


# UPI via PPRO

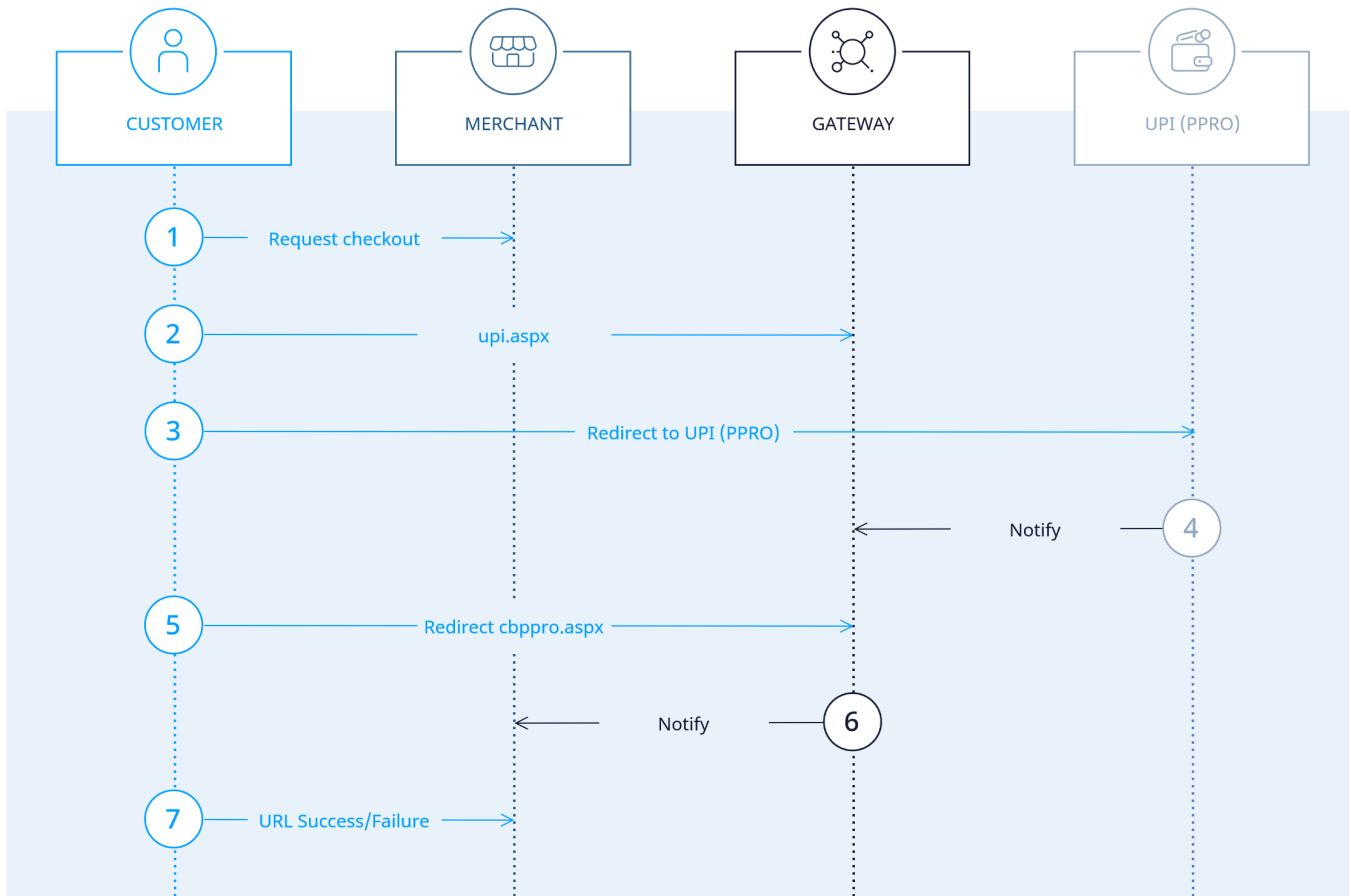
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## About UPI via PPRO

### General information about UPI via PPRO

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### Process flow chart



UPI process flow

## Platform 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-DDThh:mm:ss)

## Abbreviations

Abbreviation	Description	Comment
CND	condition	
M	mandatory	If a parameter is mandatory, then it must be present
O	optional	If a parameter is optional, then it can be present, but it is not required
C	conditional	If a parameter is conditional, then there is a conditional rule which specifies whether it is mandatory or optional

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

## Payment with UPI (PPRO) via form interface

To make a UPI payment via PPRO over a Platform form, please use the following URL:

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

**Notice:** For security reasons, Computop 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](#):

Key	Format	CND	Description
<a href="#">MerchantID</a>	ans..30	M	MerchantID, assigned by Computop. Additionally this parameter has to be passed in plain language too.
<a href="#">TransID</a>	ans..64	M	TransactionID provided by you which should be unique for each payment
<a href="#">refnr</a>	ans..40	O	Merchant's unique reference number. Only characters <i>a-zA-Z0-9,-_</i> are allowed.
<a href="#">Amount</a>	n..10	M	Amount in the smallest currency unit (e.g. EUR Cent). Please contact the <a href="#">Computop Helpdesk</a> , if you want to capture amounts <100 (smallest currency unit).
<a href="#">Currency</a>	a3	M	Currency, three letters DIN / ISO 4217. Only EUR permissible. Please find an overview here: <a href="#">A1 Currency table</a>
<a href="#">MAC</a>	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm. Details can be found here: <ul style="list-style-type: none"> <li><a href="#">HMAC Authentication (Request)</a></li> <li><a href="#">HMAC Authentication (Notify)</a></li> </ul>
<a href="#">Order Desc</a>	ans..768	M	Description of delivered products, services etc.
<a href="#">URLSuccess</a>	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 <a href="#">UserData</a> . <p><b>i Common notes:</b></p> <ul style="list-style-type: none"> <li>We recommend to use parameter "response=encrypt" to get an encrypted response by Paygate</li> <li>However, fraudster may just copy the encrypted DATA-element which are sent to URLFailure and send the DATA to URLSuccess. Therefore ensure to check the "code"-value which indicates success/failure of the action. Only a result of "code=00000000" should be considered successful.</li> </ul>
<a href="#">URLFailure</a>	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 <a href="#">UserData</a> . <p><b>i Common notes:</b></p> <ul style="list-style-type: none"> <li>We recommend to use parameter "response=encrypt" to get an encrypted response by Paygate</li> <li>However, fraudster may just copy the encrypted DATA-element which are sent to URLFailure and send the DATA to URLSuccess/URLNotify. Therefore ensure to check the "code"-value which indicates success/failure of the action. Only a result of "code=00000000" should be considered successful.</li> </ul>
<a href="#">Response</a>	a7	O	Status response sent by Paygate to <a href="#">URLSuccess</a> and <a href="#">URLFailure</a> , should be encrypted. For this purpose, transmit <a href="#">Response=encrypt</a> parameter.

URLNotify	ans..256	M	<p>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 <a href="#">UserData</a> parameter instead.</p> <p><b>Common notes:</b></p> <ul style="list-style-type: none"> <li>Before follow-up actions (capture / credit / reversal) are carried out on an existing transaction, the first Notify must have been answered by the shop.</li> <li>Fraudster may just copy the encrypted DATA-element which are sent to URLFailure and send the DATA to URLSuccess /URLNotify. Therefore ensure to check the "code"-value which indicates success/failure of the action. Only a result of "code=00000000" should be considered successful.</li> </ul>
UserData	ans..1024	O	If specified at request, Paygate forwards the parameter with the payment result to the shop.
ReqID	ans..32	O	<p>To avoid double payments or actions (e.g. by ETM), enter an alphanumeric value which identifies your transaction and may be assigned only once. If the transaction or action is submitted again with the same ReqID, Computop Paygate will not carry out the payment or new action, but will just return the status of the original transaction or action.</p> <p>Please note that the Computop Paygate must have a finalized transaction status for the first initial action (authentication /authorisation). This does not apply to 3-D Secure authentications that are terminated by a timeout. The 3-D Secure Timeout status does not count as a completed status in which the ReqID functionality on Paygate does not take effect. Submissions with identical ReqID for an open status will be processed regularly.</p> <p><b>Notice:</b> Please note that a ReqID is only valid for 12 month, then it gets deleted at the Paygate.</p>
Selling Point	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.
AddrCountry Code	a2	O	Country code for the account holder's invoicing address, 2 characters according to ISO 3166. <b>Only IN allowed</b> , defined within the code.
Name	an..50	O	Full name of consumer / shopper
Plain	ans..50	O	<p>A single value to be set by the merchant to return some information unencrypted in response/notify, e.g. the MID.</p> <p>"Plain"-parameter is part of encrypted "Data" in Computop Paygate and therefore protected against manipulation.</p>
Custom	ans..1024	O	<p>"Custom"-parameter is added to the request data before encryption and is part of encrypted "Data" in Computop Paygate request. By this they are protected against manipulation by a consumer.</p> <p>The Custom-value is added to the Computop Paygate response in plain text and the " " is replaced by a "&amp;". By this you can put a single value into Custom-parameter and get multiple key-value-pairs back in response for your own purpose.</p>

#### Parameters for payments with UPI (PPRO)

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

**i** pls. be prepared to receive additional parameters at any time and do not check the order of parameters

**i** the key (e.g. mid, RefNr) should not be checked case-sensitive

Key	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 as well as for capture or credit request.
XID	an32	M	ID for all single transactions (authorisation, capture, credit note) for one payment assigned by Paygate
TransID	ans..64	M	TransactionID provided by you which should be unique for each payment
refnr	ans..40	O	Merchant's unique reference number. Only characters <i>a-zA-Z0-9,-_</i> are allowed.
Status	a..50	M	OK or AUTHORIZE_REQUEST ( <a href="#">URLSuccess</a> ) as well as FAILED ( <a href="#">URLFailure</a> )
Description	ans..1024	M	Further details in the event that payment is rejected. Please <b>do not</b> use the <b>Description</b> but the <b>Code</b> parameter for the transaction status analysis!
Code	an8	M	Error code according to Paygate Response Codes ( <a href="#">A4 Error codes</a> )
MAC	an64	M	<p>Hash Message Authentication Code (HMAC) with SHA-256 algorithm. Details can be found here:</p> <ul style="list-style-type: none"> <li><a href="#">HMAC Authentication (Request)</a></li> <li><a href="#">HMAC Authentication (Notify)</a></li> </ul>
UserData	ans..1024	O	If specified at request, Paygate forwards the parameter with the payment result to the shop.

PaymentPurpose	ans..26	O	Purpose of payment								
PaymentGuarantee	a..12	C	<table border="1"> <thead> <tr> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>NONE</td> <td>no payment guarantee</td> </tr> <tr> <td>VALIDATED</td> <td>customer account valid, but no payment guarantee</td> </tr> <tr> <td>FULL</td> <td>payment guarantee</td> </tr> </tbody> </table> <p>Notice: This parameter is only returned if the Status=OK.</p>	Value	Description	NONE	no payment guarantee	VALIDATED	customer account valid, but no payment guarantee	FULL	payment guarantee
Value	Description										
NONE	no payment guarantee										
VALIDATED	customer account valid, but no payment guarantee										
FULL	payment guarantee										
ErrorText	ans..128	C	Detailed PPRO error message. Notice: Is returned only if Status=FAILED. Use is possible only in agreement with <a href="#">Computop Helpdesk</a> .								
TransactionId	an..20	O	Unique transaction number with PPRO								
Plain	ans..50	O	A single value to be set by the merchant to return some information unencrypted in response/notify, e.g. the MID. "Plain"-parameter is part of encrypted "Data" in Computop Paygate and therefore protected against manipulation.								
Custom	ans..1024	O	"Custom"-parameter is added to the request data before encryption and is part of encrypted "Data" in Computop Paygate request. By this they are protected against manipulation by a consumer. The Custom-value is added to the Computop Paygate response in plain text and the "]" is replaced by a "&". By this you can put a single value into Custom-parameter and get multiple key-value-pairs back in response for your own purpose.								
QRCodeUrl	ans..1024	O	Used for Desktop flows: A URL pointing to the PNG image showing the UPI application on their mobile device.								
URI	ans..1024	O	Used for mobile app flows: an intent URI that can be triggered to bring/enable them to complete the payment								

Return parameters for URLSuccess, URLFailure and URLNotify with UPI (PPRO)

## 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, Computop 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](#):

Key	Format	CND	Description
MerchantID	ans..30	M	MerchantID, assigned by Computop. Additionally this parameter has to be passed in plain language too.
PayID	an32	M	ID assigned by Paygate for the payment to be credited
TransID	ans..64	M	TransactionID provided by you which should be unique for each payment
Amount	n..10	M	Amount in the smallest currency unit (e.g. EUR Cent). Please contact the <a href="#">Computop Helpdesk</a> , if you want to capture amounts <100 (smallest currency unit).
Currency	a3	M	Currency, three letters DIN / ISO 4217, e.g. EUR, USD, GBP. Please find an overview here: <a href="#">A1 Currency table</a>
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm. Details can be found here: <ul style="list-style-type: none"> <li><a href="#">HMAC Authentication (Request)</a></li> <li><a href="#">HMAC Authentication (Notify)</a></li> </ul>
ReqID	ans..32	O	To avoid double payments or actions (e.g. by ETM), enter an alphanumeric value which identifies your transaction and may be assigned only once. If the transaction or action is submitted again with the same ReqID, Computop Paygate will not carry out the payment or new action, but will just return the status of the original transaction or action.  Please note that the Computop Paygate must have a finalized transaction status for the first initial action (authentication/authorisation). This does not apply to 3-D Secure authentications that are terminated by a timeout. The 3-D Secure Timeout status does not count as a completed status in which the ReqID functionality on Paygate does not take effect. Submissions with identical ReqID for an open status will be processed regularly.  <b>Notice:</b> Please note that a ReqID is only valid for 12 month, then it gets deleted at the Paygate.

Parameters for credits via socket connections

The following table describes the result parameters with which the Computop Paygate responds to your system

**i** pls. be prepared to receive additional parameters at any time and do not check the order of parameters

**i** the key (e.g. mid, RefNr) should not be checked case-sensitive

Key	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 as well as for capture or credit request.
XID	an32	M	ID for all single transactions (authorisation, capture, credit note) for one payment assigned by Paygate
TransID	ans..64	M	TransactionID provided by you which should be unique for each payment
Status	a..50	M	OK ( <a href="#">URLSuccess</a> ) or FAILED ( <a href="#">URLFailure</a> )
Description	ans..1024	M	Further details in the event that payment is rejected. Please <b>do not</b> use the <b>Description</b> but the <b>Code</b> parameter for the transaction status analysis!
Code	an8	M	Error code according to Paygate Response Codes ( <a href="#">A4 Error codes</a> )

Response parameters for credits with UPI (PPRO) via socket connections

## Batch processing via the interface

Basic information about using Batch files and about their structure can be found in the Batch Manager manual. Within batch processing not all functions are available which are usually available for the online interface.

This section describes the parameters which must be transferred within the data set (**Record**) for executing a refund for UPI (PPRO) 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 UPI (PPRO) within a Batch file to be submitted is the following:

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

Example for Master MID function:

```
HEAD,[Master]MerchantID,Date,2.x
Type,Action,[Slave]MID,Amount,Currency,TransID,Data (depends on Action)
FOOT,CountRecords,SumAmount
```

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

Key	Format	CND	Description
Type	a..11	M	HEAD for Header, FOOT for Footer, UPI for UPI (PPRO)
Action	a..20	M	The parameter Action defines the type of transaction: Credit
Amount	n..10	M	Amount in the smallest currency unit (e.g. EUR Cent). Please contact the <a href="#">Computop Helpdesk</a> , if you want to capture amounts <100 (smallest currency unit).
Currency	a3	M	Currency, three letters DIN / ISO 4217, e.g. EUR, USD, GBP. Please find an overview here: <a href="#">A1 Currency table</a>
TransID	ans..64	M	TransactionID provided by you which should be unique for each payment
refnr	ans..40	O	Merchant's unique reference number. Only characters a-zA-Z0-9,-_ are allowed.
PayID	an32	M	ID assigned by Paygate for this transaction

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>
UPI, 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):

Key	Format	CND	Description
Action	a..20	M	The parameter Action defines the type of transaction: Credit
PayID	an32	M	ID assigned by Paygate for this transaction
Status	a..50	M	OK ( <a href="#">URLSuccess</a> ) or FAILED ( <a href="#">URLFailure</a> )
Code	an8	M	Error code according to Paygate Response Codes ( <a href="#">A4 Error codes</a> )

Description of result parameters within the record for Batch files