



PostFinance

Integration Guide

Version 6.2.2

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Document history

Date	Name	Change
14.02.2017	Peter Posse	TranscationID added
04.10.2016	Peter Posse	First version based on Paygate Manual 6.10

ABOUT POSTFINANCE

General information about PostFinance

Computop's Paygate supports various online transfers in different countries via the acquirer PPRO. Merchants benefit from the payment guarantee, the immediate execution by advance payment and the large reachable customer base. On the other hand, customers use the familiar environment of their online banking and thus also gain confidence in the online shop. This lowers the number of cancelled orders and increases the conversion rate.

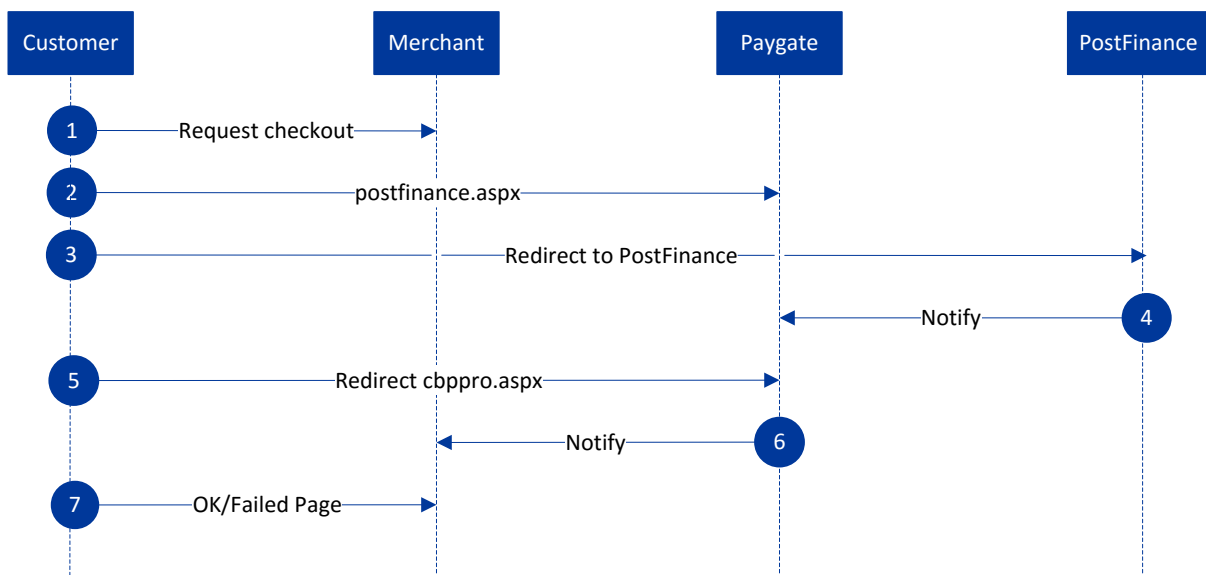
The PostFinance-Bank's Yellowpay online transfer operates without a transaction limit, but with a payment guarantee for the merchant and reaches more than 3.5 million potential in Switzerland.



PostFinance is an online banking payment method in Switzerland and is the market leader in Swiss payment transactions with a market share of around 60%. With PostFinance merchants can reach over 3.5 million potential customers.

Further information can be found on the webpage of PostFinance (<https://www.postfinance.ch/>).

Process flow chart



PostFinance 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

Payment with PostFinance via Paygate form interface

To make a payment with PostFinance (E-Finance) online transfer in Switzerland, go to the following URL:

<https://www.computop-paygate.com/postfinance.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	Merchant transaction number, which must be unique
RefNr	ans..30	O	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	a3	M	Currency, three digits DIN / ISO 4217 Only EUR and CHF permissible.
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
OrderDesc	ans..768	M	Description of goods and prices. Intended purpose on the statement of account
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.
SellingPoint	ans..50	O	Selling point
Service	ans..50	O	products or service sold
Channel	ans..64	O	configuration channel of the PPRO contract (account and ContractID are stored in the system). If it exists, it may overwrite channels stored in the system
AccOwner	ans..50	M	Name of account holder
Device	a6	O	Device selection: if "Mobile" is submitted the mobile version of PostFinance is called instead of the desktop version
ProductName	a..24	O	preselection of payment type to be used - yellownet (for eFinance) - PostFinanceCard (for PostFinance card) Notice: If this parameter is not submitted, the customer can select payment type by himself later.

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 un-encrypted and separated by &. Custom=session=123 id=456 will change in the answer to Session=123&id=456

Parameters for payments with PostFinance

The following table describes the result parameters that the Paygate transmits to your **URLSuccess**, **URLFailure** or **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 for one payment assigned by Paygate
TransID	ans..64	M	Merchant's transaction number
RefNr	ans..30	O	Merchant's unique reference number
Status	a..30	M	OK in the case of URLSuccess and AUTHORIZE_REQUEST or FAILED in the case of URLFailure
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
TID	ans..40	O	Transaction reference for PostFinance
PaymentPurpose	ans..26	M	Purpose of payment
PaymentGuarantee	a..12	C	NONE = no payment guarantee, VALIDATED = customer account valid, but no payment guarantee, FULL = payment guarantee Notice: This parameter is only returned if the Status=OK.
ErrorText	ans..256	C	Detailed PPRO error message. Notice: Is returned only if Status=FAILED. Use is possible only in agreement with Computop support.
TransactionID	an..20	O	Unique transaction number from PPRO
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 un-encrypted and separated by &. Custom=session=123 id=456 will change in the answer to Session=123&id=456

Return parameters for URLSuccess, URLFailure and URLNotify with PostFinance

Credit with reference

Credits (refunds) are possible via a Server-to-Server connection. For a Credit with reference to a capture 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>

The following tables describe the transfer parameters and return values which are exchanged via the socket connection.

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

Parameters for credit payments with PostFinance via socket connection

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	ans..30	O	Merchant's unique reference number
ErrorText	ans..256	C	Detailed PPRO error message. Notice: This parameter is only returned if the Status=FAILED. Use is possible only in agreement with Computop support.
TransactionID	an..20	O	Unique transaction number from PPRO

Response parameters for credit payments with PostFinance via socket connection

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 a PostFinance credit 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 a PostFinance credit within a Batch file to be submitted is the following:

```
HEAD,<MerchantID>,<Date>,<Version>
PostFinance,Credit,<PayID>,<TransID>,( <RefNr> ),<Amount>,<Currency>
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, PostFinance for PostFinance
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	ans..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 the following way:

```
HEAD,<MerchantID>,<Date>,<Version>
PostFinance,Credit,<PayID>,<TransID>,( <RefNr> ),<Amount>,<Currency>,<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