ALLINPAYINTL API OATS - CNP Payment (for Institution)

Allinpay International

Jargons

Jargons	Explanation
CNP Payment	CNP (card not present) abbreviation of payment service without bank card. Apply in the scenarios where face to face payment and payment by entity card don't exist.
3DS Authentication Service	3D – Secure (Three-Domain Secure) payment authentication service (hereinafter referred to as 3DS) is designed for credit card individual card owners and cardholders (hereinafter referred to as cardholders) by EMVCo organization, with the aims of improving the security of online credit card payment, thus securing the online payment of customers.
DM risk decision management tool	Decision Manager as risk decision management, is a tool of reducing payment frauds, which fulfils the function by technically collecting data on payment

	environment, order corresponding and cardholder's address and name etc. to initiate the screening of big data risk control model.
API Integration Mode	A mode of connecting payment system to apply payment service by means of payment gateway API.
Gateway forward Mode	A mode of application in payment service by clicking the button of shopping cart settlement to forward to payment gateway cashier page.
Access Code	8-digits number, is uniformly assigned by Allinpay International.
Merchant ID	The unique ID is uniformly assigned by Allinpay International.
Merchant Order Number	The unique ID for identifying products or services orders by merchants
Transaction Voucher Number	The unique ID for identifying transaction by payment gateway
Token	It represent the target of carrying out some operational rights. It mainly refers to the request for submitting the information of cardholder's entity card. The payment token provided after authentication of the token service provider.
Token verification code TAVV	Token authentication verification value (TAVV), token verification code, return with token number

	in the format of cipher text every time when applying for deriving token.
tokenization	The process of providing token by using tokenization technology to replace the sensitive information corresponding to bank cards. It is commonly called card binding or card on file (COF).
XID	The transaction swift code of 3DS authentication is in the format of character string. It is used to identify the specific transactions in 3DS directory server. The value of this character string should be consistent in the process of authentication.
ECI	E-Commerce indicator,E-Commerce security level indicator
CVV	It means card verification value which represents the security feature of credit cards and debit cards. The feature consists of 2 values or codes: one is in the code of magnetic stripe, another is printed on the card. CVV is usually a three-digit number on the back of the card, while for the American Express card, it is a 4-digit number on the front of the card. Card issuers utilize CVV as extra authentication for the prevention of illegal card using.
AVV	It means account authentication value which is the token value of 32 characters in 3D security

	authentication transaction. To the MasterCard ID authentication, AAV is named as UCAF. To Visa security, AAV is named as CAVV.
UCAF	It refers to Universal Cardholder Authentication Field. It is a character string encoded by base 64, identifying the transaction between card issuers and MasterCard exclusively. It is also a standard of collecting and sending AAV data for MasterCard 3DS ID authentication transaction.
CAVV	It refers to Cardholder Authentication Verification Value. As a character string encoded by base 64, CAVV will return with the card registered in Visa secure. Identifying the transaction between card issuers and Visa, CAVV is a standard of collecting and sending AAV data for Visa secure transaction.

1.Interface Process

Adapting to security control and technology capabilities of merchants, the payment gateway offers API integration and page jump mode to help merchants complete technological integration tests rapidly.

1.1.Specifications of Risk Control Service Application

For the sake of transaction security, reducing of fraud rate and chargeback rate, and cardholders' benefits, the DM risk management tool or 3DS security ID authentication service is recommended to merchants. They can be

utilized in combination as per the situation. It should be noticed that the application of risk management tool needs to collect the data of product orders, including products information, billing address, cardholders name, email and delivery address. The success rate of payment transaction and the accuracy of big data screening decision are dependent on the data of product orders.

1.1.1. DM & 3DS ID Authentication Service

First, the data would be collected, including cardholders name, email address, product or service information, billing address, delivery address and device fingerprint etc. and after the screening by DM big data risk management engine.

·Approve-payment authorization transaction can be initiated

·Reject-rejected to transact after being judged to be a fraud risk

·Review-execute 3DS ID authentication.

3DS payment transaction will be launched after passing the ID Authentication.

1.1.2. 3DS Security ID Authentication

3D – Secure（Three-Domain Secure）security authentication service (hereinafter referred to as 3DS) is designed for credit card individual card owners and cardholders (hereinafter referred to as cardholders) by EMVCo organization, with the aims of improving the security of online credit card payment, thus securing the online payment of customers. The service can be initiated independently for the security of merchants' and cardholders' benefits.

After the authentication by three parties including merchants and acquirers, card organizations, and issuers, 3 values will be returned, they are ECI (E-Commerce indicator), CAVV (Visa) / UCAF (MasterCard), XID (Exchange identifier). These 3 values will be inserted in transaction request to identify the transaction is a 3DS payment transaction. If this transaction experiences chargeback, transfer of risk responsibility can be used in the process of disputes solution. The specific rules are as below:

Visa, AMEX

ECI=07 indicates that 3D security transaction without authentication and identification payment transaction (the application scale will be upgraded)

ECI=06 & CAVV indicates that card organizations replace the issuers without using 3DS 2.0 to provide authentication response. It is applicable to the transfer of transaction chargeback responsibility.

ECI=05 indicates that the CAVV authentication of the cardholder who has passed ID authentication is submitted. It is applicable to the transfer of transaction chargeback responsibility.

Mastercard

ECI=01 & UCAF indicates that card organizations replace the issuers without using 3DS 2.0 to provide authentication response. It is applicable to the transfer of transaction chargeback responsibility.

ECI=02 indicates that indicates that the CAVV authentication of the cardholder who has passed ID authentication is submitted. It is applicable to the transfer of transaction chargeback responsibility.

1.2. API Integration Mode

It is a mode for the merchants who have PCI DSS security qualification authentication. The sensitive information such as cardholders' card numbers is allowed to be collected and saved safely in the merchant system. The processing of payment and settlement businesses is completed by using payment gateway API.

After the API integration request, solutions differ depending on whether the transaction combines with 3DS.

1.If transaction combines with 3DS/DM, it must redirect to the page appointed by payurl to complete the process and authorization.

2.If transaction does not combine with 3DS/DM, transaction results are confirmed in response message.

Notes: If transaction returns to payUrl, it means that the transaction will combine with 3DS and must redirect to the page where payurl is to complete the payment.

1.2.1. Collection Transaction Process (non-3DS/DM)

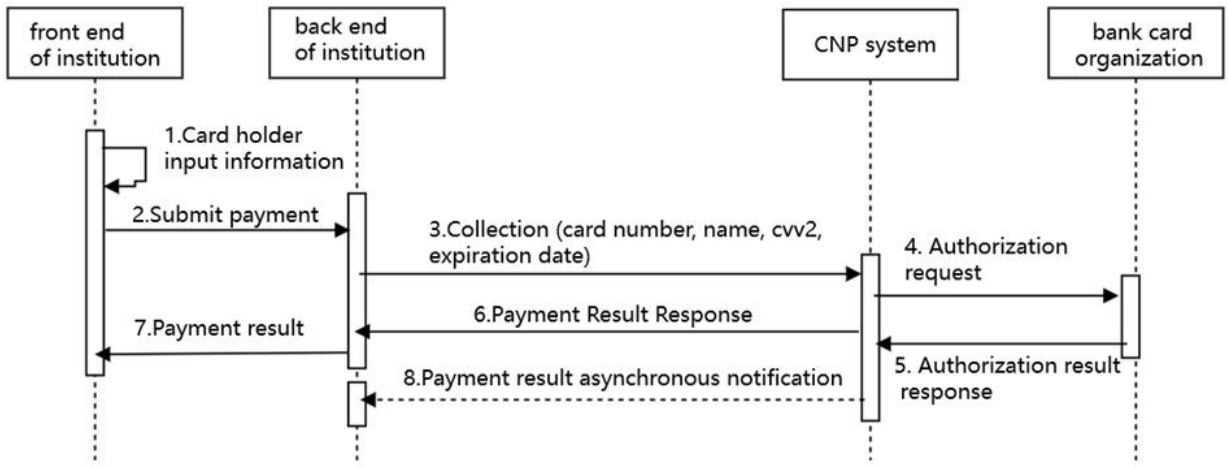


Figure 1: the non-3DS collection transaction timing in API integration mode

Process Description:

1. Institution system submits a payment request (4.2.1 collect interface);

2. The transaction will be completed by the interaction with card organizations, after OATS CNP system receives a payment request;

3. OATS CNP system returns the payment result to merchant synchronously;

4. If submitting the asynchronous notifyUrl, OATS CNP system will push asynchronous notice of 4.1.1 transaction result to appointed URL.

1.2.2. Collection Transaction Process (3DS/DM)

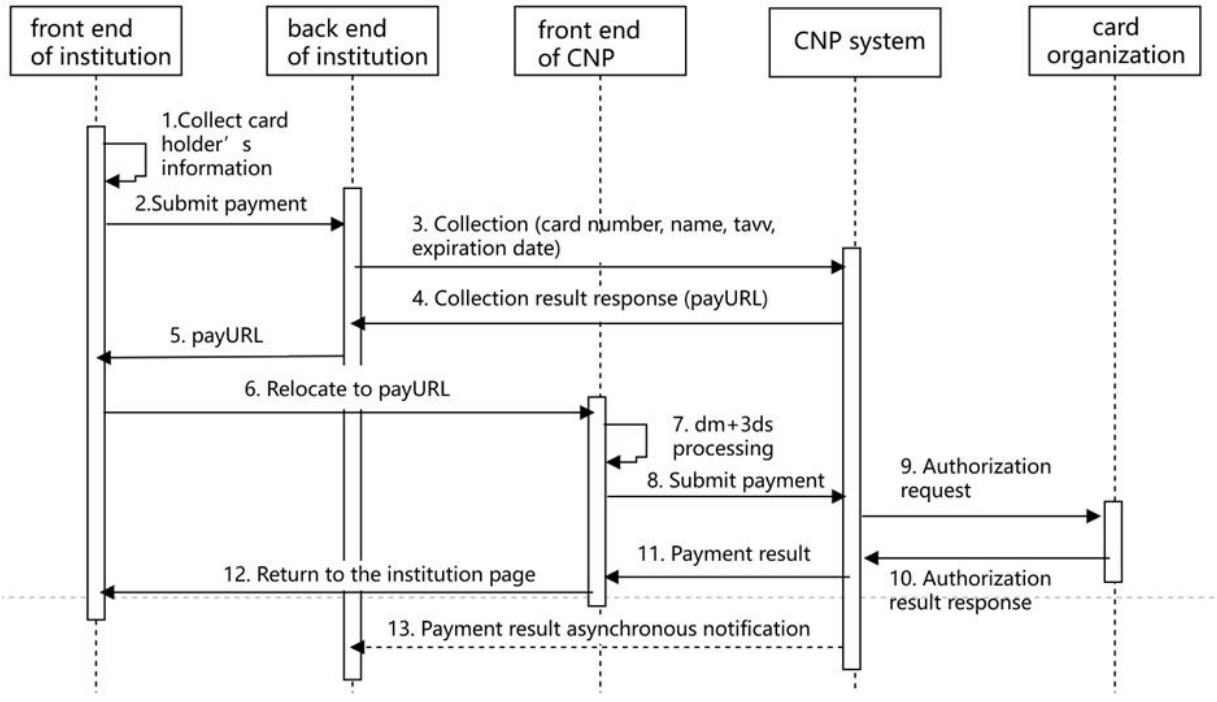


Figure 2: the integrated 3DS calling timing in API integration mode

Process Description:

1.Cardholders initiate the authorization transaction, institutions request OATS CNP system to make the payment (4.2.1 collection interface, please pay attention to submitting asynchronous notifyUrl);

2.Institution system needs to relocate to the payUrl, that is, it forwards to CNP gateway cashier page;

3.Authorization will be completed by interacting with card organizations, after OATS CNP system finishes the processing of 3DS/DM.

4.CNP cashier will forward to the page appointed by returnUrl automatically after the transaction. If the URL is not uploaded by merchants, it will forward to CNP cashier payment result page by default;

5.OATS CNP system will push the asynchronous notice of 4.1.1 transaction result to appointed URL.

1.2.3. Refund Transaction Process

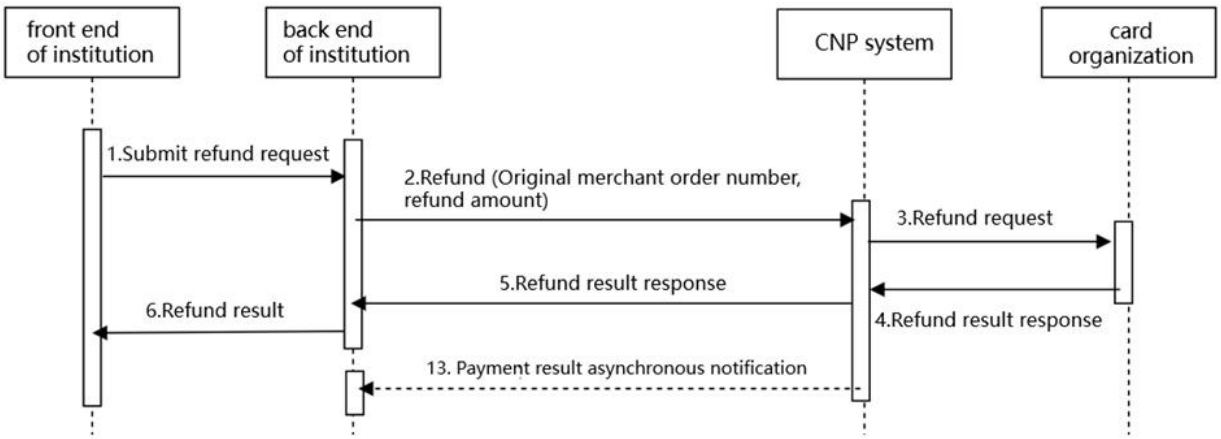


Figure 3: refund transaction timings

Partial refund and full refund are both available. Partial refund can be initiated several times for a transaction only if the total amount of partial refund cannot exceed the amount of original transaction.

Period of Refund: within 180 days after the transaction day.

Process Description:

1.After the confirmation of the transaction that needs to be refunded and the refund amount, merchants initiate refund request to the system. (4.1.3 Refund)

2.Refund is completed by the interaction between the system and card organizations.

3.The system returns the refund result to institutions.

1.2.4. Void Transaction Process

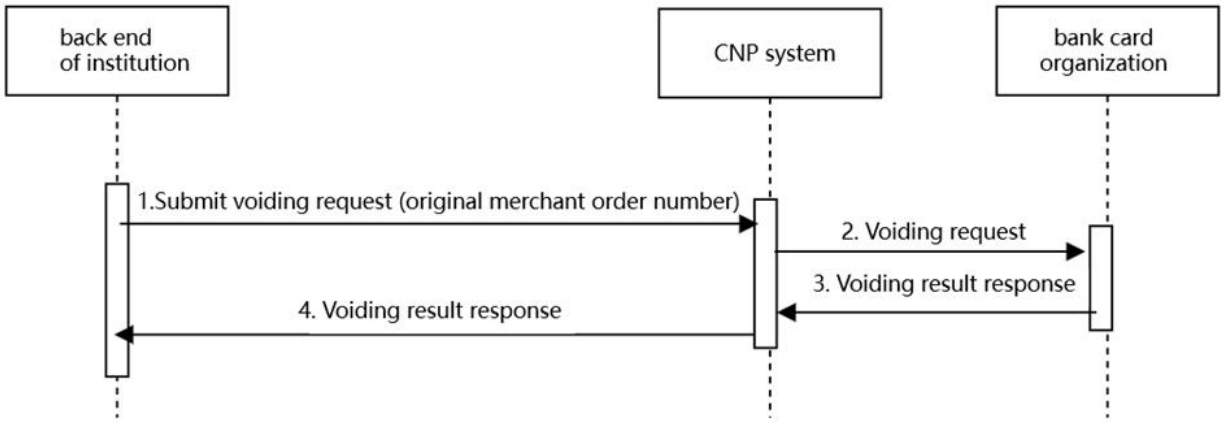


Figure 4: transaction voiding timings

Voiding is a special transaction. It is used to cancel the successful transaction result on the transaction day.

Process Description:

1.After the confirmation of the transaction that needs to be refunded, refund request would be initiated to the system.

2.Voiding is completed by the interaction between the gateway and card organizations.

3.Voiding result is returned to institutions by payment gateway.

1.2.5 Tokenization Process

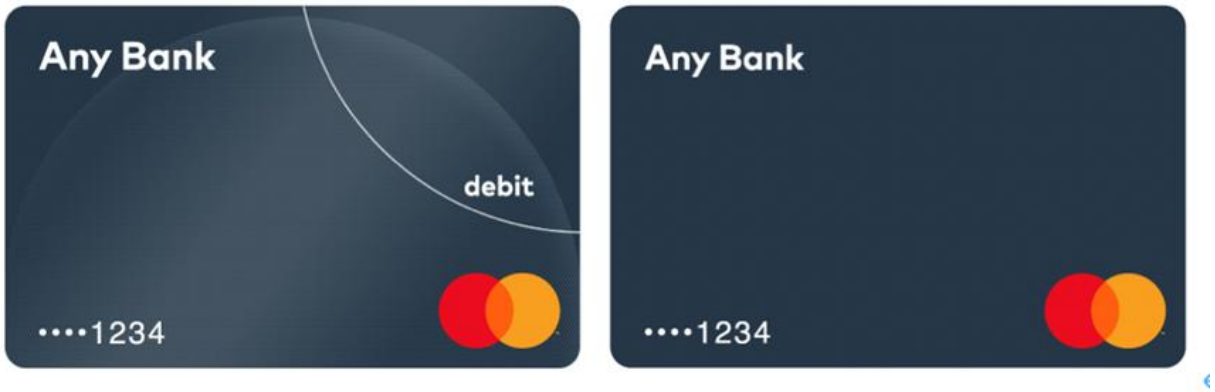
Tokenization, is commonly called as card binding or card on file. That is, cards are tokenized so that tokens can be obtained. Card numbers would be replaced by tokens during consumption. OATS CNP system provide tokenization and token collection interfaces which can be used independently or in combination. That is, binding the card before tokenization or binding and paying are completed at the same time.

Effective period management is available for token, including deriving, stop, start, delete, state adjustment or cards update.

Payment by card binding supports collecting, pre-authorization, voiding and refunding by the utilization of different transaction interfaces and transaction types.

Tokenization UI Requirements

After tokenization, it can be shown in the modes of cards or characters in the application. The examples are as below:



FDNB Visa...1234

Visa...1234

For card ID, the last 4 numbers must and only can be shown.

If logos need to be used, please make sure that they are clear enough, so that they can be distinguished from the background and be identified effectively.

For Visa and Mastercard, please pay attention to the correctness of capital letters and low case letters and there is no spacebar between letters.

Please contact the account manager for the image material.

Tokenization Process

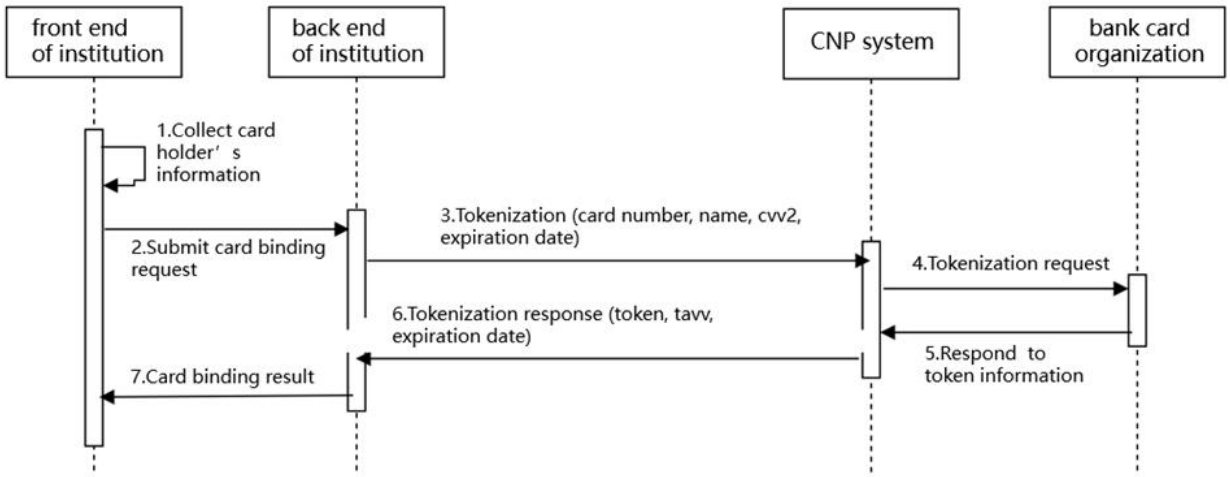


Figure 5: tokenization / card-binding calling timings

Process Description:

1.Institutions collect cardholders' information and submit the application for card binding (4.2.2 Tokenization);

2.The system interacts with card organizations by cardholders' information to generate a token;

3.The system return the token information to merchants and institutions retain the information for subsequent payment.

1.2.5.1 Tokenization and Token Payment (non- 3DS/DM)

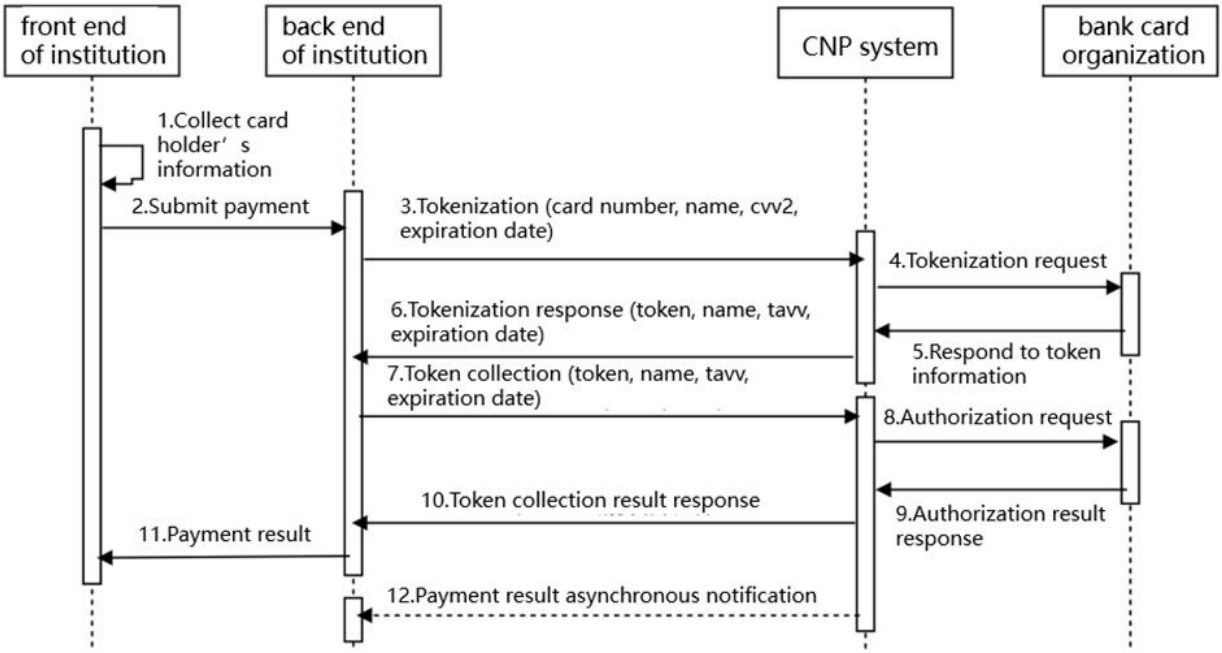


Figure 6: tokenization token payment calling timings (non-3DS/ non-DM)

Process description:

1.Institutions collect payment and cardholders' information;

2.Institutions submit the application for card binding; (4.2.2 Tokenization)

3.OATS CNP system interacts with card organizations to generate token and then return to institutions;

4.Institutions use the token returned in step 3 and the collected payment information to submit the payment (4.2.1 Token consumption), and retain token information at the same time.

5.OATS CNP system interacts with card organizations to require authorization.

6.OATS CNP system returns the payment result to institutions.

7.If the asynchronous notifyUrl is submitted in step 4, OATS CNP system will push the transaction result asynchronous notice of 4.1.1to the appointed address.

1.2.5.2 Token Payment (non-3DS/DM)

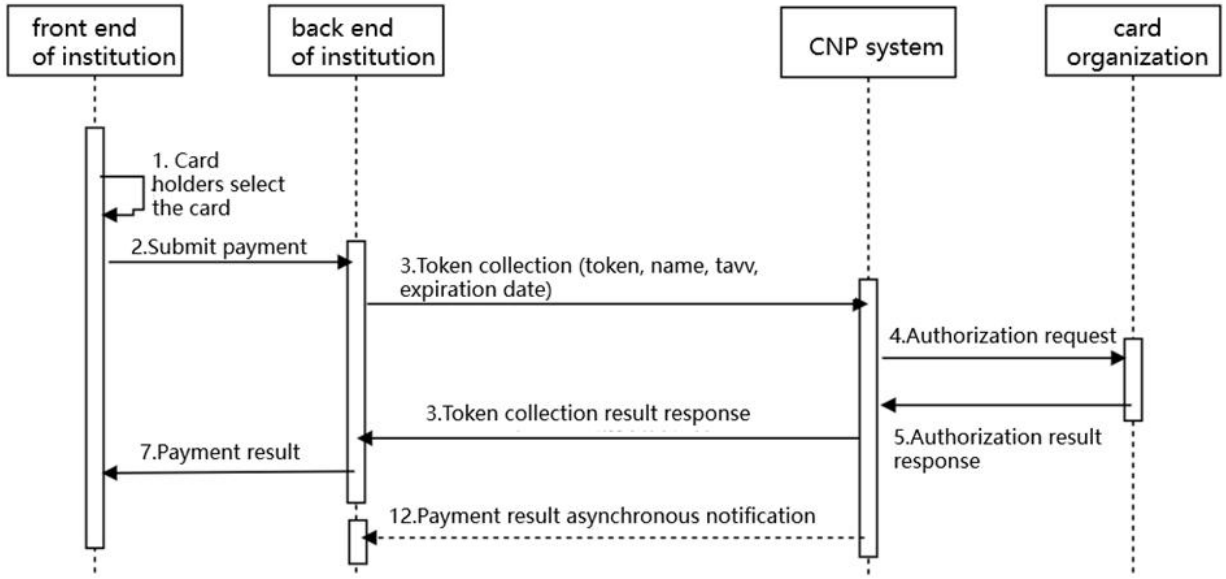


Figure 7: repeated payment interface calling timings (non-3DS and non-DM)

Process Description:

1.Cardholders choose a bound card to make the payment in the application;

2.Institutions use the token information of bound cards to submit payment. (4.2.1 Token collection);

3.OATS CNP system interact with card organizations to require authorization;

4.OATS CNP system return the payment result to the merchant.

5. If the asynchronous notifyUrl is submitted, OATS CNP system will push the 4.1.1 transaction result asynchronous notice to the appointed address.

1.2.5.3 Tokenization Payment (3DS/DM)

Pay by token can reduce generation of chargeback greatly, but it does not mean there is no chargeback. If merchants had initiated 3DS and DM authentication, the responsibilities of funds related to transactions with chargeback will be assumed by card issuers, so that the benefits can be secured.

This chapter and the next one will show the process of transaction by card-binding with 3DS and DM.

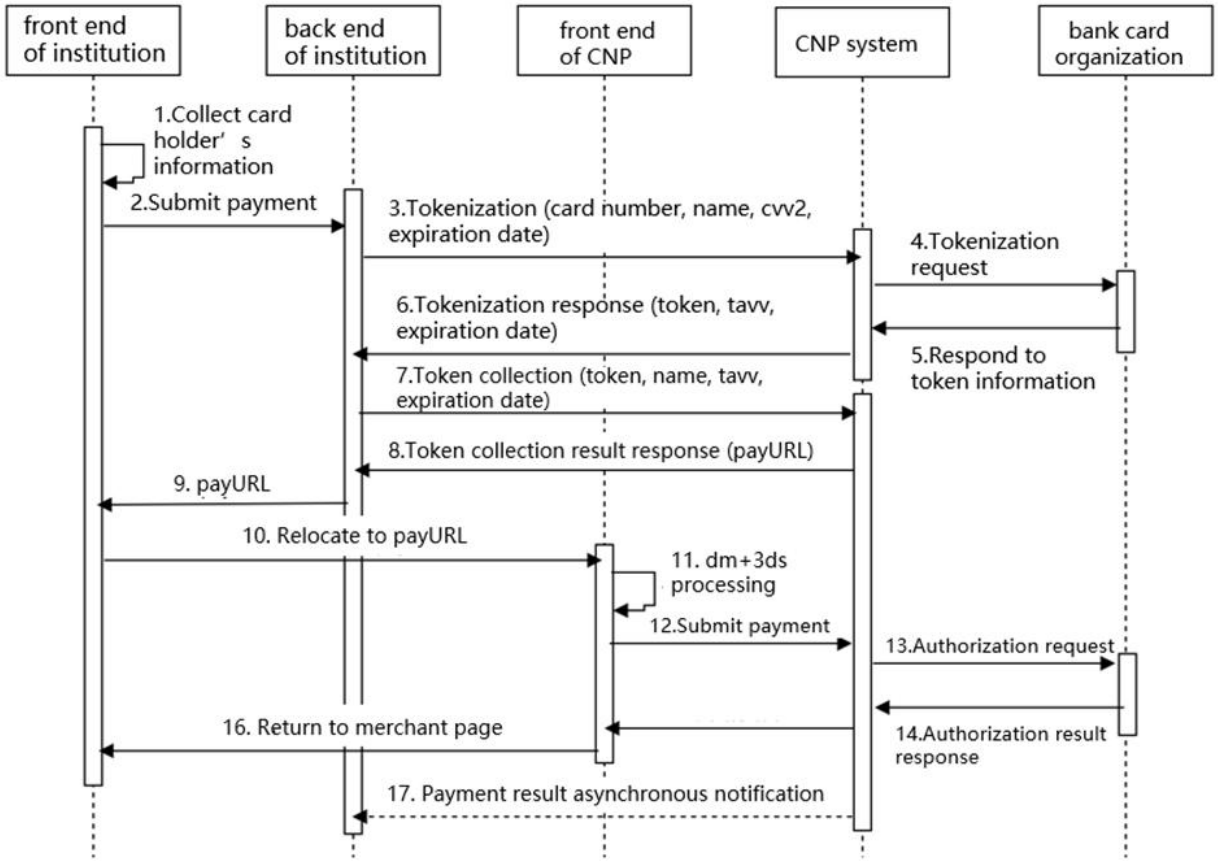


Figure 8: card-binding payment interface calling timings during collection (with 3DS/DM)

Process Description:

1.Institutions collect payment and cardholders' information;

2.Institutions submit requirement of card-binding; (4.2.2 Tokenization, please pay attention to submitting asynchronous notifyUrl)

3.OATS CNP system interacts with card organizations to generate token, and then return it to the Institution;

4.Institutions submit payment by the returned token and collected payment information (4.2.1 TOKEN collecting), and retain token information at the same time;

5.Institutions system needs to relocate to the payment link returned by CNP system, that is, forward to CNP cashier;

6.OATS CNP system completes the authorization by interacting with card organizations after the processing of 3DS/DM;

7.CNP cashier forwards automatically to the page appointed by returnUrl after transaction completion. If the returnUrl was not submitted by merchants, the front-end payment result page of CNP will be presented.

8.Push the 4.1.1 transaction result asynchronous notice.

1.2.5.4 Token Payment (with 3DS/DM)

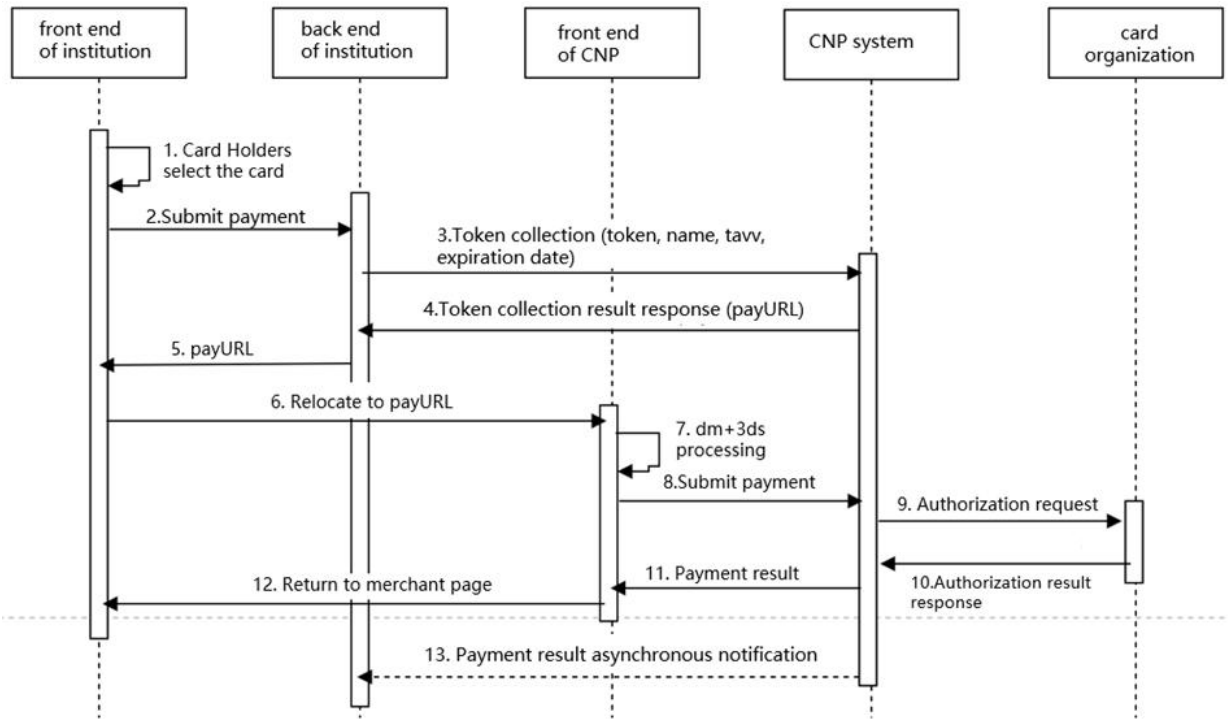


Figure 9: interface calling timings of repeated payment

Process Description:

1.Cardholders choose a bound card to make the payment in the application;

2.Institutions submit the payment by the bound card (4.2.1 TOKEN collecting, please pay attention to submitting asynchronous notifyUrl);

3. Institutions system relocates to the payment link returned by CNP system, that is, forward to CNP cashier;

4.OATS CNP system completes the authorization by interacting with card organizations after the processing of 3DS/DM;

5.CNP cashier forwards automatically to the page appointed by returnUrl after transaction completion. If the returnUrl was not submitted by merchants, the front-end payment result page of CNP will be presented;

6.Push the 4.1.1 transaction result asynchronous notice.

1.2.5.5 Token Effective Period Management

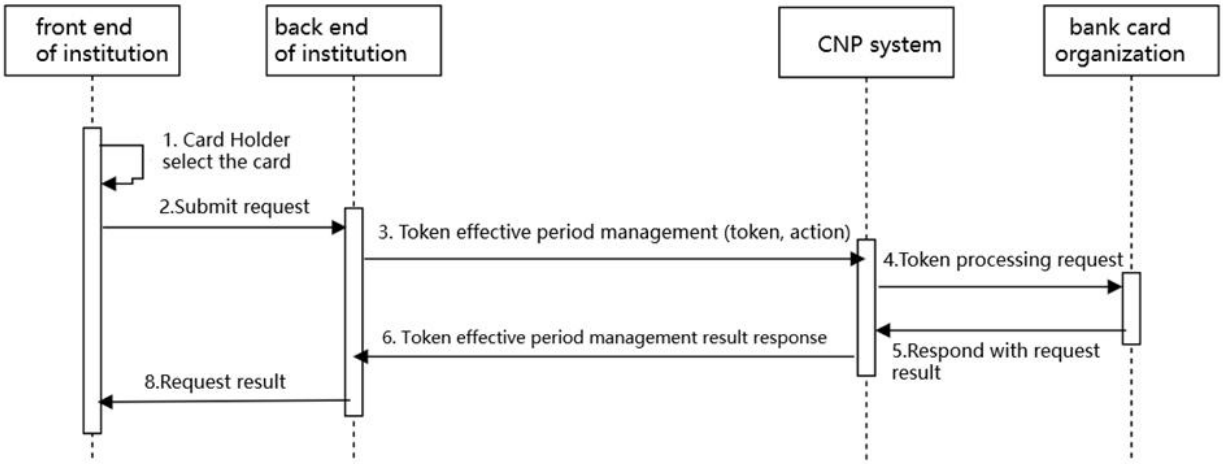


Figure 10: bank cards calling timings

1.After binding, merchants or cardholders can make requests for unbinding, stopping or resuming the use of cards;

2.Institutions use effective period management interface of Token to set 'action' as corresponding value according to business scenarios. (4.1.5 effective period management of TOKEN);

3.CNP system interacts with the card organization to process the request;

4.CNP system return the result to the merchant. It is advised to delete the corresponding information of token when deleting the card.

1.2.5.6 Cards Update

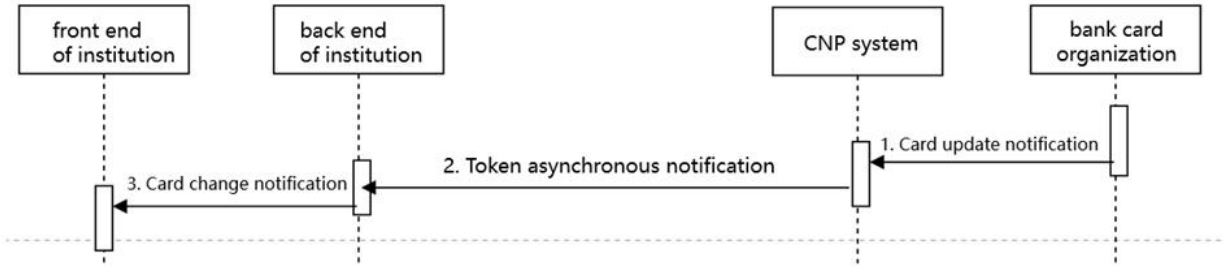


Figure 11: cards update interface calling description

1.There is no asynchronous notice for the card management requests which are initiated by institutions. It exists in the cards state change initiated by issuing bank and the establishment of token in the jump mode. (4.1.6 TOKEN asynchronous notice)

2.If the state is SUSPEMDED, the token is ineffective temporarily. To the form of cards, it is advised to represent the unavailability of card state by turning the card grey or not showing card number; if the state is ACTIVED, the token is effective. It is advised to check tavv, validity date, and tokenmetadata. If the card represents in the form of unavailability, it is advised to change the card into the form of availability; if the state is UPDATE, the token updates. It is advised to check tavv, validity date and tokenmetadata; if the state is DELETED, the token is ineffective. To the form of cards, it is advised to represent the unavailability of card state by turning the card grey or not showing card number, and let the cardholder delete it.

2.Access Specifications

2.1. Data Format and Signature

Request Method: HTTP Post

Data format: use the standard coding format; character code used UTF-8 altogether.

HTTP head: application/x-www-form-urlencoded; charset=UTF-8

Time: Time in this document is generally set by GMT+8 without particular indicating.

Sign Digitally: The system requires you to sign digitally in the data of payment orders, and upload the data with the signature and the transaction to the server. The algorithms which generate digital signature are as below:

a.All the fields involved in digital signature, are combined into strings by applying URL key-value pairs format (that is, key1=value1&key2=value2), after being sequenced from the smallest to the largest as per ASCLL code of the fields. Note：Empty fields do not need to be signed, and the values participating in the signature need to remove the leading and trailing spaces.

b.The two choices of signType are MD5 or RSA2. If choose MD5, sign=md5(string); if choose RSA2, signing algorithm: SHA256WithRSA;

c. The way of generating RSA private key and public key:

Private key: openssl>genrsa -out rsa_private_key.pem 2048

Public key: openssl>rsa -in rsa_private_key.pem -pubout -out rsa_public_key.pem

Notes: To secure robustness of interface, all the fields must be processed by access system for the prevention of the verification failure caused by interface upgrade.

Samples of Signature:

Request Parameters:

1. accessOrderId=1640222101

2. mchtId=065702058120006

3. oriAccessOrderId=1640221906

4. signType=RSA2

5. transType=Query

6. version=V2.0.0

Message to be signed (in the sequence of dictionary)

1.

accessOrderId=1640222101&mchtId=065702058120006&oriAccessOrderId=1640221906&signType=RSA2&transType=Query&version=V2.0.0

Signature secret key: the public key is sent to the account manager to complete the configuration, after merchants generate public and secret key pairs independently.

Signature result:

1.

AhSnrFmbpOc5fQeiicZwwapZRUCYeVnzbNaNqpfQVu7lRX8mlMfjh7gS+fIjsklEII2OBc+ClaJorJwrswaK54PH9u0366VRXM3XOTQFuoV/4BBMysd1rGvAfnmFivRplsoigvMk186JpeBedTkgVHozOTYrTOQGhgszL11ZSROcYvfuxlCyT779x2DJk52cySpb+58T1HuJgIlcH4Bz0J4EyJSttORwNWggCOPnDcaOaGXoyM5TsjO3HS1XXtKl/kvxFt7GTJPFxDDRp/+4dbe5aFzJsYW/CMBL35UCfCt8uP8ZyRdYqIh3fzLzsilodMWZ9y4RzQwW6rUWRDt9fw==

2.2. Access Parameters

Testing Environment:

Gateway Address: https://test.allinpayhk.com/gateway

H5 Address: https://test.allinpayhk.com/pay-web-h5

Signature secret key:merchants generate public and secret key pairs independently or Provided by Allinpay Tech team.

Please send the asynchronous notification address & public key to support@allinpayintl.com to complete the configuration and ask the account manager for Merchant testing parameters, such as MID,Access code.

3. API List

3.1. Collection/Token Collection/Token Pre-authorization

Request Address: {Gateway address}/cnp/quickpay

List of Requested Parameters:

Field Name	Field Description	Length	Required	Remarks
Order Information				
version	Version Number	8	Yes	V2.0.0, please refer to Appendix F for the instructions of the former versions
instNo	Access code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don’t use the access code of merchant.Each institution / merchant has a unique access code.

mchtId	Merchant ID	15	Yes	The ID applied for when the merchant is registered by the institution
transType	Transaction Type	20	Yes	Please refer to Appendix A: Transaction Type
accessOrderId	Merchant Order ID	32	Yes	The only symbol of merchants' request
currency	Payment Currency	3	Yes	Please refer to Appendix B: Transaction Currency
amount	Amount	12	Yes	e.g. 100.12
language	Website Language	10	No	Please refer to Appendix C: Language
email	Email	64	Yes	Cardholders' email address
sign	Signing		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2
Payment Information				
cardHolder	Cardholders' Name	128	Yes	FirstName + LastName
acctNo	Card Number	32	Yes	1.Insert card number in

				API integration collection transaction 2.Insert the token value which is returned when token was created in Token collection / Token pre-authorization transaction.
expiryMonth	Validity (Month)	2	Yes	Format: MM 1.Insert monthly validity of the card in API integration collection transaction 2.Insert token monthly validity in Token collection / Token pre-authorization transaction.
expiryYear	Validity (Year)	4	Yes	Format: YYYY 1.Insert yearly validity of the card in API integration collection transaction 2.Insert token yearly validity in Token

				collection / Token pre-authorization transaction.
acctCvv	Card CVV	4	No	cvv2/cvc2/cav2/cid
tavv	tavv	128	No	It is for TOKEN consumption / TOKEN pre-authorization transaction only. The tavv value that returned after creating the TOKEN must be input.
The below fields must be submitted when the merchant use 3DS authentication service of other gateways. (securityWay=SELF)				
eci	ECI Value	2	No	
xid	xid	128	No	It is required to be filled in when using 3DS and card organization is VISA or AMERICAEXPRESS.
sVersion	3ds version number	64	No	"1.0" or "2.0" is required to be filled in when using 3DS
cavv	cavv	128	No	It is required to be filled in when using 3DS and card organization is MASTERCARD.

dsTransactionID	Directory Server Transaction ID	128	No	It is required to be filled in when using 3DS and card organization is MASTERCARD.
Product Information				
productInfo parameters are formed by the below data in the mode of JSON. Please pay attention to the capital letters and the low case letters. The field is inserted the value in mode of JSON array. productInfo=[{"sku":"123456789","productName":"MacBook Pro","price":"11000.00","quantity":"1"},{"sku":"987654321","productName":"Iphone11","price":"5400.00","quantity":"1"}]				
sku	Product ID	64	Yes	
productName	Product Name	128	Yes	
price	Price	16	Yes	For the value that is more than 0, it is inserted as its original value. E.g. 100.01
quantity	Product Quantity	16	Yes	the integer which is more than or equal to 1
productImage	Product Image URL	256	No	

productUrl	Product URL	256	No	
Delivery Address				
shippingFirstName	First Name	50	Yes	
shippingLastName	Last Name	50	Yes	
shippingAddress1	Shipping Address 1	128	Yes	
shippingAddress2	Shipping Address 2	128	No	
shippingCity	City	100	Yes	
shippingState	State/Province	100	Yes	If the country is the US or Canada, please use the two letters code of the country or region codes in ISO-3166-2:US or ISO -3166-2:CA respectively. The codes can be got by referring to Appendix I and J.

shippingCountry	Country	2	Yes	Please refer to Appendix H, fill in the two letters code in the table.
shippingZipCode	Zip Code	20	Yes	
shippingPhone	Phone	20	Yes	
Billing Address				
billingFirstName	First Name	50	Yes	
billingLastName	Last Name	50	Yes	
billingAddress1	Billing Address 1	128	Yes	
billingAddress2	Billing Address 2	128	No	
billingCity	Billing City	100	Yes	
billingState	State/Province	100	Yes	If the country is the US or Canada, please use the two letters code of the country or region codes

				in ISO-3166-2:US or ISO - 3166-2:CA respectively. The codes can be got by referring to Appendix I and J.
billingCountry	Country	2	Yes	Please refer to Appendix H, and fill in the two letters code in the table.
billingZipCode	Zip Code	20	Yes	
billingPhone	Phone	20	Yes	
Payment Environment				
userAgent	UserAgent	128	Yes	
ipAddress	Cardholder's IP Address	64	Yes	e.g. 114.0.0.11
panIsPaste	Card number is 'copied and pasted' or not	1	Yes	0 refers to no 1 refers to yes
timeZone	Cardholder's Time Zone	2	No	Please input statistics. The time difference between UTC time is as the example shows: the

				time zone in Beijing is 8 and the time zone in eastern America is -5.
acceptLanguage	Required Language in cardholder's browser	32	No	
domain	Domain of Payment Website	64	No	
screenWidth	The width of cardholder's screen	10	No	integer
screenHeight	The height of cardholder's screen	10	No	integer
Others				
securityWay	Way of Security Verification	8	No	1.SELF: Related 3DS information is required to be submitted during the process of authorization, if merchant systems have risk management strategies.

				It is for transaction of API integration collection only.
securityMode	Modes of Security Verification	16	No	If DM and 3DS were disposed or 3DS opened, value of securityMode can be neglected. If DM was not disposed but 3DS opened, process as per the value of securityMode: 1.3DS: transaction will be in the process of DM & 3DS; 2.O3DS: transaction will be in the process of 3DS; 3.none: transaction will not be in the processes of DM and 3DS It is for transaction of API integration collection only.
returnUrl	Return URL	256	No	The merchant’s URL where payment gateway will return after payment was

				made
notifyUrl	asynchronous notification url	256	No	The merchant’s url where backend sends the notice of payment result after payment
dmInf	DM tailored information	1024	No	1.The field needs to be submitted, if DM product is initiated in backend. Please communicate the contents of the field to the operation team. The contents are submitted in the format of JSON character string. 2.For the merchants of live-streaming, cliWebSrc as the field of customers source needs to be submitted. It is for transaction of API integration collection only.

Response Result:

Response message format is Json, the definitions are as below:

Field Name	Field	Length	Required	Remarks

	Description			
resultCode	Result Code	4	Yes	Please refer to Appendix D: Result Code
resultDesc	Result Description	100	Yes	Wrong description in detail
mchtId	Merchant ID	15	Yes	
accessOrderId	Merchant Order Number	32	Yes	Be consistent in the request.
orderId	Order Number of Payment System	32	No	It is required to fill in when transaction succeeds.
currency	Payment Currency	3	No	Be consistent in the request.
amount	Amount	12	No	Be consistent in the request.
LocalCurrency	Local Currency	3	No	It is required to fill in when resultCode is 0000
LocalAmount	Local Amount	12	No	It is required to fill in when resultCode is 0000

payUrl	Jump URL	256	No	It is returned in the mode of 3DS. When the value is not null, it must redirect to that page before continuing the payment.
transTime	Transaction Time	14	No	YYYYMMDDhhmmss, time zone is GMT+8
cardOrgn	Card Organizations	32	No	Please refer to Appendix G: International Credit Card Organization
sign	Signing		Yes	
signType	Signature Type	16	Yes	MD5/ RSA2

3.2. Asynchronous Notification of Transaction Result

When the payment state of the same merchant order changes, payment gateway would asynchronously send the order state to the URL where merchants receive asynchronous notification. (This URL is appointed by notifyUrl fields in 4.2.1 & 4.3.1 interface when the order is submitted.)

Merchants need to process the request of result asynchronous notification correctly, response to Http Status Code 200, and return “SUCCESS” character string. If our system fails to receive merchants’ response, our system

would notify repeatedly no more than 7 times and the time gap is 30s, 30s, 60s, 60s, 1800s, 1800s, 1800s respectively.

List of Request Parameters:

Field Name	Field Description	Length	Required	Remarks
resultCode	Result Code	4	Yes	Refer to Appendix D: Result Code
resultDesc	Result Code Description	100	Yes	Wrong description in detail
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don’t use the access code of merchant.Each institution / merchant has a unique access code.
mchtId	Merchant ID	15	Yes	The ID applied for when the merchant is registered by the institution
accessOrderId	Merchant Order Number	32	Yes	The only symbol of merchants’ request
orderId	System Order Number	32	Yes	

cardNo	Card Number	18	Yes	The first sixth and the last fourth numbers are not disclosed
cardOrgn	Card Organization	32	No	Appendix G: List of Card Organization
currency	Payment Currency	3	Yes	Be consistent in the request
amount	Order Amount	12	Yes	Be consistent in the request
LocalCurrency	Local Currency	3	No	Require to fill in when resultCode is 0000
LocalAmount	Local Amount	12	No	Require to fill in when resultCode is 0000
transTime	Transaction Time	14	No	YYYYMMDDhhmmss, time zone is GMT+8
sign	Signature Information		Yes	
signType	Signature Type	16	Yes	MD5/ RSA2

3.3. Transaction Result Query

For a timeout or in-process transaction that requires query results, the interval between each query should not be less than 10 seconds.

Request Address: {gateway address}/cnp/quickpay

List of Request Parameters:

Field Name	Field Description	Length	Required	Remarks
version	Version Number	8	Yes	V2.0.0, please refer to Appendix F for the instructions of the former versions
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don’t use the access code of merchant.Each institution / merchant has a unique access code.
mchtId	Merchant ID	15	Yes	The ID applied for when the merchant is registered by the institution
transType	Transaction Type	20	Yes	Please refer to Appendix A: Transaction Type
oriAccessOrderId	Original Merchant Order	32	Yes	Merchant Order required by original

	Number			payment
sign	Signing Information		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

Response Result:

After submitting correct parameters successfully, the interface will send back Http response code 200 and response message.

The format of response message is JSON and the definition is as below:

Field Name	Field Description	Length	Required	Remarks
resultCode	Result Code	4	Yes	Please refer to Appendix D: result code
resultDesc	Result Description	100	Yes	Description of inquiry result
mchtId	Merchant ID	15	Yes	
oriAccessOrderId	Merchant Order Number	32	No	It will not be sent back if the transaction is abnormal.
orderId	Order Number	32	No	
currency	Transaction	3	Yes	Be consistent in the

	Currency			request
amount	Order Amount	12	Yes	Be consistent in the request
LocalCurrency	Local Currency	3	No	Require to fill in when resultCode is 0000.
LocalAmount	Local Amount	12	No	Require to fill in when resultCode is 0000.
status	Order Status	16	No	Please refer to Appendix E: order status. Require to fill in when resultCode is 0000.
statusDesc	Order Desc	16	No	The incorrect description of original payment transaction, which is required to fill in when resultCode is 0000.
transTime	Transaction Time	14	No	YYYYMMDDhhmmss, time zone is GMT+8
cardOrgn	International Credit Card Organization	32	No	Please refer to Appendix G: List of International Credit Card Organizations

sign	Signing		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

3.4. Refund

Request Address: {gateway address}/cnp/quickpay

List of Request Parameters:

Field Name	Field Description	Length	Required	Remarks
version	Version Number	8	Yes	V2.0.0, please refer to Appendix F for the instructions of the former versions
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don't use the access code of merchant.Each institution / merchant has a unique access code.
mchtId	Merchant ID	15	Yes	The ID applied for when the merchant is registered by the institution

transType	Transaction Type	20	Yes	Please refer to Appendix A: Transaction Type
accessOrderId	Merchant Order	32	Yes	The only symbol of merchants' request
refundAmount	Refund Amount	12	Yes	e.g. 100.12
oriAccessOrderId	Original Merchant Order Number	32	Yes	Merchant Order required by original payment
timeZone	Time Zone	2	No	Please input statistics. The time difference between UTC time is as the example shows: the time zone in Beijing is 8 and the time zone in eastern America is -5.
sign	Signing		Yes	
signType	Signing type	16	Yes	MD5/ RSA2

Response Result:

After submitting correct parameters successfully, the interface will send back Http response code 200 and response message.

The format of response message is JSON and the definition is as below:

Field Name	Field Description	Length	Required	Remarks
resultCode	Result code	4	Yes	Please refer to Appendix D: result code
resultDesc	Result description	100	Yes	Incorrect descriptions in detail.
mchtId	Merchant ID	15	Yes	
accessOrderId	Merchant Order Number	50	Yes	Same to the requirement
oriAccessOrderId	Original Merchant Order Number	32	No	It will not be sent back if the transaction is abnormal.
orderId	Order Number	32	No	
refundCurrency	Payment Currency	3	No	Require to fill in when resultCode is 0000.
refundAmount	Refund Amount	12	Yes	Be consistent in the request
LocalCurrency	Local Currency	3	No	Require to fill in when resultCode is 0000.
LocalAmount	Local Amount	12	No	Require to fill in when resultCode is 0000.

transTime	Transaction Time	14	No	YYYYMMDDhhmmss, time zone is GMT+8
sign	Signing		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

3.5. Void

Request Address: {Gateway Address}/cnp/quickpay

List of Request Parameters:

Field Name	Field Description	Length	Required	Remarks
version	Version Number	8	Yes	V2.0.0, please refer to Appendix F for the instructions of the former versions
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don’t use the access code of merchant.Each institution / merchant has a unique access code.
mchtId	Merchant ID	15	Yes	The ID applied for when the merchant is

				registered by the institution
transType	Transaction Type	20	Yes	Please refer to Appendix A: Transaction Type
timeZone	Time Zone	2	No	Integer. The time difference between UTC time is as the example shows: the time zone in Beijing is 8 and the time zone in eastern America is -5.
accessOrderId	merchant order number	32	Yes	The only symbol of merchants' request
oriAccessOrderId	Original merchant order number	32	Yes	Merchant Order required by original payment
sign	Signing Information		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

Response Result:

After submitting correct parameters successfully, the interface will send back Http response code 200 and response message.

The format of response message is JSON and the definition is as below:

Field Name	Field Description	Length	Required	Remarks
resultCode	Result Code	4	Yes	Please refer to Appendix D: Result Code
resultDesc	Result Description	100	Yes	Incorrect descriptions in detail.
mchtId	Merchant ID	15	Yes	
accessOrderId	Merchant Order Number	50	Yes	Be consistent in the request
oriAccessOrderId	Original merchant order number	32	No	It will not be sent back if the transaction is abnormal.
orderId	Order Number	32	No	
currency	Currency	3	No	Require to fill in when resultCode is 0000
amount	Amount	12	No	Require to fill in when resultCode is 0000

LocalCurrency	Local Currency	3	No	Require to fill in when resultCode is 0000
LocalAmount	Local Amount	12	No	Require to fill in when resultCode is 0000
sign	Signing	32	Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

3.6. TOKEN Effective Period Management

Request Address: {Gateway Address}/token/manager

List of Request Parameters:

Field Name	Field Description	Length	Required	Remarks
version	Version Number	8	Yes	V2.0.0, please refer to Appendix F for the instructions of the former versions
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don’t use the access code of merchant.Each

				institution / merchant has a unique access code.
mchtId	Merchant ID	15	Yes	The ID applied for when the merchant is registered by the institution
transType	Transaction Type	20	Yes	Please refer to Appendix A: Transaction Type
accessOrderId	Merchant Order Number	32	Yes	The only symbol of merchants' request
token	Token Value	32	Yes	
action	Operation	16	Yes	SUSPEND ACTIVE DELETE QUERY
sign	Signing Information		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

Response Result:

Field Name	Field Description	Length	Required	Remarks

resultCode	Result Code	4	Yes	Please refer to Appendix D: Result Code
resultDesc	Result Description	100	Yes	Incorrect descriptions in detail.
mchtId	Merchant ID	15	Yes	
accessOrderId	Merchant order number	32	Yes	Be consistent in the request
tokenMeta	Token Displaying Data	2048	No	Please refer to Appendix L
token	Token Value	32	No	
state	Token State	16	No	SUSPENDED ACTIVED INACTIVE DELETED
sign	Signing		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

3.7. TOKEN Asynchronous Notification

Explanation: When token state changes, customers will be informed by Asynchronous Notification. Merchants need to process the request of result

asynchronous notification correctly, response to Http Status Code 200, and return “SUCCESS” character string. If our system fails to receive merchants’ response, our system would notify repeatedly no more than 7 times and the time gap is 30s, 30s, 60s, 60s, 1800s, 1800s, 1800s respectively.

Please contact account manager to complete configuration of token asynchronous notification address.

Field Name	Field Description	Length	Required	Remarks
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don’t use the access code of merchant.Each institution / merchant has a unique access code.
mchtId	Merchant ID	15	Yes	The ID applied for when the merchant is registered by the institution
cardNo	Card number	20	Yes	Card number (in the form of mask)
token	Token value	32	Yes	The character value after card number tokenization

accessOrderId	Merchant Order Number	32	No	It will be sent back when the state is ACTIVED.
orderId	System Order Number	32	No	It will be sent back when the state is ACTIVED.
tavv	tavv	128	No	It will be sent back when the state is ACTIVED.
expDate	Expiry date	6	No	It will be sent back when the YYYYMM state is ACTIVED.
cardOrgn	Card Organization	32	No	Please refer to Appendix G: List of International Credit Card Organization
cardHolder	Cardholder's Name	128	No	
state	Token State	16	No	SUSPENDED ACTIVED DELETED UPDATE
tokenMeta	Token	2048	No	The data are required to

	Displaying Data			fill in when the state is UPDATE. Please refer to Appendix K: TokenMeta example
sign	Signing		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

3.8. TOKEN Pre-authorization Completion

Request Address: {Gateway Address}/cnp/quickpay

List of Request Parameters:

Field Name	Field Description	Length	Required	Remarks
version	Version Number	8	Yes	V2.0.0, please refer to Appendix F for the instructions of the former versions
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don’t use the access code of merchant.Each institution / merchant has a unique access code.

mchtId	Merchant ID	15	Yes	The ID applied for when the merchant is registered by the institution
transType	Transaction Type	20	Yes	Please refer to Appendix A: Transaction Type
accessOrderId	Merchant Order Number	32	Yes	The only symbol of merchants' request
oriAccessOrderId	Original Merchant Order Number	32	Yes	The merchant order number required by original pre-authorization
amount	Pre-authorization Completion Amount	12	Yes	e.g. 100.12
notifyUrl	Asynchronous Notification Address	256	No	The address for notifying merchant of payment result by back end after paying successfully
sign	Signing information		Yes	

signType	Signing Type	16	Yes	MD5/ RSA2

Response Result

Field Name	Field Description	Length	Required	Remarks
resultCode	Result code	4	Yes	Please refer to Appendix D: result code
resultDesc	Result description	100	Yes	Incorrect descriptions in detail
mchtId	Merchant ID	15	Yes	
accessOrderId	Merchant Order Number	32	Yes	Same to the requirement
oriAccessOrderId	Original Merchant Order Number	32	No	It will not be sent back if the transaction is abnormal.
currency	Pre-authorization Completion Currency	3	No	Require to fill in when resultCode is 0000
amount	Pre-authorization	12	Yes	Be consistent in the request

	Completion Amount			
LocalCurrency	Local Currency	3	No	It is required to be filled in when result code is 0000.
LocalAmount	Local Amount	12	No	It is required to be filled in when result code is 0000.
sign	Signing		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

3.9. TOKEN Pre-authorization Voiding

Request Address: {Gateway Address}/cnp/quickpay

List of Request Parameters

Field Name	Field Description	Length	Required	Remarks
version	Version Number	8	Yes	V2.0.0, please refer to Appendix F for the instructions of the former versions
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International.

				Don’t use the access code of merchant.Each institution / merchant has a unique access code.
mchtId	Merchant ID	15	Yes	The ID applied for when the merchant is registered by the institution
transType	Transaction type	20	Yes	Please refer to Appendix A: Transaction Type
accessOrderId	Merchant order number	32	Yes	The only symbol of merchants’ request
oriAccessOrderId	Original merchant order number	32	Yes	The merchant order number required by original pre-authorization
sign	Signing information		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

Response Result

Field Name	Field Description	Length	Required	Remarks

resultCode	Result code	4	Yes	Please refer to Appendix D: result code
resultDesc	Result description	100	Yes	Incorrect descriptions in detail
mchtId	Merchant ID	15	Yes	
accessOrderId	Merchant Order Number	32	Yes	Same to the requirement
oriAccessOrderId	Original merchant order number	32	No	It will not be sent back if the transaction is abnormal.
currency	Pre-authorization completion currency	3	No	Require to fill in when resultCode is 0000
amount	Pre-authorization completion amount	12	Yes	Be consistent in the request
sign	Signing		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

3.10. TOKEN Pre-authorization Completion Voiding

Request Address: {Gateway Address}/cnp/quickpay

List of Request Parameters:

Field Name	Field Description	Length	Required	Remarks
version	Version	8	Yes	V2.0.0, please refer to Appendix F for the instructions of the former versions
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don’t use the access code of merchant.Each institution / merchant has a unique access code.
mchtId	Merchant ID	15	Yes	The ID applied for when the merchant is registered by the institution

transType	Transaction Type	20	Yes	Please refer to Appendix A: Transaction Type
accessOrderId	Merchant Order Number	32	Yes	The unique identification when merchants make requests
oriAccessOrderId	Original Merchant Order Number	32	Yes	Merchant Order required by original payment
sign	Signing Information		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

Response Result:

Field Name	Field Description	Length	Required	Remarks
resultCode	Result Code	4	Yes	Please refer to Appendix D: Result code
resultDesc	Result Description	100	Yes	Incorrect descriptions in detail
mchtId	Merchant ID	15	Yes	

accessOrderId	Merchant Order Number	32	Yes	Same to the requirement
oriAccessOrderId	Original Merchant Order Number	32	No	It will not be sent back if the transaction is abnormal.
currency	Pre-authorization Completion Currency	3	No	Require to be filled in when resultCode is 0000
refundAmount	Amount	12	Yes	Same to the requirement
LocalCurrency	Local Currency	3	No	Require to be filled in when resultCode is 0000
LocalAmount	Local Amount	12	No	Require to be filled in when resultCode is 0000
sign	Signing		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

3.11. Tokenization

Request Address: {gateway address}/token/manager

List of Request Parameters:

Field Name	Field Description	Length	Required	Remarks
version	Version Number	8	Yes	V2.0.0, please refer to Appendix F for the instructions of the former versions
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don’t use the access code of merchant.Each institution / merchant has a unique access code.
mchtId	Merchant ID	15	Yes	The ID applied for when the merchant is registered by the institution
accessOrderId	Merchant Order Number	32	Yes	The unique requested switch code.
transType	Transaction Type	20	Yes	Please refer to Appendix A: Transaction Type
sign	Signing Information		Yes	

signType	Signing Type	16	Yes	MD5/ RSA2
Card Information				
cardHolder	Cardholder's Name	128	Yes	FirstName + LastName
acctNo	Card Number	30	Yes	
expiryMonth	Validity (Month)	2	Yes	MM
expiryYear	Validity (Year)	4	Yes	YYYY
acctCvv	Card CVV	3	Yes	Also refers to cvv2/cvc2/cav2/cid

Response Result:

Field Name	Field Description	Length	Required	Remarks
resultCode	Result Code	4	Yes	Please refer to Appendix D: Result Code
resultDesc	Result Description	100	Yes	Wrong description in detail
mchtId	Merchant ID	15	Yes	

accessOrderId	Merchant Order Number	32	Yes	Be consistent in the request.
tokenMeta	Token Metadata	2048	No	Require to be filled in when resultCode is 0000
token	Token Value	32	No	
tavv	tavv	128	No	
expDate	Validity	6	No	YYYYMM
sign	Signing		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

3.12. Tokenization Result Query

In order to obtain tokenization result, merchants need to call this interface to initiate inquiry, when tokenization response of API mode times out or in the situation of tokenization in the page jump mode.

Request Address: {Gateway Address}/token/manager

List of Request Parameters:

Field Name	Field Description	Length	Required	Remarks
version	Version Number	8	Yes	V2.0.0, please refer to Appendix F for the instructions of the

				former versions
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don't use the access code of merchant.Each institution / merchant has a unique access code.
mchtId	Merchant ID	15	Yes	The ID applied for when the merchant is registered by the institution
transType	Transaction type	20	Yes	Please refer to Appendix A: Transaction Type
accessOrderId	Merchant order number	32	Yes	The unique identification when merchants make requests
oriAccessOrderId	Original Merchant Order Number	32	Yes	Original requested merchant order number
sign	Signing		Yes	
signType	Signing type	16	Yes	MD5/ RSA2

Response Result:

Field Name	Field Description	Length	Required	Remarks
resultCode	Result code	4	Yes	Please refer to Appendix D: Result code
resultDesc	Result description	100	Yes	Incorrect descriptions in detail
mchtId	Merchant ID	15	Yes	
accessOrderId	Merchant Order Number	32	Yes	Same to the requirement
oriAccessOrderId	Original merchant order number	32	No	It will not be sent back if the transaction is abnormal.
orderId	System Order Number	32	No	
status	Order Status	16	No	Please refer to Appendix E: order status. Require to fill in when resultCode is 0000.

statusDesc	Order Desc	16	No	The incorrect description of original payment transaction, which is required to fill in when resultCode is 0000.
token	Token Value	32	No	
tavv	tavv	128	No	Returned only when status is PAIED
expDate	Valid Date	6	No	Returned only when status is PAIED
cardNo	Card Number	20	No	Returned only when status is PAIED, eg: 123456***1234
cardOrgn	Cards Organization	32	No	Returned only when status is PAIED, Please refer to appendix G: Cards Organization explanation
cardHolder	Cardholders' Name	128	No	Returned only when status is PAIED

sign	Signing		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

4. File Interface

4.1. Reconciliation File Download

Function explanation: the reconciliation interface is for verifying accounts automatically by the system of accessing party. This is a mode of interface and the format of the file is csv. Merchants can download the xlsx file through AllinpayHK merchant platform.

Request Address: {Gateway Address}/cnp/downfile

Request Message:

Field Name	Field Description	Length	Required	Remarks
version	Version Number	8	Yes	V2.0.0, please refer to Appendix F for the instructions of the former versions
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don't use the access code of merchant.Each institution / merchant has

				a unique access code.
transType	Transaction Type	20	Yes	Please refer to Appendix A: Transaction Type
accessOrderId	Request Order Number	32	Yes	The unique identification of request.
billDate	Transaction Date	8	Yes	Reconciliation date yyyyMMdd
sign	Signing Information		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

Response Message:

Field Name	Field Description	Length	Required	Remarks
resultCode	Result Code	4	Yes	Please refer to Appendix D: result Code
accessOrderId	Merchant Order Number	50	Yes	Be consistent in the request.
resultDesc	Result Description	100	Yes	Description of enquiry result

billData	Reconciliation Files Contents		No	Base64 decoding

The Format Instructions of Reconciliation Files

1.The contents in every line of the files must meet the standard of format. And every line must be ended in pressing ENTER to the next line.

2.The data are separated by comma “,”

3.It is not necessary to fill any information in the related data (including Space Bar), if the data is null.

4.The last line shows the aggregate information, the format is as below:

Sequence	Field Name	Explanation
1.	summary	
2.	Transaction Date	
3.	Settlement Currency	
4.	Payment Amount	
5.	Total Service Charge of Transaction	
6.	Settlement Total Currency	
7.	Total Number of Transaction	
8.	Total Amount of Transaction	

9.	Total Discount	
10.	Amount of Profit Distributing	
11.	Transaction Currency	
12.	Service Charge for refund	

5.Explanation of Reconciliation Data Scale:

Sequence	Field Name	Explanation
1.	Transaction Date	yyyyMMdd
2.	Merchant ID (null is acceptable)	
3.	Merchant Name	
4.	Terminal Number	
5.	Order number in payment system	
6.	Transaction Type	
7.	Card Number	
8.	The International Credit Card organization	
9.	Batch Number	

10.	Swift number	
11.	Transaction time	yyyy-MM-dd HH:mm:ss
12.	Transaction currency	
13.	Payment amount	as per ISO currency decimal
14.	Tips amount	
15.	Settlement currency	
16.	Settlement amount	
17.	Transaction	
18.	Total amount	
19.	Discount amount	
20.	Settlement rate	
21.	Order number in the original system	
22.	Remarks	
23.	Profit distributing amount	
24.	Merchant order number	The field same as transaction request: accessOrderId

25.	Deposit	
26.	Service charge for refund	

4.2.Chargeback Data Download

4.2.1. Merchants Download Chargeback Data

Request Address: {gateway address}/cnp/downfile

Request Message:

Field Name	Field Description	Length	Required	Remarks
version	Version Number	8	Yes	V2.0.0, please refer to Appendix F for the instructions of the former versions
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don't use the access code of merchant.Each institution / merchant has a unique access code.
mchtId	Merchant ID	15	Yes	The ID applied for when the merchant is

				registered by the institution
transType	Transaction Type	20	Yes	
accessOrderId	Request Order Number	32	Yes	The only symbol of request
disputeStartDate	Start Date of Chargeback Query	8	Yes	Date yyyyMMdd
disputeEndDate	End Date of Chargeback Query			Date yyyyMMdd
signType	Signing Type	16	Yes	MD5/ RSA2
sign	Signature		Yes	

Response Message:

Field Name	Field Description	Length	Required	Remarks
resultCode	Result Code	4	Yes	Please refer to Appendix D: Result Code
resultDesc	Result Code Description	100	Yes	Description of query result

mchtId	Merchant ID	15	Yes	Merchant ID that you applied
accessOrderId	Merchant Order Number	50	Yes	Be consistent in the request.
disputeData	Chargeback Details		No	Base64 decoding.

4.2.2 Partners Download Chargeback Data

Request Address: {gateway address}/cnp/downfile

Request Message:

Filed Name	Field Description	Length	Required	Remarks
version	Version Number	8	Yes	V2.0.0, please refer to Appendix F for the instructions of the former versions
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don't use the access code of merchant.Each institution / merchant has a unique access code.

transType	Transaction Type	20	Yes	Increase transaction type of chargeback download
accessOrderId	Request Order number	32	Yes	The only symbol of request.
disputeStartDate	Start Date of Chargeback Enquiry	8	Yes	Date yyyyMMdd
disputeEndDate	End Date of Chargeback Enquiry			Date yyyyMMdd
signType	Signing type	16	Yes	MD5/ RSA2
sign	Signature		Yes	

Response Message:

Filed Name	Field Description	Length	Required	Remarks
resultCode	Result Code	4	Yes	Please refer to Appendix D: Result Code
resultDesc	Result Description	100	Yes	Description of query result

accessOrderId	Merchant Order Number	50	Yes	Be consistent in the request.
accessDatetime	Request Time	14	Yes	Be consistent in the request.
disputeData	Chargeback Details		No	Base64 decoding.

4.2.2. Explanation of Chargeback Detailed Format

1.The contents in every line of the files must meet the standard of format. And every line must be ended in pressing ENTER to the next line.

2.The data are separated by comma “,”.

3. If the data is null, it is not necessary to fill any information in the related data (including Space Bar).

4.The last line shows the aggregate information.

5.The explanation of domain of chargeback details:

Sequence	Field Name	Explanation
1.	Account number	Merchant ID
2.	Terminal number	Null is ok
3.	Partner number	Null is ok
4.	Original	The original transaction swift number in the system which is related to the

	transaction number	chargeback
5.	Original merchant order number	The original transaction merchant order number which is related to the chargeback
6.	Original transaction type	
7.	Original transaction Amount	With decimal point
8.	Original transaction currency	
9.	Original transaction card number	The first sixth and the last fourth numbers are not disclosed
10.	Original transaction time	YYYYMMDDhhmmss, time zone: GMT+8
11.	Transaction channel	Banks/international credit card organizations
12.	Chargeback order number	
13.	Chargeback amount	
14.	Chargeback currency	

15.	Chargeback reason	
16.	Explanation of chargeback reason	
17.	Chargeback time	YYYYMMDD, time zone: GMT+8
18.	Chargeback service	
19.	Merchant name	
20.	ARN	
21.	Card organization	
22.	Acceptable chargeback amount	
23.	Acceptable chargeback currency	
24.	Deadline for reply	
25.	State	
26.	Creation time	
27.	Chargeback state	

The recorded statical information in the bottom line of the file:

Sequence	Field Name	Explanation

1.	Summary	
2.	Chargeback date	The enquiry period of time of submitted chargeback e.g. 20200420-20200430
3.	Transaction total amount	
4.	Transaction currency	
5.	Chargeback total amount	
6.	Chargeback currency	
7.	Total number of chargeback	

4.3. Download of Card Organization Business Data

Function explanation: for downloading card organization business data

Request Address: {Gateway Address}/cnp/downfile

Request Message:

Field Name	Field Description	Length	Required	Remarks

version	Version Number	8	Yes	V2.0.0, please refer to Appendix F for the instructions of the former versions
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don’t use the access code of merchant.Each institution / merchant has a unique access code.
transType	Transaction Type	20	Yes	Please refer to Appendix A: Transaction Type
cardOrgan	Card Organization	20	Yes	Please refer to Appendix G: List of Card Organization
fileType	File Type	20	Yes	ORIGINAL_DATA: Original Business Data
accessOrderId	Request Order Number	32	Yes	The only symbol of request
transDate	Transaction date	8	Yes	Reconciliation date yyyyMMdd

sign	Signature		Yes	
signType	Signing Type	16	Yes	MD5/ RSA2

Response Message:

Field Name	Field Description	Length	Required	Remarks
resultCode	Result Code	4	Yes	Please refer to Appendix D: Result Code
instNo	Access Code	8	Yes	8-digits number, is uniformly assigned by Allinpay International. Don’t use the access code of merchant.Each institution / merchant has a unique access code.
accessOrderId	Merchant Order Number	50	Yes	Be consistent in the requirement.
resultDesc	Result Description	100	Yes	Description of query result
filename	File Name	100		It is required to be filled in when the download is successful.

				e.g. visa-20201117.zip
fileData	Reconciliation files contents		No	Base64 decoding

5. Q & A

Q: In the mode of integration of API and 3DS, which elements are displayed in the checkout page of OATS CNP system.

A: OATS CNP system only displays a loading page without any payment information. If the loading page is placed into the merchant system, the loading represents the process of paying.

Q: What are the differences between the two fashions designated by the field payPageStyle?

A: In the fashion of TINY, the payment gateway can be filled in payment card information only, including card number, cardholder's name, expiry date, and CVV. No modification is allowed, once the billing information was sent. While in the fashion of DEFAULT, not only can payment gateway be input payment card information, but cardholder's billing information can be modified.

Q: Is it available to settle the same payment several times in the checkout of CNP?

A: For every order, it is only allowed to settle the payment by one time. In the Jump Mode, if the payment was failed, paying again is available. While in the Direct Mode with 3DS, it is allowed to make the payment by only one time. Payment result will be presented, after the payment was

completed. Therefore, merchants need to pay attention to handling the payment result.

Q: In which circumstances is the asynchronous notification pushed?

A: For the mode of integration of API and 3DS and Jump Mode, asynchronous notification will be pushed after making the payment. If the push failed, CNP will push it again in a fixed period. The push times will not exceed 8.

Q: What are transaction currency and settlement currency?

A: Transaction currency is the quoted currency of merchants and over 140 currencies are supported by OATS CNP system by now. Settlement currency is also called local currency. Only one currency can be chosen as settlement currency of merchants and once being chosen, it cannot be changed.

Q: In which circumstances can the interface of transaction results query be used?

A：In this system, all the transaction interfaces can use this interface to query transaction results. Attention should be paid to the below two situations:

1.In the Jump Mode, the transaction interface results query only represents the current transaction result of the order not the final one, since the payment gateway allows failure in paying more than one time until success.

2. When forwarding to payment gateway after completing payment in the mode of integration of API and 3DS and Jump Mode, it is strongly recommended to use the query interface to confirm the transaction results rather than to use synchronous request information.

Q: How can reconciliation be made?

A: Reconciliation files can be downloaded through this route: files interface – reconciliation files download. Produced by the system every midnight, reconciliation files of last day can be downloaded after 8 am.

Q: When ‘requested URL doesn’t match filing URL’ exists, how can it be handled?

A: In the Jump mode, the system, by refererUrl, would examine the URL initiated by merchants. Therefore, when accessing to the network, it is necessary to file merchants’ URLs in the CNP system and the operation team will allocate them.

Q: When ‘The product doesn’t exist’ appears, how can it be solved?

A: It suggests that the function has not been turned on and please contact the operation team to turn on the related function.

Q: When ‘order timed out’ exists, how can it be handled?

A: Time for payment is set to be 24 hours by the system. For the order which is not paid in the due time, the system will show ‘the order timed out’ when making the payment. At this moment, a new order can be recreated by the merchant system.

Q: In the API integration Mode, after receiving results, how can judge transaction status and whether it needs to forward to the Cashier Register or not.

A: When resultCode is 0000 and field payUrl exists, it only means order successfully and needs to forward to the page of Cashier Register. The transaction final result is determined by asynchronous notification or transaction query;

When resultCode is 0000 and filed payUrl doesn't exist, it means transacted successfully and doesn't need to forward to the page of Cashier Register;

When resultCode is not 0000, whether inquiry is required is determined by resultCode.

Q: If merchants want transactions to engage in 3DS, how can it be set?

A: It can be achieved by setting the security mode as 3DS/O3DS in the request text. The difference between 3DS and O3DS is that when merchants have turned on DM, DM is supported in 3DS, but DM is not supported by O3DS.

6. Appendix

6.1. Appendix A - Transaction Type

Transaction Code	Description
QuickPay	Collection-API Integration Mode
TokenQuickPay	TOKEN Collection - API Integration Mode
TokenPreAuth	TOKEN Pre-authorization
Pay	Collection-Jump Gateway
Refund	Refund
TokenRefund	TOKEN Refund
TokenPreAuthCnl	TOKEN Pre-authorization Voiding

TokenPreAuthComp	TOKEN Pre-authorization Completion
TokenPreAuthCompCnl	TOKEN Pre-authorization Completion Voiding
Query	Transaction Result Query
DownFile	Reconciliation Files Download
DownDispFile	Chargeback Files Download
DownBusData	Business Data of International Credit Card Download
TokenCreate	TOKEN Tokenization
TokenManager	TOKEN Effective Period Management
TokenOrderQuery	TOKEN Tokenization Result Query

6.2. Appendix B – Transaction Currencies

Currency	Description
CNY	Chinese Yuan
HKD	Hong Kong Dollar
USD	American Dollar
EUR	Euro

GBP	Pound
JPY	Japanese Yen
TWD	New Taiwan dollar
AUD	Australian dollar
SGD	Singapore dollar
Other currencies	Please refer to the three-letter code in ISO 4217

6.3. Appendix C - Language

Language	Description
zh	Simplified Chinese
en	English
zh-hant	Traditional Chinese
ja	Japanese
kr	Korean
fr	French
es	Spanish
ar	Arabic

6.4. Appendix D – Result Code

Result Codes	Description	Processing mode
0000	success	transaction successful
P000	Transaction payment under way	Transaction result is uncertain and query interface needs to be used to confirm the result.
0006	Processing timeout	For collection, TOKEN creation and management etc., it can be considered transaction failure. To solve the problem, you just need to initiate the transaction again.For voiding and refund, transaction query needs to be initiated.
0001	Parameter error	Please check whether the request parameters meet the interface standards, whether the required parameters are missed, and whether the length of parameters exceeds the limit
0002	Key verification failed	Please check whether the signing algorithm meets the requirement; whether strings to be signed were generated as per the requirement; whether the merchant secrect key is valid; and contact the account manage rto confirm whether the merchant public

		key was configurated.
0004	The requested function is not yet supported	contact the account manager to confirm whether the permission to relevant products was given.
0005	Unsupported currency	
0007	Order does not exist	For query transaction, if this mistake is reported 30 minutes after initiating the original transaction, it can be considered that the original transaction fails. To other transactions, it can be considered they fails.
0008	Risk trading	
0009	Message format error	Please check whether the request mode of interface and request contents meet the requirement
0010	Invalid Merchant	Please contact account manager to check whether the merchant state is valid.
0013	Out of limit	exceed the payer's transaction limit, please ask cardholder to contact the issuer.
0015	No routing available	Please contact the account manager to

		confirm the reasons.
0016	No such issuer	
0017	Invalid Amount	Check the transaction amount
0018	Failed to check the registration of 3DS	Cardholder's card has not been registered
0019	Failed to verify the authorization of 3DS	
0020	DM failed	Log in the partner platform or merchant platform to confirm the reasons for the failure to pass DM
0021	Exchange rate conversion failed	To contact the account manager to check the reasons for failure.
0022	Duplicate order	Check merchants order number to ensure every request is unique
0035	Transaction is not allowed in this period	Contact the account manager to check the timescale when transaction is not allowed.
0037	Sorry, your balance is not enough	The balance amount of cardholder's card is not enough to transact.
0038	Original order has been paid	
0039	Order closed	Order is closed for not paying on time,

		please reinitiate
0040	No such merchant	Check whether the merchant ID is correct
0051	Original transaction is being processing	Wait for the completion of original transaction
0052	Original transaction failed	Check the state of original transaction
0053	Issuer or transit system unavailable	Issuer breaks down, please ask the cardholder to contact the issuer
0054	Contact the acquirer	Contact account manager to check the reasons
0056	Expired card	
0057	Fraud card	
0058	Suspected fraud	
0059	Security violation	
0060	Illegal transaction	
0061	No action taken	
0062	Transaction not permitted to cardholder	Issuer rejects, ask the cardholder to contact the issuer.
0063	restricted card	Issuer rejects, ask the cardholder to contact the issuer.

0065	Additional verification required	Failed to pass the issuer's verification, ask the cardholder to contact issuer.
0067	invalid account	Check whether the transaction card is valid
0073	Invalid CVV/CVV2	Ask cardholder to confirm whether CVV/CVV2 is filled in correctly
0074	Domestic Debit Transaction Not Allowed (Regional use only)	Issuer rejects, ask the cardholder to contact the issuer.
0075	Lost card	
0076	Stolen card	
0078	Do not honor	Issuer rejects, ask the cardholder to contact the issuer.
0079	DECLINE-Policy	Issuer rejects, ask the cardholder to contact the issuer.
0080	DECLINE-life cycle	Issuer rejects, ask the cardholder to contact the issuer.
0083	Risk control over the limit	Risk control limit of merchant transaction, please contact the account manager to check the detailed information of transaction risk management

0099	Statement does not exist	Bank statement would not be generated, if bank statement has not been generated or there is not transaction on that date.
3028	The request URL does not match the report URL	This happens in the scenario of CNP jumping. When jumping to Allinpayintl cashier, the system would check whether the address before jumping is the same as the merchant website address offered when onboarding. If the error happens, please contact the account manager to check whether the current merchant website address is the same as the one before jumping.
5003	The account has been bound and cannot be bound again	
6000	Please contact the issuing bank	
6001	Confiscate the card	
6002	Non acceptance	Contact account manager to check the reasons
6006	Invalid card number	
6010	Invalid / wrong related party transaction	Check whether the related transactions exist or not and whether they are successful or not.

7000	DM score was not passed	Log in the partner platform or merchant platform to confirm DM rating and the reasons for failure to pass.
7003	DM review	
9998	Processing failed	
9999	System exception	For collection, TOKEN creation and management etc., it can be considered transaction failure. To solve the problem, you just need to initiate the transaction again.For voiding and refund, transaction query needs to be initiated.

6.5. Appendix E - Order State

State Code	Explanation
READY	To be paid
PAYING	in the process of paying
PAIED	Paid
REVOKED	Revoked
CLOSED	Closed
REFUND	Refunded

FAILED	Transaction failed

6.6 Appendix F – Version Number Explanation

Version V1.0.0 supports MD5 Algorithm only

Version V2.0.0 supports RSA Algorithm in general. The specific algorithm is designated in the field signType.

6.7.Appendix G – List of Card Organizations

Card Organizations	Available Region
VISA	Hong Kong, Singapore
MASTERCARD	Hong Kong, Singapore
JCB	Hong Kong
AMERICAEXPRESS	Singapore
UNIONPAY	Hong Kong, Singapore

6.8. Appendix H – List of Countries

English Name	Two Letters Code	Three Letters Code	Digital Code	ISO 3166-2	Chinese Name
Afghanistan	AF	AFG	004	ISO 3166-2:AF	阿富汗

Aaland Islands	AX	ALA	248	ISO 3166-2:AX	奥兰
Albania	AL	ALB	008	ISO 3166-2:AL	阿尔巴尼亚
Algeria	DZ	DZA	012	ISO 3166-2:DZ	阿尔及利亚
American Samoa	AS	ASM	016	ISO 3166-2:AS	美属萨摩亚
Andorra	AD	AND	020	ISO 3166-2:AD	安道尔
Angola	AO	AGO	024	ISO 3166-2:AO	安哥拉
Anguilla	AI	AIA	660	ISO 3166-2:AI	安圭拉
Antarctica	AQ	ATA	010	ISO 3166-2:AQ	南极洲
Antigua and Barbuda	AG	ATG	028	ISO 3166-2:AG	安提瓜和巴布达
Argentina	AR	ARG	032	ISO 3166-2:AR	阿根廷
Armenia	AM	ARM	051	ISO 3166-	亚美尼亚

				2:AM	
Aruba	AW	ABW	533	ISO 3166-2:AW	阿鲁巴
Australia	AU	AUS	036	ISO 3166-2:AU	澳大利亚
Austria	AT	AUT	040	ISO 3166-2:AT	奥地利
Azerbaijan	AZ	AZE	031	ISO 3166-2:AZ	阿塞拜疆
Bahamas	BS	BHS	044	ISO 3166-2:BS	巴哈马
Bahrain	BH	BHR	048	ISO 3166-2:BH	巴林
Bangladesh	BD	BGD	050	ISO 3166-2:BD	孟加拉国
Barbados	BB	BRB	052	ISO 3166-2:BB	巴巴多斯
Belarus	BY	BLR	112	ISO 3166-2:BY	白俄罗斯
Belgium	BE	BEL	056	ISO 3166-2:BE	比利时

Belize	BZ	BLZ	084	ISO 3166-2:BZ	伯利兹
Benin	BJ	BEN	204	ISO 3166-2:BJ	贝宁
Bermuda	BM	BMU	060	ISO 3166-2:BM	百慕大
Bhutan	BT	BTN	064	ISO 3166-2:BT	不丹
Bolivia (Plurinational State of)	BO	BOL	068	ISO 3166-2:BO	玻利维亚
Bonaire, Sint Eustatius and Saba	BQ	BES	535	ISO 3166-2:BQ	荷兰加勒比区
Bosnia and Herzegovina	BA	BIH	070	ISO 3166-2:BA	波黑
Botswana	BW	BWA	072	ISO 3166-2:BW	博茨瓦纳
Bouvet Island	BV	BVT	074	ISO 3166-2:BV	布韦岛
Brazil	BR	BRA	076	ISO 3166-2:BR	巴西

British Indian Ocean Territory	IO	IOT	086	ISO 3166-2:IO	英属印度洋领地
Brunei Darussalam	BN	BRN	096	ISO 3166-2:BN	文莱
Bulgaria	BG	BGR	100	ISO 3166-2:BG	保加利亚
Burkina Faso	BF	BFA	854	ISO 3166-2:BF	布基纳法索
Burundi	BI	BDI	108	ISO 3166-2:BI	布隆迪
Cabo Verde	CV	CPV	132	ISO 3166-2:CV	佛得角
Cambodia	KH	KHM	116	ISO 3166-2:KH	柬埔寨
Cameroon	CM	CMR	120	ISO 3166-2:CM	喀麦隆
Canada	CA	CAN	124	ISO 3166-2:CA	加拿大
Cayman Islands	KY	CYM	136	ISO 3166-2:KY	开曼群岛
Central African	CF	CAF	140	ISO 3166-	中非

Republic				2:CF	
Chad	TD	TCD	148	ISO 3166-2:TD	乍得
Chile	CL	CHL	152	ISO 3166-2:CL	智利
China	CN	CHN	156	ISO 3166-2:CN	中国
Christmas Island	CX	CXR	162	ISO 3166-2:CX	圣诞岛
Cocos (Keeling) Islands	CC	CCK	166	ISO 3166-2:CC	科科斯（基林）群岛
Colombia	CO	COL	170	ISO 3166-2:CO	哥伦比亚
Comoros	KM	COM	174	ISO 3166-2:KM	科摩罗
Congo	CG	COG	178	ISO 3166-2:CG	刚果共和国
Congo (Democratic Republic of the)	CD	COD	180	ISO 3166-2:CD	刚果民主共和国
Cook Islands	CK	COK	184	ISO 3166-	库克群岛

				2:CK	
Costa Rica	CR	CRI	188	ISO 3166-2:CR	哥斯达黎加
Cote d’Ivoire	CI	CIV	384	ISO 3166-2:CI	科特迪瓦
Croatia	HR	HRV	191	ISO 3166-2:HR	克罗地亚
Cuba	CU	CUB	192	ISO 3166-2:CU	古巴
Cura?ao	CW	CUW	531	ISO 3166-2:CW	库拉索
Cyprus	CY	CYP	196	ISO 3166-2:CY	塞浦路斯
Czechia	CZ	CZE	203	ISO 3166-2:CZ	捷克
Denmark	DK	DNK	208	ISO 3166-2:DK	丹麦
Djibouti	DJ	DJI	262	ISO 3166-2:DJ	吉布提
Dominica	DM	DMA	212	ISO 3166-2:DM	多米尼克

Dominican Republic	DO	DOM	214	ISO 3166-2:DO	多米尼加
Ecuador	EC	ECU	218	ISO 3166-2:EC	厄瓜多尔
Egypt	EG	EGY	818	ISO 3166-2:EG	埃及
El Salvador	SV	SLV	222	ISO 3166-2:SV	萨尔瓦多
Equatorial Guinea	GQ	GNQ	226	ISO 3166-2:GQ	赤道几内亚
Eritrea	ER	ERI	232	ISO 3166-2:ER	厄立特里亚
Estonia	EE	EST	233	ISO 3166-2:EE	爱沙尼亚
Eswatini	SZ	SWZ	748	ISO 3166-2:SZ	斯威士兰
Ethiopia	ET	ETH	231	ISO 3166-2:ET	埃塞俄比亚
Falkland Islands (Malvinas)	FK	FLK	238	ISO 3166-2:FK	福克兰群岛
Faroe Islands	FO	FRO	234	ISO 3166-	法罗群岛

				2:FO	
Fiji	FJ	FJI	242	ISO 3166-2:FJ	斐济
Finland	FI	FIN	246	ISO 3166-2:FI	芬兰
France	FR	FRA	250	ISO 3166-2:FR	法国
French Guiana	GF	GUF	254	ISO 3166-2:GF	法属圭亚那
French Polynesia	PF	PYF	258	ISO 3166-2:PF	法属波利尼西亚
French Southern Territories	TF	ATF	260	ISO 3166-2:TF	法属南部和南极领地
Gabon	GA	GAB	266	ISO 3166-2:GA	加蓬
Gambia	GM	GMB	270	ISO 3166-2:GM	冈比亚
Georgia	GE	GEO	268	ISO 3166-2:GE	格鲁吉亚
Germany	DE	DEU	276	ISO 3166-2:DE	德国

Ghana	GH	GHA	288	ISO 3166-2:GH	加纳
Gibraltar	GI	GIB	292	ISO 3166-2:GI	直布罗陀
Greece	GR	GRC	300	ISO 3166-2:GR	希腊
Greenland	GL	GRL	304	ISO 3166-2:GL	格陵兰
Grenada	GD	GRD	308	ISO 3166-2:GD	格林纳达
Guadeloupe	GP	GLP	312	ISO 3166-2:GP	瓜德罗普
Guam	GU	GUM	316	ISO 3166-2:GU	关岛
Guatemala	GT	GTM	320	ISO 3166-2:GT	危地马拉
Guernsey	GG	GGY	831	ISO 3166-2:GG	根西
Guinea	GN	GIN	324	ISO 3166-2:GN	几内亚
Guinea-Bissau	GW	GNB	624	ISO 3166-	几内亚比绍

				2:GW	
Guyana	GY	GUY	328	ISO 3166-2:GY	圭亚那
Haiti	HT	HTI	332	ISO 3166-2:HT	海地
Heard Island and McDonald Islands	HM	HMD	334	ISO 3166-2:HM	赫德岛和麦克唐纳群岛
Holy See	VA	VAT	336	ISO 3166-2:VA	梵蒂冈
Honduras	HN	HND	340	ISO 3166-2:HN	洪都拉斯
Hong Kong	HK	HKG	344	ISO 3166-2:HK	香港
Hungary	HU	HUN	348	ISO 3166-2:HU	匈牙利
Iceland	IS	ISL	352	ISO 3166-2:IS	冰岛
India	IN	IND	356	ISO 3166-2:IN	印度
Indonesia	ID	IDN	360	ISO 3166-2:ID	印尼

Iran (Islamic Republic of)	IR	IRN	364	ISO 3166-2:IR	伊朗
Iraq	IQ	IRQ	368	ISO 3166-2:IQ	伊拉克
Ireland	IE	IRL	372	ISO 3166-2:IE	爱尔兰
Isle of Man	IM	IMN	833	ISO 3166-2:IM	马恩岛
Israel	IL	ISR	376	ISO 3166-2:IL	以色列
Italy	IT	ITA	380	ISO 3166-2:IT	意大利
Jamaica	JM	JAM	388	ISO 3166-2:JM	牙买加
Japan	JP	JPN	392	ISO 3166-2:JP	日本
Jersey	JE	JEY	832	ISO 3166-2:JE	泽西
Jordan	JO	JOR	400	ISO 3166-2:JO	约旦
Kazakhstan	KZ	KAZ	398	ISO 3166-	哈萨克斯坦

				2:KZ	
Kenya	KE	KEN	404	ISO 3166-2:KE	肯尼亚
Kiribati	KI	KIR	296	ISO 3166-2:KI	基里巴斯
Korea (Democratic People's Republic of)	KP	PRK	408	ISO 3166-2:KP	朝鲜
Korea (Republic of)	KR	KOR	410	ISO 3166-2:KR	韩国
Kuwait	KW	KWT	414	ISO 3166-2:KW	科威特
Kyrgyzstan	KG	KGZ	417	ISO 3166-2:KG	吉尔吉斯斯坦
Lao People's Democratic Republic	LA	LAO	418	ISO 3166-2:LA	老挝
Latvia	LV	LVA	428	ISO 3166-2:LV	拉脱维亚
Lebanon	LB	LBN	422	ISO 3166-2:LB	黎巴嫩

Lesotho	LS	LSO	426	ISO 3166-2:LS	莱索托
Liberia	LR	LBR	430	ISO 3166-2:LR	利比里亚
Libya	LY	LBY	434	ISO 3166-2:LY	利比亚
Liechtenstein	LI	LIE	438	ISO 3166-2:LI	列支敦士登
Lithuania	LT	LTU	440	ISO 3166-2:LT	立陶宛
Luxembourg	LU	LUX	442	ISO 3166-2:LU	卢森堡
Macao	MO	MAC	446	ISO 3166-2:MO	澳门
Madagascar	MG	MDG	450	ISO 3166-2:MG	马达加斯加
Malawi	MW	MWI	454	ISO 3166-2:MW	马拉维
Malaysia	MY	MYS	458	ISO 3166-2:MY	马来西亚
Maldives	MV	MDV	462	ISO 3166-	马尔代夫

				2:MV	
Mali	ML	MLI	466	ISO 3166-2:ML	马里
Malta	MT	MLT	470	ISO 3166-2:MT	马耳他
Marshall Islands	MH	MHL	584	ISO 3166-2:MH	马绍尔群岛
Martinique	MQ	MTQ	474	ISO 3166-2:MQ	马提尼克
Mauritania	MR	MRT	478	ISO 3166-2:MR	毛里塔尼亚
Mauritius	MU	MUS	480	ISO 3166-2:MU	毛里求斯
Mayotte	YT	MYT	175	ISO 3166-2:YT	马约特
Mexico	MX	MEX	484	ISO 3166-2:MX	墨西哥
Micronesia (Federated States of)	FM	FSM	583	ISO 3166-2:FM	密克罗尼西亚联邦
Moldova	MD	MDA	498	ISO 3166-	摩尔多瓦

(Republic of)				2:MD	
Monaco	MC	MCO	492	ISO 3166-2:MC	摩纳哥
Mongolia	MN	MNG	496	ISO 3166-2:MN	蒙古国
Montenegro	ME	MNE	499	ISO 3166-2:ME	黑山
Montserrat	MS	MSR	500	ISO 3166-2:MS	蒙特塞拉特
Morocco	MA	MAR	504	ISO 3166-2:MA	摩洛哥
Mozambique	MZ	MOZ	508	ISO 3166-2:MZ	莫桑比克
Myanmar	MM	MMR	104	ISO 3166-2:MM	缅甸
Namibia	NA	NAM	516	ISO 3166-2:NA	纳米比亚
Nauru	NR	NRU	520	ISO 3166-2:NR	瑙鲁
Nepal	NP	NPL	524	ISO 3166-2:NP	尼泊尔

Netherlands	NL	NLD	528	ISO 3166-2:NL	荷兰
New Caledonia	NC	NCL	540	ISO 3166-2:NC	新喀里多尼亚
New Zealand	NZ	NZL	554	ISO 3166-2:NZ	新西兰
Nicaragua	NI	NIC	558	ISO 3166-2:NI	尼加拉瓜
Niger	NE	NER	562	ISO 3166-2:NE	尼日尔
Nigeria	NG	NGA	566	ISO 3166-2:NG	尼日利亚
Niue	NU	NIU	570	ISO 3166-2:NU	纽埃
Norfolk Island	NF	NFK	574	ISO 3166-2:NF	诺福克岛
North Macedonia	MK	MKD	807	ISO 3166-2:MK	北马其顿
Northern Mariana Islands	MP	MNP	580	ISO 3166-2:MP	北马里亚纳群岛
Norway	NO	NOR	578	ISO 3166-	挪威

				2:NO	
Oman	OM	OMN	512	ISO 3166-2:OM	阿曼
Pakistan	PK	PAK	586	ISO 3166-2:PK	巴基斯坦
Palau	PW	PLW	585	ISO 3166-2:PW	帕劳
Palestine, State of	PS	PSE	275	ISO 3166-2:PS	巴勒斯坦
Panama	PA	PAN	591	ISO 3166-2:PA	巴拿马
Papua New Guinea	PG	PNG	598	ISO 3166-2:PG	巴布亚新几内亚
Paraguay	PY	PRY	600	ISO 3166-2:PY	巴拉圭
Peru	PE	PER	604	ISO 3166-2:PE	秘鲁
Philippines	PH	PHL	608	ISO 3166-2:PH	菲律宾
Pitcairn	PN	PCN	612	ISO 3166-2:PN	皮特凯恩群岛

Poland	PL	POL	616	ISO 3166-2:PL	波兰
Portugal	PT	PRT	620	ISO 3166-2:PT	葡萄牙
Puerto Rico	PR	PRI	630	ISO 3166-2:PR	波多黎各
Qatar	QA	QAT	634	ISO 3166-2:QA	卡塔尔
Réunion	RE	REU	638	ISO 3166-2:RE	留尼汪
Romania	RO	ROU	642	ISO 3166-2:RO	罗马尼亚
Russian Federation	RU	RUS	643	ISO 3166-2:RU	俄罗斯
Rwanda	RW	RWA	646	ISO 3166-2:RW	卢旺达
Saint Barthélemy	BL	BLM	652	ISO 3166-2:BL	圣巴泰勒米
Saint Helena, Ascension and Tristan da Cunha	SH	SHN	654	ISO 3166-2:SH	圣赫勒拿、阿森松和特里斯坦-达库尼亚

Saint Kitts and Nevis	KN	KNA	659	ISO 3166-2:KN	圣基茨和尼维斯
Saint Lucia	LC	LCA	662	ISO 3166-2:LC	圣卢西亚
Saint Martin (French part)	MF	MAF	663	ISO 3166-2:MF	法属圣马丁
Saint Pierre and Miquelon	PM	SPM	666	ISO 3166-2:PM	圣皮埃尔和密克隆
Saint Vincent and the Grenadines	VC	VCT	670	ISO 3166-2:VC	圣文森特和格林纳丁斯
Samoa	WS	WSM	882	ISO 3166-2:WS	萨摩亚
San Marino	SM	SMR	674	ISO 3166-2:SM	圣马力诺
Sao Tome and Principe	ST	STP	678	ISO 3166-2:ST	圣多美和普林西比
Saudi Arabia	SA	SAU	682	ISO 3166-2:SA	沙特阿拉伯
Senegal	SN	SEN	686	ISO 3166-2:SN	塞内加尔

Serbia	RS	SRB	688	ISO 3166-2:RS	塞尔维亚
Seychelles	SC	SYC	690	ISO 3166-2:SC	塞舌尔
Sierra Leone	SL	SLE	694	ISO 3166-2:SL	塞拉利昂
Singapore	SG	SGP	702	ISO 3166-2:SG	新加坡
Sint Maarten (Dutch part)	SX	SXM	534	ISO 3166-2:SX	荷属圣马丁
Slovakia	SK	SVK	703	ISO 3166-2:SK	斯洛伐克
Slovenia	SI	SVN	705	ISO 3166-2:SI	斯洛文尼亚
Solomon Islands	SB	SLB	090	ISO 3166-2:SB	所罗门群岛
Somalia	SO	SOM	706	ISO 3166-2:SO	索马里
South Africa	ZA	ZAF	710	ISO 3166-2:ZA	南非
South Georgia	GS	SGS	239	ISO 3166-	南乔治亚和

and the South Sandwich Islands				2:GS	南桑威奇群岛
South Sudan	SS	SSD	728	ISO 3166-2:SS	南苏丹
Spain	ES	ESP	724	ISO 3166-2:ES	西班牙
Sri Lanka	LK	LKA	144	ISO 3166-2:LK	斯里兰卡
Sudan	SD	SDN	729	ISO 3166-2:SD	苏丹
Suriname	SR	SUR	740	ISO 3166-2:SR	苏里南
Svalbard and Jan Mayen	SJ	SJM	744	ISO 3166-2:SJ	斯瓦尔巴和扬马延
Sweden	SE	SWE	752	ISO 3166-2:SE	瑞典
Switzerland	CH	CHE	756	ISO 3166-2:CH	瑞士
Syrian Arab Republic	SY	SYR	760	ISO 3166-2:SY	叙利亚
Taiwan, Province	TW	TWN	158	ISO 3166-	中国台湾省

of China[note 1]				2:TW	
Tajikistan	TJ	TJK	762	ISO 3166-2:TJ	塔吉克斯坦
Tanzania, United Republic of	TZ	TZA	834	ISO 3166-2:TZ	坦桑尼亚
Thailand	TH	THA	764	ISO 3166-2:TH	泰国
Timor-Leste	TL	TLS	626	ISO 3166-2:TL	东帝汶
Togo	TG	TGO	768	ISO 3166-2:TG	多哥
Tokelau	TK	TKL	772	ISO 3166-2:TK	托克劳
Tonga	TO	TON	776	ISO 3166-2:TO	汤加
Trinidad and Tobago	TT	TTO	780	ISO 3166-2:TT	特立尼达和多巴哥
Tunisia	TN	TUN	788	ISO 3166-2:TN	突尼斯
Turkey	TR	TUR	792	ISO 3166-2:TR	土耳其

Turkmenistan	TM	TKM	795	ISO 3166-2:TM	土库曼斯坦
Turks and Caicos Islands	TC	TCA	796	ISO 3166-2:TC	特克斯和凯科斯群岛
Tuvalu	TV	TUV	798	ISO 3166-2:TV	图瓦卢
Uganda	UG	UGA	800	ISO 3166-2:UG	乌干达
Ukraine	UA	UKR	804	ISO 3166-2:UA	乌克兰
United Arab Emirates	AE	ARE	784	ISO 3166-2:AE	阿联酋
United Kingdom of Great Britain and Northern Ireland	GB	GBR	826	ISO 3166-2:GB	英国
United States of America	US	USA	840	ISO 3166-2:US	美国
United States Minor Outlying Islands	UM	UMI	581	ISO 3166-2:UM	美国本土外小岛屿
Uruguay	UY	URY	858	ISO 3166-	乌拉圭

				2:UY	
Uzbekistan	UZ	UZB	860	ISO 3166-2:UZ	乌兹别克斯坦
Vanuatu	VU	VUT	548	ISO 3166-2:VU	瓦努阿图
Venezuela (Bolivarian Republic of)	VE	VEN	862	ISO 3166-2:VE	委内瑞拉
Viet Nam	VN	VNM	704	ISO 3166-2:VN	越南
Virgin Islands (British)	VG	VGB	092	ISO 3166-2:VG	英属维尔京群岛
Virgin Islands (U.S.)	VI	VIR	850	ISO 3166-2:VI	美属维尔京群岛
Wallis and Futuna	WF	WLF	876	ISO 3166-2:WF	瓦利斯和富图纳
Western Sahara	EH	ESH	732	ISO 3166-2:EH	阿拉伯撒哈拉民主共和国
Yemen	YE	YEM	887	ISO 3166-2:YE	也门

Zambia	ZM	ZMB	894	ISO 3166-2:ZM	赞比亚
Zimbabwe	ZW	ZWE	716	ISO 3166-2:ZW	津巴布韦

6.9. Appendix I – List of the Provinces in Canada（CA）

Code	Chinese Name	English Name	Type
AB	阿尔伯塔省	Alberta	Province
BC	不列颠哥伦比亚省	British Columbia	Province
MB	马尼托巴省	Manitoba	Province
NB	新布蓝兹维省	New Brunswick	Province
NL	纽芬兰与拉布拉多省	Newfoundland and Labrador	Province
NS	新斯科舍省	Nova Scotia	Province
NT	西北地区	Northwest Territories	Territory
NU	努纳武特地区	Nunavut	Territory
ON	安大略省	Ontario	Province

PE	爱德华王子岛省	Prince Edward Island	Province
QC	魁北克	Quebec	Province
SK	萨斯喀彻温省	Saskatchewan	Province
YT	育空地区	Yukon Territory	Territory

6.10. Appendix J - List of the States in the US

Code	Chinese Name	English Name	Type
AK	阿拉斯加州	Alaska	State
AL	亚拉巴马州	Alabama	State
AR	阿肯色州	Arkansas	State
AS	美属萨摩亚	American Samoa	Territory
AZ	亚利桑那州	Arizona	State
CA	加利福尼亚州	California	State
CO	科罗拉多州	Colorado	State
CT	康涅狄格州	Connecticut	State
DC	华盛顿哥伦比亚特区	District of Columbia	Federal District
DE	特拉华州	Delaware	State

FL	佛罗里达州	Florida	State
GA	佐治亚州	Georgia	State
GU	关岛	Guam	Territory
HI	夏威夷州	Hawaii	State
IA	艾奥瓦州	Iowa	State
ID	爱达荷州	Idaho	State
IL	伊利诺伊州	Illinois	State
IN	印第安纳州	Indiana	State
KS	堪萨斯州	Kansas	State
KY	肯塔基州	Kentucky	State
LA	路易斯安那州	Louisiana	State
MA	马萨诸塞州	Massachusetts	State
MD	马里兰州	Maryland	State
ME	缅因州	Maine	State
MI	密歇根州	Michigan	State
MN	明尼苏达州	Minnesota	State

MO	密苏里州	Missouri	State
MP	北马里亚纳群岛	Northern Mariana Islands	Territory
MS	密西西比州	Mississippi	State
MT	蒙大拿州	Montana	State
NC	北卡罗来纳州	North Carolina	State
ND	北达科他州	North Dakota	State
NE	内布拉斯加州	Nebraska	State
NH	新罕布什尔州	New Hampshire	State
NJ	新泽西州	New Jersey	State
NM	新墨西哥州	New Mexico	State
NV	内华达州	Nevada	State
NY	纽约州	New York	State
OH	俄亥俄州	Ohio	State
OK	俄克拉荷马州	Oklahoma	State
OR	俄勒冈州	Oregon	State
PA	宾夕法尼亚州	Pennsylvania	State

PR	波多黎各	Puerto Rico	Territory
RI	罗得岛州	Rhode Island	State
SC	南卡罗来纳州	South Carolina	State
SD	南达科他州	South Dakota	State
TN	田纳西州	Tennessee	State
TX	得克萨斯州	Texas	State
UM	美国本土外小岛屿	United States Minor Outlying Islands	Territory
UT	犹他州	Utah	State
VA	弗吉尼亚州	Virginia	State
VI	美属维尔京群岛	Virgin Islands of the United States	Territory
VT	佛蒙特州	Vermont	State
WA	华盛顿州	Washington	State
WI	威斯康星州	Wisconsin	State
WV	西弗吉尼亚州	West Virginia	State
WY	怀俄明州	Wyoming	State

6.11. Appendix K – TokenMeta Samples

The card metadata returned in the process of tokenization is the card pattern of front and back sides, including card number, valid date, CVV2, state, color, background image, logo, the name of issuing bank, website and so forth. There is no specific requirement of card pattern display.

Visa official tokenMeta:

Field Name	Field Description	Length	Required	Remarks
vPanEnrollmentID	Card Registered id	36		
paymentInstrument				Include the last 4 figures of the card number and card expiration date
paymentInstrument .expiration Date.month	Card expiration date -month	2		
paymentInstrument .expiration Date.year	Card valid date-year	4		
paymentInstrument .last4	The last 4 figures of	4		

	card number			
paymentInstrument .cvv2PrintedInd	Is CVV2 printed in the payment instrument?	enumeration		• Y–Printed• N–Not printed
paymentInstrument. expDatePrintedInd	Is expiration date printed in the payment instrument?	enumeration		• Y–Printed• N–Not printed
paymentInstrument. paymentAccountReference	Payment account reference	29		If there are these references then they exist
paymentInstrument.enabledServices. merchantPresentedQR	Is code scanning available?	enumeration		• Y–Enabled• N–Disabled
tokens				Including the information relevant to token

tokens.vProvisionedTokenID	The id requested in Token registration	36		
tokens.tokenStatus	Token state	enumeration		• INACTIVE • ACTIVE • SUSPENDED
cardMetaData				Including contact information, card colors, terms and conditions, etc.
cardMetaData. backgroundColor	Card background color	32		CSS pattern and hexadecimal format, e.g. 0x0e19d2
cardMetaData. foregroundColor	Card foreground color	32		CSS pattern and hexadecimal format, e.g. 0x0e19d2
cardMetaData. labelColor	Card label color	32		CSS pattern and hexadecimal format, e.g. 0x0e19d2

cardMetaData. contactWebsite	Issuing bank website address	256		
cardMetaData. contactEmail	Issuing bank contact email		No	
cardMetaData. contactNumber	Issuing bank contact number		No	
cardMetaData. contactName	Issuing bank contact name	32		
cardMetaData. shortDescription	Card brief introduction	32	No	If cardMetaData. longDescription did not appear, it does emerge
cardMetaData. longDescription	Card detailed introduction	64	No	

cardMetaData.cardData.guid	Id of contents	32		There is a group of data cardData transmitting card information, e.g. pattern and terms and conditions.
cardMetaData.cardData.contentType	Contents type	enumeration		• digitalCardArt • digitalCardArtBackground • cardSymbol • termsAndConditions
cardMetaData.cardData.content	Contents details			omit
cardMetaData. issuerFlags. deviceBinding	Is device bound?	enumeration		• true • false
cardMetaData. issuerFlags. cardholderVerification	Dose issuing bank engage in cross-merchant card binding?	enumeration		• true • false

cardMetaData. issuerFlags. trustedBeneficiaryEnrollment	Is the beneficiary who registered reliable?	enumeration		• true • false
cardMetaData. issuerFlags. delegatedAuthenticationSupported	Is it available for issuing bank to entrust authentication	enumeration		• true • false

Sample：


```
{
"vPanEnrollmentID": "94ebaf87e0fe420dce661632c81b3102",
"paymentInstrument": {
"expirationDate": {
"month": "07",
"year": "2023"
},
"last4": "0173",
"cvv2PrintedInd": "Y",
```

```
"expDatePrintedInd": "Y",
"paymentAccountReference": "V0010013818193029602813461455",
"enabledServices": {
"merchantPresentedQR": "N"
}
},
"tokens": [{
"vProvisionedTokenID": "463c53e0d42f338381c9194bc8b4a502",
"tokenStatus": "ACTIVE"
}],
"cardMetaData": {
"backgroundColor": "0xffffff",
"foregroundColor": "0xffffff",
"labelColor": "0xffffff",
"contactWebsite": "https://www.dbs.com.sg",
"contactNumber": "18001111111",
"contactName": "DBS Bank",
"shortDescription": "DBS Visa Debit Card",
"longDescription": "DBS Visa Debit Card",
"cardData": [{
```

```
"guid": "c2de608e1fc3488b9b9a72522d17b909",
"contentType": "cardSymbol",
"content": [{
"mimeType": "image/png",
"width": "100",
"height": "100"
}]
}, {
"guid": "1af51dd9aa1548d9a100b5ab0a798c5d",
"contentType": "digitalCardArt",
"content": [{
"mimeType": "image/png",
"width": "1536",
"height": "969"
}]
}],
"issuerFlags": {
"deviceBinding": false,
"cardholderVerification": false,
"trustedBeneficiaryEnrollment": false,
```

"delegatedAuthenticationSupported": true

}

}

}

MasterCard Official tokenMeta:

Field Name	Field Description	Length	Required	Remarks
brandLogoAssetId	The Mastercard relevant to this card or Maestro brand emblem id	64	Yes	
cardBackgroundCombinedAssetId	Card image which represents digital card; this combined	64	No	cardBackgroundCombinedAssetId or cardBackgroundAssetId would appear

	option contains brand, issuing bank and any united brand emblem id			
cardBackgroundAssetId	Card image which represents digital card; exclusive of brand, issuing bank or any united brand emblem id	64	No	cardBackgroundCombinedAssetId or cardBackgroundAssetId would appear
CustomerServiceUrl	Customer Service URL	128	No	
foregroundColor	The color	6	Yes	Hexadecimal RGB color, no

	of foreground characters on the card image, e.g. product type, debit or credit			differentiation between uppercase and lowercase letters
issuerName	Issuing bank name	64	Yes	
issuerProductConfigCode	Product codes set by issuing bank	64	No	
privacyPolicyUrl	Privacy policy URL	128	No	
shortDescription	Card products brief descripti	128	Yes	

	on			
longDescription	Card products detailed description	256	No	
termsAndConditionsUrl	Terms and conditions URL of card	128	No	

Sample：

{

"brandLogoAssetId": "3789637f-32a1-4810-a138-4bf34501c509",

"cardBackgroundCombinedAssetId": "fbc1c3f1-b162-4bbb-8c49-9f3dc9bc7298",

"customerServiceUrl": "https://www.commbank.com.au",

"foregroundColor": "000000",

"issuerName": "Commonwealth Bank of Australia",

"issuerProductConfigCode": "931140",

"privacyPolicyUrl": "https://www.commbank.com.au/security-privacy/general-security/privacy.html",

"shortDescription": "Standard Debit Mastercard",

"termsAndConditionsUrl": "https://www.commbank.com.au/payterms"

```
}
```