



Partner
in Payments

SPG Integration Manual

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□ SIBS

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1 Introduction

SIBS Payment Gateway (SPG) enables you to accept e-commerce payments, having at your disposal several payment methods to make accepting payments online easy. This solution provides an online payment provider, gateway and Backoffice that integrates your website to a javascript solution with a secure form or through an Application Programming Interface (API).

2 Payment Methods

SPG supports both synchronous and asynchronous payments methods

- A synchronous payment method means that the final authorisation status is received in near real time in the API response and the payment is completed (Request - Answer).
- An asynchronous method means that the final authorisation is done in two steps to complete the payment (Request – Pending, need action).

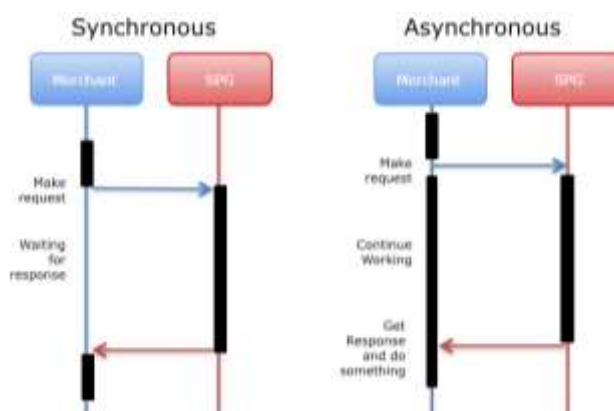


Figure 1 – Synchronous & Asynchronous

- **MB WAY ID** – is an asynchronous payment that requests the MB WAY enabled App, associated with the mobile phone number sent within the request, to accept the payment.
- **MB WAY QR Code** – is a synchronous payment that returns the status of the QR Code previously generated. Status *success* means some MB WAY enabled App already read the QR Code and everything is ready to perform a QR Code Payment.
- **Card** – is a synchronous payment that allows the client to pay to the Merchant through a banking card by inserting the Name, Card Number, Expiring date and CVV.
- **Multibanco (MB Payment Reference)** – is an asynchronous payment that requests the generation of a MULTIBANCO Reference related to the payment registered by the previous

Checkout. With the MULTIBANCO Reference returned in this operation, the customer can perform the payment.

PAYMENT METHODS	CARD	MULTIBANCO	MBWAY ID	MBWAY QR
Synchronous	X			X
Asynchronous		X	X	

Table 1 – Synchronous & Asynchronous

2.1 Scope

Description of Relationship:



3 Frontoffice Operations

SPG supports two types of operations, purchases and authorisations, where the purchase triggers the payment immediately and the authorisation keeps the amount captive until a capture is performed.

- **Purchase**

This transaction allows a cardholder to pay for a good or service via an electronic operation that debits his account and will credit the Acceptors banking account. Consists in an immediate debit in the client account and is an effective payment on the moment of the transaction.

- **Authorisation**

Consists in an authorisation for a future payment, allows the Merchant to get an authorisation from the Issuer keeping the amount captive in the cardholders banking account, the transaction is authorised and the purchase will be triggered in a second moment where the merchant needs to trigger a “Capture” on the Backoffice, accordingly with the table below.

The following table describe the Frontoffice operations per payment method:

	PURCHASE	AUTHORISATION
CARD	X	X
MULTIBANCO	X	
MB WAY ID (ALIAS)	X	X
MB WAY QR CODE	X	X

Table 2 – Payment Method Vs Operations Type

4 Backoffice Operations

At a Backoffice level, SPG supports the following types of operations:

- **Capture**

Used after the cardholder provided an authorisation for the payment on a 1st stage and the amount is captured. Used on a 2nd stage to execute the payment that can happen in different ways (always triggered over an authorisation):

- Full, capture the full amount authorized and finish the purchase
- Partial, split the capture and do several payments up to the total amount authorized

- **Refund**

The purpose of this operation is to refund the amount of a previous payment, crediting the cardholder account and debiting the Merchant account. A refund can be:

- Full, when the total amount of the purchase is refunded to the cardholder
- Partial, when a subtotal of the total purchase is refunded to the cardholder

- **Cancellation**

Requests the cancellation of the amount (full or partial) of a previous authorisation or MULTIBANCO Reference generated, but not paid

- **Recurring**

The purpose of this operation is to allow the merchant to charge a recurrent service, in the first stage the cardholder requests to register the payment as an Initial recurring and authorize the merchant to do future debits (following recurring) accordingly with the service.

- Initial Recurring – Needed to register as initial recurring
- Following Recurring – Triggers following payments

The following table describe the Backoffice operations per payment method:

	CARD	MULTIBANCO	MB WAY ID	MB WAY QR
CAPTURE	X		X	X
REFUND	X	X	X	X
CANCELLATION	X	X	X	X
RECURRING	X			

Table 3 – Backoffice Operations

It is possible to establish the below relationship among the Frontoffice & Backoffice operations, having in mind that Backoffice operations will act on the Frontoffice Operations:

	PURCHASE	AUTHORISATION	CAPTURE
CAPTURE		1	
REFUND	4		3
CANCELLATION		2	
RECURRING	5	5	

Table 4 – Frontoffice & Backoffice Operations

- 1** – A capture can act over an Authorisation of the total or partial amount
- 2** – An authorisation can be cancelled and the amount kept on hold will be released
- 3** – An effective payment through a capture can only be refunded
- 4** – An effective purchase only allows to trigger a refund in the Backoffice
- 5** – A recurring can be actioned over a purchase or an authorisation

5 Integration Options

SPG provides a collection of APIs that enables our clients to process and manage payments. Our APIs allow to accept payments from banking cards, MBWAY and to generate Multibanco references to perform payments in the Multibanco ATM network or in the home banking solutions from card issuers. It is not necessary to choose all the SPG payment solutions, our clients can choose which APIs to use.

5.1 Form Integration

Simple form integration with javascript based widget, on four simple steps:

1. Prepare the checkout: sends payment data, except payment method data.

- First, **perform a server-to-server POST request** to prepare the checkout with the required data, including the order type, amount and currency. The response to a successful request is a JSON with a transactionID, which is required in the second step to create the payment form.
- **Create the payment form:** displays a Payment Form to allow customers to submit payment method data. To create the payment form you just need to add the following lines of HTML/Javascript to your page and populate the following variables
 - The checkout transactionID that was returned in the response from step 1

```
<script src="https://{QLY/PRD}/assets/js/widget.js?id={transactionID}"></script>
```

[Change the variable accordingly with the environment – QLY or PRD]

- The `{formContext}` that you get in response from step 2
 - **(2.1)** `{formConfig}`
 - **(2.2)** `{formStyle}` (optionally)

```
<form class="paymentSPG" spg-context="{formContext}" spg-config="{formConfig}" spg-style="{formStyle}"></form>
```

- **(2.3)** Configures the merchant *redirectUrl*, which is the page on your website where the customer should be redirected after the payment.
- **(2.4)** Optional parameter that allows the user to change the form style

2. **Get the payment status:** gets the checkout status
 - Once the payment is processed, the customer is redirect to your redirectUrl (defined in step 2.1). You can check the status of your transaction making a GET request
3. **Merchant Notification:** Receive payment status
 - SIBS Payment Gateway will send the notification of the asynchronous payments status.

Note: To be a valid Merchant on SPG will be necessary to have an authorisation token (<AuthToken>), <terminalId>

5.2 Server-to-Server

The Server to Server integration is also known as direct integration as it enables communication between the two servers, SIBS and Merchant. Cardholders can finalise a payment without being redirected to the SPG Form. This integration is suitable for merchants that store the payment data before sending them to the SIBS Payment Gateway.

Server-to-Server Integration is based on the following steps:

1. **Prepare the checkout:** sends payment data, except payment method data.

First, perform a server-to-server POST request to prepare the checkout with the required data, including the order type, amount and currency. The response to a successful request is a JSON with a `transactionID`, which is required in the second step.

2. **Display payment method options to customer:**

The next step is to provide the payment method options and get payment data from the customer:

2.1. Card

2.2. Multibanco

2.3. MB Way ID

2.4. MB Way QR Code: generate and display the QR Code.

3. **Update payment method data:** sends payment method and its required data.

Perform a payment request, call SPG API with the collected data accordingly with the method

3.1. Gets the QR Code capture status

This step should only be performed when QR Code payment method is in place

It should be performed in loop (every 5 seconds) until either get a response that the QR Code was successfully captured or that the customer selected another form of payment.

4. Get the payment status: gets the payment status

For MB WAY payments using mobile phone number, this step should be performed in loop (every 5 seconds up to 4 minutes) until a response that the payment was accept/rejected by the customer is received

5. Merchant Notification: Receive payment status

SIBS Payment Gateway will send the notification of the asynchronous payments to the merchant server.

6 Integration Flows

6.1 Card

This payment method allows the client to make a payment using their card.

This operation has duplicate control so that in the event that two consecutive purchases occur in the same logical terminal of the Merchant, for the same amount and the same card, the second purchase will be considered a duplicate and will be rejected.

- **Authorisation/Purchase**

The image below shows the card authorisation/purchase flow, between the Merchant and SPG.

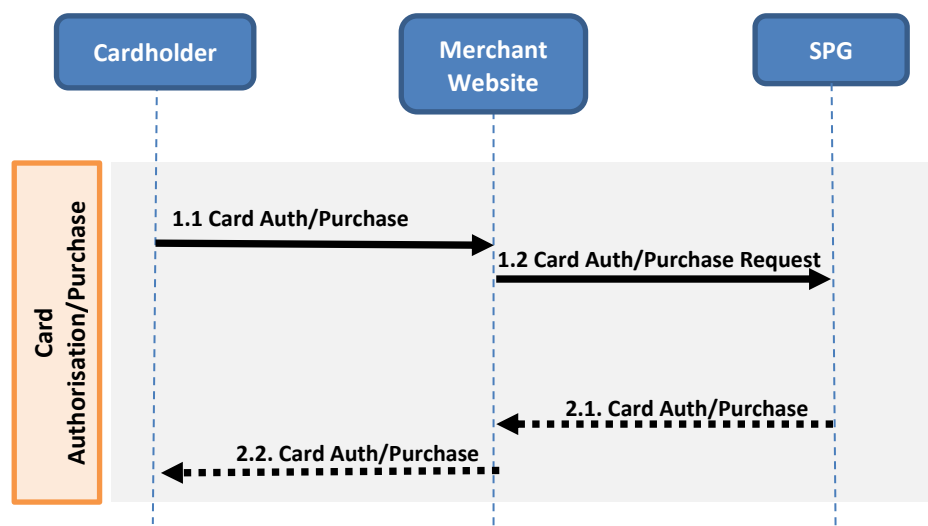


Figure 2 – Card Authorisation/Purchase

- 1.1 – Cardholder input card information in the merchant website
- 1.2 – Merchant website sends card information to the SPG
- 2.1 – SPG returns the purchase result to the merchant website
- 2.2 – The merchant website displays the status of the payment to the cardholder

- **Capture**

The image below shows the card capture flow, between the Merchant and SIBS

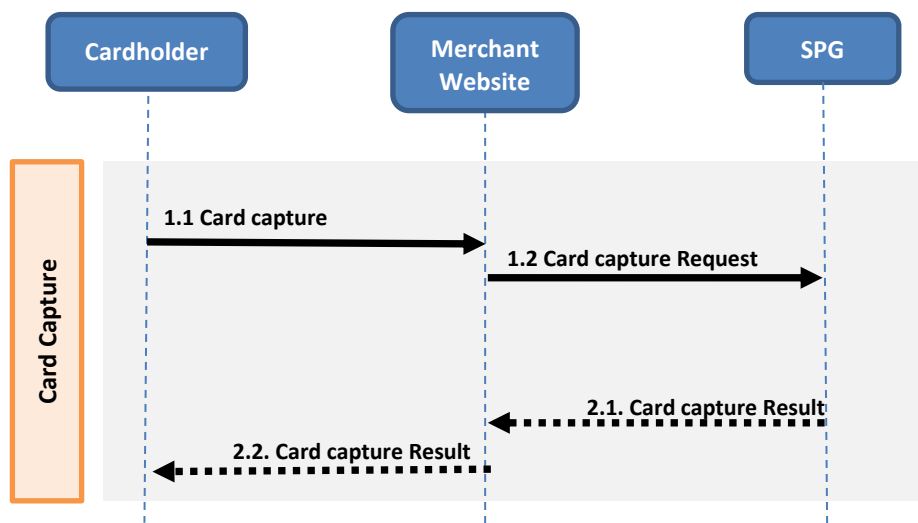


Figure 3 – Card Capture

- 1.1 – Cardholder input capture information in the merchant website
- 1.2 – Merchant website sends the capture information to the SPG
- 2.1 – SPG returns the capture result to the merchant website
- 2.2 – The merchant website display the status of the capture to the cardholder

- **Authorisation Cancellation**

The image below shows the card authorisation/Purchase flow, between the Merchant and SIBS

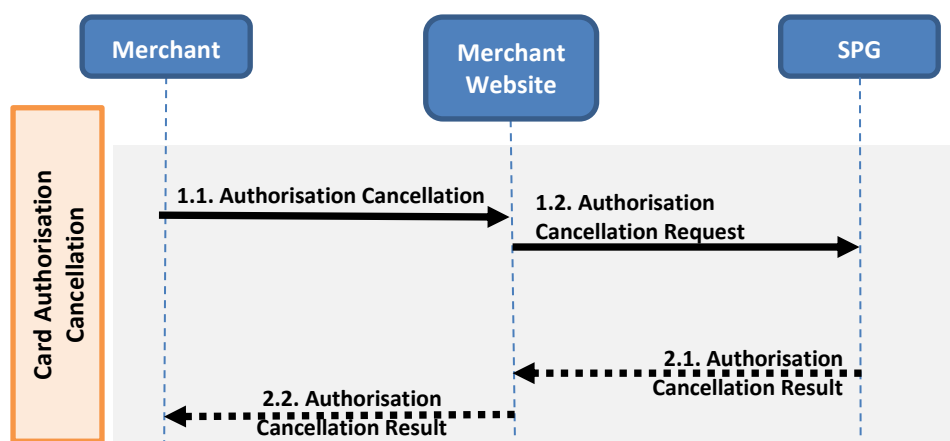


Figure 4 – Card Authorisation Cancellation

- 1.1 – Merchant inputs the Authorisation Cancellation in the Merchant Website
- 1.2 – Merchant Website sends the payment information to the SPG
- 2.1 – SPG returns the cancellation result to the Merchant Website
- 2.2 – The Merchant Website returns the status of the cancellation

- **Purchase/Capture Refund**

After completing a Card Purchase, the Client may request the Refund of that Purchase. This operation can be triggered immediately.

This operation does not demand the use of the Client card. Nevertheless, in the case of partial Refunds a control is in place to prevent the refund to exceed the total amount of the original transaction.

The image below shows the card Purchase/Capture Refund flow, between the Merchant and SIBS:

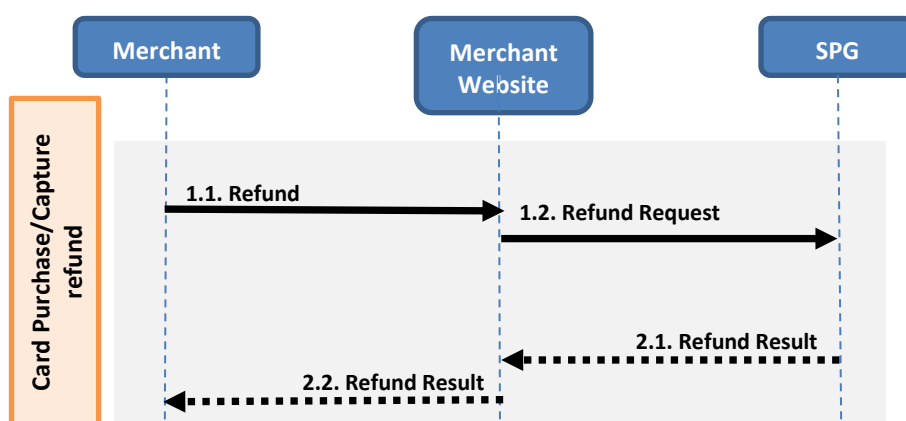


Figure 5 – Card Purchase/Capture Refund

- 1.1 – Merchant input a refund request through the Backoffice or via API
- 1.2 – Merchant Website sends the refund request and details to the SPG
- 2.1 – SPG returns the refund operation status result to the Merchant Website
- 2.2 – The Merchant Website display the status of the refund.

6.2 MB WAY (ID)

This operation allows the Client to make a Purchase using the MB WAY service. If the service is MB WAY ID, the Client alias must be informed (phone number) and an authorisation request will be sent to the MB WAY Client App.

SPG returns the result of the execution of the authorisation request. If this operation is successful, the transaction shall be considered to be in the “pending” status and the Merchant Website must wait for the result of the payment that will be informed through the notification that confirms the MB WAY Payment.

- **Authorisation/Purchase**

The picture below shows the MB WAY Authorisation/Purchase flow, between the Merchant and SIBS:

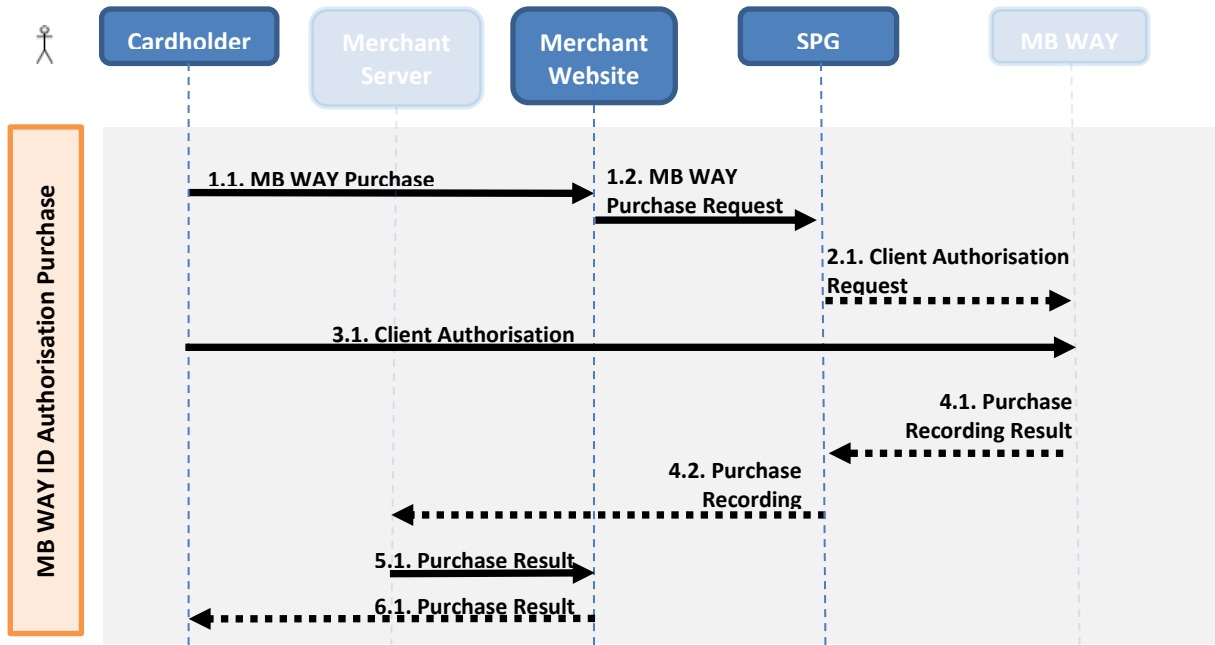


Figure 6 – MB Way ID Authorisation/ Purchase

- 1.1 – Cardholder input the alias in the Merchant Website
- 1.2 – Merchant Website sends the alias and payment information to the SPG
- 2.1 – Client authorisation request sent to SPG (MB Way)
- 3.1 – Cardholder should receive a push message to authorise, meanwhile payment stays pending
- 4.1 – Purchase result (Status) is sent from MB Way to SPG
- 4.2 – SPG will sent the Purchase result to the Merchant server
- 5.1 – The Merchant server will reconcile internally with the Merchant website
- 6.1 – Merchant website display to Cardholder the status of the payment.

- **MB Way (ID) Capture**

The picture below shows the MB WAY Capture flow, between the Merchant and SIBS:

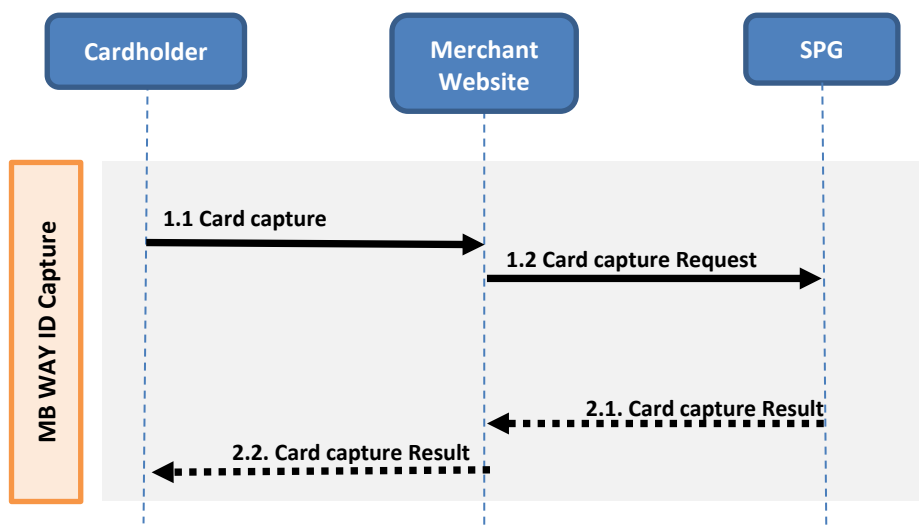


Figure 7 – MB WAY ID Capture

- 1.1 – Cardholder input capture information in the Merchant Website
- 1.2 – Merchant Website send the Capture information to the SIBS Payment Gateway (SPG)
- 2.1 – SPG returns the capture result to the Merchant Website
- 2.2 – The Merchant Website display to Cardholder the status of the capture.

- **MB Way (ID) Authorisation Cancellation**

The picture below shows the MB WAY Authorisation Cancellation flow, between the Merchant and SIBS:

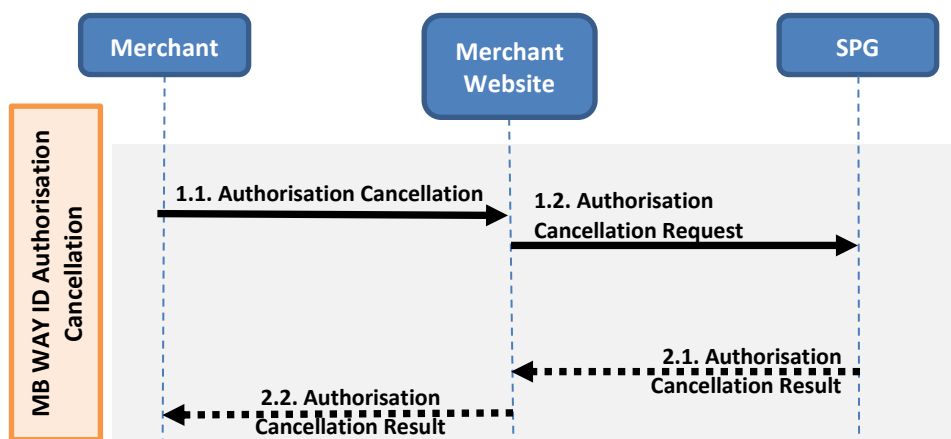


Figure 8 – MB WAY ID Authorisation Cancellation

- 1.1 – Merchant input the Authorisation Cancellation in the Merchant Website
- 1.2 – Merchant Website sends the payment information to the SPG
- 2.1 – SPG returns the cancellation result to the Merchant Website
- 2.2 – The Merchant Website returns the status of the cancellation

- **MB WAY (ID) Purchase/Capture Refund**

The below flow shows the MB WAY Purchase/Capture Refund flow, between the Merchant and SIBS:

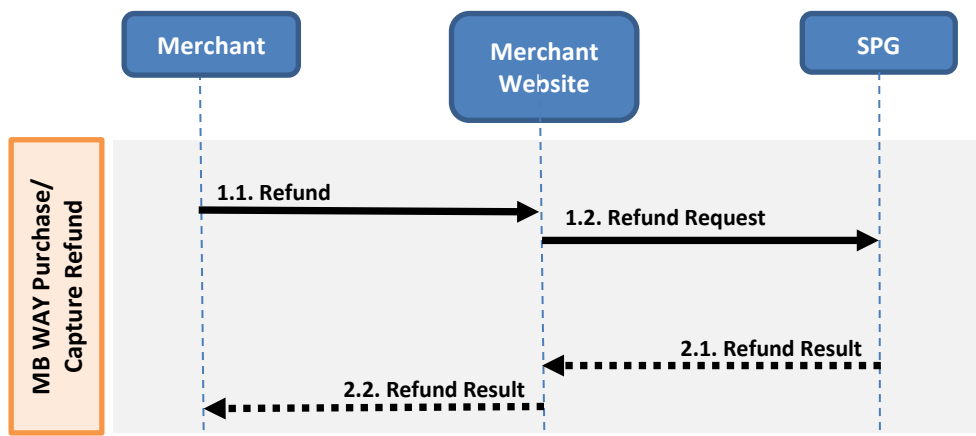


Figure 9 – MB WAY (ID) Purchase/Capture refund

- 1.1 – Merchant input a refund request through the Backoffice or API
- 1.2 – Merchant Website sends the refund request and details to the SPG
- 2.1 – SPG return the operation status to the Merchant Website
- 2.2 – Merchant Website returns the refund result to the Cardholder

6.3 MB WAY QR Code

This payment method allows the Clients to make a payment using their app, by reading a QR Code.

- **Authorisation/Purchase**

The picture below shows the QR Code Purchase flow, between the Merchant and SIBS:

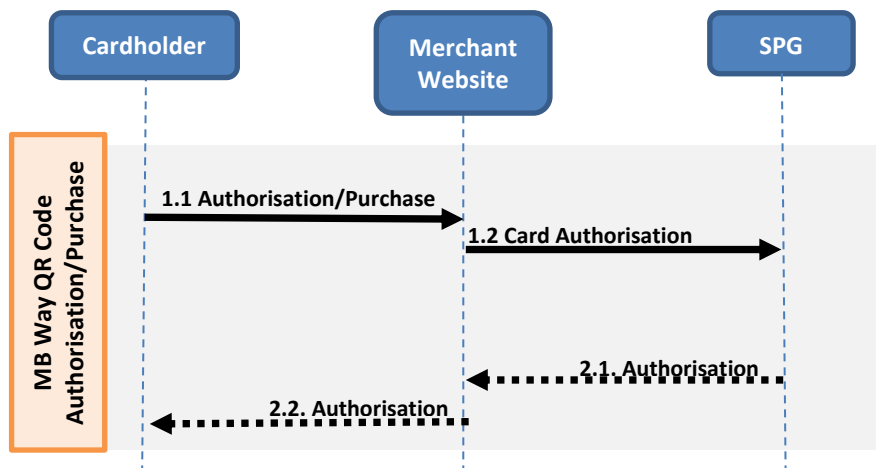


Figure 10 – MB WAY (QR Code) Authorisation/Purchase

- 1.1 – Cardholder input details in the Merchant Website
- 1.2 – Merchant Website sends the information to the SPG
- 2.1 – SPG returns the result to the Merchant Website
- 2.2 – The Merchant Website display to Cardholder the status of the payment.

- **Capture**

The image below shows the card capture flow, between the Merchant and SIBS

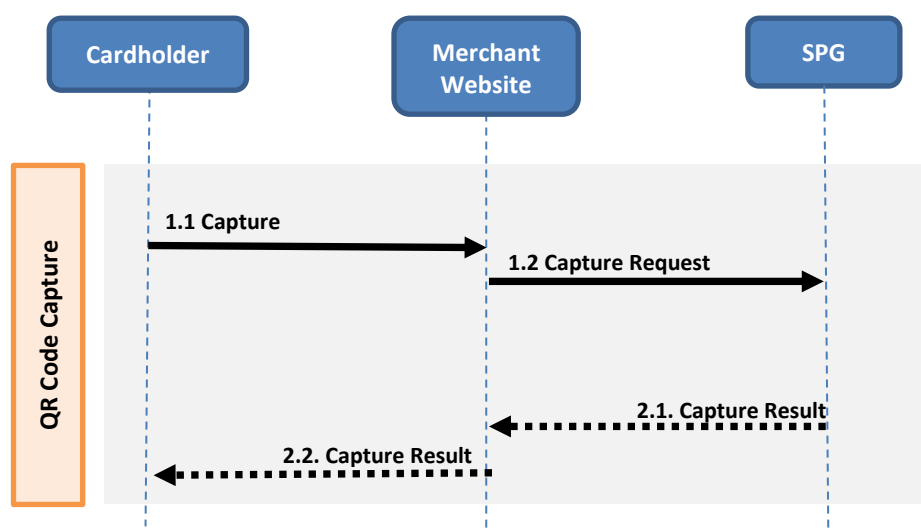


Figure 11 – MB WAY (QR Code) Capture

- 1.1 – Cardholder input capture information in the Merchant Website
- 1.2 – Merchant Website sends the capture information to the SIBS Payment Gateway (SPG)
- 2.1 – SPG returns the capture result to the Merchant Website
- 2.2 – The Merchant Website display to Cardholder the status of the capture.

- **Authorisation Cancellation**

The image below shows the card authorisation/Purchase flow, between the Merchant and SIBS

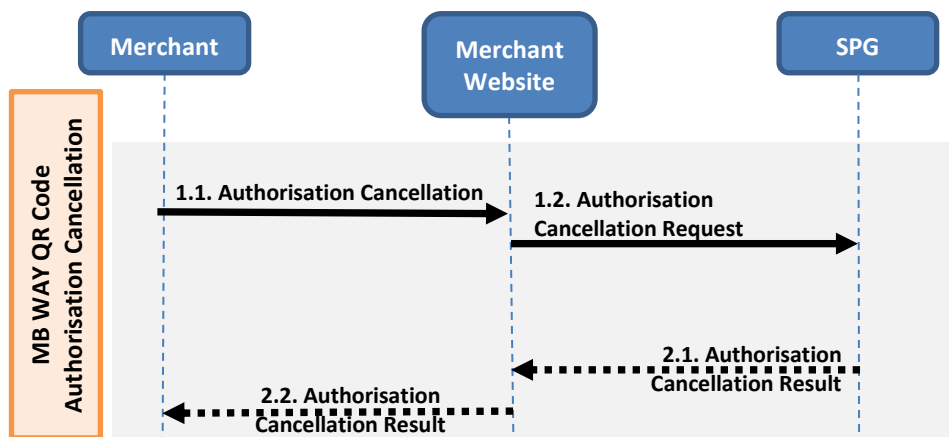


Figure 12 – MB WAY (QR Code) Authorisation Cancellation

- 1.1 – Merchant input the Authorisation Cancellation in the Merchant Website
- 1.2 – Merchant Website sends the payment information to the SPG
- 2.1 – SPG returns the cancellation result to the Merchant Website
- 2.2 – The Merchant Website returns the status of the cancellation.

- **MB WAY (QR Code) Refund**

The image below shows the QR Code Purchase Refund flow, between the Merchant and SIBS:

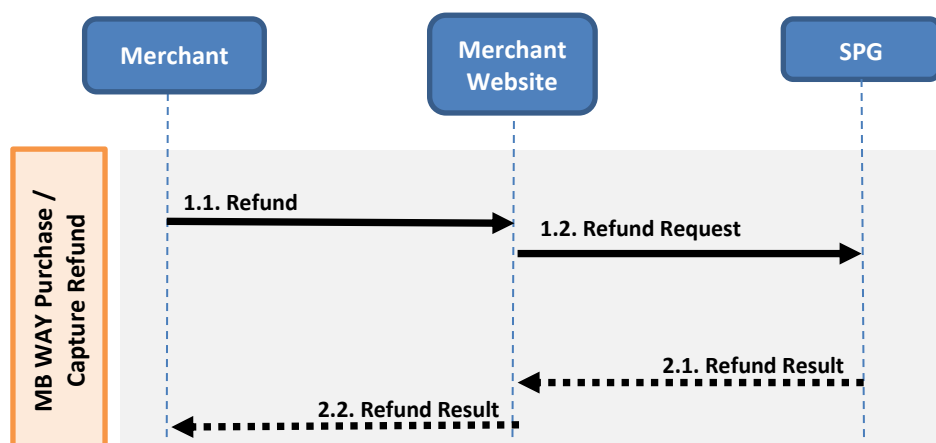


Figure 13 – MB WAY (QR Code) Purchase/Capture Refund

- 1.1 – Merchant input a refund request through the Backoffice or API
- 1.2 – Merchant Website sends the refund request and details to SPG
- 2.1 – SPG return the operation status to the Merchant
- 2.2 – Merchant Website returns the refund result to the Cardholder

6.4 Multibanco

This operation allows the Client to make a Purchase by requesting a reference to do the payment through the generation of a MULTIBANCO reference. The Cardholder can use any MULTIBANCO Reference channel available (e.g. ATM, home banking, mobile banking or MB SPOT) to pay.

- **Authorisation/Purchase**

The picture below shows the Multibanco flow, between the Merchant, SIBS & Cardholder:

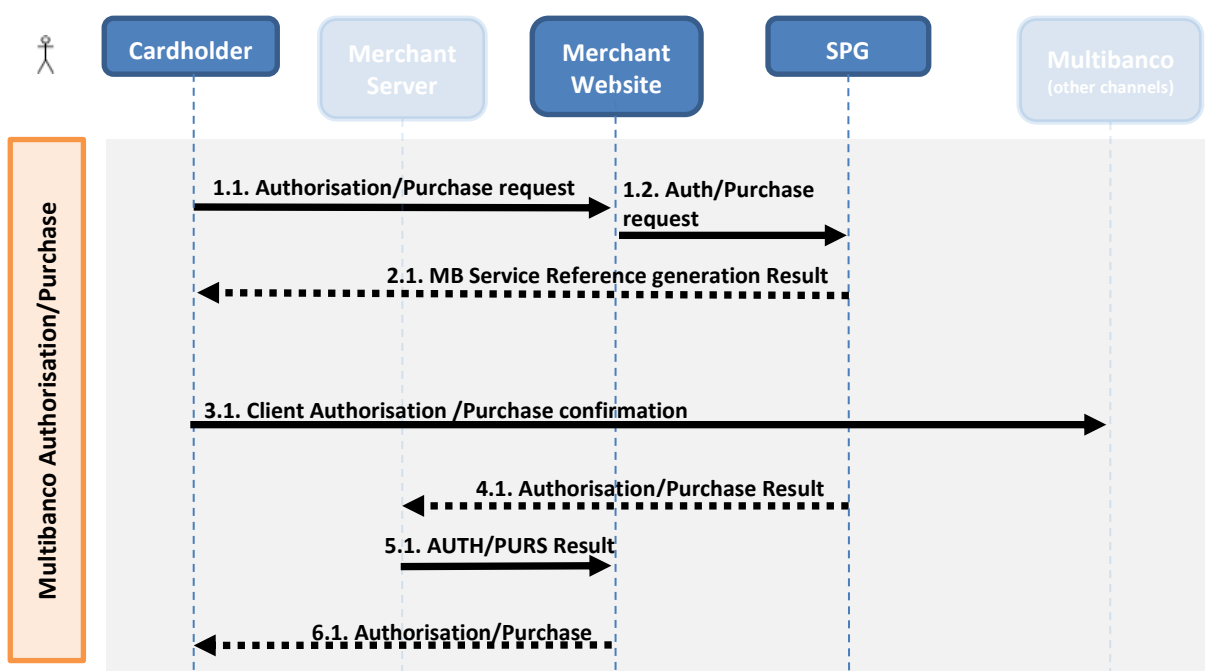


Figure 14 – Multibanco (Reference) Authorisation / Purchase

- 1.1 – Cardholder request the payment Multibanco reference in the Merchant Website
- 1.2 – Merchant Website sends the payment details to the SPG
- 2.1 – SPG sends the Multibanco Service Reference to the Merchant Website
- 2.2 – SPG sends the reference to the Merchant Website (Waiting cardholder payment confirmation)
- 3.1 – Client proceeds to the payment and payment confirmation is sent to the SPG
- 4.1 – SPG sends the Payment Authorisation Status to the Merchant
- 4.2 – The Merchant informs the Cardholder the status of the payment.

- **Capture**

The picture below shows the Multibanco Capture flow:

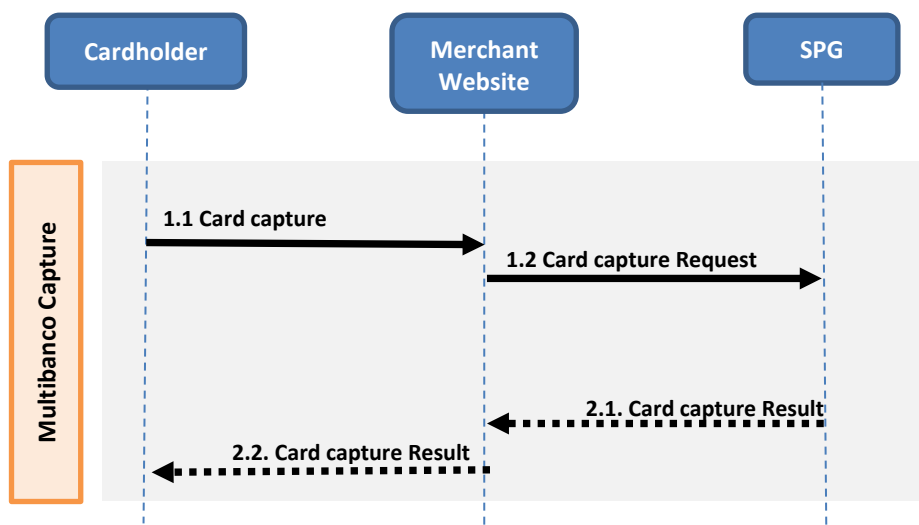


Figure 15 – Multibanco (Reference) Capture

- 1.1 – Cardholder input capture information in the Merchant Website
- 1.2 – Merchant Website sends the Capture information to the SPG
- 2.1 – SPG returns the capture result to the Merchant Website
- 2.2 – The Merchant Website displays the status of the capture to Cardholder.

- **Authorisation Cancellation**

The picture below shows the MB WAY Authorisation Cancellation flow, between the Merchant and SIBS:

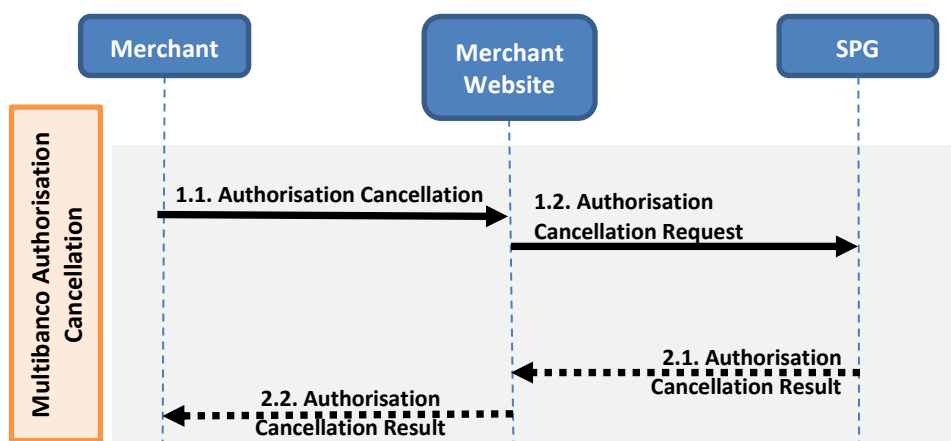


Figure 16 – Multibanco Authorisation Cancellation

- 1.1 – Merchant input the Authorisation Cancellation in the Merchant Website
- 1.2 – Merchant Website sends the payment information to the SPG
- 2.1 – SPG returns the cancellation result to the Merchant Website
- 2.2 – The Merchant Website returns the status of the cancellation.

- **Purchase/Capture Refund**

The below flow shows the MB WAY Purchase/Capture Refund flow, between the Merchant and SIBS:

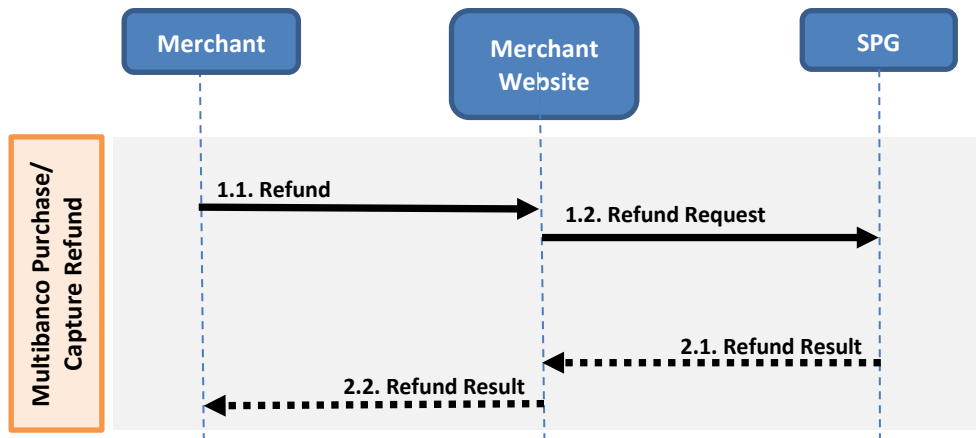


Figure 17 – Multibanco Purchase/Capture refund

- 1.1 – Merchant input a refund request through the Backoffice or API
- 1.2 – Merchant Website sends the refund request and details to the SPG
- 2.1 – SPG returns the operation status to the Merchant Website
- 2.2 – Merchant Website returns the refund result to the Cardholder

7 API's

- **Checkout / Get Status**

Checkout API includes two operation:

- **Checkout Payment** (POST sibs/spg/v1/payments)
- **Checkout Status** (GET sibs/spg/v1/payments/{id}/status)

- **Tokenization**

- **Token API** (POST sibs/spg/v1/payments/{id}/token/purchase)

For more information about API's please follow the below link and choose SPG.

<https://developer.sibsapimarket.com/sibs-qly/apimarket/product>

7.1 Frontoffice

7.1.1 SPG Form Integration

Widget Endpoint: The <ROOT_URL> will depend of the environment where we are working

ROOT_URL QLY	https://api-qly.sibspayments.com
ROOT_URL PRD	https://api.sibspayments.com

To be a valid Merchant on SPG it will be necessary to have an authorisation token (<AuthToken>), <terminalId>

Request API [POST] <ROOT_URL>/api/v1/payments

Request Header	Authorisation: 'Bearer <AuthToken>'
----------------	-------------------------------------

Body of the request	merchant ⁽¹⁾	terminalId	number					
		channel	string					
		merchantTransactionId	string					
	transaction ⁽²⁾	transactionTimestamp	string					
		description	string					
		moto	boolean					
		paymentType	string					
		amount	value	number				
			currency	string				
		PaymentReference	entity	string				
				minAmount	value	number		
				currency	string			
			maxAmount	value	number			
				currency	string			
			initialDateTime	Date				
			finalDateTime	Date				
		recurringTransaction ⁽³⁾ (optional)	validityDate	string				
	tokenization ⁽⁴⁾ (optional)	tokenisationRequest	tokeniseCard	boolean				
		paymentTokens	tokenType	string	[]			
			value	string				

Table 5 – SPG Form Integration

- ⁽¹⁾ **Merchant:** parameterization defined by the agreement between SIBS and the merchant
- ⁽²⁾ **Transaction:** parameterization related with the transaction, “moto” is in the case of being a transition “Mail Order Telephone Order”. The paymentType is ‘AUTH’ or ‘PURS’
- ⁽³⁾ **RecurringTransaction:** optional parameterization to create a transaction with Initial Recurring
- ⁽⁴⁾ **Tokenization:** optional parameterization to create a transaction with Tokenization.

Response (with success)

Body of the request	returnStatus	statusCode	number ("000")
		statusMsg	string ("Success")
	paymentMethodList ⁽⁶⁾	string[] (["NONE","CARD","MBWAY","QRCODE","REFERENCE"])	
	merchant	terminalId	string ("<terminalId>")
	amount	value	number ("4")
		currency	string ("EUR")
	formContext ⁽⁷⁾	string ("<formContext>")	
	transactionID ⁽⁵⁾	string ("<transactionID>")	

- ⁽⁵⁾ **transactionID**: SIBS ID of transaction is used as the identifier of the transaction on the next APIs (<transactionID>)
- ⁽⁶⁾ **paymentMethodList**: Payment Methods available for the Merchant
- ⁽⁷⁾ **formContext**: Parameter to pass when building the SPG-form (Widget & Construction of SPG-form)

Widget Construction

After a successfully request checkout, we can display the SPG-FORM, by adding a form with the class 'paymentSPG', and run "*ROOT_URL/assets/js/widget.js?id=<transactionID>*" script (Note that *ROOT_URL* is root URL depending on the environment). For the Merchant to have access to the SPG-FORM it is necessary to insert a form with the payment class in the DOM of Merchant HTML page with the following attributes:

- *attr.spg-context*: *formContext*⁽⁷⁾ received from Checkout
- *attr.spg-config*: configurations defined by the merchant (spg-config)

<pre><form class="paymentSPG" [attr.spg-context]="FORM-CONTEXT" [attr.spg-config]="SPG-CONFIG" [attr.spg-style]="SPG-STYLE"> </form></pre>	Context: Information received from the API inserted on the FORM Configuration: Where it is possible to do the general configuration Style: Where it is possible to do a Customization of the Layout
--	--

Note: this form has three input attributes *attr.spg-context*, *attr.spg-config*, and *attr.spg-style*.

The attribute *attr.spg-context* should be the *formContext* from the Successful Checkout Response.

- spg-config**

The attribute *attr.spg-config* is a JSON in a string format with the follow parameters:

PARAMETERS NAME	TYPE	AVAILABLE VALUES	DESCRIPTION
<i>paymentMethodList</i>	string[]	'MBWAY' 'QRCODE', 'REFERENCE', 'CARD'	Payment methods to show on the form. Payment methods that the merchant does not have permissions will not work.
<i>redirectUrl</i>	string	-	URL where the user should be redirected at the end of the checkout
<i>amount</i>	{ value: number, currency: string }	-	Transaction amount value
<i>language</i>	string	'pt' 'en'	Form language
<i>CustomerData</i>	-	-	-

Table 6 – SPG Configurations

- spg-style – Merchant Configurations**

The attribute *attr.spg-style* is a JSON string, optional allowing the merchant to customize the SPG-FORM:

PARAMETER	TYPE	POSSIBLE VALUES (EXAMPLES)	DEFAULT	DESCRIPTION
LAYOUT	string	'default', 'accordion', 'list'	'default'	SPG Form Layout
THEME	string	'default', 'light', 'dark', 'grey'	'default'	SPG Form Theme
COLOR.PRIMARY	string	'#ff0000'	-	Primary Color in Hexadeximal
COLOR.SECONDARY	string	'#ff0000'	-	Secondary Color in Hexadeximal

COLOR.BORDER	string	'#ff0000'	-	Border Color in Hexadecimal
COLOR.SURFACE	string	'#ff0000'	-	Surface Color in Hexadecimal - surface is the 'main background' of the html page
COLOR.HEADER.TEXT	string	'#ff0000'	-	Card Header Text Color in Hexadecimal
COLOR.HEADER.BACKGROUND	string	'#ff0000'	-	Card Header Color in Hexadecimal
COLOR.BODY.TEXT	string	'#ff0000'	-	Color in Hexadecimal of the Text in the Background
COLOR.BODY.BACKGROUND	string	'#ff0000'	-	Background Color in Hexadecimal - background is the background of the payment cards
FONT	string	'Times New Roman'	-	font Family used

Table 7 – SPG Style

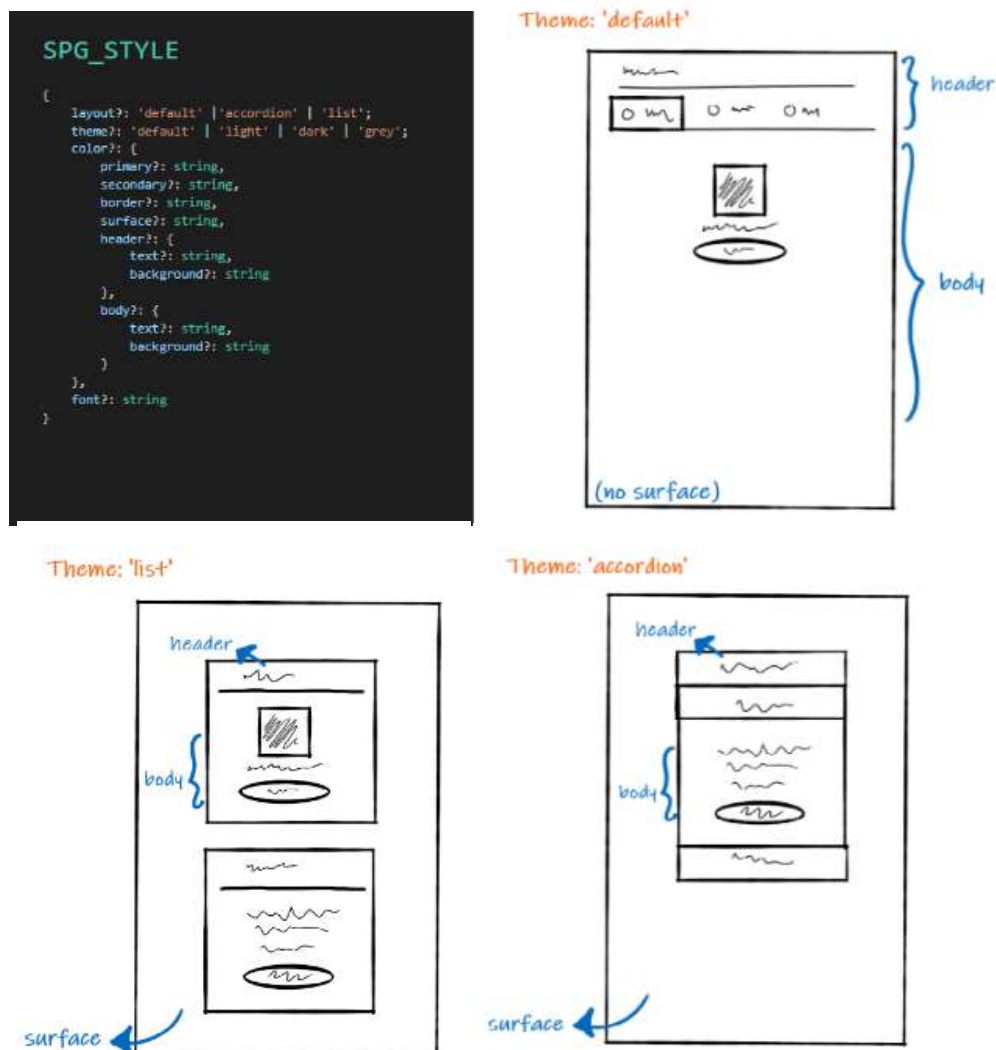


Figure 18 – SPG FORM Style example

- **Transaction Status Inquiry**

When the checkout is finished, the Merchant will be redirected to a URL (or to the root of his own website), and to check the transaction status needs to do a new request to the API (Transaction Status Inquiry).

API

[GET] <ROOT_URL>/api/v1/payments/<transactionID⁽⁵⁾>/status

Request

Header	Authorisation: 'Bearer <AuthToken>'
Body of the request	{}

Response (with success)

Body answer	returnStatus	statusCode	number ("000")	
		statusMsg	string ("Success")	
	merchant	terminalId	string (" <i><terminalId></i> ")	
		amount	value	number ("4")
		currency	string ("EUR")	
	paymentStatus ⁽⁸⁾	string ("Success")		
	transactionID	string (" <i><transactionID></i> ")		
	token ⁽⁹⁾	string (" <i><token></i> ")		
	payment Reference ⁽¹⁰⁾	entity	string	
		reference	string	
		amount	value	number ("4")
			currency	string ("EUR")
		status	string	

- ⁽⁸⁾ **paymentStatus**: payment status of the transaction
- ⁽⁹⁾ **token**: In the cases that a token was requested, card token generated.
- ⁽¹⁰⁾ **paymentReference**: In the case that a payment with reference (Multibanco) has been requested, generate reference

7.1.2 Server to Server

7.1.2.1 MB WAY ID (mobile phone number)

MB WAY ID: (POST sibs/spg/v1/payments/{id}/mbway-id/purchase)

API

[GET] <ROOT_URL>/api/v1/payments/<originalTransactionID⁽⁵⁾>/mbway-id/purchase

Request

Header	Authorisation: 'Bearer <AuthToken>'	
Body	customerPhone	string (ex: "351#910000000")

Response (with success)

Body	merchant	terminalId	string			
		channel	string			
		merchantTransactionId	string			
		merchantTransactionTimestamp	string			
	returnStatus	statusCode	string			
		statusMsg	string			
		statusDescription	string			
	paymentType generatedReference	reference	string			
		entity	string			
		paymentEntity	string			
		amount	value	number		
			currency	string		
		transactionID	string (" <i><transactionID></i> ")			
transactionTimestamp	string					

7.1.2.2 MB WAY QR Code – MB Way - QR Code

This **MB WAY QR Code** API includes three operations:

- **QR Code Generation** (GET [sibs/spg/v1/payments/{id}/mbway-qrcode/generate](#))
- **QR Code Status** (GET [sibs/spg/v1/payments/{id}/mbway-qrcode/status](#))
- **QR Code Payment** (POST [sibs/spg/v1/payments/{id}/mbway-qrcode/purchase](#))

QR Code Generation

API

[GET] <ROOT_URL>/api/v1/payments/<originalTransactionID⁽⁵⁾>/mbway-qrcode/generate

Request

Header	Authorisation: 'Bearer <AuthToken>'
Body	No parameters are needed

Response (with success)

Body	returnStatus	ReturnStatus		
	qrCode	image	string	
		data	string	

QR Code Status

API

[GET] <ROOT_URL>/api/v1/payments/<originalTransactionID⁽⁵⁾>/mbway-qrcode/status

Request

Header	Authorisation: 'Bearer <AuthToken>'
Body	No parameters are needed

Response (with success)

Body	returnStatus	ReturnStatus		
	qrCodeToken	string		

QR Code Purchase

API

[GET] <ROOT_URL>/api/v1/payments/<originalTransactionID⁽⁵⁾>/mbway-qrcode/purchase

Request

Header	Authorisation: 'Bearer <AuthToken>'			
Body	qrCodeToken	string		
	info	deviceInfo	DeviceInfo	

		customerInfo []	key	string	
			value	string	
	actionProcessed	ActionProcessed			

Response (with success)

Body		
	returnStatus	ReturnStatus
	actionResponse	ActionResponse

7.1.2.3 MULTIBANCO – MB Service Reference

MB Service Reference API (POST sibs/spg/v1/payments/{id}/service-reference/generate)

API

[GET] <ROOT_URL>/api/v1/payments/<originalTransactionID⁽⁵⁾>/service-reference/generate

Request

Header	Authorisation: 'Bearer <AuthToken>'
Body	No parameters are needed

Response (with success)

Body	merchant	terminalId	string		
		channel	string		
		merchantTransactionId	string		
		merchantTransactionTimestamp	string		
	returnStatus	statusCode	string		
		statusMsg	string		
		statusDescription	string		
	paymentType generatedReference	reference	string		
		entity	string		
		paymentEntity	string		
amount		value	number		
		currency	string		

	transactionID	string (" <i><transactionID></i> ")
	transactionTimestamp	string
	transactionRecipientId	string

7.1.3 Complex Types

Merchant

Merchant	terminalId	integer
	channel	string
	merchantTransactionId	string

ReturnStatus

ReturnStatus	statusCode	string
	statusMsg	string
	statusDescription	string

PaymentReference

PaymentReference	reference	string		
	entity	string		
	paymentEntity	string		
	amount	value	number	
		currency	string	

ActionProcessed

ActionProcessed	id	string
	type	string ("THREEDS_METHOD" or "THREEDS_CHALLENGE")

ActionResponse

ActionResponse	id	string	
	type	string	
	data []	name	string
		data	string

7.2 Backoffice

Recurring API (POST `sibs/spg/v1/payments/{original-tx-id}/recurring`)

When a successful transaction is generated as initial recurring ⁽³⁾, the Merchant will be able to do recurring payments.

API

[GET] `<ROOT_URL>/api/v1/payments/<originalTransactionID(5)>/recurring`

Request

Header	Authorisation: 'Bearer <AuthToken>'			
Body answer	merchant	merchant ⁽¹⁾ do checkout		
	transaction	transactionTimestamp	string	
		description	string	
		amount	value	number
			currency	string
		originalTransaction ⁽¹³⁾	id	string <originalTransactionID>
			datetime	string

⁽¹³⁾ *originalTransaction*: Original transaction id (initial recurring) to do future recurring payments

Response (with success)

Body answer	merchant	terminalId		string
		channel		string
		merchantTransactionId		string
		merchantTransactionTimestamp		string
	returnStatus	statusCode		string
		statusMsg		string
		statusDescription		string
	amount	value	number ("4")	
		currency	string ("EUR")	
	transactionID	string (" <i>transactionID</i> ")		
transactionTimestamp	string			

	transactionRecipientId	string	

Capture API (POST [sibs/spg/v1/payments/{original-tx-id}/capture](#))

When a success transaction happens from an authorisation is possible to execute a Capture

API

[GET] `<ROOT_URL>/api/v1/payments/<originalTransactionID(5)>/capture`

Request

Header	Authorisation: 'Bearer <AuthToken>'				
Body answer	merchant	merchant ⁽¹⁾ do checkout			
	transaction	transactionTimestamp	string		
		description	string		
		amount	value	number	
			currency	string	
		originalTransaction ⁽¹³⁾	id	string <originalTransactionID>	
			datetime	string	

⁽¹³⁾ *originalTransaction*: Original transaction id from the transaction to capture

Response (with success)

Body answer	merchant	terminalId	string	
		channel	string	
		merchantTransactionId	string	
		merchantTransactionTimestamp	string	
	returnStatus	statusCode	string	
		statusMsg	string	
		statusDescription	string	
	amount	value	number ("4")	
		currency	string ("EUR")	
	transactionID	string (" <i>transactionID</i> ")		
transactionTimestamp	string			

	transactionRecipientId	string	

Cancellation API (POST [sibs/spg/v1/payments/{original-tx-id}/cancellation](#))

When a success transaction happens from an authorisation is possible to execute a Cancellation

API

[GET] <ROOT_URL>/api/v1/payments/<originalTransactionID⁽⁵⁾>/cancellation

Request

Header	Authorisation: 'Bearer <AuthToken>'			
Body answer	merchant	Iguar ao merchant ⁽¹⁾ do checkout		
	transaction	transactionTimestamp	string	
		description	string	
		amount	value	number
			currency	string
		originalTransaction ⁽¹³⁾	id	string <originalTransactionID>
			datetime	string

⁽¹³⁾ *originalTransaction*: Original transaction id from the transaction to cancel

Response (with success)

Body answer	merchant	terminalId		string	
		channel		string	
		merchantTransactionId		string	
		merchantTransactionTimestamp		string	
	returnStatus	statusCode		string	
		statusMsg		string	
		statusDescription		string	
	amount	value	number ("4")		
		currency	string ("EUR")		
	transactionID	string (" <i><transactionID></i> ")			
	transactionTimestamp	string			
	transactionRecipientId	string			

--	--	--

Refund API (POST sibs/spg/v1/payments/{original-tx-id}/refund)

When a success transaction happens from a Capture or Purchase is possible to execute a Refund.

API

[GET] <ROOT_URL>/api/v1/payments/<originalTransactionID⁽⁵⁾>/refund

Request

Header	Authorisation: 'Bearer <AuthToken>'			
Body answer	merchant	merchant ⁽¹⁾ do checkout		
	transaction	transactionTimestamp	string	
		description	string	
		amount	value	number
			currency	string
		originalTransaction ⁽¹³⁾	id	string <originalTransactionID>
			datetime	string

⁽¹³⁾ *originalTransaction*: Original transaction id from the transaction to refund

Response (with success)

Body answer	merchant	terminalId		string	
		channel		string	
		merchantTransactionId		string	
		merchantTransactionTimestamp		string	
	returnStatus	statusCode		string	
		statusMsg		string	
		statusDescription		string	
	amount	value	number ("4")		
		currency	string ("EUR")		
	transactionID	string (" <i><transactionID></i> ")			
	transactionTimestamp	string			
	transactionRecipientId	string			

8 Data Dictionary

FIELD NAME	DATA TYPE	DESCRIPTION	EXAMPLE
AMOUNT	{value: number, currency: string}	Parameter with the value and currency of the transaction	{ value: 1, currency: "EUR"}
CHANNEL	string	Merchant channel	"web"
CUSTOMERDATA	na	Costumer general data - email, zip code	na
DESCRIPTION	string	Transaction description	
ENTITY	string	Entity used in Payment Reference	-
FINALDATETIME	date	Payment reference expiring date (if generated)	"2020-05-20T15:41:56.971Z"
FORMCONTEXT	string	String given by Checkout Response, to be passed to the spg-form (see SIBS Payment Gateway Integration Guide)	na
INITIALDATETIME	date	Date from when the payment reference is valid (if generated)	"2020-05-20T15:41:56.971Z"
LANGUAGE	String	Form language	
MAXAMOUNT	{value: number, currency: string}	Maximum amount of the transaction	{ value: 1, currency: "EUR"}
MERCHANTTRANSACTIONID	string	Id of the transaction in merchant store	na
MERCHANTTRANSACTIONTIMESTAMP	String		
MINAMOUNT	{value: number, currency: string}	Minimum amount of the transaction	{ value: 1, currency: "EUR"}
MOTO	boolean	If it is a MOTO (Mail Order Telephone Order)	false
ORIGINALTRANSACTION	string[]	Original transaction of a Backoffice transaction	
PAYMENTMETHODLIST	string	List of payment methods	["CARD", "MBWAY", "QRCODE", "REFERENCE", "TOKEN"]
PAYMENTREFERENCE	-	Payment reference details in case of customer select payment reference (Multibanco) payment method	
PAYMENTTOKENS	{tokentype: string, value:string}[]	Customer payment tokens. This tokens are provided at the end of a successful	[{"tokenType": "Card", "value": "9uida0wd1211d12k09d12109"}]

PAYMENTTYPE	string	Transaction payment type. Purchase or Authorisation	"AUTH"
RECURRINGTRANSACTION	{valididty: date}	Provided field to create a recurring transaction. validity Date is the date until is possible to perform recurring transactions over the specified transaction	{ "validityDate": "2021-06-24T15:41:56.971Z" }
REDIRECTURL	string	Url where the user should to be redirected at the end of the checkout	
RETURNSTATUS		Describes the status of the request. (Attention: it doesn't describe the state of the transaction itself)	
TERMINALID	number	merchant terminal id	
TOKENISATIONREQUEST	{tokenizationCard: boolean}	Provided field on Checkout request to perform card tokenisation.	{"tokenizationCard": true}
TOKENIZATION		Field with tokenisation details (see tokenisation Request and paymentTokens)	
TRANSACTIONRECIPIENTID	String	Original Transaction ID	

9 Inputs & Outputs

Checkout : [Checkout](#)

INPUT		OUTPUT	
merchant		returnStatus	
	terminalId		statusCode
	channel		statusMsg
	merchantTransactionId		statusDescription
customer		paymentStatus	
	customerInfo	transactionID	
	customerName	amount	
	shippingAddress		value
	billingAddress		currency
	billingAddressSameAsShippingAddress	merchant	
	extendedInfo		terminalId
Transaction			channel
	transactionTimestamp		merchantTransactionId
	description	PaymentType	
	paymentType	paymentMethod	
	paymentMethod	amount	
	amount		value
	value		currency
	currency	Status	
deviceInfo * (see dedicated table)		tokenList	
customerInfo			tokenType
	key		value
	value		maskedPAN
originalTransaction			expireDate
	id	formContext	
	datetime		
	datetime		
	recipientId		
tokenisation			
	tokenisationRequest		
	tokeniseCard		

	• paymentTokens	
	• tokenType	
	• value	

Table 8 – Inputs & Outputs, CheckOut

Payment Method Card: [Card](#)

INPUT		OUTPUT	
cardInfo		actionProcessed	
	PAN		id
	secureCode		type
	validationDate		executed
	cardholderName	tokenInfo	
	createToken		tokenType
			value

Table 9 – Inputs & Outputs, CARD

Payment Method Multibanco: [MB Service Reference](#)

INPUT	OUTPUT	
	returnStatus	
		• statusCode
		• statusMsg
		• statusDescription
	transactionID	
	merchant	
		• terminalId
		• channel
		• merchantTransactionId
	paymentType	
	generatedReference	
		• reference
		• entity
		• paymentEntity
		• amount
		• value
		• currency
	actionResponse	
		• id
		• type
		• data

Table 10 – Inputs & Outputs, Multibanco

Payment Method MB Way ID: [MB Way - ID](#)

INPUT	OUTPUT
-------	--------

customerPhone	returnStatus	
		statusCode
		statusMsg
		statusDescription
	transactionID	
	merchant	
		terminalId
		channel
		merchantTransactionId
	paymentType	
	actionResponse	
		id
		type
		data

Table 11 – Inputs & Outputs, MB WAY ID

Payment Method MB Way QR Code : MB Way - QR Code

INPUT	OUTPUT	
	returnStatus	
		statusCode
		statusMsg
		statusDescription
	qrcode	
		image
	actionResponse	
		id
		type
		data

Table 12 – Inputs & Outputs, QR Code

***Device Input**

INPUT	
deviceInfo	
	• browserAcceptHeader
	• browserJavaEnabled
	• browserLanguage
	• browserColorDepth
	• browserScreenHeight
	• browserScreenWidth
	• browserTZ
	• browserUserAgent
	• systemFamily
	• systemVersion
	• systemArchitecture
	• deviceManufacturer
	• deviceModel

	• deviceId
	• applicationName
	• applicationVersion
	• geoLocalization
	• ipAddress

Table 13 – Device Input

10 Technical Architecture - FORM

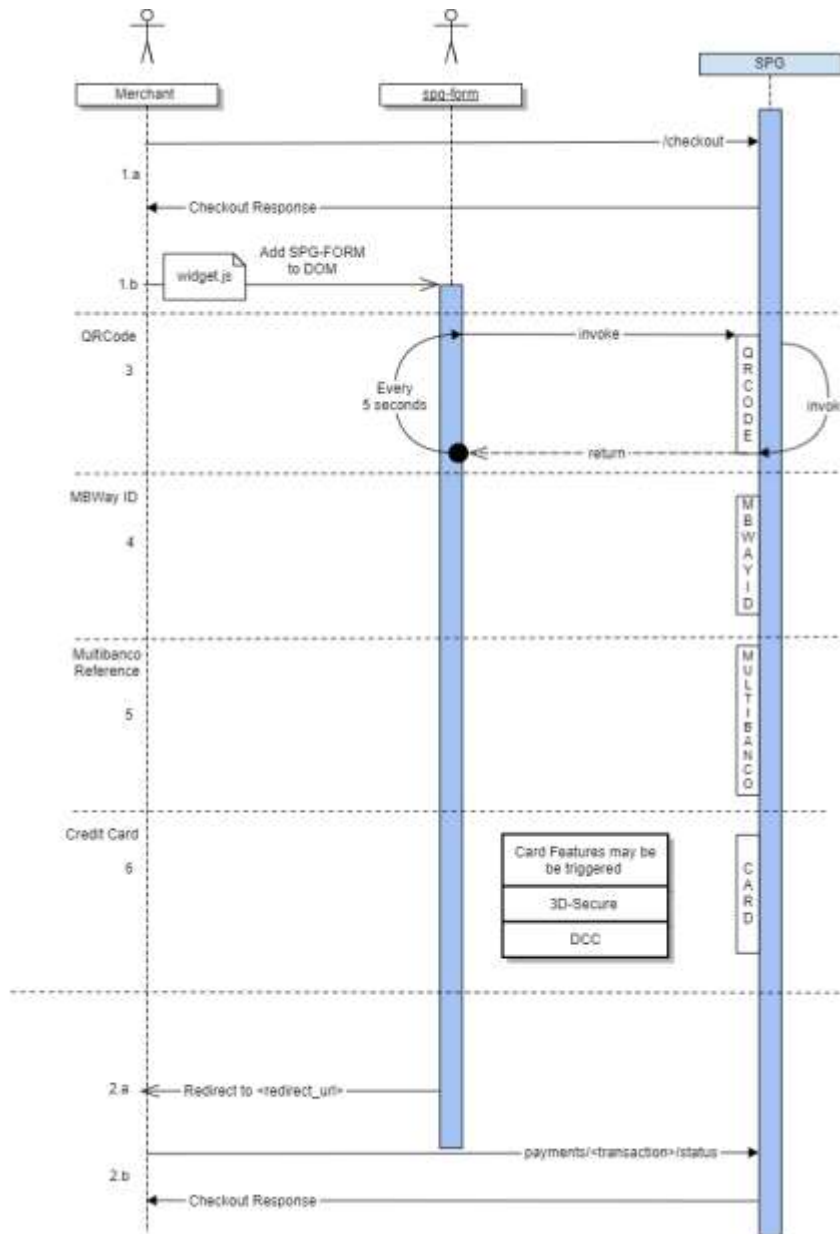


Figure 19 – Technical Architecture – FORM

11 Transaction Status

Is possible to receive the below transaction status:

- **IN PROCESSING** – meaning that the *transaction initiated* is now in *processing*.
- **PARTIAL** – is *pending* to receive information (E.g. 3DS Challenge).
- **SUCCESS** – Informing *transaction OK*, was executed with success.
- **DECLINED** – indicate that the transaction was declined by an operation intervenient.
- **TIMEOUT** – informing a potential *communication error*
- **ERROR** – indicate that the transaction was *declined by external system*

After the transaction is in processing it will only retrieve the “partial” status if some action is pending to be taken. After that it will send the transaction status as below.

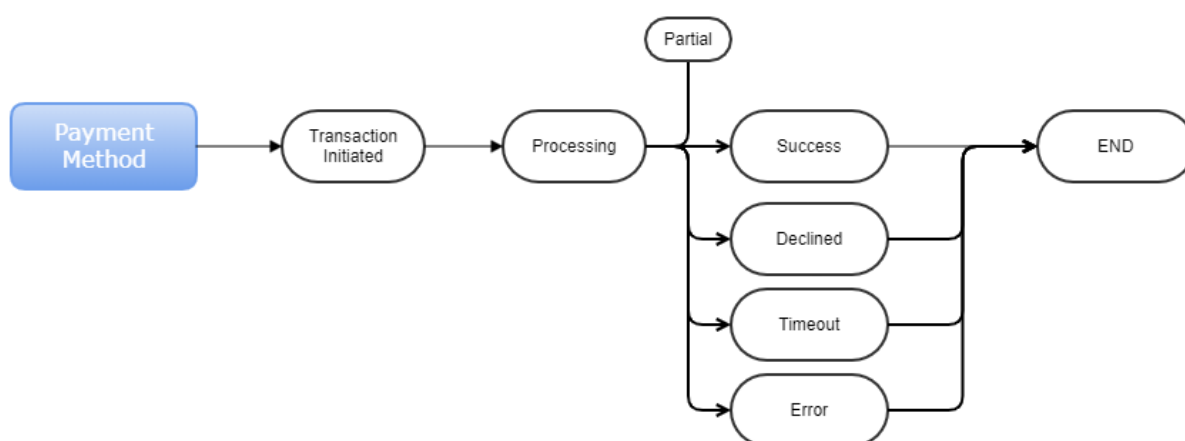


Figure 20 – Transaction Status

12 Card Features

The card features that will be active will depend on the agreement that the merchant has with his acquirer. Only the acquirer can activate or deactivate the below options.

12.1 3D-Secure

The 3-D Secure authentication protocol is based on a three-domain model where the Acquirer Domain and Issuer Domain are connected by the Interoperability Domain for the purpose of authenticating a Cardholder during an electronic commerce (e-commerce) transaction or to provide identity verification and account confirmation.

This protocol applies to those who shop online at merchants who have online stores and adhere to 3D-Secure. For more details: <https://www.emvco.com/emv-technologies/3d-secure/>

12.2 Dynamic Currency Conversion

DCC is a credit card feature that allows you to make a point-of-sale credit card purchase in a foreign country using the currency of your home country, also known as cardholder preferred currency. This feature makes it easier to understand the price you are paying and avoids doing the currency conversion math.

12.3 Tokenization

The token is a reference from the card converted to a different code (i.e. identifier/token) allowing the Merchant to save the card for future payments without having the card information for [PCI-DSS](#) purposes. Tokenization is the process of substituting a sensitive data element with a non-sensitive equivalent to save this information in the client wallet and improve the client experience on the next visit. The token is a reference (i.e. identifier) that maps back to the sensitive data through a tokenisation system.

The mapping from original data to a token uses a method that render tokens infeasible to reverse in the absence of the tokenisation system, for example using tokens created from random numbers.

13 Notifications (Merchant Notifications)

The Merchant can receive by email or endpoint (notification assembling to the status inquiry – Checkout Status), however only a notification will be sent for each transaction.

Notifications are sent by endpoint straight to the URL provided by the Merchant. The parameterization of this endpoint needs to be done on the SPG Backoffice.

Only one notification will be sent per transaction. Each time SPG receives a transaction a notification will be sent with the transaction status in real time.

Every day SPG send a summarized email with the newest failed notifications (email needs to be registered on the Backoffice).

There is no guarantee on the order of messages, especially if the time difference between the notifications is smaller than the time it takes to process them or by any communication or systems issues. Once the issues are sort out, new notifications will arrive in real time and old notifications would be resent. In case no notification is received the option “Checkout Status” should be used before rejecting any transaction.

There are two types of notifications, the Synchronous and the Asynchronous:

Per example:

- MB Way ID & Multibanco are Asynchronous
Make request – Need action – Get response
- MB Way QR Code & Card are Synchronous
Make request – Get response

It is possible to define three endpoints to receive notifications.

13.1 Complex Types

MerchantNotificationRequest:

Body	returnStatus	statusDescription	string	
		statusMsg	string (ex: Success)	
		statusCode	string (ex: 000)	
	paymentStatus	string (ex: Success, Declined)		
	paymentMethod	string (ex: MBWAY, CARD, REFERENCE)		
	transactionID	String		
	amount	currency	string (ex: EUR)	
		value	decimal	
	merchant	terminalId	integer	
	paymentType	string (ex: AUTH, PURS)		
	paymentReference	reference	string	
		entity	string	
		paymentEntity	String	
		amount	currency	string
			value	decimal
		status	String	
		expireDate	dateTime	
	token	tokenName	string	
		tokenType	string	
		value	String	
		expireDate	dateTime	
	financialOperation	product	staticQRCodeId	string
			twoStepPurchase	boolean
			aliasName	string
			merchantContactType	string
			productName	string
			productQuantity	long
			productAmount	decimal
			expeditionAmount	decimal
			contactClientIndicator	integer
			customerSupportContact	string
		billingInfo	billingName	string
			billingSurname	string
			billingTIN	string
			billingAddressCity	string
			billingAddressCountry	string
			billingAddressLine1	string
			billingAddressLine2	string

			billingAddressLine3	string	
			billingAddressPostalCode	string	
			billingHomePhone	string	
			billingMobilePhone	string	
		expeditionInfo	expeditinoName	string	
			expeditionSurname	string	
			expeditionAddressCity	string	
			expeditionAddressCountry	string	
			expeditionAddressLine1	string	
			expeditionAddressLine2	string	
			expeditionAddressLine3	string	
			expeditionAddressPostalCode	string	
			expeditionHomePhone	string	
			expeditionMobilePhone	string	
			expeditionEmail	string	
	notificationID	string			

MerchantNotificationResponse:

Body			
	statusCode	string (ex: 000)	
	statusMsg	string (ex: Success)	
	notificationID	string	

13.2 Examples

On this sub chapter, it is possible to find examples of webhook notifications sent by SPG and the answer that costumer application should give. Answer to this message is very important to avoid more unnecessary notifications sent by SPG.

Request Example:

```
{
  "returnStatus":{
    "statusMsg":"Success",
    "statusCode":"000"
  },
  "paymentStatus":"Success",
  "paymentMethod":"MBWAY",
```

```

"transactionID":"DaBzrs8ayhQpi1EeenHe",
"amount":{
    "currency":"EUR",
    "value":1.0
},
"merchant":{
    "terminalId":49180
},
"paymentType":"AUTH",
"notificationID":"2533e456-5e36-42c8-9eea-7961902f185e"
}

```

Request Static QR Code Example:

```

{
    "returnStatus":{
        "statusMsg":"Success",
        "statusCode":"000"
    },
    "paymentStatus":"Success",
    "paymentMethod":"STATIC_QRCODE",
    "transactionID":"3W005000159764",
    "amount":{
        "currency":"EUR","value":1.6
    },
    "merchant":{
        "terminalId":46431
    },
    "paymentType":"PURS",
    "financialOperation":{
        "product":{
            "staticQRCodeId":"7ecf9d4e23334f7da6cb",

```

```

        "twoStepPurchase":false,
        "aliasName":"351#934885128",
        "merchantContactType":"N.A",
        "productName":"Nome info",
        "productQuantity":1,
        "productAmount":1.5,
        "expeditionAmount":0.1,
        "contactClientIndicator":1,
        "customerSupportContact":"teste@info.com"
    },
    "billingInfo":{
        "billingTIN":"123456789",
        "billingAddressCity":"Lisboa ",
        "billingAddressLine1":"Rua D João ",
        "billingAddressLine3":"8 2drt",
        "billingAddressPostalCode":"4646-846",
        "billingMobilePhone":"+ 351 987654321"
    },
    "expeditionInfo":{
        "expeditionName":"Olga Rodrigues",
        "expeditionAddressCity":"Lisboa ",
        "expeditionAddressLine1":"Rua D João ",
        "expeditionAddressLine3":"8 2drt",
        "expeditionAddressPostalCode":"4646-846",
        "expeditionMobilePhone":"+ 351 987654321"
    }
},
"notificationID":"5544b042-8b9a-451e-8421-53fcfe9538f8"
}

```

Response Example:

```
{  
  "statusCode": "200",  
  "statusMsg": "Success",  
  "notificationID": "2533e456-5e36-42c8-9eea-7961902f185e"  
}
```

14 Security Module

14.1 PCI DSS

Payment Card Industry Data Security Standard is an information security standard for organizations that handle branded credit cards from the major card schemes, the standard was created to increase controls around cardholder data and reduce card fraud.

Merchants that want to process, store or transmit card data will need to be PCI compliant, with SIBS the Merchants have the choice to use the FORM that is already fully PCI compliant not needing any certification from the store. The “Server-to-Server” API integration variant requires the Merchant to collect the card data which increases the PCI-compliance needs.

The Council does not enforce compliance this is request by individual payment brands or acquiring banks.

PCI 3-Step Process

- **Assess** – Identifying cardholder data, taking an inventory of IT assets and business processes for payment card processing, and analysing them for vulnerabilities.
- **Remediate** – Fixing vulnerabilities and eliminating the storage of cardholder data unless necessary.
- **Report** – Compiling and submitting required reports to the appropriate acquiring bank and card brands.

For more details: <https://pt.pcisecuritystandards.org/index.php>

15 SPG Error Message

Checkout Request

Error Code	Message to the Merchant	Message to the client	Owner	What to do?
12.110.1201	Wrong parameterization in the amount, expiration date, token, Merchant code or terminal code.	Please try again later.	Merchant	Checkout and payment received data for reference generation is incomplete, has to send (Amount and Expiration date).
12.110.1202	Wrong parameterization, Missing data.	Please try again later.	Merchant	Evaluate if the message is correctly formatted (Check if it is parameterizing correctly) according to the SLA.
12.110.1203	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later

Table 14 – SPG Error message, Checkout Request

Payment Request

Error Code	Message to the Merchant	Message to the client	Owner	What to do?
12.110.1301	Wrong parameterization, Missing data.	Service not available, please try later	Merchant	Please check parameterization on the checkout, its needed to invoke the form script to send the signature (Form context). Please verify if the amount, expiration date, token, Merchant code or terminal code are being sent correctly.
12.110.1302	Wrong parameterization, Missing data.	Service not available, please try later	Merchant	Evaluate if the message is correctly formatted and no data is missing (Check if it is parameterizing correctly) according to the SLA

12.110.1303	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1304	Wrong parameterization, Missing data.	Service not available, please try later	Merchant	Evaluate if the message is correctly formatted and no data is missing (Check if it is parameterizing correctly) according to the SLA
12.110.1305	Wrong parameterization in payment type (Authorisation, Purchase, Capture or Refund).	Service not available, please try later	Merchant	Evaluate if the message is correctly formatted and no data is missing (Check if it is parameterizing correctly) according to the SLA
12.110.1306	Wrong parameterization in payment method (Card, MBWAY, QRCODE or Reference)	Service not available, please try later	Merchant	Evaluate if the message is correctly formatted and no data is missing (Check if it is parameterizing correctly) according to the SLA
12.110.1307	Wrong parameterization in amount, expiration date, token, Merchant code or terminal code.	Service not available, please try later	Merchant	Evaluate if the message is correctly formatted and no data is missing (Check if it is parameterizing correctly) according to the SLA
12.110.1308	Wrong amount.	Service not available, please try later	Merchant	Evaluate if the message is correctly formatted and no data is missing (Check if it is parameterizing correctly) according to the SLA
12.110.1309	Wrong Currency	Service not available, please try later	Merchant	Evaluate if the message is correctly formatted and no data is missing (Check if it is parameterizing correctly) according to the SLA
12.110.1310	Transaction already finalized	Service not available, please try later	Merchant	Need to input a valid transaction Id that it is not finalized
12.110.1311	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1312	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1313	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Payment does not fail, only tokenisation fails. No Action

12.110.1314	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1315	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1316	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1317	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later

Table 15 – SPG Error message, Payment Request

Transaction Status Inquiry

Error Code	Message to the Merchant	Message to the client	Owner	What to do?
12.110.1401	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1402	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1403	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1404	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1405	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1406	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1407	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1408	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1409	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later

Table 16 – SPG Error message, Transaction Status Inquiry

BackOffice

Error Code	Message to the Merchant	Message to the client	Owner	What to do?
12.110.1901	Wrong parameterization in the amount, expiration date, token, Merchant code or terminal code.	Please try again later.	Merchant	Checkout and payment received data for reference generation is incomplete, has to send (Amount and Expiration date).
12.110.1902	Wrong parameterization, Missing data.	Please try again later.	Merchant	Evaluate if the message is correctly formatted (Check if it is parameterizing correctly) according to the SLA.
12.110.1903	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1904	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1905	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1906	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1907	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1908	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1909	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1910	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1911	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later, do a Checkout Status
12.110.1912	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later

Table 17 – SPG Error message, BackOffice

QR Code Generation

Error Code	Message to the Merchant	Message to the client	Owner	What to do?
12.110.1101	Wrong data, check Signature, code and Terminal	Service not available, please try later	Merchant	Check transaction signature, Merchant Code and Terminal Id are in place
12.110.1102	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1103	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Check transaction ID, transaction already initiated, finish or cancel this transaction.
12.110.1104	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1105	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later
12.110.1106	SIBS Internal error, Please try again later.	Service not available, please try later	SIBS	Try Again later

Table 18 – SPG Error Message, QR Code Generation

MB WAY

Error Code	Message to the Merchant	Message to the client	Owner	What to do?
90.000.0001	Exception - Time Out -Error in message format	SIBS Technical Issue, please try later	SIBS	Please try Again or later - Issue to be solved by SIBS
01.106.0001	After the operation was successful, was refused by the cardholder	Operation Refused by you, try again.	Client	Repeat the operation.
10.106.0001	Used the wrong or without contract Terminal	Please choose a valid terminal, or try later.	Merchant	Please check if this terminal is the correct and have the services you are trying to use.
01.106.0002	Card refused MB WAY alias associated	Card refused, MBWAY alias already associated	Client	This card already has an alias associated, Please use another card.

90.000.0002	Time out	SIBS Technical Issue, please try later	SIBS	Please try Again or later - Issue to be solved by SIBS
10.106.0002	Several reasons (connectivity's, server down, etc.)	SIBS Technical Issue try again later	SIBS	Please try Again or later - Issue to be solved by SIBS
90.000.0003	Wrong message parameterisation	SIBS Technical Issue try again later	SIBS	Please try Again or later - Check message parameterisation.
10.106.0003	Issue with MBWAY- Wrong alias	Issue with MBWAY- Wrong alias, try again.	Client	Error in alias, please check format, typing or possible duplication
10.106.0004	Issue with MBWAY- Alias format	Issue with MBWAY- Alias format, try again.		
10.106.0005	Issue with MBWAY- Alias Duplication	Issue with MBWAY- Alias Duplication, try again.		
10.106.0006	Issue with MBWAY- Inexistent alias	Issue with MBWAY- inexistent alias, try again.		
10.106.0007	Duplicated transaction	Transaction ID equal to other transaction already finished	Merchant	Please verify which transaction ID is being sent.
10.106.0008	Issue with the Operation (invalid)	Operation Invalid, declined or not found, try again later.	Merchant	Please verify the operation details and try again
10.106.0009	Issue with the Operation (declined)			
10.106.0010	Issue with the Operation (not found)			
10.106.0011	Issue with MBWAY- alias	Not Possible to ASSOCIATE MBWAY alias, try again.	Client	Error in alias, please verify if the alias is already being used.

Table 19 - SPG Error Message, MB WAY

MULTIBANCO

Error Code	Message to the Merchant	Message to the client	Owner	What to do?
10.107.0001	Invalid payment entity	Entity not valid, Try again later.	Merchant	Please verify that the correct Merchant entity is being used.
10.107.0002	Invalid reference minimum amount	Invalid reference minimum, amount please try again.	Merchant	Please verify the parameterization in the amount
10.107.0003	Invalid reference maximum amount	Invalid reference maximum amount please try again.	Merchant	Please verify the parameterization in the amount

10.107.0004	Invalid currency	Invalid currency try again.	Merchant	Please verify the parameterization in the currency accepted
10.107.0005	Invalid NIB	Invalid NIB please try again.	Client	Please verify you are using the correct NIB
10.107.0006	Invalid reference initial date time	Invalid reference initial date time try again.	Merchant	Please verify the parameterization in time accepted
10.107.0007	Invalid reference limit date time	Invalid reference limit date time try again.	Merchant	Please verify the parameterization in time accepted
10.107.0008	Invalid Email	Invalid Email try again.	Client	Please insert the email used on the registration
10.107.0009	Payment entity is not active	Payment entity is not active, try later	Merchant	Please verify your entity, if it is the one in the SLA
10.107.0010	Reference generation not allowed for the payment entity	Reference generation not allowed try later.	Merchant	Please verify your entity, if it is the one in the SLA
10.107.0011	Payment reference not found	SIBS Internal error, Please try again later.	SIBS	SIBS Internal error, Please try again later.
10.107.0012	Payment reference is cancelled	Payment reference is cancelled.	Merchant	Please verify your reference was cancelled.
10.107.0013	Payment reference already paid	Payment reference already paid.	Merchant	Please verify your reference is already paid.
10.107.0014	Invalid operation	Invalid operation, try later.	SIBS	SIBS Internal error, Please try again later.
90.000.0001	Exception	SIBS Technical Issue try again later	SIBS	Please try Again or later - Issue to be solved by SIBS
90.000.0003	Error in message format	SIBS Technical Issue try again later	SIBS	Please try Again or later - Issue to be solved by SIBS

Table 20 - SPG Error Message, MULTIBANCO

Card

Error Code	Message to the Merchant	Message to the client	Owner	What to do?
10.105.0001	Invalid payment entity	Entity not valid, please try again later.	Merchant	Please verify that the correct Merchant entity is being used.
10.103.0003	No card record	Card not valid please try again later.	SIBS	Please verify log.

10.103.0004	Not sufficient funds	Not sufficient funds, try again	Client	Please assure that the account has enough funds
10.103.0005	Invalid card number	Card number not valid try again.	Client	Please insert the correct card number
10.103.0006	Expired card	Expired card, please verify with your bank.	Client	Please note that your card has expired
10.103.0007	Card Cancelled	Your card has been Cancelled please verify with your bank.	Client	Please verify with your bank
10.103.0008	Inactive card	Inactive card, please verify with your bank.	Client	Please verify with your bank
10.103.0009	This card has been reported as stolen	Pick-up card, please verify with your bank.	Client	Please verify with your bank
10.103.0010	Blocked Card	Blocked Card, please verify with your bank.	Client	Please verify with your bank
10.103.0011	Invalid CVV	Invalid CVV, please double check	Client	Please insert the correct CVV number
10.103.0012	Card Limit exceeded	Card Limit exceeded, please verify with your bank.	Client	Please verify with your bank
10.103.0013	Wrong expiry date	Wrong expiry date, please double check	Client	Please insert the correct card expiration date
10.105.0014	Invalid refund amount	N/A	Merchant	Please assure that the Refund is equal to the total amount or less.
10.103.0015	Invalid card (Cannot Process Operation - Fraud)	Invalid card, please verify with your bank.	Client	Please verify with your bank
10.105.0016	Invalid expiry date	Invalid expiry date, please double check	Client	Please verify with your bank or insert a valid Expiration date
10.103.0017	Wrong Code	Wrong Code, please double check	Client	Please try again
10.103.0018	Wrong Code, 3 tentative exceed	Wrong Code, 3 tentative exceed, please verify with your bank.	Client	Please contact you bank
10.105.0017	Cancellation amount exceeds authorized amount	Cancellation amount exceeds authorized amount	Merchant	Please assure that the cancellation is equal to the total amount or less.
10.105.0018	Authorisation is cancelled	The Authorisation was cancelled	Merchant	Please assure that the Authorisation is not finalized
10.105.0019	Authorisation is already used	N/A	Merchant	Please assure that this Authorisation belongs to this transaction.

10.105.0020	Purchase amount exceeds authorized amount	N/A	Merchant	Please assure that the purchase is Equal the total amount or less.
10.105.0021	Purchase already refunded	Purchase already refunded	Merchant	Please assure that this operation belongs to this transaction.
10.105.0022	Amount is below commission	Amount is below commission	Merchant	Please assure the minimum amount to allow the fee charge
90.000.0001	Exception	SIBS Technical Issue try again later	SIBS	Please try Again or later - Issue to be solved by SIBS
90.000.0003	Error in message format	SIBS Technical Issue try again later	SIBS	Please try Again or later - Issue to be solved by SIBS

Table 21 – SPG Error Message, Card

16 Glossary

Term	Definition
AUTH	Authorisation
Acquirer	Acquiring bank that maintains the merchant's bank accounts. The acquiring bank passes the merchants transactions to the issuing bank to receive payment.
AUTH	Authorisation, used to obtain a promise of payment from the issuing bank.
Backoffice	Allow to do the Backoffice operations, capture, refund, cancellation and recurring.
Business Portal	Provide Merchants a single point of access to information stored and to setup notifications
Card	Payment card issued by a bank, used to have access to funds or make purchases.
Cardholder	Person who owns a banking card known as customer.
Customer	Also called the cardholder, who wants to access the merchant products or services
Front End	Users Interface
Issuing Bank	Customer bank that issues the cardholders card on behalf of the brands (e.g. VISA)
MB	Multibanco
MB Way	Payment Method on mobile application associated to your banking card allowing payments card not present, through a QR Code or phone number associated.
Merchant	An on-line business offering a product or service to customers
Merchant Website	Merchant Online Shop where a customer choose and buy products.
Multibanco (reference)	Payment Method Allow the client to make the checkout and then receive an Entity, reference and Amount, this can be paid on the Multibank ATM or Home banking.
MOTO	Mail Order Telephone Order – become synonymous with any financial transactions where the entity taking payment does not physically see the card used to make the payment
Payment Gateway	Technology that captures and transfers payment data from the issuer (customer) to the acquirer. (used by merchants to accept payments from customers)
PCI-DSS	Payment Card Industry Data Security Standard for compliance purposes.
PURS	Purchase
SPG	SIBS Payment Gateway that allow merchants do financial transactions with their customers
SPG-FORM	Front End (webpage) that provides the SIBS Payment Gateway Layout