

# Card Online Processing

**Merchant Specification** 

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# 1 Introduction

# 1.1 Audience

This specification is intended to be read by the technical staff in the merchant's organization responsible for implementing and administering the XML-based card processing interface. It is assumed that the reader has a working knowledge of the programming languages discussed in this specification.

# 1.2 Document Conventions

1.2	Doct	iment Conventions
	This docum	ent uses the following conventions:
		Monospace/Courier is used for example code and code listings, file names, commands, path names, directory names, Hypertext Markup Language (HTML) tags, and any text that must be typed on the screen.
		The <i>italic</i> font is used in code to represent placeholder parameters (variables) that should be replaced with an actual value, or items that require emphasis.
		Brackets ([]) are used to enclose optional parameters.
		A slash (/) is used to separate directories in a path and to indicate a blank or closing XML parameter
1.3	Softv	ware Requirements
	To impleme be met:	nt the XML interface for standard card processing, the following requirements must
		Internet connection supporting SFTP
		Working knowledge of XML
		SSL server supporting 128-bit (or stronger) encryption
		Support of UTF-8 encoding
1.4	Refe	rences
		Wirecard HTTPS Gateway - Specification
		Wirecard 3-D Secure Card Processing - Specification
		Wirecard Risk Management – Specification
		Wirecard Card Batch Processing – Specification
		Wirecard Card Processing – Market Segment Data

# 1.5 Revision History

This specification is periodically updated to reflect the modifications made to the card processing interface. With each revision a new entry is added to the table below, including the date of and the reason for the version change. Additionally, vertical revision bars are placed in the margins to indicate the changes in the text.

Date         Version         Comments           2007-07-19         2.0.0         CardIssueNumber added to Preauthorization Request. Some minor editorial changes. New transaction mode (Installment Transaction) and related error codes added.           2007-09-04         2.1.0         Airline Market and Travel Market segments (Appendices D and G) updated with different tax (VAT) type fields and identifiers. Query request updated.           2007-10-09         2.2.0         Authorization Code removed from Capture, Refund, Bookback, etc Only required in Notification Requests. Some minor changes           2007-10-31         2.3.0         Elements in Airline Market and Travel Market segments (Appendices C and F) updated. New code added in Error Messages (Appendix A).           2007-11-05         2.3.1         Minor changes.           2007-11-29         2.4.0         Transaction Type Capture removed from notice. Data Type for Address fields changed to ANS (alphanumeric and special characters).           2008-03-04         2.5.0         Single/Initial Request examples updated. Card Start Date & Card Issue Number for Switch/Solo/Maestro changed to optional.           2008-04-07         3.0.0         Chapter 7 on AVS incorporated. Query date format updated.           2008-05-14         3.0.1         VAT field settings changed form mandatory to conditional - with comment "relevant for AirPlus Acceptance UATP transactions only" FareBasis data type changed from a6 to an6           2008-07-22         3.0.2         Note added to Refund examples. DTD Refere			
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	2011-06-03	4.0.0	Streamlined documentation, removed obsolete transaction types,

# 2 Overview

The Wirecard online xml interface transactions allows to transmit transaction to a multiple of processors, acquirer and internal or external fraud prevention solutions. This document covers the standard transaction types and most frequently used extensions. Please contact Wirecard Customer support if you are missing special functionality or need support for non documented transaction types.

# 2.1 Standard Payment flow

Most selling processes consists of two steps:

- 1) A customer places an order at the merchant's store.
- 2) The merchant delivers the order to the customer

Like the selling process also the card payment process consists of two parts:

**Preauthorization :** The preauthorization is normally triggered by the merchant when the cardholder places his order. During the preauthorization the entered card details are verified and the specified amount is blocked for the merchant on the cardholder's card account. Both steps are done online so the merchant receives immediately a response. The successful preauthorization is normally the basis for the merchant to trigger internally the allocation of the order.

**Capture:** When the order is ready for shipping the merchant triggers the capture. This capture is like an advice to the cardholder's bank to transfer the reserved money to the merchant.

**Purchase:** In case the shipment takes place on the same day as the order it is possible to authorize and capture in a single step called purchase.

The implementation of preauthorization/ capture or purchase is the minimum mandatory subset. Refunding money can be triggered manually using the Wirecard's webbased Administration Frontend.

To provide a full automation Wirecard provides a number of additional transaction types to enable an optimized integration in the merchant's processes. Except Enrollment Check for 3d enabled ecommerce merchants the support of all other additional transaction types by the merchant is optional.

#### 2.2 Extensions

Wirecard provides various extensions for enriching the transaction process.

#### 2.2.1 3D Secure

Visa, Mastercard, American Express and JCB offers an additional authentication process for ecommerce transactions. These processes are called Verified-by-Visa, Mastercard Secure, JSecure or SafeKey. The authentication process starts with the Enrollment check and takes place before the preauthorization or purchase is done.

Please refer to the 3d Secure Specification about details to the 3d process.

#### 2.2.2 Risk Management and Fraud Prevention

Wirecard provides a large bandwith of internal and external Risk Management and Fraud Prevention solutions. These solutions can be configured at Wirecard and are called within the standard transaction flow. No separate callout has to be implemented for most solutions.

Please refer to the <u>Wirecard Risk Management Specification</u> for details about the solutions and <u>Corperate Trustcenter Data</u> and <u>Cost Center Data</u> for a description of available data elements.

#### 2.2.3 AVS

The Address Verification Service (AVS) is a system to proof the identity of the customer by comparing parts of the address data. Please refer to <u>Address Verification Service</u> for a detailed description.

## 2.2.4 Market Segment Data

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Wirecard's Online XML Interface provides the option to submit market specific addendum data.
Following market segments are supported:
□ Airline Market Segment
□ Car Rental Market Segment
□ Fleet Card Market Segment
□ Hotel Market Segment
□ Travel Market Segment
Plesae refer Market Segment Data for a detailed description.

# 3 Transaction Types

These chapter describes the most frequently used request messages available in the Wirecard Online XML Interface and the supported elements. Following transaction types are described in this chapter:

#### **Debit Transaction Types**

Preauthorization - Validation of credit card details and reservation of an amount

Capture – Advice to capture the previous reserved amount

Purchase – Preauthorization and Capture in one single step

Preauthorization

Settlement

- Increases the amount of a Preauthorization

Notification – Needed for processing voice-authorization transaction

Reversal – Cancel a previous Credit

#### **Credit Transaction Types**

Reversal – Cancel a previous Authorization or Debit

Bookback – Credit a previously debited amount back to the card holder (limits apply)

Refund – Credit an amount back to the cardholder (restrictions and limits apply)

Original Credit - Special credit transaction (OCT) for remittances, payouts, claims,

dividends or winnings (restrictions apply)

#### **Additional Transaction Type**

Authorization Check - Validates a card number

Query – Retrieve the status of a previous transaction



NOTE: Wirecard offers payment processing for a multitude of acquirers using different protocols. Please be aware that not all functionality is provided by every acquirer and not all specific functionality is described in this document. Please contact Wirecard Customer Support prior to implementation to verify the availability of the intended transaction types.

#### 3.1 Preauthorization

#### **Description:**

During a preauthorization, the transaction information is sent to Wirecard, which in turn sends the information to the cardholder's issuing financial institution. A preauthorization is not a guarantee of payment. It only confirms that the card exists and that funds are available at the time of preauthorization to cover a purchase amount. The funds are not credited at this time but the preauthorization reduces the available credit limit for that card, so in a sense the funds are reserved for the purchase.

The duration of that reservation depends on multiple factores like card scheme or card type. Typically the limit ranges from three to twenty-one days. If a card authorization expires before the settlement request is sent, higher charges may apply and the issuer may raise a chargeback.

In most cases an preauthorization remains valid for a period of seven days. Many merchants try to limit the time between preauthorization and settlement to seven days, in order to minimize settlement problems. While this is a good policy, it is not a definitive rule. Policies and rates vary between cards and financial institutions, and this information is not included in the preauthorization response. It is up to the merchant's responsibility to be aware of the possible consequences and decide how to handle them.

#### **Availability and Restrictions:**

These transaction type is generally available.

#### **Examples:**

Please refer to Preauthorization Example for examples.

#### Request message:

The following table lists the most common used fields for submitting a Preauthorization Request to Wirecard. All mandatory marked elements have to be included in the request. Please refer to <a href="Standard Request Message">Standard Request Message</a> for a detailed description of the elements.

Element	Sett.	Remarks
FNC_CC_PREAUTHORIZATION	man	
FunctionID	man	
CC_TRANSACTION	man	
mode	opt	
TransactionID	man	
PaymentGroupID	opt	
GuWID	con	To be provided for "repeated" transactions only (see Recurring and Installment Transactions)
Amount	con.	
Minorunits	opt	
action	opt	
Currency	con.	
CountryCode	con.	
Usage	opt	

Element	Sett.	Remarks
RECURRING_TRANSACTION	opt	
Туре	man.	
CREDIT_CARD_DATA	con.	To be provided if this is not a "repeated"
CreditCardNumber	man.	transaction (see <u>Recurring and</u> Installment Transactions)
CVC2	con.	,
ExpirationYear	man.	
ExpirationMonth	man.	
CONTACT_DATA	opt.	
IPAddress	opt.	
DeviceIdentification	opt.	
CORPTRUSTCENTER_DATA	opt.	
(additional elements)	con.	
MARKET_SEGMENT	con.	
(additional elements)	con.	

## Response message:

Please refer to <u>Standard Response Message</u> for a definition of the response message.

#### 3.2 Authorization Check

#### **Description:**

The Authorization Check allows merchants to validate credit cards used in online transactions in real-time against the database of the card issuing bank. The Authorization Check is almost identical to the Preauthorization Request described in the previous section. The only thing that sets it apart from a standard preauthorization is that the amount specified in this check request is not reserved for a later capture but automatically reversed. As the name indicates, an Authorization Check is a verification of the credit card only and does not replace the standard preauthorization request.

#### **Availability and Restrictions:**

These transaction type is generally available.

It is not intended to perform standalone Preauthorization Checks. This transaction type should only be used in combination with subsequent transaction processing.

If an Authorization Check is immediately followed by a Preauthorization it may be possible that the subsequent Preauthorization is rejected by the issuing bank.

#### **Examples:**

Please refer to Authorization Check Example for examples.

#### Request message:

The following table lists the most common used fields for submitting an Authorization Check to Wirecard. All mandatory marked elements have to be included in the request. Please refer to Standard Request Message for a detailed description of the elements.

Element	Sett.	Remarks
FNC_CC_AUTHORIZATION_CHECK	man	
FunctionID	man	
CC_TRANSACTION	man	
mode	opt	
TransactionID	man	
PaymentGroupID	opt	
GuWID	con	To be provided for "repeated" transactions only (see Recurring and Installment Transactions)
Amount	con.	
Minorunits	opt	
action	opt	
Currency	con.	
CountryCode	con.	
RECURRING_TRANSACTION	opt	
Туре	man.	
CREDIT_CARD_DATA	con.	To be provided if this is not a "repeated"
CreditCardNumber	man.	transaction (see Recurring and

-		
Element	Sett.	Remarks
CVC2	con.	Installment Transactions)
ExpirationYear	man.	
ExpirationMonth	man.	
CONTACT_DATA	opt.	
IPAddress	opt.	
DeviceIdentification	opt.	
CORPTRUSTCENTER_DATA	opt.	
(additional elements)	con.	
MARKET_SEGMENT	con.	
(additional elements)	con.	

# Response message:

Please refer to <u>Standard Response Message</u> for a definition of the response message.

## 3.3 Capture

#### **Description:**

After an order is shipped, a previous authorized amount can be settled (captured). The card issuing bank credits the funds to the merchant's bank account and updates the cardholder's statement. Card regulations require a merchant to ship goods before settling the funds for an order.

A Capture Request must include a valid GuWID referencing the previous Preauthorization Request. If the amount captured is less than the authorized amount (Partial Capture) the remaining amount is still available for another capture (Split Capture). The sum of all captured amount must be less or equal to the authorized amount. If no amount or the authorized amount is specified the complete authorized amount is captured (full capture).

A capture should be made before the preauthorization expires. The preauthorization validity duration depends on the card type and card brand and varies between 7 and 21 days for standard credit cards and standard business. Triggering the capture within 7 days is therefore a good practice.

Most Acquirer and issuers also accepts captures send after the preauthorization expired. But then the issuer has the right to raise a chargeback with reasons like "Late Presentment" or "Non-Authorized Transaction".

#### **Availability and Restrictions:**

Full Capture is supported by all Acquirers.

Partial and Split Capture are supported for all brands with an Wirecard Bank acquiring contract. For more information about the support of other brands or acquirers please contact WCS.

#### **Examples:**

Please refer to Capture Example for examples.

#### Request message:

The following table lists the most common used fields for submitting a Capture Request to Wirecard. All mandatory marked elements have to be included in the request. Please refer to Standard Request Message for a detailed description of the elements.

Element	Sett.	Remarks
FNC_CC_ CAPTURE	man	
FunctionID	man	
CC_TRANSACTION	man	
mode	opt	
TransactionID	man	
PaymentGroupID	opt	
GuWID	man	
SalesDate	opt	
Amount	opt	If the amount is specified it has to be
Minorunits	opt	equal or less than the authorized amount.
action	opt	

Element	Sett.	Remarks
CountryCode	con.	
Usage	opt	
CONTACT_DATA	opt.	
IPAddress	opt.	
DeviceIdentification	opt.	
CORPTRUSTCENTER_DATA	opt.	
(additional elements)	con.	
MARKET_SEGMENT	con.	
(additional elements)	con.	

## Response message:

Please refer to <u>Standard Response Message</u> for a definition of the response message.

#### 3.4 Purchase

#### **Description:**

A purchase combines a preauthorization and a capture in one step. This transaction type is inteded when the goods or services can be immediately provided to the customer.

#### **Availability and Restrictions:**

These transaction type is generally available.

#### **Examples:**

Please refer to Purchase Example for examples.

#### Request message:

The following table lists the most common used fields for submitting a Purchase Request to Wirecard. All mandatory marked elements have to be included in the request. Please refer to <a href="Standard Request Message">Standard Request Message</a> for a detailed description of the elements.

Element	Sett.	Remarks
FNC_CC_PURCHASE	man	
FunctionID	man	
CC_TRANSACTION	man	
mode	opt	
TransactionID	man	
PaymentGroupID	opt	
GuWID	con	To be provided for "repeated" transactions only (see Recurring and Installment Transactions)
Amount	con.	
Minorunits	opt	
action	opt	
Currency	con.	
CountryCode	con.	
Usage	opt	
RECURRING_TRANSACTION	opt	
Туре	man.	
CREDIT_CARD_DATA	con.	To be provided if this is not a "repeated"
CreditCardNumber	man.	transaction (see <u>Recurring and</u> Installment Transactions)
CVC2	con.	
ExpirationYear	man.	_
ExpirationMonth	man.	- -
CONTACT_DATA	opt.	
IPAddress	opt.	
DeviceIdentification	opt.	

Element	Sett.	Remarks
CORPTRUSTCENTER_DATA	opt.	
(additional elements)	con.	
MARKET_SEGMENT	con.	
(additional elements)	con.	

# Response message:

Please refer to <u>Standard Response Message</u> for a definition of the response message.

# 3.5 Preauthorization Supplement

#### **Description:**

The 'preauthorization supplement' function enables the user to upwardly alter the amount reserved on a card by a previous preauthorization or preauthorization supplement.

A preauthorization supplement request requires a valid GuWID and acquirer Authorization Code from a former preauthorization request.

#### **Availability and Restrictions:**

Please note that this transaction type is not supported by all acquirers and that it can only be captured once.

#### **Examples:**

Please refer to **Purchase Example** for examples.

#### Request message:

The following table lists the most common used fields for submitting a Preauthorization Supplement Request to Wirecard. All mandatory marked elements have to be included in the request. Please refer to <a href="Standard Request Message">Standard Request Message</a> for a detailed description of the elements.

Element	Sett.	Remarks
FNC_CC_PREAUTHORIZATION_ SUPPLEMENT	man	
FunctionID	man	
CC_TRANSACTION	man	
mode	opt	
TransactionID	man	
PaymentGroupID	opt	
GuWID	con	To be provided for "repeated" transactions only (see Recurring and Installment Transactions)
Amount	con.	
Minorunits	opt	
action	opt	
CONTACT_DATA	opt.	
IPAddress	opt.	
DeviceIdentification	opt.	

#### Response message:

Please refer to Standard Response Message for a definition of the response message.

#### 3.6 Notification

#### **Description:**

A Notification Request is typically sent when a preauthorization or purchase has been rejected with error code 02: 'Call Voice-authorization number'. In this case, the merchant should contact his acquirer's voice authorization center by phone and request a voice authorization number. The acquirer refers the request to cardholder's bank (issuer). When the issuer has authorized the transaction, the acquirer gives the merchant an authorization code which the merchant then includes in his notification request. If this request (and authorization code) is processed successfully the transaction is approved.

#### Availability:

The Notification functionality is available for Mastercard with an WDB Acquiring contract. For information about the support of other brands or acquirers please contact Wirecard Customer Support.

#### **Examples:**

Please refer to Purchase Example for examples.

#### Request message:

The following table lists the most common used fields for submitting a Notification Request to Wirecard. All mandatory marked elements have to be included in the request. Please refer to Standard Request Message for a detailed description of the elements.

Element	Sett.	Remarks
FNC_CC_NOTIFICATION	man	
FunctionID	man	
CC_TRANSACTION	man	
mode	opt	
TransactionID	man	
PaymentGroupID	opt	
GuWID	con	
SalesDate	opt	
AuthorizationCode	opt	
Usage	opt	

#### Response message:

Please refer to Standard Response Message for a definition of the response message.

#### 3.7 Reversal

#### **Description:**

The reversal function enables the user to cancel a previous request.

A reversal of a monetary transaction (e.g. 'purchase', 'capture', 'bookback', 'notification', 'refund') is possible until the transaction is processed by the Acquirer. The exact deadline depends on the acquirer and the used protocol. Reversed transactions do not appear on the cardholder's card statement.

A reversal of an preauthorization transaction can be made up to 14 days following the original request, depending on the issuer.

A reversal of a capture reactivates the original preauthorization resulting in reduced credit limit of the credit card. To free reserved amounts on a credit card please cancel also the preauthorizations.

For a reversal request, a valid GuWID from a previous request is required. The amount defined in the 'reversal' request has to match the amount given in the respective request that needs to be cancelled.

#### **Availability and Restrictions:**

This transaction type is available for WDB and many other Acquirers.

#### **Examples:**

Please refer to Reversal Example for examples.

#### Request message:

The following table lists the most common used fields for submitting a Reversal Request to Wirecard. All mandatory marked elements have to be included in the request. Please refer to <a href="Standard Request Message">Standard Request Message</a> for a detailed description of the elements.

Element	Sett.	Remarks
FNC_CC_REVERSAL	man	
FunctionID	man	
CC_TRANSACTION	man	
mode	opt	
TransactionID	man	
PaymentGroupID	opt	
GuWID	con	
Amount	con.	
Minorunits	opt	
action	opt	
Usage	opt	

#### Response message:

Please refer to Standard Response Message for a definition of the response message.

#### 3.8 Bookback

#### **Description:**

A Bookback allows to credit the customer, e.g. in case of returned goods or cancelation. To post a Bookback request, a valid GuWID from a former Capture or Purchase (debit) transaction is required. It is only possible to credit an amount less than or equal to the initial transaction using the same currency as with the original transaction. A bookback is listed separately on the cardholder's card statement



**NOTE:** It is recommended that merchants check their chargeback records before processing a refund transaction.

#### **Availability and Restrictions:**

These transaction type is generally available.

The use of the bookback functionality is subject to constraints imposed by the acquirer's risk management system. Please contact your Acquirer for details.

#### **Examples:**

Please refer to Bookback Examplefor examples.

#### Request message:

The following table lists the most common used fields for submitting a Bookback Request to Wirecard. All mandatory marked elements have to be included in the request. Please refer to <a href="Standard Request Message">Standard Request Message</a> for a detailed description of the elements.

Element	Sett.	Remarks
FNC_CC_BOOKBACK	man	
FunctionID	man	
CC_TRANSACTION	man	
mode	opt	
TransactionID	man	
PaymentGroupID	opt	
GuWID	con	
Amount	con.	
Minorunits	opt	
action	opt	
Usage	opt	
CREDIT_CARD_DATA	con.	This elements should only be used if the
ExpirationYear	man.	cardholder has recevied a replacement for his expired card with new expiry date
ExpirationMonth	man.	but the same card number.

#### Response message:

Please refer to <u>Standard Response Message</u> for a definition of the response message.

#### 3.9 Refund

#### **Description:**

The Refund transaction type can be used to credit funds to a payment card. It is listed separately on the payment card statement The funds can be credited as a standalone transaction (with no connection to a previous settlement) or to reimburse a consumer for a returned product or service. Although it is supported by Wirecard's core system it is disabled for general use. If you wish to use it, please contact Wirecard Customer Support.

A Refund Request is similar to the Bookback Request, except that it does not necessarily require a valid GuWID from a previous Capture Request.



**NOTE:** It is recommended that merchants check their chargeback records before processing a refund transaction.

#### **Availability and Restrictions:**

The use of this transaction type is deactived by default. Please contact your Wirecard Account Manager prior the use of this transaction type.

#### **Examples:**

Please refer to Refund Example for examples.

#### Request message:

The following table lists the most common used fields for submitting a Bookback Request to Wirecard. All mandatory marked elements have to be included in the request. Please refer to <a href="Standard Request Message">Standard Request Message</a> for a detailed description of the elements.

Element	Sett.	Remarks
FNC_CC_REFUND	man	
FunctionID	man	
CC_TRANSACTION	man	
mode	opt	
TransactionID	man	
PaymentGroupID	opt	
Amount	con.	
Minorunits	opt	
action	opt	
Currency	con.	
CountryCode	con.	
Usage	opt	
CREDIT_CARD_DATA	con.	
CreditCardNumber	man.	
CVC2	con.	
ExpirationYear	man.	
ExpirationMonth	man.	

Element	Sett.	Remarks
CardHolderName	man.	

# Response message:

Please refer to <u>Standard Response Message</u> for a definition of the response message.

## 3.10 Original Credits

#### **Description:**

An Original Credit is a transaction type used to credit funds (remittances, payouts, claims, dividends or winnings) to a card, provided the merchant's acquiring bank and the beneficiary's card issuing bank participate in this scheme. For the purpose of processing, an original credit is referred to OCT (Original Credit Transaction) in the Wirecard environment.

Original credits (Visa and MasterCard) are supported by Wirecard Bank (acquirer) and Wirecard Technologies processing system. This transaction type may, however, not be available to all merchants.

#### **Availability and Restrictions:**

The use of Original Credits requires a seperate aquiring contract with Wirecard Bank. If you wish to use this service, please contact your sales representative or Wirecard Customer Services.

#### **Examples:**

Please refer to Notification Example for examples.

#### Request message:

The following table lists the most common used fields for submitting a Bookback Request to Wirecard. All mandatory marked elements have to be included in the request. Please refer to Standard Request Message for a detailed description of the elements.

Element	Sett.	Remarks
FNC_CC_OCT	man	
FunctionID	man	
CC_TRANSACTION	man	
mode	opt	
TransactionID	man	
PaymentGroupID	opt	
GuWID	con	
Amount	con.	
Minorunits	opt	
action	opt	
Currency	con.	
CountryCode	con.	
Usage	opt	
CREDIT_CARD_DATA	con.	
CreditCardNumber	man.	
CVC2	con.	
ExpirationYear	man.	
ExpirationMonth	man.	
CardHolderName	man.	

## Response message:

Please refer to <u>Standard Response Message</u> for a definition of the response message.

## **3.11 Query**

#### **Description:**

With the Query Request function the merchant can obtain information about the status of a transaction. For example, he can query the status of a captured amount that was previously displayed with the Function Result 'PENDING' to make sure that the transaction has been processed successfully and now returns the Function Result 'ACK' in the Query response message. To send the Query Request, the user must provide the GuWID returned with the former Capture response message or Transaction Reference ID, which originates in the transaction ID sent by the merchant.

#### **Availability and Restrictions:**

This transaction type is generally available.

A query request can be posted with only one ID. This can be either a ReferenceTransactionID or a GuWID. Both IDs cannot be queried at the same time.

#### **Examples:**

Please refer to Query Example for examples.

#### Request message:

The following table lists the most common used fields for submitting a Bookback Request to Wirecard. All mandatory marked elements have to be included in the request. Please refer to Standard Request Message for a detailed description of the elements.

Element	Sett.	Remarks
FNC_CC_QUERY	man	
type	opt	
CC_TRANSACTION	man	
mode	opt	Without this element the response will only include the result of the queried transaction. If specified with "detail", also the request data elements will be included.
ReferenceTransactionID	con	If ReferenceTransactionID and no time frame is specified a default time frame is used. This is currently 6 month.
StartTime	opt	
EndTime	opt	
GuWID	con	If GuWID is specified no time frame is needed. No limitation apply.

#### Response message:

Please refer to Standard Response Message for a definition of the response message.

# 4 Message Format

This section describes the general structure of the XML messages and a description of the elements.

#### 4.1 General Considerations

#### 4.1.1 Message Validation

Merchants may validate the generated XML Requests against the Wirecard.xsd.

The Merchant must not validate the responses sent by Wirecard. Wirecard is continuously extending the XML interface and may add new data elements in the XML message without notice.

#### 4.1.2 UTF-8 Character Encoding

As credit cards are accepted from customers around the world, the XML text messages of credit card transactions may contain data in different languages. To cater to these cross-border card transactions, merchants are advised to configure their system to send XML text messages in the 8-bit Unicode Transformation Format (UTF-8), a variable-length character encoding described in ISO/IEC 10646.



**NOTE:** All field length values in this specification are byte values. The actual number of characters allowed in a field may be less than the given byte value as certain UTF-8 characters are represented using up to 4 bytes.

#### 4.1.3 Required Settings

The exchange of XML messages is based on certain requirements. If these are not met, the XML request/response communication will fail. It is therefore imperative that the message elements are defined as required (see the request message elements described in Chapter 6. The request elements are defined as mandatory, optional, or conditional.

#### Mandatory

A mandatory (man.) message is necessary to ensure the proper routine and posting of an XML message. Any mandatory message element not included as requested will cause the process request type to be rejected.

#### **Optional**

The inclusion or omission of an optional (opt.) message field is at the discretion of the merchant. A transaction request is also processed if an optional field is missing.

#### Conditional

A conditional (con.) message field must be included in some instances. Its omission may cause the process request type to be rejected.

# 4.1.4 Data Type Definitions

The following notations define the data type formats of message elements.

Notation	Description
а	alphabetic A-Z, a-z
n	numeric digits, 0-9
an	alphanumeric characters A-Z, a-z, 0-9
ans	alphanumeric and special characters,
	ASCII characters Code 32-38 and 40-126.
DD	Day, 01 through 31
MM	Month, 01 to 12
YY	Year, 00-99 where 00=2000, 01=2001, etc.
hh	hour, 00 to 23
mm	minute, 00 to 59
ss	second, 00 to 59
3	Fixed length of 3 bytes
17	Variable length up to a maximum of 17 bytes.
С	collection of elements



**NOTE:** Some card schemas or acquirer don't support all special characters. In these cases the characters are replaced.

# 4.2 Standard Request Message

Wirecard uses a similar message structure throughout all transaction types. The following table describes the general structur of these request messages.

including a desall supported elements of Request Messages to be send from the Merchant to Wirecard. Please refer to the <u>transaction type description</u> which elements are supported for each transaction type.

Element	Data Type	Description
W_REQUEST	С	This is a collection of Card Refund message elements and their values.
W_JOB	С	This is a collection of elements that defines a job within the request. The job may comprise of multiple transactions.
JobID	ans32	This ID is reserved for merchant system data and can be used for tracking purposes. See Appendix K for permissible characters.
BusinessCaseSignature	an16	This is the unique merchant identifier against which the request is made.
FNC_CC_ FunctionName	С	This is a collection of data elements for this specific function. Valid element names are:  FNC_CC_PREAUTHORIZATION FNC_CC_CAPTURE FNC_CC_PURCHASE FNC_CC_PREAUTHORIZATION_ SUPPLEMENT FNC_CC_NOTIFICATION FNC_CC_REVERSAL FNC_CC_BOOKBACK FNC_CC_REFUND FNC_CC_OCT FNC_CC_QUERY
type	0	This attribute can be provided with a Query Request and defines the detail level of the Query Response.  The only possible value is 'detail'. This attribute can be used only in combination with a GuWID.
FunctionID	ans32	This ID is reserved for merchant system data and is intended for tracking purposes. It is mandatory but can be empty if not needed.
CC_TRANSACTION	С	This is a collection of card specific transaction data elements and their values.
mode	a32	This attribute allows to flag a transaction as "demo". Only specific "demo" cards are allowed for that mode. Possible values are: • demo • live (default)

Element	Data Type	Description
TransactionID	ans32	This ID is reserved for merchant system data and can be used for tracking purposes.  See Appendix K for permissible characters.  Also the element has to be provided, it can be empty if not needed.
ReferenceTransactionID	ans32	
StartTime	YYYY- MM-DD hh:mm:ss	This field indicated the start date and time of the original transaction for a Query
EndTime	YYYY- MM-DD hh:mm:ss	This field indicated the end date and time for a query.
PaymentGroupID	an22	This optional identifier references transaction types of different payment methods (e.g. credit card and direct debit) and represents them in a single group for easy monitoring via the ACM. Please refer to <a href="Unified Payment Management">Unified Payment Management</a> for details.
GuWID	an22	This is the GuWID of the associated initial transaction. It is mandatory if the transaction type is 'Repeated' or if there was an initial 3d enrollment request.
SalesDate	YYYY- MM-DD	This is the calendar date of the purchase. It is optional and can be included if the sales date is different from the date the transaction is posted for processing. It can be backdated up to 30 days.
AuthorizationCode	an10	This is a numerical or alphanumerical code provided by the card issuer in the preauthorization Call verifying that the original transaction request.
Amount	n16	This is the integer amount, defined in the smallest currency unit, for which the transaction is requested (e.g., \$10.00 = 1000). The <amount> element is mandatory . For 'Repeated' (recurring) transaction where the amount equals the amount of the initial transaction it is optional.</amount>
Minorunits	n1	The attribute <minorunits> specify the number of decimal places of the amount.</minorunits>

Element	Data Type	Description
action	a8	The attribute <action> defines what action needs to be taken if the value of the attribute <minorunits> does not match the number of decimals defined in ISO standard 4217. The following actions are available: • convert the amount is converted to the number of ISO-defined decimals • validate The transaction is rejected if the value of <minorunits> does not match the number of decimals defined in ISO 4217. This is the default setting.</minorunits></minorunits></action>
Currency	a 3	This is the ISO 4217 currency code used for the transaction. It is mandatory if the type of transaction is 'Single' or 'Initial' or if the currency of a 'Repeated' transaction differs from the currency of the related 'Initial' transaction.
CountryCode	a 2	This is the ISO 3166-1 code of the country where the transaction takes place (the merchant resides). It is mandatory if the type of transaction is 'Single' or 'Initial'.
Usage	an256	This is the field, which is shown on the customer's card statement and can be used by the merchantfor reference purposes. This feature is not supported by all the acquirers. The size of this field depends on the acquirer. Please contact Wirecard technical support for further clarification.
RECURRING_ TRANSACTION	С	This is a collection of recurring information. Please refer to Recurring Transaction for details.
Туре	an8	Possible values:  • Single  • Initial  • Repeated Please refer to Recurring Transaction for details.
INSTALLMENT_ PAYMENT	С	This is a collection of installment information. Please refer to <u>Installment Transaction</u> how to use installment payments.
Туре	an8	Possible values:  • Single  • Initial  • Repeated  Please refer to Installment Transaction for details.
CREDIT_CARD_DATA	С	This is a collection of credit card data. It is mandatory if the type of transaction is 'Single' or 'Initial'.

Element	Data Type	Description	
CreditCardNumber	n19	The card number used for this transaction	
CVC2	n4	The 3- or 4-digit security code (called CVC2, CVV2 or CID depending on the card brand) that appears on the back of a credit card. This code does not appear on imprints.	
ExpirationYear	YYYY	The expiry year of the card	
ExpirationMonth	MM	The expiry month of the card	
CardHolderName	ans256	The name written on the card.	
CONTACT_DATA	С	This is the collection of the contact information.	
IPAddress	ans15	This is the IPv4 address of the end user making the purchase. It must be provided in dot-decimal notation consisting of up to 15 characters in length.	
DeviceIdentification	an4096	This is the device identification string obtained from the <i>iovation ReputationShield Client</i> .	
CORPTRUSTCENTER_ DATA		This is a collection of additional data fields which may be required for risk management	
(additional elements)		or fraud prevention solutions.  Please see <u>Corperate Trustcenter Data</u> for a list of possible elements	
MARKET_SEGMENT		This is a collection of additional data fields	
(additional elements)		which may be required for risk management or fraud prevention solutions.	
		Please see Wirecard Addendum Data Specification for a list of possible elements.	

# 4.3 Standard Response Message

For every submitted transaction request, the Wirecard system returns a response message, regardless of the outcome of the transaction process (one for a failed process and one for a successful process). Included in every response message is a collection element field called *'Function name'* which is the same value then in the request.



**NOTE:** If the request includes risk management functionality, the response message may also contain a collection of risk management related elements and values.

Element	Sett.	Data Type	Remarks
W_RESPONSE	man	С	This is a collection of Card Transaction response message elements and their values.
W_JOB	man	С	This is a collection of elements that defines a job within the response. The job may comprise of multiple transactions.
JobID	opt.	an32	This field is echoed back from the original XML request message.
FNC_CC_[Name of Request Function]	man	an32	This is a collection of transaction data elements and their values.
FunctionID	opt.	an32	This field is echoed back from the original XML request message.
CC_TRANSACTION	man	С	This is a collection of transaction data elements and their values.
mode	opt.	an32	This is echoed back from the request. Possible values are: • demo • live
TransactionID	man	an32	This field is echoed back from the original XML request message.
PROCESSING_STATUS	man	С	This is a collection of transaction result elements and values.
GuWID	man	can22	This is an alphanumeric string generated by the Wirecard system. It is required when reporting a transaction problem to Wirecard Technical Support (support@wirecard.com).
StatusType	man	an32	This element describes the transaction status. For standard CC processing is returned value 'INFO' only.

Element		Sett.	Data Type	Remarks
	FunctionResult	opt.	a 32	The data returned in this line of the response message shows the result of the executed transaction. Valid values are:
				ACK (Successful transaction)
				NOK (Failed transaction)
				<ul> <li>PENDING (successful transaction waiting to be captured) for further details see the definition 'pending' in the Glossary.</li> </ul>
	ERROR	man	С	This is a collection of error result elements and values. This collection is provided only if the FunctionResult is NOK.
				This collection can be repeated if there are multiple errors. This collection may also be placed in a higher XML level if the error is more general.
	Туре	man	an32	Provides basic information about the type of error. It may have one of the following values: • REJECTED- transaction was
				rejected by acquirer.
				DATA_ERROR - XML request data is not valid and could not be processed.
				SYSTEM_ERROR - transaction could not be
				processed because of a system error.
				CLIENT_ERROR - error on the client side. This value is returned only if the merchant uses     Wirecard's locally installed XML client server software.
	Number	opt.	n5	This is the error number associated with the failure.
	Message	opt.	an1024	This is the error message associated with the failed condition.
	Advice	opt.	an1024	This is the system-generated guidance for correction of the failed condition. This element can be repeated if there is a need for multiple advises.
	TimeStamp	man	YYYY- MMDD hh:mm:ss	This is CET (Central European Time) date/time of the completion of the transaction.



**NOTE:** If a transaction is rejected by an error the ERROR collection is placed within the PROCESSING\_STATUS. But in case of a more general error the ERROR collection can also be placed in higher level of the xml tree. Wirecard may also provide multiple error collections in case of multiple errors.

# 4.4 Unified Payment Management

Standard payment data processing doesn't enable referencing of transactions between different payment methods. By extending the card processing XML request message with the PaymentGroupID element, merchants can easily reference between transactions initiated by different payment methods (e.g. a hotel booking or purchase where one part of the total is paid for by credit card and the other by direct debit).

The PaymentGroupID is a system-generated identifier. In the Wirecard system, this can typically be the Global unique Wirecard ID (GuWID) which is returned with the response message to the very first transaction request (Authentication, Pre-Authentication or Purchase). The use of PaymentGroupID is optional which means that merchants can choose to include it in all request messages (except Query) so as to consolidate transaction types of different payment methods (like credit card and direct debit) into a single transaction flow and unified representation for easy management via the web-based user interface ACM. Only the XML request message contains the PaymentGroupID element. It is not returned with the XML response message. The GuWID element, which references the previous XML request message in the payment flow of the same payment method remains in all card transaction request messages.

# 5 Extensions

These chapter describes extensions to the standard credit card process. Please contact your Wirecard representative or Wirecard support if you intend to use any of these extensions.

# 5.1 Recurring Transaction

#### **Description:**

A recurring transaction describes a payment where the cardholder's account is periodically charged for a repeated delivery and use of a product or service (subscription, membership fee, etc.) over time. It consists of an initial request (which is identical in form and content to a single request) and one or several repeated transaction request messages.

The "initial" request message (which in most cases is an preauthorization) contains all relevant card and cardholder data.

All subsequent "repeated" message (which can be another Preauthorization, or a Capture or a Purchase) simply references an identifier (the Global Unique Wirecard ID) which is returned with the response message to the initial request.

Cardholders can instruct their issuers to reject recurring payments charged to their card. This they can do for goods and services purchased globally or for a particular merchant. In this case all transactions will be automatically flagged accordingly by the issuing bank and rejected by the Wirecard system. The transaction response message sent to the merchant will return error code 78 or 79. For more details see these codes defined in the Error Code List in Appendix A.

#### **Availability and Restrictions:**

Recurring transactions are available for Visa, Mastercard, Maestro in conjunction with a Wirecard Bank Aquiring contract. If activated by Wirecard these transactions are send to the Issuer with the flag "Recurring". Special regulations of the card schemes apply.

It is also possible to use Recurring Transactions if it is not activated or with acquirer/brands not supporting the flag "Recurring". In this case simulates Wirecard the recurring functionality but the transaction passed to the Issuers are not explicitly flagged as "Recurring".

Merchants who wish to post recurring transactions please contact the Wirecard Technical Support at support@wirecard.com for implementation requirements.

#### **Examples:**

Please refer to Recurring Example for XML examples.

#### Request message:

The element <u>RECURRING\_TRANSACTION / Type</u> has to be provided in the "initial" and in all "repeated" transactions.

Following transaction types qualify for recurring:

Authorizatoin

Purchase

Refund

#### Response message:

The <u>Standard Response Message</u> does also apply for Recurring transactions.

For Recurring in conjunction with Wirecard Bank Acquring extended recurring response information can be activated. In this case the response will contain the additional collection "RECURRING" as outlined in the following table:

Element	Sett.	Data Type	Remarks
PROCESSING_STATUS	man	С	This is a collection of transaction result elements and values.
[]			other elements as specified in Standard Response Message.
RECURRING	man	can22	This is an alphanumeric string generated by the Wirecard system. It is required when reporting a transaction problem to Wirecard Technical Support (support@wirecard.com).
AdviceCode	man	an2	This Code is provided by the issuer and advices the merchant how to proceed:  01 – New account information available  02 – Try again later  03 – Do not try again  21 – Recurring Payment Cancellation Service
Message	opt.	an1024	This is the error message associated with the failed condition.
SuggestedAction	opt.	an1024	This is the system-generated guidance for correction of the failed condition. This element can be repeated if there is a need for multiple advises.

### 5.2 Installment Transaction

### **Description:**

Unlike recurring transactions, this mode allows customers to pay with their charge card for products and services in multiple installments, over a period of time agreed between the cardholder and the merchant. For example, if a product is priced at 2000 Euros, the merchant can charge a down payment of 400 Euros to the card at the time of the online purchase followed by eight installments of 200 Euros.

#### **Availability and Restrictions:**

Installment transactions are not supported by all acquirers. If a merchant posts a transaction using this payment mode and the acquirer does not support it, the request is flagged, processes and forwarded to the acquirer as a standard transaction. Merchants who wish to post installment transactions please contact the Wirecard Technical Support at support@wirecard.com for implementation requirements.

Cardholders can instruct their issuers to reject installment payments charged to their card. This they can do for goods and services purchased globally or for a particular merchant. In this case all transactions will be automatically flagged accordingly by the issuing bank and rejected by the Wirecard system. The transaction response message sent to the merchant will return error code 78 or 79. For more details see these codes defined in the Error Code List.

#### **Examples:**

Please refer to Installment Example for examples.

#### Request message:

The element <u>RECURRING\_TRANSACTION / Type</u> has to be provided in the "initial" and in all "repeated" transactions.

### Response message:

The Standard Response Message may include an additional element

### 5.3 Address Verification Service

#### **Description:**

The Address Verification System (AVS) is an advanced level of credit card security that is built in to the Wirecard credit card processing network to help thwart identity theft. When a user makes an online purchase with a credit card their billing address is required. The house number and postal code of the billing address the user enters is compared to the billing address held on file by the card issuing bank. If the address does not match then the transaction can be declined. AVS is an on-demand service which is configured by Wirecard for each merchant.

If AVS is configured, the customer's address data is sent together with payment transaction to an acquirer. The acquirer then sends back an AVS response code, which is represented by two characters, e.g. "5M". Wirecard supports AVS for American Express (Amex), MasterCard and Visa. Each card brand generates its own AVS return code which is then mapped by the core system to common Wirecard AVS code for representation in the transaction XML response.

### **Examples:**

Please refer to AVS Example for XML examples.

#### Request message:

Address data of the user has to be provided in the CORPTRUSTCENTER\_DATA. Following table points out the relevant fields vor AVS. For a complete list and a field definition please refer to Corporate Trust Center Data.

Element	Sett.	Remarks
CORPTRUSTCENTER_DATA	man	
ADDRESS	man.	
FirstName	man.	
LastName	man.	
Address1	man.	
Address2	opt.	
City	man	
ZipCode	man	
State	con	

#### Response message:

Please refer to AVS Codes for a description of additional error codes.

## 5.4 Corporate Trust Center Data

### **Description:**

Wirecard offers different risk management and fraud prevention services. These services can be accessed via a seperate API or within a card payment transaction. For details please refer to the Risk Management Specification or contact Wirecard Support.

If risk management, fraud prevention services or AVS are activated the CORPTRUSTCENTER\_DATA has in most cases to be provided. Otherwise this collection is optional.

### **Availability and Restrictions:**

This extension is generally available.

#### **Examples:**

Please refer to CorpTrustCenterExample for XML examples.

#### Request message:

The following table specifies the CorpTrustCenter Element. These collection can be part of a request message. Also some fields are mentioned as optional in the table they may be necessary for specific risk services. E.g. an address validation can only be performed if the Country is known.

Element	Sett.	Data Type	Description
CORPTRUSTCENTER_ DATA	con	С	A collection of risk management related elements and values.  This request level along with the related elements listed below are mandatory if the type of transaction is 'Single' or 'Initial' and risk validation should be included.
ADDRESS	man.	С	A collection of cardholder's billing address elements and values. It is highly recommended to provide these elements.  This element is mandatory if the CORPTRUSTCENTER_DATA level is to be included in the XML request.
FirstName	man.	an12 8	Cardholder first name.
LastName	man.	an12 8	Cardholder last name.
Address1	man.	an25 6	First address field of the cardholder. It is recommended to enter the street name in this field.
Address2	opt.	an25 6	Second address field of the cardholder. It is recommended to enter the street number in this field.
City	con	an32	City of cardholder address
ZipCode	opt.	an12	Zip code of cardholder address
State	con	a 2	State of cardholder address Only to be provided for US and Canadian addresses

Country	opt.	a 2	ISO 3166-1 2-digit country code of the cardholder address
Phone	opt.	an32	This is the cardholder's phone number. It can be provided in one of the following formats:
			+xxx(yyy)zzz-zzzz-ppp
			+xxx (yyy) zzz zzzz ppp
			+xxx(yyy)zzz/zzzz/ppp
			+xxx(yyy)zzzzzzppp
			where:
			xxx = country code
			yyy = national direct dialing prefix
			zzzzzzz = area / city code and local number
			ppp = PBX extension Separators such as /, \ or - are permissible.
			Example: a typical international number would be "+44(0)555-5555-739" indicating PBX extension 739 at phone number 555- 5555 with the national prefix 0 and country code 44. For countries which do not have a national prefix, the format must be configured with or without a space in brackets. Example: +420()52-5454-742.
Email	con	an 256	cardholder email address.
PERSONINFO	opt.	С	This is a collection of personal information. It is required by some countries for risk assessment of payment transactions.
DRIVERS_LICENSE	opt.	С	This collection contains fields for driver license information.
LicenseNumber	opt.	an32	driver license number.
State	con	a 2	state code of the US or Canadian state where the license was issued
Country	opt.	a 2	ISO 3166-1 2-digit country country code of where the license was issued.
BirthDate	opt.	YYYY- MM- DD	cardholder birth date.
TaxIdentification Number	opt.	an32	cardholder TIN.

### Response message:

Please refer to <u>Standard Response Message</u> for a definition of the response message.

If risk management or fraud prevention services are activated additional error codes may occure, specifying the reason for a rejection.

### 5.5 Cost Center Data

### **Description:**

The Cost Center Data allows to submit additional data about the affected cost center and/or account.

#### **Availability and Restrictions:**

These transaction type is generally available.

#### **Examples:**

Please contact Wirecard Customer Support for examples.

### Request message:

The following table specifies the CorpTrustCenter Element. These collection can be part of a request message. Also some fields are mentioned as optional in the table they may be necessary for specific risk services. E.g. an address validation can only be performed if the Country is known.

•			
Element	Sett.	Data Type	Description
COST_CENTER_DATA	opt.	С	This is a collection of the cost center data of an organization
EmployeeID	opt.	an17	Identifcation ID of an employee
DepartmentCode	opt.	an17	A code of the organization's department
CostAccountNumber	opt.	an17	A number defining the cost account
AccountingUnit	opt.	an17	Accounting units
AccountNumber	opt.	an17	This is the account number
ServiceDate	opt.	YYYY- MMDD	This field shows the date the service is provided (departure date), e.g. 2006-10-14.
ProjectNumber	opt.	an17	The number of the project
OrderNumber	opt.	an17	The order number
ActionNumber	opt.	an32	The action number
Destination	opt.	an17	This element defines the travel destination

#### Response message:

Please refer to Standard Response Message for a definition of the response message.

# 6 Test Gateway and Certification

Merchants planning to integrate the Wirecard platform can test the integration on a dedicated test gateway. It is basically identical to the Live HTTPS gateway with the exception that none of the submitted payment requests actually trigger a movement of moneys. As part of the Wirecard quality assurance, merchants are requested to perform several tests on the test gateway in cooperation with the Wirecard support organization prior to connecting to the Live HTTPS Gateway. This is to ensure a smooth and flawless communication and transaction data flow between the integrating company and Wirecard.

#### 6.1 Transaction Modes

Merchants can post payment transactions to the Wirecard processing platform using different modes and methods. The use of two distinct transaction mode helps merchants distinguish between demo transaction and live transaction.

#### 6.1.1 Demo

Merchants who process with Wirecard for the first time are connected to the payment processing platform in *Demo* mode. This is to ensure that while testing the card processing XML interface the posted transactions are not accidently routed to the Acquiring Bank for settlement. When a transaction is sent in demo mode using demo card data ), the Wirecard system automatically verifies if the merchant is configured in demo mode. If the merchant's business case is not configured in demo mode, the system generates a response message informing the merchant that the request could not be processes in demo mode as requested. In the parameter tag <CC\_TRANSACTION> the merchant can add the attribute <mode='demo'>. This attribute must be provided if the merchant wishes to test the card processing interface using a real credit card data instead of the demo data.

### 6.1.2 Live

When a new merchant has successfully tested his XML interface with the processing platform, the merchant's business case is configured for live processing which means the payment transaction is no longer simulated in demo mode but the data is fully processed and settled by the acquiring bank. Any amount posted in live mode with parameter <a href="Amount">Amount</a>> to the Wirecard system will be treated as a real transaction with complete settlement

#### Response Example

The following is a response to a request sent with demo card data on an XML interface configured for live processing:

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML
xsi:noNamespaceSchemaLocation="wirecard.xsd">
    <W RESPONSE>
    <W JOB>
       <JobID>ACCEPTANCE-TEST
       <FNC CC TRANSACTION>
           <FunctionID>GZS-PAGO</functionID>
           <CC TRANSACTION>
               <TransactionID>1</TransactionID>
               <PROCESSING STATUS>
                <GuWID>C895978124540997772104</GuWID>
                <AuthorizationCode></AuthorizationCode>
                <Info>THIS IS A DEMO TRANSACTION USING CREDIT CARD NUMBER
               420000****0000. NO REAL MONEY WILL BE TRANSFERED.</Info>
               <StatusType>INFO</StatusType>
                <FunctionResult>NOK</FunctionResult>
```

### 6.2 Test Access

For testing please use following connection data:

□ URL for HTTPS : https://c3-test.wirecard.com/secure/ssl-gateway

☐ Username: **56501** 

□ Password: **TestXAPTER** 

☐ Business Case Signature: **56501** 

☐ Content-Type: **text/xml** 

☐ Available currencies: **BWP**, **CHF**, **DKK**, **EUR**, **GBP**, **INR**, **JPY**, **KWD**, **MYR**, **NOK**,

PHP, RUB, SEK, USD, ZAR

☐ Transaction Mode: **demo** 

### 6.3 Demo Test cards

Brand	Card Number
JCB	352800000000000
AIRPLUS	12200000000000
DINERS	3800000000000
AMEX	37000000000000
VISA	42000000000000
VISA	4018490000000039
MASTER	550000000000000
DISCOVER	601100000000000
Maestro	67594000000000002

### 6.4 Simulation of response codes using amounts

When sending test transactions to our system you can create specific error messages. To do so, please use card number 420000000000000 and flag the transaction with the mode type 'demo'.

- 1. Amounts below EUR 1000.00 or any other currency will generate an acknowledgement (ACK) with the response status error code 9500.
- 2. Amounts between EUR 1000.02 and EUR 1000.98 are reserved for response codes in the ACM error code range.

Amount: 100002 - 02 Call Voice Authorization Number.

Amount: 100003 - 03 Invalid Merchant Number.

Amount: 100004 - 04 Retain Card.

Amount: 100005 - 05 Authorization Declined.

Amount: 100006 - 06 Error in Sequence Number.

Amount: 100009 - 09 Wait Command.

. . . .

Amount: 100098 - 98 Date and Time Not Plausible.

#### **Example:**

The amount of EUR 1000.02 ( <amount > 100002 < amount > ) will produce response code 02:

```
<Type>REJECTED</Type>
<Number>02</Number>
<Message>Call voice authorization number.</Message>
```

Any failure not specified by the Wirecard system will produce error code 250

```
<Type>REJECTED</Type>
<Number>250</Number>
<Message>System Error.</Message>
```

For a complete list of ACM error codes, see Errorcodes.

# 7 Examples

## 7.1 Demo Mode Processing

#### **Request Example**

```
<?xml version="1.0" encoding="UTF-8"?>
    <WIRECARD BXML>
        <W REQUEST>
        <W JOB>
            <JobID>example ID Purchase J1//JobID>
            <BusinessCaseSignature>123/BusinessCaseSignature>
            <FNC CC PREAUTHORIZATION>
                <FunctionID>example ID Purchase F1</functionID>
                <CC_TRANSACTION mode="demo">
                    <TransactionID>Authorization Initial 1</TransactionID>
                    <Amount>1000</Amount>
                    <Currency>EUR</Currency>
                    <CountryCode>DE</CountryCode>
                    <Usage>Y6162</Usage>
                    <RECURRING TRANSACTION>
                    <Type>Initial</Type>
                </RECURRING TRANSACTION>
                <CREDIT CARD DATA>
                    <CardHolderName>John Doe</CardHolderName>
                    <CreditCardNumber>550000000000000/CreditCardNumber>
                    <ExpirationYear>2010</ExpirationYear>
                    <ExpirationMonth>12</ExpirationMonth>
                    <CVC2>471</CVC2>
                </CREDIT CARD DATA>
             <CORPTRUSTCENTER DATA>
                <ADDRESS>
                    <FirstName>John</FirstName>
                    <LastName>Doe</LastName>
                    <Address1>550 South Winchester blvd.</Address1>
                    <Address2>P.O. Box 850</Address2>
                    <City>San Jose</City>
                    <ZipCode>95128</ZipCode>
                    <State>CA</State>
                    <Country>US</Country>
                    <Phone>+1(1)8323933406</Phone>
                    <Email>John.Doe@email.com</Email>
                </ADDRESS>
                <PERSONINFO>
                    <BirthDate>1982-04-17</BirthDate>
                </personinfo>
            </CORPTRUSTCENTER DATA>
            <CONTACT DATA>
                <IPAddress>127.0.0.1</IPAddress>
            </CONTACT DATA>
        </CC TRANSACTION>
        </FNC CC PREAUTHORIZATION>
    </W_JOB>
```

```
</W_REQUEST>
</WIRECARD BXML>
```

#### **Response Example**

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
    <W RESPONSE>
    <W JOB>
        <JobID>example ID Purchase J1//JobID>
        <FNC CC PREAUTHORIZATION>
            <FunctionID>example ID Purchase J1 F1</functionID>
            <CC TRANSACTION>
                <TransactionID>Authorization Initial 1</TransactionID>
                <PROCESSING STATUS>
                <GuWID>C822947124395249138105</GuWID>
                <AuthorizationCode>076427</AuthorizationCode>
                <Info>THIS IS A DEMO TRANSACTION USING CREDIT CARD NUMBER
                550000****0000. NO REAL MONEY WILL BE TRANSFERED.</Info>
                <StatusType>INFO</StatusType>
                <FunctionResult>ACK</FunctionResult>
                <TimeStamp>2009-06-02 16:21:31</TimeStamp>
                </PROCESSING STATUS>
            </CC TRANSACTION>
        </FNC CC PREAUTHORIZATION>
    </W JOB>
    </W RESPONSE>
</WIRECARD BXML>
```

## 7.2 Preauthorization Example

Please refer to <u>Preauthorization</u> for a functional and to <u>Standard Request Message</u> and <u>Standard Response Message</u> for field definitions.

#### 7.2.1 Single / Initial Preauthorization Request

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W REQUEST>
<W JOB>
       <BusinessCaseSignature>0123456789ABCDEF
       <FNC CC PREAUTHORIZATION>
           <FunctionID>authorization 1</functionID>
           <CC TRANSACTION mode="demo">
               <TransactionID>9457892347623478/TransactionID>
               <Amount minorunits="2">500</Amount>
               <Currency>EUR</Currency>
               <CountryCode>DE</CountryCode>
               <Usage>OrderNo-FT345S71 Thank you</Usage>
               <RECURRING TRANSACTION>
                   <Type>Initial</Type>
               </RECURRING TRANSACTION>
               <CREDIT CARD DATA>
                   <CreditCardNumber>420000000000000/CreditCardNumber>
                   <CVC2>001</CVC2>
```

### 7.2.2 Repeated Preauthorization Request

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W REQUEST>
<W JOB>
        <BusinessCaseSignature>0123456789ABCDEF</BusinessCaseSignature>
        <FNC CC PREAUTHORIZATION>
            <FunctionID>authorization 1</FunctionID>
            <CC TRANSACTION mode="demo">
                <TransactionID>9457892347623478</TransactionID>
                <GuWID>C328668112556109425394</GuWID>
                <RECURRING TRANSACTION>
                    <Type>Repeated</Type>
                </RECURRING TRANSACTION>
            </CC TRANSACTION>
        </FNC CC PREAUTHORIZATION>
</W JOB>
</W REQUEST>
</WIRECARD BXML>
```

### 7.2.3 Preauthorization Successful Response (1)

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W RESPONSE>
<W JOB>
        <JobID>job 1</JobID>
        <FNC CC PREAUTHORIZATION>
            <FunctionID>function 1</FunctionID>
            <CC TRANSACTION mode="demo">
                <TransactionID>9457892347623478</TransactionID>
                <PROCESSING STATUS>
                    <GuWID>C242720181323966504820</GuWID>
                    <AuthorizationCode>153620</AuthorizationCode>
                    <FunctionResult>ACK</functionResult>
                    <TimeStamp>2001-01-31 20:39:24</TimeStamp>
                </PROCESSING STATUS>
            </CC TRANSACTION>
        </FNC_CC_PREAUTHORIZATION>
</W_JOB>
```

```
</W_RESPONSE>
</WIRECARD BXML>
```

### 7.2.4 Preauthorization Successful Response (2)

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W RESPONSE>
<W JOB>
        <JobID>job 1</JobID>
        <FNC CC PREAUTHORIZATION>
            <FunctionID>function 1</FunctionID>
            <CC TRANSACTION mode="demo">
                <TransactionID>9457892347623478/TransactionID>
                <PROCESSING STATUS>
                    <GuWID>C242720181323966504820</GuWID>
                    <AuthorizationCode>153620</AuthorizationCode>
                    <FunctionResult>ACK</functionResult>
                    <TimeStamp>2001-01-31 20:39:24</TimeStamp>
                </PROCESSING STATUS>
            </CC TRANSACTION>
        </FNC CC PREAUTHORIZATION>
</W JOB>
</W RESPONSE>
</WIRECARD BXML>
```

### 7.2.5 Preauthorization Error Response

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W_RESPONSE>
<W JOB>
       <JobID>job 1</JobID>
       <FNC CC PREAUTHORIZATION>
            <FunctionID>function 1</FunctionID>
            <CC TRANSACTION mode="demo">
                <TransactionID>9457892347623478</TransactionID>
                <PROCESSING STATUS>
                    <GuWID>C242720181323966504827</GuWID>
                    <AuthorizationCode>799961</AuthorizationCode>
                    <StatusType>INFO</StatusType>
                    <FunctionResult>NOK</functionResult>
                    <ERROR>
                        <Type>REJECTED</Type>
                        <Number>05</Number>
                        <Message>Authorization Declined.
                        <Advice>It is not possible to book the given amount
                        from the credit account, e. g. limit is
                        exceeded.</Advice>
                    </ERROR>
                    <TimeStamp>2001-01-31 20:39:24</TimeStamp>
                </PROCESSING STATUS>
            </CC TRANSACTION>
       </FNC CC PREAUTHORIZATION>
</W JOB>
</W RESPONSE>
```

</WIRECARD BXML>

### 7.3 Authorization Check Example

Please refer to <u>Authorization Check</u> for a functional description and to <u>Standard Request Message</u> and <u>Standard Response Message</u> for field definitions.

### 7.3.1 Authorization Check Request

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W REQUEST>
   <W JOB>
       <JobID>ACCEPTANCE-TEST
       <BusinessCaseSignature>790</BusinessCaseSignature>
       <FNC CC AUTHORIZATION CHECK>
           <FunctionID>test</FunctionID>
           <CC TRANSACTION>
               <TransactionID>1</TransactionID>
               <Amount>1000</Amount>
               <Currency>EUR</Currency>
               <CountryCode>DE</CountryCode>
               <CREDIT CARD DATA>
                   <CreditCardNumber>1234****0001
                   <CVC2>***</CVC2>
                   <ExpirationYear>2009</ExpirationYear>
                   <ExpirationMonth>12</ExpirationMonth>
                   <CardHolderName>Joe Test</CardHolderName>
               </CREDIT CARD DATA>
           </CC TRANSACTION>
       </FNC_CC_AUTHORIZATION_CHECK>
   </W JOB>
</W REQUEST>
```

## 7.4 Capture Example

Please refer to <u>Capture</u>for a functional description and to <u>Standard Request Message</u> and <u>Standard Response Message</u> for field definitions.

### 7.4.1 Capture Request Message

</W\_JOB>
</W\_RESPONSE>
</WIRECARD BXML>

```
</W REQUEST>
     </WIRECARD_BXML>
7.4.2 Capture Successful Response
     <?xml version="1.0" encoding="UTF-8"?>
     <WIRECARD BXML>
     <W RESPONSE>
     <W JOB>
             <JobID>ACCEPTANCE_TEST</JobID>
             <FNC CC CAPTURE>
                 <FunctionID>function 1</FunctionID>
                 <CC TRANSACTION mode="demo">
                     <TransactionID>8</TransactionID>
                     <PROCESSING STATUS>
                         <GuWID>C305830112714411123351</GuWID>
                         <StatusType>INFO</StatusType>
                         <FunctionResult>PENDING</functionResult>
                         <TimeStamp>2010-09-19 17:32:22</TimeStamp>
                     </PROCESSING STATUS>
                 </CC TRANSACTION>
             </FNC_CC_CAPTURE>
     </W JOB>
     </W RESPONSE>
     </WIRECARD_BXML>
7.4.3 Capture Error Response
     <?xml version="1.0" encoding="UTF-8"?>
     <WIRECARD BXML>
     <W RESPONSE>
     <W_JOB>
             <JobID>job 1</JobID>
             <FNC CC CAPTURE>
                 <FunctionID>function 1</FunctionID>
                 <CC TRANSACTION mode="demo">
                     <TransactionID>9457892347623478</TransactionID>
                     <PROCESSING STATUS>
                         <GuWID>C242720181323966504827</GuWID>
                         <StatusType>INFO</StatusType>
                         <FunctionResult>NOK</functionResult>
                         <ERROR>
                             <Type>REJECTED</Type>
                             <Number>21</Number>
                             <Message>No action taken.
                         </ERROR>
                         <TimeStamp>2010-01-31 20:39:24</TimeStamp>
                     </PROCESSING STATUS>
                 </CC TRANSACTION>
             </FNC_CC_CAPTURE>
```

### 7.5 Purchase Example

Please refer to <u>Purchase</u> for a functional description and to <u>Standard Request Message</u> and <u>Standard Response Message</u> for field definitions.

## 7.5.1 Single / Initial Purchase Request

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W REQUEST>
<W JOB>
       <JobID>job 1</JobID>
       <BusinessCaseSignature>0123456789ABCDEF/BusinessCaseSignature>
       <FNC CC PURCHASE>
           <FunctionID>transaction 1</FunctionID>
            <CC TRANSACTION mode="demo">
                <TransactionID>9457892347623478/TransactionID>
                <SalesDate>2007-04-30</SalesDate>
                <Amount minorunits="2">500</Amount>
                <Currency>EUR</Currency>
                <CountryCode>DE</CountryCode>
                <Usage>OrderNo-FT345S71 Thank you
                <RECURRING TRANSACTION>
                    <Type>Initial</Type>
                </RECURRING TRANSACTION>
                <CREDIT CARD DATA>
                    <CreditCardNumber>420000000000000/CreditCardNumber>
                    <CVC2>001</CVC2>
                    <ExpirationYear>2009</ExpirationYear>
                    <ExpirationMonth>01</ExpirationMonth>
                    <CardHolderName>John Doe</CardHolderName>
                </CREDIT CARD DATA>
                <CONTACT DATA>
                    <IPAddress>192.168.1.1</IPAddress>
                </CONTACT DATA>
            </CC TRANSACTION>
       </FNC_CC_PURCHASE>
</W JOB>
</W REQUEST>
</WIRECARD_BXML>
```

### 7.5.2 Repeated Purchase Request

```
</RECURRING TRANSACTION>
                     <COST CENTER DATA>
                     <CostAccountNumber>78500</CostAccountNumber>
                     </COST CENTER DATA>
                 </CC_TRANSACTION>
             </FNC CC PURCHASE>
     </W_JOB>
     </W REQUEST>
     </WIRECARD BXML>
7.5.3 Purchase Successful Response
     <?xml version="1.0" encoding="UTF-8"?>
     <WIRECARD BXML>
     <W RESPONSE>
     <W JOB>
             <JobID>job 1</JobID>
             <FNC CC PURCHASE>
                 <FunctionID>function 1</FunctionID>
                 <CC TRANSACTION mode="demo">
                     <TransactionID>9457892347623478
                     <PROCESSING STATUS>
                         <GuWID>C242720181323966504820</GuWID>
                         <FunctionResult>PENDING</FunctionResult>
                         <TimeStamp>2001-01-31 20:39:24</TimeStamp>
                     </PROCESSING STATUS>
                 </CC_TRANSACTION>
             </FNC_CC_PURCHASE>
     </W JOB>
     </W RESPONSE>
     </WIRECARD BXML>
7.5.4 Purchase Error Response
     <?xml version="1.0" encoding="UTF-8"?>
     <WIRECARD BXML>
     <W RESPONSE>
     <W JOB>
             <JobID>job 1</JobID>
             <FNC CC PURCHASE>
                 <FunctionID>function 1</FunctionID>
                 <CC TRANSACTION mode="demo">
                     <TransactionID>9457892347623478/TransactionID>
                     <PROCESSING STATUS>
                         <GuWID>C242720181323966504827</GuWID>
                         <StatusType>INFO</StatusType>
                         <FunctionResult>NOK</FunctionResult>
                         <ERROR>
                             <Type>REJECTED</Type>
                             <Number>05</Number>
                             <Message>Authorization Declined.
                             <Advice>It is not possible to book the given amount
     from the
                             credit account, e. g. limit is exceeded.</Advice>
                         </ERROR>
                         <TimeStamp>2001-01-31 20:39:24</TimeStamp>
```

## 7.6 Preauthorization Supplement Example

Please refer to <u>Preauthorization Supplement</u> for a functional description and to <u>Standard</u> Request Message and Standard Response Message for field definitions.

### 7.6.1 Preauthorization Supplement Request

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance">
<W REQUEST>
<W JOB>
       <JobID>job 1</JobID>
       <BusinessCaseSignature>0123456789ABCDEF
       <FNC CC PREAUTHORIZATION SUPPLEMENT>
           <FunctionID>supplement 1</FunctionID>
           <CC TRANSACTION mode="demo">
               <TransactionID>9457892347623478</TransactionID>
               <GuWID>C242720181323966504820</GuWID>
               <Amount minorunits="2">500</Amount>
               <CONTACT DATA>
                   <IPAddress>192.168.1.1</IPAddress>
               </CONTACT DATA>
           </CC TRANSACTION>
       </fnc_cc_preauthorization_supplement>
</W JOB>
</W REQUEST>
</WIRECARD BXML>
```

#### 7.6.2 Preauthorization Supplement Successful Response

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance">
<W RESPONSE>
<W JOB>
        <JobID>job 1</JobID>
        <FNC CC PREAUTHORIZATION_SUPPLEMENT>
            <FunctionID>function 1</FunctionID>
            <CC TRANSACTION mode="demo">
                <TransactionID>9457892347623478/TransactionID>
                <PROCESSING_STATUS>
                    <GuWID>C242720181323966504820</GuWID>
                    <AuthorizationCode>153620</AuthorizationCode>
                    <FunctionResult>ACK</FunctionResult>
                    <TimeStamp>2001-01-31 20:39:24</TimeStamp>
                </PROCESSING STATUS>
            </CC TRANSACTION>
        </fnc_cc_preauthorization_supplement>
</W JOB>
</W RESPONSE>
```

</WIRECARD BXML>

### 7.6.3 Preauthorization Supplement Error Response

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance">
<W RESPONSE>
<W JOB>
       <JobID>job 1</JobID>
       <FNC CC PREAUTHORIZATION SUPPLEMENT>
            <FunctionID>function 1</FunctionID>
            <CC TRANSACTION mode="demo">
                <TransactionID>9457892347623478/TransactionID>
                <PROCESSING STATUS>
                   <GuWID>C242720181323966504827</GuWID>
                   <AuthorizationCode>799961</AuthorizationCode>
                   <StatusType>INFO</StatusType>
                   <FunctionResult>NOK</FunctionResult>
                   <ERROR>
                   <Type>REJECTED</Type>
                   <Number>05</Number>
                   <Message>Authorization Declined.
                   <Advice>It is not possible supplement the original
                   authorization, e. g. limit is exceeded.</Advice>
                   </ERROR>
                    <TimeStamp>2001-01-31 20:39:24</TimeStamp>
                </PROCESSING STATUS>
            </CC TRANSACTION>
       </fnc_cc_preauthorization_supplement>
</W JOB>
</W RESPONSE>
</WIRECARD BXML>
```

## 7.7 Notification Example

Please refer to <u>Notification</u> for a functional description and to <u>Standard Request Message</u> and <u>Standard Response Message</u> for field definitions.

#### 7.7.1 Notification Request Message

```
</CC TRANSACTION>
             </FNC CC NOTIFICATION>
     </W_JOB>
     </W REQUEST>
     </WIRECARD BXML>
7.7.2 Notification Successful Response
     <?xml version="1.0" encoding="UTF-8"?>
     <WIRECARD BXML>
     <W RESPONSE>
     <W JOB>
             <JobID>job 1</JobID>
             <FNC CC NOTIFICATION>
                 <FunctionID>function 1</FunctionID>
                 <CC TRANSACTION mode="demo">
                     <TransactionID>9457892347623478</TransactionID>
                     <PROCESSING STATUS>
                         <GuWID>C242720181323966504820</GuWID>
                         <AuthorizationCode>153620</AuthorizationCode>
                         <FunctionResult>PENDING</FunctionResult>
                         <TimeStamp>2001-01-31 20:39:24</TimeStamp>
                     </PROCESSING STATUS>
                 </CC TRANSACTION>
             </FNC_CC_NOTIFICATION>
     </W JOB>
     </W RESPONSE>
     </WIRECARD BXML>
7.7.3 Notification Error Response
     <?xml version="1.0" encoding="UTF-8"?>
     <WIRECARD BXML>
     <W RESPONSE>
     <W JOB>
             <JobID>job 1</JobID>
             <FNC CC NOTIFICATION>
                 <FunctionID>function 1</FunctionID>
                 <CC TRANSACTION mode="demo">
                     <TransactionID>9457892347623478</TransactionID>
                     <PROCESSING STATUS>
                         <GuWID>C242720181323966504827</GuWID>
                         <AuthorizationCode>799961</AuthorizationCode>
                         <StatusType>INFO</StatusType>
                         <FunctionResult>NOK</FunctionResult>
                         <ERROR>
                             <Type>REJECTED</Type>
                             <Number>21</Number>
                             <Message>No action taken.
                         <TimeStamp>2001-01-31 20:39:24</TimeStamp>
                     </PROCESSING STATUS>
                 </CC TRANSACTION>
             </FNC CC NOTIFICATION>
     </W JOB>
     </W RESPONSE>
```

</WIRECARD BXML>

### 7.8 Reversal Example

Please refer to <u>Reversal</u> for a functional description and to <u>Standard Request Message</u> and <u>Standard Response Message</u> for field definitions.

## 7.8.1 Reversal Request Message

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W REQUEST>
<W JOB>
        <JobID>job 1</JobID>
        <BusinessCaseSignature>0123456789ABCDEF/BusinessCaseSignature>
        <FNC CC REVERSAL>
            <FunctionID>reversal 1</FunctionID>
            <CC TRANSACTION mode="demo">
                <TransactionID>9457892347623478/TransactionID>
                <GuWID>C242720181323966504820</GuWID>
            </CC TRANSACTION>
        </FNC CC REVERSAL>
</W_JOB>
</W REQUEST>
</WIRECARD BXML>
```

### 7.8.2 Reversal Successful Response

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W RESPONSE>
<W JOB>
       <JobID>job 1</JobID>
       <FNC CC REVERSAL>
           <FunctionID>function 1</FunctionID>
           <CC TRANSACTION mode="demo">
               <TransactionID>9457892347623478/TransactionID>
               <PROCESSING STATUS>
                   <GuWID>C242720181323966504820</GuWID>
                   <FunctionResult>ACK</FunctionResult>
                   <TimeStamp>2001-01-31 20:39:24</TimeStamp>
               </CC TRANSACTION>
       </FNC CC REVERSAL>
</W JOB>
</W RESPONSE>
</WIRECARD_BXML>
```

### 7.8.3 Reversal Error Response

```
<TransactionID>9457892347623478/TransactionID>
                <PROCESSING STATUS>
                   <GuWID>C242720181323966504827</GuWID>
                   <StatusType>INFO</StatusType>
                   <FunctionResult>NOK</functionResult>
                   <ERROR>
                       <Type>REJECTED</Type>
                       <Number>21</Number>
                       <Message>No action taken.
                   </ERROR>
                   <TimeStamp>2001-01-31 20:39:24</TimeStamp>
                </PROCESSING STATUS>
           </CC TRANSACTION>
       </FNC CC REVERSAL>
</W JOB>
</W RESPONSE>
</WIRECARD BXML>
```

## 7.9 Bookback Example

Please refer to <u>Bookback</u> for a functional description and to <u>Standard Request Message</u> and <u>Standard Response Message</u> for field definitions.

### 7.9.1 Bookback Request Message

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W_REQUEST>
<W JOB>
        <JobID>job 1</JobID>
        <BusinessCaseSignature>0123456789ABCDEF/BusinessCaseSignature>
        <FNC CC BOOKBACK>
            <FunctionID>reversal 1</FunctionID>
            <CC TRANSACTION mode="demo">
                <TransactionID>9457892347623478</TransactionID>
                <GuWID>C242720181323966504820</GuWID>
                <Amount minorunits="2">500</Amount>
                <Usage>Refund of orderNo-FT345S71</Usage>
            </CC TRANSACTION>
        </FNC CC BOOKBACK>
</W JOB>
</W REQUEST>
</WIRECARD BXML>
```

#### 7.9.2 Bookback Successful Response

```
<PROCESSING STATUS>
                         <GuWID>C242720181323966504820</GuWID>
                         <FunctionResult>PENDING</FunctionResult>
                         <TimeStamp>2001-01-31 20:39:24</TimeStamp>
                     </PROCESSING STATUS>
                 </CC TRANSACTION>
             </FNC CC BOOKBACK>
     </W JOB>
     </W RESPONSE>
     </WIRECARD BXML>
7.9.3 Bookback Error Response
     <?xml version="1.0" encoding="UTF-8"?>
     <WIRECARD BXML>
     <W RESPONSE>
     <W JOB>
             <JobID>job 1</JobID>
             <FNC CC BOOKBACK>
                 <FunctionID>function 1</FunctionID>
                 <CC TRANSACTION mode="demo">
                     <TransactionID>9457892347623478</TransactionID>
                     <PROCESSING STATUS>
                         <GuWID>C242720181323966504827</GuWID>
                         <StatusType>INFO</StatusType>
                         <FunctionResult>NOK</FunctionResult>
                         <ERROR>
                             <Type>DATA_ERROR</Type>
                             <Number>20071</Number>
                             <Message>Expiration date invalid.
                             <Advice>Expiration date must not be exceeded.</Advice>
                         <TimeStamp>2001-01-31 20:39:24</TimeStamp>
                     </CC TRANSACTION>
             </FNC CC BOOKBACK>
     </W JOB>
     </W RESPONSE>
     </WIRECARD BXML>
```

## 7.10 Refund Example

Please refer to <u>Refund</u> for a functional description and to <u>Standard Request Message</u> and <u>Standard Response Message</u> for field definitions.

#### 7.10.1 Single / Initial Refund Request

```
<TransactionID>9457892347623478/TransactionID>
                <Amount minorunits="2">1200</Amount>
                <Currency>EUR</Currency>
                <CountryCode>DE</CountryCode>
                <Usage>Refund of orderNo-FT345S71</Usage>
                <RECURRING TRANSACTION>
                    <Type>Initial</Type>
                </RECURRING TRANSACTION>
                <CREDIT CARD DATA>
                    <CreditCardNumber>4200000000000000/CreditCardNumber>
                    <ExpirationYear>2009</ExpirationYear>
                    <ExpirationMonth>01</ExpirationMonth>
                    <CardHolderName>John Doe</CardHolderName>
                </CREDIT CARD DATA>
            </CC TRANSACTION>
       </FNC CC REFUND>
</W JOB>
</W REQUEST>
</WIRECARD BXML>
   Repeated Refund Request
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W REQUEST>
<W JOB>
       <JobID>job 1</JobID>
       <BusinessCaseSignature>0123456789ABCDEF/BusinessCaseSignature>
       <FNC CC REFUND>
            <FunctionID>refund 1</FunctionID>
            <CC TRANSACTION mode="demo">
                <TransactionID>9457892347623478</TransactionID>
                <GuWID>C328668112556109425394</GuWID>
                <RECURRING TRANSACTION>
                   <Type>Repeated</Type>
                </RECURRING TRANSACTION>
            </CC TRANSACTION>
       </FNC_CC_REFUND>
</W JOB>
</W REQUEST>
</WIRECARD BXML>
   Refund Successful Response Message
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W RESPONSE>
<W JOB>
       <JobID>job 1</JobID>
       <FNC CC REFUND>
           <FunctionID>function 1</FunctionID>
            <CC_TRANSACTION mode="demo">
                <TransactionID>9457892347623478/TransactionID>
                <PROCESSING STATUS>
                    <GuWID>C242720181323966504820</GuWID>
                    <FunctionResult>PENDING</FunctionResult>
```

```
<TimeStamp>2001-01-31 20:39:24</TimeStamp>
               </PROCESSING STATUS>
           </CC TRANSACTION>
       </FNC CC REFUND>
</W JOB>
</W RESPONSE>
</WIRECARD BXML>
   Refund Error Response Message
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W RESPONSE>
<W JOB>
       <JobID>job 1</JobID>
       <FNC CC REFUND>
           <FunctionID>function 1</FunctionID>
           <CC TRANSACTION mode="demo">
               <TransactionID>9457892347623478
               <PROCESSING STATUS>
                   <GuWID>C242720181323966504827</GuWID>
                   <StatusType>INFO</StatusType>
                   <FunctionResult>NOK</FunctionResult>
                   <ERROR>
                       <Type>REJECTED</Type>
                       <Number>14</Number>
                       <Message>Invalid card.
                   </ERROR>
                   <TimeStamp>2001-01-31 20:39:24</TimeStamp>
               </PROCESSING STATUS>
           </CC TRANSACTION>
       </FNC CC REFUND>
</W JOB>
</W RESPONSE>
</WIRECARD BXML>
```

## 7.11 Original Credit Example

Please refer to <u>Original Credits</u> for a functional description and to <u>Standard Request Message</u> and <u>Standard Response Message</u> for field definitions.

### 7.11.1 OCT Request - Referenced

The prime element of this request type is a unique identifier called GuWID which ties this credit request to a previous card transaction.

```
<CountryCode>DE</CountryCode>
            </CC TRANSACTION>
        </FNC_CC OCT>
</W JOB>
</W REQUEST>
</WIRECARD BXML>
   OCT Response - Referenced
<WIRECARD BXML>
<W RESPONSE>
<W JOB>
<JobID>ACCEPTANCE_TEST</JobID>
        <FNC CC OCT>
            <FunctionID>XCOM-e-commerce/FunctionID>
            <CC TRANSACTION>
                <TransactionID>6.2.2.3.85.R</TransactionID>
                <PROCESSING STATUS>
                    <GuWID>C897759122458567984915</GuWID>
                    <AuthorizationCode>639782</AuthorizationCode>
                    <StatusType>INFO</StatusType>
                    <FunctionResult>PENDING</functionResult>
                    <TimeStamp>2008-10-21 12:41:19</TimeStamp>
                </PROCESSING STATUS>
            </CC TRANSACTION>
        </FNC CC OCT>
</W JOB>
</W RESPONSE>
</WIRECARD BXML>
```

<Amount>1000</Amount>
<Currency>EUR</Currency>

#### 7.11.3 OCT Request - Non-Referenced

A non-referenced request message contains no GuWID but instead the number of a card to which the amount is to be remitted.

```
<?xml version="1.0" encoding="UTF-8" ?>
<WIRECARD BXML>
<W REQUEST>
<W JOB>
       <JobID>ACCEPTANCE TEST
       <BusinessCaseSignature>793</BusinessCaseSignature>
       <FNC CC OCT>
           <FunctionID>XCOM-e-commerce</FunctionID>
           <CC TRANSACTION>
               <TransactionID>6.2.2.3.85.R</TransactionID>
               <Amount>1000</Amount>
               <Currency>EUR</Currency>
               <CountryCode>DE</CountryCode>
               <CREDIT CARD DATA>
                   <CreditCardNumber>412641000000002
                   <ExpirationYear>2019</ExpirationYear>
                   <ExpirationMonth>02</ExpirationMonth>
                   <CardHolderName>VISA-I</CardHolderName>
               </CREDIT CARD DATA>
           </CC TRANSACTION>
```

### 7.11.4 OCT Response - Non-Referenced

The response message to a non-referenced request is identical to that of a referenced request.

```
<WIRECARD BXML>
<W RESPONSE>
<W JOB>
<JobID>ACCEPTANCE TEST</JobID>
       <FNC_CC_OCT>
           <FunctionID>XCOM-e-commerce</FunctionID>
           <CC TRANSACTION>
               <TransactionID>6.2.2.3.85.R</TransactionID>
               <PROCESSING STATUS>
                   <GuWID>C8977591224585679843245</GuWID>
                   <AuthorizationCode>639782</AuthorizationCode>
                   <StatusType>INFO</StatusType>
                   <FunctionResult>PENDING</functionResult>
                   <TimeStamp>2008-10-21 12:41:19</TimeStamp>
               </CC TRANSACTION>
       </FNC CC OCT>
</W JOB>
</W RESPONSE>
</WIRECARD BXML>
```

## 7.12 Query Example

Please refer to <u>Query</u> for a functional description and to <u>Standard Request Message</u> and <u>Standard Response Message</u> for field definitions.

### 7.12.1 Query Request - based on GuWID

### 7.12.2 Query Request (detailed) - based on GuWID

```
<GuWID>C242720181323966504820</GuWID>
           </CC TRANSACTION>
       </FNC_CC_QUERY>
</W JOB>
</W REQUEST>
</WIRECARD BXML>
   Query Request - based on ReferenceTransactionID (near past)
<WIRECARD BXML>
<W REQUEST>
<W JOB>
       <BusinessCaseSignature>0123456789ABCDEF/BusinessCaseSignature>
       <FNC CC QUERY>
           <CC TRANSACTION>
               <ReferenceTransactionID>WTQ-6354552</ReferenceTransactionID>
           </CC TRANSACTION>
       </FNC CC QUERY>
</W JOB>
</W REQUEST>
</WIRECARD BXML>
   Query Request - based on ReferenceTransactionID (history search)
<WIRECARD BXML>
<W REQUEST>
<W JOB>
       <BusinessCaseSignature>0123456789ABCDEF/BusinessCaseSignature>
       <FNC CC QUERY>
           <CC TRANSACTION>
               <ReferenceTransactionID>WTQ-6354552</ReferenceTransactionID>
               <StartTime>2007-08-07 17:30:00
               <EndTime>2007-08-07 17:30:00</EndTime>
           </CC TRANSACTION>
       </FNC_CC_QUERY>
</W JOB>
</W REQUEST>
</WIRECARD BXML>
   Query Response - based on GuWID
<WIRECARD BXML>
<W_REQUEST>
   <W JOB>
       <JobID>ACCEPTANCE-TEST
       <FNC CC QUERY>
       <FunctionID>ATOS-B AND S/FunctionID>
       <CC TRANSACTION>
           <TransactionID>31</TransactionID>
           <PROCESSING STATUS>
               <GuWID>C885511118700326859262</GuWID>
               <Info>THIS IS A TEST</Info>
               <StatusType>INFO</StatusType>
               <FunctionResult>PENDING</functionResult>
               <TimeStamp>2007-08-13 13:07:48</TimeStamp>
           </CC TRANSACTION>
```

```
</FNC CC QUERY>
   </W JOB>
</W RESPONSE>
</WIRECARD BXML>
   Query Response (detailed) - based on GuWID
<WIRECARD BXML>
<W RESPONSE>
   <W_JOB>
       <JobID>ACCEPTANCE-TEST
       <FNC CC QUERY type="detail">
       <FunctionID>ATOS-B AND S</FunctionID>
       <CC TRANSACTION>
           <TransactionID>1</TransactionID>
           <PaymentGroupID>C885511118700326859262</PaymentGroupID>
           <TransactionType>CaptureAuthorization</TransactionType>
           <TransactionType>1</TransactionType>
           <Amount>2005</Amount>
           <Currency>EUR</Currency>
           <CountryCode>DE</CountryCode>
           <Usage>DE1823737</Usage>
           <CREDIT CARD DATA>
               <CreditCardNumber>5413****0422</CreditCardNumber>
               <ExpirationYear>2007</ExpirationYear>
               <ExpirationMonth>12</ExpirationMonth>
               <CardHolderName>MCC 42</CardHolderName>
           </CREDIT CARD DATA>
           <PROCESSING STATUS>
               <GuWID>C885511118700326859262</GuWID>
               <StatusType>INFO</StatusType>
               <FunctionResult>NOK</FunctionResult>
               <ERROR>
               <Type>REJECTED</Type>
               <Number>12</Number>
               <Message>Invalid transaction.
               </ERROR>
               <TimeStamp>2007-08-13 13:07:48</TimeStamp>
           </CC TRANSACTION>
       </FNC CC QUERY>
   </W JOB>
</W RESPONSE>
</WIRECARD BXML>
    Query Response - based on ReferenceTransactionID (near past)
<WIRECARD BXML>
<W REQUEST>
   <W JOB>
       <JobID>ACCEPTANCE-TEST</JobID>
       <FNC CC QUERY>
       <FunctionID>ATOS-B AND S</FunctionID>
       <CC TRANSACTION>
           <TransactionID>31</TransactionID>
           <PROCESSING STATUS>
```

### 7.12.8 Query Response - based on ReferenceTransactionID (history search)

```
<WIRECARD BXML>
   <W REQUEST>
       <W JOB>
           <JobID>ACCEPTANCE-TEST</JobID>
           <FNC CC QUERY>
           <FunctionID>ATOS-B AND S</FunctionID>
           <CC TRANSACTION>
               <TransactionID>31</TransactionID>
               <PROCESSING STATUS>
                   <GuWID>C885511118700326859262</GuWID>
                   <Info>THIS IS A TEST</Info>
                   <StatusType>INFO</StatusType>
                   <FunctionResult>PENDING</FunctionResult>
                   <TimeStamp>2007-08-13 13:07:48</TimeStamp>
               </CC_TRANSACTION>
           </FNC CC QUERY>
       </W JOB>
   </W RESPONSE>
</WIRECARD BXML>
```

### 7.12.9 Query Error Response

This guery response is returned, if the original transaction was declined.

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W RESPONSE>
<W JOB>
       <JobID>job 1</JobID>
       <FNC_CC_QUERY>
           <FunctionID>Query 5</FunctionID>
           <CC TRANSACTION >
               <TransactionID>9457892347623478/TransactionID>
               <PROCESSING STATUS>
                   <GuWID>C242720181323966504827</GuWID>
                   <StatusType>INFO</StatusType>
                   <FunctionResult>NOK</FunctionResult>
                   <ERROR>
                       <Type>REJECTED</Type>
                       <Number>05</Number>
                       <Message>Authorization Declined.
```

### 7.13 AVS Example

### 7.13.1 AVS Response Message

AVS check data can be sent with any single or initial Preauthorization or Purchase transaction request. It is posted with the <a href="CORPTRUSTCENTER">CORPTRUSTCENTER DATA</a> element to the Wirecard core system. The following is an example of an AVS response message:

```
<?xml version="1.0" encoding="UTF-8"?>
<WIRECARD BXML>
<W RESPONSE>
<W JOB>
   <JobID>ACCEPTANCE TEST
   <FNC_CC_PURCHASE>
       <FunctionID>AVS XCOM-e-commerce</FunctionID>
       <CC TRANSACTION>
            <TransactionID>1</TransactionID>
            <PROCESSING STATUS>
                <GuWID>C806922119825918638975</GuWID>
                <AuthorizationCode>555135</AuthorizationCode>
                <StatusType>INFO</StatusType>
                <FunctionResult>PENDING</FunctionResult>
                    <AVS>
                        <ResultCode>F</ResultCode>
                        <Message>Exact Match</Message>
                        <AuthorizationEntity>5</AuthorizationEntity>
                        <AuthorizationEntityMessage>Response provided by issuer
                        processor.</AuthorizationEntityMessage>
                        <ProviderResultCode>x</providerResultCode>
                        <ProviderResultMessage>For U.S. addresses, nine-digit
                        postal code and address match. For addresses outside
U.S.,
                        postal code and address match.</ProviderResultMessage>
                    </AVS>
                    <TimeStamp>2007-12-21 18:46:26</TimeStamp>
                </PROCESSING STATUS>
            </CC TRANSACTION>
       </FNC CC PURCHASE>
    </W JOB>
    </W RESPONSE>
</WIRECARD BXML>
```

## 8 Errorcodes

### 8.1 Error Codes

The error code is returned by the core system and uses a number element of the response XML message. The are three different error types:

	Data error
	System error
П	Rejected

While the data and system errors are generated by the payment gateway (Wirecard backend), 'rejected' error messages are returned by an acquirer and signal a malfunctioning that originates in the Wirecard platform.

The following table contains all the Wirecard error codes and descriptions that might be returned while sending transaction requests.

Error Code	Description	Meaning
0	Successful system entry.	Transaction OK.
2	Call Voice Authorization Number.	Voice authorization is not possible in case of Internet payment.
3	Invalid Merchant Number.	Invalid Merchant Number.
4	Retain Card.	Retain Card.
5	Authorization Declined.	It is not possible to book the given amount from the Credit account, e.g. limit is exceeded.
6	Error in Sequence Number.	Error in sequence number while communicating with the CC company.
8	Honnor with ID	The transaction was approved by additional ID processing
9	Wait Command.	Wait Command.
10	Partial Approval	The transaction was partially approved. Please contact the acquiring processor for further information.
12	Invalid transaction.	Invalid transaction.
13	Invalid amount.	Invalid amount.
14	Invalid card.	Invalid card.
15	Unknown card issuer	The card issuer ID provided is unknown in the payment industry.
17	Customer cancellation	The cardholder cancelled the transaction.
19	Try transaction again later.	The issuing system is currently unavailable. Please try again later.
20	Incorrect response (error in the issuer area)	The issuing system responsed incorrectly.
21	No action taken.	No action taken.
22	Stop Payment Purchase Order	The subscription was stopped by the cardholder.
23	Revocation of the authorized order	The cardholder rejected that authorized purchase.
24	Revocation of all authorized	The cardholder rejected all authorized

	orders	purchases referencing to that payment.
25	Unable to locate record in file	The issuing system could not reference the
	Duplicate record, previous recor	transaction transferred.  The validation function showed duplicat
26	replaced.	processing and rejected.
27	Edit error in file update field	The issuing system could not update an
28	Access to file unauthorized	rejected the processing.  An unauthorized processing occurred.
29	Unable to update file	The issuing system could not update an
	· ·	rejected the processing.
30	Format Error.	Format Error.
31	Acquirirng Institution Identifie unknown	The issuing institute rejected th transaction because of incorrect values.
32	Partial Reversal	The transaction was partially reversed.
33	Card expired.	Card expired.
34	Suspicion of Manipulation.	Suspicion of Manipulation. Maybe th CVD code is wrong.
35	Cash service not available.	The cash service is not enabled.
36	Cash request exeeds issuer limit.	The amount exceeds the limit given.
37	Decline for CVV2 failure	The CVV2 value in the transaction I invalid.
38	Number of PIN entry attempt exceeded.	The PIN was entered too many times.
40	Requested function not supported.	Requested function not supported
41	Lost card.	The card number used is indicated as lost.
43	Stolen Card - pick up.	Stolen Card, pick up.
49	Transaction not permitted t cardholder.	The cardholder is not allowed to mak requested transaction.
51	Issued funds or credit limit exceeded.	The transaction ammout exceeds th available fund or the card's credit limit.
52	No checking account.	The account used is not defined fo checking account.
53	No savings account	The account used is not defined a savings account
54	Expired card.	The card has expired.
55	Incorrect PIN.	Incorrect PIN
56	Card not in authorizer's database.	Card not in authorizer's database
57	No Referencing Transaction.	Referencing transaction was not carried out with the card which was used for the original transaction (e.g. reversal, booking pre-authorization,).
58	Terminal ID Unknown.	Given Terminal has no valid entry at the Credit Card Institute.
59	Suspected fraud.	The issuer rejected the transaction for suspected fraud.
60	Card acceptor must contact acquirer	Response reason not specified. Please contact your acquirer.
61	Card acceptor must contact acquirer	The given floor limit is exceeded. Please execute an online transaction to prove the card's balance.
62	Restricted Card.	Restricted Card.
	•	

0.0	No compliance with security	The card /use of card does not comply with
63	regulations.	security regulations.
64	Referencing amount too high.	Transaction amount of the referencing transaction is higher than the transaction amount of the original transaction.
65	Exceeds witrhdrawal count limit.	The withdrawal limited has been execeeded.
68	Response did not reach destination or received too late.	The response message to the initial transaction request was not received by the processing system on time.
69	Blocked, first used. The transaction is from a new cardholder and the card has not been properly unblocked	Error occurred in the card setup processing.
71	PIN not changed	The online PIN change was not successful.
72	Invalid/nonexistent "To Account" specified.	Error in the card processing.
73	Invalid/nonexistent "From Account" specified.	Error in the card processing.
74	Invalid/nonexistent account specified (general).	Error in the card processing.
75	PIN entered incorrectly too often.	PIN entered incorrectly too often.
77	PIN entry necessary.	PIN entry necessary.
78	Stop Payment Order	This error code pertains to recurring or installment payments. The transaction was declined or returned because the cardholder requested the issuer to stop a specific recurring or installment payment transaction.
79	Revocation of Authorization Order	This error code pertains to recurring or installment payments. The transaction was declined or returned because the cardholder requested the issuer to stop a specific recurring or installment payment transaction for a specific merchant account.
80	Amount no longer available.	Amount no longer available.
81	Message-flow error.	Message-flow error.
82	Authorization center not available for 60 seconds.	The transaction could not be authorized over a period of 60 seconds due to lack of connection to authorization centre.
83	Authorization center not available for 300 seconds.	The transaction could not be authorized over a period of 300 seconds due to lack of connection to authorization centre.
84	Negative CAM, dCVV, iCVV, or CVV results.	The card identifying values do not match.
85	No reason to decline a request for account number verification, address verification, CVV2 verification, or a credit voucher or merchandise return.	The issuing system did not specify the reason for rejecting but could exclude some.
86	PIN Validation not possible.	The PIN validation could not be accomplished.
87	Purchase Amount Only, No Cash Back Allowed.	The cash back processing is not allowed.
88	Automatic re-initialization is required (terminal).	Automatic re-initialization is required (terminal).

89	Automatic re-initialization is required (user).	Automatic re-initialization is required (user).
90	Cryptographic failure	The issuing system lead to an encryption failure.
91	Card issuer temporarily not reachable.	Card issuer temporarily not reachable.
92	Card Type not Processed by Authorization Centre.	The card type is not processed by the authorization centre.
94	Transaction cannot be completed due to legal violation.	The transaction request conflicts with applied law.
96	Processing Temporarily not possible.	Processing temporarily not possible
97	Security Breach.	Security breach
98	Date and Time Not Plausible.	Date and time not plausible
99	Error in PAC Encryption Detected.	Error in PAC encryption detected
200	Mandatory elements are missing.	Missing elements in XML-Request.
201	Terminal acquisition failure	An unlocked terminal was not found within the time allotted for locking a terminal.
202	Transaction processing refused.	An unlocked brick was not found within the time allotted for locking a brick.
203	Time-out while Contacting Credit Card Processor	Time-out while contacting CC processor.
204	Time-out while Making Transaction Reversal	Time-out while making transaction reversal.
205	Invalid Config Number	Content of ConfigNumber must be hexadecimal with a size of 0 to 16
		characters.
206	Invalid Business Case Signature	Content of ConfigNumber must be hexadecimal with a size of 0 to 16 characters.
207	Invalid FunctionID	Content of FunctionID must be alphanumerical with a size of 0 to 3 characters.
208	Invalid JobID	Content of JobID must be alphanumerical with a size of 0 to 32 characters.
209	Invalid	Content of TransactionID must be alphanumerical with a size of 0 to 32 characters.
210	Invalid CountryCode	Content of CountryCode must be capital with a size of 2 characters.
211	Invalid Amount	Content of Amount must be numerical with a size of 1 to 9 digits.
212	Invalid Currency	Content of Currency must be capital with a size of 3 characters.
213	Invalid Credit Card Number	Content of CreditCardNumber must be numerical with a size of 13 to 16 digits.
214	Invalid ExpirationYear	Content of ExpirationYear must be numerical with a size of 4 digits.
215	Invalid Expiration Month	Content of ExpirationMonth must b numerical with a size of 2 digits.
216	Invalid Card Holder Name	Content of CardHolderName must be ASCII with a size of 1 to 80 characters.
217	Invalid IP Address	Content of IPAddress must be numerical with dots with a size of 0 to 15 characters.
218	Invalid GuWID	Content of GuWID must be alphanumerical with a size of 21 to 24 characters.
219	Invalid Authorization Code	Authorization Code is usually numerical

		with 6 digits.
220	Invalid CVC number	Content of CVC must be numerical with a
220	invalid 6 v 6 humber	size of 3 to 4 characters.
221	Invalid Luhn checksum	Invalid Luhn checksum
222	Expired card	Expiration date invalid.
223	Unknown Currency	The requested currency is not listed in data base.
224	No referenced transaction	Could not find referenced transaction for GuWID.
225	Invalid elements	Invalid XML tag elements.
226	Invalid transaction flow	Referenced transaction is of wrong type
227	Invalid transaction type	This transaction type is not allowed for this specific Business Case
228	Wrong Recurring Transaction- Type	Error in XML data stream (in the recurring part)
229	Invalid commerce type	Content of 'CommerceType' must be one of 'eCommerce', 'MOTO' or 'CustomerPresent'.
230	Referenced transaction failed	Referenced transaction type failed
234	Invalid content	Content of 'Usage' must be alphanumerical with a size of 0 to 256 characters.
235	Unequal Amount	TRANS_AMOUNT must be equal to amount of referenced transaction in case of REVERSAL or CAPTURE.
236	Unequal Currency	CUR_CODE must be equal to referenced transaction in case of BOOKBACK, BOOKPREAUTH, CAPTURE or REVERSAL
237	Unequal Authorization Code	ACQ_AUTHORIZATION must be equal to authorization code of referenced transaction.
238	Unequal Country Code	TRANS_COUNTRY_CODE must be equal to country code of referenced transaction.
239	Referenced amount unequal	Referenced amount must be equal or less to amount of referenced Transaction in case of AMEX Capture
240	Unknown credit card type	Credit card ype for card no. unknown / rejected.
241	Terminal not available	Terminal for the credit-card type + the currency is not available.
242	Terminal not ready	Terminal for the credit card type + the currency is not ready.
243	Amount larger	The sum of all bookbacks must be equal or less to amount of referenced transaction in case of
244	Amount smaller	The requested amount is smaller than the minimum amount.
245	Transaction processing not possible	Processing functions BOOKBACK, REFUND and REVERSAL not allowed for terminal (credit card)
246	Black listed Credit Card number.	Credit Card was rejected because of suspicious pattern.
247	WD blacklist check failure.	Wirecard blacklist check - failure 1.
248	WD blacklist check failure.	Wirecard blacklist check - failure 2.
1	Credit restriction violation	Credit restriction violation

250	System error.	System error.		
251	No permission	to use the requested service		
	· ·	Declined by Wirecard risk management -		
252	Merchant Blacklist - Reason 502	based on merchant's blacklist (no		
		information for cardholder!)		
253	WD Blacklist Error	Declined by Wirecard risk management		
		(no information for cardholder!)		
254	WD Blacklist Error 2	Declined by Wirecard risk management		
055	Manakant Blacklist - Bassan 504	(no information for cardholder!)  Declined by Wirecard risk management -		
255	Merchant Blacklist - Reason 501	based on merchant's blacklist (no		
		information for cardholder!)		
256	Entry found in OFAC Specially	Declined by Wirecard risk management		
	Designated Nationals list (SDN).	(no information for cardholder!)  Declined by Wirecard risk management		
257	Reserved for Risk Management	(no information for cardholder!)		
258	Reserved for Risk Management	Declined by Wirecard risk management		
200	reserved for relativisting ement	(no information for cardholder!)		
259	Reserved for Risk Management	Declined by Wirecard risk management		
	Credit card number not allowed in	(no information for cardholder!)  Only demo card number is allowed for this		
260	demo mode	currency in demo mode.		
261	Credit card number not allowed	Use of demo card number is only allowed		
201	outside demo mode	in demo mode.		
262	Unsuccessful demo run	Operation failed due to use of demo card		
		number '420000000000'.  Credit card number did not pass		
270	Invalid credit card.	Cybersource basic checks.		
271	Invalid data.	Data provided to Cybersource is not		
	mvana aata.	consistent with the request.		
272	Missing field.	Request provided to Cybersource is		
272	Missing required field(s)	missing a field.  Request is missing a required field(s)		
273	Missing required field(s).	Request is missing a required field(s).		
275	Score result exceeds	Cybersource Score result exceeds the score threshold.		
280	SC1-AVS has a negative result	SC1 risk management declines		
	SC1-DELPHI/Score1 and AVS	SC1 risk management declines		
281	have negative results	SCT fisk management decimes		
282	SC1-DELPHI/Score1 has a	SC1 risk management declines		
202	negative result	<u> </u>		
283	SC1-System Error	SC1 risk management declines		
284	SC1-Data Error	SC1 risk management declines		
285	SC1-Missing required parameter	SC1 risk management declines		
286	SC1-No Delphi/Score1 (0)	SC1 risk management declines		
287	reserved for SC1	SC1 risk management declines		
288	SC1 - reserved GICC	SC1 risk management declines		
289	SC1 - reserved for future use	SC1 risk management declines		
290		The Business Case Signature has to be		
290	Unequal BC Signature	equal to the referencing transaction.		
301	EBS blacklist check failure.	EBS blacklist check failure		
302	EBS scoring analysis failure.	EBS scoring analysis failure		
303	US AVS check failed - no match in	US AVS check failure		
	address or zip code	SS 7.VS SHOOK Idilate		

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304	US CVV2 check failure.	US CVV2 check failure	
305	US blacklist check failure.	US blacklist check failure	
306	eFalcon scoring analysis failure.	eFalcon scoring analysis failure	
307	US Authorization Declined.	US Authorization Declined	
309	US AVS check error – Parameters missing or invalid	Parameters inside <address> are checked and not found or in a wrong format.</address>	
310	US AVS check failed – address matches	American AVS declines	
311	US AVS check failed - 9 digit zip code matches	American AVS declines	
312	US AVS check failed - 5 digit zip code matches	American AVS declines	
314	US AVS check – address information is unavailable	American AVS declines	
315	US AVS check failed – system unable to process	American AVS declines	
316	US AVS check failed – not supported	American AVS declines	
317	US AVS check failed – not supported for this industry	American AVS declines	
318	US AVS check failed – not performed	American AVS declines	
319	US AVS check failed – unknown response from issuer	American AVS declines	
320	US AVS check failed - system error	American AVS declines	
321	SC2 Location not found	SC2 risk management declines	
322	SC2 Only part of address matches	SC2 risk management declines	
323	SC2 Bad credit score	SC2 risk management declines	
324	SC2 System Error	SC2 risk management declines	
325	Blocked by Wirecard	Declined by Wirecard risk management (no information for cardholder!)	
340	Wirecard Negative List	Declined by Wirecard risk management (no information for cardholder!)	
351	Pick up card.	Pick up card	
352	Pick up card - special condition.	A special condition happened, pick up the card	
353	Card lost - pick up.	Card was lost by cardholder	
354	Stolen Card - pick up.	card holder declared card as stolen	
355	Do not honor card.	Do not honor card	
400	SFC system error	Technical error at the acquirer	
401	Transaction input error	This error code is not uses yet.	
402	Not authorized transaction	This error code is not uses yet.	
403	Authorization refused due to high risk	Declined by Wirecard risk management (no information for cardholder!)	
404	Authorization refused due to exceeding authorization	The authorization of this transaction has been exceeded	
405	Third party authorization failed		
406	Credit request rejected due to	Credit request rejected due to exceeding	

	exceeding the credit	the credit	
407	Canceled by Acquirer	Safecharge fraud-driven cancellation /	
407		bookbacks (status changed manually).	
450	XML Document Invalid	There is an error in the XML data stream	
451	BC signature not found	The wrong Business Case Signature was used	
452	Config Number not found for BC signature	The wrong Business Case Signature or the wrong config.ini was used	
453	Partially successful batch update	Partially successful batch update	
454	Batch not processed	Batch not processed	
455	OCT (formerly CFT) transaction is not supported	Issuer / Card Organization do not support the OCT/CFT transaction.	
456	Attribute 'type' of a function element does not conform to the specification.	Attribute 'type' must have the value 'cft' if provided.	
457	Card has not been processed yet.	Card must have been used previously by processor before OCT/CFT transaction can be made.	
458	Inconsistent referenced transaction information found.	Inconsistent referenced transaction information found.	
459	Function is not supported.	Function is not supported.	
500	Time-out while using the Wirecard applet.	Time-out while using the Wirecard applet.	
501	Client Communication Link Failure	A Problem occurred during the communication to the client	
502	Client Communication Link Failureprocessed	A Problem occurred during the communication to the client	
507	General Risk Management Rejection	General risk management rejection	
508	Missing input data for Risk Management	Missing input data for the Risk Management	
510	The country of the Issuer does not match with the country of the transaction.	The country of the Issuer does not match with the country of the transaction.	
511	Unknown error received from the acquirer	An unknown error is received from the acquirer.	
520	The card velocity check failed.	The sum of all submitted transactions exceeds the permissible limit.	
521	The card velocity check failed.	The sum of all authorized amounts exceeds the permissible limit.	
522	A system error prevented enrollment from completing.	This card is not eligible for 3-D Secure processing. Card should be accepted for payment. Merchant may not claim a liability shift on this transaction under any circumstances.	
523	Unable to verify enrollment.	This card is not eligible for 3-D Secure processing. Card should be accepted for payment. Merchant may not claim a liability shift on this transaction under any circumstances.	
524	Cardholder not participating.	This card is eligible but not enrolled in the 3-D Secure program. It does not require authentication. Merchant may claim liability shift with the ECI code if allowed by the Card Association.	
525	Verification failed.	Cardholder failed or cancelled 3-D Secure authentication.	

F26	Transaction processing refused	It is not possible to process the transaction	
526	Transaction processing refused.	using requested 'Recurring Type'.	
527	Attribute 'minorunits' of the 'Amount' element does not conform to the specification.	The attribute 'minorunits' must be one digit.	
528	Amount 'minorunits' refused.	The minor unit of currency 'XXX' is '?' according to ISO 4217:2001. Value '0' means that there is no minor unit for that currency, whereas values '1','2' and '3' signify a ratio of 10:1, 100:1 and 1 000:1 respectively.	
538	Sales Date out of interval	A capture had been attempted outside the valid sales date interval. The default interval for a capture is 35 days following the sales date. The sales date interval can be configured per business case. Please contact Wirecard customer services at <a href="mailto:support@wirecard.com">support@wirecard.com</a> if you wish to have a sales date time interval changed.	
539	Card brand is not participating.	The card is not eligible for 3-D Secure processing, yet it may be accepted for payment. With transactions made on this card, the merchant may, however, not claim a liability shift under any circumstances.	
700	Timeout, Diagnostic successful	A Timeout has happened, which went successfully through a timeout diagnostic	
701	Timeout, Diagnostic failed	A Timeout has happened, which failed to run through the timeout diagnostic	
711	Response contained wrong Credit Card number.	Response contained wrong card number	
712	Response contained wrong amount.	Response contained wrong amount	
713	Response contained wrong Currency Code.	Response contained wrong currency code	
714	Response contained wrong Trace Number.	Response contained wrong trace number	
715	Response contained wrong Terminal ID.	Response contained wrong terminal ID	
716	Response contained wrong Merchant Number.	Response contained wrong VU number.	
717	Response contained wrong Credit Card Institute Number.	Response contained wrong cctiid.	
850	Scoring OK	Scoring passed successfully.	
900	Batch transaction pending	Transaction is waiting to be sent to the acquirer.	
901	Batch transaction validated	Transaction is waiting to be sent to the acquirer for clearing.	
902	Demo batch transaction validated	Transaction is waiting to be sent to the acquirer for clearing (only for demo transactions).	
903	Batch transaction was cancelled	Transaction was canceled manually by Wirecard.	
999	Transaction is in process	Transaction is in process.	
9500	Demo Transaction OK	Demo transaction was successful.	
10000	Internal System error Internal System error.		
10001	Wrong config pair	Wrong config pair.	

10002	Eunation processing not possible	Function processing not possible		
10002	Function processing not possible			
10003	Job refused	Job refused.		
10004	Invalid Function	Invalid Function.		
10005	System error	System error.		
10006	Customer is deactivated at Server	Customer is deactivated at Server.		
10007	No parameters	No parameters.		
10008	Corrupted HTTP Stream	Corrupted HTTP Stream.		
10009	Wrong Parameters	Wrong Parameters.		
10010	XML document contains no Data	XML document contains no data.		
10011	Invalid transaction	Invalid transaction.		
10012	Encryption of XML document failed.	Please contact Wirecard customer services at support@wirecard.com for further information.		
10013	Could not resolve the entity mapping.	Please contact Wirecard customer services at support@wirecard.com for further information.		
10020	connection timeout	Connection timeout.		
20000	Missing elements in XML- Request.	Some elements required for successful processing of a request are missing in the XML document. Please refer to the documentation for debugging.		
20001	Error mapped to ACM code (GICC code) 204.	Data Error.		
20030	Content of ConfigNumber is not according to the given content restrictions.	Content of tag ConfigNumber must be hexadecimal with a size of 0 to 16 characters.		
20031	Content of tag ConfigNumber must be hexadecimal with a size of 0 to 16 characters.	Content of tag Business Case Signature must be hexadecimal with a size of 0 to 16 characters.		
20032	Content of FunctionID is not according to the given content restrictions.	Content of tag Function ID must be alphanumerical with a size of 0 to 32 characters.		
20033	Content of JobID is not according to the given content restrictions.	Content of tag Job ID must be alphanumerical with a size of 0 to 32 characters.		
20050	Content of TransactionID is not according to the given content restrictions.	Content of tag Transaction ID must be alphanumerical with a size of 0 to 32 characters.		
20051	Content of CountryCode is not according to the given content restrictions.	Content of tag Country Code must be capital with a size of 2 characters. Please provide 2 capitals according to ISO 3166-1.		
20052	Content of Amount is not according to the given content restrictions.	Content of tag Amount must be numerical with a size of 1 to 9 digits.		
20053	Content of Currency is not according to the given content restrictions.	Content of tag Currency must be capital with a size of 3 characters.		
20054	Content of CreditCardNumber is not according to the given content restrictions.	Content of tag Credit Card Number must be numerical with a size of 13 to 16 digits.		
20055	Content of ExpirationYear is not according to the given content restrictions.	Content of tag Expiration Year must be numerical with a size of 4 digits.		

20056	Content of ExpirationMonth is not according to the given content restrictions. Content of CardHolderName is not according	Content of tag Expiration Month must be numerical with a size of 1 to 2 digits.	
	to the given content restrictions.		
20057	Content of IPAddress is not according to the given content restrictions.	Content of tag CardHolder Name must be ASCII with a size of 1 to 80 characters.	
20058	Content of IPAddress is not according to the given content restrictions.	Content of tag IP address. It must be written in dot-decimal notation consisting of up to 15 characters in length.	
20059	Content of GuWID is not according to the given content restrictions.	Content of tag GuWID must be alphanumerical with a size of 21 to 24 characters. A GuWID consists of the character 'C' followed by 21 alphanumerical digits.	
20060	Content of AuthorizationCode is not according to the given content restrictions.	Content of tag authorization Code must be alphanumerical with a size of 0 to 10 characters. Authorization Code is usually numerical with 6 digits.	
20061	CVC number invalid.	Content of tag CVC2 must be numerical with a size of 3 to 4 characters.	
20062	Content of 'RECURRING_TRANSACTION/Ty pe' is not according to the given content restrictions.	Content o 'RECURRING_TRANSACTION/Type' must be one of 'Single','Initial' or 'Repeated'.	
20063	Content of StartYear is not according to the given content restrictions.	Content of StartYear must be numerical with a size of 4 digits.	
20064	Content of StartMonth is not according to the given content restrictions.	Content of StartMonth must be numerical with a size of 2 digits. Please provide two digits in the range of 0112.	
20065	Content of Issue is not according to the given content restrictions.	Card Issue Number is variable length and must be 1 or 2 digits long.	
20066	Content of 'CommerceType' is not according to the given content restrictions.	Content of 'CommerceType' must be one of 'eCommerce', 'MOTO' or 'CustomerPresent'.	
20067	Content of 'Usage' is not according to the given content restrictions.	Content of 'Usage' must be alphanumerical with a size of 0 to 256 characters.	
20070	Credit card number invalid.	The given credit card number did not pass the check digit routine for a card number [Luhn check].	
20071	Expiration date invalid.	Expiration date must not be exceeded.	
20072	The requested currency is not listed in data base.	Expiration date must not be exceeded.	
20073	Invalid transaction flow	The requested function is not applicable for the referenced transaction.	
20080	Could not find referenced transaction for GuWID %s.	This error usually occurs in case of authorizations, captures, cancellation /reversals, when a former transaction's GuWID is required but the given GuWID is unknown to the Wirecard system or was generated for a transaction which is not accessible by the business case in use.	
20081	Content of 'TransactionType' is not according to the given content restrictions.	Content of 'TransactionType' must be one of the strings 'FNC_CC_TRANSACTION' or 'FNC_CC_AUTHORIZATION'.	
20100	Transaction processing not possible.	This occurs if the user tries to capture an authorization that was not successful.	

		Please refer to Wirecard customer service
		in case of further questions.
20101	Transaction processing not	This occurs if the user tries to capture a
	possible.	authorization that was not successful.
		Please refer to Wirecard customer service
		in case of further questions.
20102	Transaction processing not	This occurs if the user tries to capture a
	possible.	authorization supplement that was not
		successful. Please refer to Wirecard
		customer service in case of further
		questions.
20103	Transaction processing not	This occurs if the user tries to reverse a
	possible.	transaction that was not successful. Please
		refer to Wirecard customer service in case
	Towns of the control	of further questions.
20104	Transaction processing not	This occurs if the user tries to book back a
	possible.	transaction that was not successful. Please
		refer to Wirecard customer service in case
	Transaction processing refused	of further questions.  TRANS AMOUNT must be equal to the
20105	Transaction processing refused.	amount of the referenced transaction in
		case of REVERSAL or CAPTURE.
00400	Transaction processing refused.	CUR_CODE must be equal to the currency
20106	Transaction processing refused.	used for the referenced request.
20407	Transaction processing refused.	ACQ_AUTHORIZATION must be equal to
20107	Transaction proceeding relaced.	authorization code of referenced request.
20108	Transaction processing refused.	TRANS COUNTRY CODE must be equal
20100		to country code of referenced request.
20109	Transaction processing refused.	Credit card type for a given card number is
20103		unknown / rejected.
20110	Transaction processing refused.	The terminal required for a given
		transaction is not available. Please contact
		Wirecard customer service.
20111	Transaction processing refused.	The terminal required for a given
		transaction is not available. Please contact
	Transaction processing refused.	Wirecard customer service.
20112		Transaction processing refused.
20113	Transaction processing refused.	The amount to be booked back has to be
		equal to or less than the amount of the
	=	referenced transaction.
20114	The requested amount is smaller	The requested amount is smaller than the
	than the minimum amount.	minimum amount.  Please contact Wirecard customer service.
20115	Transaction processing not possible.	riease contact wirecard customer service.
20447	Transaction processing refused.	Transaction processing referred
20117		Transaction processing refused.
20120	Transaction processing refused.	Please contact Wirecard customer service.
20121	Transaction processing refused.	It is not possible to process the transaction
	DINIVALIDOADD. The condition of	using requested 'CommerceType'.
23000	DINVALIDCARD: The credit card	Please contact Wirecard customer service
0000:	number did not pass basic checks DINVALIDDATA: Data provided is	for further details on the rejected card.  Please contact Wirecard customer service
23001	not consistent with the request.	to resolve this error.
22002	The request is missing a required	Check the following fields:
23002	field.	customer_firstname, customer_lastname,
		customer_email, bill_address1,
		bill_country, bill_city,
		customer_cc_number,
		customer_cc_expmo, customer_cc_expyr,
		amount. The fields bill_state and bill_zip

		are required if bill_country is set to "US" or "CA".
23003	The request is missing a required field.	Check the following fields: customer_firstname, customer_lastname, customer_email, bill_address1, bill_country, bill_city, customer_cc_number, customer_cc_expmo, customer_cc_expyr, amount. The fields bill_state and bill_zip are required if bill_country is set to "US" or "CA".
24997	Credit card number not allowed in demo mode.	Only demo card numbers are allowed in demo mode.
24998	Credit card number not allowed outside demo mode.	Use of demo card numbers is only allowed in demo mode.
24999	Unsuccessful demo run.	Operation failed due to use of demo card number. The credit card number used simulate s a not acknowledged transaction in demo mode.
25000	The transaction was rejected by acquirer. This message should not appear.	Please contact Wirecard customer service.
27000	You have no permission to use the requested service.	Please contact Wirecard customer service.
27001	Transaction processing refused.	This error usually occurs in case of heavy load and is caused by restrictions in the processing systems of credit card acquirers. Additional terminals can be requested from the acquirer to resolve this problem. Please contact Wirecard customer service.
27002	Transaction processing refused.	Please contact Wirecard customer service.
29000	System error	Please contact Wirecard customer service.
29001	Transaction processing refused.	Transaction processing refused.
29002	Client communication failure.	Transaction processing refused.

### 8.2 AVS Codes

AVS is currently supported for the following countries:

United States
Canada
United Kingdom

You can look at the AVS codes returned to determine exactly why the AVS check failed. The Wirecard server returns the following codes, in the *AVS\_CODE* element, to the merchanz application in response to a transaction request.

Code Letter	Meaning
X	Exact. Nine-digit zip code and address match
Υ	Yes. Five-digit zip code and address match

А	Address matches, but zip code does not
Z	Five-digit zip code matches, but address does not.
N.	No part of the address matches
U.	Address information is unavailable
R.	Retry. System unable to process
S	AVS not supported.
E.	AVS not supported for this industry
В.	AVS not performed
Q	Unknown response from issuer/banknet switch.
F	Different error case in wd2 core system
W.	Nine-digit zip code matches, but address does not

# 8.3 Recurring Transaction Response Codes

The following codes apply to XML response messages for recurring card transactions accquired by Wirecard Bank.

Response Code	Advice Code	Wirecard Bank Message	Merchant Advice Description
00	01	ACK - successful system retry	New account information available
05	01	Authorization declined	New account information available
14	01	Invalid card	New account information available
51	01	Issued funds or credit limit exceeded	New account information available
54	01	Expired card	New account information available
51	02	Issued funds or credit limit exceeded	Try again later
05	03	Authorization declined	Do not try again
14	03	Invalid card	Do not try again
51	03	Issued funds or credit limit exceeded	Do not try again
54	03	Expired card	Do not try again
05	21	Authorization declined	Recurring payment cancellation service