

Sparkassen-Internetkasse giropay

Connection for traders and integrators

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This document relates to Sparkassen-Internetkasse version 1.2.

Revision: 1.4

Date of issue: 13/04/2016

Section "Initialisation", p. 14 and Section "Online bank transfer initialisation", p. 26: bankcode and bic are optional. Section "Refund", p. 17: added note which bank account details are required. Removed obsolete chapter "Bank code/BIC search".

Revision: 1.3.6

Date of issue: 13/05/2015

Section "Refund", p. 17: account holder is mandatory.

Revision: 1.3.4

Date of issue: 14/04/2014

Section "Bank code/BIC check", p. 15: removed rc=2 and obsolete text. Section "Initialisation", p. 14 and Section "Online bank transfer initialisation", p. 26: submitting account or accountnumber respectively and bankcode is still possible after 31/01/2014.

Revision: 1.3.3

Date of issue: 04/02/2014

Section "Bank code/BIC check", p. 15: correction: bankcode is possible after 01/02/2014. Section "Test data", p. 38: updated some of the IBANs.

Revision: 1.3.2

Date of issue: 28/11/2013

Section "Bank code/BIC check", p. 15: added note that giropay transactions might only be possible with account number and bank code.

Revision: 1.3.1

Date of issue: 15/10/2013

Section "Function description", p. 8: added note that only German bank accounts are accepted. Section "Test data", p. 38: corrected some of the IBANs.

Revision: 1.3

Date of issue: 24/09/2013

Added age verification, add-ons and modifications for SEPA payments in Section "Initialisation", p. 14, Section "Bank code/BIC check", p. 15, Section "Refund", p. 17, Section "Parameter details", p. 18, Section "Online bank transfer initialisation", p. 26 and other parts of the text. Section "Access data", p. 26: updated URLs. Correction in Section "Online bank transfer initialisation", p. 26 and Section "Shop notification", p. 30: MAC is a mandatory parameter. Updated screenshots in Chapter "Shop information on the giropay login page", p. 36 and chapter "Bank code/BIC search". Section "Configuration": removed outdated screenshot. Updated Section "Test data", p. 38. Table 7-3, p. 45: added response codes 4010, 4015, 4020 for the age verification.

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1 About this document

1.1 Labelling and formatting

Please pay attention to the following labelling in the text:

Program listings, source code

These are excerpts from the program source code or listings. Example:



Listing 1-1

```
#!/bin/bash

# endless loop
while [ true ]
do
    clear;
    free;
    sleep 1;
done
```

Parameters

All parameter designations appear in the following font: parameter.



Caution

A note about a situation that demands caution and attention



Important

An especially important note



Note

A note referring to context or further information

Highlighted text

Significant words and essential information requiring emphasis appear in *italics*.

1.2 Disclaimer

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2 Introduction

2.1 Target group and purpose of the document

This document is intended for online traders and Sparkassen-Internetkasse integrators. You should have basic technical programming knowledge and basic knowledge of HTML and electronic payment transactions.

This document describes how to integrate giropay in your shop using Sparkassen-Internetkasse.

**Note**

Processing of giropay online bank transfers is an additional service. Apply to the responsible licensee to activate this feature.

This document is intended to expand on the document "Sparkassen-Internetkasse - Connection for traders and integrators" (hereinafter referred to as Main Document). General notes about system structure, communications between shop and Sparkassen-Internetkasse are in the Main Document.

2.2 Overview of contents

The documentation starts with a description of the transaction process followed by a detailed description of the two interfaces shop interface and form service. The Glossary concludes the document.

3 Transaction process

Sparkassen-Internetkasse offers you two possibilities to integrate giropay into your application: shop interface (see Chapter “Shop interface”, p. 12) and form service (see Chapter “Form service”, p. 26). The two integration alternatives differ with respect to payment initialisation. The subsequent process of the transaction is identical for both alternatives.

3.1 Initialisation of the payment procedure or age verification

The Shop must provide the Sparkassen-Internetkasse server with particular parameters so that the payment can be precisely assigned to this shop, thus enabling the payment to be processed further.

These parameters include:

- Trader identification
- Unique transaction number
- Amount and currency
- SessionID (optional)
- Shopping basket number (optional)

Payments cannot be processed if, for example, a transaction number is not unique, an amount is not specified, or the currency is not permitted.

3.2 Function description

The following diagram shows an example of a payment transaction in the form of a flow chart. The transaction process is shown for the form service. The differences for payment initialisation using the shop interface are explained subsequent to the description of the transaction process.

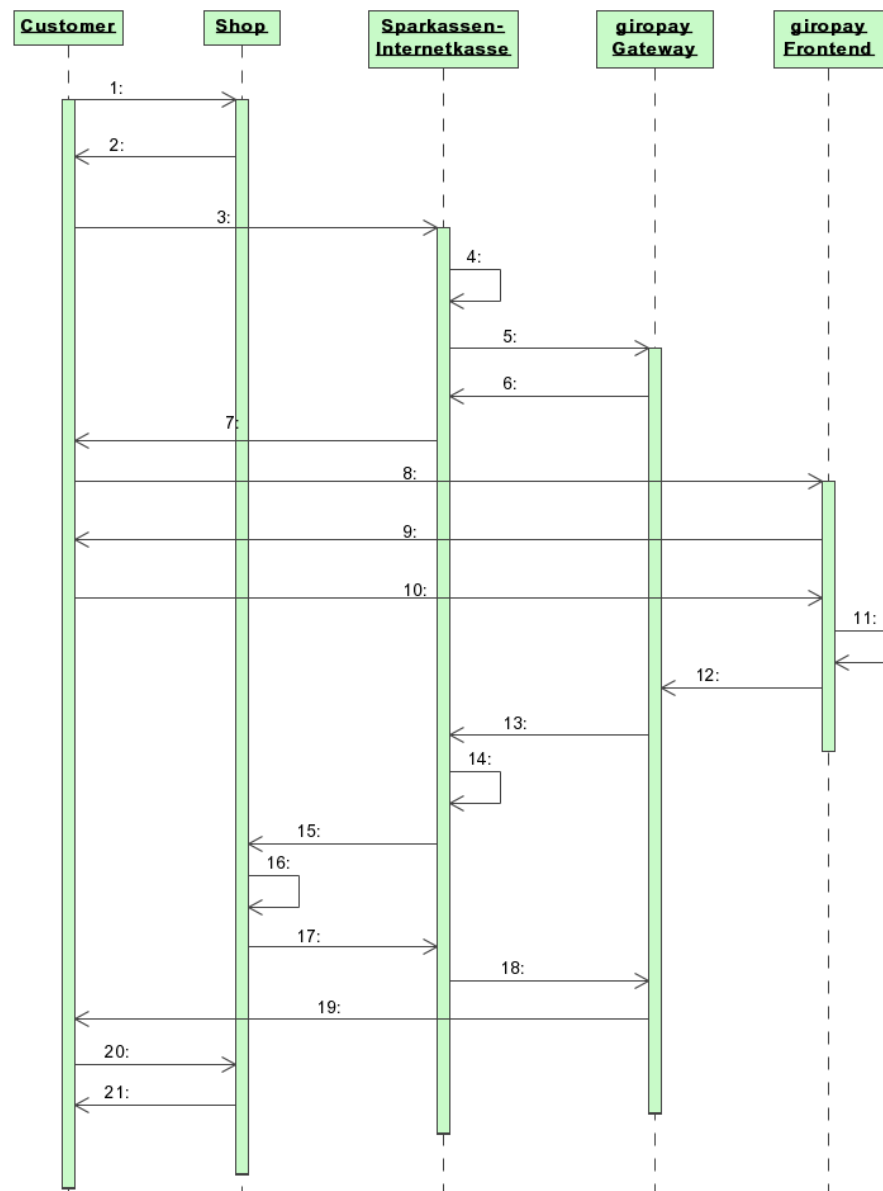


Figure 3-1: Flow chart giropay

The transaction proceeds as follows. Your online shop participates only in those few steps where **shop** is highlighted with **bold** letters.

1. The customer makes a purchase in the **shop** and starts the payment process.
2. The **shop** answers by sending a redirect message to the Sparkassen-Internetkasse server. The redirect can be initiated by means of a meta tag, an HTTP header or JavaScript. The data required for processing are contained in the redirect URL.
3. The customer's browser sends the data required for processing to the Sparkassen-Internetkasse server.

4. The Sparkassen-Internetkasse server checks the transferred data and the shop identification. If an error occurs, processing continues with step 15.
5. The Sparkassen-Internetkasse server sends an initialisation message to the giropay gateway.
6. The giropay gateway answers the initialisation message.
7. As an answer to step 3 the Sparkassen-Internetkasse server sends the customer a redirect to the giropay frontend of the customer's bank.
8. The customer's browser redirects the customer to the giropay frontend.
9. The giropay frontend sends a login page to the customer.
10. The customer enters his login name and his PIN for authentication. If necessary, the customer chooses the appropriate bank account. The giropay frontend now shows the money transfer page. The customer enters his TAN (iTAN, mTAN or the like) to authorise payment.
11. The customer's bank initiates the bank transfer.
12. The giropay frontend transfers the payment result to the giropay gateway.
13. The giropay gateway transfers the payment result to the Sparkassen-Internetkasse server.
14. The Sparkassen-Internetkasse server saves the transaction result in the database. This result is now displayed in the trader view.
15. The Sparkassen-Internetkasse server notifies the **shop** of the transaction result using the URL for shop notification configured in the trader view.
16. The **shop** checks the values it received and marks the order as 'Paid' or 'Open' depending on the transaction result.
17. The **shop** sends an answer to the Sparkassen-Internetkasse server which contains the URL leading back to the shop.
18. As an answer to step 13, the Sparkassen-Internetkasse server sends this URL to the payment gateway.
19. The payment gateway sends a redirect to this URL to the customer's browser.
20. The customer's browser redirects to this URL.
21. The **shop** shows the transaction result to the customer.

Payment initialisation via shop interface

The begin of the transaction process differs as follows (not shown in the diagram):

1. The customer makes a purchase in the **shop** and starts the payment process.
2. The **shop** generates a request message and sends it to the Sparkassen-Internetkasse server as an HTTPS request.
3. The Sparkassen-Internetkasse server verifies the data. In case of an error an error message is returned.

4. The Sparkassen-Internetkasse server sends an initialisation request with the payment data to the giropay gateway.
5. The giropay gateway transfers the result of the initialisation to the Sparkassen-Internetkasse server, including the redirect URL if payment was successfully initialised.
6. The Sparkassen-Internetkasse server sends a response message to the **shop**. This includes the redirect URL to the giropay frontend, if payment was successfully initialised.
7. As an answer to step 1 the **shop** sends a redirect to the redirect URL it received in step 6 to the customer.

Subsequently the transaction proceeds as shown in the diagram and described above for the form service.

**Caution**

Please note, that the giropay pages may not be displayed in a frame or iframe.

Currently only German bank accounts are accepted.

4 Shop interface

General informations, access data and sample code of the shop interface can be found in the Main Document.

With the shop interface you can

- initialise giropay payments
- initialise giropay age verifications
- initialise combined age verifications and payments
- send diagnosis requests for giropay payments
- check if a bank participates in giropay

The transaction types are described in the following section.

4.1 Transaction types

4.1.1 Initialisation of a giropay payment

You transmit the transaction data and receive a link (redirect URL) to the giro-pay server in the response. The parameters of the request and response messages are listed in Table 4-1, p. 14. Subsequently you send a redirect to the redirect URL to the customer. This can be carried out with an HTTP redirect header, an HTML page with a meta tag or a JavaScript form. The payment settlement itself takes place when the customer enters his PIN and TAN in the giropay money transfer form shown to him by the giropay server.

The notification of the shop about the outcome of the payment or age verification is carried out as described for the form service in Section “Shop notification”, p. 30.



Note

If the customer's bank code or BIC is already available, we recommend to check if the bank takes part in giropay before payment initialisation (see Section “Bank code check”, p. 13).

4.1.2 Diagnosis

This type of transaction enables you to determine the state of a payment that has already been carried out, e.g. if you did not receive the shop notification

because of a problem with the internet connection. The parameters of the request and response messages are listed in Table 4-2, p. 15.

You need `orderid` and `trefnum` of the transaction you are looking for as parameters for the request message. `trefnum` equals the transaction number `orderid` appended by "_01".

Example:

You conducted a giropay payment with transaction number 1234. Set `trefnum` to 1234_01.

If a transaction with the given `orderid` and `trefnum` cannot be found, you will receive a response message with error code `posherr=106` and the corresponding error message in parameter `rmsg`.

4.1.3 Bank code check

You can use this type of transaction to determine if a bank takes part in giropay. The parameters of the request and response messages are listed in Table 4-3, p. 16.

4.1.4 Refund

A refund of a giropay payment is carried out as a direct debit transaction (see Main Document). If the customer's account number was not submitted with the payment initialisation it has to be included in the refund transaction. The parameters of the request and response messages are listed in Table 4-4, p. 18.

4.2 Transaction details

For each transaction, the following tables show which values have to be included in the request message and which values you receive with the response.

The parameters `command` and `payment_options` are used to control the transaction type. They must be assigned the values listed in the tables.

In some cases, parameters may not be included in the response message. The conditions that cause this are stated in a cross-column table row.

Obsolete parameters are indicated by an asterisk (*). These parameters are irrelevant for the functionality of the shop interface.

4.2.1 Initialisation

Parameter	Request	Response
command	Mandatory, open in case of a payment, avs in case of an age verification avsoopen in case of a combined age verification and payment	
payment_options	Mandatory, banktransfer	
orderid	Mandatory	Mandatory
basketnr	Mandatory	Mandatory
amount	Mandatory, not for age verification	Optional
bankcode	Optional, if bic is not submitted.	Optional
account	Optional, if bankcode is submitted.	Optional
iban	Optional, if bic is not submitted	Optional
bic	Optional, if bankcode is not submitted	Optional
accountholder	Optional	Optional
sessionid	Optional	
label0, label1, label2, label3, label4	Optional	
text0, text1, text2, text3, text4	Optional	
posherr		Mandatory
rmsg		Mandatory
rc		Mandatory, can be blank.
timestamp		Mandatory, can be blank.
redirecturl		Mandatory, can be blank.
retrefnr		Mandatory, can be blank.

Table 4-1: Initialisation

4.2.2 Diagnosis

Parameter	Request	Response
command	Mandatory, diagnose	
payment_options	Mandatory, banktransfer	
orderid	Mandatory	Mandatory

Parameter	Request	Response
trefnum	Mandatory	Included in the response, value not set
posh_version		Mandatory
posherr		Mandatory
rmsg		Mandatory
rc		Mandatory, can be blank.
merch_name *		Mandatory, can be blank.
merch_street *		Mandatory, can be blank.
merch_town *		Mandatory, can be blank.
merch_tid *		Mandatory, can be blank.
txntype		Mandatory, can be blank.
txn_date		Mandatory, can be blank.
txn_time		Mandatory, can be blank.
timestamp		Mandatory, can be blank.
Included in the response, value not set		
retrefnr		Mandatory
basketnr		Mandatory
pcode *		Mandatory
posem *		Mandatory
poscc *		Mandatory
aid		Mandatory
cai *		Mandatory
txn_expdat		Mandatory
txn_card		Mandatory

Table 4-2: Diagnosis

The '*' character indicates obsolete parameters. These parameters are irrelevant for the functionality of the shop interface.

4.2.3 Bank code/BIC check

The response parameter rc indicates whether a bank participates in giropay (rc=0), giropay payments are temporarily not possible for this bank (rc=1) or the bank does not participate in giropay or does not exist (rc=3).

Parameter	Request	Response
command	Mandatory, diagnose	
payment_options	Mandatory, banktransfer;bank-code	
bankcode	Mandatory unless bic is submitted.	
bic	Mandatory unless bankcode is submitted	
posh_version		Mandatory
posherr		Mandatory
rmsg		Mandatory
rc		Mandatory, can be blank.
service		Optional
merch_name *		Mandatory, can be blank.
merch_street *		Mandatory, can be blank.
merch_town *		Mandatory, can be blank.
merch_tid *		Mandatory, can be blank.
txntype		Mandatory, can be blank.
txn_date		Mandatory, can be blank.
txn_time		Mandatory, can be blank.
Included in the response, value not set		
timestamp		Mandatory
retrefnr		Mandatory
pcode *		Mandatory
posem *		Mandatory
poscc *		Mandatory
aid		Mandatory
cai *		Mandatory
txn_expdatt		Mandatory
txn_card		Mandatory
orderid		Mandatory
trefnum		Mandatory
basketnr		Mandatory

Table 4-3: Bank code/BIC check

The '*' character indicates obsolete parameters. These parameters are irrelevant for the functionality of the shop interface.

4.2.4 Refund

This transaction is a follow-up transaction that relates to a preceding initialisation.

If neither bankcode nor bic were submitted when the payment was initialised, either iban or account and bankcode have to be specified in the refund request.

Parameter	Request	Response
command	Mandatory, refund	
payment_options	Mandatory, elv	
orderid	Mandatory	Mandatory
basketnr	Optional	Mandatory
clientip	Optional	
amount	Optional	Mandatory
currency		Mandatory
trefnum	Mandatory	Mandatory, included in the response if parameter rc contains a value.
account	Mandatory if bankcode but not account was submitted when the payment was initialised.	Optional
bankcode		Optional
iban	Mandatory if bic but not iban was submitted when the payment was initialised.	Optional
accountholder	Mandatory	Mandatory
posh_version		Mandatory
posherr		Mandatory
rmsg		Mandatory
rc		Mandatory, can be blank.
txn_date		Mandatory
txn_time		Mandatory
merch_name *		Mandatory, can be blank.
merch_street *		Mandatory, can be blank.
merch_town *		Mandatory, can be blank.
merch_tid *		Mandatory, can be blank.
included in the response if parameter rc contains a value.		
pcode *		Mandatory
posem *		Mandatory
poscc *		Mandatory

Parameter	Request	Response
aid		Mandatory
retrefnr		Mandatory
txntype		Mandatory
timestamp		Mandatory
Included in the response, value not set		
cai *		Mandatory
txn_card		Mandatory
txn_expdat		Mandatory

Table 4-4: Refund

The '*' character indicates obsolete parameters. These parameters are irrelevant for the functionality of the shop interface.

4.3 Parameter details

account

Range of Values	N-10
Example	76576100
Explanation	The account number of the customer's bank account.

Table 4-5: Parameter account

accountholder

Range of Values	ANL[+?/-(.)',]-70
Example	John Smith
Explanation	The account holder of the customer's bank account.

Table 4-6: Parameter accountholder

aid

Range of Values	ANL-32
Example	a34232
Explanation	Approval number of authorising party.

Table 4-7: Parameter aid

amount

Range of Values	N-12
Example	12000
Explanation	The amount in the smallest unit of a currency. The value 5025 for the currency euro therefore corresponds to 50 euro and 25 cents. Exception: in the response of a follow-up transaction (capture, refund) where no amount was submitted in the request the amount is returned with a decimal comma, e.g. 50,25.

Table 4-8: Parameter amount

bankcode

Range of Values	N8
Example	12030000
Explanation	Bank code of the customer's bank account.

Table 4-9: Parameter bankcode

basketnr

Range of Values	ANL[':?,-(+.)']-27
Example	874-09, Flower Shop
Explanation	Shopping basket number. Field that can be freely defined by the trader and used to transfer additional information. This field can also be used to include information (e.g. the shop name) on the buyer's and trader's account statement.

Table 4-10: Parameter basketnr

bic

Range of Values	AN11
Example	VZVDEDED1XXX
Explanation	BIC of a bank.

Table 4-11: Parameter bic

cai *

Range of Values	AN-15
Example	se34322
Explanation	Contract partner number assigned to the trader by the authorising party. This parameter is irrelevant for the functionality of the shop interface.

Table 4-12: Parameter cai *

clientip

Range of Values	N[.]-15
Example	217.89.67.230
Explanation	Customer's IP address. Will be logged, does not have any other function.

Table 4-13: Parameter *clientip***command**

Range of Values	FIX
Example	open
Explanation	Together with the parameter <code>payment_options</code> , describes the transaction type.

Table 4-14: Parameter *command***currency**

Range of Values	A3
Example	EUR
Explanation	The currency code as defined by ISO 4217. Always use EUR for giropay transactions.

Table 4-15: Parameter *currency***iban**

Range of Values	AN22
Example	DE23380110000009290701
Explanation	IBAN of a bank account.

Table 4-16: Parameter *iban***label0, label1, label2, label3, label4**

Range of Values	ANLS-30
Example	Your purchase
Explanation	Labels preceding additional text (see parameters <code>text0</code> - <code>text4</code>) on the giropay login page. See Chapter "Shop informations on the giropay login page", p. 36. Use these fields only together with the corresponding text parameters (<code>text0</code> - <code>text4</code>).

Table 4-17: Parameter *label0, label1, label2, label3, label4*

merch_name *

Range of Values	ANLS-50
Example	Wine Shop
Explanation	Trader name stored in the system.This parameter is irrelevant for the functionality of the shop interface.

Table 4-18: Parameter merch_name *

merch_street *

Range of Values	ANLS-50
Example	7, High Street
Explanation	Trader's street and house number stored in the system. This parameter is irrelevant for the functionality of the shop interface.

Table 4-19: Parameter merch_street *

merch_tid *

Range of Values	AN-8
Example	234234
Explanation	Trader's terminal identification number.This parameter is irrelevant for the functionality of the shop interface.

Table 4-20: Parameter merch_tid *

merch_town *

Range of Values	ANLS-50
Example	32211 Siebendorf
Explanation	Trader's postcode and city stored in the system.This parameter is irrelevant for the functionality of the shop interface.

Table 4-21: Parameter merch_town *

orderid

Range of Values	AN[-_]-17
Example	ans_834732
Explanation	Unique transaction number that identifies the payment transaction for a shop.

Table 4-22: Parameter orderid

payment_options

Range of Values	FIX
Example	banktransfer
Explanation	Together with the parameter <code>command</code> , describes the transaction type.

Table 4-23: Parameter *payment_options***pcode ***

Range of Values	N-2
Example	00
Explanation	Additional operation code of the VÖB-ZVD payment gateway. This parameter is irrelevant for the functionality of the shop interface.

Table 4-24: Parameter *pcode ****poscc ***

Range of Values	N-2
Example	07
Explanation	Transaction code of the VÖB-ZVD payment gateway. This parameter is irrelevant for the functionality of the shop interface.

Table 4-25: Parameter *poscc ****posem ***

Range of Values	AN-6
Example	3453
Explanation	Operation code for the current gateway. This parameter is irrelevant for the functionality of the shop interface.

Table 4-26: Parameter *posem ****posh_version**

Range of Values	ANLS-50
Example	1.0.118
Explanation	Version of the shop interface.

Table 4-27: Parameter *posh_version*

posherr

Range of Values	N-3
Example	102
Explanation	Primary return code of the system (messages of the Sparkassen-Internetkasse service).

Table 4-28: Parameter posherr

rc

Range of Values	N-4
Example	1000
Explanation	Secondary return code of the particular payment or scoring system. The actual contents are explained in the appendix.

Table 4-29: Parameter rc

redirecturl

Range of Values	AN[:./-?;&=%]-255
Example	https://giropay.starfinanz.de/ftg/go/orv3407clzj;jsessionid=416203381E977669E321F5FBAD72F249
Explanation	URL to redirect the customer to.

Table 4-30: Parameter redirecturl

retrefnr

Range of Values	ANLS-50
Example	234231235
Explanation	Transaction number of authorising party.

Table 4-31: Parameter retrefnr

rmsg

Range of Values	ANLS-200
Example	Transaction approved.
Explanation	Result as text.

Table 4-32: Parameter rmsg

service

Range of Values	AN[;]-50
Example	payment;avs
Explanation	Enumeration of active giropay services offered by a bank. Possible values are "payment" and "avs" (age verification). Multiple services are separated by a semicolon.

Table 4-33: Parameter *service***sessionid**

Range of Values	ANSL-255
Example	Nhdz747458sNX
Explanation	Identification of the current session in the online shop.

Table 4-34: Parameter *sessionid***text0, text1, text2, text3, text4**

Range of Values	ANLS-80
Example	Article No. 07-345B
Explanation	Additional text shown to the customer on the giropay login page. See Chapter "Shop informations on the giropay login page", p. 36. Use these fields only together with the corresponding label parameters (labe10 - labe14).

Table 4-35: Parameter *text0, text1, text2, text3, text4***timestamp**

Range of Values	N14
Example	20030510134159
Explanation	Timestamp of the transaction in the format YYYYMMDDHHMMSS (CET).

Table 4-36: Parameter *timestamp***trefnum**

Range of Values	AN[-_]-20
Example	ans_834732_01
Explanation	Sparkassen-Internetkasse transaction reference number.

Table 4-37: Parameter *trefnum*

txn_card

Range of Values	ANLS-40
Example	VISA
Explanation	Credit card brand name. Irrelevant for giropay.

Table 4-38: Parameter *txn_card***txn_date**

Range of Values	NS10
Example	27/09/2006
Explanation	Date part of the timestamp in the format dd/MM/YYYY.

Table 4-39: Parameter *txn_date***txn_expdat**

Range of Values	AS7
Example	12/2009
Explanation	Credit card expiration date in the format MM/YYYY. Irrelevant for giropay.

Table 4-40: Parameter *txn_expdat***txn_time**

Range of Values	NS5
Example	23:50
Explanation	Time part of the timestamp in the format HH:MM.

Table 4-41: Parameter *txn_time***txntype**

Range of Values	ANLS-50
Example	Reservierung/Pre-Authorization
Explanation	The transaction type as a word.

Table 4-42: Parameter *txntype*

5 Form service

5.1 Prerequisites

Payments are processed completely in the Sparkassen-Internetkasse system, from payment data entry through to the display of the payment results. Customer and online shop are informed of the result of a payment.

5.2 Access data

Submit your queries to the following URL:

Test access:

<https://testsystem.sparkassen-internetkasse.de/web-api/SSLPayment.po>

Live access:

<https://system.sparkassen-internetkasse.de/web-api/SSLPayment.po>

5.3 Transaction details

The following sections contain details on initialisation of a giro pay online bank transfer or age verification and how the Sparkassen-Internetkasse service notifies the shop.

5.3.1 Online bank transfer initialisation

The parameters listed in the following table are sent to Sparkassen-Internetkasse via the customer's browser by means of a redirect (steps 2 and 3 in Section "Function description", p. 8). Thus, the shop reacts to a request of the browser with a response that redirects the customer to the Sparkassen-Internetkasse server. This can be carried out with an HTTP redirect header, an HTML page with a meta tag or a JavaScript form. An example for a redirect with a meta tag is provided in the Main Document.

You can find explanations of the entries in the range of values column in Section "Parameter format description", p. 45.

Parameter overview request message**accountholder**

Range of Values	ANL[+?/-:().,']-50
Example	John Smith
Explanation	Optional, account holder

*Table 5-1: Parameter accountholder***accountnumber**

Range of Values	N-10
Example	9290701
Explanation	Optional. If bankcode is specified. Account number of the customer's bank account. If not specified, the customer has to fill it in later on the giropay login page.

*Table 5-2: Parameter accountnumber***amount**

Range of Values	N[,]-10
Example	22,60
Explanation	Mandatory - not for age verification, amount with decimal comma

*Table 5-3: Parameter amount***bankcode**

Range of Values	N8
Example	12345678
Explanation	Optional, bank code of the customer's bank account. If neither bank code nor BIC are specified, giropay displays a dialog to select the bank to the customer.

*Table 5-4: Parameter bankcode***basketid**

Range of Values	ANL[':?,-(+.)/]-27
Example	ba-100202
Explanation	Mandatory, identification of ordered shopping basket or article. Will be shown as first line of reason for payment on the giropay money transfer form and later on the account statement.

Table 5-5: Parameter basketid

bic

Range of Values	AN-11
Example	VZVDEDED1XXX
Explanation	Optional, BIC of the customer's bank account. If neither bank code nor BIC are specified, giropay displays a dialog to select the bank to the customer.

Table 5-6: Parameter bic

command

Range of Values	FIX
Example	sslform
Explanation	Optional field; request definition, "sslform"

Table 5-7: Parameter command

currency

Range of Values	A3
Example	EUR
Explanation	Mandatory - not for age verification; currency code according to ISO 4217

Table 5-8: Parameter currency

iban

Range of Values	AN22
Example	DE23380110000009290701
Explanation	Optional. If bic is specified. The customer's German IBAN. If not specified, the customer has to fill it in later on the giropay login page.

Table 5-9: Parameter iban

label0, label1, label2, label3, label4

Range of Values	ANLS-30
Example	Your purchase
Explanation	Optional fields, labels preceding additional text (see parameters text0 - text4) on the giropay money transfer form. Use these fields only together with the corresponding text parameters (text0 - text4, see below). See Chapter "Shop informations on the giropay login page", p. 36.

Table 5-10: Parameter label0, label1, label2, label3, label4

mac

Range of Values	N[abcdef]40
Example	0fab98c2d51992adff473s2e2c5ab8599f15723e3
Explanation	Mandatory, message authentication code, used to safeguard against payment data manipulation

Table 5-11: Parameter mac

notificationfailedurl

Range of Values	ANS-255
Example	http://www.myshop.com/formentry_failed.html
Explanation	Optional. If the shop cannot be informed about the outcome of the payment, a result page with a link to this URL is displayed to the customer.

Table 5-12: Parameter notificationfailedurl

orderid

Range of Values	ANS[-_/-]17
Example	order_10123487
Explanation	Mandatory, transaction number

Table 5-13: Parameter orderid

payment_options

Range of Values	FIX
Example	avs
Explanation	Optional, "avs" for an age verification or "avsopen" for a combined age verification and payment. Without this parameter a payment without age verification is carried out.

Table 5-14: Parameter payment_options

paymentmethod

Range of Values	FIX
Example	banktransfer
Explanation	Mandatory; "banktransfer"

Table 5-15: Parameter paymentmethod

sessionid

Range of Values	ANSL-255
Example	Nhdz747458sNX
Explanation	Optional, identification of current session in online shop, used to notify the shop

Table 5-16: Parameter *sessionid***sslmerchant**

Range of Values	ANS-16
Example	testssl
Explanation	Mandatory, trader identification (form service login of the shop)

Table 5-17: Parameter *sslmerchant***text0, text1, text2, text3, text4**

Range of Values	ANLS-80
Example	Article No. 07-345B
Explanation	Optional fields, additional text shown to the customer on the giro pay money transfer form. Use these fields only together with the corresponding label parameters (labe10 - labe14, see above). See Chapter "Shop informations on the giro pay login page", p. 36.

Table 5-18: Parameter *text0, text1, text2, text3, text4***MAC - Message Authentication Code**

For more information on calculating the MAC, see the Appendix of the Main Document.

Deviating from the description in the Main Document, all transferred parameters in alphabetic order of the parameter names (equivalent to the order in the table above) are used to calculate the MAC.

Response of the Sparkassen-Internetkasse server

As a response to this request transmitted by redirect, Sparkassen-Internetkasse sends an initialisation message to the payment gateway and then answers the customer with another redirect to the payment gateway. The payment gateway shows the giro pay money transfer form to the customer.

5.3.2 Shop notification

After the giro pay online bank transfer has been processed the shop is informed of the result (step 15 in Section "Function description", p. 8). The URL for shop notification configured in the front office is called and the parameters listed in

the following table are transferred. The shop notification is sent even if an error or timeout occurs or if the customer aborted payment.



Note

For an SSL encrypted shop notification you need an SSL certificate issued by an accepted certificate authority for the server you specified in the URL for shop notification. Certificates you generated yourself are not accepted. You will not receive a shop notification if your SSL certificate is not accepted by the Sparkassen-Internetkasse server. You will also not receive a shop notification if the server name in the URL for shop notification does not match the server for which the SSL certificate was issued. This also applies if, for example, you enter the IP address instead of the server name in the URL for shop notification.



Important

If your shop notification is transferred SSL encrypted, please test if the shop notification still works when you exchange your SSL certificate.

Parameter overview shop notification

amount

Range of Values	N[,]-10
Example	22,60
Explanation	Amount with decimal comma, not for age verification

Table 5-19: Parameter amount

basketid

Range of Values	ANL[':?,-(+.)]/-27
Example	ba-100202
Explanation	Identification of ordered shopping basket or article, will be shown on the account statement.

Table 5-20: Parameter basket id

currency

Range of Values	A3
Example	EUR
Explanation	Currency code according to ISO 4217, not for age verification.

Table 5-21: Parameter currency

directPosErrorCode

Range of Values	N-3
Example	0
Explanation	Primary response code of the system, contains information on the result of the payment. Possible values are '0' for successful and e.g. '100' for failed or cancelled payments. See Table 7-2, p. 44.

Table 5-22: Parameter *directPosErrorCode***directPosErrorMessage**

Range of Values	ANSI-255
Example	
Explanation	Success or error message

Table 5-23: Parameter *directPosErrorMessage***mac**

Range of Values	N[abcdef]40
Example	ofab98c2d51992adff4732e2c5ab8599f15723e3
Explanation	Message authentication code to safeguard against manipulations of the shop notification

Table 5-24: Parameter *mac***orderid**

Range of Values	AN[-_]-17
Example	834732
Explanation	Unique transaction number identifying the transaction for the shop

Table 5-25: Parameter *orderid***rc**

Range of Values	N-4
Example	4000
Explanation	Optional. Missing if e.g. a faulty request was not sent to the giro pay gateway. Response code of the payment gateway, contains information about the result of the online bank transfer. '4000' means a successful payment. Other values signal failed or cancelled transactions (see Table 7-3, p. 45)

Table 5-26: Parameter *rc*

retrefnum

Range of Values	ANL-32
Example	SENLHUER6T
Explanation	giropay transaction ID

Table 5-27: Parameter *retrefnum***sessionid**

Range of Values	ANSL-255
Example	Nhdz747458sNX
Explanation	Identification of the current online shop session as specified in the request

Table 5-28: Parameter *sessionid***trefnum**

Range of Values	AN[-_/]-20
Example	834732_01
Explanation	Sparkassen-Internetkasse transaction number

Table 5-29: Parameter *trefnum***Message Authentication Code - MAC**

In the `mac` parameter the shop notification contains the message authentication code (MAC), which enables you to detect a manipulation of the shop notification. This requires your application to calculate the MAC from the parameters of the shop notification. If the MAC calculated in this way matches the MAC in the response message, you can assume that the response message has not been manipulated.

Additional information on the calculation of the MAC can be found in the Appendix of the Main Document.

The `aid` parameter mentioned in the Main Document is not part of the giropay shop notification and is omitted when calculating the MAC.

URL for shop notification

You enter the URL in the front office. There, click the Configuration menu and then Form Service. Enter the URL in the input field Shop notification URL, then click Save.

Figure 5-1: Configuration of URL for shop notification

As an answer to the shop notification the Sparkassen-Internetkasse server expects a confirmation from the online shop. (step 16 in Section “Function description”, p. 8).

The answer to the shop notification is a URL encoded document that has to contain a single parameter: the URL for redirecting the customer from the Sparkassen-Internetkasse server to the shop (steps 17 und 18 in Section “Function description”, p. 8) is submitted to the Sparkassen-Internetkasse server.

The answer to a shop notification has to be given within 30 seconds.

Parameter overview shop notification - response

rurls

Range of Values	AN[:./_?;&=%]-255
Example	http://www.myshop.com/cgi-bin/auth_formdata
Explanation	Parameter which contains the redirect URL.

Table 5-30: Parameter *rurls*

Example

A response message could look like this:



Listing 5-1

```
rurls=http://www.myshop.com/cgi-bin/shopres?sid=2347286yqwq6
```

5.4 Frequently asked questions (FAQ)

Q: Why doesn't the Sparkassen-Internetkasse service inform my shop about the payment outcome?

A: If your shop system does not receive a message from the Sparkassen-Internetkasse service, ensure that the URL for shop notification has been correctly configured. It is also important that this URL can be accessed by a computer from the Internet and is not protected by a firewall system.

If you configured a URL starting with "https" possibly your SSL certificate is not accepted by the Sparkassen-Internetkasse server (e.g. a certificate you generated yourself). Or perhaps the certificate was issued for another server than the one specified in the URL. This also happens for HTTPS connections if you entered the IP address instead of the server name in the URL for shop notification.

Q: What do I need to keep in mind when switching from the test to the live system?

A: The URL for shop notification must be configured on the live Sparkassen-Internetkasse system.

On the shop side, the Sparkassen-Internetkasse URL must be adapted, and in some cases, so must the trader ID (field `sslmerchant`).

Q: Can I embed the Notification Response in HTML code?

A: No. The response must begin with the text `url=` or `urlf=`.

Q: How can I offer a different payment method to a customer who aborts a giropay payment?

A: If a customer aborts a giropay payment you will receive a shop notification with a response code `rc=3100`. As an answer to this notification Sparkassen-Internetkasse expects a message that contains the parameter `url`. As the value of this parameter, enter the URL you want Sparkassen-Internetkasse to redirect your customer to.

Q: I did not receive a shop notification for a transaction. How can I find out the result of the payment?

A: You can send a diagnosis message via the shop interface (see Chapter "Shop interface", p. 12). In the response you will receive the response code (`rc` parameter) of the transaction. You can also look at the transaction in the trader view. If the transaction is marked "open" in the trader view, possibly Sparkassen-Internetkasse could not be notified about the result of the payment by the giropay gateway. In this case, the transaction result will be automatically updated by the system within a day.

Q: The giropay payment did not succeed. Why can't I re-use the same orderid for a credit card payment?

A: An `orderid` can be used only once in Sparkassen-Internetkasse. Due to the unsuccessful giropay payment the `orderid` has already been assigned. Please choose another `orderid` for the next request to the Sparkassen-Internetkasse service.

6 Shop informations on the giro pay login page

You can display informations to your customers on the login page on the giro pay frontend by transferring the parameters intended for this purpose.

The login page is shown to the customer after the payment has been initialised by your shop (step 9 in Section “Function description”, p. 8). Figure 6-1, p. 36 shows a section of a login page. The design of the login page may vary from bank to bank.

The screenshot displays a web interface for the giro pay login page. At the top, there is a navigation bar with five tabs: "1. Bezahlung", "2. Banking Login", "3. Überweisung", "4. Ergebnis", and "5. Shop-Übersicht". Below the navigation bar, the "giro pay" logo is visible, followed by the heading "Zusatzinformationen". The main content area contains the following text:

Die folgende giro pay-Zahlung soll durchgeführt werden.
giro pay-Zahlung:
label0: text0
label1: text1
label2: text2
label3: text3
label4: text4
Betrag: 12,34 EUR
Verwendungszweck: basket id
GIROPAY0011000000SHLNO5V1O1

Below this information, the heading "Online-Banking: Anmelden" is displayed in red. Underneath, there are three input fields: "Anmeldename oder Legitimations-ID:" and "PIN :". Below the input fields, a disclaimer states: "Mit dem Absenden Ihrer Anmeldeinformationen bestätigen Sie, dass Sie unsere [Sicherheitshinweise](#) zur Kenntnis genommen haben." At the bottom, there are two buttons: a grey button labeled "giro pay abrechen + zurück zum Shop" and a red button labeled "Anmelden".

Figure 6-1: giro pay login page

In addition to input fields for login name and PIN, the login page contains informations about the payment: amount and currency, reason for payment and optionally additional information.

The first line of the reason for payment corresponds to the value of the `basketid` (formservice) or `basketnr` (shop interface) parameter you submitted to the Sparkassen-Internetkasse service. The second line of the reason for payment is filled in by the giropay system. The reason for payment which is displayed here will also appear on the customer's account statement.

You can have additional information displayed to the customer by submitting the optional parameters `label0` - `label4` and `text0` - `text4`. These parameters are displayed as shown in Figure 6-1, p. 36: up to five lines, each starting with the `label` parameter, followed by a colon. the corresponding text parameter is displayed in a second column.

7 Appendix

7.1 Test data

Test data are available for testing the functionality during integration of Sparkassen-Internetkasse. Use these test data only on the test system. Payments will only be simulated there.

The bank details in the table below can be used to test giro pay online bank transfers and the age verification. You can enter any 5 character PIN on the giro pay login page and any 6 digit number as TAN. For the error cases you can also use other IBANs than the ones mentioned below.

BIC	IBAN	Login name	rc Payment/AVS
TESTDETT421	DE46940594210000012345 DE19940594210000012346	sepatest1	4000/4010
TESTDETT421	DE46940594210000012345 DE19940594210000012346	sepatest2	4000/4020
WELADED1AUS	DE25870560009110000000		1910
WELADED1ZWI	DE42870550009110000000		1920
SOLADES1SME	DE76870530009110000000		1930

Table 7-1: Test data

7.2 Result messages / response messages

7.2.1 Sparkassen-Internetkasse messages

The following table explains the return values of the `posherr` (shop interface) or `directPosErrorCode` (form service) field. The return value is in the first column. The second column shows the meaning of this value. The third column shows how the trading system should react to this return value.

When processing these messages in the shop system, please note that they are not meant to be passed directly to the ordering customer. Simplified messages such as *Approved*, *Approval rejected*, or *Processing not possible at this time* should be forwarded to the customer where necessary. Use the receipt function of the Sparkassen-Internetkasse service to issue a proper receipt.

Incorrect could also mean that the corresponding value is blank or not available.

Results value	Meaning	Reaction
0	Transaction successfully concluded	Enter result in database or shop system.
100	Transaction with the payment gateway not concluded successfully	The analysis of the error code (field rc) received by the gateway is decisive for processing the request further.
102	Timeout	The shop may not perform any further transactions with this transaction number to avoid double postings. The underlying business transaction should consider payment not made. The state of this transaction at the gateway is unknown. In this case, the trader should ask Support personnel for clarification. If the transaction has been successfully concluded at the gateway, Support personnel will reverse the payment.
103	Transaction with eScore not concluded successfully	The analysis of the error code (field rc) received by the gateway is decisive for processing the request further.
104	POA-Transaction not concluded successfully	The analysis of the error code (field rc) received by the gateway is decisive for processing the request further.
106	No transaction under this tref-num.	Investigate whether the specified transaction reference number really corresponds to a preceding transaction. Contact Support personnel for clarification if this is the case.
107	No transaction under this transaction number.	Investigate whether the specified procedure number really corresponds to a preceding transaction. Contact Support personnel for clarification if this is the case.
108	Transaction number already assigned.	Select a unique transaction number for each transaction.
118	Invalid amount for refund or capture	Check the transferred amount and compare it with the amount of the previous transaction.
133	Card expired	If possible, the shop should prompt the customer to correct the credit card data entered and to resubmit the transaction.
141	Trader does not accept this card type.	Display the possible credit card types. If the error was not caused by customer entry, contact your Support personnel for clarification.
151	Invalid response message	Do not perform any further transactions with this transaction number to avoid double postings. The underlying business transaction should consider payment not made. The state of this transaction at the Gateway is unknown. Ask customer support for clarification. If the transaction has been successfully concluded at the gateway, Support personnel will reverse the payment.
156	orderid parameter incorrect.	Check the content of the orderid parameter and compare its format with the documentation.

Results value	Meaning	Reaction
157	creditc parameter incorrect.	Check the content of the creditc parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.
158	expdat parameter incorrect.	Check the content of the expdat parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value. Provide the customer with selection fields in order to avoid incorrect entries.
159	currency parameter incorrect.	Check the content of the currency parameter and compare its format with the documentation. The currency for direct debits has to be EUR. If necessary, inform your customer about the incorrect entry and offer to correct the value. Allow the customer to choose from possible currencies in order to avoid incorrect entries.
160	amount parameter incorrect.	Check the content of the amount parameter and compare its format with the documentation.
162	trefnum parameter incorrect.	Check the content of the trefnum parameter and compare its format with the documentation.
165	Unpermitted parameter	Check the parameter transmitted in the request message and compare it with the mandatory parameters described in the documentation.
166	command parameter incorrect.	Check the content of the command parameter and compare its format with the documentation.
172	Access denied.	Please report to your Support personnel for clarification if this response appears more than once.
186	Transaction already captured, reversed or concluded.	Check if you tried to carry out the transaction twice by mistake.
197	Invalid request	Implement the interface according to the documentation. If you are unable to solve the problem, contact your Support personnel.
198	System is temporarily out of order.	Please report to your Support personnel for clarification if this response appears more than once.
199	System error	The state of this transaction at the Gateway is unknown. Ask Support personnel for clarification.
300	No connection to gateway	Please report to your Support personnel for clarification if this response appears more than once.
303	cvcode parameter incorrect.	Check the content of the cvcode parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.
304	bankcode parameter incorrect.	Check the content of the bankcode parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.

Results value	Meaning	Reaction
305	account parameter incorrect.	Check the content of the account parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.
307	Direct debit not allowed.	Please report to your Support personnel for clarification if this response appears more than once.
308	Configuration for this payment or precheck was not created.	Please report to your Support personnel for clarification if this response appears more than once.
309	Configuration for this payment or precheck was blocked.	Please report to your Support personnel for clarification if this response appears more than once.
310	payment_options parameter incorrect.	Check the content of the payment_options parameter and compare its format with the documentation.
311	customer_id parameter incorrect.	Check the content of the customer_id parameter and compare its format with the documentation.
312	customer_title parameter incorrect.	Check the content of the customer_title parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.
313	customer_firstname parameter incorrect.	Check the content of the customer_firstname parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.
314	customer_lastname parameter incorrect.	Check the content of the customer_lastname parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.
315	customer_date_of_birth parameter incorrect.	Check the content of the customer_date_of_birth parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.
316	customer_addr_street parameter incorrect.	Check the content of the customer_addr_street parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.
317	customer_addr_number parameter incorrect.	Check the content of the customer_addr_number parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.
318	customer_addr_zip parameter incorrect.	Check the content of the customer_addr_zip parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.
319	customer_addr_city parameter incorrect.	Check the content of the customer_addr_city parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.

Results value	Meaning	Reaction
320	customer_addr_country parameter incorrect.	Check the content of the customer_addr_country parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.
321	customer_since_mm parameter incorrect.	Check the content of the customer_since_mm parameter and compare its format with the documentation.
322	customer_since_yy parameter incorrect.	Check the content of the customer_since_yy parameter and compare its format with the documentation.
323	This transaction type is not allowed for the configured gateway.	Check the content of the command and payment_options parameters and compare their format with the documentation.
324	Error in request during entry check	Please report to your Support personnel for clarification if this response appears more than once.
332	providerid parameter incorrect.	Check the content of the providerid parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.
333	msisdn parameter incorrect.	Check the content of the msisdn parameter and compare its format with the documentation. If necessary, inform your customer about the incorrect entry and offer to correct the value.
334	paymentmethod parameter incorrect.	Check the content of the paymentmethod parameter and compare its format with the documentation.
335	tracenumbr parameter incorrect.	Check the content of the tracenumbr parameter and compare its format with the documentation.
336	terminalid parameter incorrect.	Check the content of the terminalid parameter and compare its format with the documentation.
337	terminalid and tracenumbr have to be submitted together.	Check the content of the terminalid and tracenumbr parameters. Do not submit only one of these parameters.
338	3-D-Secure authorisation failed.	Inform your customer about the incorrect entry. The transaction may be repeated.
339	autocapture parameter incorrect.	Check the content of the autocapture parameter and compare its format with the documentation.
341	The mobile phone provider is not accepted by the merchant.	Check the content of the providerid parameter and compare its format with the documentation.
342	basketnr or basketid parameter incorrect.	Check the content of the basketnr or basketid parameter and compare its format with the documentation.
343	Credit card not issued in an accepted country.	Ask the customer to choose another means of payment.
344	Credit card not issued in the specified country.	Ask the customer to choose another means of payment.

Results value	Meaning	Reaction
345	This merchant may only refund amounts of transactions that have already been carried out.	Check if the refund is related to a transaction that has already been carried out.
346	timestamp parameter incorrect.	Check the content of the timestamp parameter and compare its format with the documentation.
347	Aborted by user.	Let the customer choose another payment method.
349	Limit exceeded.	Show an error message to the customer. If necessary, check the limit configuration in the front office.
350	This means of payment is on the blacklist.	Show an error message to the customer. If necessary, check the blacklist configuration in the front office.
351	giropay payments are currently not possible with this institute.	Show an error message to the customer.
352	The bank code is unknown.	Show an error message to the customer. Offer the customer to try again. It is possibly a typing error.
353	The card number alias already exists.	Send the request again with a new, unique card number alias or send the request without a card number alias. In this case, Sparkassen-Internetkasse will generate a card number alias and return it to you in the response.
354	The merchant is not allowed to use card number aliases.	If you agreed on using card number aliases probably your account has not been configured properly. In this case, please contact customer support. Otherwise check if your input parameters are in accordance with the documentation.
355	The merchant is only allowed to use card number aliases.	If you did not agree on using card number aliases probably your account has not been configured properly. In this case, please contact customer support. Otherwise check if your input parameters are in accordance with the documentation.
356	The submitted card number alias is unknown.	Check the value of the card number alias. Perhaps a previous attempt to create this card number alias failed and you therefore assume that it exists.
357	ppan parameter incorrect.	Check the content of the ppan parameter and compare its format with the documentation.
358	The submitted card number alias is unknown.	If you don't know which card number alias is assigned to this credit card, the shop interface provides the possibility to find the card number alias. Please read the documentation.
359	A transaction with this transaction number is currently in work.	Probably you submitted the same transaction twice at the same time. Please avoid this in the future.
360	The merchant is not allowed to submit credit card data at this interface.	Use credit card aliases with this interface. If you are PCI certified you can have your account re-configured to allow you to submit credit card data at this interface.
361	additionalnote parameter incorrect.	Check the content of the additionalnote parameter and compare its format with the documentation.

Results value	Meaning	Reaction
362	Bank does not participate in giro-pay.	Offer the customer to enter another bank account or to choose another payment method.
370	The card number alias was created for a different payment method.	Correct the payment method or use the appropriate alias.
372	Session timeout	Repeat the payment.
373	iban parameter incorrect.	Check the content of the iban parameter and compare its format with the documentation.
374	bic parameter incorrect.	Check the content of the bic parameter and compare its format with the documentation.
375	The means of payment of a follow-up transaction has to be the same as with the initial transaction.	Omit all means of payment details that are not documented for this type of transaction. The means of payment of the predecessor transaction will be used then.
376	This means of payment is on the blacklist.	Show an error message to the customer.
377	Mandate modifications only in recurring payments	Remove the mandate modification data or mark the transaction as a recurring payment.
378	Reference not found	Select the correct reference.
500	Card type not accepted for currency.	Display the possible credit card types for this currency. If the error was not caused by customer entry, contact your Support personnel for clarification.

Table 7-2: Sparkassen-Internetkasse messages

7.2.2 giro-pay gateway messages

The following values are possible in the rc field:

Results value	Meaning
1000	Transaction successfully initialised
1900	Initialisation failed
1910	No connection to customer bank
1920	Customer bank not available because of merger
1930	Customer account is blacklisted
1940	Wrong or incomplete information about customer account
2000	Customer did not enter PIN or TAN (timeout)
2400	Not a valid online banking account
3100	Payment cancelled by customer
3900	Bank went offline during transaction

Results value	Meaning
4000	Transaction successful
4010	Age verification is positively confirmed
4015	Age verification unknown (could not be determined by the bank)
4020	Age verification is negatively confirmed
4500	Status of transaction unknown
4900	Transaction failed
9942	Error, end of transaction processing
9999	Internal error

Table 7-3: Messages of the giro pay gateway

7.3 Parameter format description

All characters that define the format of a parameter are listed and explained in the following table.

Character	Meaning
A	Letter
N	Numbers
S	Special characters
L	Blanks
Xn	exactly n characters
X-n	maximum n characters
FIX	fixed string
[]	A number of permitted characters are listed between square brackets. ^a
Examples	
N5	Number with exactly 5 characters
ANS-10	String with up to 10 characters This string may contain letters, numbers and special characters, but no blanks.
AN[_]-10	String with up to 10 characters This string may contain letters, numbers and the character '_', but no blanks.

^a If the square bracket itself is also allowed, then it appears twice, e.g. [[]].

Table 7-4: Format description

8 Glossary

BIC	Business Identifier Code. Unique identification code for both financial and non-financial institutions participating in international money transfers.
Gateway	A gateway is an interface between different networks and services. The giro pay gateway refers to the transfer point between the Sparkassen-Internetkasse system and the systems of the banks that participate in giro pay.
HTML	Hypertext Markup Language: Page mark-up language that implements universal document formatting and enables linking.
HTTP	Hypertext Transfer Protocol: Transfer protocol for data exchange in computer networks
HTTPS	Hypertext Transfer Protocol Secure: Hypertext Transfer Protocol Secure: Especially secure transfer protocol for data exchange in computer networks; uses SSL
IBAN	International Bank Account Number. Internationally agreed means of identifying bank accounts.
JavaScript	Script language for HTML files. (Scripts are not processed directly but instead must be converted to machine code step by step.)
MAC	Message authentication code: Cryptographic check value; ensures the integrity and authenticity of messages.
Meta tag	A tag placed in the header of an HTML file. See also: Tag
Redirect	Automatic rerouting.
RGB	Red, green, blue; colour description, in which each colour is represented by three values for the red, green and blue part. The range of values for each colour usually is 0 to 255.
SEPA	Single Euro Payments Area. Aims at improving the efficiency of cross border payments.
Server	Central computer in a network (e.g. Internet, intranet). The server provides other computers (clients) with services such as data, disk space and resources.
SessionID	Unique identification number of a process
SSL	Secure Socket Layer: a protocol for the encrypted transfer of sensitive data (e.g. credit card numbers) over the Internet
Tag	Marker or control character in page mark-up languages. In the source text, tags are marked by angle brackets.
URL	Uniform Resource Locator: the address where a document is located in the World Wide Web

VÖB-ZVD	VÖB-ZVD Processing is an institution of the Bundesverband Öffentlicher Banken Deutschlands e.V. (VÖB)
Web browser	Program which processes and displays data from the Internet (see Web/WWW) on a local computer (e.g. Netscape or Internet Explorer)
WWW	World Wide Web or Web for short: Part of the Internet, a worldwide computer network