



Technical Implementation guide



LINK Joint Customer

Introduction

This document covers the high level structure of the Ingenico SDK for Salesforce Commerce Cloud (Demandware) based on Ingenico's REST API for the GlobalCollect and Ogone platforms. Before reading through this document it is recommended to read the Installation and Admin user Guide.

Cartridges

The SDK is made of 4 cartridges

int_ingenico

This is the main cartridge that interacts with the REST API and provides the payment processors for direct and hosted transactions. It also provides the processor to handle transactions via the OC API (Demandware's REST API). It also contains the site-import metadata to load the data customisations into the sandbox.

int_ingenico_feature

Provides 2 controllers to handle 3D Secure / hosted transactions and process the push messages from the Ingenico platform. It also provides 2 override controllers to support the Site Genesis integration

bm_ingenico

It provides the Business Manager functionality to process pending orders marked for fraud check or manual authorisation. It also provides the payment detail screen for the two payment processors defined in *int_ingenico*.

int_ingenico_test

This is a test console to perform requests direct to the API. This should only be used in a sandbox environment and never installed in the Primary Instance Group

Methods

There are two main modules that contain the methods that should be used in this cartridge for your own integrations.

IngenicoPayments

This module is located in *int_ingenico/cartridge/scripts/order/IngenicoPayments.js*. It performs all the calls necessary to interact with Ingenico's payment gateway.

ApprovePaymentTransactionPendingApproval

Sends approval request for challenged transaction. Returns *OrderStatusUpdateResponse*.

Parameters:

Name	Type	Description
order	dw.order.Order	Order
paymentInstrument	dw.order.OrderPaymentInstrument	Payment instrument

ApproveTransactionPendingFraudApproval

Sends approval request for challenged transaction. Returns *OrderStatusUpdateResponse*.

Parameters:

Name	Type	Description
orderNo	String	Demandware's Order No
paymentId	String	Payment transaction id

CancelPayment

Cancel existing payment transaction. Returns *OrderStatusUpdateResponse*.

Parameters:

Name	Type	Description
orderNo	String	Demandware's Order No
paymentId	String	Payment transaction id

CancelRefund

Cancel existing refund transaction. Returns *OrderStatusUpdateResponse*.

Parameters:

Name	Type	Description
order	dw.order.Order	Order
refundId	String	Refund transaction id

CreateHostedPayment

Create Hosted Payment request to obtain URL to show in iframe. Returns *OrderStatusUpdateResponse*.

Parameters:

Name	Type	Description
order	dw.order.Order	Order
paymentInstrument	dw.order.OrderPaymentInstrument	Payment instrument

CreatePayment

Creates payment request, sends it to Ingenico and updates the order. Returns *OrderStatusUpdateResponse*.

Parameters:

Name	Type	Description
systemOrder	dw.order.Order	Order
paymentInstrument	dw.order.OrderPaymentInstrument	Payment instrument
cardDetails	CardDetails	
apiOrder	Boolean	Order through the OCAPI used by Customer Service Center

CreatePaymentRefund

Create new refund against a payment transaction. Returns *OrderStatusUpdateResponse*.

Parameters:

Name	Type	Description
order	dw.order.Order	Order
transactionID	String	Payment transaction id
amount	Number	Amount to refund
reason	String	Reason recorded against refund

CreateToken

Create token for a given card. Returns token *String*.

Parameters:

Name	Type	Description
order	dw.order.Order	Order
paymentInstrument	dw.order.OrderPaymentInstrument	Payment instrument

GetCardType

Get card product type based on first 6 numbers of the card or the complete card number. Returns *CardType*.

Parameters:

Name	Type	Description
cardNum	String	Card/PAN

GetRefundStatus

Get refund status for a given order number and refund Id. Returns *OrderStatusUpdateResponse*.

Parameters:

Name	Type	Description
orderNo	String	Order Number
refundId	String	Refund Id linked to the order

RetrieveAndUpdateOrderPaymentStatus

Retrieves the latest status from the gateway for a hosted or direct transaction and updates the Demandware object. Returns *OrderStatusUpdateResponse*.

Parameters:

Name	Type	Description
order	dw.order.Order	Order

UpdateOrder

This module is located in *int_ingenico/cartridge/scripts/order/UpdateOrder.js*. It processes the response payloads and updates order transaction statuses and triggers emails if required. These methods are called from other methods like *CreatePayment* or *RetrieveAndUpdateOrderPaymentStatus* so ideally should not be used without knowing what type of data they expect.

CreatePaymentOrderUpdate

Updates order and payment instrument based on payload from a createPayment request. This request is used internally. Returns *OrderStatusUpdateResponse*.

Parameters:

Name	Type	Description
order	dw.order.Order	Order
paymentInstrument	dw.order.OrderPaymentInstrument	Payment instrument
payload	Object	Payload response from an API request

UpdateOrderFromCallback

Updates order and payment instrument based on payload from a get status request. This request is used internally. Returns *OrderStatusUpdateResponse*.

Parameters:

Name	Type	Description
order	dw.order.Order	Order
paymentInstrument	dw.order.OrderPaymentInstrument	Payment instrument
payload	Object	Payload response from an API request

IngenicoOrderHelper

There are some helper methods that can be useful if performing your own integration without using SiteGenesis as a basis. These methods are found in *int_ingenico/cartridge/scripts/utls/IngenicoOrderHelper.js*. The main methods are listed below.

GetIngenicoPaymentInstrument

Get the payment instrument related to an Ingenico transaction. Returns *dw.order.OrderPaymentInstrument*.

Parameters:

Name	Type	Description
order	dw.order.Order	Demandware order
id	String	Payment transaction id

GetStoredPaymentStatus

Get the stored payment status related to an Ingenico transaction. Returns *OrderPaymentStatus*.

Parameters:

Name	Type	Description
order	dw.order.Order	Demandware order

Data Types

The returned data types are defined below.

CardDetails

Object that stores a PAN, CVV and token used for payment

Properties:

Name	Type	Description
cardNum	String	Full PAN/Card number
cvv	String	CVV/CVC for the card
token	String	Token representation of the PAN if available

CardType

Object that defines the product Id and country for a card PAN

Properties:

Name	Type	Description
countryCode	String	ISO Alpha-2 country code
paymentProductId	String	Product ID from the list of products supported by Ingenico

OrderStatusUpdateResponse

Holds the response values from a status update

Properties:

Name	Type	Description
error	Boolean	Is there an error
errorMessage	String	Text describing the error
paymentAuthSuccess	Boolean	Was payment authorisation successful
paymentReceived	Boolean	Was payment received
status	String	Gateway transaction status response
actionRequired	Boolean	
hostedCheckoutId	String	
merchantAction.actionType	String	Type of action to perform
merchantAction.redirectData.redirectURL	String	URL to redirect the user to complete transaction
merchantAction.redirectData.RETURNMAC	String	Code used to validate response when user returns to merchant site

OrderPaymentStatus

Object that defines the status of an Ingenico transaction

Properties:

Name	Type	Description
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originalAmount	Number	Original requested amount
payment	IngenicoPayment	Contains payment data
refunds	[IngenicoRefund]	List of refunds

IngenicoPayment

Object that defines the status of an Ingenico transaction

Properties:

Name	Type	Description
amount	Number	Amount taken as payment
status	String	Last payment status
statusOutput	Object	Status as returned from the gateway
date	Number	Epoch time in milliseconds
method	String	Payment product Id
authCode	String	
id	String	Transaction id

IngenicoRefund

Object that defines the status of an Ingenico transaction

Properties:

Name	Type	Description
amount	Number	Refunded amount
status	String	Last refund status
statusOutput	Object	Status as returned from the gateway
date	Number	Epoch time in milliseconds
id	String	Refund transaction id

Localisation & Design

All the templates and resource files are found in *int_ingenico/cartridge/templates*. There you can change the current text and add new translations if required, change the email messages sent by the cartridge to users, change the templates with the iframe used for 3D secure and hosted payment and the order confirmation.

Further Information

You can generate more technical documentation running `jsdoc` against the cartridges. Please note that it does not cover 100% of the code and that is meant to be used for internal development. If the API methods exposed do not cover what you need, please raise a ticket or contact your account manager.