WITH 600500;
- RULE_CLASSIFICATION_KEY_SEQ START WITH 1;
- SERVICE_KEY_SEQ START WITH 600500;
- SKILL_KEY_SEQ START WITH 600500;
- SKU_MAPPING_KEY_SEQ START WITH 600500;
- STORE_FACADE_KEY_SEQ START WITH 600500;
- SYS_PROPERTY_KEY_SEQ START WITH 2000000;
- TABLE_RULE_CELL_DATA_KEY_SEQ START WITH 600500;
- TABLE_RULE_COLUMN_KEY_SEQ START WITH 600500;
- TABLE_RULE_KEY_SEQ START WITH 600500;
- TABLE_RULE_KEY_SEQ START WITH 600500;

- TABLE_RULE_ROW_KEY_SEQ START WITH 600500;
- TASK_KEY_SEQ START WITH 600500;
- TBL_RL_CL_DT_KEY_SEQ START WITH 600500;
- TEMPLATE_GROUP_KEY_SEQ START WITH 1;
- TERRITORY_KEY_SEQ START WITH 600500;
- USER_ASSIGNMENT_KEY_SEQ START WITH 600500;
- USER_KEY_SEQ START WITH 600505;
- USER_PRICELIST_LINE_SEQ START WITH 600507;
- USER_PROPERTY_KEY_SEQ START WITH 1;
- VERSION_KEY_SEQ START WITH 600500;
- VERTICAL_KEY_SEQ START WITH 600500;
- WISHLIST_ADDRESS_KEY_SEQ START WITH 1;
- WORKSPACE_KEY_SEQ START WITH 600500;
- X_KEY_SEQ START WITH 600500;

Triggers

When you run the schema creation scripts, a number of database triggers are created. Their chief functions are:

- to add date stamps to a record which is being either inserted or updated
- (Oracle and DB2) to add the next value in a sequence as a key
- to populate the corresponding locale table at the same time as a new object is inserted or updated

Triggers are defined in the *dbtype_triggers.sql* files in each of the *dbtype/setup/* directories for the transactional database and the *dbtype/segment/* directories for the segmentation database.

Lookup Codes

The following table provides the main lookup values used by the Sterling Multi-Channel Selling Solution. The description gives the en_US locale value for each

lookup value. The HostedOrderStatus lookup type is not used in Release 6.3 and later releases: its values are listed here for legacy applications.

TABLE 378. Lookup Values

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
AccountReferenceType	10	Balance Update
AccountReferenceType	20	Preapproval
AccountReferenceType	30	Claim
AccountReferenceType	40	Payment
AccountTransactionType	10	Hold
AccountTransactionType	20	Hold Reversal
AccountTransactionType	30	Settle
AddressType	10	Billing
AddressType	20	Shipping
BabyGender	10	Boy
BabyGender	20	Girl
BabyGender	30	Not Known
CampaignStatus	10	Disabled
CampaignStatus	20	Enabled
CampaignStatus	30	Started
CampaignStatus	40	Executing
CampaignStatus	50	Executed
CartStatus	10	Open
CartStatus	20	Transferred
CartStatus	30	Ordered
CartStatus	40	Quote
CartStatus	50	RFQ
CCResponseReason	0-170	Sample response codes from gateway provider
CCServiceType	10	Authorization
CCServiceType	20	Capture
CCServiceType	30	Credit
CCServiceType	40	Authorization and Capture

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
CCServiceType	50	Authorization Reversal
CommerceCategory	1	Indirect
CommerceCategory	2	Direct
Country	10-40	Sample countries (including the United States) When new countries are added to the Country lookup codes, make corresponding additions to the CMGT_ISO_COUNTRY table.
CreditCardType	10	Visa
CreditCardType	20	MasterCard
CreditCardType	30	American Express
CreditCardType	40	Discover
CronStatus	0	Inactive
CronStatus	10	Active
CronStatus	20	Expired
DistiOrderStatus	10	Ordered
EventType	10	None
EventType	20	Birthday
EventType	30	Anniversary
EventType	40	Graduation
ERPResponse	10	Accepted
ERPResponse	20	Rejected
FreightTerms	10-290	Sample freight terms
GiftCardPaymentGateway-Type	0	None
GiftCardPaymentGateway-Type	10	Test Gateway
HostedOrderStatus	0	Open
HostedOrderStatus	10	Shipped
HostedOrderStatus	20	Cancelled

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
HostedOrderStatus	30	Ordered
HostedOrderStatus	40	Backordered
HostedOrderStatus	50	Rejected
HostedOrderStatus	60	In process
HostedOrderStatus	70	Order Submitted
HostedOrderStatus	80	Order Status Unknown
HostedOrderStatus	90	Cancel submitted
HostedOrderStatus	100	Changed
HostedOrderStatus	110	Change submitted
HostedOrderStatus	120	Cancel not submitted
HostedOrderStatus	130	Change not submitted
InquiryListType	2	Order
InquiryListType	11	Quote
InquiryListType	40	Sales Contract
InquiryListType	50	Proposal
InquiryListType	100	Cart
InquiryListType	130	Template
InquiryListType	140	WishList
InquiryListType	150	Registry
InvoiceType	10	Invoice
InvoiceType	20	Credit Memo
InvoiceType	30	Debit Memo
LeadPriority	10	Low
LeadPriority	20	Medium
LeadPriority	30	High
LeadSource	10	Phone
LeadSource	20	Tradeshow
LeadSource	30	Fax
LeadSource	40	Website
LeadStatus	10	Unassigned

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
LeadStatus	20	Assigned
LeadStatus	30	Working
LeadStatus	40	Closed
LineItemType	10	Pickup
LineItemType	20	Ship
LineItemType	1	Product
LineItemType	2	Text
LineItemType	3	Coupon
LineItemType	4	ExternalProduct
local_cd	1-520	US states (including District of Columbia and Puerto Rico)
MailingListType	10	Uploaded
MailingListType	20	From Query
MDFActivityStatus	10	In Creation
MDFActivityStatus	20	Active
MDFActivityStatus	30	Inactive
MDFApprovalInput	10	Submit Request
MDFApprovalInput	20	Approve Funds
MDFApprovalInput	30	Deny
MDFApprovalInput	40	Save
MDFApprovalInput	50	Create Claim
MDFApprovalInput	60	Resubmit Request
MDFApprovalInput	70	Cancel Preapproval Request
MDFApprovalInput	80	Allocate Funds
MDFApprovalInput	90	Cancel Allocation
MDFApprovalStatus	10	In Creation
MDFApprovalStatus	20	Pending Approval
MDFApprovalStatus	30	Allocating Funds
MDFApprovalStatus	40	Approved
MDFApprovalStatus	50	Denied

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
MDFApprovalStatus	60	Cancelled
MDFClaimInput	10	Submit Claim
MDFClaimInput	20	Approve Funds
MDFClaimInput	30	Deny
MDFClaimInput	40	Save
MDFClaimInput	50	Resubmit Claim
MDFClaimInput	60	Allocate Funds
MDFClaimInput	70	Cancel Allocation
MDFClaimStatus	10	In Creation
MDFClaimStatus	20	Pending Approval
MDFClaimStatus	30	Approved
MDFClaimStatus	40	Denied
MDFClaimStatus	50	Allocating Funds
MDFProgramStatus	10	In Creation
MDFProgramStatus	20	Active
MDFProgramStatus	30	Inactive
MDFProgramType	10	MDF
MDFProgramType	20	Co-op
Month	0-11	Months of the year (January is 0, February is 1, and so on)
OILOrderType	10	Standard
OILOrderType	20	Special
OILOrderType	30	Fixed
OpportunityStatus	10	New
OpportunityStatus	20	Accepted
OpportunityStatus	30	Qualified
OpportunityStatus	40	Contacted
OpportunityStatus	50	Dead
OpportunityStatus	60	Delayed
OpportunityStatus	70	Declined

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
OpportunityStatus	80	Closed
OpportunityStatus	90	Retracted
OrderInput	10-330	Sample order input response codes
OrderStatus	10	New
OrderStatus	20	Open
OrderStatus	24	Pending Approval
OrderStatus	27	Rejected by Approver
OrderStatus	30	Order Submitted
OrderStatus	40	In Process
OrderStatus	50	Change Submitted
OrderStatus	60	Change Rejected by ERP
OrderStatus	70	Changed
OrderStatus	80	Cancel Submitted
OrderStatus	90	Cancelled
OrderStatus	100	Partially shipped
OrderStatus	110	Partially shipped change submitted
OrderStatus	120	Partially shipped return submitted
OrderStatus	130	Partially shipped partially returned
OrderStatus	140	Partially shipped partially returned change submitted
OrderStatus	145	Partially Shipped Partially Returned Return Submitted
OrderStatus	150	Shipped
OrderStatus	160	Shipped return submitted
OrderStatus	170	Shipped partially returned
OrderStatus	175	Shipped partially returned return submitted
OrderStatus	180	Shipped returned
OrderStatus	190	Rejected
OrderStatus	200	Admin Intervention Needed
PartnerLeadCloseType	10	Win

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
PartnerLeadCloseType	20	Loss
PartnerLeadStatus	10	New
PartnerLeadStatus	20	Accepted
PartnerLeadStatus	30	Qualified
PartnerLeadStatus	40	Contacted
PartnerLeadStatus	50	Dead
PartnerLeadStatus	60	Delay
PartnerLeadStatus	70	Declined
PartnerLeadStatus	80	Closed
PartnerLevel	1	Enterprise
PartnerLevel	10	Gold
PartnerLevel	20	Platinum
PartnerLevel	30	Silver
PartnerLevel	40	Tin
PartnerLevel	9999999	Not Applicable
PartnerStatus	10	Open
PartnerStatus	20	On Hold
PartnerStatus	30	On Credit Hold
PartnerStatus	40	Closed
PartnerType	1	Enterprise
PartnerType	2	AnonymousUserPartner
PartnerType	3	RegisteredUserPartner
PartnerType	10	Distributor
PartnerType	20	OEM
PartnerType	30	Reseller
PartnerType	40	Retailer
PartnerType	50	Systems Integrator
PartnerType	60	SystemPartner
PaymentAccountStatus	10	Active
PaymentAccountStatus	20	On Hold

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
PaymentAccountStatus	30	Closed
PaymentAccountType	10	MDF
PaymentAccountType	20	Co-op
PaymentGatewayType	0	None
PaymentGatewayType	10	CyberSource
PaymentTerms	10	1% 10 NET 30
PaymentTerms	20	2% 10 NET 30
PaymentTerms	30	1% 15 NET 30
PaymentTerms	40	NET 15 DAYS
PaymentTerms	50	NET 30 DAYS
PaymentTerms	60	NET 10 DAYS
PaymentTerms	70	2% 25 NET 26
PaymentTerms	80	DUE UPON RECEIPT
PaymentTerms	90	NET 25 DAYS
PaymentTerms	100	NET 5 DAYS
PaymentType	10	Credit card
PaymentType	20	Account
PaymentType	30	Gift card
PhoneType	10	Business
PhoneType	20	Fax
PhoneType	30	Mobile
PhoneType	40	Car
PhoneType	50	Pager
PhoneType	60	Other
PhoneType	70	Home
PriceType	0	One Time Price
PriceType	1000	Monthly
PriceType	2000	Cancellation
PriceType	3000	Overage
PricingStatus	0	Active

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
PricingStatus	10	Inactive
Priority	10	Low
Priority	20	Medium
Priority	30	High
ProdReviewStatusType	0	Approved
ProdReviewStatusType	1	Rejected
ProductStatus	10	In Creation
ProductStatus	20	Not Orderable
ProductStatus	30	Released
ProductStatus	40	Blocked
ProposalStatus	10	New
ProposalStatus	20	In Negotiation
ProposalStatus	30	Accepted
ProposalStatus	40	Rejected
RegistryType	10	Baby Registry
RegistryType	20	Wedding Registry
RelativeReminderDate	10	Beginning
RelativeReminderDate	20	End
RelativeReminderDate	30	15th
ReminderFrequency	10	Weekly
ReminderFrequency	20	Monthly
ReminderFrequencyRelativeDay	10	Beginning
ReminderFrequencyRelativeDay	20	End
ReturnCriterion	10	Missing parts
ReturnCriterion	20	Damaged
ReturnCriterion	30	Incorrect color
ReturnCriterion	40	Equipment is broken
ReturnReason	10	Defective

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
ReturnReason	20	Unknown
ReturnReason	30	Incorrect size
ReturnReason	40	Incorrect color
ReturnReason	50	Damaged
ReturnReason	60	Equipment is broken
ReturnReason	70	Missing parts
ReturnStatus	10	Open
ReturnStatus	20	Pending
ReturnStatus	30	Denied by RulesEngine
ReturnStatus	40	Approved by RulesEngine
ReturnStatus	50	Denied by CSR
ReturnStatus	60	Approved by CSR
ReturnStatus	70	Submitted to ERP
ReturnStatus	80	Approved by ERPg
ReturnStatus	90	Denied by ERP
ReturnStatus	100	Return shipped back
ReturnStatus	110	Received by manufacturer
ReturnStatus	120	Closed
RFQReason	10	Competitive
RFQReason	20	Previous order
RFQReason	30	Volume Discount
RFQReason	40	User Defined
RFQStatus	10	Pending
RFQStatus	20	Rejected
RFQStatus	30	Accepted
RouteStatus	10	Routed
RouteStatus	20	RoutedNew
RouteStatus	30	Unrouted
RuleApplicationType	10	Single Item
RuleApplicationType	20	All Items

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
RuleApplicationType	30	Each Combination
RuleCategory	10	Pricing
RuleCategory	20	Shipping
RuleOperatorType	10	All Products
RuleOperatorType	20	Any Product
RuleType	10	Combination
RuleType	20	Order Total
RuleType	30	List Quantity
RuleType	40	Item Total
RuleType	50	Item Quantity
RuleType	60	Item Shipping Surcharge
SalesContractInput	10	SALES CONTRACT INPUT CSR SUBMIT
SalesContractInput	20	SALES CONTRACT INPUT CSR RETRACT
SalesContractInput	30	SALES CONTRACT INPUT USER ACCEPT
SalesContractInput	40	SALES CONTRACT INPUT USER REJECT
SalesContractInput	50	SALES CONTRACT INPUT CSR BLOCK
SalesContractInput	60	SALES CONTRACT INPUT CSR UNBLOCK
SalesContractInput	70	SALES CONTRACT INPUT CSR DELETE
SalesContractInput	80	SALES CONTRACT INPUT CSR PLACE ORDER
SalesContractInput	90	SALES CONTRACT INPUT USER PLACE ORDER
SalesContractStatus	10	Open
SalesContractStatus	20	Pending
SalesContractStatus	30	Rejected

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
SalesContractStatus	40	Retracted
SalesContractStatus	50	Active
SalesContractStatus	60	Blocked
SalesContractType	10	Prepay
SalesContractType	20	Forward Pricing
SalesContractType	30	Index Pricing
SalesContractType	40	Exchange
SalesContractType	50	Inventory Movement
SalesContractType	60	Export
SalesContractType	70	Black Sale
SecretQuestion	10	None
SecretQuestion	20	Favorite pet's name?
SecretQuestion	30	Favorite movie?
SecretQuestion	40	Anniversary [mm/dd/yy]?
SecretQuestion	50	Father's middle name?
SecretQuestion	60	Spouse's middle name?
SecretQuestion	70	First child's middle name?
SecretQuestion	80	High school name?
SecretQuestion	90	Favorite teacher's name?
SecretQuestion	100	Favorite sports team?
SegmentActivityType	10	Promotion
SegmentActivityType	20	Pricing Rule
SegmentActivityType	30	Coupon
SegmentActivityType	40	Email Campaign
SegmentationOperator	3	=
SegmentationOperator	5	!=
SegmentationOperator	6	>
SegmentationOperator	7	>=
SegmentationOperator	8	<
SegmentationOperator	9	<=

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
SegmentationOperator	12	in
SegmentationOperator	13	not in
SegmentLineType	0	User Attribute
SegmentLineType	10	Organization Attribute
SegmentLineType	20	User Profile Field
SegmentLineType	30	Organization Profile Field
SegmentLineType	40	Behavioral Segment
SegmentLineType	50	Segment
SegmentStatus	0	In Creation
SegmentStatus	10	End State
SegmentStatus	20	Inactive
SegmentStatus	30	Obsolete
SegmentStatus	40	Active
SegmentType	0	Regular
SegmentType	10	Behavioral
SegmentType	20	Upload
SegmentUpdateFrequency-Type	0	Day(s)
SegmentUpdateFrequency-Type	10	Week(s)
ServiceContractHistory-Type	10	Add
ServiceContractHistory-Type	20	Remove
ServiceContractHistory-Type	30	Change
ServiceContractInput	10	Create
ServiceContractInput	20	Data Received
ServiceContractInput	30	Order Rejected by ERP
ServiceContractInput	40	Data Complete
ServiceContractInput	50	Service Contract Update Accepted By ERP

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
ServiceContractInput	60	Service Contract Update Rejected By ERP
ServiceContractInput	70	Change Contract
ServiceContractInput	80	Cancel Contract
ServiceContractInput	90	Expire Contract
ServiceContractInput	100	Place on Hold
ServiceContractInput	110	Remove Hold
ServiceContractInput	120	Order Encountered Error in Processing
ServiceContractInput	900	Send XML To ERP
ServiceContractStatus	10	Open
ServiceContractStatus	20	Pending
ServiceContractStatus	30	Original Order Rejected by ERP
ServiceContractStatus	40	Verify Submitted
ServiceContractStatus	50	Rejected by ERP
ServiceContractStatus	60	Active
ServiceContractStatus	70	Change Submitted
ServiceContractStatus	80	Cancel Submitted
ServiceContractStatus	90	Cancelled
ServiceContractStatus	100	Expired Submitted
ServiceContractStatus	110	Expired
ServiceContractStatus	120	Hold Submitted
ServiceContractStatus	130	On Hold
ServiceContractStatus	140	Remove Hold Submitted
ServiceContractStatus	150	Change Rejected by ERP
ServiceContractStatus	160	Change Submitted Intermediate
ServiceContractStatus	170	Invalidated by Problems with Original Order
ShareCode	10	Private
ShareCode	20	Public
ShippingMethod	10	Standard Shipping
ShippingMethod	20	Premium 2-Day

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
ShippingMethod	30	Express Overnight
TaskPriority	10	High
TaskPriority	20	Medium
TaskPriority	30	Low
TaskStatus	10	New
TaskStatus	20	Open
TaskStatus	30	Pending
TaskStatus	40	Closed
TaskStatus	50	Invalid
TemplateSort	10	Price (low to high)
TemplateSort	20	Price (high to low)
TemplateSort	30	Date Added (most recent first)
TemplateSort	40	Date Added (oldest first)
TemplateSort	50	Department
TemplateSort	60	Product Name (A-Z)
TemplateSort	70	Product Name (Z-A)
TemplateSort	80	Product ID(A-Z)
TemplateSort	90	Product ID(Z-A)
UnitOfMeasure	10	Each
UnitOfMeasure	20	MB
UnitOfMeasure	30	Pixel
UserStatus	10	Open
UserStatus	20	On Hold
UserStatus	30	On Credit Hold
UserStatus	40	Closed
UserTitle	10	Mr.
UserTitle	20	Ms.
UserTitle	30	Dr.
UserTitle	40	Mrs.
WishListSort	10	Still Needs

TABLE 378. Lookup Values (Continued)

LOOKUP_TYPE	LOOKUP_CODE	DESCRIPTION
WishListSort	20	Price (low to high)
WishListSort	30	Price (high to low)
WishListSort	40	Department
WishListSort	50	Date Added
WishListSort	60	Priority
Year	10-40	Years from 2001 to 2004

Superseded Tables

This section provides descriptions of legacy tables that are no longer used by the current release of the Sterling Multi-Channel Selling Solution.

CMGT_LEAD_DETAIL

CMGT_LEAD_LINE_ITEMS stores information about each lead detail. The primary key is CART_KEY. This table is not used in Release 6.4: it has been superseded by CMGT_LEAD.

TABLE 379. CMGT_LEAD_LINE_ITEMS Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
CART_NAME	POSSIBLY NULL	VARCHAR2(90)
CART_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
TOTAL	POSSIBLY NULL	FLOAT(126)
CURRENCY_KEY	NOT NULL	NUMBER(20)
LAST_ACCESS_DATE	POSSIBLY NULL	DATE
LAST_ACCESSED_BY	POSSIBLY NULL	NUMBER(20)
PARTNER_KEY	NUMBER(20)	NUMBER(20)

TABLE 379. CMGT_LEAD_LINE_ITEMS Table (Continued)

Name	Null?	Type
CONTACT_KEY	NUMBER(20)	NUMBER(20)
DELETE_FLAG	POSSIBLY NULL	VARCHAR2(1)
ORIG_SYSTEM_REF	POSSIBLY NULL	VARCHAR2(90)
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
ROUTE_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
ROUTE_USER_KEY	POSSIBLY NULL	NUMBER(20)
ROUTE_NOTES	POSSIBLY NULL	VARCHAR2(480)
ROUTE_FROM_USER_KEY	POSSIBLY NULL	NUMBER(20)
ROUTE_DATE	POSSIBLY NULL	DATE
CUSTOMER_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
LEAD_HEADER_KEY	NOT NULL	NUMBER(20)
BUDGET_PRICE	POSSIBLY NULL	FLOAT
TOTAL_DISCOUNT	POSSIBLY NULL	FLOAT
EXPECTED_REVENUE	POSSIBLY NULL	FLOAT
BUDGET_APPROVED_FLAG	POSSIBLY NULL	VARCHAR2(1)
DETAIL_STATUS_CODE	NOT NULL	NUMBER(20)
EXPECTED_CLOSE_DATE	POSSIBLY NULL	DATE
PROBABILITY_OF_SALE	POSSIBLY NULL	NUMBER(20)
LEAD_CLOSE_CODE	POSSIBLY NULL	NUMBER(20)
SOURCE_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
SOURCE_KEY	POSSIBLY NULL	NUMBER(20)

CMGT_LEAD_HEADER

CMGT_LEAD_LINE_ITEMS stores information about each lead header. The primary key is LEAD_HEADER_KEY. The LEAD_PRIORITY and LEAD_SOURCE columns must take values defined as LeadPriority and

LeadSource lookup codes. This table is not used in Release 6.4: it has been superseded by CMGT_LEAD.

TABLE 380. CMGT_LEAD_LINE_ITEMS Table

Name	Null?	Type
LEAD_HEADER_KEY	NOT NULL	NUMBER(20)
LEAD_NAME	POSSIBLY NULL	VARCHAR2(90)
LEAD_HEADER_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
PARTNER_LEVEL_CODE	POSSIBLY NULL	NUMBER(20)
PARTNER_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
CUSTOMER_TYPE_CODE	POSSIBLY NULL	NUMBER(20)
LEAD_PRIORITY_CODE	POSSIBLY NULL	NUMBER(20)
LEAD_SOURCE_CODE	POSSIBLY NULL	NUMBER(20)
TERRITORY_CODE	POSSIBLY NULL	NUMBER(20)
CLOSE_DATE	POSSIBLY NULL	DATE
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
OWNED_BY	POSSIBLY NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)

CMGT_LEAD_LINE_ITEMS

CMGT_LEAD_LINE_ITEMS stores information about each line item in a lead detail. When a lead administrator creates a lead, they can create an inquiry list that stores information about which products the lead contact is interested in. Each product is stored as a record in this table. If a configuration of a product is created, then this information is also stored using the CONFIGURATION_KEY column. The primary key is CART_LINE_KEY and CART_KEY should correspond to the CART_KEY in the corresponding record of the CMGT_LEAD_LINE_ITEMS

table. This table is not used in Release 6.4: it has been superseded by CMGT_PROPOSAL.

TABLE 381. CMGT_LEAD_LINE_ITEMS Table

Name	Null?	Type
CART_KEY	NOT NULL	NUMBER(20)
CART_LINE_KEY	NOT NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	POSSIBLY NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	POSSIBLY NULL	NUMBER(20)
SKU	POSSIBLY NULL	VARCHAR2(120)
QUANTITY	POSSIBLY NULL	NUMBER(20)
CONFIG_FLAG	POSSIBLY NULL	VARCHAR2(1)
PARENT_KEY	POSSIBLY NULL	NUMBER(20)
CONFIG_CONTAINER	POSSIBLY NULL	VARCHAR2(50)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
CONFIG_ID	POSSIBLY NULL	VARCHAR2(25)
CONFIGURATION_KEY	POSSIBLY NULL	NUMBER(20)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
BUYER_SKU_AUTHORITY	POSSIBLY NULL	VARCHAR2(360)
LINE_TYPE	POSSIBLY NULL	NUMBER(1)
LINE_NAME	POSSIBLY NULL	VARCHAR2(121)

CMGT_ORDERS

In Release 5.6 and before, CMGT_ORDER_ADDRESSES held the information relating to customer orders. In Release 6.0 and later, its use has been replaced by CMGT_OIL and its extension tables. It is documented here to support upgrades from earlier releases of the Sterling Multi-Channel Selling Solution.

TABLE 382. CMGT_ORDER_ADDRESSES Table

Name	Null?	Type
ORDER_KEY	POSSIBLY NULL	VARCHAR2(60)
CART_KEY	NOT NULL	NUMBER(20)

TABLE 382. CMGT_ORDER_ADDRESSES Table (Continued)

Name	Null?	Type
OWNED_BY	NOT NULL	NUMBER(20)
ACCESS_KEY	POSSIBLY NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
ORDER_STATUS	POSSIBLY NULL	NUMBER(20)
ORDER_DATE	NOT NULL	DATE
REQUESTED_DATE	POSSIBLY NULL	DATE
DELIVERY_DATE	POSSIBLY NULL	DATE
SHIPPED_DATE	POSSIBLY NULL	DATE
TOTAL_AMOUNT	POSSIBLY NULL	FLOAT
TOTAL_NUMBER_ITEMS	POSSIBLY NULL	NUMBER(20)
TAX	POSSIBLY NULL	FLOAT
CURRENCY_CODE	POSSIBLY NULL	VARCHAR2(60)
CURRENCY_KEY	POSSIBLY NULL	NUMBER(20)
ORDER_REF_NUMBER	POSSIBLY NULL	VARCHAR2(120)
CONTACT_REF_NUMBER	POSSIBLY NULL	VARCHAR2(120)
PARTNER_REF_NUMBER	POSSIBLY NULL	VARCHAR2(120)
INTEGRATION_STATUS	POSSIBLY NULL	VARCHAR2(1)
SHIP_COMPLETE	POSSIBLY NULL	VARCHAR2(1)
TAXABLE	POSSIBLY NULL	VARCHAR2(1)
PO_NUMBER	POSSIBLY NULL	VARCHAR2(50)
PAYMENT_TYPE	NOT NULL	NUMBER(20)
CREDIT_CARD_TYPE	POSSIBLY NULL	NUMBER(20)
CREDIT_CARD HOLDER	POSSIBLY NULL	VARCHAR2(300)
PAYMENT_EXPIRATION_DATE	POSSIBLY NULL	DATE
PAYMENT_NUMBER	POSSIBLY NULL	VARCHAR2(120)
SHIPPING_METHOD_CODE	POSSIBLY NULL	NUMBER(20)

TABLE 382. CMGT_ORDER_ADDRESSES Table (Continued)

Name	Null?	Type
SHIPPING_METHOD	POSSIBLY NULL	VARCHAR2(20)
SHIPPING_CHARGES	POSSIBLY NULL	FLOAT
SHIPPED_STATUS	POSSIBLY NULL	VARCHAR2(1)
SHIP_TYPE_FLAG	POSSIBLY NULL	VARCHAR2(1)
LAST_NAME	POSSIBLY NULL	VARCHAR2(90)
FIRST_NAME	POSSIBLY NULL	VARCHAR2(90)
EMAIL_ADDRESS	POSSIBLY NULL	VARCHAR2(120)
PHONE_NUMBER	POSSIBLY NULL	VARCHAR2(30)
ENCRYPTION_SEED	POSSIBLY NULL	VARCHAR2(60)
ERP_MESSAGE	POSSIBLY NULL	NUMBER(20)
VERTICAL_KEY	POSSIBLY NULL	NUMBER(20)
MEMO	POSSIBLY NULL	VARCHAR2(240)
VERTICAL_MARKET	POSSIBLY NULL	VARCHAR2(360)
CART_NAME	POSSIBLY NULL	VARCHAR2(360)
CART_STATUS	POSSIBLY NULL	VARCHAR2(360)
CART_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
PARTNER_KEY	POSSIBLY NULL	NUMBER(20)
CONTACT_KEY	POSSIBLY NULL	NUMBER(20)
TOTAL	POSSIBLY NULL	FLOAT(126)
ROUTE_STATUS_CODE	POSSIBLY NULL	NUMBER(20)
ROUTE_STATUS	POSSIBLY NULL	VARCHAR2(120)
ROUTE_USER_KEY	POSSIBLY NULL	NUMBER(20)
ROUTE_NOTES	POSSIBLY NULL	VARCHAR2(480)
ROUTE_FROM_USER_KEY	POSSIBLY NULL	NUMBER(20)
ROUTE_DATE	POSSIBLY NULL	DATE
MEMBER_LEVEL	POSSIBLY NULL	VARCHAR2(60)
PARTNER_LEVEL_CODE	POSSIBLY NULL	NUMBER(20)
CUSTOMER_TYPE_CODE	POSSIBLY NULL	NUMBER(20)

CMGT_ORDER_LINE_ITEMS

In earlier releases, CMGT_ORDER_LINE_ITEMS was used to record line item-level information for orders. It has been superseded by the CMGT_ORDER_LI_EXTN table.

TABLE 383. CMGT_ORDER_LINE_ITEMS Table

Name	Null?	Type
CART_LINE_KEY	NOT NULL	NUMBER(20)
CART_KEY	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
DELIVERY_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
SKU	POSSIBLY NULL	VARCHAR2(120)
DESCRIPTION	POSSIBLY NULL	VARCHAR2(480)
SKU_AUTHORITY	POSSIBLY NULL	VARCHAR2(360)
TOTAL_AMOUNT	POSSIBLY NULL	FLOAT
SHIPPING_METHOD	POSSIBLY NULL	VARCHAR2(20)
SHIPPING_METHOD_CODE	POSSIBLY NULL	NUMBER(20)
SHIPPING_CHARGES	POSSIBLY NULL	FLOAT
SHIPPED_STATUS	POSSIBLY NULL	VARCHAR2(1)
QUANTITY	POSSIBLY NULL	NUMBER(20)
QUANTITY_SHIPPED	POSSIBLY NULL	NUMBER(20)
QUANTITY_RETURNED	POSSIBLY NULL	NUMBER(20)
UNIT_OF_MEASURE	POSSIBLY NULL	VARCHAR2(60)
UNIT_OF_MEASURE_CODE	POSSIBLY NULL	NUMBER(20)
LIST_PRICE	POSSIBLY NULL	FLOAT
CONFIG_FLAG	POSSIBLY NULL	VARCHAR2(1)
PARENT_KEY	POSSIBLY NULL	NUMBER(20)
CONFIG_CONTAINER	POSSIBLY NULL	VARCHAR2(50)
SELL_PRICE	POSSIBLY NULL	FLOAT
MEMO	POSSIBLY NULL	VARCHAR2(240)

TABLE 383. CMGT_ORDER_LINE_ITEMS Table (Continued)

Name	Null?	Type
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)
CONFIG_ID	POSSIBLY NULL	VARCHAR2(25)
REQUESTED_DATE	POSSIBLY NULL	DATE
SHIPPED_DATE	POSSIBLY NULL	DATE
SHIP_COMPLETE	POSSIBLY NULL	VARCHAR2(1)
SERIALIZABLE_FLAG	POSSIBLY NULL	NUMBER(1)
ORDER_STATUS	POSSIBLY NULL	NUMBER(20)
RETURN_CODE	POSSIBLY NULL	NUMBER(20)
RETURN_REQUEST_DATE	POSSIBLY NULL	DATE
RETURN_APPROVAL_DATE	POSSIBLY NULL	DATE
RETURN_STATUS	POSSIBLY NULL	NUMBER(20)
RETURN_REASON	POSSIBLY NULL	NUMBER(20)
SPECIAL_INSTRUCTIONS_FLAG	POSSIBLY NULL	NUMBER(1)
CONFIGURATION_KEY	POSSIBLY NULL	NUMBER(20)
BUYER_SKU_AUTHORITY	POSSIBLY NULL	VARCHAR2(360)

CMGT_RECIP_SELECTION_CRITERIA

CMGT_RECIP_SELECTION_CRITERIA stores information about the selection criteria used in campaigns. Each criteria comprises a number of query fields with an operator and a value used to form the query. Its primary key is CRITERION_KEY.

TABLE 384. CMGT_RESOURCE Table

Name	Null?	Type
MAILING_LIST_KEY	NOT NULL	NUMBER(20)
CRITERION_KEY	NOT NULL	NUMBER(20)
QUERY_FIELD	POSSIBLY NULL	VARCHAR2(120)
OPERATOR	POSSIBLY NULL	NUMBER(20)
VALUE	POSSIBLY NULL	VARCHAR2(480)
DATA_TYPE	POSSIBLY NULL	NUMBER(20)
UPDATE_DATE	POSSIBLY NULL	DATE
UPDATED_BY	NOT NULL	NUMBER(20)

TABLE 384. CMGT_RESOURCE Table (Continued)

Name	Null?	Type
CREATION_DATE	POSSIBLY NULL	DATE
CREATED_BY	NOT NULL	NUMBER(20)
OWNED_BY	NOT NULL	NUMBER(20)
ACTIVE_FLAG	POSSIBLY NULL	VARCHAR2(1)

The Sterling Multi-Channel Selling Solution stores all information related to the user segmentation feature in the segmentation database. The segmentation database is a separate DBMS instance from the Knowledgebase used for transactional application data. This chapter provides a description of the tables that make up the segmentation database schema.

Database Schema

The segmentation database schema has much in common with the Knowledgebase schema used by the Sterling Multi-Channel Selling Solution for transactional data. See "Knowledgebase Schema" on page 161 for more information, in particular the "Reference Implementation," "Access Control," and "Standard Columns" sections.

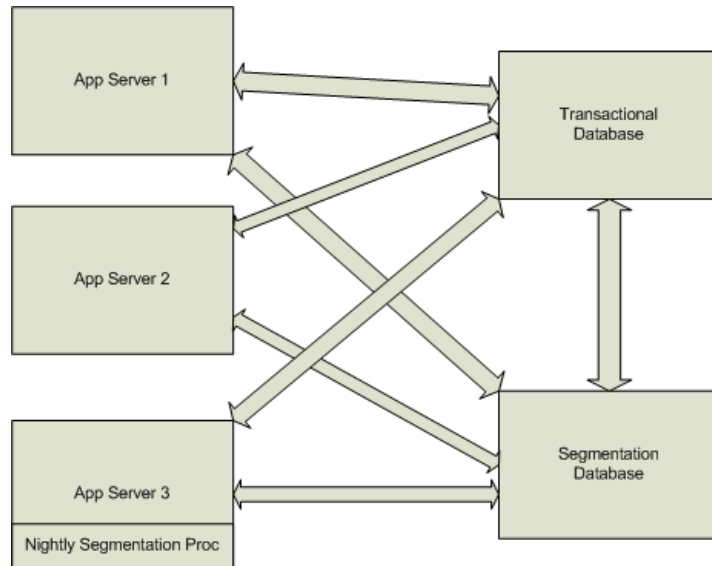
Architecture

Data related to user segmentation resides on the segmentation database, which is distinct from the Knowledgebase used by the application for transactional data. For performance reasons, we recommend a configuration in which the segmentation database and the transactional database are on distinct DBMS instances on separate physical servers. Other possible configurations include two distinct DBMS instances on a single physical server, and two databases on the same DBMS instance and same physical server. The same *type* of DBMS must be used for both

the segmentation database and the Knowledgebase. For example, if Oracle is used for the Knowledgebase, then Oracle must be used for the segmentation database as well.

The only types of DBMS supported for the segmentation database are Oracle and Microsoft SQL Server.

The segmentation *engine* is deployed on all application server instances. So in a clustered environment any of the application server instances might initiate “on-demand” segment building. The nightly segmentation build performed by a scheduled CRON job, however, will be initiated by only one instance of the application server/segmentation engine.



Data is written to the segmentation database in several ways. Sometimes the application writes data directly to the segmentation database using a direct JDBC connection, just as it does to the transactional database. In other cases database links may directly join data in the segmentation database and the transactional database. Data will also be transferred from the transaction database to the segmentation database.

Segmentation Database Tables

The tables of the segmentation database are documented in "Segmentation Database Tables" on page 366

This chapter provides a guide to the logging capabilities of the Sterling Multi-Channel Selling Solution.

Servlet Container Logging

The logging capabilities of the Sterling Multi-Channel Selling Solution have been upgraded to use the log4j framework. You can specify a logger for each class, and then you can select the logging level for the logger to one of the following values: ERROR, WARNING, INFO, VERBOSE, or NONE. The logging levels are set in the **log4j.properties** configuration file.

You can change the logging level through the System Administrator functions of the Sterling Multi-Channel Selling Solution. See the *Sterling Multi-Channel Selling Solution Administration Guide* for further details.

Format of Logging Files

Each log entry line has the following format:

```
dateStamp timeStamp threadID:logLevel:logTag messages ...
```

For example:

```
2002.03.26 19:27:24:296 Env/jcp-1:11:CORE User "ajones" attached to
```

Session: 1079641017199199406

The first three fields are fixed and are space-separated. The third of these fields has three sub-fields (labeled 3.1, 3.2, and 3.3 in the table) which are colon-separated.

TABLE 385. Logging Fields

Field position	Name	Example	Comments
1	dateStamp	2002.03.26	The 'date stamp' for the log entry. In Java, this format is mapped to yyyy.MM.dd (see javadoc for SimpleDateFormat)
2	timeStamp	19:27:24:296	The 'time stamp' for the log entry. In Java, this format is mapped to HH:mm:ss:SSS (see javadoc for SimpleDateFormat)
3.1	threadID	Env/jcp-1	This is the threadName of the current thread. In Java, this is the value of Thread.currentThread().getName()
3.2	logLevel	I1	This is the value of the log level assigned to this log entry. The valid values are provided below.
3.3	logTag	CORE	This is a tag assigned to this log entry. It is used to categorize a set of related log entries. The values currently used are provided below.
4	messages	User "ajones" attached to Session: 107964101 719919940 6	An application-specific message.

Valid Values for logLevel

- V1, V2, V3: log level VERBOSE1, VERBOSE2, VERBOSE3. In practice, only V1 is used.

- I1, I2, I3: log level INFO1, INFO2, INFO3. In practice, only I1 is used.
- W1, W2, W3: log level WARNING1, WARNING2, WARNING3. In practice, only W1 is used.
- ER: log level ERROR.
- AL: log level ALWAYS.
- NO: log level NONE.

List of Current Tags

- AUTH: Authentication (user, login, logout, and so on)
- CONFIGURATOR: Configurator
- CONVERTER: the Message Converter converting XML message into internal representation
- CORE: core services: wrapper classes, the DispatchServlet, and so on
- CRON: cron jobs
- DATASERVICES: data layer
- ENTL: Entitlement
- MESSAGING: XML messaging layer (include RosettaNet and other message protocols)
- MSGT: MessageTypes
- PunchOut: PunchOut
- RULES: Configurator rules
- showHeader: show incoming HTTP headers
- showRequest: show incoming HTTP request (URI with query strings)
- SQLTRACE: show SQL statements

Memory Usage

Statistics for current memory, runtime total memory, and maximum memory usage are included in each log entry, in bytes, separated by forward slashes (“/”), similar to the following format:

currentMemory/runtime.totalMemory()/maxMemory

- `currentMemory`: The amount of memory currently in use by the JVM (the heap).
- `runtime.totalMemory()`: The total amount of memory in use as reported by the `Runtime()` API.
- `maxMemory`: The maximum amount of memory that has been used during the current uptime.

For example, the following memory entry indicates that current memory usage is 105,950,072 bytes; runtime total memory usage is 134,217,728 bytes, and the maximum memory usage during the current uptime has been 131,781,144 bytes.

```
Mem=105950072/134217728/131781144
```

BEGIN of a Request

Here is an example of the beginning of a request log entry:

```
2001.10.09 16:00:02:397 Env/Thread-63:W1:CORE BEGIN Request.
Sess=GXLiteSessionID-3649421531619342426 MT=advisorSimpleList
IP=10.6.0.25 Mem=105950072/134217728/131781144 Thrds=60
```

TABLE 386. Beginning Request Log Entry

Key Name	Example	Comment
Sess	Sess=GXLiteSessionID-3649421531619342426	The current servlet session ID
MT	MT=advisorSimpleList	The messageType of the request
IP	IP=10.6.0.25	The IP address of the client
Mem	Mem=105950072/134217728/131781144	Memory usage (in bytes): currentMemory /runtime.totalMemory()/maxMemory
Thrds	Thrds=60	Current number of threads

END of a Request

Here is an example of the end of a request log entry:

```
2001.10.09 16:00:02:716 Env/Thread-63:W1:CORE END Request. Ses-
sion=GXLiteSessionID-4141134421437191520 Mem=104581280/134217728/
```

131781144 Thrds=60

TABLE 387. Ending Request Log Entry

Key Name	Example	Comment
Session	Session=GXLiteSessionID-4141134421437191520	The current servlet session ID
Mem	Mem=104581280/134217728/131781144	Memory usage (in bytes): currentMemory/ runtime.totalMemory()/ maxMemory
Thrds	Thrds=60	Current number of threads

Java Exceptions

When a Java exception occurs (as an error condition), the Java exception is logged verbatim to the log file. The Java exception has the following format:

```
Exception message
stackTrace1
stackTrace2
...
stackTraceN
```

For example:

```
java.lang.reflect.InvocationTargetException: java.lang.NullPointerException
at com.comergent.apps.pricingMgr.pmComergent.beans.PriceListHeader-
ListExtBean.<init>(PriceListHeaderListExtBean.java:86)
at java.lang.reflect.Constructor.newInstance(Native Method)
at com.comergent.dcm.objmgr.SimpleObjectFactory.getObject(SimpleOb-
jectFactory.java:93)
at com.comergent.dcm.objmgr.ObjectManager.getObject(ObjectMan-
ager.java:127)
at com.comergent.dcm.util.OMWrapper.getObject(OMWrapper.java:56)
at com.comergent.dcm.util.OMWrapper.getObjectArg(OMWrapper.java:106)
at
com.comergent.apps.pricingMgr.pmComergent.controller.PricingMgrPriceL
istShowAllController.attachListBean(PricingMgrPriceListShowAllCon-
troller.java:254)
```

This chapter provides a guide to the server to server messages that are used when implementing the Sterling Multi-Channel Selling Solution.

Messages

When one enterprise server receives a request message from another enterprise server it responds by first processing the request and then returning a reply message to the requesting enterprise server.

In general, the responding enterprise server attempts to respond to a request by returning a reply of the same type: a login reply in response to a login request, a price and availability reply in response to a price and availability request, and so on. Each reply message contains a reply header as one of its constituent elements. The reply header document type definition (DTD) is provided in CHAPTER 2, "Document Type Definitions".

The following codes are used in server to server messages:

- **MessageType:** One element of the message header is the *MessageType*. This specifies the type of each message. For example:

```
<MessageType>LoginRequest</MessageType>
```
- **ReplyStatusCode:** One element of the reply header element is the *ReplyStatusCode*. This element provides either an indication that the

responding enterprise server is successful in responding to the request or that an error has occurred. For example:

```
<ReplyStatusCode>3008</ReplyStatusCode>
```

- **OrderType:** One element of the price and availability request and shopping cart transfer request message types is the OrderType code. This specifies the customer type of the customer.

```
<OrderType>General</OrderType>
```

In addition, the Sterling Multi-Channel Selling Solution supports the inclusion of line-level reply status codes that indicate the status of each line of a price and availability reply. These enable the requesting enterprise server to display the returned price and availability information accurately to a user.

If the processing fails or the responding enterprise server cannot identify the incoming request message type, then it returns a *processing failure reply* message to indicate that the type of failure is more severe.

The DTD of the processing failure reply message is also provided in CHAPTER 2, "Document Type Definitions". A sample processing failure reply message looks like this:

```
<?xml version="1.0"?>
<ProcessingFailureReply>
  <MessageHeader>
    <MessageType>ProcessingFailureReply</MessageType>
    <MessageVersion>1.0</MessageVersion>
    <MessageID>1</MessageID>
    <SessionID>0</SessionID>
  </MessageHeader>
  <ReplyHeader>
    <ReplyStatusCode>3008</ReplyStatusCode>
    <ReplyStatusMessage>Session timed out</ReplyStatusMessage>
  </ReplyHeader>
</ProcessingFailureReply>
```

MessageType Codes

The MessageType code is used to specify the type of message being sent. The following are valid MessageType codes:

TABLE 388. MessageType Code Usage

Meaning	Value
Price and availability request message type	PriceAvailabilityRequest
Price and availability reply message type	PriceAvailabilityReply
Shopping cart transfer request message type	ShoppingCartTransferRequest
Shopping cart transfer reply message type	ShoppingCartTransferReply
Order acknowledgement message type	DistiOrderAckRequest

ReplyStatusCodes

The ReplyStatusCode element provides an indication of the source of the processing problem. They are defined in the MessageStatusCodes interface and are used primarily by the application logic classes. The following ReplyStatusCode values are currently supported:

TABLE 389. Reply Status Codes Usage

Meaning	Value	Description	Usage
SUCCESS	0000	Success	Both
QUANTITY_UNAVAILABLE	2001	Quantity is not returned in message	Line
PRICE_UNAVAILABLE	2002	Price is not returned in message	Line
SKU_NOT_FOUND	2003	The server is unable to identify the product ID	Line
SKU_DISCONTINUED	2004	The product ID is no longer supported	Line
USER_UNAUTHORIZED	2005	User is not authorized to buy this product ID	Line

TABLE 389. Reply Status Codes Usage (Continued)

Meaning	Value	Description	Usage
REPLACEMENT_SKU	2006	The requested product ID is not available: the returned product ID is offered as an alternative product	Line
INVALID_MARKET_TYPE	2010	This user is not authorized to buy products for this customer type	Header
LOGIN_INVALID	3001	Username and Password invalid	Header
SESSION_INVALID	3002	Session has timed-out or is not available	Header
PA_FAILED	3003	PricingAvailability cannot be determined	Line
REQUEST_FAILED	3004	Request cannot be processed	Header
CATASTROPHIC_ERROR	3005	Catastrophic error	Header
SCT_FAILED	3006	Shopping Cart Transfer not successful	Header
SYSTEM_UNAVAILABLE	3007	System not available	Header
SESSION_ABORTED	3008	Session aborted	Header
DUPLICATE_SHOPPING_CART	3009	Duplicate Shopping Cart	Header
INVALID_ORDER_TYPE	3010	Invalid order type	Header
INVALID_USER_FOR_ORDER_TYPE	3011	User not authorized for order type	Header

OrderType codes

The following are the recognized codes supported by the reference implementation of the Sterling Multi-Channel Selling Solution:

TABLE 390. OrderType Code Usage

Code	Description	RosettaNet Equivalent
ACT	Accounting	
ANY	Any available	Any Available
BNK	Banking/Finance	
BUS	Business/Office Automation	
COM	Commercial	
CON	Construction/Architecture	
DIS	Wholesale/Distribution	Distribution
EDU	Education	
ENG	Engineering/Scientific	
ENT	Entertainment/Multimedia/Graphic	
ERT	E-Rate	
FED	Federal government	Federal Government
GOV	Government/Military/Aerospace	
HED	Higher Education	Higher Education
HLC	Healthcare	
INS	Insurance	
ISP	Service provider	
K12	K-12 Education	Primary Education
LOC	Local Government	Local Government
LST	List	List
MFG	Manufacturing	
MSR	MSRP	MSRP
NPR	Not-for-profit	Nonprofit
NWK	Networking/Systems Management	
OEM	OEM	OEM
OTH	Other	
REC	Food Service/Hospitality/Recreation	

TABLE 390. OrderType Code Usage (Continued)

Code	Description	RosettaNet Equivalent
REL	Religious Institutions	Religious Institutions
RES	Real Estate	
RET	Retail	
SAM	Security and management resell	
SEC	Secondary Education	Secondary Education
SPE	Special Education	Special Education
STA	State Government	State Government
TEL	Wireless/Telecommunication	
TNP	Transportation	
UTL	Utilities	

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