



iPay

Integration Guide

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Document history

Date	Name	Change
04.10.2016	Peter Posse	First version based on Paygate Manual 6.10

ABOUT IPAY

General information about iPay

Electronic wallets are convenient, popular and have been taken for granted for many years. There are several benefits from the direct exchange of virtual cash: The merchant can access cash payments quickly and can ship goods to the customer immediately. The merchant generally pays lower fees for small amounts. The customer can pay for goods without giving out bank or credit card details.

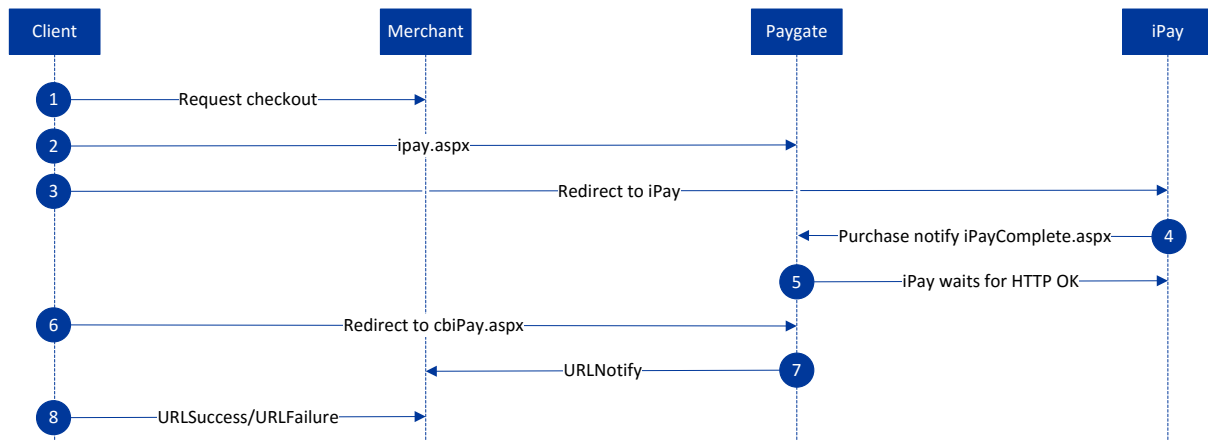
eWallets are usually topped up by bank transfer, direct debit or saved credit card details. It is now possible to use them in retail outlets with a special app on your smartphone controlling the payment process via QR code or NFC technology.



The iPay Wallet supports secure online payments on the PC and on mobile devices (iOS, Android, Windows). As iPayTag it also allows payment from your smartphone in shops with an NFC sticker. It is topped up via bank transfer or credit/debit card.

Further information can be found on the webpage of iPay (<https://ipay.eu>).

Process flow chart



iPay process flow

PAYGATE INTERFACE

Definitions

Data formats:

Format	Description
a	alphabetical
as	alphabetical with special characters
n	numeric
an	alphanumeric
ans	alphanumeric with special characters
ns	numeric with special characters
bool	boolean expression (true or false)
3	fixed length with 3 digits/characters
..3	variable length with maximum 3 digits/characters
enum	enumeration of allowed values
dtm	ISODateTime (YYYY-MM-DDDhh:mm:ss)

Abbreviations:

Abbreviation	Description
CND	condition
M	mandatory
O	optional
C	conditional

Calling the iPay interface

In order to initialise a payment with iPay Wallet via a Paygate form, go to the following URL:

<https://www.computop-paygate.com/iPay.aspx>

Notice: For security reasons, Paygate rejects all payment requests with formatting errors. Therefore please use the correct data type for each parameter.

The following table describes the encrypted payment request parameters:

Parameter	Format	CND	Description
MerchantID	ans..30	M	MerchantID, assigned by Computop
TransID	ans..64	M	TransactionID of the merchant, which has to be unique for each payment (order number)
SiteID	ans..15	O	Online shop identification number
RefNr	ns..30	M	Unique reference number (invoice number)
Amount	n..12	M	Amount in the smallest currency unit (e.g. EUR Cent) Please contact the helpdesk, if you want to capture amounts < 100 (smallest currency unit).
Currency	a3	M	Currency, three digits DIN / ISO 4217
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
OrderDesc	ans..768	M	Description of the goods purchased: article name; quantity; price per article; price for all articles; currency. Each value is separated by a semicolon ";". Several articles are linked using the plus sign "+". Example: Bicycle;2;100;200;EUR+helmet;1;20;20;EUR
URLSuccess	ans..256	M	Complete URL which calls up Paygate if payment has been successful. The URL may be called up only via port 443 This URL may not contain parameters: In order to exchange values between Paygate and shop, please use the parameter UserData .
URLFailure	ans..256	M	Complete URL which calls up Paygate if payment has been unsuccessful. The URL may be called up only via port 443 This URL may not contain parameters: In order to exchange values between Paygate and shop, please use the parameter UserData .
Response	a7	O	Status response sent by Paygate to URLSuccess and URLFailure , should be encrypted. For this purpose, transmit Response=encrypt parameter.
URLNotify	ans..256	M	Complete URL which Paygate calls up in order to notify the shop about the payment result. The URL may be called up only via port 443 It may not contain parameters: Use the UserData parameter instead.
UserData	ans..1024	O	If specified at request, Paygate forwards the parameter with the payment result to the shop
ReqID	ans..32	O	To avoid double payments, enter an alphanumeric value which identifies your transaction and may be assigned only once. If the transaction is submitted again with the same ReqID , Paygate will not carry out the payment, but will just return the status of the original transaction.
FirstName	ans..30	M	First name of the customer
LastName	ans..30	M	Last name of the customer
AddrStreet	ans..32	O	Customer's street
AddrStreetNr	ans..5	O	Customer's street number
AddrZip	n..5	O	Postcode of the customer
AddrCity	ans..32	O	Customer's location

AddrCountryCode	a2	O	Country code of the customer's residence, 2 characters according to ISO 3166.
Email	ans..100	M	Email address of the customer
Phone	ans..20	O	Customer's phone number
IPAddr	ans..15	M	IP address
Note	ans..768	O	Description for the purchase
Plain	ans..50	O	A value to be set by the merchant to return some information unencrypted, e.g. the MID
Custom	ans..1024	O	The merchant can submit several values separated by which are returned unencrypted and separated by &. Custom=session=123 id=456 will change in the answer to Session=123&id=456

Parameters for payments with iPay

The following table gives the result parameters which the Paygate transmits to **URLSuccess** or **URLFailure** and **URLNotify**. If you have specified the **Response=encrypt** parameter, the following parameters are forwarded Blowfish encrypted to your system:

Parameter	Format	CND	Description
MID	ans..30	M	MerchantID, assigned by Computop
PayID	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files.
XID	an32	M	ID for all single transactions (authorisation, capture, credit note) for one payment assigned by Paygate
TransID	ans..64	M	Merchant transaction number, which must be unique
RefNr	ns..30	O	Unique reference number
Status	a..50	M	OK or FAILED
Description	ans..1024	M	Further details in the event that payment is rejected. Please do not use the Description but the Code parameter for the transaction status analysis!
Code	n8	M	Error code according to Paygate Response Codes Excel file (part of the software client from www.computop.de/manual)
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
UserData	ans..1024	O	If specified at request, Paygate forwards the parameter with the payment result to the shop
Plain	ans..50	O	A value to be set by the merchant to return some information unencrypted, e.g. the MID
Custom	ans..1024	O	The merchant can submit several values separated by which are returned unencrypted and separated by &. Custom=session=123 id=456 will change in the answer to Session=123&id=456

Result parameters for URLNotify, URLSuccess and URLFailure in case of iPay

Capture

Captures are possible via a Server-to-Server connection. To carry out a Capture for iPay via a Server-to-Server connection please use the following URL:

<https://www.computop-paygate.com/capture.aspx>

Notice: For security reasons, Paygate rejects all payment requests with formatting errors. Therefore please use the correct data type for each parameter.

The following table describes the encrypted payment request parameters:

Parameter	Format	CND	Description
MerchantID	ans..30	M	MerchantID, assigned by Computop
PayID	an32	M	ID assigned by Paygate for the payment to be captured
TransID	ans..64	M	TransactionID which should be unique for each payment
RefNr	ns..30	M	Merchant's unique reference number
Amount	n..12	M	Amount in the smallest currency unit (e.g. EUR Cent) Please contact the helpdesk, if you want to capture amounts < 100 (smallest currency unit).
Currency	a..3	M	Currency code, three digits DIN / ISO 4217
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm

Parameters for iPay captures

The following table describes the Paygate response parameters:

Parameter	Format	CND	Description
MID	ans..30	M	MerchantID, assigned by Computop
PayID	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files.
XID	an32	M	ID for all single transactions (authorisation, capture, credit note) for one payment assigned by Paygate
TransID	ans..64	M	Merchant's transaction number
Status	a..50	M	OK or FAILED
Description	ans..1024	M	Further details in the event that payment is rejected. Please do not use the Description but the Code parameter for the transaction status analysis!
Code	n8	M	Error code according to Paygate Response Codes Excel file (part of the software client from www.computop.de/manual)
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
RefNr	ns..30	M	Merchant's unique reference number

Result parameters for iPay captures

Credit with reference

Credits (refunds) are possible via a Server-to-Server connection. If you refer to a capture for a Credit, the amount of the Credit is limited to the amount of the previous capture.

To carry out a credit with a reference transaction, please use the following URL:

<https://www.computop-paygate.com/credit.aspx>

Notice: For security reasons, Paygate rejects all payment requests with formatting errors. Therefore please use the correct data type for each parameter.

The following table describes the encrypted payment request parameters:

Parameter	Format	CND	Description
MerchantID	ans..30	M	MerchantID, assigned by Computop
PayID	an32	M	ID assigned by Paygate for the payment to be credited
TransID	ans..64	M	TransactionID which should be unique for each payment
Amount	n..12	M	Amount in the smallest currency unit (e.g. EUR Cent) Please contact the helpdesk, if you want to capture amounts < 100 (smallest currency unit).
Currency	a..3	M	Currency code, three digits DIN / ISO 4217
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
RefNr	ns..30	O	Unique reference number (e.g. invoice number)
UserData	ans..1024	O	If specified at request, Paygate forwards the parameter with the payment result to the shop

Parameters for credits of iPay payments

The following table describes the Paygate response parameters:

Parameter	Format	CND	Description
MID	ans..30	M	MerchantID, assigned by Computop
PayID	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files.
XID	an32	M	ID for all single transactions (authorisation, capture, credit note) for one payment assigned by Paygate
TransID	ans..64	M	Merchant's transaction number
Status	a..50	M	OK or FAILED
Description	ans..1024	M	Further details in the event that payment is rejected. Please do not use the Description but the Code parameter for the transaction status analysis!
Code	n8	M	Error code according to Paygate Response Codes Excel file (part of the software client from www.computop.de/manual)
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
RefNr	ns..30	O	Unique reference number
UserData	ans..1024	O	If specified at request, Paygate forwards the parameter with the payment result to the shop

Response parameters for credits of iPay payments

BATCH PROCESSING VIA THE INTERFACE

Basic information about using Batch files and about their structure can be found in the Batch Manager manual.

This section describes the parameters which must be transferred within the data set (**Record**) for executing an iPay payment and which information can be found within the response file about the payment status.

Following table gives an overview of all batch versions that are possible for a specific action and their specialities:

Action	Version	Description
Credit	1.0 / 2.0	Standard version without return of parameter Code
	1.x / 2.x	with RefNr (valid for all versions other than 1.0)

Description of the possible batch versions

The structure for an iPay payment in a Batch file to be submitted is as follows:

```
HEAD,<MerchantID>,<Date>,<Version>
iPay,Credit,<Amount>,<Currency>,<TransID>,( <RefNr>,) <PayID>
FOOT,<CountRecords>,<SumAmount>
```

The following table describes the individual fields and values used within the data set (record) in the batch file:

Parameter	Format	CND	Description
Type	a..11	M	HEAD for Header, FOOT for Footer, iPay for iPay
Action	a..20	M	The parameter Action defines the type of transaction: Credit
Amount	n..12	M	Amount in the smallest currency unit (e.g. EUR Cent) Please contact the helpdesk, if you want to capture amounts < 100 (smallest currency unit).
Currency	a3	M	Currency code, three digits DIN / ISO 4217
TransID	ans..64	M	TransactionID which should be unique for each payment
RefNr	ns..30	O	Unique reference number
PayID	an32	M	ID for this transaction given by Paygate

Description of fields within the record for Batch files

The record area within the response file for Batch transactions looks as follows:

```
HEAD,<MerchantID>,<Date>,<Version>
iPay,Credit,<Amount>,<Currency>,<TransID>,( <RefNr>,) <PayID>,<Status>,<Code>
FOOT,<CountRecords>,<SumAmount>
```

The following table describes the response parameters which the Batch Manager saves in the Record area for each transaction (standard parameters not explained here, such as <TransID> or <RefNR> and request parameters are returned unchanged and correspond to the call as specified before):

Parameter	Format	CND	Description
Action	a..20	M	The parameter Action defines the type of transaction: Credit
PayID	an32	M	ID for this transaction given by Paygate
Status	a..50	M	OK or FAILED
Code	n8	M	Error code according to Paygate Response Codes Excel file (part of the software client from www.computop.de/manual)

Description of result parameters within the record for Batch files