

Net.Commerce for NT, AIX and Solaris



MQSeries Adapter

Version 3.2

Net.Commerce for NT, AIX and Solaris



MQSeries Adapter

Version 3.2

Note!

Before using this information and the product it supports, be sure to read the general information under in the Notices section.

Contents

Chapter 1. Net.Commerce MQSeries Adapter	1
MQSeries as Middleware	1
Net.Commerce MQSeries Adapter Outbound Messages	1
Net.Commerce MQSeries Adapter Inbound Messages	2
Enable the Net.Commerce MQSeries Adapter Messages	2
Access Control for the MQSeries Adapter	3
Enable the MQSeries Adapter	3
Enable Outbound Messages	5
MQSeries Adapter Outbound Message Extension	5
MQSeries Adapter Inbound Message Extension	6
MQSeries Adapter New Outbound Message Support	6
MQSeries Adapter New Inbound Message Support.	7
ECEOUT: Net.Commerce MQSeries Adapter Outbound Messages Request Table	7
ECETMPT: Net.Commerce MQSeries Adapter Messages Template Table	7
ECTPTITM: Net.Commerce MQSeries Adapter Messages Template Item Table	7
ORDERMSG: Net.Commerce MQSeries Adapter Order Create Message Table	8
ORDISTAT: Net.Commerce MQSeries Adapter Order Item Status Table	8
ORDSTAT: Net.Commerce MQSeries Adapter Order Status Table	9
 Chapter 2. Net.Commerce MQSeries Adapter Messages.	11
Order Create Message	12
ORDER_CREATE_PROLOG_DATA	13
ORDER_CREATE_HDR010_DATA.	13
ORDER_CREATE_HDR020_DATA.	14
ORDER_CREATE_HDR030_DATA.	15
ORDER_CREATE_HDR040_DATA.	16
DATUSR_DATA for Outbound Messages	17
ORDER_CREATE_ITM010_DATA	18
Order Status Update Message	19
ORDER_STATUS_UPDATE_PROLOG_DATA.	21
ORDER_STATUS_UPDATE_HDR010_DATA	21
DATUSR_DATA for Inbound Messages	22
Product Quantity Update Message	24
PRODUCT_QUANTITY_UPDATE_PROLOG_DATA	25
PRODUCT_QUANTITY_UPDATE_HDR010_DATA	25
Product Price Update Message	25
PRODUCT_PRICE_UPDATE_PROLOG_DATA	26
PRODUCT_PRICE_UPDATE_HDR010_DATA	27
Customer New Message	29
CUSTOMER_NEW_PROLOG_DATA	30
CUSTOMER_NEW_HDR010_DATA	30
DATUSR_DATA for Inbound Messages	33
Customer Update Message	33
CUSTOMER_UPDATE_PROLOG_DATA	34
CUSTOMER_UPDATE_HDR010_DATA	34
DATUSR_DATA for Inbound Messages	37
 Chapter 3. Commands.	39
AdminRegisterNew Command	39
AdminRegisterUpdate Command	43
OrderItemStatusCmd Command.	46
OrderStatusCmd Command	48
ParseMQMsg Command	49

ProdPriceUpdateCmd Command	50
ProductUpdateQuantity Command	51
SendMQUserMsg Command	52
SendOrderMsg Command	53
Chapter 4. Process Tasks	55
DO_PRE_ORDER_ITEM_STATUS_UPDATE Process Task	55
DO_PRE_ORDER_STATUS_UPDATE Process Task	55
DO_PRE_PRODUCT_PRICE_UPDATE Process Task	55
DO_PRE_PRODUCT_QUANTITY_UPDATE Process Task	56
EXT_ORD_PROC Process Task	56
EXT_ORDER_ITEM_STATUS_UPDATE Process Task	57
EXT_ORDER_STATUS_UPDATE Process Task	57
EXT_PRODUCT_PRICE_UPDATE Process Task	57
EXT_PRODUCT_QUANTITY_UPDATE Process Task.	58
EXT_SEND_ORDERMSG Process Task	58
GET_USER_MQ_MESSAGE Process Task	58
GET_USRLST_ORDER_CREATE_HDR_MSG Process Task	59
GET_USRLST_ORDER_CREATE_ITM_MSG Process Task	59
INBOUND_NEW_MESSAGE Process Task	60
Chapter 5. Overridable Functions	61
ECEExtOrdProc_1.0(IBM,NC) Overridable Function	61
NewMessage_1.0(IBM,NC) Overridable Function	61
Chapter 6. Configuration Files.	63
Net.Commerce MQSeries Adapter Configuration File	63
Notices.	65

Chapter 1. Net.Commerce MQSeries Adapter

The Net.Commerce MQSeries adapter, or simply the MQSeries adapter, is a component of Net.Commerce that enables integration with back-end systems, using MQSeries as middleware. The MQSeries adapter supports sending and receiving messages using MQSeries.

The MQSeries adapter works with a set of defined outbound and inbound messages that help integrate Net.Commerce business processing with back-end system business processing. In addition, the adapter supports message extension and new messages.

MQSeries as Middleware

The MQSeries adapter allows you to integrate back-end systems with Net.Commerce using MQSeries as middleware. MQSeries messaging system enables Net.Commerce to send MQSeries messages to the back-end system and receive messages back into the Net.Commerce server.

You can set up MQSeries in either of two configurations: MQSeries client/server-to-server, or MQSeries client-to-server. For the client/server-to-server interface, Net.Commerce is installed on the same machine as the MQSeries server. For the client-to-server interface, Net.Commerce is installed on one machine and the MQSeries server is installed on a back-end system. For details on how to install and configure MQSeries, refer to your MQSeries documentation.

Once you have set up MQSeries, ensure that you do the following tasks before you run the ncmqbridge executable and enable MQSeries adapter:

- The queue manager, inbound message queue, outbound message queue, and error queue must be defined.
- The database user logon ID must have the authority to read and write to the queue manager and queues in the ncei_ece configuration file, as well as to read and write from the queue manager and queues. If you do not know the database user logon ID, use Configuration Manager to determine this.
- If you are using the MQSeries client configuration, all the required channels must be defined and you must identify the channel name that the MQSeries client will use to communicate with the MQSeries server.

You can verify the MQSeries connections, queues, and channels by running test programs to put messages into and get messages from MQSeries queues. For details on how to do this, refer to your MQSeries documentation.

Net.Commerce MQSeries Adapter Outbound Messages

An *outbound message* is a Net.Commerce-generated message that can be sent to an external system. The Net.Commerce MQSeries adapter supports one outbound message, called Order Create. This message contains order information copied from the Net.Commerce server to external systems, where further order fulfillment processes take place. For example, when a shopper places an order, the order information is added to the Net.Commerce database tables, but to complete the order, you use a separate system to manage inventory, packaging, and shipping details.

Net.Commerce MQSeries Adapter Inbound Messages

An *inbound message* is a message that Net.Commerce receives from an external application. The Net.Commerce MQSeries adapter supports five inbound messages: Order Status Update, Product Quantity Update, Product Price Update, Customer Update, and Customer New.

The *Customer New* message updates the Net.Commerce database with new shopper information. If you already record customer information on an existing back-end system, rather than re-create this information from scratch, use this message to register the customer data on the Net.Commerce database. The Customer New message copies existing customer information from the back-end server to the Net.Commerce server.

The *Customer Update* message updates the Net.Commerce database with registered shopper information. The back-end customer management system updates customer information and sends the Customer Update message to Net.Commerce to update information about a registered shopper. The Customer Update message copies customer information from the back-end server to the Net.Commerce server.

The *Order Status Update* message updates the Net.Commerce database with the status of an order that is processed by a back-end application. For example, the shipping status of an order from the back-end fulfillment system can be updated in the Net.Commerce system by sending this message from the back-end system to Net.Commerce. The Order Status Update message copies the updated order status from the back-end server to the Net.Commerce server.

The *Product Price Update* message updates the Net.Commerce server with catalog prices. It is ideal for instances when an external or back-end system maintains product information, including prices. The external system can send the Product Price Update message to Net.Commerce to update prices in the Net.Commerce database. The Product Price Update message copies the pricing data from the back-end server to the Net.Commerce server.

The *Product Quantity Update* message updates the Net.Commerce server with product inventory. It is ideal for instances when an external or back-end inventory system maintains product inventory. The external system can send the Product Quantity Update message to Net.Commerce to update inventory in the Net.Commerce database. The Product Quantity Update message copies the inventory data from the back-end server to the Net.Commerce server.

Enable the Net.Commerce MQSeries Adapter Messages

To enable the Net.Commerce MQSeries adapter messages, do the following:

1. Install MQSeries. Refer to your MQSeries documentation on how to set up either the MQSeries client/server-to-server or the MQSeries client-to-server configuration.
2. Ensure that the queue manager, inbound message queue, outbound message queue, and error queue are defined. Refer to your MQSeries documentation for details.
3. Ensure that the database user logon ID has the authority to read and write to the queue manager and queues in the ncei_etc configuration file, as well as to read and write from the queue manager and queues. If you do not know the database user logon ID, use Configuration Manager to determine this.
4. If you are using the MQSeries client-to-server configuration, ensure that all the required channels are defined and that you have identified the channel name that the MQSeries client will use to communicate with the MQSeries server. Refer to your MQSeries documentation for details.
5. Ensure that you specify the NC_MQ_BRIDGE_USERID parameter which indicates access control for the MQSeries adapter.
6. Enable the Net.Commerce MQSeries adapter to support MQSeries by running the ncmqbridge executable for each instance of Net.Commerce that you have installed.

7. Enable outbound messages by configuring the EXT_ORD_PROC process task to use the ECEExtOrdProc overridable function.

Access Control for the MQSeries Adapter

When you enable the MQSeries adapter, the following commands are added to Net.Commerce and are automatically enabled for all administrators:

- SendOrderMsg
- SendMQUserMsg
- ParseMQMsg
- OrderStatusCmd
- OrderItemStatusCmd
- ProductUpdateQuantity
- ProdPriceUpdateCmd
- AdminRegisterNew
- AdminRegisterUpdate

These commands are run by the server that processes the MQSeries adapter messages. Since the server assumes the user name in the NC_MQ_BRIDGE_USERID parameter, you must ensure that the user identified in NC_MQ_BRIDGE_USERID is specified in the Site Administrators group within the Access Group Assignment form.

Enable the MQSeries Adapter

Before you enable the MQSeries adapter, ensure that you have installed MQSeries client/server-to-server or MQSeries thin client-to-server as middleware, created the necessary message queues, defined the database user logon ID, and specified the MQI channels for the MQSeries client to communicate with the MQSeries server.

To enable the MQSeries adapter, do the following:

1. On a command line, change to the directory that contains the ncmqbridge executable:

```
WIN <drive:>\IBM\Net.Commerce3\server\Admin
```

```
AIX /usr/lpp/NetCommerce3/server/Admin
```

```
SUN /opt/IBMnetc/NetCommerce3/server/Admin
```

2. Type the following command all on one line, with one space between each parameter:

```
ncmqbridge <instance_name> <port_number> <server_name> <inbound_queue_name>  
<outbound_queue_name> <error_queue_name> <queue_manager_name> <mqbridge_userid>  
<client/server> <channel_name> <server_port_number>
```

where:

<instance_name>

is the name of the instance for which the MQSeries adapter is to be enabled.

<port_number>

is an unused port number that can be used by the MQSeries adapter. This number can be any free TCP/IP port number on your Net.Commerce server (for example, 18,000 or 30,000).

<server_name>

is the full IP address of the machine where you installed the MQSeries server or the fully qualified host name of the system that Net.Commerce is running on (for example, user.company.ibm.com)

<inbound_queue_name>

is the name of the message queue that handles inbound messages to Net.Commerce.

<outbound_queue_name>

is the name of the message queue that handles outbound messages from Net.Commerce.

<error_queue_name>

is the name of the message queue that stores Net.Commerce error messages.

<queue_manager_name>

is the name of the MQSeries queue manager that handles inbound queues, outbound queues, and error queues.

<mqbridge_userid>

this user has access to execute the commands in Net.Commerce. Ensure that the user ID is specified in the Site Administrators group within the Access Group Assignment form.

<client/server>

is used to determine which library is used. Enter `server` if the MQSeries server and Net.Commerce are installed on the same machine. Enter `client` if the MQSeries client and Net.Commerce are installed on the same machine, and the MQSeries server is on a separate machine. The client configuration setup uses TCP/IP as the default communication protocol between MQSeries client and server. If a different communication protocol is used, modify the `MQSERVER` environment variable appropriately. The database instance user's profile is modified with this environment variable.

<channel_name>

is the name of the communication link between the client and server message queues. This channel is associated with the queue manager. The channel name is only required if you are using the MQSeries client configuration (as specified by indicating `client` in the `<client/server>` parameter above).

<server_port_number>

is the server port number used when creating a channel on the MQSeries server side. This number is an optional parameter that is used only in the case that a non-default port number is specified when creating the channel. The default port number is 1414.

3. Log out of and log back into your system to properly set the `MQSERVER` environment variable. This step is only required if you entered `<channel_name>` parameter value of `client`.
4. The `ncmqbridge` executable has set up some default parameters. Modify these parameter values, if desired.

Net.Commerce MQSeries Adapter Executable

When you enable the Net.Commerce MQSeries adapter to support MQSeries, you must run the Net.Commerce MQSeries adapter executable for each instance of Net.Commerce that you have installed. This executable is called:

WIN `ncmqbridge.exe`

AIX **SUN** `ncmqbridge`

When you run the executable, the following happens:

- The Net.Commerce MQSeries adapter configuration file is created. This file is called:

WIN `ncci_ece.ini`

AIX **SUN** `ncci_ece.conf`

- If the channel name is specified when you ran the executable, an environment variable, called MQSERVER, is set in:

WIN the registry

AIX SUN the \$HOME/profile directory

- The server controller configuration file is modified. This file is called:

WIN svrctrl.ini

AIX SUN svrctrl.conf

In addition, the executable appends the path of the ncei_ece configuration file to CONTROL_POOL_CONFIG parameter in the server controller configuration file.

- An entry is added to the services file. This file is located in the following directory:

WIN <drive:>\Winnt\system32\drivers\etc

AIX SUN /etc

Enable Outbound Messages

Once you install and enable the Net.Commerce MQSeries adapter, the inbound messages are enabled by default. However, to enable the Order Create outbound message for new orders, you must configure the EXT_ORD_PROC process task to use the ECEExtOrdProc overridable function.

To configure the EXT_ORD_PROC process task, do the following:

1. Open Net.Commerce Administrator.
2. On the task bar, click **Site Manager**, and then click **Task Management**.
3. From the **Select Task Type** drop-down list, select **PROCESS**. The **Task Name** list appears in the bottom frame.
4. From the **Task Name** list, click on the **EXT_ORD_PROC** link to fill the Task Management form fields.
5. If you wish to change the scope of the task, select **Mall** or **Store** from the **Scope** drop-down list and click **Save** to save the changes.
6. On the task bar, click **Task Assignment**.
7. Ensure that the **Task Type** field contains **PROCESS** and the **Task Name** field contains **EXT_ORD_PROC**. If they do not, return to the Task Management form and repeat the above steps.
8. Select the store name, or, if you are the site administrator and are enabling the entire site for this message, select **MALL**.
9. From the **Overridable Functions** list, select **ECEExtOrdProc**.
10. Click **Update**. A message appears to indicate that the task EXT_ORD_PROC will now be performed by the function ECEExtOrdProc.
11. Stop and restart the Net.Commerce server.

MQSeries Adapter Outbound Message Extension

The Order Create message includes the USRLST record, which contains the DATUSR_DATA data segment. DATUSR allows you to add optional fields to a message. You can provide additional data in a memory buffer. Ensure that this data is in the format of the USRLST record, by writing overridable functions and associating them with the process tasks in the following table:

Message	USRLST Section	Process Task Called
Order Create	<HEADER>	GET_USRLST_ORDER_CREATE_HDR_MSG
Order Create	<ITMDAT>	GET_USRLST_ORDER_CREATE_ITEM_MSG

The SendOrderMsg command will call the overridable functions to get the USRLST records, which are required to prepare the Order Create message to be sent to the outbound message queue.

MQSeries Adapter Inbound Message Extension

The Order Status Update, Product Quantity Update, Product Price Update, Customer New, and Customer Update messages include the USRLST record, which contains the DATUSR_DATA data segment. The following table outlines the USRLST record sections and the process tasks:

Message	USRLST Section	Process Task Called
Order Status Update	<HEADER>	EXT_ORDER_STATUS_UPDATE DO_PRE_ORDER_STATUS_UPDATE
Order Status Update	<ITMDAT>	EXT_ORDER_ITEM_STATUS_UPDATE DO_PRE_ORDER_ITEM_STATUS_UPDATE
Product Quantity Update	<HEADER>	EXT_PRODUCT_QUANTITY_UPDATE DO_PRE_PRODUCT_QUANTITY_UPDATE
Product Price Update	<HEADER>	EXT_PRODUCT_PRICE_UPDATE DO_PRE_PRODUCT_PRICE_UPDATE
Customer New	<HEADER>	AUDIT_REG
Customer Update	<HEADER>	AUDIT_REG

Notes:

- The ParseMQMsg command parses all DATUSR data from the USRLST record to generate name-value pairs. All DATUSR data from the USRLST record is provided in name-value pair format. The names of each member of the name-value pair correspond to the field name in the DATUSR_DATA data segment. Each DATUSR record corresponds to one name-value pair. The name-value pair is provided to the task in an http request.
- The specific operation that is carried out by writing your own overridable function for tasks is listed above. This overridable function will get parsed data from the MQSeries message in the name-value pairs, including the user data in the http request.

MQSeries Adapter New Outbound Message Support

In addition to the Order Create message, you can add support for new outbound messages. To add new outbound messages, call the GET_USER_MQ_MESSAGE process task, which returns a buffer containing the message to be sent. The SendMQUserMsg command invokes this task. Upon successful return of the buffer, the buffer is put on the Net.Commerce outbound queue. You can schedule new messages to be sent by adding a new row to the table ECEOUT with a value of MQ_USER_MSG in the column ECTYPE.

To insert a row in the table ECEOUT, you can follow a typical scenario by writing an overridable function which is called by a task. For example, for the Order Create message, an overridable function linked to the EXT_ORD_PROC process task adds a row to the table ECEOUT. You can use an SQL INSERT statement to add a row to the table ECEOUT, and assign the column ECETYPE a value of MQ_USER_MSG and the column ECSTAT a value of 1. To get the value for the column ECREFNUM, use the table KEYS and increase this value into the table. Columns ECREQNUM and ECEFIELD1 can be used to store data required for passing the overridable function linked to the GET_USER_MQ_MESSAGE process task. During outbound message processing, the new entries from the table ECEOUT are picked up and processed. In the case of the MQ_USER_MSG value for the column ECTYPE, the overridable function related to the GET_USER_MQ_MESSAGE task is called.

MQSeries Adapter New Inbound Message Support

In addition to the Order Status Update, Product Quantity Update, Product Price Update, Customer New, and Customer Update messages, you can add support for new inbound messages. To add new inbound messages, override the INBOUND_NEW_MESSAGE process task by writing an overridable function. This overridable function will receive a buffer containing the message read from the inbound MQSeries queue. Ensure that the overridable function performs the necessary steps for processing the buffer.

ECEOUT: Net.Commerce MQSeries Adapter Outbound Messages Request Table

The table ECEOUT contains request information for outbound messages that the MQSeries adapter sends out to the NC_MQ_OUTBOUND message queue. Each row in the table contains information about a single message.

Column Name	Column Type	Column Description
ECREFNUM	INTEGER NOT NULL	Request reference number. This is a unique index.
ECTYPE	CHAR (30)	Type of outbound message request. Default defined value is ORDER_CREATE.
ECREQNUM	INTEGER NOT NULL	Order reference number used as a key for the message type defined in column ECTYPE.
ECSTAT	INTEGER	Sending status of the request identified in this record. Three options are available: 1 - Ready to be sent 2 - Sent 3 - Error in sending
ECMENBR	INTEGER	Merchant reference number for the request. This is a foreign key that references column MERFNBR in table MERCHANT.
ECEFIELD1	VARCHAR (255)	Customization field 1.

ECETMPT: Net.Commerce MQSeries Adapter Messages Template Table

The table ECETMPT contains information used internally by IBM to process messages. The table is one of two tables that store template information for the Net.Commerce MQSeries adapter messages. The other table is called ECTPTITM. The table ECETMPT works with the information in table ECTPTITM.

Column Name	Column Type	Column Description
ECRFNBR	INTEGER	Reference number, which is also a key used internally by IBM. This is a primary key with a unique index.
ECDOCTYP	CHAR (8)	Message type.
ECDOCVER	CHAR (2)	Version type.
ECRECTYP	CHAR (10)	Record type.
ECRECVER	CHAR (2)	Record version number.
ECCOMMANDNAME	CHAR (128)	Command name.

ECTPTITM: Net.Commerce MQSeries Adapter Messages Template Item Table

The table ECTPTITM contains information used internally by IBM to process messages. The table is one of two tables that store template information for the Net.Commerce MQSeries adapter messages. The

other table is called ECETMPT. The table ECTPTITM depends on the information in table ECETMPT.

Column Name	Column Type	Column Description
ECITMRFNBR	INTEGER	Reference number, which is also a key used internally by IBM. This is a primary key with a unique index.
ECRFNBR	INTEGER	Reference number. This is a foreign key that references column ECRFNBR in table ECETMPT.
ECSEQNO	INTEGER	Position or sequence number of the field in the record.
ECNAME	CHAR (64)	Name of the field.
ECSIZE	INTEGER	Expected size of the field.
ECISTAG	CHAR (1)	Used internally by IBM for processing messages. A value of 1 specifies a tag field and indicates that the column ECNAME contains the value of the tag.
ECFLDDT	CHAR (1)	Used to flag the field data type and specify whether it requires special processing. Two options are available: S - String T - Timestamp If the timestamp is in the same format as the database expects, this value is S.

ORDERMSG: Net.Commerce MQSeries Adapter Order Create Message Table

The table ORDERMSG contains formatted records that are sent during an Order Create message. Each row in the table contains information about a message.

Column Name	Column Type	Column Description
OMREFNUM	INTEGER NOT NULL	Request reference number. This is a unique index.
OMORNBR	INTEGER NOT NULL	Net.Commerce order reference number. This is a foreign key that references column ORRFNBR in table ORDERS.
OMRECNAME	CHAR (10)	Name of the record. Together with OMORNBR and OMRECSEQ, this forms a unique index.
OMRECSEQ	INTEGER	Position or sequence number of the record name. Together with OMORNBR and OMRECNAME, this forms a unique index.
OMRECVALUE	VARCHAR (3000)	Portion of the order. The order information is divided into pieces of data and contains formatted fields to be included in the message.

ORDISTAT: Net.Commerce MQSeries Adapter Order Item Status Table

The table ORDISTAT contains information about the items within an order for an Order Status Update message. Each row in the table contains information about a single order.

Column Name	Column Type	Column Description
OIRFNBR	INTEGER NOT NULL	Reference number, which is also a key used internally by IBM. This is a primary key with a unique index.
OIORNBR	INTEGER	Net.Commerce order reference number. This is a foreign key that references column ORRFNBR in table ORDERS.
OICPNBR	INTEGER	Net.Commerce item reference number
OISTATUS	CHAR (32)	Order item status
OISSDATE	TIMESTAMP	Scheduled shipping date

Column Name	Column Type	Column Description
OIASDATE	TIMESTAMP	Actual shipping date
OIPLDATE	TIMESTAMP	Placing date
OIQUANT	INTEGER	Quantity of items ordered
OICMNT	CHAR (250)	Comments from the shopper regarding the item ordered. For example, a shopper can include a message with an ordered gift.
OIMORNBR	CHAR (30)	Order reference number generated by the merchant.
OITMNR	CHAR (30)	Item reference number generated by the merchant.
OICURRTP	CHAR (10)	Currency in which the price of the item is expressed. The format of the price must adhere to ISO 4217 standards.
OIUNPRC	NUM (15,2)	Unit price for the item
OITOTPRC	NUM (15,2)	Total price for the item
OITOTTXP	NUM (15,2)	Total sales tax for the item
OITOTSHP	NUM (15,2)	Total shipping price for the item
OITXSHP	NUM (15,2)	Total tax on the shipping price for the item
OICUST1	INTEGER	Customization field 1
OICUST2	CHAR (35)	Customization field 2
OICUST3	CHAR (35)	Customization field 3

ORDSTAT: Net.Commerce MQSeries Adapter Order Status Table

The table ORDSTAT contains information about the status of an order for an Order Status Update message. Each row in the table contains information about a single order.

Column Name	Column Type	Column Description
OSRFNBR	INTEGER NOT NULL	Reference number, which is also a key used internally by IBM. This is a primary key with a unique index.
OSNCNBR	INTEGER	Net.Commerce order reference number. This is a foreign key that references column ORRFNBR in table ORDERS.
OSCSNBR	VARCHAR (64)	Customer order number
OSPCUR	VARCHAR (10)	Currency in which the price is expressed. The format of the currency must adhere to ISO 4217 standards.
OSPRTOT	NUMERIC (15,2)	Total product price for the order
OSTXTOT	NUMERIC (15,2)	Total tax for the order
OSTOT	NUMERIC (15,2)	Total shipping charges for the order
OSSHXTOT	NUMERIC (15,2)	Total tax on shipping charges for the order
OSLOGID	VARCHAR (32)	Shopper login ID
OSMORDER	VARCHAR (30)	Order reference number generated by the merchant
OSSTATUS	CHAR (32)	Status of the order
OSSSDATE	TIMESTAMP	Scheduled shipping date
OSASDATE	TIMESTAMP	Actual shipping date
OSPLDATE	TIMESTAMP	Placing date
OICUST1	INTEGER	Customization field 1
OICUST2	CHAR (35)	Customization field 2
OICUST3	CHAR (35)	Customization field 3

Chapter 2. Net.Commerce MQSeries Adapter Messages

The Net.Commerce MQSeries adapter offers MQSeries messaging support several messages. When you use these messages, they invoke specific behaviors within the Net.Commerce server. The format of each message consists of two sections: the message descriptor and the application data.

The *message descriptor* contains control information required by MQSeries to operate, such as the message identity and type. The *application data* of a message contains the information to be processed by the MQSeries adapter.

All messages consist of a set of tags and records in a logical sequence and defined data segments within the records. In addition, the <PROLOG>, <HDR>, <ITM>, and <DATUSR> records, which are included in the supported messages, adhere to the following format:

```
<TAG>DATA SEGMENT</TAG>
```

where the data segment is identified with a _DATA suffix. For instance, a record for the Order Create message looks like this:

```
<HDR010>ORDER_CREATE_HDR010_DATA</HDR010>
```

Each data segment (in this example, ORDER_CREATE_HDR010_DATA) must be replaced with specific field and database table information for the particular message. The following table outlines the six supported messages offered with the MQSeries adapter:

Message Name	Message Type	Data Segment
Customer New	Inbound	CUSTOMER_NEW_PROLOG_DATA CUSTOMER_NEW_HDR010_DATA DATUSR_DATA for inbound messages
Customer Update	Inbound	CUSTOMER_UPDATE_PROLOG_DATA CUSTOMER_UPDATE_HDR010_DATA DATUSR_DATA for inbound messages
Order Create	Outbound	ORDER_CREATE_PROLOG_DATA ORDER_CREATE_HDR010_DATA ORDER_CREATE_HDR020_DATA ORDER_CREATE_HDR030_DATA ORDER_CREATE_HDR040_DATA DATUSR_DATA for outbound messages ORDER_CREATE_ITM010_DATA
Order Status Update	Inbound	ORDER_STATUS_UPDATE_PROLOG_DATA ORDER_STATUS_UPDATE_HDR010_DATA DATUSR_DATA for inbound messages ORDER_STATUS_UPDATE_ITM010_DATA
Product Price Update	Inbound	PRODUCT_PRICE_UPDATE_PROLOG_DATA PRODUCT_PRICE_UPDATE_HDR010_DATA
Product Quantity Update	Inbound	PRODUCT_QUANTITY_UPDATE_PROLOG_DATA PRODUCT_QUANTITY_UPDATE_HDR010_DATA

Order Create Message

The Order Create message is an outbound message that contains order details for a completed order. The Net.Commerce system generates this message and sends its data to an outbound message queue, where a back-end system receives the message. This application takes the message and continues any back-end business processes required to complete the specified task for the order. Use Order Create to fulfill the order process of orders that begin with the Net.Commerce system, but also require some additional or back-end work by a separate system.

The Order Create message consists of a set of records, which follow each other sequentially in a buffer. The message contains order, shopper, billing, merchant, and shipping information. The data also references information from the tables ORDERS, SHOPPER, SHADDR, SHOPGRP, MERCHANT, SHIPTO, PRODUCT, and SHIPMODE. The following data describes the Order Create message:

```
<ECEDOC>
<PROLOG>ORDER_CREATE_PROLOG_DATA</PROLOG>
<HEADER>
  <HDR010>ORDER_CREATE_HDR010_DATA</HDR010>
  <HDR020>ORDER_CREATE_HDR020_DATA</HDR020>
  <HDR030>ORDER_CREATE_HDR030_DATA</HDR030>
  <HDR040>ORDER_CREATE_HDR040_DATA</HDR040>
  <USRLST>
    <DATUSR>DATUSR_DATA</DATUSR>
    .
    .DATUSR repeated loop
    .
    <DATUSR>DATUSR_DATA</DATUSR>
  </USRLST>
</HEADER>
<ITMLST>
  <ITMDAT>
    <ITM010>ORDER_CREATE_ITM010_DATA</ITM010>
    <USRLST>
      <DATUSR>DATUSR_DATA</DATUSR>
      .
      .DATUSR repeated loop
      .
      <DATUSR>DATUSR_DATA</DATUSR>
    </USRLST>
  </ITMDAT>
  .
  .ITEM repeated loop
  .
  <ITMDAT>
    <ITM010>ORDER_CREATE_ITM010_DATA</ITM010>
    <USRLST>
      <DATUSR>DATUSR_DATA</DATUSR>
      .
      .DATUSR repeated loop
      .
      <DATUSR>DATUSR_DATA</DATUSR>
    </USRLST>
  </ITMDAT>
</ITMLST>
</ECEDOC>
```

Notes:

- All records are in sequential order in the buffer. Indentation is used here for readability; it does not appear in the buffer.
- All fields in the data segments are left-justified and padded to the right with spaces in the buffer.

Data Segments for Order Create

- ORDER_CREATE_PROLOG_DATA
Specifies the type of message the application data defines. In this case, the message is Order Create.
- ORDER_CREATE_HDR010_DATA
Specifies order information within the Order Create message.
- ORDER_CREATE_HDR020_DATA
Specifies shopper information within the Order Create message.
- ORDER_CREATE_HDR030_DATA
Specifies billing information within the Order Create message.
- ORDER_CREATE_HDR040_DATA
Specifies merchant information within the Order Create message.
- DATUSR_DATA
Specifies optional information to be added to the Order Create message. DATUSR_DATA appears in the <HDR> and <ITM> sections of this message.
- ORDER_CREATE_ITM010_DATA
Specifies item or product shipping information within the Order Create message.

ORDER_CREATE_PROLOG_DATA

The Order Create message includes the ORDER_CREATE_PROLOG_DATA segment. This data segment identifies the type of message that is being defined; that is, the segment indicates that the message is an Order Create message with a field value of "ON" for "Order New."

The format and the source of the fields for ORDER_CREATE_PROLOG_DATA are described in the following table:

Field Name	Field Type	Field Value
NC_MsgType	CHAR (10)	ON
NC_MsgVersion	CHAR (2)	01
NC_RESERVED	CHAR (10)	Reserved for IBM use.

ORDER_CREATE_HDR010_DATA

The Order Create message includes the ORDER_CREATE_HDR010_DATA segment. This data segment consists of order specifications for the Order Create message and references data from the table ORDERS.

The format and the source of the fields for ORDER_CREATE_HDR010_DATA are described in the following table:

Field Name	Field Type	Table Name	Column Name	Description
NC_HDR010 Version Number	CHAR (2)	N/A	N/A (fixed value of 01)	N/A
NC_Order RefNumber	CHAR (10)	ORDERS	ORRFNBR	Unique order reference number, internally generated. This is a primary key.

Field Name	Field Type	Table Name	Column Name	Description
NC_Order Date	CHAR (8)	ORDERS	ORPSTMP	Date the order was placed, in the format YYYYMMDD.
NC_Order Time	CHAR (6)	ORDERS	ORPSTMP	Time the order was placed, in the format HHMMSS.
NC_Currency Type	CHAR (10)	ORDERS	ORPCUR	Currency in which the price is expressed. The format of the currency must adhere to ISO 4217 standards.
NC_Total Price	CHAR (16)	ORDERS	ORPRTOT	Total product price for the order.
NC_Total TaxPrice	CHAR (16)	ORDERS	ORTXTOT	Total sales tax for the order.
NC_Total ShippingPrice	CHAR (16)	ORDERS	ORSHTOT	Total shipping charges for the order.
NC_Total TaxShipping Price	CHAR (16)	ORDERS	ORSHTXTOT	Total tax on shipping charges for the order.
NC_Shopper RefNumber	CHAR (10)	ORDERS	ORSHNBR	Shopper reference number. This is a foreign key that references SHRFNBR in table SHOPPER.
NC_Merchant RefNumber	CHAR (10)	ORDERS	ORMENBR	Merchant reference number. This is a foreign key that references column MERFNBR in table MERCHANT.
NC_Merchant OrderNumber	CHAR (30)	ORDERS	ORMORDER	Unique order reference number generated by the merchant
NC_BillTo RefNumber	CHAR (10)	ORDERS	ORBLTTO	Billing address reference number. This is a foreign key that references column SARFNBR in table SHADDR.
NC_Order CustField1	CHAR (10)	ORDERS	ORFIELD1	Reserved for merchant customization.
NC_Order CustField2	CHAR (16)	ORDERS	ORFIELD2	Reserved for merchant customization.
NC_Order CustField3	CHAR (254)	ORDERS	ORFIELD3	Reserved for merchant customization.

ORDER_CREATE_HDR020_DATA

The Order Create message includes the ORDER_CREATE_HDR020_DATA segment. This data segment consists of shopper specifications for the Order Create message and references data from the tables SHOPPER, SHADDR, and SHOPGRP.

The format and the source of the fields for ORDER_CREATE_HDR020_DATA are described in the following table:

Field Name	Field Type	Table Name	Column Name	Column
NC_HDR020 Version Number	CHAR (2)	N/A	N/A (fixed value of 01)	N/A
NC_Shopper LoginID	CHAR (31)	SHOPPER	SHLOGID	Registered shopper's unique logon ID.

Field Name	Field Type	Table Name	Column Name	Column
NC_Purchaser LastName	CHAR (30)	SHADDR	SALNAME	Purchaser's last name.
NC_Purchaser MiddleName	CHAR (30)	SHADDR	SAMNAME	Purchaser's middle name.
NC_Purchaser FirstName	CHAR (30)	SHADDR	SAFNAME	Purchaser's first name.
NC_Purchaser Addr1	CHAR (50)	SHADDR	SAADDR1	Purchaser's address line 1.
NC_Purchaser Addr2	CHAR (50)	SHADDR	SAADDR2	Purchaser's address line 2.
NC_Purchaser Addr3	CHAR (50)	SHADDR	SAADDR3	Purchaser's address line 3.
NC_Purchaser City	CHAR (30)	SHADDR	SACITY	Purchaser's city name.
NC_Purchaser State	CHAR (20)	SHADDR	SASTATE	Purchaser's state, province, or equivalent, abbreviated.
NC_Purchaser Country	CHAR (30)	SHADDR	SACNTRY	Purchaser's country.
NC_Purchaser ZipCode	CHAR (20)	SHADDR	SAZIPC	Purchaser's zip code or equivalent.
NC_Purchaser Email1	CHAR (254)	SHADDR	SAEMAIL1	Purchaser's primary e-mail or URL address.
NC_Purchaser Email2	CHAR (254)	SHADDR	SAEMAIL2	Purchaser's secondary e-mail or URL address.
NC_Purchaser Phone1	CHAR (30)	SHADDR	SAPHONE1	Purchaser's phone primary number.
NC_Purchaser Phone2	CHAR (30)	SHADDR	SAPHONE2	Purchaser's secondary phone number.
NC_Purchaser Fax	CHAR (30)	SHADDR	SAFAX	Purchaser's facsimile number.
NC_Purchaser CompanyName	CHAR (80)	SHADDR	SAREPCOM	Company that the purchaser represents.
NC_Purchaser Shopper GroupName	CHAR (50)	SHOPGRP	SGNAME	Shopper group that purchaser belongs to.

ORDER_CREATE_HDR030_DATA

The Order Create message includes the ORDER_CREATE_HDR030_DATA segment. This data segment consists of billing details for the Order Create message and references data from the table SHADDR.

The format and the source of the fields for ORDER_CREATE_HDR030_DATA are described in the following table:

Field Name	Field Type	Table Name	Column Name	Description
NC_HDR030 VersionNumber	CHAR (2)	N/A	N/A (fixed value of 01)	N/A
NC_BillTo LastName	CHAR (30)	SHADDR	SALNAME	Bill to person's last name.

Field Name	Field Type	Table Name	Column Name	Description
NC_BillTo MiddleName	CHAR (30)	SHADDR	SAMNAME	Bill to person's middle name.
NC_BillTo FirstName	CHAR (30)	SHADDR	SAFNAME	Bill to person's first name.
NC_BillTo Addr1	CHAR (50)	SHADDR	SAADDR1	Bill to person's address line 1.
NC_BillTo Addr2	CHAR (50)	SHADDR	SAADDR2	Bill to person's address line 2.
NC_BillTo Addr3	CHAR (50)	SHADDR	SAADDR3	Bill to person's address line 3.
NC_BillTo City	CHAR (30)	SHADDR	SACITY	Bill to person's city name.
NC_BillTo State	CHAR (20)	SHADDR	SASTATE	Bill to person's state, province, or equivalent, abbreviated.
NC_BillTo Country	CHAR (30)	SHADDR	SACNTRY	Bill to person's country.
NC_BillTo ZipCode	CHAR (20)	SHADDR	SAZIPC	Bill to person's zip code or equivalent.
NC_BillTo Email1	CHAR (254)	SHADDR	SAEMAIL1	Bill to person's primary e-mail or URL address.
NC_BillTo Email2	CHAR (254)	SHADDR	SAEMAIL2	Bill to person's secondary e-mail or URL address.
NC_BillTo Phone1	CHAR (30)	SHADDR	SAPHONE1	Bill to person's primary phone number.
NC_BillTo Phone2	CHAR (30)	SHADDR	SAPHONE2	Bill to person's secondary phone number.
NC_BillTo Fax	CHAR (30)	SHADDR	SAFAX	Bill to person's facsimile number.

ORDER_CREATE_HDR040_DATA

The Order Create message includes the ORDER_CREATE_HDR040_DATA segment. This data segment consists of merchant information for the Order Create message and references data from the table MERCHANT.

The format and the source of the fields for ORDER_CREATE_HDR040_DATA are described in the following table:

Field Name	Field Type	Table Name	Column Name	Description
NC_HDR040 Version Number	CHAR (2)	N/A	N/A (fixed value of 01)	N/A
NC_Supplier Name	CHAR (80)	MERCHANT	MENAME	Merchant's company name.
NC_Supplier Addr1	CHAR (50)	MERCHANT	MEADDR1	Merchant's company address line 1.
NC_Supplier Addr2	CHAR (50)	MERCHANT	MEADDR2	Merchant's company address line 2.
NC_Supplier Addr3	CHAR (50)	MERCHANT	MEADDR3	Merchant's company address line 3.

Field Name	Field Type	Table Name	Column Name	Description
NC_Supplier City	CHAR (30)	MERCHANT	MECITY	Merchant's company city name.
NC_Supplier State	CHAR (20)	MERCHANT	MESTATE	Merchant's company state, province, or equivalent, abbreviated.
NC_Supplier Country	CHAR (30)	MERCHANT	MECENTRY	Merchant's company country.
NC_Supplier ZipCode	CHAR (20)	MERCHANT	MEZIPC	Merchant's company zip code or equivalent.
NC_Supplier Phone1	CHAR (30)	MERCHANT	MEPHONE	Merchant's company phone number.
NC_Supplier Contact LastName	CHAR (30)	MERCHANT	MECLNAM	Merchant contact's last name.
NC_Supplier Contact MiddleName	CHAR (30)	MERCHANT	MECMNAM	Merchant contact's middle name.
NC_Supplier Contact FirstName	CHAR (30)	MERCHANT	MECFNAM	Merchant contact's first name.
NC_Supplier ContactTitle	CHAR (30)	MERCHANT	MECTITLE	Merchant contact's title.
NC_Supplier Contact Phone1	CHAR (30)	MERCHANT	MECPH1	Merchant contact's primary phone number.
NC_Supplier Contact Phone2	CHAR (30)	MERCHANT	MECPH2	Merchant contact's secondary phone number.
NC_Supplier Contact Email1	CHAR (254)	MERCHANT	MECMAIL1	Merchant contact's primary e-mail or URL address.
NC_Supplier Contact Email2	CHAR (254)	MERCHANT	MECMAIL2	Merchant contact's secondary e-mail or URL address.

DATUSR_DATA for Outbound Messages

The outbound message Order Create includes the DATUSR_DATA data segment. Include the DATUSR records in this message to send additional data. You can customize the fields to pass extra data that is not included in the messages.

The format and the source of the fields for DATUSR_DATA are described in the following table:

Field Name	Field Type	Description
NC_FieldName	CHAR (8)	Name of the new field to be added.
NC_FieldLength	CHAR (10)	Length of the NC_FieldValue field.
NC_FieldValue	CHAR (variable)	Text string that for the value of the new field.

ORDER_CREATE_ITM010_DATA

The Order Create message includes the ORDER_CREATE_ITM010_DATA segment. This data segment consists of item or product shipping specifications for the Order Create message and references data from the tables SHIPTO, PRODUCT, SHADDR, and SHIPMODE.

The format and the source of the fields for ORDER_CREATE_ITM010_DATA are described in the following table:

Field Name	Field Type	Table Name	Column Name	Description
NC_ITM010 VersionNumber	CHAR (2)	N/A	N/A (fixed value of 01)	N/A
NC_Item LineNumber	CHAR (3)	N/A	N/A (generated as a sequential number)	N/A
NC_Item RefNumber	CHAR (10)	SHIPTO	STRFNBR	Unique ship to reference number, internally generated. This is a primary key.
NC_Item ProductRefNumber	CHAR (10)	SHIPTO	STPRNBR	Item or product reference number. This is not a foreign key.
NC_Item ProductNumber	CHAR (64)	PRODUCT	PRNBR	Item SKU or product number.
NC_Item Product ShortDescription	CHAR (254)	PRODUCT	PRSDESC	Short description of the item or product, including its name.
NC_Item UnitPrice	CHAR (16)	SHIPTO	STPRICE	Unit price of the item.
NC_Item CurrencyType	CHAR (10)	SHIPTO	STPCUR	Currency in which the price is expressed. The format of the currency must adhere to ISO 4217 standards.
NC_Item ProductQuantity	CHAR (10)	SHIPTO	STQUANT	Quantity ordered.
NC_Item ShipToAddr RefNum	CHAR (10)	SHIPTO	STSANBR	Address reference number for the shipping address.
NC_Item ShipMode RefNum	CHAR (10)	SHIPTO	STSMNBR	Merchant shipping mode reference number (refer to MSHIPMODE).
NC_ItemState	CHAR (1)	SHIPTO	STSTAT	Order Status: P - In pending state C - In past state X - Cancelled I - Inventory update pending (ship to no longer pending) M - Ready for authentication (ship to passed inventory update)
NC_Item ShipTo LastName	CHAR (30)	SHADDR	SALNAME	Ship to person's last name.
NC_Item ShipTo MiddleName	CHAR (30)	SHADDR	SAMNAME	Ship to person's middle name.

NC_Item ShipTo FirstName	CHAR (30)	SHADDR	SAFNAME	Ship to person's first name.
NC_Item ShipToAddr1	CHAR (50)	SHADDR	SAADDR1	Ship to person's address line 1.
NC_Item ShipToAddr2	CHAR (50)	SHADDR	SAADDR2	Ship to person's address line 2.
NC_Item ShipToAddr3	CHAR (50)	SHADDR	SAADDR3	Ship to person's address line 3.
NC_Item ShipToCity	CHAR (30)	SHADDR	SACITY	Ship to person's city name.
NC_Item ShipToState	CHAR (20)	SHADDR	SASTATE	Ship to person's state, province, or equivalent, abbreviated.
NC_Item ShipToCountry	CHAR (30)	SHADDR	SACNTRY	Ship to person's country.
NC_Item ShipToZipCode	CHAR (20)	SHADDR	SAZIPC	Ship to person's zip code or equivalent.
NC_Item ShipToEmail1	CHAR (254)	SHADDR	SAEMAIL1	Ship to person's primary e-mail or URL address.
NC_Item ShipToEmail2	CHAR (254)	SHADDR	SAEMAIL2	Ship to person's secondary e-mail or URL address.
NC_Item ShipToPhone1	CHAR (30)	SHADDR	SAPHONE1	Ship to person's primary phone number.
NC_Item ShipToPhone2	CHAR (30)	SHADDR	SAPHONE2	Ship to person's secondary phone number.
NC_Item ShipToFax	CHAR (30)	SHADDR	SAFAX	Ship to person's facsimile number.
NC_Item ShippingCarrier	CHAR (30)	SHIPMODE	SMCARRID	Carrier identifier, such as Federal Express.
NC_Item ShippingMethod	CHAR (30)	SHIPMODE	SMSPMODE	Carrier service shipping mode, such as FedEx Express Overnight.
NC_Item ShipToComment	CHAR (254)	SHIPTO	STCMT	Comments from shopper, such as a greeting for a gift.
NC_Item Creation Timestamp	CHAR (64)	SHIPTO	STPSTMP	Date and time the ship to entry was made.
NC_Item Update Timestamp	CHAR (64)	SHIPTO	STUSTMP	Date and time the ship to entry was last updated.
NC_Item CustField1	CHAR (10)	SHIPTO	STFIELD1	Reserved for merchant customization.
NC_Item CustField2	CHAR (254)	SHIPTO	STFIELD2	Reserved for merchant customization.

Order Status Update Message

The Order Status Update message is an inbound message that contains status information for a Net.Commerce order. A back-end application generates this message and sends it to the Net.Commerce inbound message queue, where the Net.Commerce system receives the message. Net.Commerce updates the tables ORDSTAT and ORDISTAT with the new order status information.

The Order Status Update message supports two sets of application data: Order Status Update Version 01 and Order Status Update Version 02. Version 02 includes a superset of the data within Version 01.

The Order Status Update message consists of a set of records, which follow each other sequentially in a buffer. The following data describes the Order Status Update message:

```
<ECEDOC>
<PROLOG>ORDER_STATUS_UPDATE_PROLOG_DATA</PROLOG>
<HEADER>
  <HDR010>ORDER_STATUS_UPDATE_HDR010_DATA</HDR010>
  <USRLST>
    <DATUSR>DATUSR_DATA</DATUSR>
    .
    .DATUSR repeated loop
    .
    <DATUSR>DATUSR_DATA</DATUSR>
  </USRLST>
</HEADER>
<ITMLST>
  <ITMDAT>
    <ITM010>ORDER_STATUS_UPDATE_ITM010_DATA</ITM010>
    <USRLST>
      <DATUSR>DATUSR_DATA</DATUSR>
      .
      .DATUSR repeated loop
      .
      <DATUSR>DATUSR_DATA</DATUSR>
    </USRLST>
  </ITMDAT>
  .
  .ITEM repeated loop
  .
  <ITMDAT>
    <ITM010>ORDER_STATUS_UPDATE_ITM010_DATA</ITM010>
    <USRLST>
      <DATUSR>DATUSR_DATA</DATUSR>
      .
      .DATUSR repeated loop
      .
      <DATUSR>DATUSR_DATA</DATUSR>
    </USRLST>
  </ITMDAT>
</ITMLST>
</ECEDOC>
```

Notes:

- All records are in sequential order in the buffer. Indentation is used here for readability; it does not appear in the buffer.
- All fields in the data segments are left-justified and padded to the right with spaces in the buffer.

Data Segments for Order Status Update

- ORDER_STATUS_UPDATE_PROLOG_DATA
Specifies the type of message the application data defines. In this case, the message is Order Status Update.

- **ORDER_STATUS_UPDATE_HDR010_DATA**
Specifies order information within the Order Status Update message.
- **DATUSR_DATA**
Specifies optional information to be added to the Order Status Update message. DATUSR_DATA appears in the <HDR> and <ITM> sections of this message.
- **ORDER_STATUS_UPDATE_ITM010_DATA**
Specifies item or product shipping information within the Order Status Update message.

ORDER_STATUS_UPDATE_PROLOG_DATA

The Order Status Update message includes the ORDER_STATUS_UPDATE_PROLOG_DATA segment. This data segment identifies the type of message that is being defined; that is, the segment indicates that the message is an Order Status Update message with a field value of “OS” for “Order Status.”

The Order Status Update message supports two sets of application data: Order Status Update Version 01 and Order Status Update Version 02. Version 02 includes a superset of the data within Version 01. Specifically, the ORDER_STATUS_UPDATE_PROLOG_DATA segment for Version 01 contains a value of 01 for the field NC_MsgVersion; whereas Version 02 contains a value of 02 for NC_MsgVersion.

The format and the source of the fields for ORDER_STATUS_UPDATE_PROLOG_DATA for Version 01 are described in the following table:

Field Name	Field Type	Field Value
NC_MsgType	CHAR (10)	OS
NC_MsgVersion	CHAR (2)	01
NC_RESERVED	CHAR (10)	Reserved for IBM use.

The format and the source of the fields for ORDER_STATUS_UPDATE_PROLOG_DATA for Version 02 are described in the following table:

Field Name	Field Type	Field Value
NC_MsgType	CHAR (10)	OS
NC_MsgVersion	CHAR (2)	02
NC_RESERVED	CHAR (10)	Reserved for IBM use.

ORDER_STATUS_UPDATE_HDR010_DATA

The Order Status Update message includes the ORDER_STATUS_UPDATE_HDR010_DATA segment. This data segment consists of order specifications for the Order Status Update message and references data from the table ORDSTAT.

The format and the source of the fields for ORDER_STATUS_UPDATE_HDR010_DATA are described in the following table:

Field Name	Field Type	Table Name	Column Name	Description
NC_HDR010 Version Number	CHAR (2)	N/A	N/A (fixed value of 01)	N/A
NC_Order RefNumber	CHAR (10)	ORDSTAT	OSNCNBR	Net.Commerce order reference number. This is a foreign key that references column ORRFNBR in table ORDERS.

Field Name	Field Type	Table Name	Column Name	Description
NC_Customer OrderNumber	CHAR (64)	ORDSTAT	OSCSNBR	Customer order number generated by a back-end system.
NC_Currency Type	CHAR (10)	ORDSTAT	OSPCUR	Currency in which the price is expressed. The format of the currency must adhere to ISO 4217 standards.
NC_TotalPrice	CHAR (16)	ORDSTAT	OSPRTOT	Total product price for the order.
NC_Total TaxPrice	CHAR (16)	ORDSTAT	OSTXTOT	Total tax for the order.
NC_Total ShippingPrice	CHAR (16)	ORDSTAT	OSTOT	Total shipping charges for the order.
NC_Total TaxShipping Price	CHAR (16)	ORDSTAT	OSSHTXTOT	Total tax on shipping charges for the order.
NC_Shopper LoginID	CHAR (31)	ORDSTAT	OSLOGID	Shopper login ID.
NC_Merchant OrderNumber	CHAR (30)	ORDSTAT	OSMORDER	Order reference number generated by the merchant
NC_Order Status	CHAR (32)	ORDSTAT	OSSTATUS	Order status: P - In pending state C - In past state X - Cancelled I - Inventory update pending (ship to no longer pending) M - Ready for authentication (ship to passed inventory update)
NC_Schedule ShipDate	CHAR (8)	ORDSTAT	OSSSDATE	Scheduled shipping date and time, in the format YYYY-MM-DD hh:mm:ss.ssssss.
NC_Actual ShipDate	CHAR (8)	ORDSTAT	OSASDATE	Actual shipping date and time, in the format YYYY-MM-DD hh:mm:ss.ssssss.
NC_PlaceDate	CHAR (8)	ORDSTAT	OSPLDATE	Placing date and time, in the format YYYY-MM-DD hh:mm:ss.ssssss.

DATUSR_DATA for Inbound Messages

The inbound messages, Order Status Update, Customer New, and Customer Update, include the DATUSR_DATA data segment. Include the DATUSR records in these messages to receive additional data. You can customize the fields to pass extra data that is not included in the messages. DATUSR_DATA can be repeated multiple times.

The format and the source of the fields for DATUSR_DATA are described in the following table:

Field Name	Field Type	Description
NC_FieldName	CHAR (8)	Name of the new field to be added.
NC_FieldLength	CHAR (10)	Length of the VALUE field.
NC_FieldValue	CHAR (254)	Text string for the value of the new field.

ORDER_STATUS_UPDATE_ITM010_DATA

The Order Status Update message includes the ORDER_STATUS_UPDATE_ITM010_DATA segment. This data segment consists of item or product shipping specifications for the Order Status message and references data from the tables ORDISTAT.

The Order Status Update message supports two sets of application data: Order Status Update Version 01 and Order Status Update Version 02. Version 02 includes a superset of the data within Version 01. Specifically, the ORDER_STATUS_UPDATE_ITM010_DATA segment for Version 02 contains a value of 01 for the field NC_HDR010VersionNumber; whereas Version 02 contains a value of 02 for NC_HDR010VersionNumber. In addition, Versions 02 also contains some additional fields not within Version 01.

The format and the source of the fields for ORDER_STATUS_UPDATE_ITM010_DATA for Version 01 are described in the following table:

Field Name	Field Type	Table Name	Column Name	Description
NC_ITM010VersionNumber	CHAR (2)	N/A	N/A (fixed value of 01)	N/A
NC_OrderRefNumber	CHAR (10)	ORDISTAT	OIORNBR	Net.Commerce order reference number. This is a foreign key that references column ORRFNBR in table ORDERS.
NC_ItemRefNumber	CHAR (10)	ORDISTAT	OICPNBR	Net.Commerce item reference number.
NC_OrderItemStatus	CHAR (32)	ORDISTAT	OISTATUS	Order item status.
NC_ItemScheduleShipDate	CHAR (8)	ORDISTAT	OISSDATE	Scheduled shipping date and time, in the format YYYYMMDD.
NC_ItemActualShipDate	CHAR (8)	ORDISTAT	OIASDATE	Actual shipping date and time, in the format YYYYMMDD.
NC_ItemPlaceDate	CHAR (8)	ORDISTAT	OIPLDATE	Placing date and time, in the format YYYYMMDD.
NC_ItemQuantity	CHAR (10)	ORDISTAT	OIQUNT	Quantity of items ordered.
NC_ItemComment	CHAR (250)	ORDISTAT	OICMNT	Comments from the shopper regarding the item ordered. For example, a shopper can include a greeting message with the ordered gift.

The format and the source of the fields for ORDER_STATUS_UPDATE_ITM010_DATA for Version 02 are described in the following table:

Field Name	Field Type	Table Name	Column Name	Description
NC_ITM010VersionNumber	CHAR (2)	N/A	N/A (fixed value of 02)	N/A
NC_OrderRefNumber	CHAR (10)	ORDISTAT	OIORNBR	Net.Commerce order reference number. This is a foreign key that references column ORRFNBR in table ORDERS.
NC_ItemRefNumber	CHAR (10)	ORDISTAT	OICPNBR	Net.Commerce item reference number.

NC_Order ItemStatus	CHAR (32)	ORDISTAT	OISTATUS	Order item status.
NC_Item Schedule ShipDate	CHAR (8)	ORDISTAT	OISSDATE	Scheduled shipping date and time, in the format YYYYMMDD.
NC_Item ActualShipDate	CHAR (8)	ORDISTAT	OIASDATE	Actual shipping date and time, in the format YYYYMMDD.
NC_Item PlaceDate	CHAR (8)	ORDISTAT	OIPLDATE	Placing date and time, in the format YYYYMMDD.
NC_Item Quantity	CHAR (10)	ORDISTAT	OIQUNT	Quantity of items ordered.
NC_Item UnitPrice	NUM (15,2)	ORDISTAT	OIUNPRCNC	Unit price for the item.
NC_Item TotalPrice	NUM (15,2)	ORDISTAT	OITOTPRC	Total price for the item.
NC_Item CurrencyType	CHAR (10)	ORDISTAT	OICURRTP	Currency in which the price of the item is expressed. The format of the price must adhere to ISO 4217 standards.
NC_Item Comment	CHAR (250)	ORDISTAT	OICMNT	Comments from the shopper regarding the item ordered. For example, a shopper can include a greeting message with the ordered gift.

Product Quantity Update Message

The Product Quantity Update message is an inbound message that contains inventory information for a product. A back-end application generates this message and sends it to the Net.Commerce inbound message queue, where the Net.Commerce system receives the message. Net.Commerce updates the table PRODUCT with the new inventory information.

The Product Quantity Update message consists of a set of records, which follow each other sequentially in a data buffer. The following data describes the Product Quantity Update message:

```
<ECEDOC>
<PROLOG>PRODUCT_QUANTITY_UPDATE_PROLOG_DATA</PROLOG>
<HEADER>
  <HDR010>PRODUCT_QUANTITY_UPDATE_HDR010_DATA</HDR010>
</HEADER>
</ECEDOC>
```

Notes:

- All records are in sequential order in the buffer. Indentation is used here for readability; it does not appear in the buffer.
- All fields in the data segments are left-justified and padded to the right with spaces in the buffer.

Data Segments for Product Quantity Update

- PRODUCT_QUANTITY_UPDATE_PROLOG_DATA
Specifies the type of message the application data defines. In this case, the message is Product Quantity Update.
- PRODUCT_QUANTITY_UPDATE_HDR010_DATA
Specifies product information within the Product Quantity Update message.

PRODUCT_QUANTITY_UPDATE_PROLOG_DATA

The Product Quantity Update message includes the PRODUCT_QUANTITY_UPDATE_PROLOG_DATA segment. This data segment identifies the type of message that is being defined; that is, the segment indicates that the message is a Product Quantity Update message with a field value of “PQ” for “Product Quantity.”

The format and the source of the fields for PRODUCT_QUANTITY_UPDATE_PROLOG_DATA are described in the following table:

Field Name	Field Type	Field Value
NC_MsgType	CHAR (10)	PQ
NC_MsgVersion	CHAR (2)	01
NC_RESERVED	CHAR (10)	Reserved for IBM use.

PRODUCT_QUANTITY_UPDATE_HDR010_DATA

The Product Quantity Update message includes the PRODUCT_QUANTITY_UPDATE_HDR010_DATA segment. This data segment includes product or item pricing information for the Product Quantity Update message and references data from the table PRODUCT.

The format and the source of the fields for PRODUCT_QUANTITY_UPDATE_HDR010_DATA are described in the following table:

Field Name	Field Type	Table Name	Column Name	Description
NC_HDR010 VersionNumber	CHAR (2)	N/A	N/A (fixed value of 01)	N/A
NC_Product RefNumber	CHAR (10)	PRODUCT	PRRFNBR	Product or item reference number. This is a primary key.
NC_Product Quantity	CHAR (10)	PRODUCT	PRVENT	Inventory status. Default is NULL, meaning the merchant has not yet stocked the product. This field is not used for a product that has items associated with it.
NC_Product Number	CHAR (64)	PRODUCT	PRNBR	Product number or item SKU.
NC_Merchant RefNumber	CHAR (10)	PRODUCT	PRMENBR	Merchant reference number. This is a foreign key that references column MERFNBR in table MERCHANT.

Notes:

- If the Net.Commerce product reference number is not present, then the combination of the product number (which references column PRNBR) and merchant reference number (column PRMENBR) will be used as the key to update the row in the table PRODUCT.
- If the row in the table PRODUCT does not exist, then an error will occur.

Product Price Update Message

The Product Price Update message is an inbound message that contains price information for a product. A back-end application generates this message and sends it to the Net.Commerce inbound message queue, where the Net.Commerce system receives the message.

The Product Price Update message supports two sets of application data: Product Price Update Version 01 and Product Price Update 02. Version 02 includes a superset of the data within Version 01.

The Product Price Update message consists of a set of records, which follow each other sequentially in a buffer. The following data describes the Product Price Update message:

```
<ECEDOC>
<PROLOG>PRODUCT_PRICE_UPDATE_PROLOG_DATA</PROLOG>
<HEADER>
  <HDR010>PRODUCT_PRICE_UPDATE_HDR010_DATA</HDR010>
</HEADER>
</ECEDOC>
```

Notes:

- All records are in sequential order in the buffer. Indentation is used here for readability; it does not appear in the buffer.
- All fields in the data segments are left-justified and padded to the right with spaces in the buffer.

Data Segments for Product Price Update

- **PRODUCT_PRICE_UPDATE_PROLOG_DATA**
Specifies the type of message the application data defines. In this case, the message is Product Price Update.
- **PRODUCT_PRICE_UPDATE_HDR010_DATA**
Specifies item or product pricing information within the Product Price Update message.

PRODUCT_PRICE_UPDATE_PROLOG_DATA

The Product Price Update message includes the **PRODUCT_PRICE_UPDATE_PROLOG_DATA** segment. This data segment identifies the type of message that is being defined; that is, the segment indicates that the message is a Product Price Update message with a field value of “PP” for “Product Price.”

The Product Price Update message supports two sets of application data: Product Price Update Version 01 and Product Price Update Version 02. Version 02 includes a superset of the data within Version 01. Specifically, the **PRODUCT_PRICE_UPDATE_PROLOG_DATA** segment for Version 01 contains a value of 01 for the field **NC_MsgVersion**; whereas Version 02 contains a value of 02 for **NC_MsgVersion**.

The format and the source of the fields for **PRODUCT_PRICE_UPDATE_PROLOG_DATA** for Version 01 are described in the following table:

Field Name	Field Type	Field Value
NC_MsgType	CHAR (10)	PP
NC_MsgVersion	CHAR (2)	01
NC_RESERVED	CHAR (10)	Reserved for IBM use.

The format and the source of the fields for **PRODUCT_PRICE_UPDATE_PROLOG_DATA** for Version 02 are described in the following table:

Field Name	Field Type	Field Value
NC_MsgType	CHAR (10)	PP
NC_MsgVersion	CHAR (2)	02
NC_RESERVED	CHAR (10)	Reserved for IBM use.

PRODUCT_PRICE_UPDATE_HDR010_DATA

The Product Price Update message includes the PRODUCT_PRICE_UPDATE_HDR010_DATA segment. This data segment consists of product or item pricing information for the Product Price Update message and references data from the tables PRODPRCS and PRODUCT.

The Product Price Update message supports two sets of application data: Product Price Update Version 01 and Product Price Update Version 02. Version 02 includes a superset of the data within Version 01. Specifically, the PRODUCT_PRICE_UPDATE_HDR010_DATA segment for Version 01 contains a value of 01 for the field NC_HDR010VersionNumber; whereas Version 02 contains a value of 02 for NC_HDR010VersionNumber. In addition, Version 02 also contains an additional field called NC_ProductNumber.

The format and the source of the fields for PRODUCT_PRICE_UPDATE_HDR010_DATA for Version 01 are described in the following table:

Field Name	Field Type	Table Name	Column Name	Description
NC_HDR010VersionNumber	CHAR (2)	N/A	N/A (fixed value of 01)	N/A
NC_ProductRefNumber	CHAR (10)	PRODPRCS	PPPRNBR	Unique reference number for this price, internally generated. This is a primary key.
NC_ProductPrice	CHAR (16)	PRODPRCS	PPPRC	Price of the product or item.
NC_CurrencyType	CHAR (10)	PRODPRCS	PPCUR	Currency in which the price is expressed. The format of the currency must adhere to ISO 4217 standards.
NC_ShopperGroup	CHAR (10)	PRODPRCS	PPSGNBR	Shopper group reference number to which the price applies. This is a foreign key that references column SGRFNBR in table SHOPGRP. Default is NULL, which means the price applies to all shoppers.
NC_Precedence	CHAR (10)	PRODPRCS	PPPRE	Precedence for this price, unique within a shopper group for a product or item. Default is 0.
NC_MerchantRefNumber	CHAR (10)	PRODPRCS	PPMENBR	Merchant reference number. This is a foreign key that references column MERFNBR in table MERCHANT.
NC_ProductPriceRefNum	CHAR (10)	PRODPRCS	PPRFNBR	Product or item price reference number. This is a foreign key that references column PRRFNBR in table PRODUCT.
NC_StartTimestamp	CHAR (26)	PRODPRCS	PPDEFFS	Date that the product or item price becomes effective. Default is the current date and time.
NC_EndTimestamp	CHAR (26)	PRODPRCS	PPDEFFF	Date that the product or item price expires, in the format YYYY-MM-DD hh:mm:ss.ssssss. Default is 9999-12-31 at 24:00:00.
NC_PriceCustomField1	CHAR (30)	PRODPRCS	PPFIELD1	Reserved for merchant customization.

NC_Price CustomField2	CHAR (1)	PRODPRCS	PPFIELD2	Reserved for merchant customization.
--------------------------	----------	----------	----------	--------------------------------------

Notes for Version 01:

- If the product price reference number is not present, then the combination of the Net.Commerce product number (which references column PPSGNBR), precedence (column PPPRE), and merchant reference number (column PPMENBR) will be used as the key. If the Net.Commerce product number is not specified, then the merchant product number (PPNBR) will be used to obtain it.
- If the precedence is not specified, then the Net.Commerce MQSeries adapter locates all previous records that match the values given without the precedence. The maximum of these values is taken and incremented by one. If a previous record does not exist, then the precedence value is set to 1. A new row is inserted in the table PRODPRCS with the new precedence value. The maximum precedence value is 12³¹. If the maximum precedence value has been reached, then the new update will be rejected.

The format and the source of the fields for PRODUCT_PRICE_UPDATE_HDR010_DATA for Version 02 are described in the following table:

Field Name	Field Type	Table Name	Column Name	Description
NC_HDR010 VersionNumber	CHAR (2)	N/A	N/A (fixed value of 02)	N/A
NC_Product RefNumber	CHAR (10)	PRODPRCS	PPRNBR	Unique reference number for this price, internally generated. This is a primary key.
NC_Product Price	CHAR (16)	PRODPRCS	PPPRC	Price of the product or item.
NC_Currency Type	CHAR (10)	PRODPRCS	PPCUR	Currency in which the price is expressed. The format of the currency must adhere to ISO 4217 standards.
NC_Shopper Group	CHAR (10)	PRODPRCS	PPSGNBR	Shopper group reference number to which the price applies. This is a foreign key that references column SGRFNBR in table SHOPGRP. Default is NULL, which means the price applies to all shoppers.
NC_Precedence	CHAR (10)	PRODPRCS	PPPRE	Precedence for this price, unique within a shopper group for a product or item. Default is 0.
NC_Merchant RefNumber	CHAR (10)	PRODPRCS	PPMENBR	Merchant reference number. This is a foreign key that references column MERFNBR in table MERCHANT.
NC_ProductNumber	CHAR (64)	PRODUCT	PRNBR	Product number or item SKU.
NC_Product PriceRefNum	CHAR (10)	PRODPRCS	PPRFNBR	Product or item price reference number. This is a foreign key that references column PRRFNBR in table PRODUCT.
NC_Start Timestamp	CHAR (26)	PRODPRCS	PPDEFFS	Date that the product or item price becomes effective. Default is the current date and time.

NC_End Timestamp	CHAR (26)	PRODPRCS	PPDEFFF	Date that the product or item price expires, in the format YYYY-MM-DD hh:mm:ss.ssssss. Default is 9999-12-31 at 24:00:00.
NC_Price CustomField1	CHAR (30)	PRODPRCS	PPFIELD1	Reserved for merchant customization.
NC_Price CustomField2	CHAR (1)	PRODPRCS	PPFIELD2	Reserved for merchant customization.

Notes for Version 02:

- If the Net.Commerce product price reference number is present, it is used as the key to update a row in the table PRODPRCS. If it is not specified, then the combination of the product reference number and the merchant reference number will be used. If the product reference number is also empty, then the merchant product number or item SKU will be used instead.
- If the precedence is not specified, then the Net.Commerce MQSeries adapter locates all previous records that match the values given without the precedence. The maximum of these values is taken and incremented by one. If a previous record does not exist, then the precedence value is set to 1. A new row is inserted in the table PRODPRCS with the new precedence value. The maximum precedence value is 12³¹. If the maximum precedence value has been reached, then the new update will be rejected.

Customer New Message

The Customer New message is an inbound message that contains customer information for a shopper. A back-end application generates this message and sends it to the Net.Commerce inbound message queue, where the Net.Commerce system receives the message. Net.Commerce updates information for a new shopper by calling the AdminRegisterNew command.

The Customer New message consists of a set of records, which follow each other sequentially in a buffer. The following data describes the Customer New message:

```

<ECEDOC>
<PROLOG>CUSTOMER_UPDATE_PROLOG_DATA</PROLOG>
<HEADER>
  <HDR010>CUSTOMER_UPDATE_HDR010_DATA</HDR010>
  <USRLST>
    <DATUSR>DATUSR_DATA</DATUSR>
    .
    .DATUSR repeated loop
    .
    <DATUSR>DATUSR_DATA</DATUSR>
  </USRLST>
</HEADER>
</ECEDOC>

```

Notes:

- All records are in sequential order in the buffer. Indentation is used here for readability; it does not appear in the buffer.
- All fields in the data segments are left-justified and padded to the right with spaces in the buffer.

Data Segments for Customer New

- CUSTOMER_NEW_PROLOG_DATA
Specifies the type of message the application data defines. In this case, the message is Customer New.

- **CUSTOMER_NEW_HDR010_DATA**
Specifies shopper information within the Customer New message.
- **DATUSR_DATA**
Specifies optional information to be added to the Customer New message. DATUSR_DATA appears in the <HDR> section of this message.

CUSTOMER_NEW_PROLOG_DATA

The Customer New message includes the CUSTOMER_NEW_PROLOG_DATA segment. This data segment identifies the type of message that is being defined; that is, the segment indicates that the message is a Customer Update message with a field value of “NC” for “New Customer.”

The format and the source of the fields for CUSTOMER_NEW_PROLOG_DATA are described in the following table:

Field Name	Field Type	Field Value
NC_MsgType	CHAR (10)	NC
NC_MsgVersion	CHAR (2)	01
NC_RESERVED	CHAR (10)	Reserved for IBM use.

CUSTOMER_NEW_HDR010_DATA

The Customer New message includes the CUSTOMER_NEW_HDR010_DATA segment. This data segment consists of shopper information for new shoppers for the Customer New message and references data from the tables SHOPPER, SHADDR, and SHOPDEM.

The format and the source of the fields for CUSTOMER_NEW_HDR010_DATA are described in the following table:

Field Name	Field Type	Table Name	Column Name	Description
NC_HDR010 Version Number	CHAR (2)	N/A	N/A (fixed value of 01)	N/A
NC_LoginID	CHAR (31)	SHOPPER	SHLOGID	Registered shopper's unique logon ID.
NC_Password	CHAR (12)	SHOPPER	SHLPWD	Registered shopper's encrypted logon password.
NC_Verify Password	CHAR (12)	N/A	N/A	N/A
NC_Merchant RefNumber	CHAR (10)	N/A	N/A	N/A
NC_Method Comm	CHAR (2)	SHOPPER	SHCOMM	Shopper's preferred method of communication: E1 - E-mail or URL address 1 E2 - E-mail or URL address 2 P1 - Phone number 1 P2 - Phone number 2
NC_Challenge Ques	CHAR (250)	SHOPPER	SHCHAQUE	Challenge question for verbal confirmation of the shopper's identity.
NC_Challenge Ans	CHAR (250)	SHOPPER	SHCHAANS	Answer to the challenge question.

NC_ShopperField1	CHAR (254)	SHOPPER	SHFIELD1	Reserved for merchant customization.
NC_ShopperField2	CHAR (254)	SHOPPER	SHFIELD2	Reserved for merchant customization.
NC_Title	CHAR (5)	SHADDR	SATITLE	Shopper's title: Dr Mr Mrs Ms N - Not provided (default)
NC_Last Name	CHAR (30)	SHADDR	SALNAME	Shopper's last name.
NC_First Name	CHAR (30)	SHADDR	SAFNAME	Shopper's first name.
NC_Middle Name	CHAR (30)	SHADDR	SAMNAME	Shopper's middle name.
NC_Rep Company	CHAR (80)	SHADDR	SAREPCOM	Company that the shopper represents.
NC_Phone1	CHAR (30)	SHADDR	SAPHONE1	Shopper's primary phone number.
NC_Phone2	CHAR (30)	SHADDR	SAPHONE2	Shopper's secondary phone number.
NC_Fax	CHAR (30)	SHADDR	SAFAX	Shopper's facsimile number.
NC_Addr1	CHAR (50)	SHADDR	SAADDR1	Shopper's address line 1.
NC_Addr2	CHAR (50)	SHADDR	SAADDR2	Shopper's address line 2.
NC_Addr3	CHAR (50)	SHADDR	SAADDR3	Shopper's address line 3.
NC_City	CHAR (30)	SHADDR	SACITY	Shopper's city name.
NC_State	CHAR (20)	SHADDR	SASTATE	Shopper's state, province, or equivalent, abbreviated.
NC_Country	CHAR (30)	SHADDR	SACNTRY	Shopper's country name.
NC_ZipCode	CHAR (20)	SHADDR	SAZIPC	Shopper's zip code or equivalent..
NC_Email1	CHAR (254)	SHADDR	SAEMAIL1	Shopper's primary e-mail or URL address.
NC_Email2	CHAR (254)	SHADDR	SAEMAIL2	Shopper's secondary e-mail or URL address.
NC_Day PhoneType	CHAR (3)	SHADDR	SADPHTYP	Type of daytime phone, such as TTY for a teletypewriter for people who have a hearing impairment, or PHN for a standard telephone.
NC_Day PhoneList	CHAR (1)	SHADDR	SADPHLST	1 - Daytime phone number is listed. 0 - Daytime phone number is unlisted.
NC_Evening PhoneType	CHAR (3)	SHADDR	SAEPHTYP	Type of evening phone, such as TTY for a teletypewriter for people who have a hearing impairment, or PHN for a standard telephone.
NC_Evening PhoneList	CHAR (1)	SHADDR	SAEPHLST	1 - Evening phone number is listed. 0 - Evening phone number is unlisted.

NC_BestTimeToCall	CHAR (1)	SHADDR	SABTCALL	Best time to call indicator: D - Daytime E - Evening
NC_PackageInsert	CHAR (1)	SHADDR	SAPKGSUP	Package inserts suppression flag, which indicates the shopper's preference for including package inserts in orders shipped. 1 - Include 0 - Do not include
NC_AddressOptField1	CHAR (3)	SHADDR	SAFIELD1	Reserved for merchant customization.
NC_AddressOptField2	CHAR (1)	SHADDR	SAFIELD2	Reserved for merchant customization.
NC_ShopperGender	CHAR (1)	SHOPDEM	SDGENDR	Shopper's gender: F - Female M - Male N - Not provided (default)
NC_ShopperAge	CHAR (10)	SHOPDEM	SDAGE	Shopper's age: 0 - Not provided (default) 1 - 0-9 years 2 - 10-19 years 3 - 20-29 years 4 - 30-39 years 5 - 40-49 years 6 - 50-59 years 7 - 60 years or older
NC_ShopperIncome	CHAR (10)	SHOPDEM	SDINCOM	Shopper's annual income: 0 - Not provided (default) 1 - \$0 - \$19,999 2 - \$20,000 - \$39,999 3 - \$40,000 - \$59,999 4 - \$60,000 or more
NC_MaritalStatus	CHAR (1)	SHOPDEM	SDMSTAT	Shopper's marital status: S - Single M - Married C - Common Law P - Separated D - Divorced W - Widowed O - Other N - Not Provided
NC_NumberOfChildren	CHAR (10)	SHOPDEM	SDCHNBR	Number of children. Default is 0.
NC_NumberInHouse	CHAR (10)	SHOPDEM	SDHHNBR	Number of people in the shopper's household. Default is 1.
NC_ShopperCompany	CHAR (30)	SHOPDEM	SDCOMP	The company for which the shopper works.
NC_ShopperInterest	CHAR (254)	SHOPDEM	SDINTRS	The shopper's main interests and hobbies.
NC_PreviousOrderFlag	CHAR (1)	SHOPDEM	SDPREORD	Indicator of whether or not the shopper has previously placed an order.
NC_DemogField1	CHAR (1)	SHOPDEM	SDFIELD1	Reserved for merchant customization.

NC_Demog Field2	CHAR (1)	SHOPDEM	SDFIELD2	Reserved for merchant customization.
NC_Demog Field3	CHAR (1)	SHOPDEM	SDFIELD3	Reserved for merchant customization.
NC_Demog Field4	CHAR (1)	SHOPDEM	SDFIELD4	Reserved for merchant customization.
NC_Demog Field5	CHAR (254)	SHOPDEM	SDFIELD5	Reserved for merchant customization.
NC_Demog Field6	CHAR (10)	SHOPDEM	SDFIELD6	Reserved for merchant customization.

DATUSR_DATA for Inbound Messages

The inbound messages, Order Status Update, Customer New, and Customer Update, include the DATUSR_DATA data segment. Include the DATUSR records in these messages to receive additional data. You can customize the fields to pass extra data that is not included in the messages. DATUSR_DATA can be repeated multiple times.

The format and the source of the fields for DATUSR_DATA are described in the following table:

Field Name	Field Type	Description
NC_FieldName	CHAR (8)	Name of the new field to be added.
NC_FieldLength	CHAR (10)	Length of the VALUE field.
NC_FieldValue	CHAR (254)	Text string for the value of the new field.

Customer Update Message

The Customer Update message is an inbound message that contains customer information for a shopper. A back-end application generates this message and sends it to the Net.Commerce inbound message queue, where the Net.Commerce system receives the message. Net.Commerce updates information for a registered shopper by calling the AdminRegisterUpdate command.

The Customer Update message consists of a set of records, which follow each other sequentially in a buffer. The following data describes the Customer Update message:

```

<ECEDOC>
<PROLOG>CUSTOMER_UPDATE_PROLOG_DATA</PROLOG>
<HEADER>
  <HDR010>CUSTOMER_UPDATE_HDR010_DATA</HDR010>
  <USRLST>
    <DATUSR>DATUSR_DATA</DATUSR>
    .
    .DATUSR repeated loop
    .
    <DATUSR>DATUSR_DATA</DATUSR>
  </USRLST>
</HEADER>
</ECEDOC>

```

Notes:

- All records are in sequential order in the buffer. Indentation is used here for readability; it does not appear in the buffer.
- All fields in the data segments are left-justified and padded to the right with spaces in the buffer.

Data Segments for Customer Update

- CUSTOMER_UPDATE_PROLOG_DATA
Specifies the type of message the application data defines. In this case, the message is Customer Update.
- CUSTOMER_UPDATE_HDR010_DATA
Specifies shopper information within the Customer Update message.
- DATUSR_DATA
Specifies optional information to be added to the Customer Update message. DATUSR_DATA appears in the <HDR> section of this message.

CUSTOMER_UPDATE_PROLOG_DATA

The Customer Update message includes the CUSTOMER_UPDATE_PROLOG_DATA segment. This data segment identifies the type of message that is being defined; that is, the segment indicates that the message is a Customer Update message with a field value of “UC” for “Update Customer.”

The format and the source of the fields for CUSTOMER_UPDATE_PROLOG_DATA are described in the following table:

Field Name	Field Type	Field Value
NC_MsgType	CHAR (10)	UC
NC_MsgVersion	CHAR (2)	01
NC_RESERVED	CHAR (10)	Reserved for IBM use.

CUSTOMER_UPDATE_HDR010_DATA

The Customer Update message includes the CUSTOMER_UPDATE_HDR010_DATA segment. This data segment consists of shopper information for registered shoppers for the Customer Update message and references data from the tables SHOPPER, SHADDR, and SHOPDEM.

The format and the source of the fields for CUSTOMER_UPDATE_HDR010_DATA are described in the following table:

Field Name	Field Type	Table Name	Column Name	Description
NC_HDR010 Version Number	CHAR (2)	N/A	N/A (fixed value of 01)	N/A
NC_LoginID	CHAR (31)	SHOPPER	SHLOGID	Registered shopper's unique logon ID.
NC_Password	CHAR (12)	SHOPPER	SHLPSPWD	Registered shopper's encrypted logon password.
NC_Verify Password	CHAR (12)	N/A	N/A	N/A
NC_Merchant RefNumber	CHAR (10)	N/A	N/A	N/A
NC_Method Comm	CHAR (2)	SHOPPER	SHCOMM	Shopper's preferred method of communication: E1 - E-mail or URL address 1 E2 - E-mail or URL address 2 P1 - Phone number 1 P2 - Phone number 2

NC_Challenge Ques	CHAR (250)	SHOPPER	SHCHAQUE	Challenge question for verbal confirmation of the shopper's identity.
NC_Challenge Ans	CHAR (250)	SHOPPER	SHCHAANS	Answer to the challenge question.
NC_Shopper Field1	CHAR (254)	SHOPPER	SHFIELD1	Reserved for merchant customization.
NC_Shopper Field2	CHAR (254)	SHOPPER	SHFIELD2	Reserved for merchant customization.
NC_Title	CHAR (5)	SHADDR	SATITLE	Shopper's title: Dr Mr Mrs Ms N - Not provided (default)
NC_Last Name	CHAR (30)	SHADDR	SALNAME	Shopper's last name.
NC_First Name	CHAR (30)	SHADDR	SAFNAME	Shopper's first name.
NC_Middle Name	CHAR (30)	SHADDR	SAMNAME	Shopper's middle name.
NC_Rep Company	CHAR (80)	SHADDR	SAREPCOM	Company that the shopper represents.
NC_Phone1	CHAR (30)	SHADDR	SAPHONE1	Shopper's primary phone number.
NC_Phone2	CHAR (30)	SHADDR	SAPHONE2	Shopper's secondary phone number.
NC_Fax	CHAR (30)	SHADDR	SAFAX	Shopper's facsimile number.
NC_Addr1	CHAR (50)	SHADDR	SAADDR1	Shopper's address line 1.
NC_Addr2	CHAR (50)	SHADDR	SAADDR2	Shopper's address line 2.
NC_Addr3	CHAR (50)	SHADDR	SAADDR3	Shopper's address line 3.
NC_City	CHAR (30)	SHADDR	SACITY	Shopper's city name.
NC_State	CHAR (20)	SHADDR	SASTATE	Shopper's state, province, or equivalent, abbreviated.
NC_Country	CHAR (30)	SHADDR	SACNTRY	Shopper's country name.
NC_ZipCode	CHAR (20)	SHADDR	SAZIPC	Shopper's zip code or equivalent..
NC_Email1	CHAR (254)	SHADDR	SAEMAIL1	Shopper's primary e-mail or URL address.
NC_Email2	CHAR (254)	SHADDR	SAEMAIL2	Shopper's secondary e-mail or URL address.
NC_Day PhoneType	CHAR (3)	SHADDR	SADPHTYP	Type of daytime phone, such as TTY for a teletypewriter for people who have a hearing impairment, or PHN for a standard telephone.
NC_Day PhoneList	CHAR (1)	SHADDR	SADPHLST	1 - Daytime phone number is listed. 0 - Daytime phone number is unlisted.
NC_Evening PhoneType	CHAR (3)	SHADDR	SAEPHTYP	Type of evening phone, such as TTY for a teletypewriter for people who have a hearing impairment, or PHN for a standard telephone.

NC_Evening PhoneList	CHAR (1)	SHADDR	SAEPHLST	1 - Evening phone number is listed. 0 - Evening phone number is unlisted.
NC_BestTime ToCall	CHAR (1)	SHADDR	SABTCALL	Best time to call indicator: D - Daytime E - Evening
NC_Package Insert	CHAR (1)	SHADDR	SAPKGSUP	Package inserts suppression flag, which indicates the shopper's preference for including package inserts in orders shipped. 1 - Include 0 - Do not include
NC_Address OptField1	CHAR (3)	SHADDR	SAFIELD1	Reserved for merchant customization.
NC_Address OptField2	CHAR (1)	SHADDR	SAFIELD2	Reserved for merchant customization.
NC_Shopper Gender	CHAR (1)	SHOPDEM	SDGENDR	Shopper's gender: F - Female M - Male N - Not provided (default)
NC_Shopper Age	CHAR (10)	SHOPDEM	SDAGE	Shopper's age: 0 - Not provided (default) 1 - 0-9 years 2 - 10-19 years 3 - 20-29 years 4 - 30-39 years 5 - 40-49 years 6 - 50-59 years 7 - 60 years or older
NC_Shopper Income	CHAR (10)	SHOPDEM	SDINCOM	Shopper's annual income: 0 - Not provided (default) 1 - \$0 - \$19,999 2 - \$20,000 - \$39,999 3 - \$40,000 - \$59,999 4 - \$60,000 or more
NC_Marital Status	CHAR (1)	SHOPDEM	SDMSTAT	Shopper's marital status: S - Single M - Married C - Common Law P - Separated D - Divorced W - Widowed 0 - Other N - Not Provided
NC_Number OfChildren	CHAR (10)	SHOPDEM	SDCHNBR	Number of children. Default is 0.
NC_Number InHouse	CHAR (10)	SHOPDEM	SDHHNBR	Number of people in the shopper's household. Default is 1.
NC_Shopper Company	CHAR (30)	SHOPDEM	SDCOMP	The company for which the shopper works.
NC_Shopper Interest	CHAR (254)	SHOPDEM	SDINTRS	The shopper's main interests and hobbies.

NC_Previous OrderFlag	CHAR (1)	SHOPDEM	SDPREORD	Indicator of whether or not the shopper has previously placed an order.
NC_Demog Field1	CHAR (1)	SHOPDEM	SDFIELD1	Reserved for merchant customization.
NC_Demog Field2	CHAR (1)	SHOPDEM	SDFIELD2	Reserved for merchant customization.
NC_Demog Field3	CHAR (1)	SHOPDEM	SDFIELD3	Reserved for merchant customization.
NC_Demog Field4	CHAR (1)	SHOPDEM	SDFIELD4	Reserved for merchant customization.
NC_Demog Field5	CHAR (254)	SHOPDEM	SDFIELD5	Reserved for merchant customization.
NC_Demog Field6	CHAR (10)	SHOPDEM	SDFIELD6	Reserved for merchant customization.

DATUSR_DATA for Inbound Messages

The inbound messages, Order Status Update, Customer New, and Customer Update, include the DATUSR_DATA data segment. Include the DATUSR records in these messages to receive additional data. You can customize the fields to pass extra data that is not included in the messages. DATUSR_DATA can be repeated multiple times.

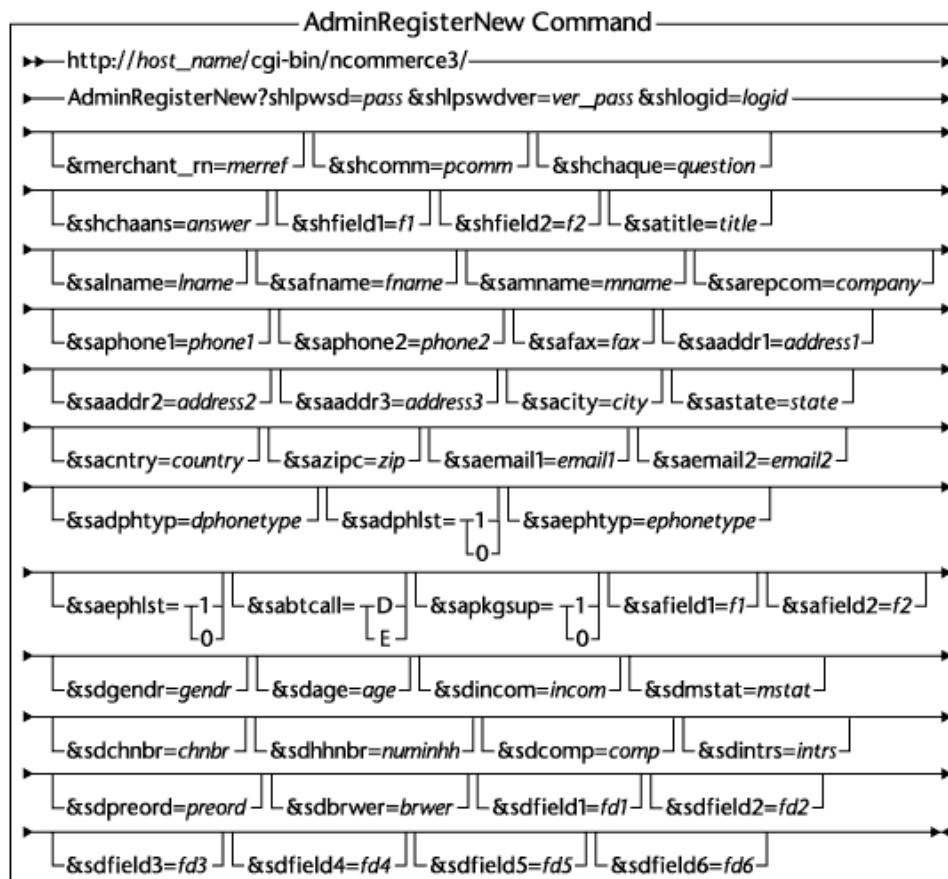
The format and the source of the fields for DATUSR_DATA are described in the following table:

Field Name	Field Type	Description
NC_FieldName	CHAR (8)	Name of the new field to be added.
NC_FieldLength	CHAR (10)	Length of the VALUE field.
NC_FieldValue	CHAR (254)	Text string for the value of the new field.

Chapter 3. Commands

AdminRegisterNew Command

The AdminRegisterNew command is used only by the Net.Commerce MQSeries adapter. The command creates a registration record for a new user. AdminRegisterNew can be called by registered administrators with adequate authority to register new users.



Parameter Values

To determine the data type and maximum length of each parameter value, refer to the SHADDR table (for parameters that begin with sa) and to the SHOPPER table (for parameters that begin with sh).

- `host_name`
The fully qualified name of the Net.Commerce server.
- `url`
The URL that is called when the command successfully completes.
- `pass`
The user's password.
- `ver_pass`
The verification password.
- `logid`
The logon ID of the user.
- `merref`
The reference number of the merchant for which the registration record is to be created.

- pcomm
The preferred method of communication for the user.
- question
Challenge question for verbal confirmation of the user's identity.
- answer
Answer to the challenge question.
- f1
Merchant-customizable field.
- f2
Merchant-customizable field.
- title
The title of the user.
- saadrflg
 - T
A flag to indicate that the new entry is temporary.
 - P
A flag to indicate that the new entry is permanent.
- lname
The last name of the user.
- fname
The first name of the user.
- mname
The middle name or initial of the user.
- company
The company that the user represents.
- phone1
The main phone number of the user.
- phone2
The additional phone number of the user.
- fax
The facsimile number of the user.
- address1
The first address line of the user's street address.
- address2
The second address line of the user's street address.
- address3
The third address line of the user's street address.
- city
The name of the city in which the user resides.
- state
The name of the state, province, or equivalent in which the user resides.
- country
The name of the country in which the user resides.
- zip
The zip code or equivalent of the user's address.
- email1
The e-mail or URL address 1 of the user.
- email2
The e-mail or URL address 2 of the user.

- dphonetype
The type of daytime phone of the user.
- sadphlst
 - 1
An indicator that the daytime phone number is listed.
 - 0
An indicator that the daytime phone number is unlisted.
- ephonetype
The type of evening phone of the user.
- saephlst
 - 1
An indicator that the evening phone is listed.
 - 0
An indicator that the evening phone is unlisted.
- sabtcall
 - D
An indicator that daytime is the best time to call.
 - E
An indicator that evening is the best time to call.
- sapkgsup
 - 1
An indicator to include package inserts in the order shipped.
 - 0
An indicator to not include package inserts in the order shipped.
- f1
Merchant-customizable field.
- f2
Merchant-customizable field.
- gendr
The gender of the user.
- age
The age of the user.
- incom
The income of the user.
- mstat
The marital status of the user.
- chnbr
The number of children the user has.
- numinh
The number of members in the user's household.
- comp
The company for which the user works.
- intrs
The user's main interests and hobbies.
- preord
Indicator of whether or not the user has previously placed an order. Supplied by the user.
- brwer
Reserved for IBM use.

- fd1
Merchant-customizable field.
- fd2
Merchant-customizable field.
- fd3
Merchant-customizable field.
- fd4
Merchant-customizable field.
- fd5
Merchant-customizable field.
- fd6
Merchant-customizable field.

Behavior

1. Checks the required registration information parameters.
2. Calls the AUDIT_REG process task to check the user parameters (the parameters that begin with sh).
3. Updates the registration record.

Note: There can be extra name-value pairs which are ignored by the command, but are passed to the AUDIT_REG process task in the http response.

Exception Conditions

The command returns false.

AdminRegisterUpdate Command

The AdminRegisterUpdate command is used only by the Net.Commerce MQSeries adapter. The command modifies a user's registration record. AdminRegisterUpdate can be called by registered administrators with adequate authority to register new users.



Parameter Values

To determine the data type and maximum length of each parameter value, refer to the SHADDR table (for parameters that begin with sa) and to the SHOPPER table (for parameters that begin with sh).

- **host_name**
The fully qualified name of the Net.Commerce server.
- **url**
The URL that is called when the command successfully completes.
- **pass**
The user's password.
- **ver_pass**
The verification password.
- **merref**
The reference number of the merchant for which the registration record is to be updated.
- **logid**
The logon ID of the user.
- **pcomm**
The preferred method of communication for the user.

- `question`
The challenge question used by the administrator to verbally confirm the user's identity.
- `answer`
Answer to the challenge question which the user has to provide when confirming identity.
- `f1`
Merchant-customizable field.
- `f2`
Merchant-customizable field.
- `title`
The title of the user. For example, Mr. or Ms.
- `lname`
The last name of the user.
- `fname`
The first name of the user.
- `mname`
The middle name or initial of the user.
- `company`
The company that the user represents.
- `phone1`
The main phone number of the user.
- `phone2`
The additional phone number of the user.
- `fax`
The facsimile number of the user.
- `address1`
The first address line of the user's street address.
- `address2`
The second address line of the user's street address.
- `address3`
The third address line of the user's street address.
- `city`
The name of the city in which the user resides.
- `state`
The name of the state, province, or equivalent in which the user resides.
- `country`
The name of the country in which the user resides.
- `zip`
The zip code or equivalent of the user's address.
- `email1`
The e-mail or URL address 1 of the user.
- `email2`
The e-mail or URL address 2 of the user.
- `dphonetype`
The type of daytime phone of the user.
- `sadphlst`
 - 1 - An indicator that the daytime phone number is listed.
 - 0 - An indicator that the daytime phone number is unlisted.
- `ephonetype`
The type of evening phone of the individual.

- saeph1st
 - 1 - An indicator that the evening phone is listed.
 - 0 - An indicator that the evening phone is unlisted.
- sabtcall
 - D - An indicator that daytime is the best time to call.
 - E - An indicator that evening is the best time to call.
- sapkgsup
 - 1 - An indicator to include package inserts in the order shipped.
 - 0 - An indicator to not include package inserts in the order shipped.
- f1
Merchant-customizable field.
- f2
Merchant-customizable field.
- gendr
The gender of the user.
- age
The age of the user.
- incom
The income of the user.
- mstat
The marital status of the user.
- chnbr
The number of children the user has.
- numinh
Number of members in the user's household.
- comp
The company for which the user works.
- intrs
The user's main interests and hobbies.
- preord
Indicator of whether or not the user has previously placed an order. Supplied by the user.
- brwer
Reserved for IBM use.
- fd1
Merchant-customizable field.
- fd2
Merchant-customizable field.
- fd3
Merchant-customizable field.
- fd4
Merchant-customizable field.
- fd5
Merchant-customizable field.
- fd6
Merchant-customizable field.

Behavior

1. Checks the required parameters.
2. Calls the AUDIT_REG process task to check the user parameters (the parameters that begin with sh).

- `merordref`
Merchant's order reference number as defined in the `OIMORNBR` column.
- `itemref`
Net.Commerce item reference number as defined in the `OICPNBR` column.
- `meritemref`
Merchant item reference number as defined in the `OIITMNBR` column.
- `status`
The status of the item as defined in the `OISTATUS` column.
- `scheduled`
The date and time that the item is scheduled to be shipped as defined in the `OISSDATE` column. This must be in the format `YYYYMMDD`.
- `actual`
The date and time that the item is actually shipped as defined in the `OIASDATE` column. This must be in the format `YYYYMMDD`.
- `placed`
The date and time that the item is actually placed as defined in the `OIPLDATE` column. This must be in the format `YYYYMMDD`.
- `quantity`
The quantity of items ordered as defined in the `OIPLDATE` column.
- `currtype`
The ISO 4217 currency type in which the price for the item is expressed as defined in the `OICURRTP` column.
- `unitprice`
The unit price for the item as defined in the `OIUNPRC` column.
- `totprice`
The total price for the item as defined in the `OITOTPRC` column.
- `tottax`
The total sales price for the item as defined in the `OITOTTXP` column.
- `totship`
The total shipping price for the item as defined in the `OITOTSHP` column.
- `tottaxship`
The total tax on the shipping price for the item as defined in the `OITTXSHP` column.
- `comment`
Comments given by shoppers regarding the item ordered as defined in the `OICMNT` column.

Behavior

1. At the beginning of the operation, this command calls the `DO_PRE_ORDER_ITEM_STATUS_UPDATE` process task. At the end of the operation, this command calls the `EXT_ORDER_ITEM_STATUS_UPDATE` process task. If either of these tasks fail, then the entire operation fails and the command returns false.
2. The `DO_PRE_ORDER_ITEM_STATUS_UPDATE` process task puts new name-value pairs in the environment variable. The name-value pairs supercede any equivalent name-value pairs found in the http response.
3. Creates and updates a row in the table `ORDISTAT` for the status of an ordered item. The row is located by using the order reference number (which references column `OIORNBR`) and item reference number (column `OICPNBR`) combination, or the merchant order reference number (column `OIMORNBR`) and merchant item reference number (column `OITTMNBR`) combination.
4. If both combinations are specified and if the merchant order reference number and /or the merchant item reference number columns have been filled, then the Net.Commerce MQSeries adapter checks for consistency. If either of the columns have been previously filled, the Net.Commerce MQSeries adapter updates the row in table `ORDISTAT` with new values.

5. If either combination (the order reference number and item reference number combination, or the merchant order reference number and merchant item reference number combination) is used with a field from the other combination, then the Net.Commerce MQSeries adapter checks for consistency against the existing row in table ORDISTAT.
6. If only the merchant order reference number and merchant item reference number combination is specified, and if these columns have been filled by a previous Net.Commerce Order Status Update message, then a row in table ORDISTAT is located and updated. If either of the columns is missing a value, then the update will fail.

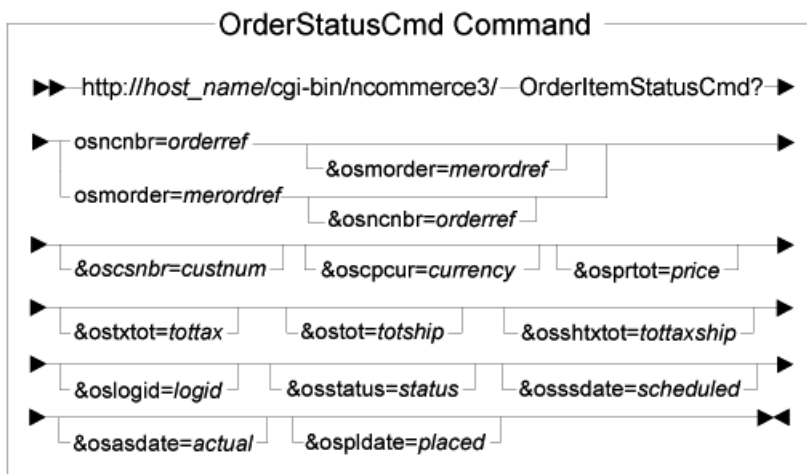
Note: There can be extra name-value pairs which are ignored by the command, but are passed to the task in the http response.

Exception Conditions

The command returns false.

OrderStatusCmd Command

The OrderStatusCmd command is used only by the Net.Commerce MQSeries adapter. The command processes order status information for an Order Status Update message.



Parameter Values

- **host_name**
The fully qualified name of the Net.Commerce server.
- **orderref**
Net.Commerce order reference number as defined in the OSNCNBR column in table ORDSTAT.
- **merordref**
The merchant order referene number as defined in the OSMORDER column.
- **custnum**
The customer order number as defined in the OSCSNBR column.
- **currency**
The ISO 4217 currency type in which the price is expressed as defined in the OSCPCUR column.
- **price**
The total product price for the order as defined in the OSPRTOT column.
- **tottax**
The total tax for the order as defined in the OSTXTOT column.

- **totship**
The total shipping charge for the order as defined in the OSTOT column.
- **tottaxship**
The total tax on shipping charges for the order as defined in the OSSHTXTOT column.
- **logid**
The logon ID of the shopper as defined in the OSLOGID column.
- **status**
The status of the order as defined in the OSSTATUS column.
- **scheduled**
The date that the order is scheduled to be shipped as defined in the OSSSDATE column. This must be in the format YYYYMMDD.
- **actual**
The date that the order is actually shipped as defined in the OSASDATE column. This must be in the format YYYYMMDD.
- **placed**
The date that the order is actually placed as defined in the OSPLDATE column. This must be in the format YYYYMMDD.

Behavior

1. Creates and updates a row in the table ORDSTAT for an order that exists in the system.
2. At the beginning of the operation, this command calls the DO_PRE_ORDER_STATUS_UPDATE process task. At the end of the operation, this command calls the EXT_ORDER_STATUS_UPDATE process task. If either of these tasks fail, then the entire operation fails and the command returns false.
3. The DO_PRE_ORDER_STATUS_UPDATE process task puts new name-value pairs in the environment variable. The name-value pairs supercede any equivalent name-value pairs found in the http response.

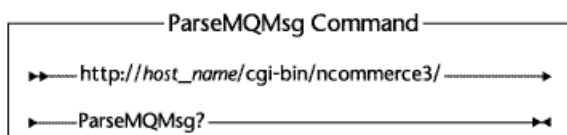
Note: There can be extra name-value pairs which are ignored by the command, but are passed to the task in the http response.

Exception Conditions

The command returns false.

ParseMQMsg Command

The ParseMQMsg command is used only by the Net.Commerce MQSeries adapter. The command parses inbound messages.



Parameter Values

- **host_name**
The fully qualified name of the Net.Commerce server.

Behavior

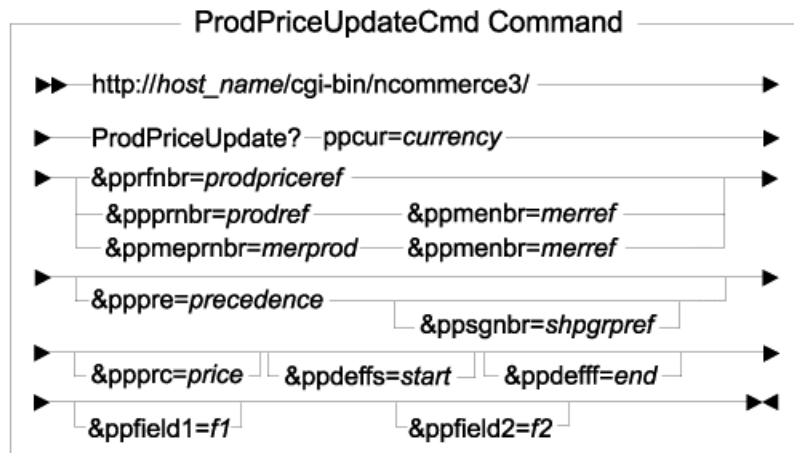
Reads and parses MQSeries messages. If the format of the message matches the formats of the Net.Commerce messages, then it calls the corresponding commands. If the format of the message is not recognized, it calls the INBOUND_NEW_MESSAGE process task.

Exception Conditions

None

ProdPriceUpdateCmd Command

The ProdPriceUpdateCmd command is used only by the Net.Commerce MQSeries adapter. The command updates product price information for the Product Price Update message.



Parameter Values

- `host_name`
The fully qualified name of the Net.Commerce server.
- `currency`
Currency in which the price for the product or item is expressed as defined in the PPPCUR column in table PRODPRCS. The format of the currency must adhere to ISO 4217 standards.
- `prodpriceref`
Net.Commerce product price reference number as defined in the PPRFNBR column in table PRODPRCS. This is a key to the row in the table PRODPRCS.
- `prodref`
Net.Commerce product reference number that references column PRRFNBR in table PRODUCT as defined in the PPPRNBR column in table PRODPRCS. Together with the merchant reference number, precedence, and shopper group reference number, this is a key to the row in the table PRODPRCS, if the product price reference number is empty.
- `merref`
The merchant reference number that references column MERFNBR in table MERCHANT as defined in the PPMENBR column. Together with the product reference number, precedence, and shopper group reference number, this is a key to the row in the table PRODPRCS, if the product price reference number is empty.
- `merprod`
The merchant product number or item SKU as defined in the PRNBR column in table PRODUCT.
- `precedence`
Precedence for the price, unique within a shopper group as defined in the PPPRE column. Together with the product reference number, merchant reference number, and shopper group reference number, this is a key to the row in the table PRODPRCS, if the product price reference number is empty.
- `shpgrpref`
The shopper group reference number to which the price applies. This number references column SGRFNBR in table SHOPGRP as defined in the PPSGNBR column. Together with the product

reference number, merchant reference number, and precedence, this is a key to the row in the table PRODPRCS, if the product price reference number is empty.

- price
The price of the product as defined in the PPPRC column.
- start
The date and time that the price becomes effective as defined in the PPDEFFS column.
- end
The date and time that the price expires as defined in the PPDEFFF column.
- f1
Price customization field 1 as defined in the PPFIELD1 column.
- f2
Price customization field 2 as defined in the PPFIELD2 column.

Behavior

1. If the product price reference number is not present, then the combination of the Net.Commerce product number (which references column PPPRNBR), shopper group reference number (column PPSGNBR), precedence (column PPPRE), and merchant reference number (column PPMENBR) will be used as the key. If the Net.Commerce product number is not specified, then the merchant product number (column PPNBR) will be used to obtain it. If the precedence is not specified, then the Net.Commerce MQSeries adapter locates a previous record, and increments the precedence by a value of one. If a previous record does not exist, then the precedence value is set to 1. A new row is inserted in the table PRODPRCS with the new precedence value. The maximum precedence value is 2^{31} . If the maximum precedence value has been reached, then the new update will be rejected.
2. At the beginning of the operation, this command calls the DO_PRE_PRODUCT_PRICE_UPDATE process task. At the end of the operation, this command calls the EXT_PRODUCT_PRICE_UPDATE process task. If either of these tasks fail, then the entire operation fails and the command returns false.
3. The DO_PRE_PRODUCT_PRICE_UPDATE process task puts new name-value pairs in the environment variable. The name-value pairs supercede any equivalent name-value pairs found in the http response.

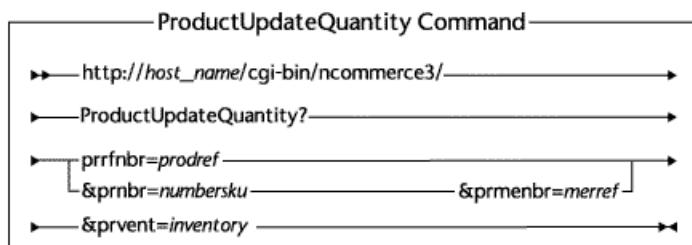
Note: There can be extra name-value pairs which are ignored by the command, but are passed to the task in the http response.

Exception Conditions

The command returns false.

ProductUpdateQuantity Command

The ProductUpdateQuantity command is used only by the Net.Commerce MQSeries adapter. The command updates product inventory for the Product Quantity Update message.



Parameter Values

- `host_name`
The fully qualified name of the Net.Commerce server.
- `prodref`
Net.Commerce product reference number as defined in the `PRRFNBR` column in table `PRODUCT`. This is a key to the row in the table `PRODUCT`. If the product reference number is empty, then the combination of the product number or item SKU and the merchant reference number will be used as the key to the row in this table. If the row does not exist, an error condition will be raised.
- `numbersku`
The product number or item SKU as defined in the `PRNBR` column. Together with the merchant reference number, this is a key to the row in the table `PRODUCT`, if the product reference number is empty.
- `merref`
The merchant reference number that references column `MERFNBR` in table `MERCHANT` as defined in the `PRMENBR` column. Together with the product number or item SKU, this is a key to the row in the table `PRODUCT`, if the product reference number is empty.
- `inventory`
The quantity of the product in stock as defined in the `PRVENT` column.

Behavior

1. Updates the inventory of the product.
2. At the beginning of the operation, this command calls the `DO_PRE_PRODUCT_QUANTITY_UPDATE` process task. At the end of the operation, this command calls the `EXT_PRODUCT_QUANTITY_UPDATE` process task. If either of these tasks fail, then the entire operation fails and the command returns false.
3. The `DO_PRE_PRODUCT_QUANTITY_UPDATE` process task puts new name-value pairs in the environment variable. The name-value pairs supercede any equivalent name-value pairs found in the http response.

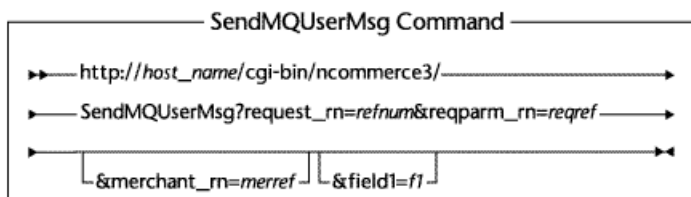
Note: There can be extra name-value pairs which are ignored by the command, but are passed to the task in the http response.

Exception Conditions

The command returns false.

SendMQUserMsg Command

The `SendMQUserMsg` command is used only by the Net.Commerce MQSeries adapter. The command sends user-defined MQSeries messages.



Parameter Values

- `host_name`
The fully qualified name of the Net.Commerce server.

- **refnum**
A reference number to be used as a key value in the table ECEOUT as defined in the ECREFNUM column. This reference number is used with requests for messages to be sent by the MQSeries Bridge to the Net.Commerce outbound message queue.
- **reqref**
A reference number to be used as a key value when creating the message to be sent as defined in the ECREQNUM column.. For requests that are of the type ORDER_CREATE, this number is the Net.Commerce order number. For requests that are of the type MQ_USER_MESSAGE, this number is a reference number to be used to create the user message.
- **merref**
The Net.Commerce reference merchant reference number for the request as defined in the ECEMENBR column.
- **f1**
Custom field 1, used to pass additional parameters as defined in the ECEFIELD1 column.

Behavior

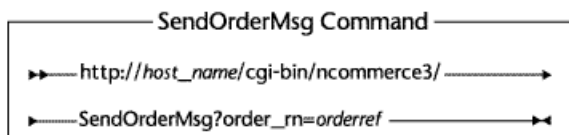
- Calls the GET_USER_MQ_MESSAGE process task.
- Sends the message to the Net.Commerce outbound message queue.

Exception Conditions

None

SendOrderMsg Command

The SendOrderMsg command is used by the Net.Commerce MQSeries adapter to send orders in the format of new order messages. That is, this command is used only when the ORDER_CREATE_PROLOG_DATA segment within the Order Create message contains a field value of "ON" for "Order New."



Parameter Values

- **host_name**
The fully qualified name of the Net.Commerce server.
- **orderref**
Unique order reference number, internally generated for a Net.Commerce order. This number contains a value as defined in the ORRFNBR column in table ORDERS.

Behavior

Collects data from the order identified and sends an Order Create message to the Net.Commerce outbound message queue.

Exception Conditions

None

Chapter 4. Process Tasks

DO_PRE_ORDER_ITEM_STATUS_UPDATE Process Task

Calling Commands: OrderItemStatusCmd

Expected Behavior: Perform any additional processing that is required before regular processing begins. This process task can put new name-value pairs in the environment variable. The name-value pairs in the environment variable supercede any equivalent name-value pairs found in the http response during the processing of the ProductUpdateQuantity command.

Explicit Input Parameters: None

Explicit Output Parameters: None

Expected Return Codes: True or false. If the return code is false, the processing stops and the command returns false.

Default Overridable Function: DoNothingNoArgs_1.0(IBM,NC)

Usage Examples: Perform additional processing before regular processing and create new name-value pairs in the environment to supercede the name-value pairs in the http request.

DO_PRE_ORDER_STATUS_UPDATE Process Task

Calling Commands: OrderStatusCmd

Expected Behavior: Perform any additional processing that is required before regular processing begins. This process task can put new name-value pairs in the environment variable. The name-value pairs in the environment variable supercede any equivalent name-value pairs found in the http response during the processing of the ProductUpdateQuantity command.

Explicit Input Parameters: None

Explicit Output Parameters: None

Expected Return Codes: True or false. If the return code is false, the processing stops and the command returns false.

Default Overridable Function: DoNothingNoArgs_1.0(IBM,NC)

Usage Examples: Perform additional processing before regular processing and create new name-value pairs in the environment to supercede the name-value pairs in the http request.

DO_PRE_PRODUCT_PRICE_UPDATE Process Task

Calling Commands: ProdPriceUpdateCmd

Expected Behavior: Perform any additional processing that is required before processing begins. This process task can put new name-value pairs in the environment variable. The name-value pairs in the environment variable supercede any equivalent name-value pairs found in the http response during the processing of the ProductPriceUpdateCmd command.

Explicit Input Parameters: None

Explicit Output Parameters: None

Expected Return Codes: True or false. If the return code is false, the processing stops and the command returns false.

Default Overridable Function: DoNothingNoArgs_1.0(IBM,NC)

Usage Examples: Perform additional processing before regular processing and create new name-value pairs in the environment to supercede the name-value pairs in the http request.

DO_PRE_PRODUCT_QUANTITY_UPDATE Process Task

Calling Commands: ProductUpdateQuantity

Expected Behavior: Perform any additional processing that is required before processing begins. This process task can put new name-value pairs in the environment variable. The name-value pairs in the environment variable supercede any equivalent name-value pairs found in the http response during the processing of the ProductUpdateQuantity command.

Explicit Input Parameters: None

Explicit Output Parameters: None

Expected Return Codes: True or false. If the return code is false, the processing stops and the command returns false.

Default Overridable Function: DoNothingNoArgs_1.0(IBM,NC)

Usage Examples: Perform additional processing before regular processing and create new name-value pairs in the environment to supercede the name-value pairs in the http request.

EXT_ORD_PROC Process Task

Calling Commands: OrderProcess

Expected Behavior: Perform any additional processing required just prior to the completion of the calling command. If unsuccessful, either set an exception task, return a false value to the calling command, or handle the exception by writing an http response.

Explicit Input Parameters:

Variable Name	Variable Type	Description
ORDER_REF_NUM	String*	The reference number of the order

Explicit Output Parameters: None

Expected Return Codes: For exceptions that are handled by setting the EXT_ORD_PROC_ERR exception task, the expected return codes are the ones documented as input parameters for that exception task.

Default Overridable Function: DoNothingNoArgs 1.0 (IBM,NC)

Usage Examples:

- Keep track of the total number of orders placed by each shopper
- Trigger a back-end system to perform further processing

EXT_ORDER_ITEM_STATUS_UPDATE Process Task

Calling Commands: OrderItemStatusCmd

Expected Behavior: Perform any additional processing that is required before the command completes.

Explicit Input Parameters: None

Explicit Output Parameters: None

Expected Return Codes: True or false. If the return code is false, the processing stops and the command returns false.

Default Overridable Function: DoNothingNoArgs_1.0(IBM,NC)

Usage Examples: Perform additional processing before the OrderItemStatusCmd command completes.

EXT_ORDER_STATUS_UPDATE Process Task

Calling Commands: OrderStatusCmd

Expected Behavior: Perform any additional processing that is required before command completes.

Explicit Input Parameters: None

Explicit Output Parameters: None

Expected Return Codes: True or false. If the return code is false, the processing stops and the command returns false.

Default Overridable Function: DoNothingNoArgs_1.0(IBM,NC)

Usage Examples: Perform additional processing before the OrderStatusCmd command completes.

EXT_PRODUCT_PRICE_UPDATE Process Task

Calling Commands: ProdPriceUpdateCmd

Expected Behavior: Perform any additional processing that is required before the command completes.

Explicit Input Parameters: None

Explicit Output Parameters: None

Expected Return Codes: True or false. If the return code is false, the processing stops and the command returns false.

Default Overridable Function: DoNothingNoArgs_1.0(IBM,NC)

Usage Examples: Perform additional processing before the ProdPriceUpdateCmd command completes.

EXT_PRODUCT_QUANTITY_UPDATE Process Task

Calling Commands: ProductUpdateQuantity

Expected Behavior: Perform any additional processing that is required before the command completes.

Explicit Input Parameters: None

Explicit Output Parameters: None

Expected Return Codes: True or false. If the return code is false, the processing stops and the command returns false.

Default Overridable Function: DoNothingNoArgs_1.0(IBM,NC)

Usage Examples: Perform additional processing before the ProductUpdateQuantity command completes.

EXT_SEND_ORDERMSG Process Task

Calling Commands: SendOrderMsg

Expected Behavior: Perform any additional processing that is required before the message is sent out to the MQSeries queue.

Explicit Input Parameters:

Variable Name	Variable Type	Description
MQ_MESSAGE	String*	The message that is being sent for this order.

Explicit Output Parameters: None

Expected Return Codes: None

Default Overridable Function: DoNothingNoArgs_1.0(IBM,NC)

Usage Examples: Perform additional processing before an order message is sent.

GET_USER_MQ_MESSAGE Process Task

Calling Commands: SendMQUserMsg

Expected Behavior: Create a message to be sent from Net.Commerce to the NC_MQ_OUTBOUND queue. The message is a user-defined message with a specific syntax, which is defined by the user.

Explicit Input Parameters: None

Explicit Output Parameters:

Variable Name	Variable Type	Description
MQ_MESSAGE	String*	The string pointer for a string object that contains a message to be sent from Net.Commerce.

Expected Return Codes: None

Default Overridable Function: DoNothingNoArgs_1.0(IBM,NC)

Usage Examples: Send a user-defined message to the MQSeries outbound queue.

GET_USRLST_ORDER_CREATE_HDR_MSG Process Task

Calling Commands: SendOrderMsg

Expected Behavior: Create the USRLST data segment for the <HEADER> section of the Order Create message. This task also creates a string object that contains a series of DATUSR records as follows:

```
<DATUSR>DATUSR_DATA</DATUSR>
      .
      .DATUSR repeated loop
      .
<DATUSR>DATUSR_DATA</DATUSR>
```

Explicit Input Parameters:

Variable Name	Variable Type	Description
ORDER_REF_NUM	String*	The Net.Commerce reference number of the order for the message being sent.
USER_LIST	String*	The string pointer for a string object that contains a set of DATUSR records to be included in the USRLST segment for the Order Create message.

Explicit Output Parameters: None

Expected Return Codes: None

Default Overridable Function: DoNothingNoArgs_1.0(IBM,NC)

Usage Examples: Extend the <HEADER> section of the Order Create message.

GET_USRLST_ORDER_CREATE_ITM_MSG Process Task

Calling Commands: SendOrderMsg

Expected Behavior: Create the USRLST record for the <ITMDAT> section of the Order Create message. This task also creates a string object that contains a series of DATUSR records as follows:

```
<DATUSR>DATUSR_DATA</DATUSR>
      .
      .DATUSR repeated loop
      .
<DATUSR>DATUSR_DATA</DATUSR>
```

Explicit Input Parameters:

Variable Name	Variable Type	Description
ORDER_REF_NUM	String*	The Net.Commerce reference number of the order for the message being sent.
ORDERITEM_REF_NUM	String*	The Net.Commerce order item reference number for the message being sent.

Variable Name	Variable Type	Description
USER_LIST	String*	The string pointer for a string object that contains a set of DATUSR records to be included in the USRLST segment for the Order Create message.

Explicit Output Parameters: None

Expected Return Codes: None

Default Overridable Function: DoNothingNoArgs_1.0(IBM,NC)

Usage Examples:

- Extend the <ITMDAT> section of the Order Create message.

INBOUND_NEW_MESSAGE Process Task

Calling Commands: ParseMQMsg

Expected Behavior: Process the message buffer that is sent. The message is a user-defined message with a specific syntax defined by the user.

Explicit Input Parameters:

Variable Name	Variable Type	Description
BUFFER	String*	The string pointer for a string object that contains a message to be sent to Net.Commerce.

Explicit Output Parameters: None

Expected Return Codes: True or false. If the return code is false, the message is moved to the MQSeries error queue.

Default Overridable Function: DoNothingNoArgs_1.0(IBM,NC)

Usage Examples: Receive a user-defined message from the MQSeries inbound queue.

Chapter 5. Overridable Functions

ECEExtOrdProc_1.0(IBM,NC) Overridable Function

Designed to be called by: The EXT_ORD_PROC process task.

Behavior: Creates a work request for the Net.Commerce MQSeries adapter to send an Order Create message.

NewMessage_1.0(IBM,NC) Overridable Function

Designed to be called by: The INBOUND_NEW_MESSAGE process task.

Behavior: Returns false.

If you want to support new inbound messages, you must replace this overridable function with one that you write. Ensure that the overridable function that you write maps to the INBOUND_NEW_MESSAGE process task.

Chapter 6. Configuration Files

Net.Commerce MQSeries Adapter Configuration File

The Net.Commerce MQSeries adapter configuration file is created by running the ncmqbridge executable. The configuration file contains settings required to support MQSeries message queues. The configuration file is called:

WIN ncei_ece.ini

AIX **SUN** ncei_ece.conf

Parameter Name	Default Value	Description
SERVICE_NAME_PREFIX	ncei_ece, as specified in the ncei_ece configuration file.	The prefix for TCP/IP service names used by this server. This name is concatenated with an underscore “_” and a service number to create a service name. The service name is associated with a port address in the services file.
EXEC	<Net.Commerce_install_path>\bin\back_server	The path and name of the back_server executable.
MS_HOSTNAME		The fully qualified TCP/IP domain name of the server where Net.Commerce is installed. If you are running one server, set this directive to its host name. If you are running multiple servers, set it to the host name of the server that you want to handle http requests.
DBNAME		The name of the Net.Commerce database.
DBINST		The user ID of the database instance owner. A separate configuration file is created for each existing instance.
DBOWNER		The name of the Net.Commerce database owner.
DBPASS		The encrypted password of database instance owner ID. To encrypt the password, type the following command: nc3_crypt -e <password> -ini where <password> is the password you want to encrypt. Copy the character string to the configuration file as the value for this directive.
PROCESSES	1	The number of processes that the Net.Commerce server starts, to handle requests from the Net.Commerce director. Higher numbers allow Net.Commerce to process more transactions simultaneously, but the load on the machine is increased. This number must be from 1 to 99. Increase it if you anticipate heavy traffic on the site.
MERCHANT_KEY		The key that the system uses to encrypt the password file and the passwords in the database. To determine which string to use, type: nc3_crypt -e <number> -ini where <number> is a 16-digit hexadecimal number. Make sure that the number you type does not follow a predictable pattern. After you type this command, the system responds with a character string. Copy the string to the configuration file as the value for this directive, and retain it for future reference. If you are running multiple servers, they each must all have the same MERCHANT_KEY string.

Parameter Name	Default Value	Description
MS_LOGPATH		The path name to which Net.Commerce writes its log files. If no value is specified, no transaction logs are created. The log files begin with the characters NC followed by the date, with an extension that matches the process number.
MS_LOGLEVEL	0	The level of logging that this server is to perform: 0 - Perform error logging only. 1 - Perform status and error logging. Status logging writes summarized transaction information to the Net.Commerce log. 2 or more - Perform debug, status, and error logging. Debug logging writes detailed transaction information to the Net.Commerce log.
DB_RETRY_LIMIT	WIN 15 AIX SUN 1	The number of times the server retries to connect to the database. This setting is optional.
DB_RETRY_INTERVAL	20	The number of seconds between attempts to connect to the database. This setting is optional.
BACKGROUND_CYCLE_TIME	15	Time that the server sleeps after all outbound and inbound messages have been processed.
BACKGROUND_INTER_JOB_TIME	10	Reserved for IBM use.
NC_MQ_INBOUND		Inbound message queue used by the MQSeries adapter application. Net.Commerce reads all inbound messages from this queue using MQGET calls. All inbound messages are expected to be placed on this queue.
NC_MQ_OUTBOUND		Outbound message queue used by the MQSeries adapter application. Net.Commerce writes all outbound messages from this queue using MQPUT calls. All outbound messages are placed on this queue.
NC_MQ_INERROR		Inbound message error queue used by the MQSeries adapter application. Inbound messages that fail processing by Net.Commerce are placed on this queue.
NC_MQ_QMANAGER		MQSeries adapter queue manager, which handles all the inbound and outbound queues.
NC_MQ_BRIDGE_USERID		MQSeries adapter administrator ID to identify persons with authority to get, put, or connect to the NC_MQ_INBOUND, NC_MQ_OUTBOUND, and NC_MQ_INERROR queues. This administrator also has authority to run the commands used with MQSeries adapter.
DEFAULT_MSG_SIZE	2000	Default MQSeries adapter message size for inbound messages.
MAX_MSG_SIZE	1000000	Maximum MQSeries adapter message size for inbound messages.
NC_LANG		The name of the country locale.
HTML_PATH		The Web server document root directory.

Notices

Any reference to an IBM licensed program in this document is not intended to state or imply that only IBM's licensed program may be used. Any functionally equivalent product, program, or service that does not infringe any of IBM's intellectual property rights may be used instead of the IBM product, program, or service. Evaluation and verification of operation in conjunction with other products, except those expressly designated by IBM, is the user's responsibility.

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

Director of Licensing
Intellectual Property & Licensing
North Castle Drive, MD-NC119
Armonk, NY 10504-1785
U.S.A.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independent created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

Lab Director
IBM Canada Ltd.
1150 Eglinton Avenue East
North York, Ontario
M3C 1H7
Canada

Such information may be available, subject to appropriate terms and conditions, including in some cases payment of a fee.

This document may contain examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples may include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

This document may contain information about other companies' products, including references to such companies' Internet sites. IBM has no responsibility for the accuracy, completeness, or use of such information.



This product is based on the SET protocol.

This product contains RSA Software.

Note to U.S. Government Users — Documentation related to restricted rights — Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract with IBM Corp.

Trademarks and Service Marks

The following terms are trademarks of International Business Machines Corporation in the United States or other countries or both:

IBM
DB2
DATABASE 2
MQSeries

AIX
DB2 Extenders
IMS
CICS

IBM Payment Server
DB2 Universal Database
Net.Data

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Lotus and Domino are trademarks of Lotus Development Corporation in the U.S. and/or other countries.

Adobe and Acrobat are trademarks of Adobe Systems Incorporated.

Pentium is a trademark of Intel Corporation in the U.S. and/or other countries.

Netscape and Netscape Communicator are registered trademarks of Netscape Communications Corporation in the United States and other countries.

Java and all Java-based trademarks and logos are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

SET Secure Electronic Transaction, SET and the SET logo are trademarks owned by SET Secure Electronic Transaction LLC. Use of the trademarks without a written license from SET Secure Electronic Transaction LLC is strictly prohibited.

Credit card images, trademarks and trade names provided in this product should be used only by merchants authorized by the credit card mark's owner to accept payment via that credit card.

Other company, product, or service names may be trademarks or service marks of others.

License Information

When you purchase the Net.Commerce system, you receive a license for IBM Net.Commerce for AIX or IBM Net.Commerce for Windows NT. You also receive licensed copies of

- IBM DB2 Universal Database
- Domino Go Webserver
- IBM DB2 Extenders

These licenses are valid only when you use these products in association with your licensed use of the Net.Commerce system.

If you wish to substitute any of the following products for the equivalent product provided on the Net.Commerce CD-ROM, you must obtain separate licenses for them:

- Oracle 8.05 instead of DB2
- Domino Web Server or Netscape Enterprise Server 3.6 instead of Domino Go Webserver

IBM