

IBM Sterling Payment Processing v9.2.0 Features

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08/24/2012

Goals of Presentation

- ❖ High level understanding of v9.2.0 features in Payment Processing

Overview

Following are some of the features that are available for payment processing in v9.2.0-

- ❖ Payment configuration – Payment Card Types
- ❖ Charge transaction request settlement with Dynamic distribution
- ❖ Reverse excess – Authorization Reversal strategy
- ❖ Partial Reversal of authorizations

Payment Configuration – Financial Rules

Applications Manager

File Applications Action Help

Financial Rules : Sales Order (DEFAULT)

Hold Order For Authorization

Allow Refund To Exceed Charged Amount

Create Invoice Before Order Or Shipment

Do Not Allow Debit And Credit Invoices To Settle Each Other

Allow Refunding Of Negative Debits Before Sufficient Collection Has Occurred

Do Not Consolidate Settlement Or Refund Requests Across Invoices

Prioritize INVOICED Payment Status Over REQUEST_CHARGE For Asynchronous Processing

Disassociate Payment Processing of Advanced PrePaid Exchange Order From Return Order

Use Same Authorization Multiple Times

Validate Charge Name

Apply Price Change To Invoiced Quantity

Invoice Open Header Charges/Taxes On Invoice ...

Enable Payment Card Type Configuration Level

Expiration For Authorization (Days)

Hold To Be Applied Due To Insufficient Funds In Customer Account

Charge Name For Shipping

Create Shipment Invoice For Bundle Parent On Invoicing Of

All Bundle Components First Bundle Component

Date For Pricing Confirmed Orders

Use System Date Use Order Date

Payment Rules (DEFAULT) Financial Rules : Sales Order (DEFAULT) Payment Types (DEFAULT)

Done

Payment Configuration – Payment Types

The screenshot shows the 'Payment Type Details' configuration window in the Applications Manager. The window is titled 'Applications Manager' and has a close button (X) in the top right corner. The main title bar is 'Payment Type Details'. Below the title bar, there are two tabs: 'Charge' (selected) and 'Refund'. The 'Charge' tab contains the following fields and options:

- Payment Type:** CREDIT_CARD
- Payment Type Group:** Credit Card (dropdown menu)
- Description:** Credit Card
- Charge Sequence:** 0
- Charge Instead of Authorize
- Authorization Reversal Strategy:** Reverse Excess (dropdown menu)
- Partial Reversal Supported
- Support Zero Amount Authorization
- Charge Up To Available
- Processing Not Required
- Charge Consolidation Allowed
- Consolidation Window (Hrs):** 0
- Allow Authorizations To Exceed Settlement Request
- Hours Before Authorization Expiration:** (empty text box)
- Hours Authorization Can Still be Reversed:** (empty text box)

Payment Card Types

- ❖ 4th level of configuration will be added: Payment Card Type
- ❖ This will map to the CreditCardType field in the Payment Method and contain configurations at a more granular level.
- ❖ This configuration level will be limited to payment methods of group CREDIT_CARD.

Some of the rules available here are the following:

- ❖ Authorization Reversal Strategy
- ❖ Can Authorization be used multiple times
- ❖ Is Charge Consolidation Allowed and the min wait time for consolidation
- ❖ Allow Authorizations To Exceed Settlement Request
- ❖ Authorization Expiration Hours
- ❖ Authorization Reversal Hours
- ❖ Support Zero Amount Authorization
- ❖ Partial Reversal Supported

Payment Card Types (cont..)

Applications Manager

Payment Card Type Details

Payment Card Type	CREDIT_CARD
Payment Type	CREDIT_CARD
Payment Card Type ID	VISA
Short Description	VISA
Long Description	VISA
Authorization Reversal Strategy	Reverse Excess
Partial Reversal Supported	
Use Same Authorization Multiple Times	
Charge Consolidation Allowed	
Consolidation Window (Hrs)	
Allow Authorizations To Exceed Settlement Request	
Hours Before Authorization Expiration	
Hours Authorization Can Still be Reversed	
Charge Up To Available	No
Support Zero Amount Authorization	
Processing Not Required	

Payment Card Types (cont..)

- ❖ Enabled by Financial Rule - Enable Payment Card Type Configuration Level
- ❖ Payment processing rules will now be read in hierarchical fashion
- ❖ Support an additional value of null
- ❖ CreditCardType – Common code YCD_CREDIT_CARD_TYPE
- ❖ APIs - managePaymentCardType, getPaymentCardTypeList, getPaymentCardTypeDetails
- ❖ InheritValues=Y|N in getPaymentCardTypeDetails

Charge transaction request settlement with Dynamic distribution

- ❖ Charge transaction request feature (CTR)
- ❖ Limitations of CTRs – Need for Dynamic mapping
- ❖ Dynamic mapping of CTRs
- ❖ Charging of Invoices individually

Charge transaction request (CTR)

- ❖ Emphasis on customers' cost-savings associated with calls to the payment gateway
- ❖ Delayed reauthorization – reducing time between authorization and charging exact amounts
- ❖ Earlier the authorization is created, longer the time before charge consumes it
- ❖ Charge Transaction Request identifiers –finer control on how authorizations are created
- ❖ When configured, authorization requests are not created based on book amount but on CTR request amount

Charge transaction request (CTR) (cont..)

- ❖ Multiple CTRs can be configured for Order
- ❖ API - manageChargeTransactionRequest
- ❖ MaxRequestAmount - Total authorization required for that request
- ❖ RequestSequence/ChargeTransactionRequestId – Denotes the sequence in which CTRs should be authorized
- ❖ PaymentStatus - AWAIT_AUTH, REQUEST_AUTH, FAILED_AUTH, and AUTHORIZED

CTR Limitations

- ❖ No support for settlement
- ❖ No support for reversal of authorizations
- ❖ Could not maintain an authorization for amounts not covered by charge transaction requests
- ❖ Changes to the charge transaction requests required deletion and recreation in order to remap authorizations

CTR – Dynamic distribution

To solve the CTR limitations

- ❖ Change the mapping of CTRs to charge transactions from a persisted to a dynamic one, recomputed each time requestCollection is run
- ❖ Dynamic mapping of the relationships among all payment-related entities: authorizations, charges, refunds, charge transaction requests, and invoices
- ❖ Charge invoices individually, rather than to total them together before creating CTRs
- ❖ Payment rule - Only Authorize Charge Transaction Request Total
- ❖ Financial Rule - Do Not Consolidate Settlement Or Refund Requests Across Invoices

CTR – Dynamic distribution (cont..)

- ❖ Dynamic mapping takes place in two main phases – mapping of invoices and then mapping of remaining CTRs
- ❖ Not considered for mapping - fully distributed invoices and credits, voided invoices, expired authorizations, reversed authorizations or authorizations pending reversal, and authorizations with a pending settlement.

Example –

- ❖ 20\$ order, 2 CTRs 8\$ and 12\$
- ❖ RC runs – 2 Open Auths 8\$ and 12\$. 8\$ CTr maps to 8\$ auth and 12\$ CTR with 12\$ auth. Both CTRs AWAIT_AUTH
- ❖ EC runs followed by RC – Open auths are Checked, CTRs are AUTHORIZED
- ❖ 12\$ shipped and invoiced
- ❖ RC-EC-RC runs – 12\$ charge opened. 12\$ invoice and 12\$ charge mapped to 12\$ CTR
- ❖ 8\$ shipped and invoiced
- ❖ RC-EC-RC runs – 8\$ charge opened. 8\$ invoice and 8\$ charge mapped to 8\$ CTR

CTR – Dynamic distribution (cont..)

New rule - Do Not Consolidate Settlement Or Refund Requests Across Invoices

Do Not Consol Debits or Credits	Charges Created invoices on the system: 60, 50
N	110
Y	60, 50

Prevent Debit to Debit Dist	Do Not Consol Debits or Credits	Charges Created invoices on the system (60, 50, -25, -20)
N	N	65
Y	N	110, -45
N	Y	60, 5
Y	Y	60, 50, -25, -20

Authorization reversal

- ❖ Till v9.2.0, only two types of auth reversal supported – No Reversal and Reversal on Expiry
- ❖ 3rd reversal strategy supported in v9.2.0 – Excess reversal
- ❖ In addition to reversing expired authorizations, this also reverses those which are in excess and hence unusable
- ❖ Configuration – Payment type and Card Type
- ❖ Sequence of reversal – based on Payment charge sequence

Authorization reversal (cont..)

Order	Auths	Only Auth CTR Total	CTRs	Auths Reversed	Auths Acquired
100	• 100	N	None	None	
100	• 100	Y	None	100	
100	• 110	N	None	110	100
100	• 100 • 10	N	None	10	
10	• 100 • 10	N	None	100	
50	• 100 • 10	N	None	100	40
100	• 100 • 10	N	• 10	100	90
100	• 90 • 10	N	• 10	None	
100	• 100 • 10	Y	• 10	100	
100	• 90 • 10	Y	• 10	90	
100	• 100	N	• 60	100	60,40
100	• 100	Y	• 60	100	60
100	• 100 • 10	N	• 60 • 50	100	60,40
90	• 100	N	• 60	100	60,30

"Use Same Authorization Multiple Times" and "Allow Authorizations To Exceed Settlement Request" are both "N"

Partial Reversal of Authorization

- ❖ Support for partial reversal of authorization
- ❖ Configuration – Payment Type/ Card Type - Partial Reversal Supported flag
- ❖ Only supported with Reverse Excess strategy

Order	Auths	Only Auth CTR Total	CTRs	Auths Reversed	Auths Acquired
100	• 110	N	None	110 10 of 110	100 None
50	• 100 • 10	N	None	100 60 of 100	40 None
100	• 100 • 10	N	• 10	100 10 of 100	90 None
100	• 100	N	• 60	100 40 of 100	60,40 40
100	• 100	Y	• 60	100 40 of 100	60 None
100	• 100 • 10	N	• 60 • 50	100 40 of 100	60,40 30
90	• 100	N	• 60	100 40 of 100	60,30 30

Additional Resources

- ◉ Related Documentation
- ◉ Sterling PDFs
 - Product concepts guide, Chapter 12
 - Distributed Order Management Config guide, Financial sections
- ◉ Sterling Javadocs
 - Apis covered in this document.

Any Questions