



Swish

Integration Guide

Version 6.2.2

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Document history

Date	Name	Change
04.01.2018	Peter Posse	Configuration for Swish added
18.10.2017	Peter Posse	First version

ABOUT SWISH

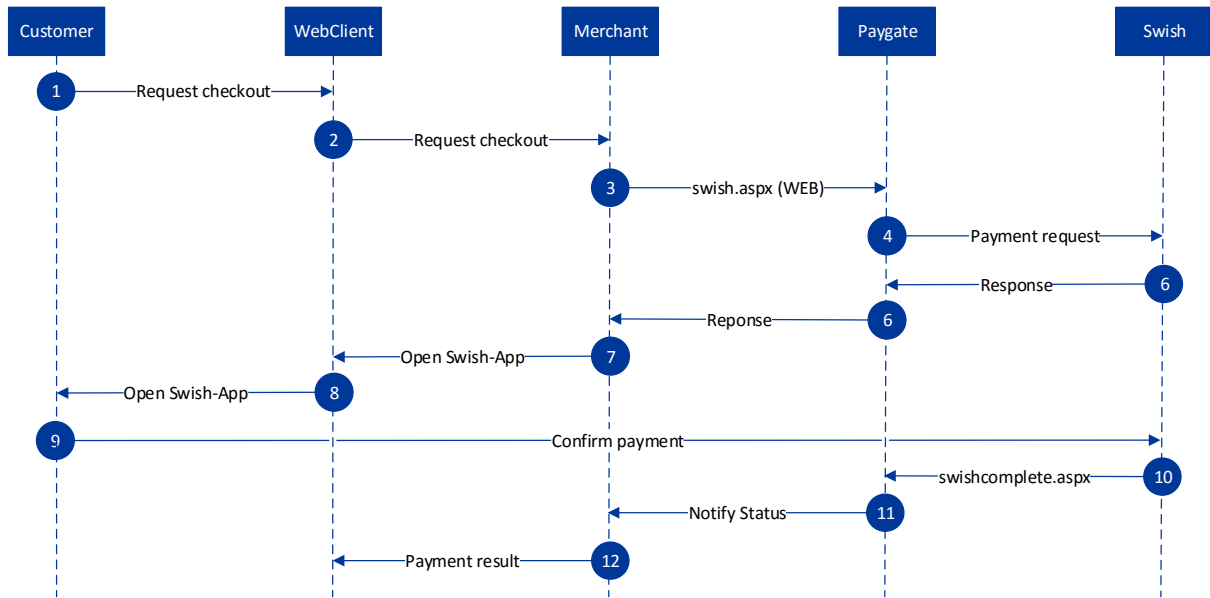
General information about Swish



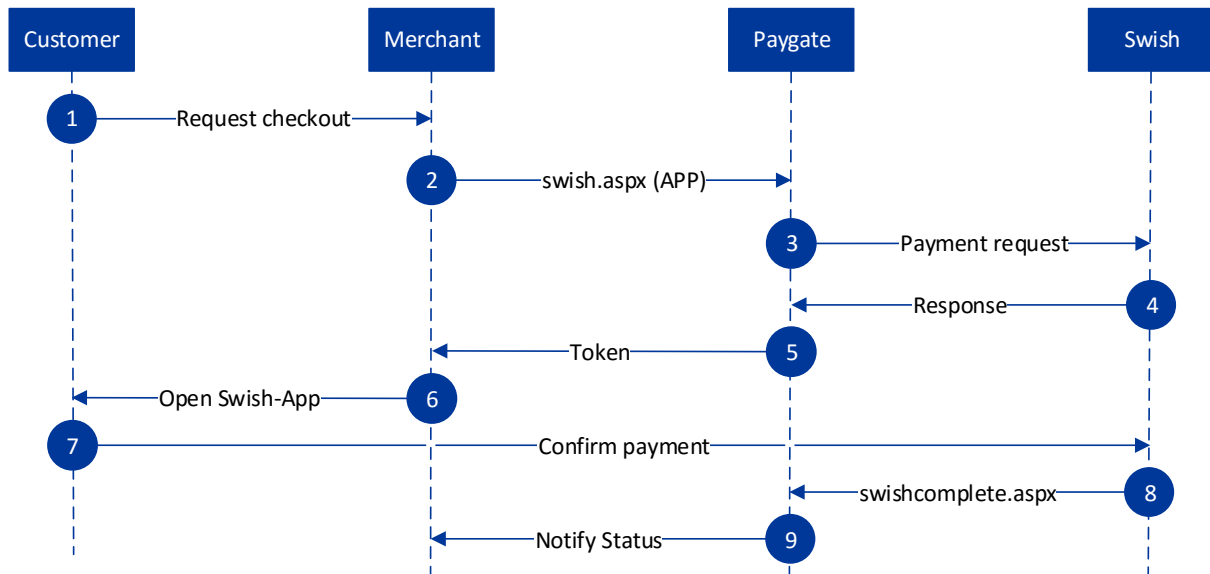
The Swedish payment method Swish is one of the most popular payment methods in Sweden. More than half of the population uses the app on their cell phones. Originally Swish was a joint venture project of the most popular Swedish banks as a pure P2P-payment method. Since 2017 it is also available for E-Commerce and POS. If you want to pay, you can either do it via scan of a QR-code or the submission of your mobile or swish number.

Further information can be found on the webpage of Swish (<https://www.getswish.se/>).

Process flow charts



Process flow e-commerce checkout with Swish



Process flow m-commerce checkout with Swish

CONFIGURATION FOR SWISH

Certificate Management

Each merchant needs a certificate for each MID. For the Certificate Management, you need to download the following document: https://www.getswish.se/content/uploads/2015/06/Guide-Certifikatsadministration_160118.pdf

You need to Order a new Certificate, as described in section 2.6 of the downloaded document. The Certificate Signing Request (CSR) will be provided by Computop.

Overview of the Certificate Management process:

1. Once you have access to Swish Certificate Management Tool, contact Computop at helpdesk@computop.com with request for Swish CSR
2. Computop creates CSR and sends it to you
3. You will need to upload the CSR received from Computop in Swish Certificate Management Tool
4. You will generate and download the Certificate, as described in section 2.6 of the downloaded document. The format of Certificate can be either PEM or PKCS#7.
5. You will send back to Computop the Certificate as response to email with CSR received from Computop

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

Notice: Please note that the names of parameters can be returned in upper or lower case.

Call of Paygate interface for Swish

Please enter the following URL to process a Swish payment via the Paygate form:

<https://www.computop-paygate.com/swish.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..35	M	TransactionID which should be unique for each payment
RefNr	ans..35	O	Unique reference number
Amount	n..12	M	Amount in the smallest currency unit (e.g. SEK Öre) Please contact the helpdesk, if you want to capture amounts < 100 (smallest currency unit).
Currency	a3	M	Currency, three digits DIN / ISO 4217 Only SEK permitted
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
OrderDesc	ans..128	M	Description of purchased goods, unit prices etc. Permitted characters a-ö, A-Ö, the digits 0-9 and the special characters ;,.,?!()".
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.
Channel	a3	M	Channel for processing the payment Possible values: Web or App Web = eCommerce App = mCommerce
MobileNr	n20	C	Customer's mobile telephone number. (mandatory if Channel = Web) The submitted mobile telephone number of that person that makes the payment. Only digits are allowed and it must have at least 8 digits and maximal 15 digits. In order to get found by Swish, it also must comply with the following format: Country code + Mobile telephone number (without leading Zero). e.g.: 46712345678
URLNotify	ans..256	O	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. This URL must not necessarily be specified if an URLNotify is pre-configured by Computop Support.
UserData	ans..1024	O	If specified at request, Paygate forwards the parameter with the payment result to the shop

Parameters for payments with Swish

The following table describes the result parameters with which the Paygate responds 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..35	M	Merchant's transaction number
RefNr	ans..35	O	Unique reference number
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
Status	a..50	M	AUTHORIZE_REQUEST 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)
CodeExt	ans..256	C	Error code from Swish. Notice: Is returned only if Status=FAILED. Use is possible only in agreement with Computop support.
ErrorText	ans..256	C	Detailed Swish error message. Notice: Is returned only if Status=FAILED. Use is possible only in agreement with Computop support.
TransactionID	ans..50	O	Transaction ID from Swish
TokenExt	an..32	C	In order to open the Swish app TokenExt together with the Custom URL Scheme are necessary. TokenExt is returned only if Channel=App. e.g.: swish://paymentrequest?token=f34DS34lf0d03fdDselkfd3ffk21
URLConfirm	ans..256	O	Location URL. returned by Swish e.g.: https://mss.swicpc.bankgirot.se/swish-cpcapi/api/v1/paymentrequests/A44C22F42E3C4D498C4D8B1D4A6CE743
UserData	ans..1024	O	If specified at request, Paygate forwards the parameter with the payment result to the shop

Result parameters for Swish payments

The following table gives the results parameters which the Paygate transfers to your **URLNotify**. If you have specified the **Response=encrypt** parameter, the following parameters are sent 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..35	M	Merchant's transaction number
RefNr	ans..35	O	Unique reference number
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
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)

CodeExt	ans..256	C	Error code from Swish. Notice: Is returned only if Status=FAILED. Use is possible only in agreement with Computop support.
ErrorText	ans..256	C	Detailed Swish error message. Notice: Is returned only if Status=FAILED. Use is possible only in agreement with Computop support.
TransactionID	ans..50	O	Transaction ID from Swish
TokenExt	an..32	C	In order to open the Swish app TokenExt together with the Custom URL Scheme are necessary. TokenExt ist returned only if Channel=App. e.g.: swish://paymentrequest?token=f34DS34lf0d03fdDselkfd3ffk21
URLConfirm	ans..256	O	Location URL. returned by Swish e.g.: https://mss.swicpc.bankgirot.se/swish-cpcapi/api/v1/paymentre-quests/A44C22F42E3C4D498C4D8B1D4A6CE743
UserData	ans..1024	O	If specified at request, Paygate forwards the parameter with the payment result to the shop

Result parameters for URLNotify

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>

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..35	M	TransactionID which should be unique for each payment
RefNr	ans..35	O	Unique reference number
Amount	n..12	M	Amount in the smallest currency unit (e.g. SEK Öre 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. Only SEK permissible.
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm

Parameters for credits of Swish 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..35	M	Merchant's transaction number
RefNr	ans..35	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

Result parameters for credits of Swish 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 credits with Swish, which 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 Swish payment in a Batch file to be submitted is as follows:

```
HEAD, <MerchantID>, <Date>, <Version>
Swish, 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, Swish for Swish
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. SEK Öre) Please contact the helpdesk, if you want to capture amounts < 100 (smallest currency unit).
Currency	a3	M	Currency code, three digits DIN / ISO 4217. Only SEK permissible.
TransID	ans..35	M	TransactionID which should be unique for each payment
RefNr	ans..35	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>
Swish, 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