China UnionPay PPRO

Integration Guide

Version 6.2.1

As of: 07.06.2018

Table of Contents

Document history

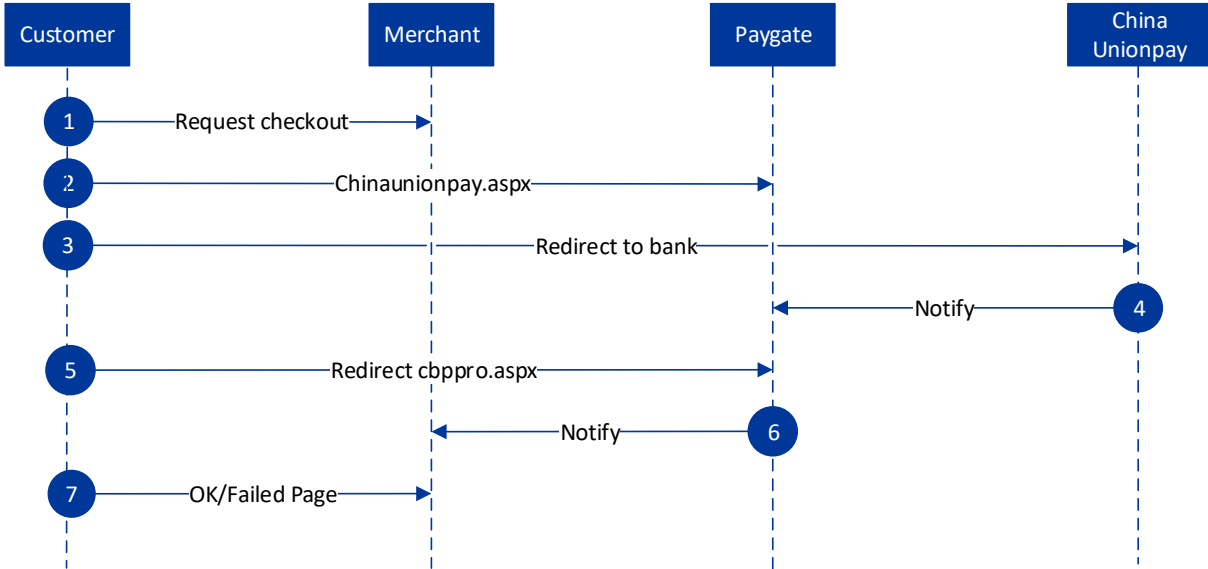| Date	Name	Change
07.06.2018	Peter Posse	First version

ABOUT CHINA UNIONPAY

General information about China UnionPay

UPI's innovations enable its bank customers to offer consumers choices: pay now with debit, ahead of time with prepaid or later with credit products. From the world's major cities to remote areas without banks, people are increasingly relying on digital currency along with mobile technology to use their money anytime and make purchases online, transfer funds and access basic financial services.

Process flow chart

Customer	Merchant	Paygate	China Unionpay
1	Request checkout →		
2	Chinaunionpay.aspx —————————→		
3	Redirect to bank ——————————————————————→		
		← Notify ——————— 4	
5	Redirect cbppro.aspx —————————→		
	← Notify ——— 6		
7	OK/Failed Page →		

China UnionPay 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
dttm	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.

Payment with China UnionPay via form interface

In order to make a payment with China UnionPay in China, please go to the following URL:

```
https://www.computop-paygate.com/Chinaunionpay.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	Merchant's unique reference number
Amount	n..12	M	Amount in the smallest currency unit (e.g. USD 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 USD permissible.
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
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.
OrderDesc	ans..768	M	Description of goods and prices. Intended purpose on the statement of account
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
Email	ans..100	M	E-Mail address of account holder
Phone	ans..100	M	Phone number of account holder
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 China UnionPay

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 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..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
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 with 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 unencrypted 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 China UnionPay

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..64	M	TransactionID which should be unique for each payment
RefNr	ans..30	O	Merchant's unique reference number
Amount	n..12	M	Amount in the smallest currency unit (e.g. USD 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 China UnionPay 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..30	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	O	Detailed PPRO error message
TransactionID	an..20	O	Unique transaction number with PPRO

Response parameters for credit payments with China UnionPay via socket connection